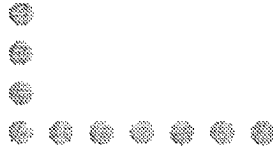
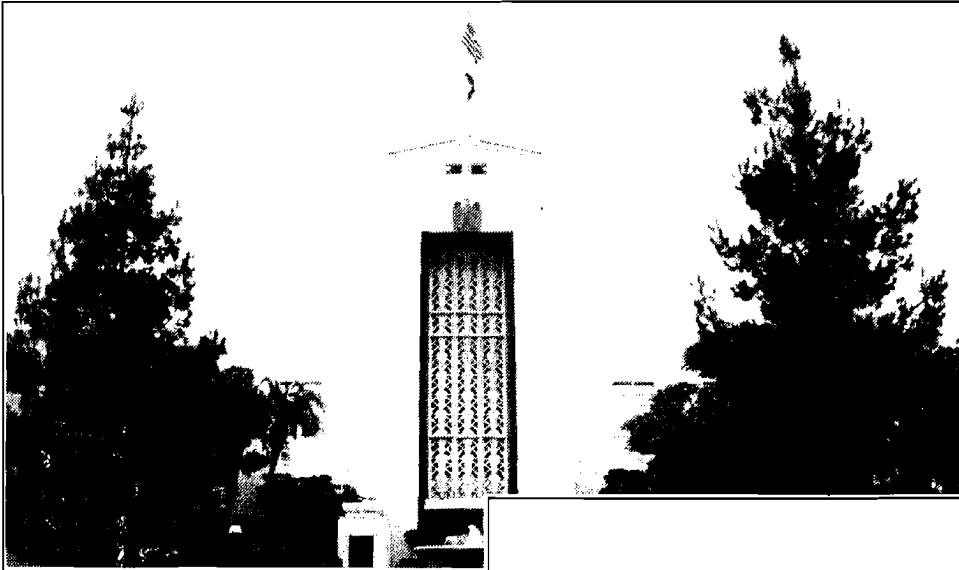


● BURBANK ● GLENDALE ● LOS ANGELES
● RAIL TRANSIT PROJECT

● Draft Environmental Impact Report
● SCH #91101017
●



● LOS ANGELES COUNTY
● TRANSPORTATION COMMISSION

Burbank-Glendale-Los Angeles Rail Transit Project

Draft Environmental Impact Report State Clearinghouse # 91101017

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Anil Verma Associates, <i>Burbank-Glendale-Los Angeles Rail Transit Project: Preliminary Station Design Study</i> , 20 May 1992.	
Greenwood & Associates, <i>Cultural and Historical Resources Survey</i> , May 1992.	

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CHAPTER 1.0 INTRODUCTION AND SUMMARY

1.1 PURPOSE AND SCOPE OF THE EIR

This Draft Environmental Impact Report (EIR) provides a detailed description and analysis of a proposed rail transit project serving portions of the Cities of Burbank, Glendale, and Los Angeles (Figure 1). It identifies, describes, analyzes, and evaluates potentially significant environmental effects associated with the proposed project. In addition, this report provides specific measures to improve the project's environmental compatibility.

The proposed Burbank-Glendale-Los Angeles Rail Transit Project would be located along the Southern Pacific Transportation Corridor (SPTC) right-of-way from the Pasadena-Los Angeles Rail Line Junction to the vicinity of the Burbank-Glendale-Pasadena Airport at Hollywood Way. This proposed rail transit project forms a part of a larger regional transit system that would link activity centers within these cities with Metro Rail service in Downtown Los Angeles and beyond.

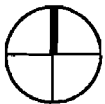
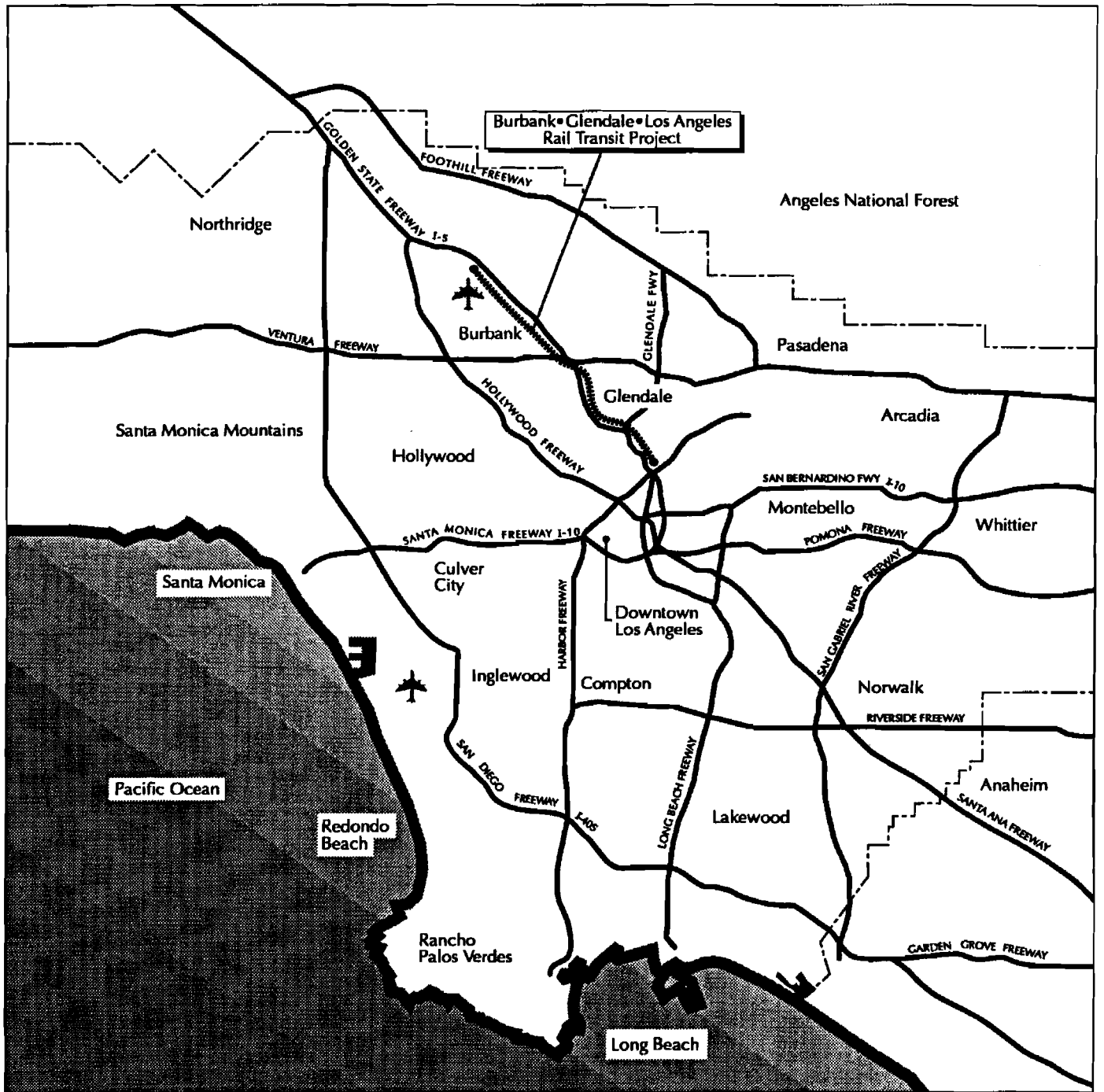
Prepared in accordance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines, this EIR intends to serve two purposes:

- To provide the lead agency, responsible jurisdictions, civic decision makers, and the general public with detailed information of the proposed project's potential environmental impacts, and;
- To serve as a tool for decision makers to facilitate the decision-making process on the proposed project.

Because the Burbank-Glendale-Los Angeles Rail Transit Project may pose significant impacts to the environment, the Los Angeles County Transportation Commission (LACTC), as the lead agency for this project, directed that this EIR be prepared. In September 1991, LACTC performed an Initial Environmental Study which assisted in determining the environmental issues to be analyzed in this document. Following completion of the Initial Study, LACTC circulated a Notice of Preparation to all identified responsible agencies as well as distributing a project summary letter to the general public and those on the project mailing list. The Initial Study and the Notice of Preparation appear in Appendix A. Responses to the Notice of Preparation are included in Appendix B.

1.1.1 Public Review

Public officials, affected agencies, and the general public have the opportunity for reviewing and commenting on the Draft Environmental Impact Report (DEIR) through a 45-day review period established and administered by the State of California's Office of Planning and Research. During this review period, LACTC will conduct individual public workshops and public hearings



GRAPHICS BY GRUEN ASSOCIATES



**BURBANK • GLENDALE • LOS ANGELES
RAIL TRANSIT PROJECT EIR**

LOS ANGELES COUNTY TRANSPORTATION COMMISSION

**FIGURE 1
Regional Setting**

in the Cities of Burbank, Glendale, and Los Angeles. During the workshops, persons interested in understanding the specifics of the project may meet with staff to ask questions. The public hearing that follows the workshop provides a forum for taking public testimony concerning the proposed rail transit project and the EIR. The preparers of the DEIR are required to respond, in writing, to relevant comments on the DEIR received from both citizens and public agencies. The comments and the responses to comments will be included in the Final Environmental Impact Report (FEIR) to be prepared following the completion of the public circulation period for the DEIR.

1.1.2 Permits and Approvals

In order to construct the proposed rail transit project, LACTC and other responsible agencies will be required to implement a number of discretionary actions. The following agencies may use this EIR as part of the process of issuing permits, approvals, or cooperative agreements required to construct the project:

- City of Burbank
- City of Glendale
- City of Los Angeles
- California Department of Transportation
- Public Utilities Commission
- Federal Railroads Administration
- South Coast Air Quality Management District
- Southern California Rapid Transit District
- California Regional Water Quality Control Board
- Los Angeles County Public Works Department

1.2 PROJECT ALTERNATIVES

As illustrated in Table 1 on the following page, the preferred project alternative is an 11.9-mile light rail system that would provide transit service within the Southern Pacific Transportation Corridor (SPTC) from the vicinity of the Burbank-Glendale-Pasadena Airport to Pasadena-Los Angeles Rail Line Junction, with through service to Union Station in Downtown Los Angeles. This alignment represents the end product of previously prepared rail planning studies that explored various alignment and transit mode alternatives.¹

¹ City of Glendale and LACTC, *Glendale Corridor LRT Alignment Alternatives Study*, April 1990; LACTC, County of Los Angeles, City of Los Angeles, *Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study*, November 1990.

INTRODUCTION AND SUMMARY

**Table 1
Summary of Project Characteristics for the
Burbank-Glendale-Los Angeles Rail Transit Project**

Characteristic	Description
ROUTE	
Length	11.9 miles from Burbank Airport to Pasadena Line Junction. 13.6 miles from Burbank Airport to Union Station.
Right-of-Way	Southern Pacific Transportation Corridor, utilizing LACTC's 40-foot transportation easement.
Environmental Documentation	Environmental review for the proposed rail transit project will cover issues related to the development of the alignment from the Pasadena-Los Angeles Rail Line Junction to the vicinity of the Burbank-Glendale-Pasadena Airport.
Description	The proposed project extends from the Burbank Airport to the Pasadena-Los Angeles rail line junction. Activity centers that could be served by the proposed rail alignment include the Burbank Airport, Burbank City Centre, Burbank Media District, Glendale Grand Central Industrial Business Park, Glendale Central Business District, Los Angeles Zoo, Gene Autry Western Heritage Museum, and the residential communities of Northwest Glendale, Atwater Village, Glassell Park, and Mount Washington.
STATIONS	
Total	10, all at-grade.
Park-&-Ride Facilities	7
Number of Parking Spaces	5,660
Joint Development Potential	5
OPERATIONS	
Average Weekday Trips (2010)	33,000 - 38,000
Train Type	Light Rail Technology: 19-vehicle fleet.
Maximum Train Speed	55 miles per hour, with an average train speed of 34 miles per hour from Burbank-Glendale-Pasadena Airport to Union Station.
Train Headways	Peak Hour: 6 to 10 minutes. Average: 10 to 15 minutes.
Travel Time: Burbank Airport to Glendale Transportation Center	Approximately 13 minutes.
Travel Time: Burbank Airport to Downtown Los Angeles	Approximately 23 minutes.
SOURCE: LACTC, Gruen Associates, Schimpeler-Corradino Associates, and Manuel Padron & Associates.	

For the purposes of studying project alternatives, Chapter 6.0 of this EIR explores the relative merits of four other potential project choices:

- **No Project:** No transit improvement to SPTC right-of-way.
- **Alternative Alignments:** Six alignments through the Glendale CBD.
- **Alternative Modes:** Commuter Rail, High Speed Rail, Magnetic Levitation (Maglev).
- **Alternative Stations:** Various station designs and locations throughout the route.

1.3 ENVIRONMENTAL IMPACT SUMMARY

Table 2 summarizes environmental impacts and mitigation measures for the proposed rail transit project. Impacts that would remain after mitigation are noted in the summary as "unavoidable adverse impact" if the project receives approval as proposed in this document.

1.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

A number of environmental concerns have been raised by both the community and affected agencies regarding the proposed project. The most frequently raised issues involve noise associated with the Blue Line air horn, safety and security, increased traffic volumes in nearby residential communities, and impacts on sensitive land uses in close proximity to the proposed rail alignment. These issues have been addressed in this EIR in the Noise, Public Services, Transportation and Circulation, and Land Use sections.

INTRODUCTION AND SUMMARY

**Table 2
Summary of Environmental Impacts**

Category	Environmental Impacts	Proposed Mitigation Measures
5.1 POPULATION AND HOUSING		
<i>Residents and Housing Stock</i>	<ul style="list-style-type: none"> No direct impact since the proposed project does not displace existing residences and housing stock. Residents could also experience impacts related to traffic, air quality, noise, and visual quality. 	<ul style="list-style-type: none"> None required. Refer to Section 5.5 for noise-related mitigations.
5.2 LAND USE		
<p><i>Compatibility with Local Plans and Existing Land Uses</i></p> <p><i>Land Acquisition</i></p>	<ul style="list-style-type: none"> The alignment would be in close proximity to sensitive land uses. This could result in impacts related to pedestrian circulation, noise, air quality, and aesthetics. Local planning documents governing the rail transit corridor generally identify the R.O.W. as quasi-public, light industry, or heavy industry. In the case of current plans and plans being prepared in the project study area, the proposed rail alignment would be compatible, and in many instances, support these planning efforts. Unavoidable Adverse Impact. Implementation of the proposed project would result in the taking of 22.4 acres on 12 parcels. 14 businesses and public uses totaling more than 91,000 square feet in building space would be taken. An estimated 143 employees would be displaced from their place of employment. 	<ul style="list-style-type: none"> In the environmental review process for the Multi-Modal Facilities planned in Burbank and Glendale, these jurisdictions should reference this EIR to be consistent with the proposed project and other local plans. Coordinate project design through Taylor Yard with the outcome of other planning efforts, including the Taylor Yard Development Study. Displaced businesses will receive fair relocation costs. Joint development opportunities should be explored where businesses are displaced in order to provide opportunities for some businesses to remain in the existing area. Because of special considerations, LACTC should work with the City and tenants of the City Jail Building to identify acceptable relocation alternatives within the area.
5.3 AIR QUALITY		
<p><i>Local Area Impacts</i></p> <p><i>Regional Air Quality</i></p>	<ul style="list-style-type: none"> Unavoidable Adverse Impact. Of the six receptor locations studied, only one, at San Fernando Rd. near Sonora Ave., would not experience increased 1-hr. and 8-hr. carbon monoxide concentrations. Based on SCAQMD thresholds, the proposed project would have significant impact near the Pater Noster High School site. The project would have a beneficial effect on the region's air quality with a projected reduction in automobile-generated pollutants: Carbon monoxide: .24 tons/day Nitrogen oxide: .05 tons/day Organic gases: .02 tons/day Particulate matter: .01 tons/day 	<ul style="list-style-type: none"> The proposed project shall comply with SCAQMD Rule 403. In an effort to reduce air quality impacts related to increased concentrations of vehicles at rail transit stations areas and project-related construction impacts of dust and particulate matter, mitigation measures recommended by the SCAQMD should be implemented. These mitigations appear in greater detail in Section 5.3.

**Table 2
Summary of Environmental Impacts**

Category	Environmental Impacts	Proposed Mitigation Measures
5.4 TRANSPORTATION AND CIRCULATION		
<p><i>Region-wide Travel</i></p> <p><i>Intersections & Major Streets</i></p> <p><i>Delay and Queuing</i></p>	<ul style="list-style-type: none"> • The project will have a beneficial impact on the region with a projected reduction in vehicle miles traveled (VMT) daily: VMT Reduction: 37,800 vehicle miles daily • A significant impact assumes an increase in the intersection capacity utilization (ICU) of at least 0.020, with a final ICU of 0.900 or more. Implementation of the proposed project would impact these intersections: <ol style="list-style-type: none"> 1. Front Street and Burbank Blvd. (Burbank) 2. San Fernando Blvd. and Verdugo Ave. (Burbank) 3. San Fernando Road and Fairmont Ave. (Glendale) 4. San Fernando Road and Doran St. (Glendale) 5. San Fernando Road and Los Feliz Blvd. (Glendale) 6. Brand Blvd. and Los Feliz Blvd. (Glendale) 7. San Fernando Road and Brand Blvd. (Glendale) 8. San Fernando Road and Fletcher Dr. (LA) 9. San Fernando Road and northbound SR-2. (LA) • Delay and queuing at at-grade intersections could result in traffic impacts. However, the expected delay per vehicle (under 6.5 seconds) is not significant. 	<ul style="list-style-type: none"> • Recommended mitigation measures for traffic impacts involve signal improvements, street widening, lane restriping, elimination of street parking, and in some instances, relocation of streetscape and public facilities. The mitigations for the impact intersections are discussed in greater detail in Section 5.4.
5.5 NOISE		
<p><i>Noise</i></p>	<ul style="list-style-type: none"> • Noise produced by the existing Blue Line train air horn reaches noise levels of 106 dB. An electrical train horn is being proposed and would produce single event noise levels of 87 dB. • Implementation of the proposed project would result in increases in the noise environment ranging from 0.2 to 0.9 dB. The LRT CNEL near the residences adjacent to the rail line is 64.1 dB. According to the Draft FTA noise guidelines, this does not constitute a significant impact, since the ambient noise level is already 77 dB. 	<ul style="list-style-type: none"> • Use lower sound level horns without compromising safety. The horn serves to warn pedestrians. Alternative warning devices for pedestrians should be explored. • Sensitive land uses adjacent or with no screening from the alignment should be buffered by means of berms, noise barriers, or other measures.
5.6 EARTH, WATER, AND RISK OF UPSET		
<p><i>Geology</i></p>	<ul style="list-style-type: none"> • The project is not expected to create geologic impacts in the East Valley and North Los Angeles region. 	<ul style="list-style-type: none"> • None required.

**Table 2
Summary of Environmental Impacts**

Category	Environmental Impacts	Proposed Mitigation Measures
6.6 EARTH, WATER, AND RISK OF UPSET (continued)		
<p><i>Seismicity</i></p> <p><i>Watercourses and Drainage</i></p> <p><i>Risk of Upset</i></p>	<ul style="list-style-type: none"> • Although the project is located in an area with a number of active faults, the alignment is not exposed to greater seismic risk than other locations in Southern California. • The project would create temporary impacts related to the widening of the Arroyo Verdugo Wash bridge. Impacts could include disturbance in the wash bottom and minor increases in downstream sediment loads. • There may exist high traces of soil contamination, particularly at station locations with long histories of industrial use, and in and near Taylor Yard. The yard, however, is currently undergoing cleanup under the supervision of the California Environmental Protection Agency. All potentially contaminated sites within the construction zone should be addressed. 	<ul style="list-style-type: none"> • All structures should be constructed in anticipation of a major earthquake. • Soils testing should be conducted to determine potential risk of soil liquefaction or subsidence. • None required. • Soils testing should be conducted to determine specific subsurface soil conditions. • Conduct detailed geotechnical studies of station areas to help determine potential for upset.
6.7 PUBLIC SERVICES		
<p><i>Schools</i></p> <p><i>Police</i></p> <p><i>Fire</i></p>	<ul style="list-style-type: none"> • Fifteen schools are in close proximity to the rail line. Some of these campuses may experience impacts related to noise, traffic and pedestrian movement. • Safety problems could arise from persons walking to and from classes. • LACTC contracts with the L.A. County Sheriff's department to patrol trains, station platforms, and station areas. Existing Blue Line service experiences very little crime. Crimes committed typically include petty theft, fare evasion, and rule violations. • Project development could create impacts related to fire flow, fire protection, emergency medical services, and increased false alarms. • Accessibility could also be impacted since the LRT operates on priority at at-grade intersections. 	<ul style="list-style-type: none"> • LACTC safety criteria should be distributed to students and teachers. • Pedestrian areas should be clearly marked near the R.O.W. • Construction sequencing should be coordinated with local schools, buses, and carpools. • Security measures should be incorporated into the physical design of rail-related facilities. • Transit District Police should consider the development of a centralized substation along the route to improve response times. • Every effort will be made to mitigate impacts that affect a Fire Department's ability to provide emergency services with adequate response times.

Table 2 Summary of Environmental Impacts		
Category	Environmental Impacts	Proposed Mitigation Measures
5.8 NATURAL AND RECREATIONAL RESOURCES		
<i>Natural Resources</i>	<ul style="list-style-type: none"> Species of special interest that may be impacted by the project are the California Gnatcatcher and the Southwestern Pond Turtle. Both species have been sighted in the project study area and have suitable habitats in close proximity to the rail line. Displaced plant life would include a variety of shrubs and trees. Most significantly impacted would be the Ornamental and Evergreen Pear trees located between Grandview Ave. and Colorado St. in Glendale which would be displaced by the project. 	<ul style="list-style-type: none"> When existing landscaping is removed, new landscaping shall be planted as established in a landscaping plan. The uprooted Pear trees should be boxed, maintained, and transplanted during the time of project construction.
<i>Recreational Resources</i>	<ul style="list-style-type: none"> Impacts related to recreational facilities include noise and accessibility. Of the six parks identified within .25 miles of the alignment, only Pelanconi and Chevy Chase Parks may experience impacts related to noise. 	<ul style="list-style-type: none"> Refer to Section 5.5 for mitigations related to noise.
5.9 UTILITIES AND ENERGY		
<i>Utilities</i>	<ul style="list-style-type: none"> Construction of the project would require the relocation of the following: SPTC Freight Rail alignment; Western Union Telegraph underground lines; MCI, US Sprint, AT&T fiber optic cables; and Southern California Edison electrical lines. 	<ul style="list-style-type: none"> LACTC will work with Southern Pacific to relocate MCI, US Sprint, and AT&T fiber optic cables when these lines come in conflict with the LRT alignment.
<i>Energy Consumption</i>	<ul style="list-style-type: none"> The project would consume: 14.4 million kWh/year at station areas. 15,000 kWh/day in rail usage. 	<ul style="list-style-type: none"> To further reduce energy demands, the proposed project should employ regenerative transit vehicle braking improvements, coordinate traffic and rail signalling, and implement Title 24 design features.
<i>Energy Savings</i>	<ul style="list-style-type: none"> The project would have net beneficial effects on regional energy consumption through a reduction in vehicle miles traveled. This would save approximately 1,700 gallons of fuel per day. 	
5.10 AESTHETICS		
<i>Visual Quality</i>	<ul style="list-style-type: none"> Visual impacts would include: Removal of streetscape along SPTC R.O.W. Overhead catenary wires. Development of rail-related facilities (i.e., Burbank Airport Station pedestrian bridge). 	<ul style="list-style-type: none"> Replace streetscape along SPTC R.O.W. with new streetscape or other decorative feature. Urban design standards shall be established in areas identified as having visually sensitive land uses. Provide funding set-aside for public art in station areas.

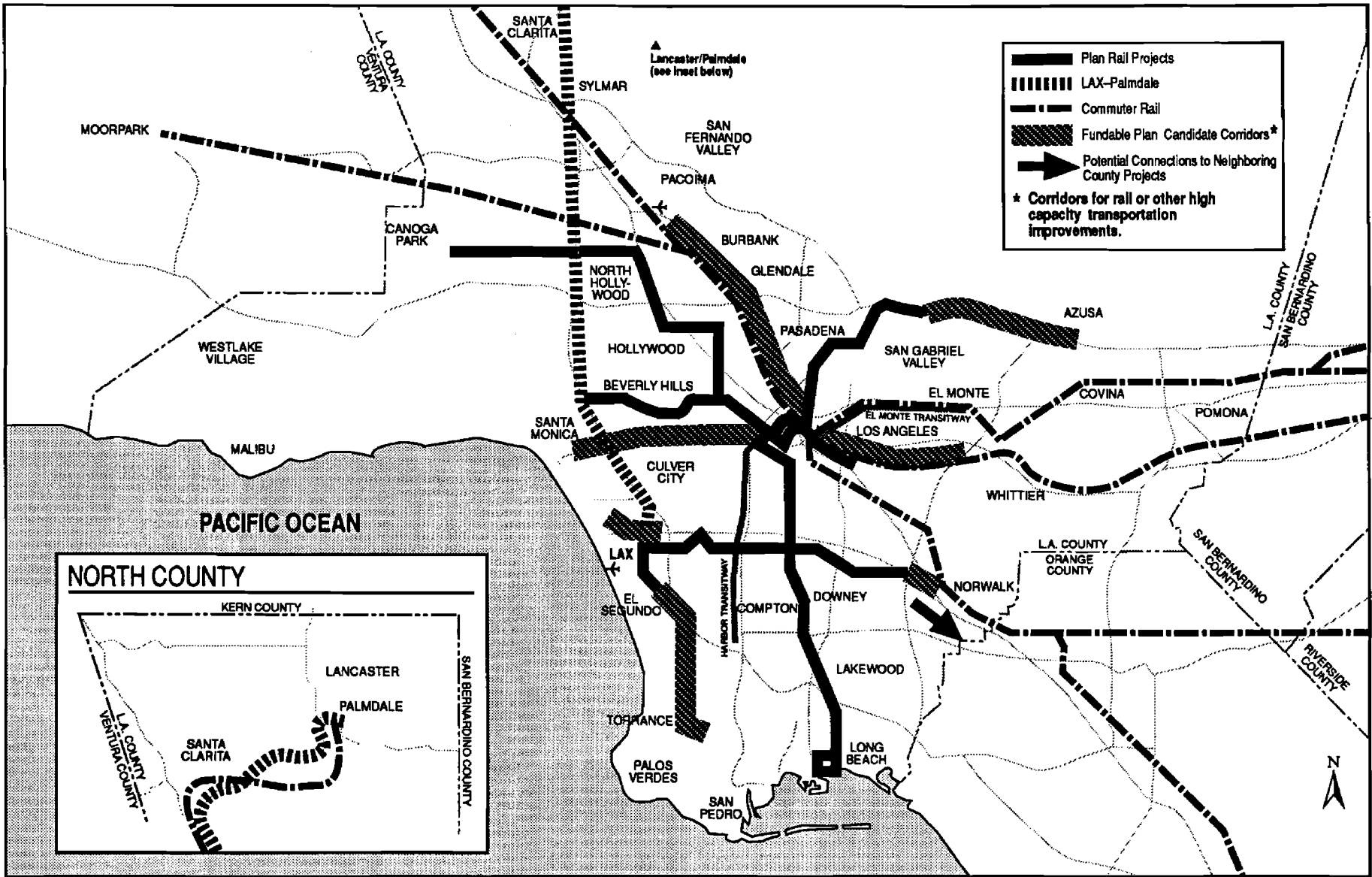
CHAPTER 2.0 PROJECT OVERVIEW

2.1 THE PROPOSED PROJECT

For the purposes of this environmental review, the proposed project refers to the Burbank-Glendale-Los Angeles rail line included as a candidate corridor in the Los Angeles County Transportation Commission's (LACTC) 30-year Integrated Transportation Plan. The project would comprise part of the County's 300-mile Metro Rail System (Figure 2), and would extend from the Pasadena-Los Angeles rail line junction in the City of Los Angeles to the vicinity of the Burbank-Glendale-Pasadena Airport in the City of Burbank. As illustrated in Figure 3, ten stations are currently planned along the 11.9-mile rail transit route.

The report is prepared by LACTC in conjunction with the Cities of Glendale, Burbank, and Los Angeles. The scope of work outlined for this rail alignment includes not only its environmental documentation, but also route refinement, engineering feasibility, and station site design analysis; this information appears under separate cover from this EIR. In addition to these documents, assessment of previously completed planning studies has assisted in guiding the planning and environmental review of the proposed project. These planning studies have been utilized to develop planning consistency between the Burbank-Glendale-Los Angeles Rail Transit Project and local transit-oriented planning efforts. Planning reports that have been evaluated are listed below:

- LACTC, County of Los Angeles, City of Los Angeles. *Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study*. November 1990.
- Los Angeles County Public Works Department, LACTC. *Preliminary Feasibility Study for the San Joaquin Valley Line: Commuter Rail Service*. May 1988.
- City of Glendale, LACTC. *Glendale Corridor LRT Route Refinement Feasibility Study*. April 1990.
- City of Glendale. *Glendale Transportation Center Feasibility Study, Needs Assessment, and Master Plan*. December 1991.
- City of Burbank, County of Los Angeles. *Burbank Metrolink Monorail Feasibility Study*. September 1990.
- City of Burbank. *Burbank City Center Multi-Modal Transportation Facility Feasibility Study*. March 1991.



SOURCE: LACTC PROPOSED 30-YEAR INTEGRATED TRANSPORTATION PLAN, MARCH 1992.

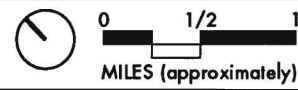
GRAPHIC BY LACTC



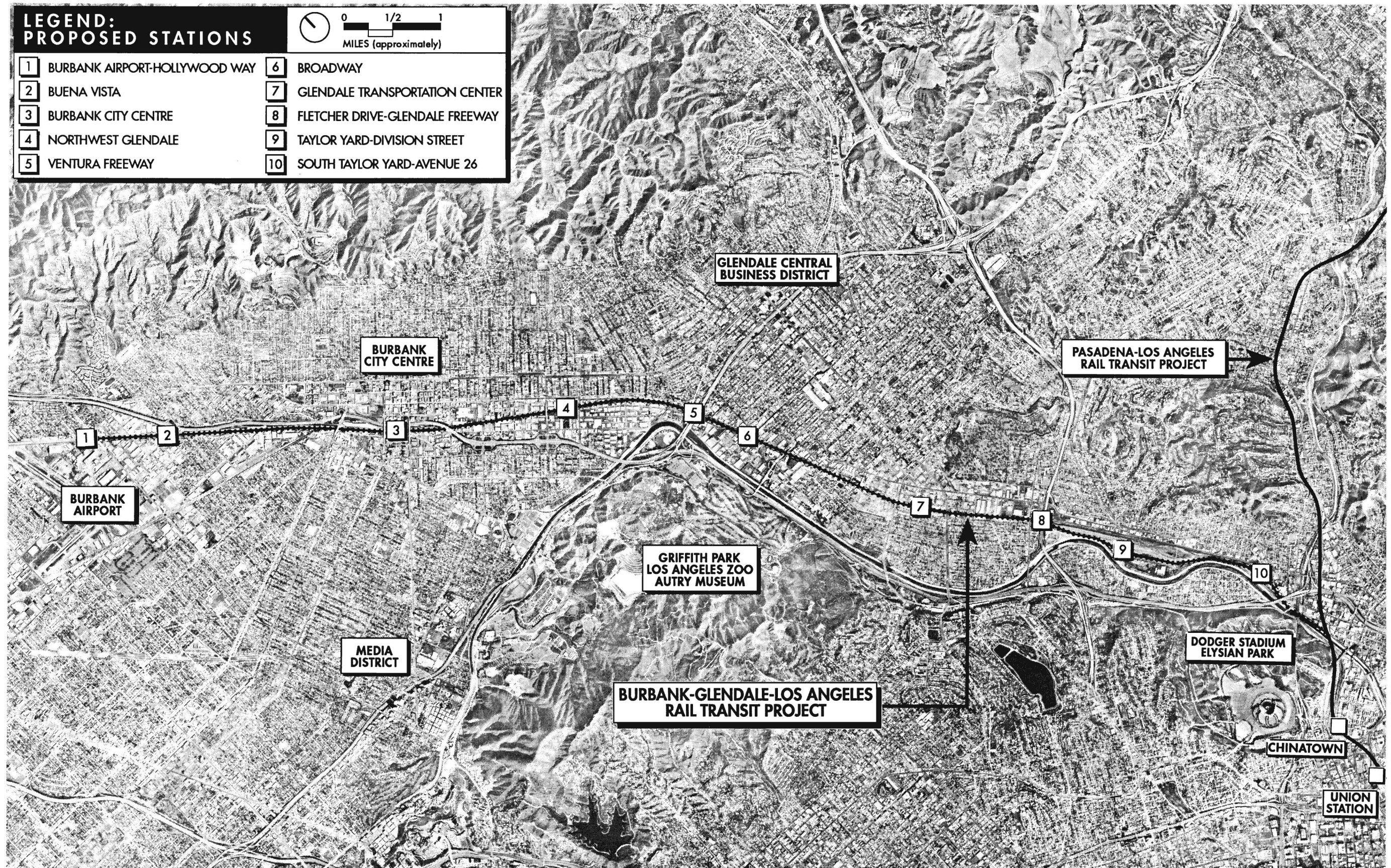
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RAIL TRANSIT PROJECT EIR
 LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 2
 Los Angeles Metro Rail
 System 30-Year Plan

**LEGEND:
PROPOSED STATIONS**



- | | | | |
|---|-------------------------------|----|---------------------------------|
| 1 | BURBANK AIRPORT-HOLLYWOOD WAY | 6 | BROADWAY |
| 2 | BUENA VISTA | 7 | GLENDALE TRANSPORTATION CENTER |
| 3 | BURBANK CITY CENTRE | 8 | FLETCHER DRIVE-GLENDALE FREEWAY |
| 4 | NORTHWEST GLENDALE | 9 | TAYLOR YARD-DIVISION STREET |
| 5 | VENTURA FREEWAY | 10 | SOUTH TAYLOR YARD-AVENUE 26 |



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RAIL TRANSIT PROJECT EIR**

LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 3
Planning Context Map

2.2 PLANNING HISTORY

In November 1980, voters of the County of Los Angeles approved Proposition A. This initiative authorized LACTC to assess a County-wide half-cent sales tax to improve and expand the existing County public transit system, and to construct and operate a rail rapid transit network. As illustrated in Figure 4, a segment of the initial rail transit plan called for an extension of the system into Glendale and the East San Fernando Valley.

In November 1990, County voters approved Proposition C, an additional half-cent sales tax, to further expand on the original Proposition A system and allow for the expedited construction of County-wide rail transit projects, as well as other transit improvements included in the Metro Transportation System. LACTC's 30-Year Rail System Plan was adopted in April 1992, and is illustrated in Figure 2.

With respect to the historic planning context of the project, the majority of the planning efforts that preceded the proposed route alignment have served as the basis for implementing the Burbank-Glendale-Los Angeles Rail Transit Project. The following discussion highlights the specific planning programs and alignment alternatives that have been studied along the SP corridor:

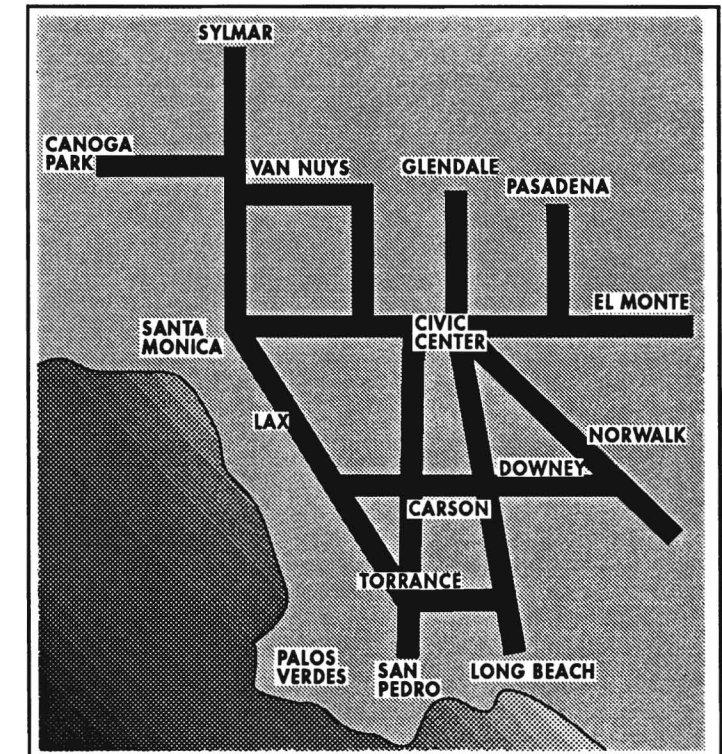


FIGURE 4 Proposition A Rail Transit System- 1980
SOURCE: "Prop A" Ballot Measure, Nov. 1980

In 1988, the Glendale City Council requested that a feasibility study be conducted of the Los Angeles-Glendale Proposition A rail transit corridor. With 50 percent of the study funded by the City of Glendale, LACTC agreed to examine the potential for rail service to Glendale. In April 1990, the City, in conjunction with LACTC, completed the *Glendale Corridor LRT Route Refinement Feasibility Study*. The study assessed the feasibility of extending the regional rail transit system into Glendale and connecting the City to Downtown Los Angeles and other transportation modes along the corridor. The project examined a variety of alternative technologies and seven alignment alternatives that primarily utilized three north-south routes: 1) the Southern Pacific R.O.W., 2) Brand Boulevard, and 3) Central Avenue-Orange Street. The route descriptions and relative merits of each of these alternatives are summarized in Table 3.

**Table 3
Comparative Summary of Los Angeles-Glendale Line Alignment Alternatives**

ALTERNATIVE	ROUTE DESCRIPTION	ADVANTAGES	DISADVANTAGES
SOUTHERN PACIFIC RIGHT-OF-WAY	Travels along the SP R.O.W, paralleling San Fernando to the City limits in Northwest Glendale.	<ul style="list-style-type: none"> • Minimal Construction Impacts • Minimal Traffic Impacts • Minimal Aesthetic Impacts • Park and Ride Potential 	<ul style="list-style-type: none"> • No direct access to CBD.
CENTRAL	Travels along the SP R.O.W to the GTC. From GTC, follows Cerritos and San Fernando, then north to Central. Terminates at Glenoaks.	<ul style="list-style-type: none"> • Direct access to CBD 	<ul style="list-style-type: none"> • Significant Traffic Impacts • Loss of Traffic/Parking Lanes • Loss of Streetscape
BRAND-GLENOAKS	Travels along the SP R.O.W to the GTC. From GTC, follows Cerritos to Brand. Proceeds north on Brand to Glenoaks. West on Glenoaks, and south on Grandview. Terminates at San Fernando.	<ul style="list-style-type: none"> • Direct access to CBD 	<ul style="list-style-type: none"> • Significant Traffic Impacts • Significant Streetscape Impacts • Significant Construction Impacts • Loss of Traffic Lanes and Visual Quality
BRAND-BROADWAY-SP	Travels along the SP R.O.W to the GTC. From GTC, follows Cerritos to Brand, then west on Broadway to San Fernando Road. Proceeds north on SP R.O.W. to Milford.	<ul style="list-style-type: none"> • Direct access to CBD • Park and Ride Potential 	<ul style="list-style-type: none"> • Significant Traffic Impacts • Significant Streetscape Impacts • Significant Construction Impacts • Loss of Traffic & Parking Lanes
COLORADO-BROADWAY	Travels along the SP R.O.W to the GTC. From GTC, follows Cerritos to Brand, then east on Colorado, north on Eagle Dale, west on Broadway, and south on Brand. Loop system.	<ul style="list-style-type: none"> • Direct access to CBD • Direct access to City Hall 	<ul style="list-style-type: none"> • Significant Traffic Impacts • Significant Streetscape Impacts • Significant Construction Impacts • Loss of Traffic & Parking Lanes
CENTRAL-ORANGE	Travels along the SP R.O.W to the GTC. From GTC, follows Cerritos Avenue and San Fernando Road to Central Avenue, then east on Harvard, north on Orange, west on Doran, north on Central. Proceeds west on south side of Ventura Freeway to San Fernando.	<ul style="list-style-type: none"> • Direct access to CBD 	<ul style="list-style-type: none"> • Significant Traffic Impacts • Loss of Traffic/Parking Lanes • Loss of Streetscape
BRAND-ORANGE	Same as Brand-Glenoaks Option. Travels north on Orange from Harvard to Doran.	<ul style="list-style-type: none"> • Direct access to CBD 	<ul style="list-style-type: none"> • Significant Traffic Impacts • Significant Streetscape Impacts • Significant Construction Impacts • Loss of Traffic & Parking Lanes

*** NOTE: GTC = Glendale Transportation Center
CBD = Glendale Central Business and Financial District

SOURCE: City of Glendale, LACTC. *Glendale Corridor LRT Route Refinement Feasibility Study, April 1990.*

Serving as the definitive study for refining the project's route alignment through the City of Glendale, the Feasibility Study concluded that there would be major impacts related to each alignment alternative. If the LRT was to be connected to the Central Business District via an at-grade configuration, the project would create major traffic and circulation impacts. If the alignment were aerial or subway, it would result in significant aesthetic and cost impacts. In an effort to minimize the project's effects on the environment, the study recommended that the Southern Pacific right-of-way should be selected as the preferred route for the following reasons: 1) it would utilize an existing transportation corridor, 2) it could be connected to the CBD with a local circulator system, and 3) it would minimize impacts related to traffic, circulation, construction, and visual quality.

While the City of Glendale and LACTC conducted this analysis to determine a LRT route through Glendale, other planning studies were also being prepared. In the Summer and Fall of 1990, LACTC -- in conjunction with the City and County of Los Angeles -- prepared the *Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study* (Figure 5). Like the Glendale LRT route study, this project examined the potential of using the Southern Pacific right-of-way as a rail transit corridor. The study assessed the engineering and planning feasibility of LRT and high-speed passenger rail service from the Los Angeles Union Passenger Terminal (LAUPT) in Downtown Los Angeles to Sylmar, with commuter rail service extending into Santa Clarita. Alternative transit modes evaluated included LRT, Commuter Rail, High-Speed Rail, and Magnetic Levitation Systems (Maglev).

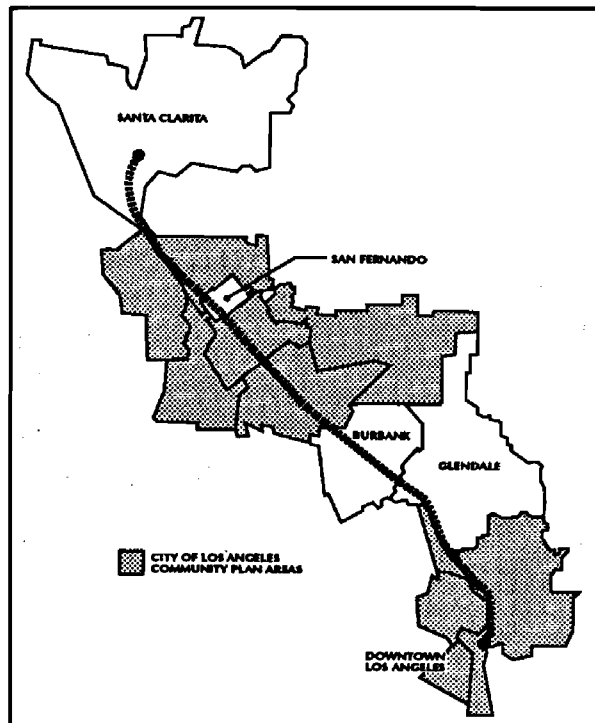


FIGURE 5 Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study Corridor
SOURCE: LACTC, November 1990

Encompassing 22 miles from the LAUPT to the City of Santa Clarita, the project analyzed 17 Light Rail stations, 5 Commuter Rail stations, and 3 High-Speed Rail/Maglev stations. With respect to the 11.9-mile Burbank-Glendale-Los Angeles Rail Transit Project, the analysis and findings from this Downtown Los Angeles to Sylmar/Santa Clarita study served as the basis for defining the Burbank Extension alignment to Hollywood Way. In addition, it identified eight of the ten station locations: City of Burbank- 1) Hollywood Way-Burbank Airport, 2) Buena Vista, 3) Burbank City Centre; City of Glendale- 4) Northwest Glendale, 5) Ventura Freeway, 6) Colorado-Broadway, 7) Glendale Transportation Center; and City of Los Angeles- 8) Glendale Freeway-Fletcher Drive. Only station platforms planned for Taylor Yard Station and Lawry's California Center south of Avenue 26 were not included in this preliminary rail transit study.

In addition to these two route alignment feasibility studies, the Cities of Burbank and Glendale have also prepared site plans for multi-modal transportation facilities which would utilize the sites of their existing old rail depots. These plans propose transportation hubs within each city that would connect local circulator systems to the regional transportation network.

In September 1990, the City of Burbank completed its *Burbank Metrolink Monorail Feasibility Study*. Because the City has three commercially- and geographically-distinct areas, this study examined the potential of linking the City's three redevelopment areas via an intracity monorail system (Figure 6). At full buildout, the 13.5-mile loop system would link the City's Media District, City Centre, and Airport area. The monorail loop could also potentially connect to regional transportation systems via rider interception at multi-modal stations and parking reservoirs. The key station being planned by the City is the Burbank Multi-Modal Transportation Facility, a transfer station and parking reservoir that would interface with the Burbank-Glendale-Los Angeles Rail Transit Project and Commuter Rail Metrolink at the old rail depot site.

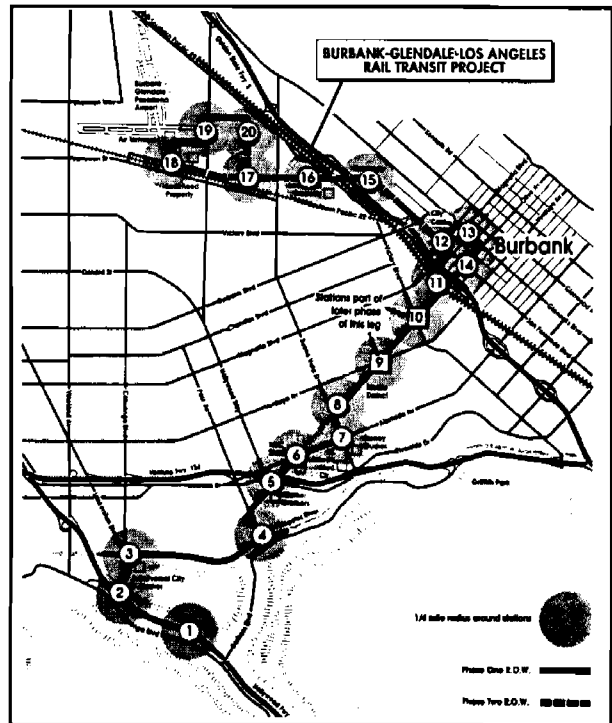


FIGURE 6 Proposed Burbank Monorail System
SOURCE: City of Burbank, September 1990.

In March 1991, Burbank completed its Multi-Modal Feasibility Study for the Burbank City Center Transportation Facility. The study developed and evaluated three alternative site concepts. The final recommendation promoted a scheme which consisted of a rail station and parking facilities at the old rail depot site; an off-street bus transfer facility across I-5 in the block bounded by First Street, Orange Grove Avenue, Palm Avenue, and the Freeway; and a pedestrian bridge crossing over the Golden State Freeway (I-5) linking the rail and bus facilities. Although the recommended design concept does not reflect the integration of a monorail, revisions to the site design could be made at a later date to accommodate such a system.

In the Summer and Fall of 1991, the City of Glendale conducted a needs assessment and feasibility study that examined the potential for transforming the City's existing Amtrak Station site into a Transportation Center. Similar to the multi-modal facility planned by the City of Burbank, the GRA's Transportation Center Master Plan proposes to create a transit hub that brings together the City's existing and planned transit modes. The project's conceptual site plan consists of renovation of the Old Rail Depot; development of a pedestrian promenade; construction of a new parking structure; and provision of bus and shuttle bay terminals. The transit modes that the City of Glendale plans on integrating at the Transportation Center include

PROJECT OVERVIEW

the Burbank-Glendale-Los Angeles LRT, Commuter Rail Metrolink, Amtrak Train Service, Glendale Bee Line, Southern California RTD Bus Service, and Greyhound Bus Service.

2.3 PROJECT PURPOSE

Based on these previous studies, LACTC and the Cities of Glendale and Burbank agreed to further evaluate the merits of the proposed Burbank-Glendale-Los Angeles Rail Transit Project in order to bring the project closer to implementation. In an effort to pool the rail transit planning efforts of these various jurisdictions, LACTC (serving as the lead agency) and the Cities of Glendale and Burbank commissioned the preparation of this Environmental Impact Report in July 1991 to study a light rail alignment that would operate as a branch of the Pasadena to Los Angeles Rail Transit Project. For the purposes of the CEQA process, the study corridor will begin at the junction of the Pasadena-Los Angeles rail line and continue to Hollywood Way at the Burbank Airport. Although the overriding goal of this project is to evaluate and refine a rail transit route that ensures the improvement of overall public transit and minimizes the impacts on the environment, the proposed project also aims to achieve the following purposes:

- **To carry out the public mandate for the construction of a County-wide rail transit system expressed by the voters in 1980 (Proposition A) and 1990 (Proposition C).** Planning policies were reinforced when Los Angeles County voters passed Proposition A in November 1980 and Proposition C in 1990. Each of these propositions added a half cent to the County sales tax to provide, in part, local funding for a County-wide rail rapid transit network. An extension of a rail transit line into Glendale and the East Valley represents one of the many integral components of this system. Implementation of the proposed project can be considered a direct response to the voter mandate for such a system.
- **To provide an alternative mode of transportation, and help control the growth of traffic congestion in the East Valley region.** The Southern California Rapid Transit District (SCRTD) operates one of the largest bus fleets in the nation carrying over 1.5 million passengers daily. Nonetheless, more than 95% of the region's residents continue to rely almost exclusively on the automobile for transportation. The introduction of a regional rail transit system integrated with other public transit facilities is intended to provide an efficient, cost effective and reliable alternative form of transportation, thus decreasing the heavy reliance on the automobile for movement and better serving the needs of transit dependent residents.

Transportation modeling forecasts performed for the region indicate that problems associated with vehicular movement can be expected to increase substantially by the year 2010. SCAG estimates that average rush hour travel speeds will drop from the current 37 miles per hour to 17 miles per hour by the year 2000. Regional rail transit, in conjunction with other measures, can aid in reducing these levels of congestion.

- **To connect the East Valley's major activity centers to other parts of the Southern California region.** Based on projections by the Southern California Association of Governments (SCAG), the East Valley is expected to experience significant increases in its population and employment base in the next 20 years. As such, its major economic activity centers such as the Glendale Central Business District, Glendale Civic Center, Burbank-Glendale-Pasadena Airport, Burbank Media District, and Burbank City Center may become more prominent destination points for Southern California residents. Implementation of the proposed light rail alignment, in coordination with planned and existing local circulator systems, would facilitate access to these major centers. In addition, the proposed project also has the opportunity of providing weekend service to some of the area's entertainment centers like the Burbank movie and television studios, Los Angeles Zoo, Gene Autry Western Heritage Museum, Griffith Park, and Dodger Stadium.



CHAPTER 3.0 PROJECT DESCRIPTION

The 11.9-mile Burbank-Glendale-Los Angeles Light Rail Route Corridor study area extends from the Pasadena-Los Angeles rail line junction to Hollywood Way near the Burbank-Glendale-Pasadena Airport (Burbank Airport), via the Southern Pacific Transportation Corridor (SPTC) right-of-way. Rail service along this alignment would serve the Cities of Glendale and Burbank, as well as the Sun Valley and Northeast communities of the City of Los Angeles. Presently, Southern Pacific utilizes the railroad for freight transportation to Saugus and Northern California; and Amtrak uses the corridor for passenger service from the Los Angeles Union Passenger Terminal (LAUPT) through Glendale, Burbank, and Van Nuys to Santa Barbara and Northern California. In October 1992, Metrolink commuter rail trains will commence service in this corridor, with trains from Moorpark and Santa Clarita to the LAUPT.

3.1 RAIL TECHNOLOGY

The rail technology to be utilized for the proposed alignment would be similar to the vehicles currently being operated on the Long Beach to Los Angeles light rail transit line. The individual rail cars are made of welded steel, span 90 feet in length, stand 11 feet 6 inches in height, and stretch nearly 9 feet in width. Power for the vehicles would be provided by two 195 horsepower DC electric motors. A photo of a typical Blue Line Light Rail train vehicle in operation is illustrated in Figure 7.



FIGURE 7

Blue Line Train Vehicle

The 2-car train vehicles are articulated with an accordion connection. Four double-ended doors on each side provide access to and from high level platforms into the cars to avoid steps between platform and vehicle. Each car provides 76 seats, with two seats located at each end of the car

PROJECT DESCRIPTION

that can be folded up to provide space for one wheelchair passenger. The maximum capacity is 237 passengers (76 seated, 161 standing). At full capacity, the vehicle weighs 131,000 pounds; when empty, it weighs 94,000 pounds. With an acceleration rate of 3 mph per second, the Blue Line trains can achieve a maximum speed of 55 miles per hour (mph).

The proposed project would function as a branch of the adopted Pasadena-Los Angeles project, which will also utilize equipment similar to that of the Blue Line. Thus, trains on the Burbank-Glendale-Los Angeles rail line will continue south on the Pasadena-Los Angeles line, providing direct service to Chinatown and Union Station. Rail cars used on the proposed alignment also will be stored and maintained at the maintenance facility for the Pasadena-Los Angeles line.

3.2 RAIL TRANSIT STATIONS

Conceptual station site plans have been developed for the Burbank-Glendale-Los Angeles Rail Transit Project in an effort to facilitate pedestrian entrance to station locations, and to provide direct access from major arterials to the SPTC right-of-way. Station site planning has focused on emphasizing existing centers such as the Burbank Central Business District and Atwater Village, as well as reinforcing planned activity centers like the Golden State Redevelopment Area, Glendale Transportation Center and Taylor Yard. The selection of station sites has also been influenced by the need to minimize property takings, to utilize available properties such as existing rail depot sites and obtainable publicly-owned land, and to select sites with possible joint development potential.

Key land use factors used in evaluating potential station parking sites included:

- Compatibility of potential station locations with adjacent and prevailing land uses.
- Types and intensity of residential, commercial, and industrial activity.
- Availability of underdeveloped land adjacent to the proposed route alignment.
- Identification of properties exhibiting the potential for future joint development.
- Potential right-of-way and site acquisition needs.
- Existing improvements which could affect site development: i.e., drainage channels, informal use of vacant land, and planned traffic and transportation improvements.

With respect to parking and circulation considerations, the following factors were considered in the evaluation of potential parking sites:

Vehicle Orientation

- Safety of entry and exit locations.
- Visibility of the site from adjacent streets.
- Traffic control through traffic signals or stop signs.
- Turning movements, including left-turn pockets and turns in the vicinity of other adjacent intersections and driveways.
- Existing observed levels of traffic congestion.

- Provisions for multiple access points to the site.
- Number of potential parking spaces.
- Potential for future site expansion/availability of alternate site locations.

Pedestrian Orientation

- Levels of existing pedestrian activity.
- Ease and safety of pedestrian access.
- Concerns related to pedestrian track crossings.
- Passenger interchange at multi-modal facilities.

The Burbank-Glendale-Los Angeles light rail alignment would share the 100-foot SPTC right-of-way with Commuter Rail Metrolink trains, Amtrak, and Southern Pacific freight cars. Two sets of tracks, one for the LRT and one for the three heavy rail trains, would be located within the right-of-way from Hollywood Way at the Burbank Airport through Taylor Yard. Although each of the ten at-grade station platforms would incorporate a center-loading design, the desire to utilize the best available site for park-and-ride facilities, the placement of these facilities on both the east and west side of the alignment, and the need to accommodate pedestrian access has resulted in the conception of site plans that address the particular needs and concerns at each station location.



FIGURE 8 Old Burbank Rail Depot: Site for Multi-Modal Transportation Facility

The issue of access to station platforms is an important consideration at modal transfer stations where transit riders would change from automobiles, buses, or shuttles to rail transit vehicles. At stations with park-and-ride and kiss-and-ride facilities, structure and surface parking has been located as close as possible to the platforms. Pedestrian access from the parking areas to the platform was planned to be as direct as possible. However, because some station areas such as the Burbank City Centre (Figure 8) require the crossing of rail tracks, pedestrian bridges,

PROJECT DESCRIPTION

underpasses, or elongated ramps would be required to access LRT station platforms. In the case of the Burbank City Centre and Glendale Transportation Center stations, these improvements would be required to facilitate access to center-loading Commuter Rail and Amtrak platforms.

As shown in Table 4 and Figures 9-18 , the Burbank-Glendale-Los Angeles Rail Transit Project would have 10 at-grade transit stations. At full buildout, the proposed project would provide nearly 5,700 parking spaces at seven park-and-ride facilities. Because of the size and scope of the multi-modal transportation facilities planned for the Glendale Transportation Center and Burbank City Centre stations, individual site-specific project EIRs will be prepared for these facilities by their respective jurisdictions. As such, the Burbank-Glendale-Los Angeles Rail Transit Project EIR will only be responsible for environmentally clearing station platforms, track alignment, and light rail parking for the station areas depicted in Table 4.

Table 4 Station Parking			
STATION AREA	STATION/PARKING LOCATION	INITIAL PHASE PARKING	TOTAL PARKING
BURBANK AIRPORT-HOLLYWOOD WAY	Platform: North of Hollywood Way Parking: Northwest corner of San Fernando Boulevard and Hollywood Way	530	1,500
BUENA VISTA	Platform: North of Buena Vista Street Parking: Caltrans property located below Interstate 5	60	60
BURBANK CITY CENTRE	Platform: Centered between Magnolia and Olive Parking: Front Street Depot site.	300*	1,300
NORTHWEST GLENDALE	Platform: Between Grandview and Sonora Parking: None	0	0
VENTURA FREEWAY	Platform: South of Doran Street Parking: Southeast corner of Doran and San Fernando	250	500
BROADWAY	Platform: South of Broadway Parking: None	0	0
GLENDALE TRANSPORTATION CENTER	Platform: South of Old Rail Depot Parking: North of Old Rail Depot	900*	1,500
GLENDALE FREEWAY-FLETCHER DRIVE	Platform: Above Fletcher Drive underpass or south of SR-2 Parking: West of Van de Kamp's building or Hughes Market	500	500
TAYLOR YARD: DIVISION STREET	Platform: North of planned access road or LACTC property Parking: East of station platform or LACTC property	300	300
SOUTH TAYLOR YARD: AVENUE 19	Platform: Adjacent to San Fernando Road, south of Avenue 26 and Lawry's California Center Parking: None	0	0
TOTALS		2,840	5,660
* Separate site-specific project EIRs will be completed independently for these station sites by the governing jurisdiction.			

**DESCRIPTION OF
PROPOSED STATION AREAS
AND
STATION SITE PLANS**

Burbank Airport • Hollywood Way

Buena Vista

Burbank City Centre

Northwest Glendale

Ventura Freeway

Broadway

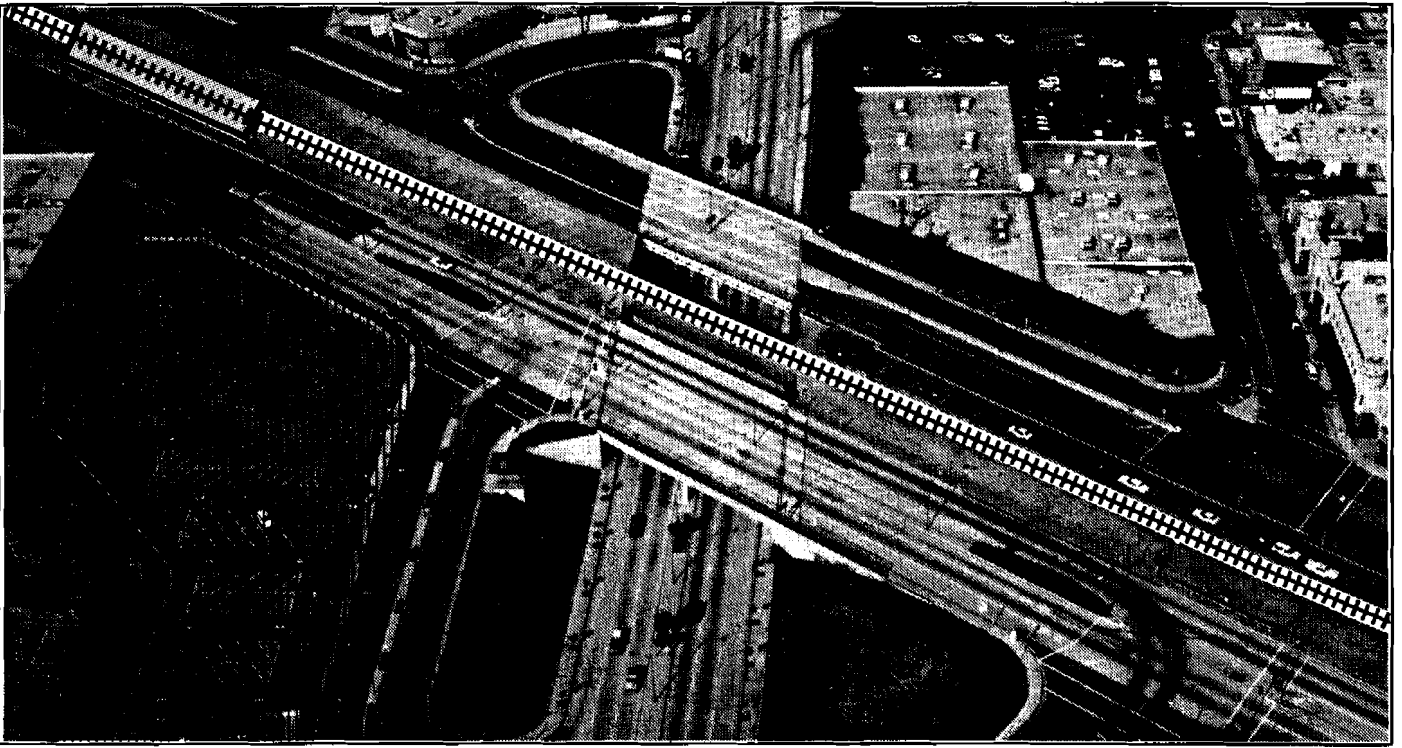
Glendale Transportation Center

Glendale Freeway • Fletcher Drive

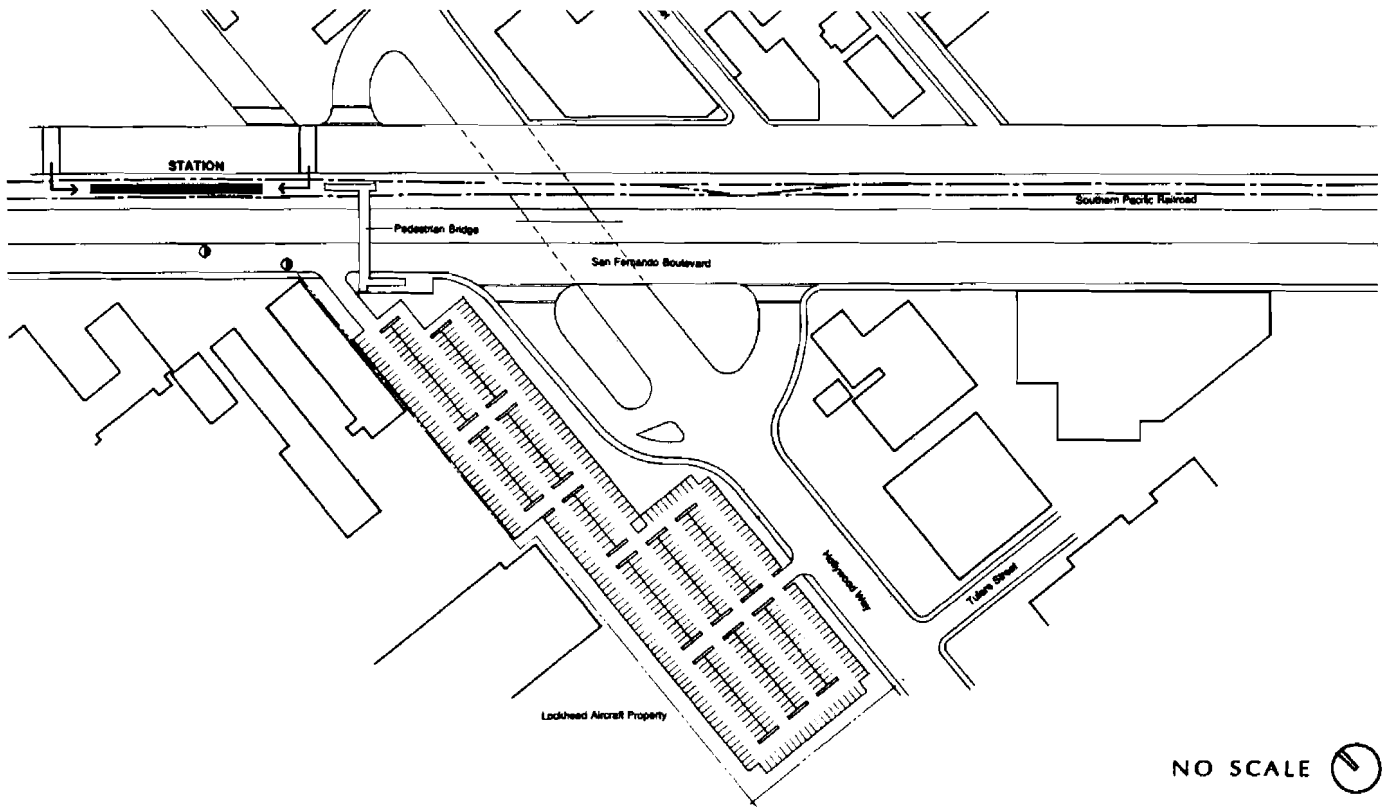
Taylor Yard

Avenue 19

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



View looking northeast toward the intersection of Hollywood Way and San Fernando Boulevard. Because the grade-separated intersection represents the primary capture point for commuters arriving from points farther north, a total of 1,500 parking spaces are planned at this location.



NO SCALE

GRAPHICS BY GRUEN ASSOCIATES

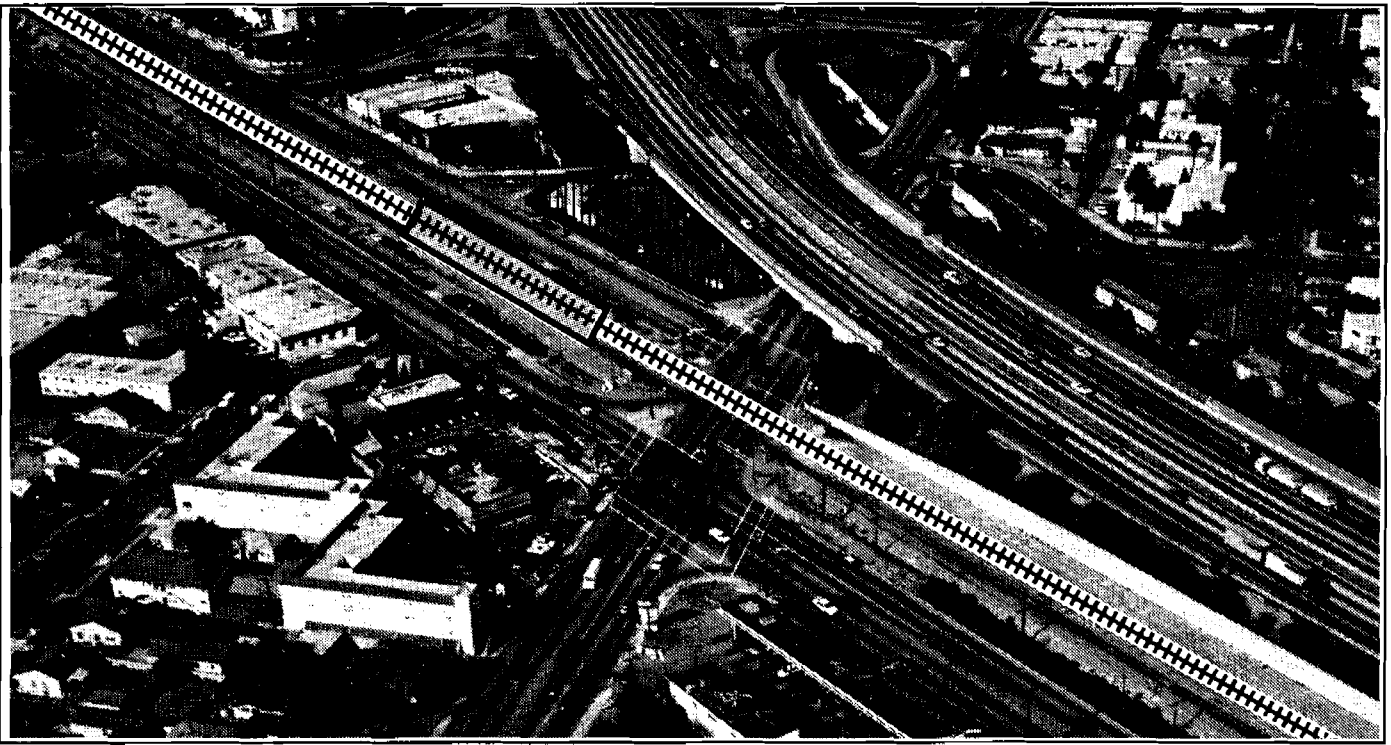


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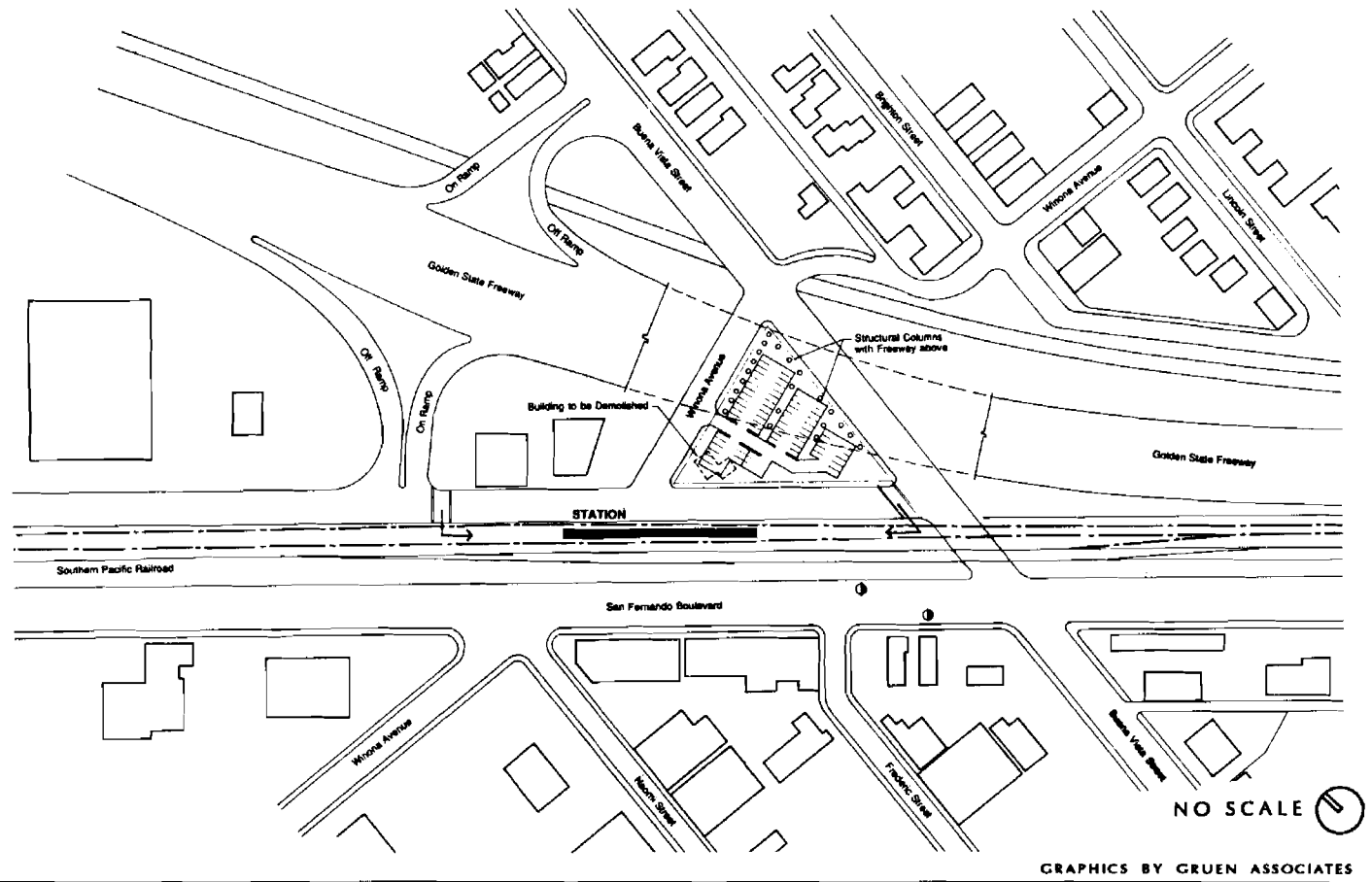
LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 9
Burbank Airport - Hollywood Way
Station Area

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



View looking northeast at the intersection of Buena Vista Street and San Fernando Boulevard. The land uses surrounding this area are comprised of a mix of single-family, multi-family, and commercial uses. Station parking would be provided on the site currently utilized by Caltrans as a maintenance yard.

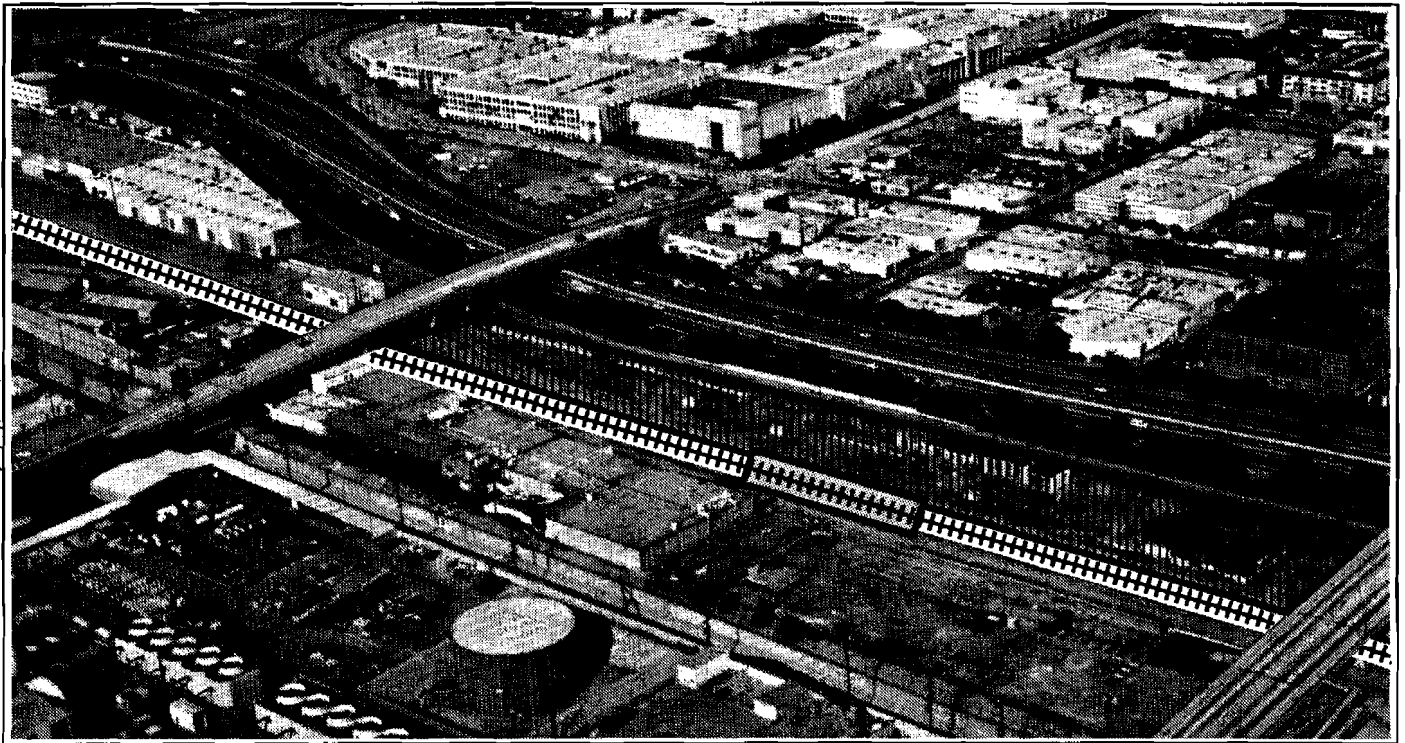


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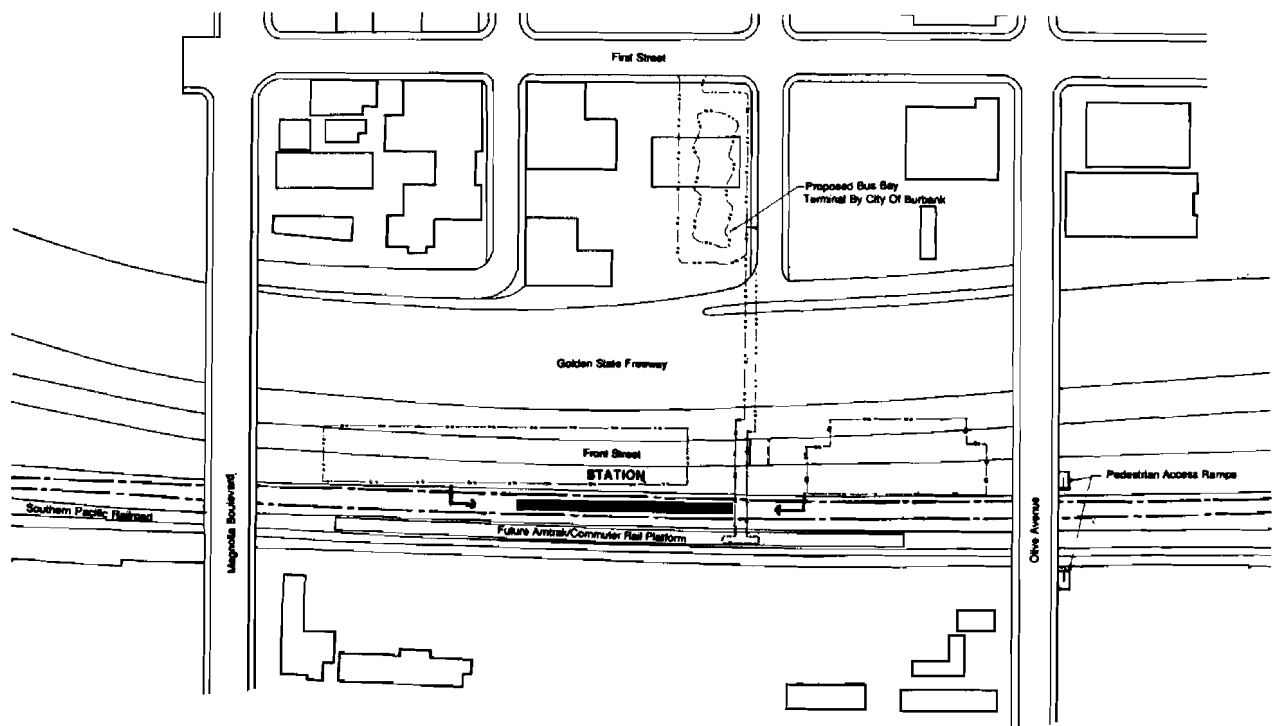
LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 10
Buena Vista
Station Area

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



View looking east at the Old Rail Depot site, with the Burbank City Centre Redevelopment Area and Media City Shopping Center in the background. The proposed station site would serve as a Multi-Modal Transportation Facility. Current pedestrian access to the City Centre is by means of a ramp to Olive Avenue; improved access from the station could be provided via a shuttle service along Front Street or pedestrian bridge over Interstate 5.



OUTLINE OF PROPOSED PHASE B STATION CONCEPT
 BY CITY OF BURBANK, REFER FEASIBILITY STUDY:
 BURBANK CITY CENTRE MULTI-MODAL TRANSPORTATION
 FACILITY (CONCEPT PLAN D: MARCH 1991)

NO SCALE 

GRAPHICS BY GRUEN ASSOCIATES

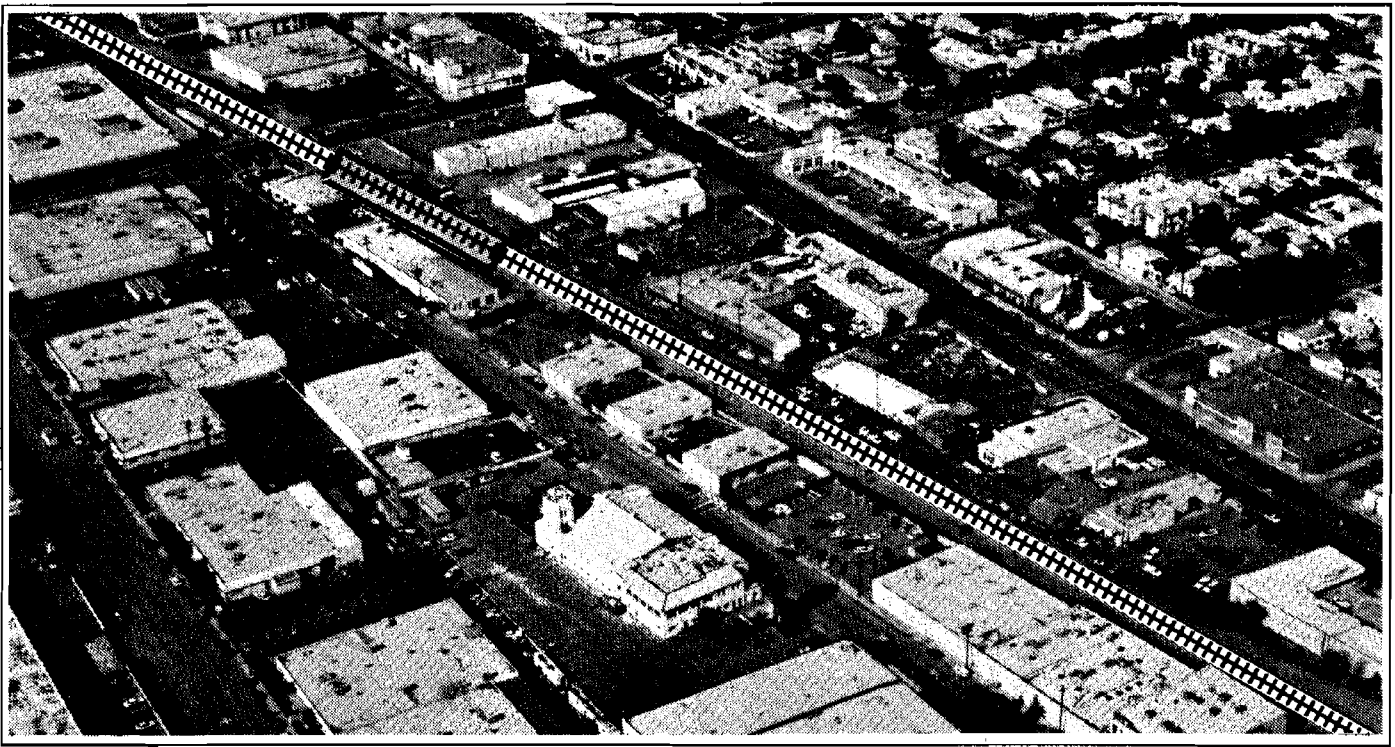


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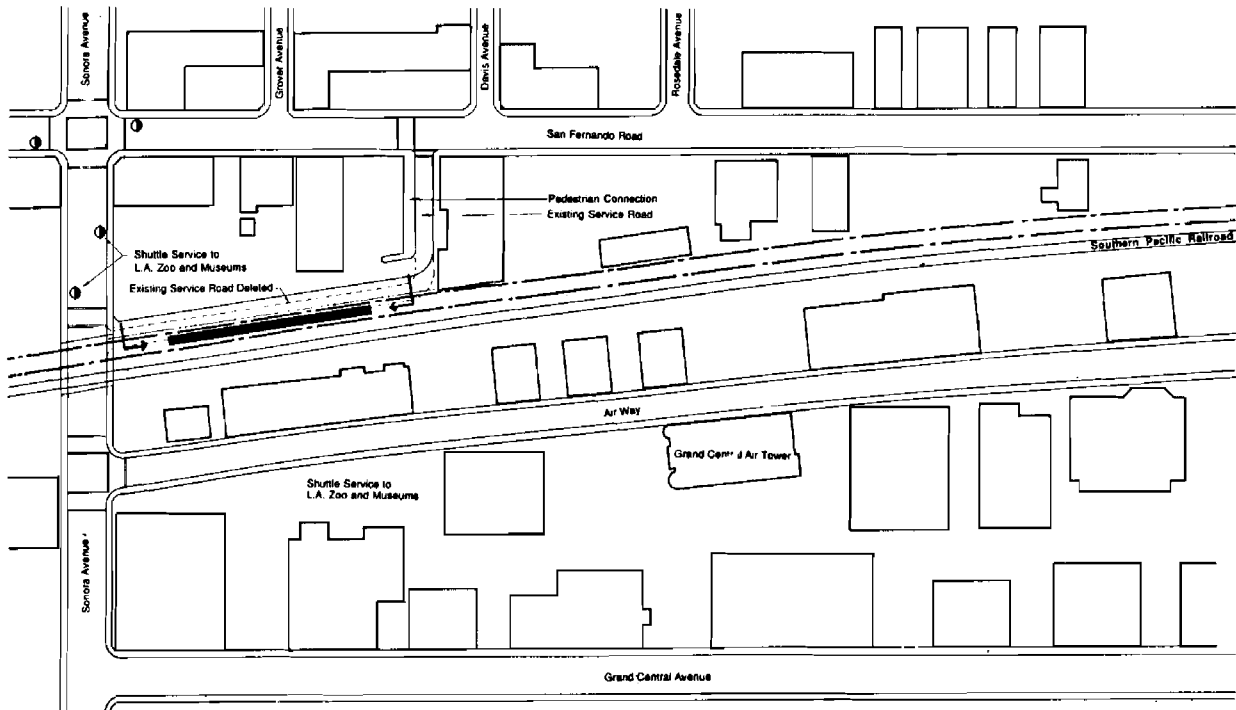
LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 11
 Burbank City Centre
 Station Area

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



View looking northeast at the proposed Northwest Glendale Station. The Grand Central Air Tower appears in the lower center foreground of the photo. This station would primarily serve as a destination center for employees working in the Grand Central Industrial Business Park. A kiss-and-ride facility and an elongated pedestrian ramp would be located near the station platform.



NO SCALE 

GRAPHICS BY GRUEN ASSOCIATES



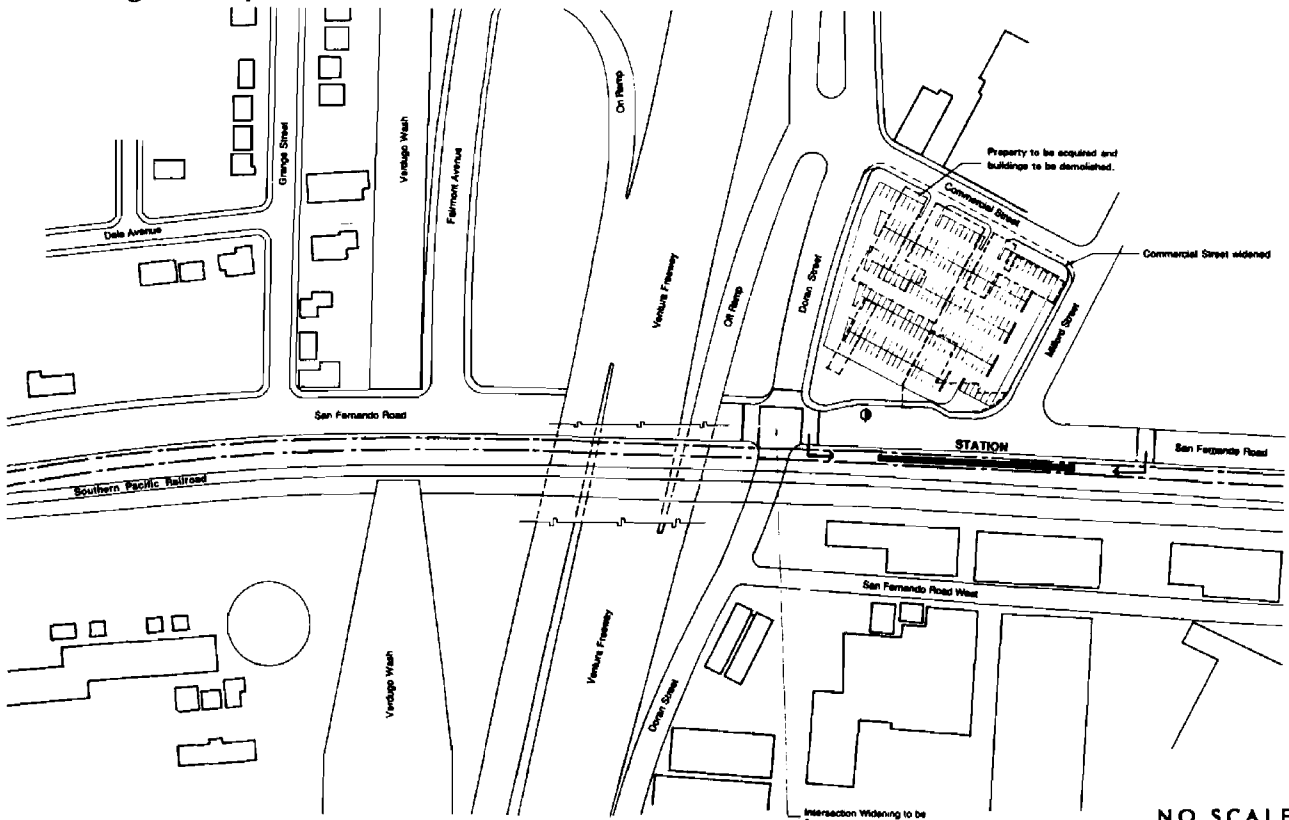
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FIGURE 12
Northwest Glendale
Station Area



View looking south from the Ventura Freeway. The intersection of Doran Street and San Fernando Road appears in the center of the photo. The station's planned park-and-ride facility would be constructed on the site indicated by the arrow. The station platform would be accessed via a pedestrian ramp at the intersection of the SPTC right-of-way and Doran Street.



NO SCALE

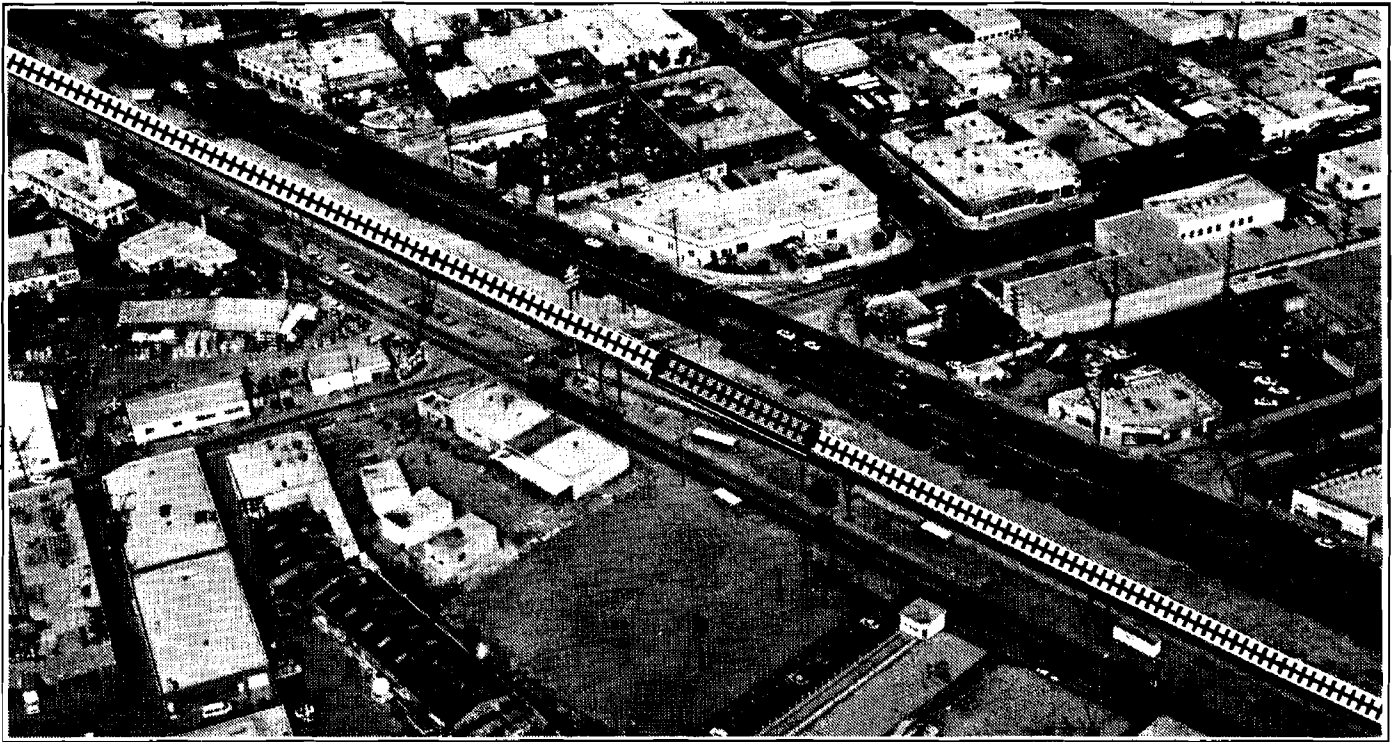
GRAPHICS BY GRUEN ASSOCIATES



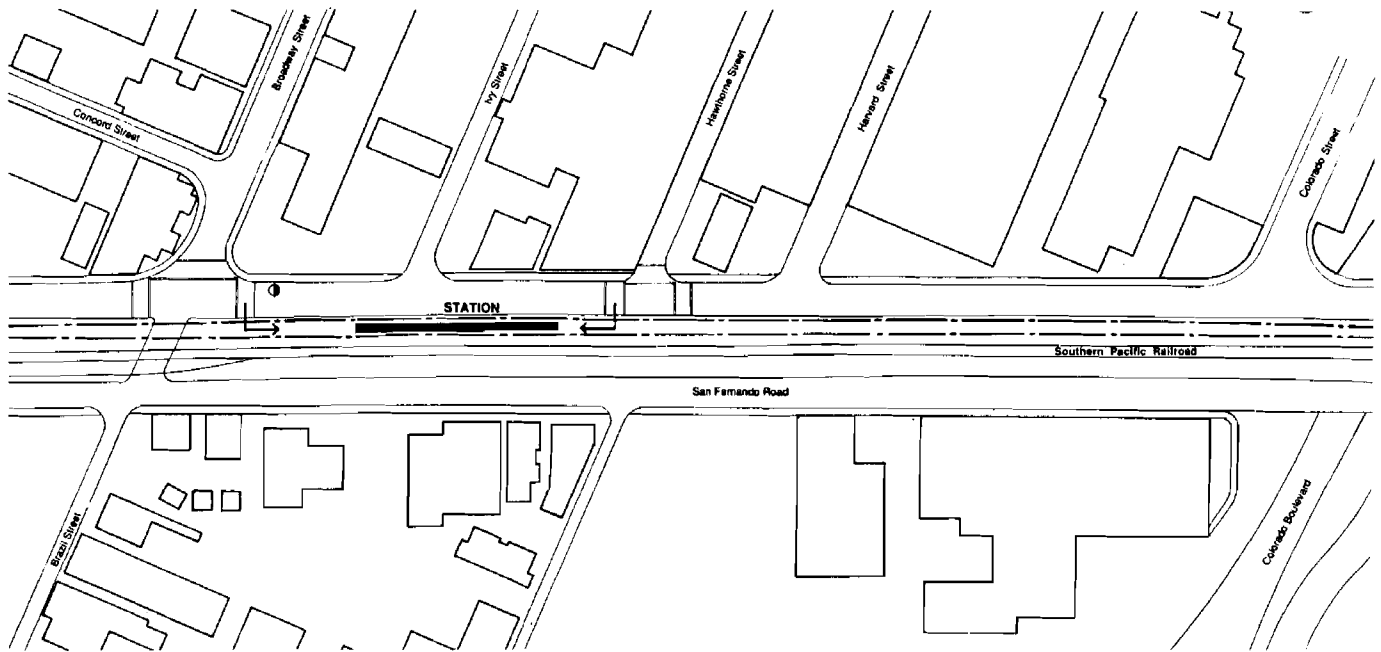
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FIGURE 13
 Ventura Freeway
 Station Area

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



View looking northeast at the intersection of Broadway and San Fernando Road. Land uses surrounding the Broadway Station consist primarily of warehousing and manufacturing businesses. Because of the location's proximity and favorable access to the Glendale Central Business District, this station is envisioned as a destination point linking rail transit riders to the City's major economic activity center.



NO SCALE 

GRAPHICS BY GRUEN ASSOCIATES



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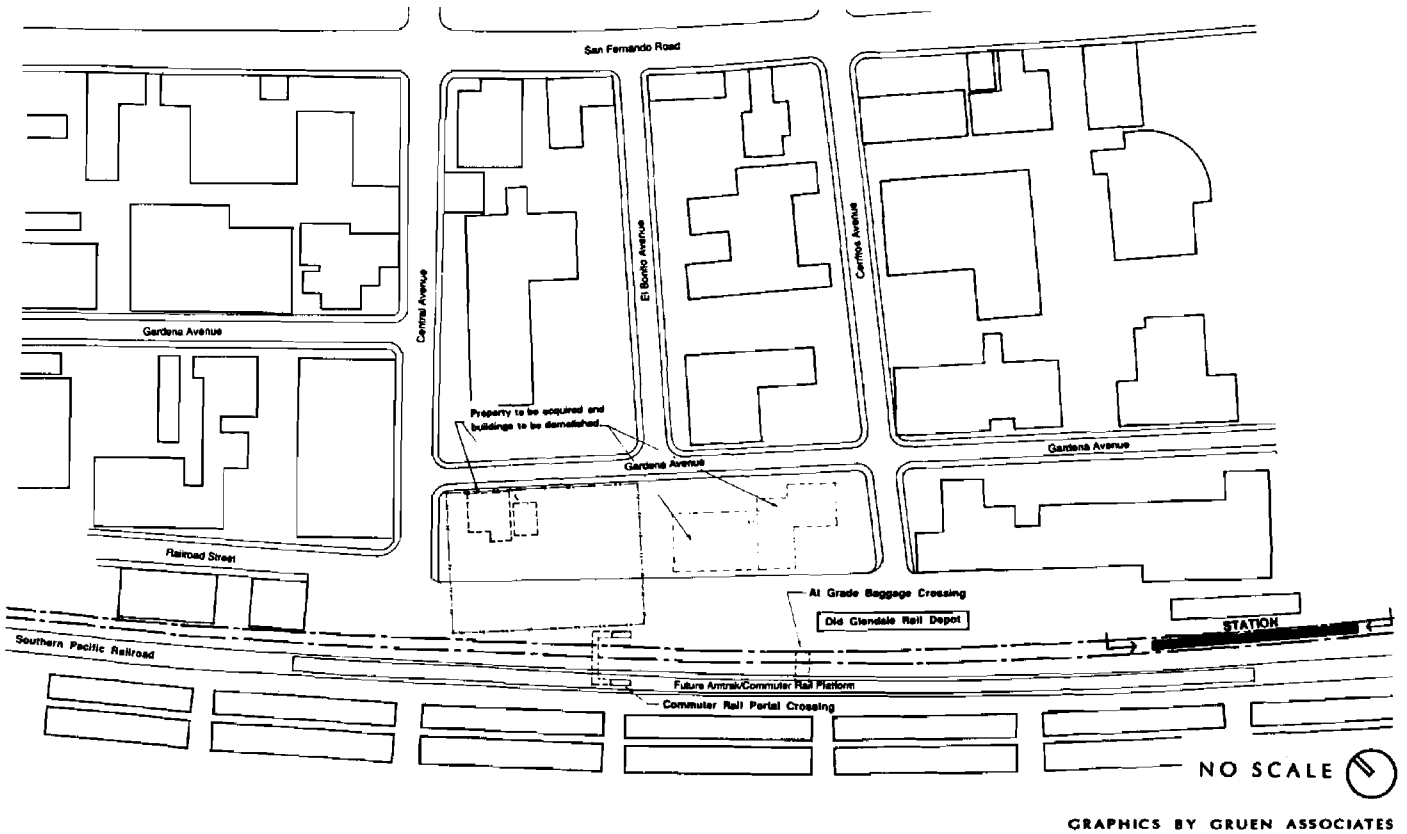
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FIGURE 14
Broadway
Station Area

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



This view looks north at the site of the proposed Glendale Transportation Center. The City of Glendale plans to construct a multi-modal facility that would bring together regional, local, and intra-city transit service at one location. Because this is expected to be a prominent station along the proposed rail alignment, a total 1,500 parking spaces are planned north of the Old Rail Depot. The site photo above depicts the area for the first phase of development.

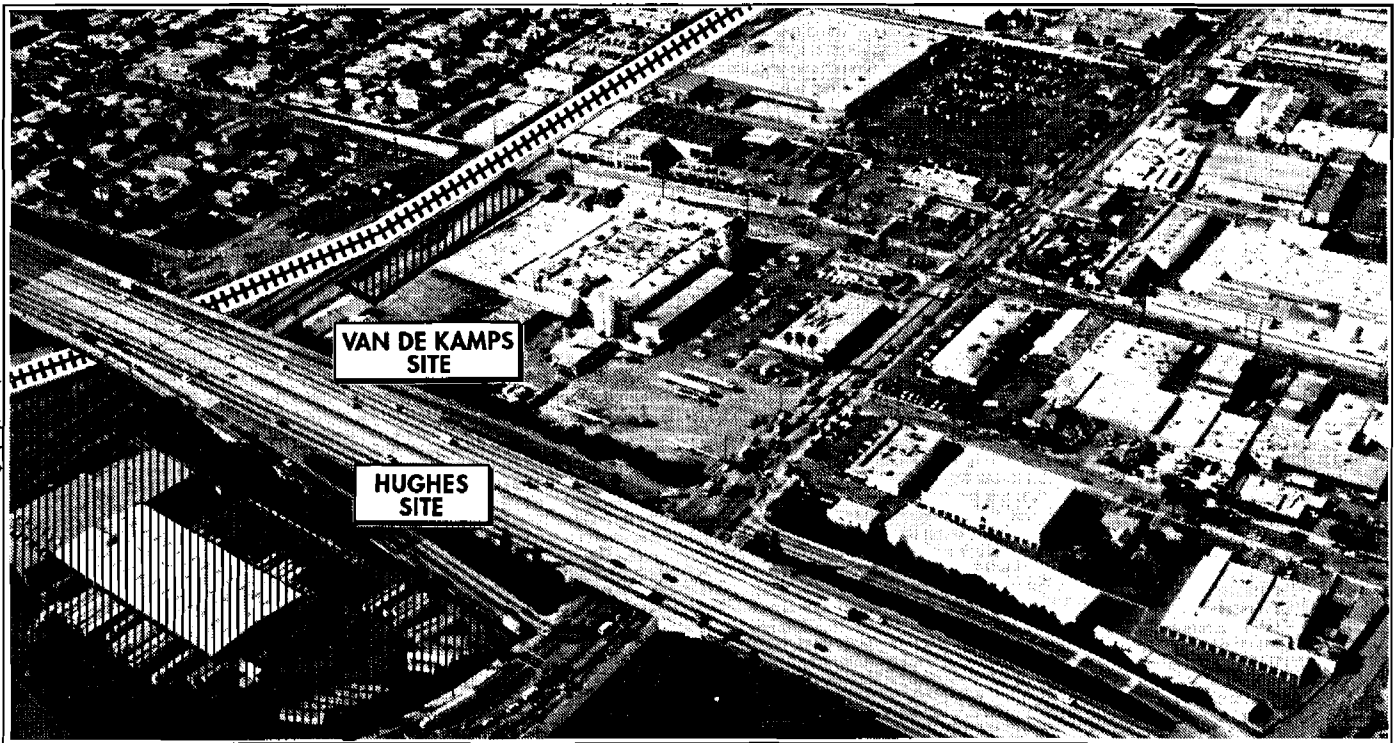


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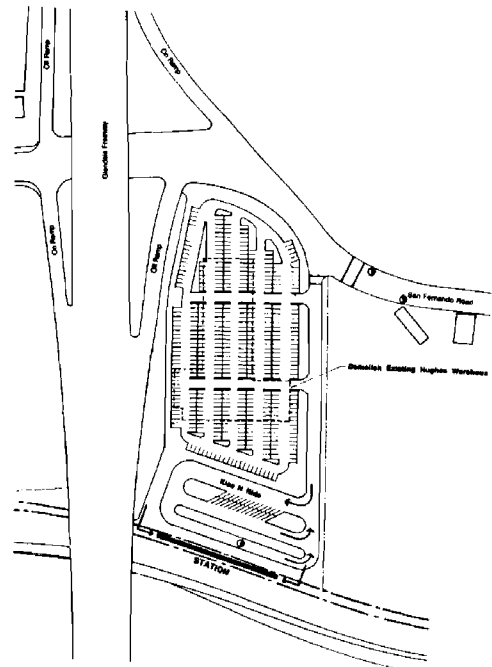
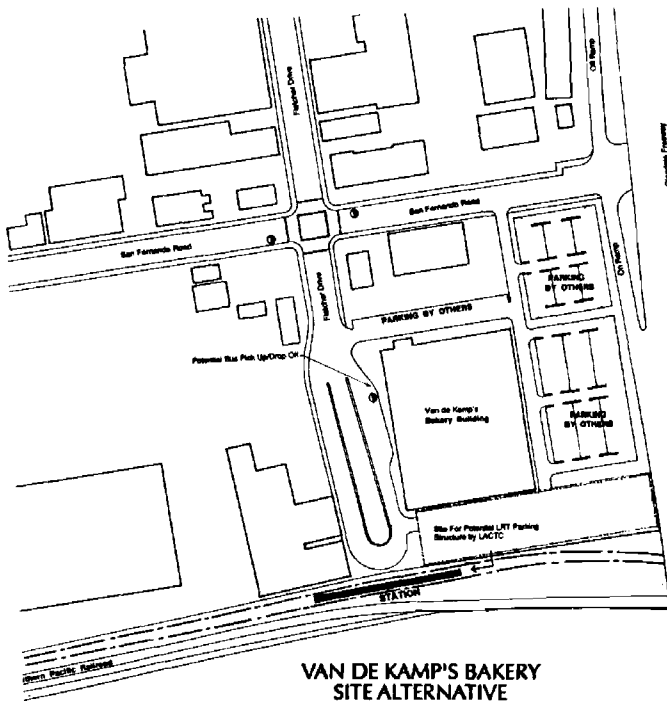
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FIGURE 15
Glendale Transportation Center
Station Area

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



View looking northeast at the alternative sites for the Glendale Freeway - Fletcher Drive Station. The two potential station sites are the Van de Kamps Bakery (center of photo) and Building #1 of the Hughes Market Warehouse (lower left). Both sites could be the focus of a potential joint development project that would combine commercial uses with a LRT-dedicated parking structure accomodating 500 vehicles.



Proposed Bus Stop
(May Result in Bus Pull-out in the Future)

Property Line

NO SCALE

GRAPHICS BY GRUEN ASSOCIATES



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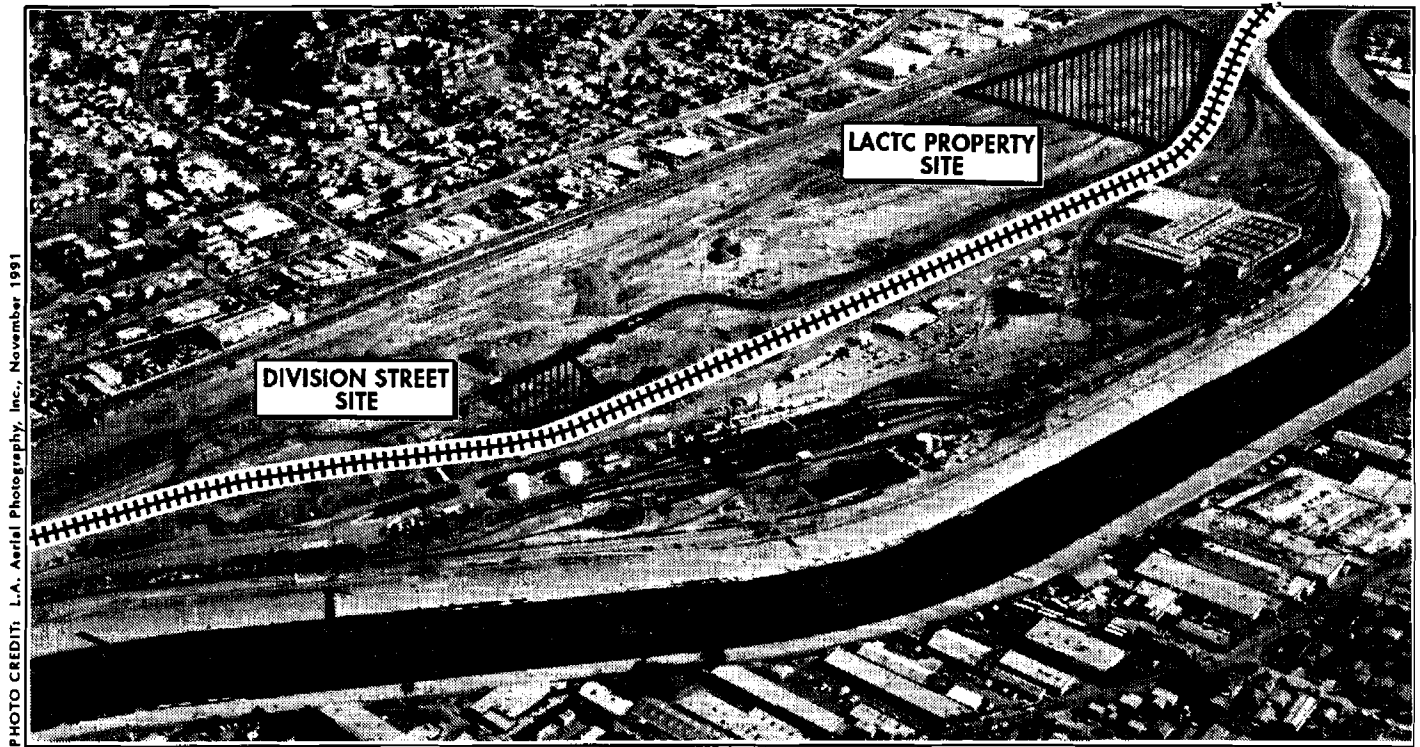
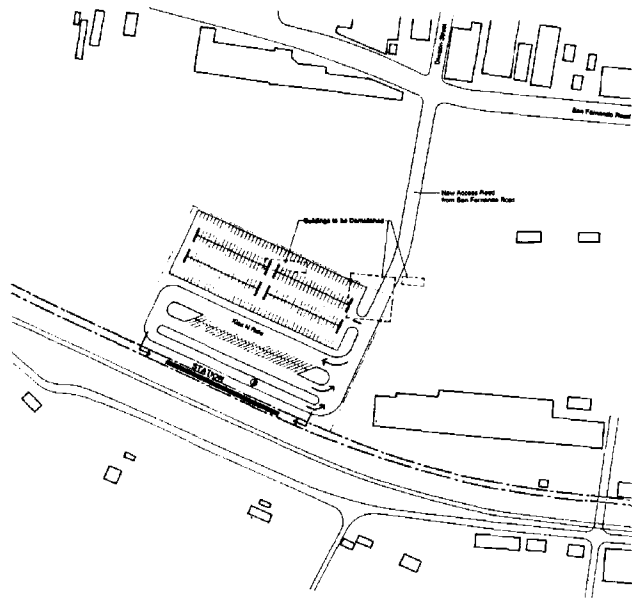
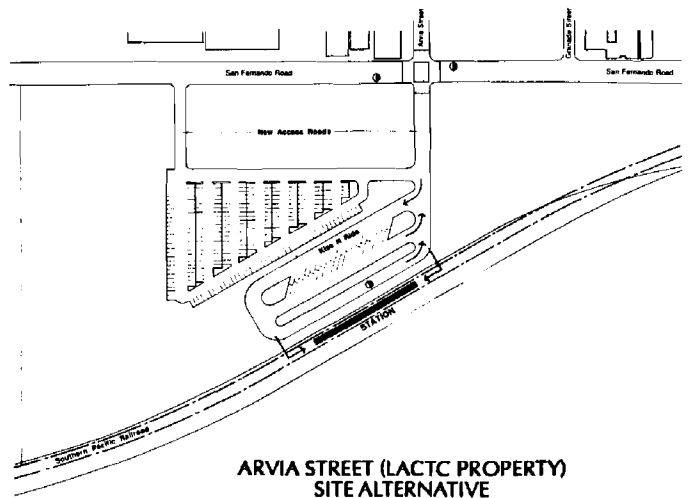


PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991

View looking southeast at Taylor Yard and Glassell Park - Mount Washington residential neighborhoods. The Taylor Yard station has two alternative sites: 1) at Division Street, or 2) on the LACTC - owned property near Arvia Street. A parking facility accomodating 300 automobiles would be provided adjacent to the rail alignment for either site alternative.



**DIVISION STREET
SITE ALTERNATIVE**



**ARVIA STREET (LACTC PROPERTY)
SITE ALTERNATIVE**

NO SCALE

GRAPHICS BY GRUEN ASSOCIATES



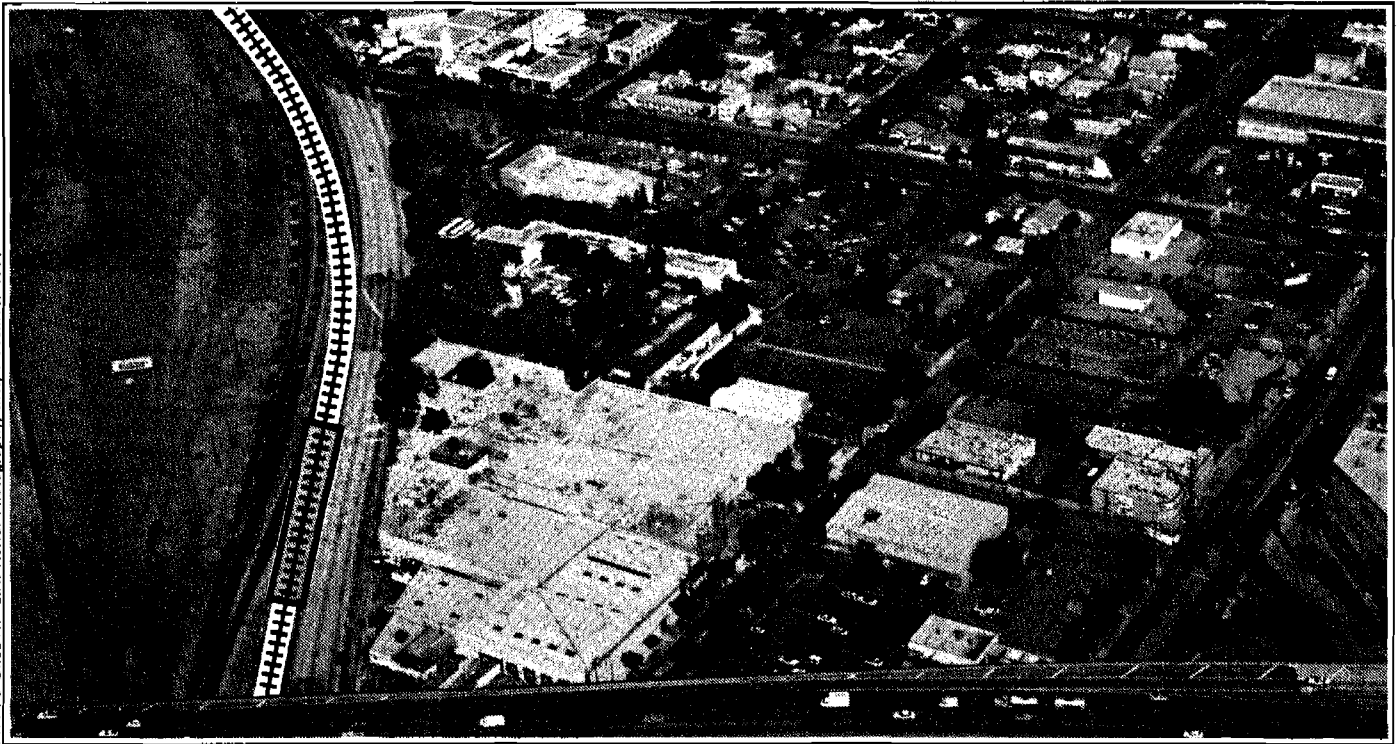
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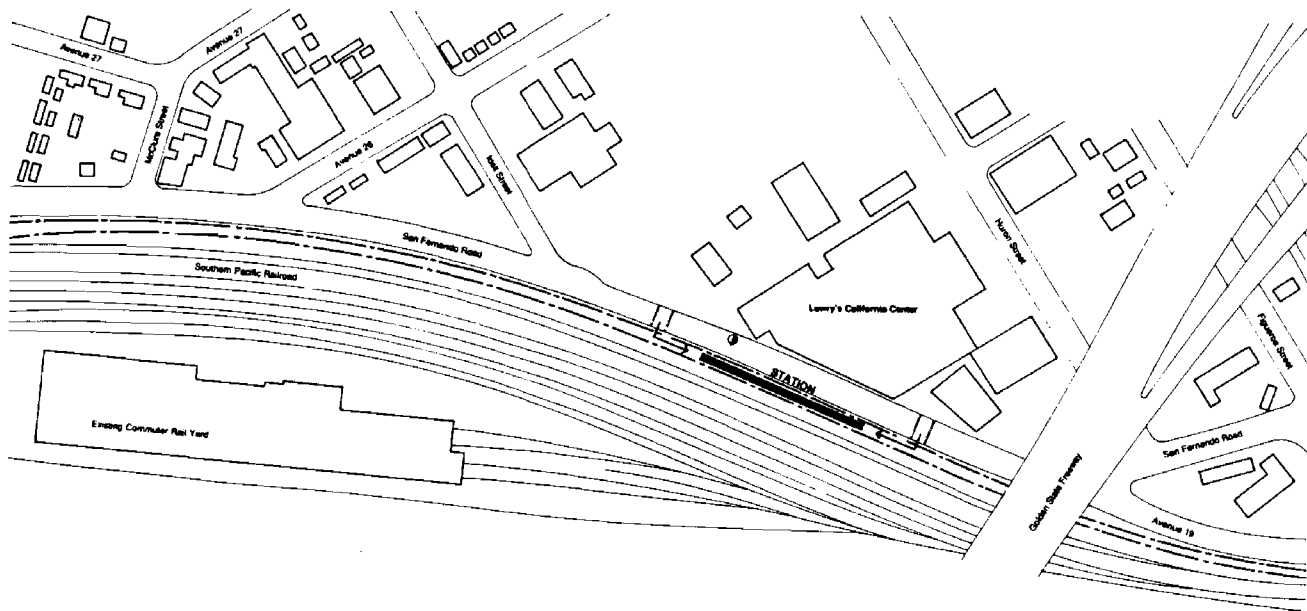
FIGURE 17

**Taylor Yard
Station Area**

PHOTO CREDIT: L.A. Aerial Photography, Inc., November 1991



This view looks northeast along San Fernando Road at the Lawry's California Center Site. In order to reduce the engineering constraints associated with the curvature of San Fernando Road, the station platform would be located along the road's straight tangent approximately 700 feet south of Avenue 26.



NOTE:
Parking on East side of
San Fernando Road
To Be Removed

NO SCALE 

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 18

Avenue 19
Station Area

3.3 RIDERSHIP AND OPERATIONS

This section describes the ridership forecasts and operational characteristics of the proposed Burbank-Glendale-Los Angeles Rail Transit Project. The ridership forecast information is derived from preliminary model runs by Schimpeler-Corradino Associates and the operational components have been prepared by Manuel Padron & Associates.

3.3.1 Ridership Projections

Ridership forecasts for the Burbank-Glendale-Los Angeles Rail Transit Project have been produced in prior model runs as a result of this rail alignment's inclusion in the background network for other rail project forecasts. The Los Angeles County Transportation Commission's *30-Year Integrated Transportation Plan* includes a forecast for this rail line based on a composite of these prior studies. According to the Plan, the proposed rail alignment can expect to receive a total daily ridership of approximately 33,000 passengers by 2010.

More recently, model runs have been performed by Schimpeler-Corradino Associates for LACTC's Private Sector Initiative that utilize a more extensive background rail network. Results from these preliminary patronage models reveal that ridership for the proposed rail transit route range up to 38,000 riders per day. Although model adjustments are continuing, the 38,000 figure represents the upper estimate for the proposed project. Accordingly, station access volumes from this high-end forecast will be utilized to determine potential traffic and air quality impacts at station locations.

3.3.2 Operations Plan

Operating plans for the Burbank-Glendale-Los Angeles Rail Transit Project were prepared in November 1991. As illustrated in Table 5, Blue Line trains could transport riders the 13.6-mile distance from the Burbank Airport to the Los Angeles Union Passenger Terminal in less than 20 minutes. This assumes that the trains would dwell at stations for 20 seconds and travel at an average speed of 33.9 miles per hour. According to Manuel Padron & Associates, the proposed rail alignment would require a fleet of 19 vehicles to accommodate the project's forecasted ridership. The vehicles for the Burbank-Glendale-Los Angeles rail alignment would utilize the maintenance and storage facilities to be developed as part of the Pasadena-Los Angeles Rail Transit Project.

Following the construction of the proposed project, existing bus lines may be deleted to avoid duplicative routes. Bus routes may also be changed or added to promote commuting trips that combine bus and rail transit. In an effort to improve commuter trips, feeder lines could be developed to connect riders between stations and major destination points. In addition, existing bus routes may be modified to include regular scheduled stops at station locations, particularly at multi-modal transportation facilities planned in Burbank and Glendale.

Table 5 Estimated Running Time						
Station/Line Section	Max. Speed	Dist. (mi.)	Cumulative Distance (mi.)	Running Time (min.)	Station-Station Time, including Dwelling	Elapsed Run Time (min.)
Burbank Airport-Hollywood Way		0.00	0.0	0.00	0.00	0.0
Buena Vista	55	0.81	0.8	1.21	1.54	1.5
Burbank City Centre	55	1.86	2.7	2.35	2.68	4.2
Northwest Glendale	55	1.88	4.6	2.37	2.71	6.9
Ventura Freeway	55	0.97	5.5	1.38	1.71	8.6
Broadway	45	0.59	6.1	1.03	1.36	10.0
Glendale Transportation Center	55	1.84	8.0	2.33	2.66	12.7
Glendale Freeway-Fletcher Drive	55	0.93	8.9	1.34	1.67	14.3
Taylor Yard	55	1.00	9.9	1.41	1.75	16.1
South Taylor Yard	45	1.00	10.9	1.57	1.91	18.0
Blue Line Junction	45	1.00	11.9	1.47	1.80	19.8
TOTAL FROM BURBANK AIRPORT TO BLUE LINE JUNCTION		11.88	11.9	16.46	19.79	19.8
To Chinatown Station	45	1.02	12.9	1.50	1.50	21.3
Downtown LAUPT	35	0.72	13.6	1.42	1.75	23.0
TOTAL FROM BURBANK AIRPORT TO DOWNTOWN LAUPT		13.62	13.6	19.71	23.04	23.0
Average Speed =						33.9 mph
SOURCE: Manuel Padron and Associates (MPA), November 1991.						
NOTES: Data includes:						
<ul style="list-style-type: none"> • Station dwell time = .33 minutes (20 seconds). • Maximum operating speed = 55 mph. • Acceleration and deceleration rates based on vehicle specifications for Long Beach to Los Angeles LRT vehicles. • Distance from Burbank Airport to Taylor yard derived from LACTC, 29 Oct 1991. Distance from Taylor Yard to Blue Line Junction assumes junction northeast of Los Angeles River (MPA). Distance from Chinatown to Union Station taken from Alternative #4 of Pasadena-Los Angeles Rail Transit Project (3 May 1990). 						

3.4 ROUTE ALIGNMENT

Extending from the Pasadena-Los Angeles rail line junction to the Burbank-Glendale-Pasadena Airport, the proposed rail transit alignment traverses three cities, four major economic activity centers, and a variety of cultural and entertainment nodes. The entire route, with possible variations in Taylor Yard, follows the existing Southern Pacific Transportation Corridor Right-of-Way that generally parallels San Fernando Road. The proposed rail alignment would be at-grade throughout, except at bridge crossings where the transit route spans various underpasses and the Arroyo Verdugo Wash. Ten at-grade stations are planned for the proposed project. Seven of the ten stations will provide park-and-ride facilities, accommodating a total buildout of 5,660 parking spaces adjacent to the rail transit stations.

The following sections describe and illustrate the characteristics of the Burbank-Glendale-Los Angeles light rail route alignment. In an attempt to provide a contextual setting for the alignment, visual and narrative descriptions have been provided to depict key features of the light rail transit corridor. For the purposes of analysis, the route alignment has been divided into six study areas:

- Burbank Golden State Redevelopment Area
- Burbank City Centre Redevelopment Area
- Northwest Glendale
- South Glendale-Atwater Village
- Glassell Park-Taylor Yard
- South Taylor Yard-Elysian Park

3.4.1 Burbank Golden State Redevelopment Area

This portion of the route extends from the alignment's tail tracks north of Hollywood Way to the Lockheed Aircraft properties south of Empire Avenue. Although residential neighborhoods such as the "Enclave" in the City of Burbank are located within 500 feet of the right-of-way, industrial and commercial office buildings predominately comprise the land uses adjacent to this portion of the route. The most prominent of these land uses is the Burbank-Glendale-Pasadena Airport, a major facility and primary destination point in the Golden State Redevelopment Area. In an effort to comply with Federal Aviation Administration (FAA) safety regulations, the Airport Authority is currently planning for future terminal relocation.

With respect to the route alignment, the light rail transit route would be located on the east side of the 100-foot SPTC right-of-way. Although major arterials such as Hollywood Way and San Fernando Boulevard have been grade-separated, the alignment would cross Buena Vista Street at-grade. It should be noted, however, that the City of Burbank is exploring the potential for grade-separating Buena Vista Street in the future. As the alignment proceeds south across the San Fernando Boulevard underpass, the route would require the relocation of the Commuter Rail Metrolink main lines and the construction of a new bridge that would facilitate both the light rail and commuter and freight rail tracks.

Stations in this segment have been planned at Hollywood Way and Buena Vista Street. The Burbank Airport-Hollywood Way Station would be located north of the Hollywood Way underpass. Because this station would be the terminus of the rail transit route, parking for up to 1,500 vehicles would be provided in an effort to serve as the principal park-and-ride facility for commuters travelling from points farther north in the San Fernando Valley and Santa Clarita. This parking reservoir would be constructed in multiple phases on a parcel currently utilized for parking on the northwest corner of Hollywood Way and San Fernando Road. The initial phase would accommodate approximately 500 vehicles, with pedestrian access to the station platform provided via a pedestrian bridge spanning San Fernando Boulevard. Parking at this station location could be provided in conjunction with a potential joint development project.

In contrast, the Buena Vista Station is intended to serve nearby multi- and single-family residential communities located east and west of Buena Vista Street. This station would still provide up to 60 parking spaces on a parcel located below Interstate 5. Currently used by Caltrans as a maintenance station, the parking facility would be connected to the station platform with an at-grade pedestrian crossing at Buena Vista Street.

PROJECT DESCRIPTION

The principal feature and primary point of destination along this segment of the route is the Burbank-Glendale-Pasadena Airport. Airport representatives estimate that 65 percent of its patrons are day-trip passengers conducting business in the East Valley region and Downtown Los Angeles. As such, the proposed project could potentially ease access to major economic activity centers such as the Burbank Media District, the Glendale Central Business District, and Downtown Los Angeles.



FIGURE 19

Burbank Airport

This view looking south along the SPTC right-of-way depicts the planned location of the Buena Vista station platform. Passengers would access the platform via a center-loading pedestrian ramp at the intersection of Buena Vista and the SPTC right-of-way. Although the proposed project traverses eight other at-grade street crossings, Buena Vista Street may be the most affected by the proposed light rail alignment due to its existing traffic volumes.

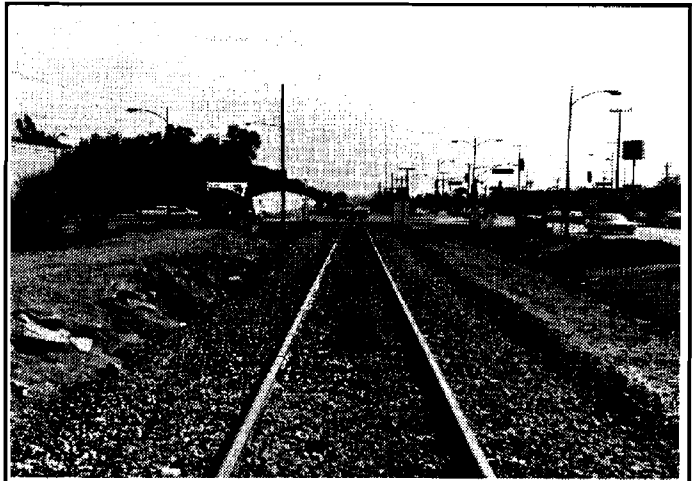


FIGURE 20

Buena Vista Street Crossing

The existing underpass shown in this photo would need to be rebuilt in order to accommodate the proposed project, as well as Commuter Rail Metrolink, Amtrak, and Southern Pacific freight rail service. The light rail alignment would continue to travel on the east side of the SPTC right-of-way.

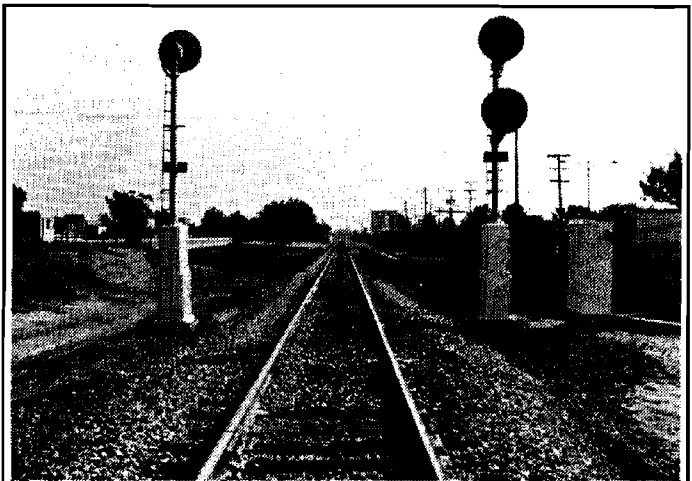


FIGURE 21

San Fernando Boulevard Underpass



LEGEND

0 400 800

1 BURBANK-GLENDALE-PASADENA AIRPORT

2 THE ENCLAVE

3 LOCKHEED AIRCRAFT SITE

SOURCE: PACIFIC AEROGRAPHICS, FEBRUARY 1990

GRAPHICS BY GRUEN ASSOCIATES

FIGURE 22
Burbank Golden State
Redevelopment Area

3.4.2 Burbank City Centre Redevelopment Area

This portion of the alignment travels along the western side of the Golden State Freeway until it veers southeasterly past Verdugo Avenue. Extending from the SP Coast Mainline Junction to the Western Avenue Bridge overcrossing, this segment is characterized by heavy industrial uses located directly adjacent to the light rail corridor. Among the businesses include the Andrew Jergens Company, Terry Lumber, and the City of Burbank Electrical Power Plant. However, away from the SPTC right-of-way, the land uses in the Burbank City Centre Redevelopment Area focus more on commercial- and civic-oriented activities. The major nodes of activity in this area include the Burbank Civic Center on Olive Avenue; the Golden Mall on San Fernando Boulevard; and the Media City Shopping Center north of Magnolia Boulevard.

With regard to the route alignment, the light rail corridor continues on the east side of the SPTC right-of-way, sharing the 100-foot transportation easement with a set of commuter and freight rail tracks, and an 8,000-foot siding that stretches from the San Fernando Boulevard underpass to the SP Coast Mainline Junction (**Figure 23**). The light rail alignment is at-grade throughout and grade-separated from every major arterial in this segment except Allen Avenue, which is located on the border of the Cities of Burbank and Glendale.

One station has been planned in this section of the route alignment. The City of Burbank has developed plans to create a multi-modal transportation facility that utilizes the site of the old Burbank Rail Depot. Located between the Magnolia Boulevard and Olive Avenue overpasses, the multi-modal center would at full buildout potentially include the following transportation facilities: LRT, Commuter Rail Metrolink, Amtrak service, bus bay transfer terminals, and an intracity monorail loop system station. Connection to the Burbank City Centre Redevelopment Area could be achieved via a shuttle bus system on Front Street or pedestrian bridge spanning the Golden State Freeway. Because this represents a major connection point along this corridor, a total of 1,300 parking spaces would be constructed for the combined use of LRT, Commuter Rail, and Amtrak passengers. The effects related to the development of the Burbank City Centre Multi-Modal Transportation Facility will be addressed in a separate site-specific project EIR that will be prepared by the City of Burbank.

PROJECT DESCRIPTION

This view of the SP Coast Mainline Junction depicts the location of the 8,000-foot siding that will be constructed as part of the Commuter Rail Metrolink project. This junction also represents the intersection of commuter rail lines arriving from Ventura County and Santa Clarita.

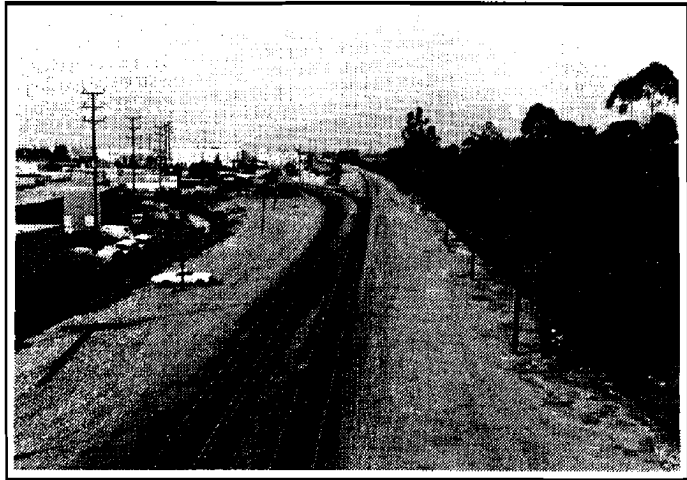


FIGURE 23

SP Coast Mainline Junction

The Burbank City Centre Redevelopment Area is currently a major destination point in the East Valley. Its primary draw is the Media City Shopping Center, anchored by a variety of major retail stores. Access to services in this area could be enhanced by establishing a pedestrian connection over the Golden State Freeway or routing a shuttle loop system along Front Street with stops at the Media City Shopping Center and Burbank Civic Center.

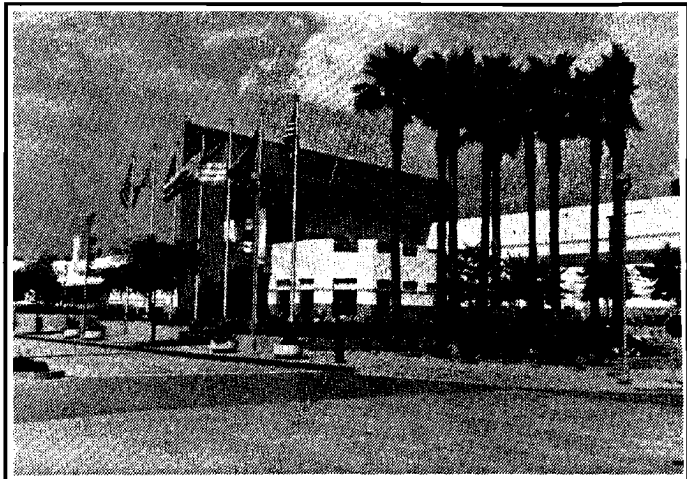


FIGURE 24

Media City Shopping Center

Although not directly served by the proposed project, the Burbank Media District, comprised of commercial office buildings and motion picture studios such as Warner Brothers, represents one of the study area's most significant commercial centers. Located 2.5 miles south of the Burbank City Centre Station, the Media District could be accessed by means of a shuttle bus service similar to the system currently in operation in the District.



FIGURE 25

Burbank Media District



SOURCE: PACIFIC AEROGRAPHICS, FEBRUARY 1990

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 26
Burbank City Centre
Redevelopment Area

3.4.3 Northwest Glendale

This portion of the alignment travels parallel to San Fernando Road from Sonora Avenue to Colorado Street. Northwest Glendale is characterized primarily by low density industrial uses and small storefront commercial businesses. However, in addition to the neighborhood commercial stores, business park offices, and furniture warehousing outlets, this segment of the rail transit route also contains a number of sensitive land uses. These include Pelanconi Park, located approximately 300 feet from the rail alignment; the Arroyo Verdugo Wash, which is significantly vegetated below the railroad bridge spanning it; and nearby residential areas such as the Pelanconi single-family neighborhood located east of the alignment, and the Neighbors West residential cluster located west of the route south of Sonora Avenue.

With respect to the rail transit route, the light rail corridor continues on the east side of the SPTC right-of-way. The light rail alignment is at-grade throughout, but grade-separated only at Western Avenue. At-grade intersections are located at Sonora Avenue, Grandview Avenue, Bekins Way, Doran Street, and Broadway. The Arroyo Verdugo Wash Bridge (**Figure 29**), located north of Fairmount Avenue, would need to be expanded in order to accommodate two sets of tracks -- one for light rail, and another set for commuter and freight rail service.

Three stations have been planned in this section of the route alignment. The Northwest Glendale Station would be located approximately 50 feet south of Sonora Avenue. Because this station is envisioned as both a destination center for employees working in the Grand Central Industrial Business Park area, and as a convenient service for nearby multi- and single-family residential neighborhoods, only kiss-and-ride facilities are planned for this site. In addition, the Northwest Glendale Station could provide convenient service to activity centers such as Griffith Park, the Los Angeles Zoo (**Figure 28**), and Gene Autry Western Heritage Museum via a shuttle bus service along Sonora Avenue and Riverside Drive. Pedestrian access to the station would be provided by a center-loading pedestrian ramp located at the intersection of the SPTC right-of-way and Sonora Avenue. In contrast to the destination-oriented Northwest Glendale Station, the Ventura Freeway Station would be geared toward serving commuters travelling from points farther east. In an effort to serve commuter needs, a total of 500 parking spaces have been planned for this station site. These spaces would be constructed in multiple phases on a parcel located on the southeast corner of Doran Street and San Fernando Road. The initial phase calls for the development of 250 surface parking spaces. Bus bay and passenger dropoff areas may also be incorporated at this station location. The station platform would be situated directly south of Doran Street. The third station site in this segment of the alignment is planned south of Broadway. Located approximately a half mile south of the Ventura Freeway Station, the Broadway station platform would serve as a potential Central Business District connector point. The station could be accessed via a Glendale Beeline shuttle route that would travel north on San Fernando Road then east on Broadway. A bus turnout would be provided on the east side of San Fernando Road, with pedestrian access to the station platform provided by a ramp located at the intersection of the SPTC right-of-way and Broadway.

PROJECT DESCRIPTION

Constructed in 1928, the Grand Central Air Tower stands as the only physical remainder of the former Glendale Grand Central Airport and Cal-Aero Technical Institute. The site, located on Air Way between Grandview and Sonora Avenues, could potentially serve as a dropoff area and shuttle service stop.

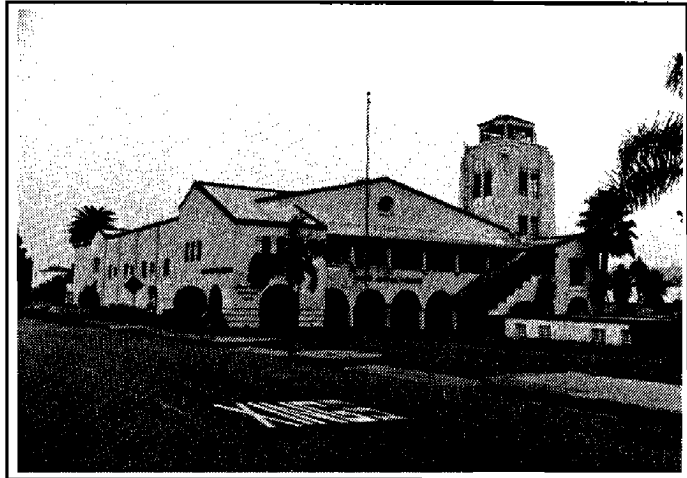


FIGURE 27

Grand Central Air Tower

Beginning operation in 1966, the Los Angeles Zoo remains one of the region's leading entertainment centers. Located in Griffith Park opposite the Gene Autry Western Heritage Museum, the Zoo attracts approximately 1.8 million visitors annually. These facilities could be served by a shuttle service from the Northwest Glendale Station that would operate along Sonora Avenue-Riverside Drive to Zoo Drive.

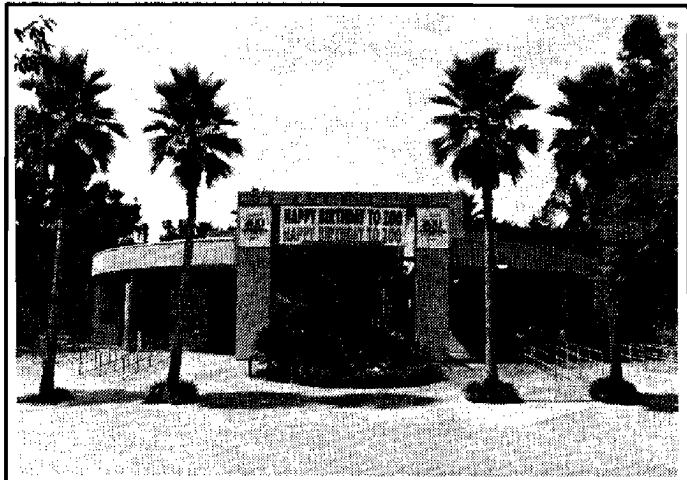


FIGURE 28

Los Angeles Zoo

This photo illustrates the Arroyo Verdugo Wash Bridge, with the Ventura Freeway in the background. The Bridge would require expansion in order to facilitate both LRT use, and Commuter and Freight service. The station platform for the Ventura Freeway Station would be located on the opposite side of the freeway in an effort to avoid engineering constraints, and improve safety and security at this station location.

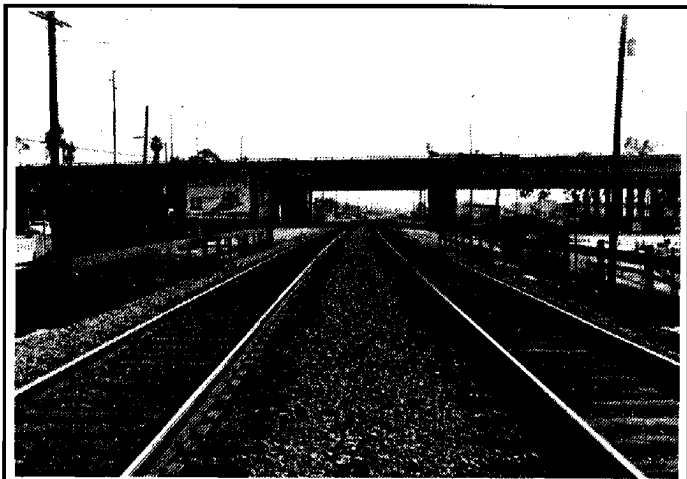


FIGURE 29

Verdugo Wash Bridge Overcrossing



SOURCE: PACIFIC AEROGRAPHICS, FEBRUARY 1990

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 30
Northwest Glendale

3.4.4 South Glendale-Atwater Village

This segment of the alignment travels parallel to San Fernando Road, approximately 800 to 1,000 feet west of the arterial. The South Glendale-Atwater Village area is predominately comprised of heavy manufacturing and warehousing uses such as the Ralph's Warehousing Facility (Figure 31), the Hughes Market Distribution and Warehousing Center, and the Stor-N-Lok Storage Facility. Other major land uses in the study area include the Glendale Transit Center Specific Plan area, the Glendale Galleria, and Forest Lawn Memorial Park. The South Glendale-Atwater Village area also contains a large residential population living in close proximity to the proposed rail alignment. However, only one residential cluster, located along Gardena Avenue in South Glendale (Figure 33), is directly adjacent to the light rail corridor.

With respect to the route alignment, the rail transit route continues on the east side of the SPTC right-of-way. The light rail alignment is at-grade throughout and grade-separated at major arterials such as Colorado Street, Los Feliz Road, and Brand Boulevard. Two at-grade crossings take place at the smaller collector streets of Goodwin Avenue and Chevy Chase Drive. As the alignment passes through the Glendale Transportation Center, the SPTC right-of-way diminishes from 100 to 75 feet. Thus, it will be necessary to relocate the existing tracks used by Southern Pacific and Amtrak in order to provide room for the LRT tracks. This can be accomplished within the 75-foot right-of-way by acquiring a narrow strip of land within the SPTC corridor.

One station has been planned in this section of the route alignment. The City of Glendale has developed plans to establish a centralized, municipal transportation facility that, at full buildout, would support the following modes of transportation: LRT, Commuter Rail Metrolink, Amtrak service, SCRTD and Greyhound bus bay transfer terminals, and the Glendale Beeline Shuttle. Located at the western terminus of Cerritos Avenue, plans for the Glendale Transportation Center include rehabilitation of the Old Rail Depot; construction of a parking structure along Gardena Avenue; construction of a single, center-loading platform that will serve both Commuter Rail and Amtrak passengers; and placement of the LRT station platform 300 to 400 feet south of the existing rail depot. Because this station is envisioned as a primary connection point between some of the study area's major centers, a total of 1,500 parking spaces, 900 in its initial phase, would be constructed for the combined use of LRT, Commuter Rail, and Amtrak passengers. The effects related to the development of the Glendale Transportation Center will be addressed in a separate site-specific project EIR that will be prepared by the City of Glendale.

PROJECT DESCRIPTION

This aerial view depicts the skyline of Glendale's Central Business District. The growth of Downtown Glendale began in the early 1970s with the establishment of the Glendale Redevelopment Project. Today, this approximately 270-acre area is one of the State of California's largest financial centers. The proposed rail transit alignment could serve the Central Business District via a shuttle system that could transport rail passengers from stations at Broadway and the Glendale Transportation Center to Downtown Glendale.

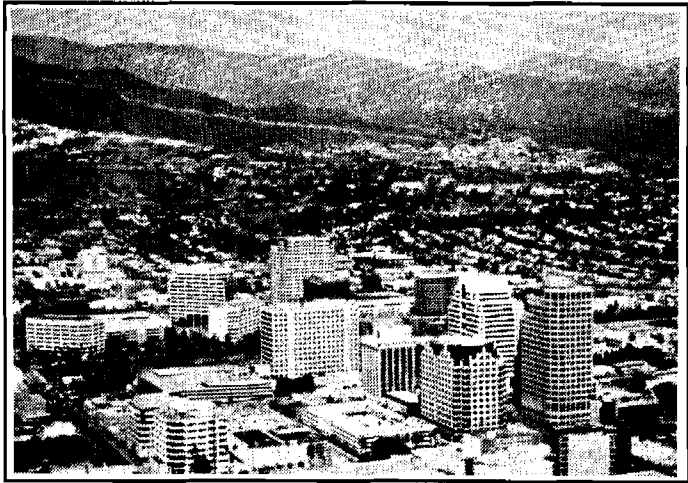


FIGURE 31

Downtown Glendale

The Glendale Rail Depot, constructed in 1923, would be the focal point of the Master Plan developed for the area surrounding the structure. Built to replace the City's original 1883 depot, the existing structure has been designed in the Spanish-Colonial Revival style. The Rail Depot will continue to function as an Amtrak station; however, the LRT station platform will be located 300-400 feet to the south, and the proposed parking structure 500 feet to the north.



FIGURE 32

Glendale Rail Depot

This view illustrates the proximity of the SPTC right-of-way to the only residential structures directly adjacent to the proposed rail alignment. This mix of multi- and single-family housing units are located in South Glendale along Gardena Avenue between Topock and Tyburn Streets.



FIGURE 33

South Glendale Residential Community



SOURCE: PACIFIC AEROGRAPHICS, FEBRUARY 1990

GRAPHICS BY GRUEN ASSOCIATES



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LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 34
South Glendale -
Atwater Village

Taylor Yard Station

Although it can be expected that the Taylor Yard Station would primarily serve many of the residents in the nearby residential communities, 300 parking spaces are also planned for this site to accommodate commuters in the Northeast Los Angeles area. Like the Glendale Freeway Station, two alternative sites are being analyzed: 1) at Division Street, and 2) within the LACTC-owned Parcel C property near Arvia Street.

The Division Street alternative would be located within Taylor Yard near the existing Southern Pacific maintenance yard. It would require the purchase of approximately 10 acres to accommodate 300 surface parking spaces and a kiss-and-ride facility. Access to the site would be provided via an extension of Division Street from San Fernando Road.

The Arvia Street alternative would utilize property owned by LACTC in Taylor Yard. A similar site design used at Division Street would be employed at this site, with the station platform located within the Southern Pacific Transportation Corridor just south of the SP Maintenance Yard.

The selection of the Taylor Yard station site is related to the outcome of other on-going studies affecting Taylor Yard, including the Development Study being conducted by LACTC in conjunction with the Los Angeles Community Redevelopment Agency (CRA); the Addendum to the Pasadena-Los Angeles Light Rail EIR which is evaluating alternative yard locations for that project; and planning efforts being conducted by the Los Angeles City Planning Department and CRA, Los Angeles Police Department, Los Angeles County Public Works Department, United States Army Corps of Engineers, and American Institute of Architects.

PROJECT DESCRIPTION

This view from the Fletcher Drive overpass depicts the proximity between the SPTC right-of-way and the Van de Kamp's Building. The station platform for this alternative would be constructed in the foreground, while the park-and-ride parking structure would be built in the space between the right-of-way and the building.

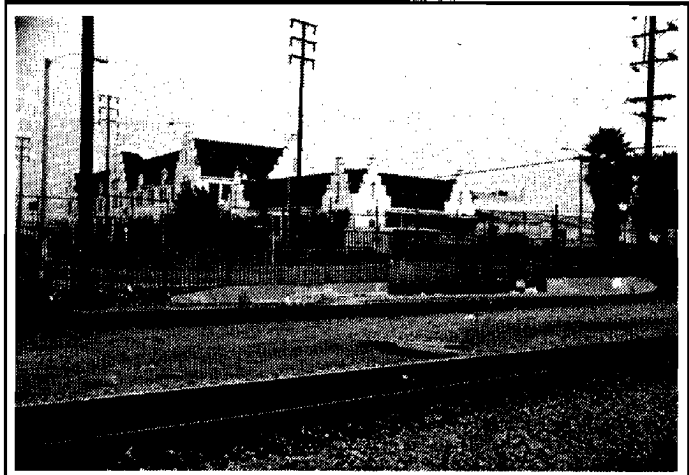


FIGURE 35

Van de Kamp's Bakery Building

Looking south toward the Glendale Freeway and Taylor Yard, this photo depicts the location of the light rail corridor as it veers westerly toward the Los Angeles River. The alignment begins to gently curve around the freeway column on the right, and continues on the east side of the 75-foot LACTC-owned transportation corridor through Taylor Yard.

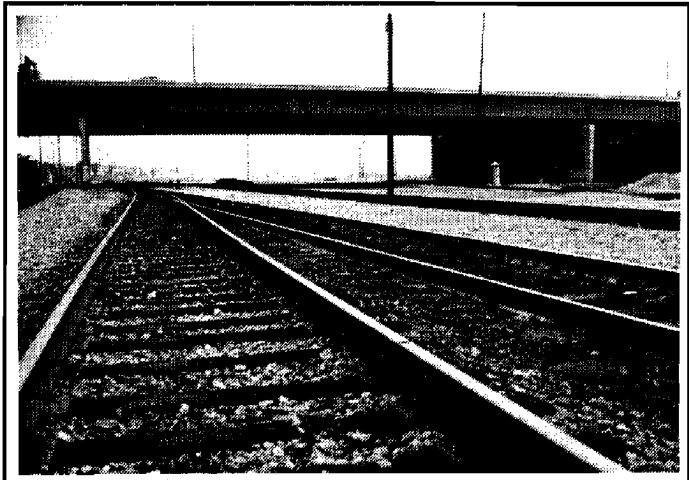


FIGURE 36

Glendale Freeway Overpass

The Glassell Park-Taylor Yard study area is bounded on the east and west by older, single-family neighborhoods such as Glassell Park, Mount Washington, and Elysian Village. Because many of the residents in this community depend highly on mass transit, it can be expected that the proposed rail alignment would provide a substantial benefit to residents in the area.



FIGURE 37

Glassell Park Residential Community



LEGEND

0 400 800

- 1 TAYLOR YARD
- 2 GLASSELL PARK RESIDENTIAL COMMUNITY
- 3 PATER NOSTER HIGH SCHOOL
- 4 SEYMOUR CYPRESS PARK

SOURCE: PACIFIC AEROGRAHICS, FEBRUARY 1990

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 38
Glassell Park -
Taylor Yard

3.4.6 South Taylor Yard-Elysian Park

As illustrated in **Figure 42**, this segment of the alignment stretches from South Taylor Yard to the route's terminus at the Pasadena-Los Angeles rail line junction. The characteristics of the South Taylor Yard-Elysian Park study area largely mirror those of the Glassell Park-Taylor Yard segment: a predominately industrial corridor along San Fernando Road with pockets of older, single-family neighborhoods. The South Taylor Yard area is, however, distinguished by the presence of the Lawry's California Center (**Figure 39**). Located at the intersection of Avenue 26 and San Fernando Road, the Center opened operations in the 1950s, and has remained a popular attraction for tourists, school groups, and area residents and workers since its restaurants and shops open in the mid-1970s. The site and facility could potentially be the focus of a joint development project that combines a destination activity center serviced by the proposed light rail alignment.

With respect to the route alignment, the light rail corridor travels parallel to San Fernando Road and proceeds on the east side of the SPTC right-of-way. An additional 3 feet of street right-of-way needs to be acquired for a 775-foot stretch located approximately 650 feet south of Avenue 26. At the Riverside Drive Bridge overcrossing, the Burbank-Glendale-Los Angeles Rail Transit Project joins with the Pasadena-Los Angeles Rail Transit Project to provide through service to the Los Angeles Union Passenger Terminal in Downtown Los Angeles.

A station platform has been planned along the straight tangent that runs parallel to San Fernando Road near Avenue 19. Because this station is envisioned more as a destination center and community-serving location, only a station platform has been planned at this time. A joint development project on the Lawry's California Center site could include potential future park-and-ride facilities.

PROJECT DESCRIPTION

Located at the intersection of Avenue 26 and San Fernando Road, the Lawry's California Center opened in the 1950s and has been one of the Southland's popular attractions since the mid-1970s. Currently available for sale, the site and facility could potentially be adaptively reused through a joint development venture. Transit service to the site could be provided by a light rail station approximately 650 feet south of the Center's main entrance.

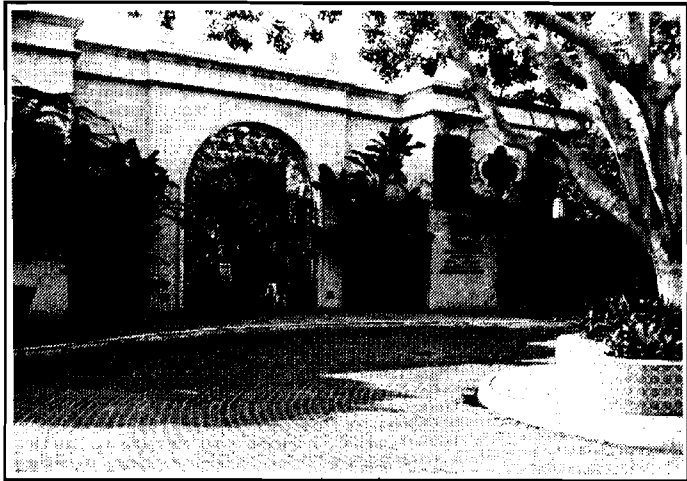


FIGURE 39

Lawry's California Center

This view looks north from the Riverside Drive Bridge overcrossing; the Golden State Freeway is in the background. The alignment would continue on the east side of the LACTC-owned right-of-way, adjacent to San Fernando Road.

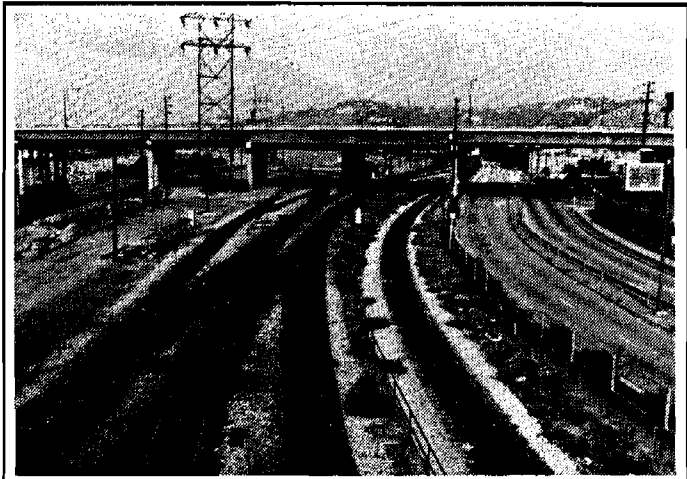


FIGURE 40

Riverside Bridge Overcrossing

This view looks northeast from Midway Yard. The old Los Angeles City Jail (background) would be displaced in order to accommodate the track alignment and connection between the proposed project and the Pasadena-Los Angeles rail line. Environmental clearance and engineering analysis for the proposed rail alignment would end at this junction.

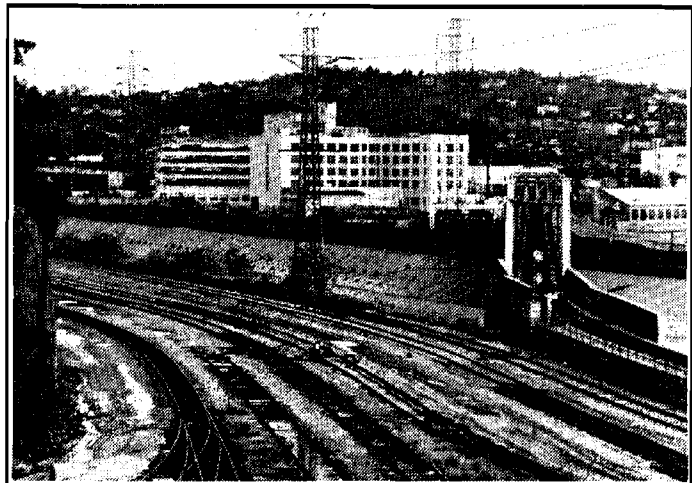


FIGURE 41

Pasadena-Los Angeles Rail Line Junction



LEGEND

0 400 800

- 1 LAWRY'S CALIFORNIA CENTER
- 2 SEYMOUR CYPRESS PARK
- 3 MT. WASHINGTON RESIDENTIAL COMMUNITY
- 4 ELYSIAN PARK
- 5 DODGER STADIUM
- 6 CHINATOWN
- 7 CORNFIELD YARD

SOURCE: PACIFIC AEROGRAPHICS, JANUARY 1992

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 42
South Taylor Yard -
Elysian Park

CHAPTER 4.0

ENVIRONMENTAL SETTING

Based on forecasts by the Southern California Association of Governments (SCAG), growth projections for the East San Fernando Valley and North Los Angeles estimate that the region will exhibit relatively significant increases to both its population and employment sectors. In addition, growth in adjacent communities such as Conejo, Santa Clarita, Antelope, and Simi Valleys will create growth that would cumulatively increase densities in the region. Due to the existing constraints related to built-out urban areas, growth in both the proposed project's study area as well as in outlying areas can be expected to create a variety of different problems, many of which are related to transportation.

The purpose of this chapter is to present an overview of the existing regional and subregional environmental setting as it relates to the proposed rail transit project. Due to the urban nature of growth within the Southern California Region and more specifically, the project corridor study area, this chapter also provides an overview of the environmental setting as it is projected to evolve in the future.

4.1 REGIONAL ENVIRONMENTAL SETTING

The proposed rail alignment is situated in the Southern California planning region. Generally defined by the six-county area of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial Counties, this region collectively covers an area in excess of 38,500 square miles. The majority of the region's population lives in the Los Angeles Basin between the San Gabriel Mountains and the Pacific Ocean. The Burbank-Glendale-Los Angeles Rail Transit Project is located in the East Valley and North Los Angeles (**Figure 1, Chapter 1.0**). This area generally encompasses the East San Fernando Valley, and cities and communities such as Sun Valley, Burbank, Glendale, and Northeast Los Angeles that are nestled in the foothills of the Verdugo Mountains and San Rafael Hills. Although often still perceived as a suburban area, the study area is in fact highly urbanized and built out, with most of its necessary infrastructure and public services in place. The proposed rail alignment would be located in a predominately industrial corridor surrounded by low to medium density residential communities.

Encompassing an area approximately 128 square miles in size, the proposed project's study area is separated from the Los Angeles coastal basin by the Santa Monica Mountains. Situated north of Downtown Los Angeles, the topography of the East Valley is comprised primarily of flatlands and foothills. The most notable exceptions are the Adams Hill and Mount Washington landforms located in South Glendale and Northeast Los Angeles. From a seismic standpoint, a number of known surface and subterranean faults have been identified in the East Valley. Among these include such surface faults as the Tujunga Fault, Verdugo Faults, and Sierra Madre Fault, and two subterranean faults -- the Elysian Park Fault Zone and Santa Ynez-San Gabriel Fault Zone (refer to Section 4.2).

ENVIRONMENTAL SETTING

In addition to these topographic features, the East Valley also contains other significant environmental features. Major public open spaces such as Griffith Park (Los Angeles Zoo, Western Heritage Museum, and golf courses), Elysian Park (parkland and Dodger Stadium), and Brand Park are all located within the study area. The area also has a number of influential drainage courses. These include the Los Angeles River, Arroyo Verdugo, Arroyo Seco, and Burbank Western Channel. Each of these watercourses convey storm drain and outfall in lined, concrete channels. Although these channels do not contain much vegetation, the portion of the Los Angeles River south of its merger with the Arroyo Verdugo exhibits a riparian quality and could potentially support various plant and animal life.

4.2 GEOTECHNICAL AND SEISMIC CHARACTER

The proposed rail transit alignment consists of relatively flat topography, sloping gently downward to the southeast. Comprised of some minor landforms, the rail transit route is located on a recently deposited alluvial fan which is associated with the Tujunga-Soboba and Hanford formations. The alignment traverses thick, historic, and Quaternary sandy and gravelly alluvial soils, interspersed with predominately local alluvial boulder deposits from the washes that drain the San Gabriel and Verdugo Mountains.

Although the proposed alignment crosses a Los Angeles Department of City Planning Fault Rupture Zone (1975), no portion of the rail transit route is located within an Alquist-Priolo Special Studies Zone. As previously stated, the closest known faults to the alignment include the Eagle Rock Fault and the Verdugo Fault, located within approximately two miles of the proposed rail alignment. The juncture of the proposed rail line with the Pasadena-Los Angeles Rail Transit Project at its southern terminus lies within an area having moderate potential for liquefaction.

4.3 HYDROLOGIC CHARACTER

Aside from the Los Angeles River, no major surface water bodies are in close proximity to the proposed alignment. Groundwater levels in the vicinity of the proposed project vary from approximately 100 to 70 feet in depth along the western portion of the alignment to approximately 50 to 10 feet in depth along the easternmost portion. Groundwater in the study area generally flows to the southeast. Although the majority of the project alignment is not subject to flooding, the City of Burbank has identified a small area near the intersection of Chandler and Victory Boulevards as subject to flooding. Those portions of the alignment in the City of Los Angeles have been classified by the Federal Emergency Management Agency (FEMA) as Zone C, which has little or no flood hazard potential.

4.4 DEMOGRAPHIC CHARACTERISTICS

The data used in establishing the demographic characteristics of the study area have been derived from SCAG Traffic Analysis Zones (TAZ) in the context of population and employment densities in 1987 and those projected in 2010. The data has been utilized to depict the potential residents and workers that may be served by the Burbank-Glendale-Los Angeles Rail Transit Project.

Although the East Valley generally consists of those communities situated adjacent to the Verdugo Mountains and San Rafael Hills, the following discussion of the proposed project's demographic context also takes into consideration areas that influence the potential ridership of the proposed rail transit alignment. Among the areas included in the demographic context are the City of Burbank, the City of Glendale, and the City of Los Angeles Community Planning areas of Sun Valley, Northeast, Central Business District, City North, Silver Lake-Echo Park, and Sunland-Tujunga-Lakeview Terrace-Shadow Hills. Figure 43 illustrates the proposed project's area of influence in relation to the Southern California region.

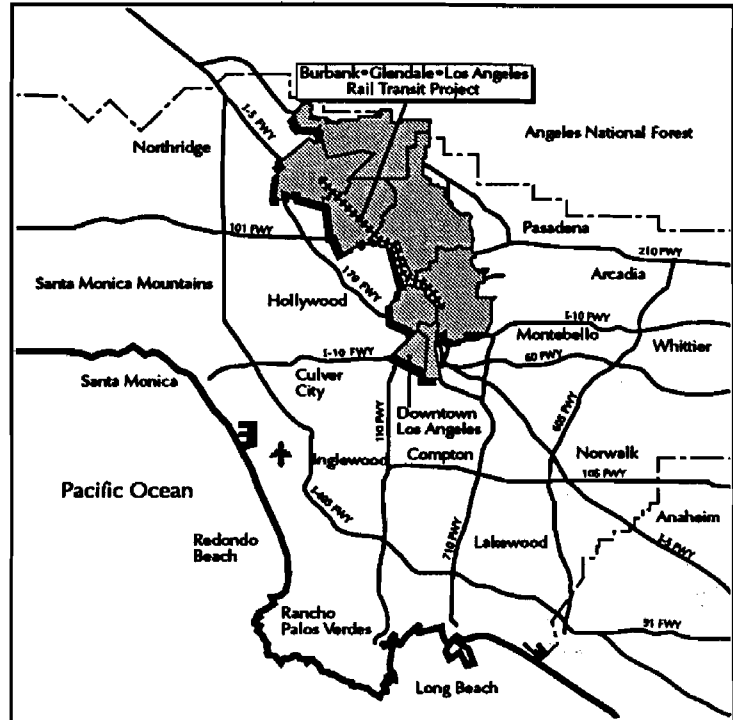


FIGURE 43 Proposed Project's Area of Influence
SOURCE: Gruen Associates

4.4.1 Population

As depicted in Table 6, growth projections indicate that the population of the Burbank-Glendale-Los Angeles light rail corridor study area can be expected to increase from approximately 710,000 residents in 1987 to nearly 835,000 by the year 2010 (an increase of 17.5 percent). Currently, more than half of the corridor's total population resides in the City of Glendale or the Northeast Los Angeles neighborhoods of Glassell Park, Atwater Village, Cypress Park, and Mount Washington. Although these communities contain the largest number of residents, they do not have the highest population density. Due in large part to its high concentration of residents in South Park, Bunker Hill, and Central City East, the Los Angeles Central Business District has the highest total of residents per acre. Other areas which currently have medium

to high density residential zones include multi-family oriented neighborhoods in Central City North, Echo Park, and Southeast Glendale. By 2010, Downtown Los Angeles will continue to have the highest residential density in the study area, but will also be joined by new medium to high density neighborhoods in Northeast Los Angeles, Central Glendale, and Northeast Burbank.

**Table 6
Corridor Population Growth: 1987 - 2010**

LOCATION	ACRES	POPULATION		1987 POP/ ACRE	2010 POP/ ACRE	PERCENT INCREASE 1987-2010
		1987	2010			
CITY OF BURBANK	10,833	91,040	111,860	8.4	10.3	22.9%
CITY OF GLENDALE	19,705	162,836	191,442	8.3	9.7	17.6%
CITY OF LOS ANGELES Central Business District	2,385	49,336	61,263	20.7	25.7	24.2%
CITY OF LOS ANGELES Central City North	1,434	20,130	28,484	14.0	19.9	41.5%
CITY OF LOS ANGELES Northeast	15,211	198,615	221,819	13.1	14.6	11.7%
CITY OF LOS ANGELES Silver Lake-Echo Park	5,011	71,325	79,876	14.2	15.9	12.0%
CITY OF LOS ANGELES Sun Valley	13,121	58,786	68,564	4.5	5.2	16.6%
CITY OF LOS ANGELES Sunland-Tujunga-Lakeview Terrace-Shadow Hills	14,195	58,295	71,129	4.1	5.0	22.0%
TOTALS	81,895	710,363	834,437	8.7	10.2	17.5%

SOURCE: Gruen Associates. Adapted from data supplied by Southern California Association of Governments.

4.4.2 Employment

The Burbank-Glendale-Los Angeles Rail Transit Project study area contains some of Southern California’s most prominent economic activity centers. In addition to Downtown Los Angeles, the study area also includes the following major mixed-use employment centers: the Burbank-Glendale-Pasadena Airport area, Burbank Media District, Burbank City Centre, and Glendale Central Business District. Moreover, this area also houses two of the region’s largest retail centers: the Glendale Galleria and the Burbank Media City Shopping Center.

The East Valley and North Los Angeles are expected to experience significant growth to its employment base by the year 2010. As of 1987, nearly 625,000 persons worked in the area. By 2010, more than 750,000 persons are projected to be employed within the rail transit corridor’s 128-square mile study area (an increase of 21 percent). As illustrated in Table 7, the highest employment densities are centralized in Downtown Los Angeles. While Downtown’s Central Business District will remain the major employment center being served by the proposed

rail alignment, the current and continued growth of existing and future economic nodes such as Glendale's Downtown Redevelopment Area and Grand Central Industrial Park, and Burbank's Media District, Golden State Redevelopment Area, and Civic Center also represent other major destination points that would be served by the proposed rail transit project.

LOCATION	ACRES	EMPLOYMENT		1987 EMP/ ACRE	2010 EMP/ ACRE	PERCENT INCREASE 1987-2010
		1987	2010			
CITY OF BURBANK	10,833	90,291	119,852	8.3	11.0	32.5%
CITY OF GLENDALE	19,705	90,270	110,010	4.6	5.6	21.9%
CITY OF LOS ANGELES Central Business District	2,385	262,014	312,879	109.9	131.2	19.4%
CITY OF LOS ANGELES Central City North	1,434	30,488	33,395	21.3	23.3	9.5%
CITY OF LOS ANGELES Northeast	15,211	92,471	111,859	6.1	7.4	21.0%
CITY OF LOS ANGELES Silver Lake-Echo Park	5,011	15,198	19,199	3.0	3.8	26.3%
CITY OF LOS ANGELES Sun Valley	13,121	35,510	38,478	2.7	2.9	8.4%
CITY OF LOS ANGELES Sunland-Tujunga-Lakeview Terrace-Shadow Hills	14,195	6,802	8,468	0.5	0.6	24.5%
TOTALS	81,895	623,044	753,940	7.6	9.2	21.0%

SOURCE: Gruen Associates. Adapted from data supplied by Southern California Association of Governments.

4.4.3 Jobs-Housing Balance

The term "jobs-housing balance" refers to the planning concept which implies that local jurisdictions should ideally provide for approximately an equal mix of housing and employment opportunities. A balance between employment and housing occurs when workers live in closer proximity to housing affordable at the wages they earn; this thereby reduces travel distances to both their place of employment and services they use. The concept can also be defined as the opportunity to reduce the quantity of vehicle miles travelled (VMT) per capita for the area and individual communities.²

² City of Los Angeles. *Development of a Jobs/Housing Balance Strategy for the City of Los Angeles*, Department Memorandum, March 7, 1990; Revised May 21, 1990.

ENVIRONMENTAL SETTING

A balanced planning area in Southern California is technically defined as having an employment to housing ratio of 1.27 in 1984 and a desired 1.20 ratio by 2010 (the regional average). Job-rich subregions have ratios substantially greater than the regional average and housing-rich subregions have substantially lower ratios. The balanced jobs-housing concept assumes that the greater number of people living close to their place of employment will decrease the length and number of daily commuting trips. This could potentially reduce traffic congestion and the resulting air pollution. The goal of the jobs-housing balance is to conform to state and federal air quality standards through the reduction of automobile-produced pollutants, as well as to increase mobility by reducing total VMT.

The Southern California Association of Governments (SCAG) has developed an implementation process that involves options at the state, regional, or local level to support the jobs-housing balance. SCAG forecasts that "urbanizing" areas, the mountain and desert regions, will likely support the greatest housing increase (68%). As for employment opportunities, 57 percent of all new jobs are predicted to occur in the presently "urbanized" areas by 2010 (Table 8). Without future policy intervention, the jobs-housing ratio can be expected to become more biased over the next decades.

Table 8			
Jobs-Housing Balance Projections, 1984-2010			
Category	Area	1984	2010
Urbanized	San Fernando Valley	1.28	1.26
Urbanized	Glendale-Pasadena	1.10	1.15
Urbanized	Central Los Angeles	1.85	1.82
J-H Ratio for Urbanized Areas		1.40	1.42
Urbanizing	North Los Angeles	0.71	0.72
J-H Ratio for Urbanizing Areas		1.06	1.07
Source: SCAG, Growth Management Forecasts, 1989.			

As depicted in Table 9, the jobs to housing ratio for the proposed rail alignment's study area was 2.22 in 1987 and is expected to decrease slightly to 2.20 in 2010. Because the study area takes into consideration Downtown Los Angeles, the jobs to housing ratio heavily tilts toward employment opportunities. Without the influence of Downtown Los Angeles, the jobs-housing balance for the study area drops to a more equal, but still employment-oriented ratio of 1.41 in 1987 and 1.42 by 2010. Of the communities identified in Table 9, the City of Glendale and

Northeast Los Angeles Community Planning area exhibit the most equal balance between employment and housing. Downtown Los Angeles, Los Angeles Central City North, Sun Valley, and the City of Burbank are job-rich, while the neighborhoods of Silver Lake, Echo Park, Tujunga, Sunland, Lakeview Terrace, and Shadow Hills show an imbalance toward housing.

The importance of the characterization of communities as job- or housing-rich relates to the potential for increased trip lengths which affect traffic congestion and air pollution. The balance also has implications for future development options where it may be desirable to encourage housing construction in job-rich areas and employment opportunities in residentially-oriented communities. The development of a more balanced distribution of jobs and housing would conserve energy through the reduction of gasoline consumption, the curtailment of urban sprawl, and the preservation of public open spaces.

Table 9 Jobs to Housing Ratios: 1987-2010						
LOCATION	1987			2010		
	HOUSING	EMPLOYMENT	J/H RATIO	HOUSING	EMPLOYMENT	J/H RATIO
CITY OF BURBANK	38,221	90,291	2.36	48,051	119,652	2.49
CITY OF GLENDALE	67,295	90,270	1.34	79,521	110,010	1.38
CITY OF LOS ANGELES Central Business District	24,297	262,014	10.78	32,135	312,879	9.74
CITY OF LOS ANGELES Central City North	11,260	30,488	2.71	15,124	33,395	2.21
CITY OF LOS ANGELES Northeast	71,117	92,741	1.30	83,888	111,859	1.33
CITY OF LOS ANGELES Silver Lake-Echo Park	28,947	15,198	0.53	33,289	19,199	0.58
CITY OF LOS ANGELES Sun Valley	19,456	35,510	1.83	23,355	38,478	1.65
CITY OF LOS ANGELES Sunland-Tujunga-Lakeview Terrace-Shadow Hills	20,679	6,802	0.33	27,280	8,468	0.31
TOTALS	281,272	623,314	2.22	342,643	753,940	2.20
SOURCE: Gruen Associates. Adapted from data supplied by Southern California Association of Governments.						

4.5 LAND USE





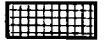

The Burbank-Glendale-Los Angeles Rail Transit Project lies within the corporate limits of the City of Burbank, City of Glendale, and the City of Los Angeles Community Planning areas of Sun Valley and Northeast Los Angeles. The vast majority of the East Valley consists of single- and multi-family residential communities. As illustrated in **Figure 44**, the built form of the East Valley depicts the close proximity of medium to high density dwelling units to commercial- and industrial-oriented land uses. The area is, however, defined by lower density, single-family neighborhoods located near the foothills of the Verdugo Mountains and San Rafael Hills, as well as in Sun Valley and the Northeast Los Angeles communities of Atwater Village, Glassell Park, and Mount Washington.

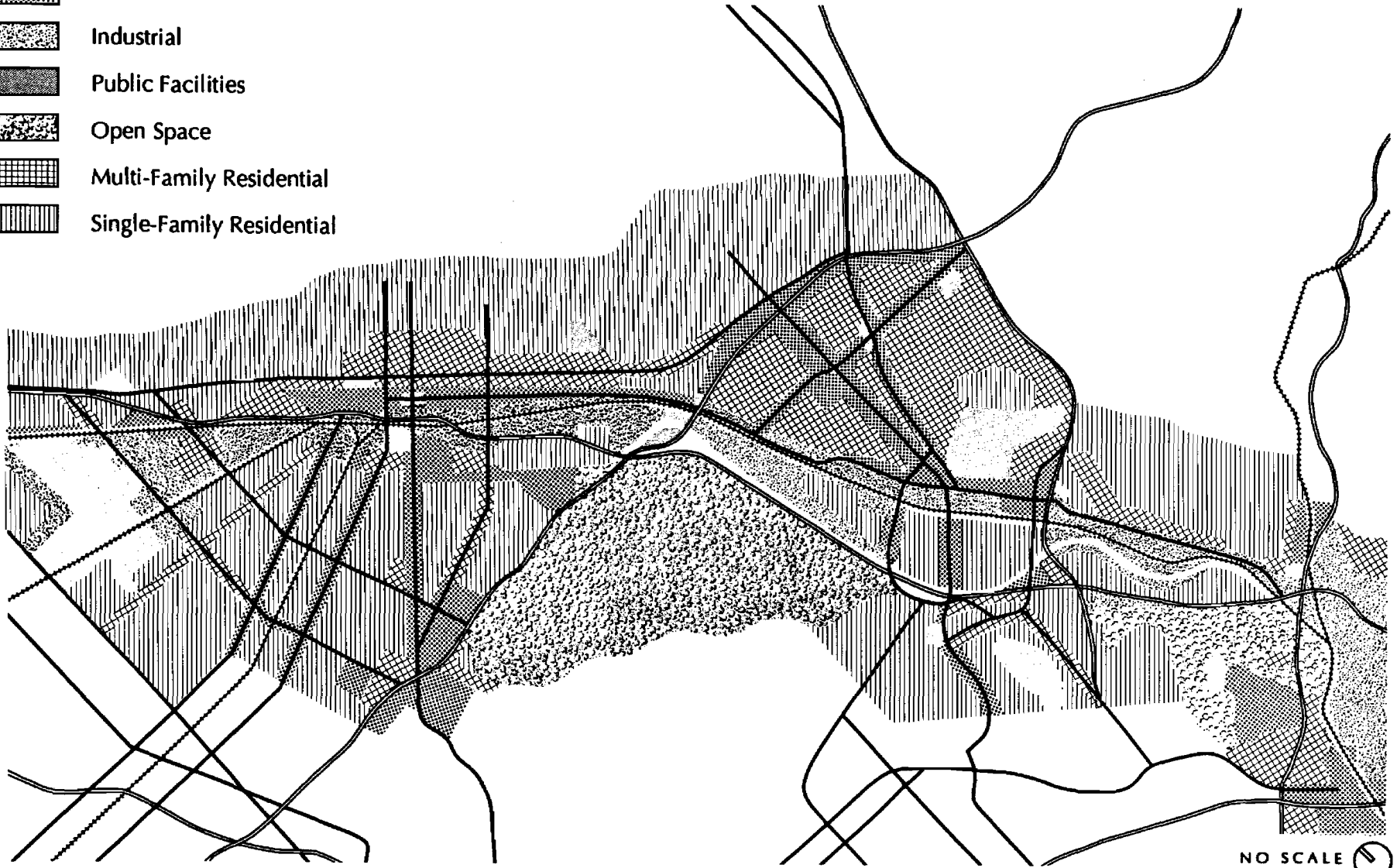
Although the East Valley is largely recognized for its residential neighborhoods, major medium density, mixed-use centers have developed in the Burbank-Glendale-Pasadena Airport area, Burbank Civic Center, Glendale Grand Central Industrial Business Park, along Brand Boulevard in Downtown Glendale, and along San Fernando Road in Atwater Village. In addition, high-rise office development during the past decade has created concentrations of office towers in the Burbank Media District and the Glendale Central Business District. Yet despite the significant amount of commercial activity in the East Valley, the area still maintains a large portion of public open space. Among these open spaces include Brand Park in Glendale, and Griffith Park and Elysian Park in Northeast Los Angeles.

With respect to the built environment that surrounds the proposed rail alignment, the existing Southern Pacific Transportation Corridor (SPTC), from Taylor Yard to the Burbank Airport, is enveloped on each side by industrial and manufacturing uses. The area between Taylor Yard and the Northwest Glendale Station is characterized primarily by low to medium intensity industrial uses related to furniture manufacturing and supermarket warehousing. In the Burbank portion of the alignment, general manufacturing uses are located adjacent to the SPTC right-of-way. Although many of these uses are associated with the aerospace industry, other adjacent properties engage in furniture and product manufacturing. In addition, the City of Burbank utilizes various sites along the right-of-way for public service uses such as water reclamation, electrical power, and maintenance facilities.

With regard to sensitive land uses, the Gardena Avenue neighborhood in South Glendale represents the only residential pocket directly adjacent to the route corridor. Other residential neighborhoods located between Taylor Yard and Northwest Glendale that could be affected by the proposed project include those surrounding the Glendale Transportation Center and Northwest Glendale stations. Residential clusters in the Atwater Community of the City of Los Angeles could also be affected by the proposed project due to their relative proximity to the rail transit route, as could the AAA Trailer Park on San Fernando near Seymour Cypress Park. Within the City of Burbank and the Sun Valley community of the City of Los Angeles, two distinct residential neighborhoods may be affected by the proposed project: 1) The Enclave, located in the City of Burbank's Golden State Redevelopment Area along Thornton Avenue, and 2) the residential area located north and east of the Burbank Airport-Hollywood Way station.

LEGEND

-  Commercial
-  Industrial
-  Public Facilities
-  Open Space
-  Multi-Family Residential
-  Single-Family Residential



71

NO SCALE 

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 44
Generalized
Existing Land Use

4.6 TRANSPORTATION

According to SCAG's *San Fernando Valley Area Study (Short Range Transportation Improvements, 1986)*, recent growth trends have transformed the East Valley from a bedroom-type community into a more self-sufficient subregion which has achieved an overall balance between population and employment opportunities. A majority of the jobs in the study area (63 percent) are occupied by Valley residents.

With respect to commuting trips destined outside of the project study area, the area west of Downtown Los Angeles represents the most significant destination. Accounting for nearly 40 percent of all work trips originating from the project study area, the major destination points include Mid-Wilshire, Culver City, Beverly Hills, and Hollywood. Other destination centers include Downtown Los Angeles, South Gate-East Los Angeles, and Santa Monica.

Three freeways serve the project study area: the Golden State Freeway (I-5), the Ventura Freeway (SR-134), and the Glendale Freeway (SR-2). These facilities serve as the major connections to the Los Angeles metropolitan area south of the Santa Monica Mountains and to the East Valley and North Los Angeles. The following highlights their principal characteristics:

- The Ventura Freeway serves as a major intrastate travel route. Connecting to US-101 to the west, this freeway provides passage through the Los Angeles area to Ventura County, Santa Barbara, San Francisco and points farther north. The Ventura Freeway also connects to the Foothill Freeway (I-210), which in turn connects to the San Bernardino Freeway (I-10). I-10 is a major east-west transcontinental route which connects Los Angeles to San Bernardino, Phoenix, and points farther east.
- As an interstate route, the Golden State Freeway extends from the Mexico-California boundary line to the Canadian border in British Columbia. It connects the Los Angeles area with San Diego to the south, as well as to Northern California, Oregon, and Washington to the north.
- Primarily serving the Glendale and La Cañada area, the Glendale Freeway facilitates access through the residential enclaves of Silver Lake and Echo Park, and serves as a major connector between Downtown Los Angeles and Central City West to the Golden State, Ventura and Foothill Freeways.

Several geographic features present barriers to traffic flow. The Verdugo Mountains to the north of Glendale and to the east of Burbank are a major barrier to traffic flow. The mountain range extends from the southeast to the northwest. Whereas many of Los Angeles area freeways travel in either a north-south or in an east-west alignment, the position of the Verdugo Mountains has caused the Golden State and Foothill Freeway -- as well as the major street system in the City of Burbank to the east of the Golden State Freeway -- to run in a southeast to northwest alignment. Because of the Verdugo Mountains, there are no connections between the Golden State and Foothill Freeways in the City of Burbank. With respect to physical barriers in

Glendale, the City is bounded on the west by the Golden State Freeway, the Los Angeles River, and Griffith Park. South of the Glendale Freeway, Taylor Yard and the Los Angeles River act as barriers between the Mt. Washington and Silver Lake neighborhoods. This condition limits the number of roadway links to the west. Because transportation corridors are limited in certain areas, these street systems are impacted by increases in travel demand.

During peak travel hours, and occasionally during non-peak periods, the freeway system serving the study area experiences extreme congestion. High travel demand on these facilities results in average speeds well below 35 miles per hour with resultant delays.

4.7 AIR QUALITY

The proposed rail transit corridor is located within the South Coast Air Basin (SoCAB). The SoCAB consists of 6,600 square miles including the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County. The Los Angeles County portion represents approximately 40 percent of the basin area (2,400 square miles).

The Federal Clean Air Act (FCAA) Amendments of 1977 stated that a designated agency in each region of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards by December 31, 1987. However, since 1977, additional knowledge and concerns about air quality and exposure to air pollutants have led to substantive amendments. In addition, regions designated as nonattainment were not meeting compliance standards. For example, the SoCAB could not meet the deadline for ozone, nitrogen dioxide, carbon monoxide, or PM₁₀. As a result, the 1990 amendments to the FCAA take the concept of nonattainment areas to new levels. Congress enacted amendments to the FCAA in October 1990 which divided the country into five categories of ozone nonattainment areas, ranging from marginal to extreme. Deadlines were based on the severity of the local air pollution problem, ranging from 3 to 20 years for areas with extremely polluted air. The only section of the country designated "extreme" is the SoCAB. Although there is a longer deadline to attain these standards, there are also much stricter control requirements, including offsetting all increases from existing stationary sources, transportation control measures, and requiring use of clean or reformulated fuels. In addition to ozone and carbon monoxide, the FCAA mandates attainment requirements for PM₁₀ and oxides of nitrogen.

Ambient pollution concentrations recorded in Los Angeles County are among the highest of the four counties comprising the SoCAB. Winter air quality problems are due to early and late evening emissions of carbon monoxide and nitrogen oxides. Summer air quality problems result from the formation of photochemical smog, as hydrocarbons and nitrogen dioxide react under strong sunlight. On the basis of regional monitoring data, the SoCAB has been designated a non-attainment area for ozone, carbon monoxide, nitrogen oxides, and total suspended particulates, and as an attainment area for sulfur dioxide.

4.8 NOISE

The predominant source of noise in the vicinity of the proposed rail alignment stems from vehicular traffic, including buses and trucks. At some locations, traffic noise is further augmented by traffic on the Golden State Freeway (I-5). Freeway traffic is clearly discernible at some locations in the project vicinity, adding to the total noise environment. Noise levels reach their peak when there exists a direct line of sight to the freeway. Heavy train traffic along the Southern Pacific mainline (approximately three round-trip passenger trains and three one-way freight trains daily) during the day and night adds to the existing noise environment. Ambient noise levels in the vicinity of the project alignment range from approximately 60 to 73 decibels.

4.9 BASIS FOR CUMULATIVE ANALYSIS

Cumulative impact analysis examines two or more individual effects, which if judged together are considerable, or which increase or exacerbate other environmental impacts (State CEQA Guidelines, Section 15355). A CEQA-adequate cumulative impact analysis must contain the following elements for discussion:

- Either a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the lead agency; or a summary of projections contained in an adopted general plan or related planning document which is designated to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
- A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigating or avoiding significant cumulative effects.

To conduct the cumulative impact analysis for the proposed project, a listing of applicable rail transit projects and site-specific, transit-related developments are identified and discussed in Chapter 7.0, Section 7.2, with summaries of projections from the related projects discussed where feasible. Because many of these related projects are either ongoing processes or currently under revision, it should be understood that a reasonable and adequate analysis must be balanced by the uncertainties of forecasting, speculation, and the project's degree of specificity (CEQA Sections 15144-15146). In addition, future site-specific CEQA documents will be prepared (e.g., EIRs for the Glendale Transportation Center and Burbank Multi-Modal Transportation Facility) that incorporates this environmental impact report by reference, and will focus on issues relevant to their site-specific activities.

CHAPTER 5.0 ENVIRONMENTAL ISSUES ANALYSIS

The categories of environmental impacts studied in this Environmental Impact Report are set by the California Environmental Quality Act (CEQA), Public Resources Code section 21000 *et seq.*, and the State CEQA Guidelines as declared by the State of California Secretary of Resources. Under the CEQA Guidelines, there are 20 categories of potential environmental impact and a related list of Mandatory Findings of Significance. Projects are evaluated against these impact categories in an Initial Environmental Study, and those categories found to be potentially significant are carried forward for analysis in the draft and final environmental impact reports.

The Initial Environmental Study for the Burbank-Glendale-Los Angeles Rail Transit Project was released in September 1991. That document is reproduced in the Appendix of this EIR, along with letters of response received from public officials, agencies, and community groups. **Table 10** identifies the environmental sections against which the project was screened and summarizes the results of that evaluation. In total, six categories were determined to have an impact on the environment, twelve categories were found in which an impact might occur, and two categories would have no environmental impact.

This chapter presents an analysis of each of the impact categories found to either have, or potentially have, an impact. Each impact section consists of a description of the existing environmental setting, an identification of potential environmental impacts, and proposed mitigation measures to address the impacts.

Table 10 Initial Environmental Checklist							
Impact Category (EIR Section)	Potential for Impact			Impact Category (EIR section)	Potential for Impact		
	Yes	Maybe	No		Yes	Maybe	No
1. Earth (5.6)	X			12. Housing (5.1)			X
2. Air (5.3)		X		13. Transportation (5.4)	X		
3. Water (5.6)		X		14. Public Services (5.7)		X	
4. Plant Life (5.8)		X		15. Energy (5.9)	X		
5. Animal Life (5.8)		X		16. Utilities (5.9)	X		
6. Noise (5.5)	X			17. Human Health			X
7. Light and Glare (5.10)	X			18. Aesthetics (5.10)		X	
8. Land Use (5.2)		X		19. Recreation (5.8)		X	
9. Natural Resources (5.8)		X		20. Cultural Resources (5.11)		X	
10. Risk of Upset (5.6)		X		21. Mandatory Findings of Significance (7.0)		X	
11. Population (5.1)		X					

5.1 POPULATION AND HOUSING

CEQA defines population impacts to include changes to the location, distribution, density, or growth rate of the human population. Housing impacts are defined as changes to existing housing or the creation of a demand for additional housing. This section considers impacts in these areas that could be expected as a result of the development of the Burbank-Glendale-Los Angeles Rail Transit Project.

Environmental Setting

Based on data provided by the United States Census Bureau for the period between April 1980 and April 1990, Los Angeles County experienced the lowest population growth rate (18.5%) in the six-county Southern California planning region that consists of Los Angeles, Riverside (76.5%), San Bernardino (58.5%), Orange (24.7%), Ventura (26.4%), and Imperial (18.7%) Counties. As illustrated in Table 11, the proposed project's sphere of influence, which covers all of Burbank and Glendale as well as parts of Central, North, and Northeast Los Angeles, experienced a 20 percent growth in population during the same time period.

LOCATION	POPULATION			HOUSING UNITS		
	1990	1980	Percent Increase	1990	1980	Percent Increase
CITY OF BURBANK	93,643	84,625	10.7%	41,006	35,880	14.3%
CITY OF GLENDALE	180,038	139,060	29.5%	71,907	61,653	16.6%
CITY OF LOS ANGELES: Central Business District	25,823	22,829	13.1%	11,758	10,327	13.9%
CITY OF LOS ANGELES: Central City North	14,551	12,851	13.2%	2,878	1,878	53.2%
CITY OF LOS ANGELES: Northeast	237,315	198,229	19.7%	72,603	66,624	9.0%
CITY OF LOS ANGELES: Silver Lake-Echo Park	84,229	76,650	9.9%	30,002	29,211	2.7%
CITY OF LOS ANGELES: Sun Valley	80,061	61,158	30.9%	23,300	20,798	12.0%
CITY OF LOS ANGELES: Sunland-Tujunga	51,867	44,279	17.1%	19,308	16,244	18.9%
TOTALS	767,527	639,681	20.0%	272,762	242,615	12.4%

SOURCES: Planning and Community Development Departments of Los Angeles, Glendale, and Burbank.

According to data provided by the Planning and Community Development Departments of Los Angeles, Glendale, and Burbank, more than 765,000 persons occupying nearly 275,000 housing units (2.81 persons per dwelling unit) resided in the proposed project's study area as of April 1990. The two largest areas, Glendale and Northeast Los Angeles, comprise 54 percent of the study area's total population. Although the East Valley and North Los Angeles have a number of distinctive single-family neighborhoods, an examination of the area's density by persons per acre (ppa) reveals that the study area has a relatively medium population density of 9.37 ppa. As of 1990, densities in the area ranged from 3.65 ppa in the Sunland-Tujunga area to 16.81 ppa in Silver Lake and Echo Park.

With respect to housing, builders in Los Angeles County constructed more than 300,000 housing units between April 1980 and April 1990, an increase of nearly 11 percent. During the same time period, the East Valley and North Los Angeles experienced a 12.4 percent growth rate, adding a total of 30,147 new units to the study area's housing stock. The City of Los Angeles encountered less housing growth (9.3%), while the San Fernando Valley, which is located directly west and north of the study area, experienced a higher (14.6%) housing growth rate.

Of the more than 30,000 housing units produced in the East Valley and North Los Angeles over the 1980-1990 period, approximately 83 percent have been constructed in the communities and neighborhoods of Burbank, Glendale, Northeast Los Angeles, Central City North, and Sun Valley; areas where the proposed rail transit alignment would pass. Because of the highly urbanized character of the study area, some single- and multi-family residential neighborhoods are in close proximity to the Southern Pacific Transportation Corridor right-of-way which would be utilized by the proposed rail transit project. It should be noted, however, that very few residential areas are directly adjacent to the rail alignment (refer to Land Use, Section 5.2).

Environmental Impacts

Because the proposed project would not result in the displacement of existing residents and housing stock, the Burbank-Glendale-Los Angeles Rail Transit Project would not directly impact population and housing in terms of location, distribution, or density. However, the close proximity of the rail alignment to residential neighborhoods in Burbank, Northwest Glendale, South Glendale, and Atwater Village may result in impacts related to traffic and circulation, noise, air quality, and aesthetics and visual quality. Effects associated with these impact categories are discussed in greater detail in their respective environmental sections.

Mitigation Measures

None required. Refer to other environmental sections for mitigation measures related to impacts on the project study area's residents and housing stock.

Unavoidable Adverse Impacts

The proposed rail alignment would not result in net adverse effects to population and housing.

5.2 LAND USE

The potential development of the Burbank-Glendale-Los Angeles Rail Transit Project raises questions related to the following land use issues: 1) compatibility with existing local land use patterns and relevant adopted area plans, and 2) displacement of existing homes, businesses, and rights-of-way. This section addresses these land use effects.

5.2.1. Compatibility with Existing Land Use and Adopted Local Area Plans

Environmental Setting

Figure 44 in Chapter 4.0 illustrates the existing land uses for the project study area. Historically, land uses surrounding the SPTC right-of-way have gradually transitioned over time. In the early part of the century, agricultural and rural residential uses dominated the area. In the 1930s and 1940s, the area began to take advantage of the existing railroad and a few industrial and commercial businesses opened along the San Fernando Road corridor. During the 1950s through the 1970s, the project study area exhibited the gradual conversion to its current condition of manufacturing, warehousing, and public facility use.

For the purposes of analysis, the proposed rail alignment has been divided into six study areas: 1) Burbank Golden State Redevelopment Area, 2) Burbank City Centre Redevelopment Area, 3) Northwest Glendale, 4) South Glendale-Atwater Village, 5) Glassell Park-Taylor Yard, and 6) South Taylor Yard-Elysian Park. Land use and planning characteristics of the Burbank-Glendale-Los Angeles rail line can best be described in the context of these study areas:

- **Burbank Golden State Redevelopment Area:** This portion of the alignment extends from the rail line's northern terminus at Hollywood Way and continues to the SP Coast Mainline Junction. Although the land uses directly adjacent to the SPTC right-of-way are comprised primarily of a mix of manufacturing, office, and strip commercial uses, this segment of the study area also has a few single- and multi-family residential neighborhoods (e.g., the "Enclave") located in close proximity to the rail line. With respect to adopted local area plans, the Burbank General Plan and the Golden State Redevelopment Plan guide land use decisions along this segment of the route.
- **Burbank City Centre Redevelopment Area:** This section of the route stretches from the SP Coast Mainline Junction to Western Avenue, and generally parallels the Golden State Freeway (I-5). Land uses along the segment consist almost entirely of manufacturing, warehousing, and public facility uses. The City's General Plan governs allowable land uses in this area, while the Burbank City Center Multi-Modal Transportation Facility Feasibility Study provides specific guidelines for the future development of the Old Burbank Rail Depot site.

- **Northwest Glendale:** Beginning at Western Avenue and continuing to Colorado Street, this segment of the route parallels San Fernando Road, and travels adjacent to this arterial south of Grandview Avenue. Strip commercial and office uses prevail north of the Ventura Freeway, while warehousing and manufacturing uses predominate between the freeway and Colorado Street. Although no residential uses are directly adjacent to the rail alignment, the Neighbors West, Northwest Glendale, and Pelanconi residential neighborhoods are in close proximity. The Glendale General Plan and Northeast Los Angeles District Plan provide land use designations for their respective jurisdictions. It should also be noted, however, that the Glendale Redevelopment Agency (GRA) has prepared a feasibility study which proposes the establishment of a redevelopment project area to include the entire San Fernando Road corridor including the Grand Central Industrial Business Park area. The plan formation process is continuing, with an expected approval date of December 1992.³
- **South Glendale-Atwater Village:** This portion of the route extends from Colorado Street to Fletcher Drive. The alignment passes through an area comprised of a mix of industrial and single-family residential land uses. The only residential land uses directly adjacent to the rail alignment right-of-way are located in this segment, just south of Brand Boulevard. The Glendale General Plan and Northeast Los Angeles District Plan also manage land use in this section of the route. The City of Glendale has completed a Master Plan to govern development of the Old Glendale Rail Depot, and is currently preparing a transit-oriented specific plan that will establish land use and design standards for the area surrounding the old depot.
- **Glassell Park-Taylor Yard:** This section of the alignment stretches from Fletcher Drive to the Lawry's California Center site at Avenue 26. The proposed transit route would pass through Taylor Yard, near the eastern edge of the Los Angeles River. Land uses adjacent to Taylor Yard consist primarily of industrial and commercial uses. The Northeast Los Angeles District Plan governs land use within Taylor Yard and its surrounding areas. In addition to this District Plan, LACTC, in conjunction with the City of Los Angeles, is preparing a development study that could potentially direct the buildout of Taylor Yard. In addition, the Los Angeles Community Redevelopment Agency is conducting a Redevelopment Pre-Feasibility Study for Taylor Yard, and the Los Angeles County Public Works Department and Los Angeles Police Department are considering project alternatives on this site. Other plans for Taylor Yard include the United States Army Corps of Engineers' Los Angeles Recreational Reconnaissance Study, and planning work being performed by the American Institute of Architects. None of these planning efforts have been completed.
- **South Taylor Yard-Elysian Park:** This final portion of the route extends from Avenue 26 to the line's southern terminus at the Pasadena-Los Angeles rail line junction.

³ Bob Kadlec, Glendale Redevelopment Agency, April 1992.

ENVIRONMENTAL ISSUES ANALYSIS

Although there are a few offices and commercial businesses in the area, industrial and public facility land uses comprise most of the uses in this area. The Northeast Los Angeles District Plan also regulates land use decisions along this portion of the alignment.

Table 12 Existing Sensitive Land Uses		
Sensitive Land Use	Location/Planning Study Area	Distance to Alignment
Residential Neighborhood	CITY OF LOS ANGELES Golden State Redevelopment Area Cohassett Street at Hollywood Way.	First residences within 300 feet
"Enclave" residential cluster	CITY OF BURBANK Golden State Redevelopment Area Thornton Avenue at Buena Vista Street.	First residences within 300 feet
Pelanconi and Northwest Glendale residential neighborhoods	CITY OF GLENDALE Northwest Glendale West of alignment between Fairmount and Sonora Aves.	First residences within 300 feet
Pelanconi Park	CITY OF GLENDALE Northwest Glendale San Fernando Road at Grandview Avenue.	Within 250 feet
Chevy Chase Park	CITY OF LOS ANGELES South Glendale-Atwater Village Chevy Chase Drive at Alger Street.	Within 250 feet
Alger Street residential cluster	CITY OF LOS ANGELES South Glendale-Atwater Village Alger Street between Goodwin Ave. & Chevy Chase Dr.	First residences within 250 feet
Holy Trinity Parish School	CITY OF LOS ANGELES South Glendale-Atwater Village Boyce Avenue at Appelton Street.	Within 1,200 feet
Atwater Avenue Elementary School	CITY OF LOS ANGELES South Glendale-Atwater Village Silver Lake Boulevard at Atwater Avenue.	Within 1,200 feet
Atwater Village residential neighborhood	CITY OF LOS ANGELES South Glendale-Atwater Village West of alignment between Chevy Chase Dr. and Glendale Freeway.	First residences within 200 feet
South Glendale residential cluster	CITY OF GLENDALE South Glendale-Atwater Village Gardena Avenue south of Brand Boulevard.	Adjacent
Pater Noster High School (currently not in use)	CITY OF LOS ANGELES Taylor Yard-Glassell Park San Fernando Road south of Glendale Freeway.	Within 1,200 feet
Seymour Cypress Park	CITY OF LOS ANGELES Taylor Yard-Glassell Park San Fernando Road between Pepper and Poplar Sts.	Within 200 feet
AAA Trailer Park	CITY OF ANGELES Taylor Yard-Glassell Park Adjacent to Seymour Cypress Park	Within 200 feet

SOURCE: Gruen Associates, April 1992.

Environmental Impacts

Existing Land Use. Although very few sensitive land uses are directly adjacent to the rail transit route, a number of residential clusters, recreational facilities, and schools could be impacted by the proposed project. Table 12 on the previous page outlines sensitive land uses located within one-quarter mile of the rail alignment. These land uses could potentially experience impacts related to noise, air quality, pedestrian circulation, vehicular circulation, and aesthetic value. For more detailed analysis of these categories, refer to the respective environmental sections in this report.

Compatibility with Local Area Plans. Planning documents for the Cities of Burbank, Glendale, and Los Angeles generally identify land uses adjacent to the Southern Pacific Transportation Corridor as 1) quasi-public use, 2) light industry, or 3) heavy industry. With the exception of where the rail line would displace the old City Jail Building, land uses are primarily affected at station locations where parking lots and station access points extend into existing developed areas. The following discussion compares the compatibility between the proposed rail alignment and current plans and plans being prepared in the project study area.

- **City of Burbank General Plan:** The two elements of the General Plan that directly affect the proposed project are the Land Use and Circulation Elements. The City's Land Use Element was recently updated in May 1988. The area's proposed station areas have been designated for industrial or public facility use. The City's current Circulation Element was prepared in 1964. However, an updated element will be circulated for review in the Fall or Winter of 1992. According to representatives from the City's planning staff, the updated Circulation Element includes a discussion of the potential for light rail transit along the SPTC right-of-way.
- **Golden State Redevelopment Plan (Burbank):** Adopted in December 1970 and amended in January 1973, this redevelopment project devotes the entire area to airport and industrial uses. The proposed project can be considered consistent with the goals and policies of the Golden State Redevelopment Plan for two reasons: 1) the proposed rail transit project improves access to the airport, and 2) the parking facility planned at the northwest corner of Hollywood Way and San Fernando Road could be jointly developed with the airport.
- **Burbank Multi-Modal Transportation Facility Feasibility Study:** This study provides a blueprint for the potential development of a multi-modal transit center at the site of the old Burbank Rail Depot. Among the transportation facilities that would serve this center include the proposed Burbank-Glendale-Los Angeles Rail Transit Project.
- **City of Glendale General Plan:** Like the Burbank General Plan, the two key elements in the Glendale General Plan are the Land Use and Circulation Elements. Updated in 1987, the City's Land Use Plan designates the vast majority of the San Fernando Road corridor

for industrial use. Of the four stations planned in the City of Glendale, three have industrial land use designations. The fourth, the Northwest Glendale Station, is located within a community-serving commercial area. The City adopted its Circulation Element in March 1976. There are no current plans to update the element. The existing plan, however, provides a rail transit component, and accounts for the potential development of a rail line utilizing the SPTC right-of-way.

- **San Fernando Road Redevelopment Project Area Feasibility Study (Glendale):** This planning study examines the potential for creating a new redevelopment project area that would encompass the San Fernando Road corridor and include the Grand Central Industrial Business Park. The project is now undergoing environmental review. All four rail transit stations proposed within the City of Glendale are included as part of this redevelopment planning study.
- **Glendale Old Rail Depot Master Plan:** Prepared in the Winter of 1991-92, this Master Plan provides a conceptual basis for creating a multi-modal facility on the old Glendale Rail Depot Grounds. Among the transit facilities included in this study include bus bay terminals, Commuter Rail Metrolink, and the proposed light rail transit project.
- **Glendale Municipal Transportation Center Specific Plan:** Scheduled for completion in the Fall of 1992, this Specific Plan governs the development of the land surrounding the old rail depot. The planning effort on this study expands upon the work completed for the Old Rail Depot Master Plan. The proposed light rail transit project is also included in this Specific Plan.
- **City of Los Angeles Northeast District Plan:** The Northeast District Plan designates the land uses adjacent to the rail line as limited, light, or heavy industrial use. Although the Plan indicates that the Sante Fe rail line (Pasadena-Los Angeles alignment) should be considered as a future right-of-way for a rapid transit system, no similar provisions are made for the Southern Pacific rail corridor. The Northeast Los Angeles District Plan is currently being updated as part of the City of Los Angeles' Community Plan Revision Program.
- **Taylor Yard Development Feasibility Study (LACTC and City of Los Angeles):** It is anticipated that the joint planning efforts of LACTC and the City of Los Angeles will provide for compatibility between land use designations and rail transit facilities.
- **Taylor Yard Redevelopment Pre-Feasibility Study (CRA):** This study, which would examine the potential of creating a redevelopment project area in Taylor Yard, is not yet underway. It is expected to be completed in the Winter of 1993.

Mitigation Measures

Although the proposed rail transit project is consistent and compatible with the majority of existing land uses, and existing and proposed planning documents governing the project study area, the following mitigation measure should be implemented to avoid any potential future conflicts:

- During the environmental review process for their multi-modal transportation centers, the Cities of Burbank and Glendale should reference the relevant information from this document to remain consistent with other local area plans and this EIR.
- Final design of the project through Taylor Yard should be coordinated with the outcome of planning efforts currently underway for development of this property. Specifically, the Taylor Yard Development Feasibility Study should serve as a vehicle for linking planned station areas with surrounding developments.

Unavoidable Adverse Impacts

The proposed project would not result in net adverse land use compatibility impacts.

5.2.2 Land Acquisition and Displacement Impacts

Environmental Setting

In order to minimize potential impacts on residential land uses and recreational resources, station locations have been selected in an effort to utilize available publicly-owned properties and rights-of-way. In areas where no such opportunity presents itself, private property takings would be required. LACTC would either acquire such land or obtain easements from the owners as outlined in the California Public Utilities Code Section 30600. LACTC's right to invoke eminent domain would also need to comply with the conditions of the California Eminent Domain Law (Code of Civil Procedure Section 1230.010 et seq.).

The removal of existing land uses and the acquisition of rights-of-way outside of LACTC's 40-foot transportation corridor easement would be required for construction of portions of the rail transit alignment and station parking areas. In order to estimate which properties may be displaced, two tasks were performed: 1) the proposed project's preliminary engineering plan drawings were overlaid on Los Angeles County Tax Assessor Parcel Maps to determine which uses may be impacted, and 2) LACTC's Real Estate Division was consulted to provide background information on properties that may be taken. Affected parcels have been inventoried and surveyed in the field, as of April 1992, to verify improvements and recent construction.

ENVIRONMENTAL ISSUES ANALYSIS

Environmental Impacts

Development of specific segments of the proposed rail alignment and construction of five station parking facilities would result in the displacement of existing properties. As illustrated in Table 13, 20 parcels totaling more than 22 acres would need to be taken in order to implement the Burbank-Glendale-Los Angeles Rail Transit Project. Although the proposed project avoids taking sensitive land uses such as residential land uses and recreational facilities, a total of 14 public service, commercial, and industrial businesses, and more than 140 employees would be displaced. The following summarizes the properties which would be taken by the proposed rail transit alignment:

Table 13 Summary of Potential Land Use Displacements									
AREAS AFFECTED BY PROPOSED RAIL TRANSIT ALIGNMENT	LAND TAKING		LAND USE					Building Square Feet	Estimated Employees ⁶
	# of Parcels	Acres Taken	Number of Establishments						
			Public Facility	Comm.	Office	Indus.	Total		
Burbank Airport-Hollywood Way Park-&-Ride Facility ¹	1	2.10	•	•	•	•	•	•	•
Buena Vista Street Park-&-Ride Facility ²	1	1.01	1	•	•	•	1	•	0
Ventura Freeway Park-&-Ride Facility	12	2.71	•	4	1	3	8	35,370	62
Glendale Transportation Center SPTC Right-of-Way ³	1	0.17	•	•	•	•	•	•	•
Glendale Freeway-Fletcher Drive Park-&-Ride Facility ⁴	2	7.30	•	•	•	1	1	56,071	25
Taylor Yard Park-&-Ride Facility	1	4.87	•	•	•	•	•	•	•
San Fernando Road Right-of-Way ⁵	1	0.05	•	•	•	•	•	•	•
Pasadena Line Junction Old Jail Building-LADOT Yard	1	4.17	3	1	•	•	4	88,150	56 ⁷
TOTALS:	20	22.38	4	2	1	8	14	91,441	143

¹ Existing parking lot on northwest corner of Hollywood Way and San Fernando Boulevard.
² Existing Caltrans Storage Facility located below Golden State Freeway (I-5).
³ Sliver taking of parcel located outside LACTC's 40-foot transportation corridor easement.
⁴ Portion of Hughes Market property and 70,000 square feet of Southern Pacific land in Taylor Yard. Selection of the Van de Kamp's site alternative would result in the taking of 87,120 square feet.
⁵ Additional 3 feet of right-of-way on San Fernando Road for a distance of approximately 775 feet.
⁶ Factors for calculating number of jobs displaced:
 • 1 employee per 200 square feet of office or public building space.
 • 1 employee per 500 square feet of commercial building space.
 • 1 employee per 2,285 square feet of industrial building space.
⁷ Based on estimates from representatives of the Bilingual Foundation of the Arts (15 employees), Los Angeles Youth Athletic Club (6), and Community Youth Gang Services (35).

SOURCE: Gruen Associates based on information from LACTC's Real Estate Division and Los Angeles County Tax Assessor Parcel Maps.

- **Burbank Airport-Hollywood Way:** Approximately 2.1 acres of a Lockheed Aircraft-owned parking lot would be taken to construct a 1,500-car park-and-ride facility.
- **Buena Vista Street:** LACTC plans to lease the existing one-acre Caltrans Storage Facility below the Golden State Freeway to construct a surface park-and-ride lot. In order to construct the parking lot, the Caltrans yard would be displaced for the term of the lease.
- **Ventura Freeway:** Takings at this station area would result in the displacement of nine businesses located on 2.71 acres at the southeast corner of Doran Street and San Fernando Road. The land uses which would be displaced by the construction of a 500-car park-and-ride structure include a manufacturing facility, the Glendale Small Animal Hospital, The Tin Factory auto restoration shop, Collision Automotive Repair Shop, Kennedy Hydraulics warehouse and offices, Fisher Medical Electronics, General Aircraft Company, and Dayhan Radio and Alarm Auto Installation.
- **Glendale Transportation Center:** Because of the proposed alignment's engineering constraints and the desire to maintain a minimum 25-foot distance between the old Rail Depot and the LRT track, a sliver taking of .17 acres would be required from the SPTC right-of-way.
- **Glendale Freeway-Fletcher Drive:** The Hughes Market Alignment Alternative would displace the 56,000-square foot Hughes Market produce warehouse building. In addition, approximately 70,000 square feet of Southern Pacific Land adjacent to the Hughes Market property would also need to be taken. Alternatively, if the Van de Kamp's site alternative is selected, it would result in the taking of approximately 87,000 square feet.
- **Taylor Yard:** If the Division Street Alternative for the Taylor Yard Station is implemented, one parcel totaling approximately 4.9 acres would be taken.
- **San Fernando Road:** Because of constraints related to the available right-of-way along this section of the route, an additional three feet on San Fernando Road would be required for a distance of 775 feet.
- **Pasadena Line Junction:** The preferred alignment through this segment of the route would take the Old City Jail Building at 401 Avenue 19 and displace the following uses: the Bilingual Foundation for the Arts, the Los Angeles Youth Athletic Club, the Lincoln Heights Division of the Community Youth Gang Services, and a Los Angeles Department of Transportation (LADOT) Maintenance and Storage Facility. With the exception of the LADOT yard, each of these uses represent valuable community services to the youths and adults of this area, and their absence may represent a hardship to area residents. In addition, a total of 56 persons would be displaced from their place of employment.

ENVIRONMENTAL ISSUES ANALYSIS

Mitigation Measures

In the acquisition of real property by a public agency, California state law requires the agency acquiring the property to 1) ensure consistent and fair treatment for owners of real property, 2) encourage and expedite acquisition by agreement in order to avoid litigation and relieve congestion in the courts, and 3) promote confidence in public land acquisition. Mitigation measures aimed at meeting these goals for property relocation include the following:

- The relocation of community service, commercial, and industrial businesses should receive fair relocation costs that take into consideration the following factors: 1) ownership versus rental land holding, 2) type of business, 3) ease of relocation, 4) fixtures and equipment particular to the operation of a business, and 5) potential hardship.
- LACTC should work with representatives from the Cities of Burbank, Glendale, and Los Angeles to determine the potential for joint development in and around areas where properties would be displaced. This would provide the opportunity to retain some of these businesses in their existing areas.
- Because of their value to the community and their particular terms of tenancy, LACTC should work with the City of Los Angeles and existing tenants of the old City Jail Building to identify acceptable relocation alternatives within the area.

Unavoidable Adverse Impacts

Although businesses and community services would receive fair-market compensation plus relocation assistance, the displacement of these uses can be considered an unavoidable adverse impact to employees and residents in the area.

5.3 AIR QUALITY

Environmental Setting

The United States Environmental Protection Agency (EPA) has set national ambient air quality standards, as required under the Federal Clean Air Act. All areas of the country were to have attained these standards by 1975. The deadline was extended to 1977 and later to 1982 with an extension to 1987 for the attainment of carbon monoxide and ozone standards. The most recent deadline allows the Southern California Air Basin (SoCAB) to achieve carbon monoxide and ozone standards by 2007. The Clean Air Act also requires that areas unable to meet these standards prepare plans for attainment of the national air quality standards. The EPA is capable of issuing sanctions for the failure of an agency either to submit a plan or to carry out commitments in a plan. Sanctions may include a ban on the construction of major new facilities and the withholding of federal funds for highways, sewage treatment, and air quality planning⁴.

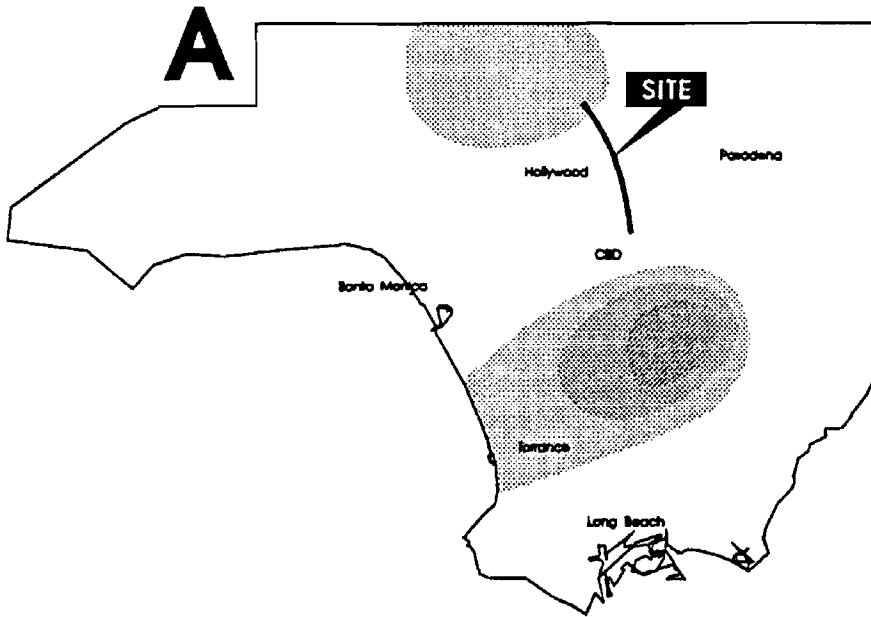
The SoCAB has been designated a non-attainment area by the EPA for ozone, carbon monoxide, nitrogen dioxide, and total suspended particulates. It has, however, been designated an attainment area for sulfur dioxide. In the morning hours, local area winds during the winter are predominantly from the northwest. During this period, the combination of low wind speeds and ground based inversions creates a potential for high concentrations of carbon monoxide. Management of air quality in the SoCAB falls primarily under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD sets and enforces regulations for stationary sources of air pollution, which include both large and small facilities, ranging from oil refineries to dry cleaners and homes. About 40 percent comes from mobile sources⁵.

In 1982, the SCAQMD, in coordination with the Southern California Association of Governments (SCAG), prepared an Air Quality Management Plan (AQMP) with the goal of achieving healthful air quality for the basin by 1987. These standards were not met in 1987. Thus, the SCAQMD has prepared a revised AQMP which was approved and adopted in March, 1989. The new AQMP includes a policy for the attainment of federal and state standards for nitrogen dioxide and carbon monoxide by no later than December 31, 1996, and December 31, 1997, respectively. The deadline for the attainment of federal and state ozone and suspended particulate (PM₁₀) standards has been set for December 31, 2007. The draft final 1991 AQMP, which was published in May, 1991, projects attainment of federal and state standards for nitrogen dioxide by 2000, attainment of federal PM₁₀ standards by 2006, attainment of the federal ozone standard by 2010, and attainment of federal carbon monoxide standards by 2000 and state standards by 2005. **Figure 45** illustrates the existing ozone and carbon monoxide levels in the site vicinity, while **Figure 46** shows the existing nitrogen dioxide and particulate levels.

⁴ *Final 1989 Air Quality Management Plan*, p. 1-9 and 1-10, Southern California Air Quality Management District and the Southern California Association of Governments, March, 1989.

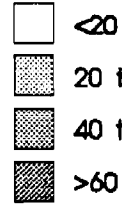
⁵ *Introducing the South Coast Air Quality Management District*, SCAQMD, February, 1989.

1990 CARBON MONOXIDE LEVELS



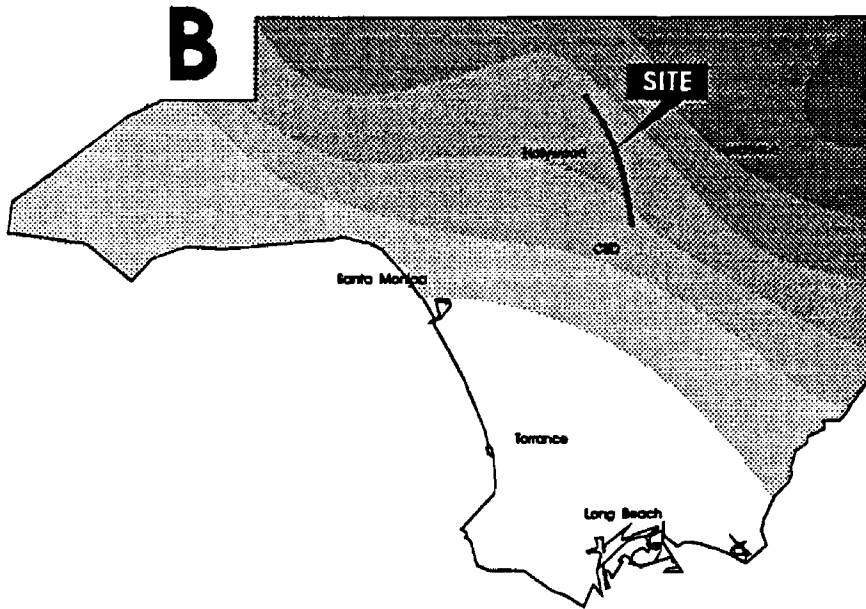
LEGEND:

of Days State Standard Was Exceeded

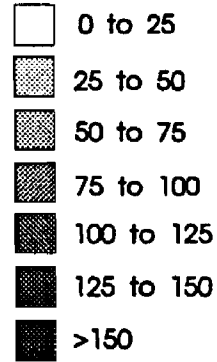


A

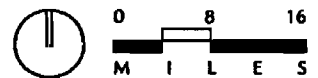
1990 OZONE LEVELS



of Days State Standard Was Exceeded



B



SOURCE: South Coast Air Quality Management District, Air Quality Management Plan, 1991.

GRAPHICS BY GRUEN ASSOCIATES

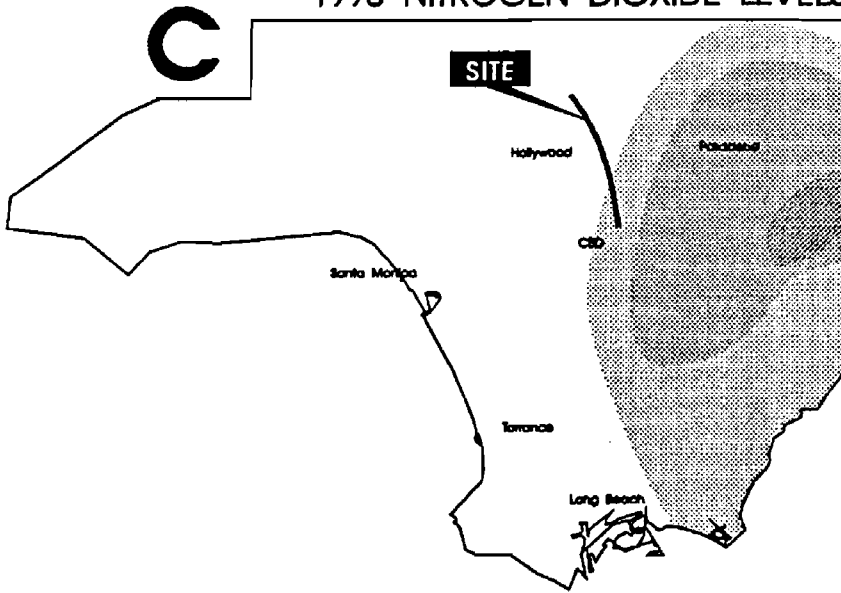


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LOS ANGELES COUNTY TRANSPORTATION COMMISSION

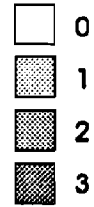
FIGURE 45
Ozone and Carbon Monoxide
Levels in Site Vicinity

1990 NITROGEN DIOXIDE LEVELS



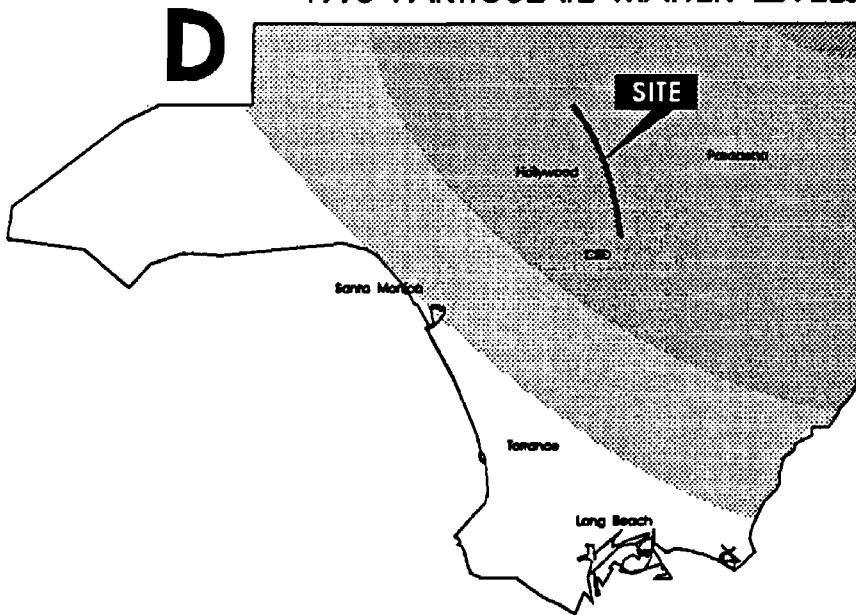
LEGEND:

of Days State Standard Was Exceeded

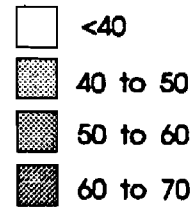


C

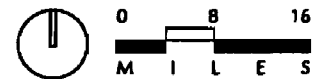
1990 PARTICULATE MATTER LEVELS



Annual Average Concentration (micrograms/cubic meter)



D



SOURCE: South Coast Air Quality Management District, Air Quality Management Plan, 1991.

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 46
Nitrogen Dioxide and Particulate Matter
Levels in Site Vicinity

The northernmost portion of the proposed rail line is located in Source Receptor Area 7, while the southernmost portion is located in Source Receptor Area 8, as designated by the SCAQMD. The air quality in these Source Receptor Areas is represented by measurements taken at the Burbank and North Main Street monitoring stations, respectively. Air quality measurements taken at these locations between 1986 and 1990 (the most recent years for which complete data exists) are depicted in Tables 15 and 16. These measurements indicate:

- **Ozone** - The maximum one-hour concentration in Source-Receptor Area 7 during the study period was 0.28 ppm. Both the state and the federal standards were exceeded during every year studied. The state standard of 0.09 ppm was exceeded on 95 days during 1990. The maximum one-hour concentration in Source-Receptor Area 8 during the study period was 0.25 ppm. Both the state and the federal ozone standards were exceeded during every year. The state standard was exceeded on 70 days during 1990.
- **Particulates (PM₁₀)** - The maximum 24-hour concentration in Source-Receptor Area 7 was 211 micrograms (μ) per cubic meter, recorded in 1986. The state standard of 50 $\mu\text{g}/\text{m}^3$ was exceeded during every year studied; the federal standard of 150 $\mu\text{g}/\text{m}^3$ was exceeded during 1986 and 1990. The maximum 24-hour concentration in Source-Receptor Area 8 was 235 $\mu\text{g}/\text{m}^3$ in 1986; the state standard was exceeded during every year and the federal standard was exceeded during 1986, 1987, and 1990.
- **Total Suspended Particulates** - In Source-Receptor Area 7, the maximum 24-hour concentration of 241 μ/m^3 was recorded during 1986. The federal standard of 150 $\mu\text{g}/\text{m}^3$ was exceeded during every year studied. The maximum concentration of 257 $\mu\text{g}/\text{m}^3$ in Source-Receptor Area 8 occurred during 1988. The federal standard was exceeded during every study year. No state standard exists for this pollutant.
- **Carbon Monoxide** - In Source-Receptor Area 7, the maximum one-hour and eight-hour concentrations of 20.0 parts per million (ppm) and 14.0 ppm, respectively, occurred during 1989 and 1986. Maximum one-hour and eight-hour concentrations in Source-Receptor Area 8 reached 16.0 ppm and 11.6 ppm during 1988 and 1986, respectively. These concentrations meet the state one-hour standard of 20.0 ppm and exceed the state eight-hour standard of 9.1 ppm.
- **Nitrogen Dioxide** - In Source-Receptor Area 7, the maximum one-hour concentration of 0.26 ppm was recorded during 1987 and 1988, exceeding the state standard. The maximum concentration in Source-Receptor Area 8 of 0.54 ppm was recorded during 1988. In this region, the state standard was exceeded during every study year.
- **Sulfur Dioxide** - The maximum 24-hour concentration recorded in Source-Receptor Area 7 during this period was 0.03 ppm, during 1989. In Source-Receptor Area 8, the maximum recorded concentration of 0.04 ppm occurred during 1988. The state standard of 0.05 ppm was not exceeded during the study period.

- **Sulfate** - In Source-Receptor Area 7, the maximum 24-hour concentration of 25.1 $\mu\text{g}/\text{m}^3$ occurred during 1988. The state standard of 25.0 $\mu\text{g}/\text{m}^3$ was not exceeded during the remaining years of study. The state standard was exceeded in Source-Receptor Area 8 during 1988 and 1990 with concentrations of 26.6 and 25.3 $\mu\text{g}/\text{m}^3$, respectively.
- **Lead** - In Source-Receptor Area 7, the maximum monthly concentration of 0.41 $\mu\text{g}/\text{m}^3$ occurred in 1986. In Source-Receptor Area 8, the maximum concentration of 0.64 $\mu\text{g}/\text{m}^3$ occurred during 1986. The state standard of 1.5 $\mu\text{g}/\text{m}^3$ was met during every study year.

Table 14 illustrates existing carbon monoxide levels for sensitive receptors adjacent to the proposed light rail route. Existing carbon monoxide levels were estimated using the CALINE4 carbon monoxide dispersion model developed by the California Department of Transportation in conjunction with existing traffic volumes and existing intersection operation characteristics. The state one-hour standard of 20.0 ppm is currently exceeded at four locations and the state eight-hour standard of 9.1 ppm is exceeded at all six locations.

Table 14 Existing 1-Hour and 8-Hour Carbon Monoxide Concentrations, Parts Per Million (ppm)			
#	Receptor Location and Description	1-Hour Concentration	8-Hour Concentration
1	Residences SW of San Fernando Road-Buena Vista Street	19.9	15.9'
2	Residences SE of San Fernando Road-Sonora Avenue	18.1	14.5'
3	Residences SE of Doran Street-Concord Street	24.5'	19.6'
4	Residences S of San Fernando Road-Brand Boulevard	29.5'	23.6'
5	Elementary School N of San Fernando Road-Brand Boulevard	28.5'	22.8'
6	Pater Noster High School San Fernando Road-SR-2 on and off ramps	29.0'	22.0'

SOURCE: Terry A. Hayes Associates

' = Exceeds State Ambient Air Quality Standard

a. One-hour CO concentrations include ambient concentrations of 17.0 ppm at Locations 1-5 and 14.2 ppm at Location 6 based on the average of 2nd highest eight-hour measurements from the SCAQMD Burbank and North Main Street Monitoring Stations between 1986 and 1990.

**Table 15
Air Quality Summary- Source Receptor Area 7 (Burbank Monitoring Station)**

Pollutant	State Standard	Federal Standard	Year	Max. Level	Days Exceeding State Standard
Ozone	0.09 ppm for 1-hour	0.12 ppm for 1-hour	1986	0.28	142
			1987	0.23	130
			1988	0.24	135
			1989	0.20	97
			1990	0.20	95
Particulate (PM ₁₀)	50 µg/m ³ for 24 hours	150 µg/m ³ for 24 hours	1986	211	--
			1987	147	--
			1988	100	--
			1989	133	--
			1990	161	--
Total Suspended Particulates	No State Standard	150 µg/m ³	1986	241	--
			1987	180	--
			1988	217	--
			1989	183	--
			1990	191	--
Carbon Monoxide	20 ppm for 1-hour	35 ppm for 1-hour	1986	19	0
			1987	15	0
			1988	15	0
			1989	20	0
			1990	16	0
Carbon Monoxide	9.1 ppm for 8-hours	9.5 ppm for 8-hour	1986	16.4	21
			1987	12.5	11
			1988	11.9	14
			1989	13.9	21
			1990	13.0	8
Nitrogen Oxides	0.25 ppm for 1-hour	0.0534 ppm annual average	1986	0.23	0
			1987	0.26	1
			1988	0.26	2
			1989	0.25	0
			1990	0.23	0
Sulfur Dioxide	0.05 ppm for 1-hour	0.14 ppm for 24 hours	1986	0.02	0
			1987	0.02	0
			1988	0.02	0
			1989	0.03	0
			1990	0.02	0
Sulfates	25 µg/m ³ for 24 hours	No Federal Standard	1986	19.0	0
			1987	17.5	0
			1988	25.1	2
			1989	22.1	0
			1990	24.8	0
Lead	1.5 g/m ³ for 24 hours. 1 month average	1.5 µg/m ³ for 24 hours quarterly average	1986	0.41	0
			1987	0.18	0
			1988	0.35	0
			1989	0.20	0
			1990	0.09	0

Sources: South Coast Air Quality Management District, Air Quality Data Summaries, 1985-1990.

Table 16
Air Quality Summary- Source Receptor Area 8 (North Main Street Monitoring Station)

Pollutant	State Standard	Federal Standard	Year	Max. Level	Days Exceeding State Standard
Ozone	0.09 ppm for 1-hour	0.12 ppm for 1-hour	1986	0.22	99
			1987	0.22	91
			1988	0.21	68
			1989	0.25	76
			1990	0.20	70
Particulate (PM ₁₀)	50 µg/m ³ for 24 hours	150 µg/m ³ for 24 hours	1986	235	38
			1987	158	36
			1988	130	33
			1989	137	33
			1990	152	31
Total Suspended Particulates	No State Standard	150 µg/m ³	1986	235	0
			1987	216	--
			1988	257	--
			1989	217	--
			1990	211	--
Carbon Monoxide	20 ppm for 1-hour	35 ppm for 1-hour	1986	13	0
			1987	15	0
			1988	16	0
			1989	14	0
			1990	13	0
Carbon Monoxide	9.1 ppm for 8-hours	9.5 ppm for 8-hour	1986	11.6	2
			1987	10.9	1
			1988	11.4	5
			1989	9.8	2
			1990	9.9	1
Nitrogen Oxides	0.25 ppm for 1-hour	0.0534 ppm annual average	1986	0.33	7
			1987	0.42	4
			1988	0.54	6
			1989	0.28	1
			1990	0.28	3
Sulfur Dioxide	0.05 ppm for 1-hour	0.14 ppm for 24 hours	1986	0.03	0
			1987	0.03	0
			1988	0.04	0
			1989	0.03	0
			1990	0.02	0
Sulfates	25 µg/m ³ for 24 hours	No Federal Standard	1986	20.4	0
			1987	14.5	0
			1988	26.6	1
			1989	23.0	0
			1990	25.3	1
Lead	1.5 g/m ³ for 24 hours. 1 month average	1.5 µg/m ³ for 24 hours quarterly average	1986	0.64	0
			1987	0.43	0
			1988	0.44	0
			1989	0.12	0
			1990	0.09	0

Source: South Coast Air Quality Management District, Air Quality Data Summaries, 1986-1990.

Environmental Impacts

Table 17 indicates the predicted one-hour and eight-hour carbon monoxide concentrations for the future condition with and without the proposed project. Carbon monoxide concentrations would increase at all receptor locations both with and without the project except at Location 2. The SCAQMD has established significance thresholds against which to measure increases in carbon monoxide when the state standard is exceeded before project implementation. Project impacts are considered significant when carbon monoxide increases by 1.0 ppm for the one-hour criteria and by 0.45 ppm for the eight-hour criteria. The proposed project would have a significant impact at Location 6, in the vicinity of the Pater Noster High School site and nearby residential neighborhood. In this area, carbon monoxide would increase 1.3 ppm during the one-hour period and by 1.0 ppm during the eight-hour period.

Although the project would result in increased concentrations of carbon monoxide and other pollutants locally, it is anticipated that the proposed project would have regional air quality benefits because automobile trips between Burbank Airport and downtown Los Angeles would likely be reduced. Estimates indicate that approximately 4,610 passenger trips daily on the proposed rail transit alignment would be attributed to persons using passenger vehicles, suggesting that a reduction of approximately 37,800 vehicle miles daily would be anticipated, based on a regional average trip length of 8.2 miles. This could result in a reduction of 2010 mobile emissions by approximately 0.24 tons of carbon monoxide, 0.02 tons of total organic gases, 0.02 tons of reactive organic gases, 0.05 tons of nitrogen oxides, and 0.01 tons of particulate matter daily⁶.

The proposed rail transit project would be consistent with the Air Quality Management Plan prepared by the South Coast Air Quality Management District, as well as with the Regional Mobility Plan (RMP) prepared by the Southern California Association of Governments (SCAG). Specifically, the proposed project would implement Control Measure 2g (Tier I Transit Improvements)⁷. The SCAG Air Quality Management Plan Conformity Procedures explicitly exempt rail transit projects from conformity review because rail transit projects result in trip reductions⁸. It is the intent of SCAG and the SCAQMD, as articulated in the RMP, to give priority to all transit and ridesharing projects over highway capacity expansion projects.

⁶ South Coast Air Quality Management District, *Air Quality Handbook for Preparing Environmental Impact Reports*, Appendix D. Assumes no improvement over emissions for 2002 and an average speed of 25 miles per hour.

⁷ South Coast Air Quality Management District and Southern California Association of Governments, *Air Quality Management Plan*, South Coast Air Basin, March 1989, page 6-14.

⁸ Southern California Association of Governments, *Guidance for Implementation of 1989 AQMP Conformity Procedures*, March 1990.

Table 17
Localized Impacts
2010 1-Hour and 8-Hour Carbon Monoxide Concentrations (ppm)

	Receptor Location and Description	One-Hour Concentrations			Eight-Hour Concentrations		
		Without Project	With Project	Change	Without Project	With Project	Change
1	Residences SW of San Fernando Road- Buena Vista St.	18.0	18.2	+0.2	14.4*	14.6*	+0.2
2	Residences SE of San Fernando Road- Sonora Avenue	16.9	16.9	0.0	13.5*	13.5*	0.0
3	Residences SE of Doran St.- Concord Street	20.2*	20.6*	+0.4	16.2*	16.5*	+0.3
4	Residences S of San Fernando Road- Brand Boulevard	25.0*	25.2*	+0.2	20.0*	20.2*	+0.2
5	Elementary School N of San Fernando Road- Brand Boulevard	24.5*	25.0*	+0.5	19.6*	20.0*	+0.4
6	Pater Noster High School (currently not in use) San Fernando Road- SR-2 on and off ramps	26.7*	28.0*	+1.3	20.3*	21.3*	+1.0

SOURCE: Terry A. Hayes Associates
 Model Used: CALINE4

* = Exceeds State Ambient Air Quality Standard

a. One-hour CO concentrations include ambient concentrations of 17.0 ppm at Locations 1-5 and 14.2 ppm at Location 6 based on the average of 2nd highest eight-hour measurements from the SCAQMD Burbank and North Main Street Monitoring Stations between 1986 and 1990.

Mitigation Measures

In an effort to respond to potential air quality impacts that may result from increased concentrations of vehicles in rail transit station areas, the following mitigation measures are recommended:

- **Develop transit policies and marketing programs that would encourage arriving at station areas by way of high occupancy vehicles. Such a program should attempt to create positive incentives (fare and parking discounts) to encourage transit riders to arrive and depart transit stations via vanpools or carpools.**
- **For major employment centers potentially served by rail transit, LACTC shall coordinate with employer associations and merchant groups to provide incentives for increased employee use of rail transit. Specifically, market employer rail transit support as a mechanism to comply with the requirements of SCAQMD Regulation 15.**
- **Actively coordinate with the planning department of each governing jurisdiction to tie development approvals and station area land uses to developer support for rail transit. This could be accomplished by providing incentives to create mixed-use developments such as parking structures with ground-floor commercial at station areas.**
- **Equip rail transit stations with commuter hotline phone service to provide transit riders with a convenient opportunity to find commuter matches.**
- **Also refer to proposed Traffic mitigation measures, Section 5.4, for potential reductions of automobile queuing in the vicinity of proposed rail transit station areas.**

To reduce construction-related traffic congestion, these mitigation measures are recommended:

- **Provide rideshare incentives and transit incentives for construction personnel.**
- **Configure construction parking to minimize traffic interferences.**
- **Minimize obstruction of through-traffic lanes.**
- **Provide a flagperson to guide the traffic properly.**
- **Schedule operations affecting traffic during off-peak hours.**

To reduce negative impacts of dust and particulates (PM₁₀) during construction stages of development, the following mitigation measures recommended by the SCAQMD should be implemented:

- **Chemically treat soil at construction sites where activity will cease for at least four consecutive days.**

- Where applicable along the rail transit alignment, restore vegetative groundcover as soon as construction activities have been completed.
- Trucks that haul dirt, sand, or soil should be covered or should maintain at least 24 inches of free board.
- Construction sites should be watered.
- Prohibit tilling, construction grading operations, and earth moving operations during periods when winds are forecast to exceed 30 miles per hour.

Unavoidable Adverse Impacts

Although implementation of the mitigation measures may reduce impacts to acceptable levels, there are no measures which can quantifiably reduce the significant impact at the Pater Noster High School monitoring site.

5.4 TRANSPORTATION AND CIRCULATION

This Transportation and Circulation section summarizes results of the traffic study that was completed for the proposed rail transit project. The traffic study has two purposes:

- To determine significant transportation impacts that would result from the proposed line.
- To identify mitigation measures for areas that are significantly impacted.

5.4.1 Data Sources

Existing traffic turning counts were conducted for study intersections by Wiltec of Pasadena, California in early December 1991 and early January 1992. Mechanical counts performed at at-grade railroad crossings were conducted by the City of Glendale during early December 1991. Estimates of future traffic volumes came from the Draft City of Burbank Streets and Roads Study prepared in September 1991, the City of Glendale traffic model, and LADOT growth estimates. Patronage forecasts were conducted by Schimpeler-Corradino Associates of Los Angeles, California and estimates of LRT run times were prepared by Manuel Padron & Associates of Atlanta, Georgia.

5.4.2 Study Area Description and Methodology

For this traffic analysis, no reduction in auto traffic at the study intersections was assumed as a result of the project. This is due to the fact that rail transit would have its most significant benefit in reducing auto travel on a regional level. This regional reduction would be primarily on the freeway system. Although there would be some benefits from the reduction in regional trips on local streets, the conservative assumption used for this traffic analysis assumed no reductions in traffic at local intersections due to the project. In this way, a "worst case" traffic impact assessment was conducted. Future traffic conditions at local intersections would improve with the construction of the LRT and with implementation of Transportation System Management (TSM) measures such as the proposed smart corridor for San Fernando Road.

Because of the linear nature of the rail line, the traffic study was divided into sub-areas of analysis. These study areas were concentrated around the various station sites and at-grade crossings, and were treated as separate small studies. Two basic types of analyses were performed: quantitative and qualitative. The description of these two different types of methodologies and where these analyses were performed are detailed Table 18. For those locations where quantitative analysis was performed, intersection capacity utilization (ICU) or intersection delay calculations based on turning movement counts and station access issues were used to determine impacts. The ICU method results in a number value, representing the theoretical percentage of signal green time required to accommodate intersection traffic. More simply, the ICU can be thought of as the percent utilization of available capacity. A value

exceeding 1.000 indicates that the volume is, theoretically, at capacity. For the ICU method, capacity of an intersection is defined in terms of vehicles per lane per hour of green time. Capacity of a lane is assumed to be an empirically derived value of 1,600 vehicles per hour (vph) of green time. Ten percent of the signal time is assumed to be lost to yellow and all-red signal phasings.

Table 18 Proposed Methodology for Analyzing Traffic Impacts			
City	Station or Crossing	Station Impacts	At-Grade Impacts
Burbank	Burbank Airport Station	●	
	Buena Vista St. Crossing		●
	Buena Vista Station	●	
	Burbank City Center Station	●	
Glendale	Allen Ave. Crossing		◻
	Sonora Ave. Crossing		◻
	Northwest Glendale Station	◻	
	Grandview Ave. Crossing		◻
	Bekins Way Crossing		◻
	Ventura Freeway Station	●	
	Doran St. Crossing		●
	Broadway Street Crossing		◻
	Colorado/Broadway Station	◻	
	Goodwin Ave. Crossing		◻
	Chevy Chase Dr. Crossing		◻
	Glendale Trans. Center Station	●	
Los Angeles	Glendale Freeway Station	●	
	Taylor Yard Station	◻	
	Avenue 19 Station	◻	

SOURCE: Gruen Associates.

LEGEND

- Proposed Quantitative Analysis. Intersection ICU or delay calculations based on turning movement counts and station access issues used to determine station impacts.
- ◻ Proposed Qualitative Analysis. Station access issues used to determine station impacts and crossing queuing and delay calculations used in determining at-grade crossing impacts.

The ICU value is often associated with level of service (LOS). LOS ranges from "A" through "F" representing the traffic quality: from good operating conditions with no delay to motorists (LOS A), to LOS F in which the arrival of vehicles exceeds the capacity of the intersection, and motorists are faced with excessive delay in travel. Table 19 below shows the relationship between ICU values and LOS designations.

Table 19	
ICU Values And Corresponding LOS Designators	
Level of Service	ICU Value
A	0.600 or Less
B	0.601 to 0.700
C	0.701 to 0.800
D	0.801 to 0.900
E	0.901 to 1.000
F	1.001 and Over

SOURCE: *Highway Capacity Manual*, Highway Research Board, Special Report No. 87, Washington D.C., 1965 and the update of the manual.

The Buena Vista Station was analyzed using a quantitative methodology, however, the impacts of this station are not so much caused by passengers arriving and leaving the station site, but by the operation of the LRT at the at-grade crossing of Buena Vista near the South San Fernando Boulevard intersection. For this reason, the analysis was concentrated on this one intersection to determine the Buena Vista Station impacts. Instead of employing the ICU methodology in determining impacts, intersection delay in seconds per vehicle was calculated. This methodology gives a more meaningful assessment of impacts for this intersection, given that impacts to traffic flow at this intersection are not so much caused by increases in traffic volume but by the blocking of several intersection movements by LRT operation.

The following criteria were used in doing the quantitative traffic analysis:

- The analysis of the PM peak was considered sufficient for the analyses since the peak AM period of station use will probably end before the typical AM street traffic peak.
- Intersection Capacity Utilization (ICU) or intersection delay calculations were used in the determination of impacts.
- The trips generated by each station was based on the number of park-and-ride and kiss-and-ride trips.
- Intersection capacity was assumed to be 1600 vph.

Below is a list of 16 intersections which were quantitatively analyzed in the PM peak. The cities where these intersections are located are shown in parenthesis.

- I-5 Northbound off-ramp and Hollywood Way (Burbank)
- South San Fernando Boulevard and Southbound Hollywood Way (Burbank)
- South San Fernando Boulevard and Northbound Hollywood Way (Burbank)
- South San Fernando Boulevard and Buena Vista Street (Burbank)
- I-5 Southbound off-ramp and Burbank Boulevard (Burbank)
- Front Street and Burbank Boulevard (Burbank)
- San Fernando Road and Verdugo Avenue (Burbank)
- San Fernando Road and Fairmont Avenue (Glendale)
- San Fernando Road and Doran Street (Glendale)
- San Fernando Road and Los Feliz Boulevard (Glendale)
- Central Avenue and Los Feliz Boulevard (Glendale)
- Brand Boulevard and Los Feliz Boulevard (Glendale)
- San Fernando Road and Brand Boulevard (Glendale)
- San Fernando Road and Fletcher Drive (Los Angeles)
- San Fernando Road and Southbound Glendale Freeway ramps (Los Angeles)
- San Fernando Road and Northbound Glendale Freeway off-ramp (Los Angeles)

All at-grade crossings where traffic signals are not directly adjacent to the crossing were analyzed using a qualitative analysis. Under the qualitative at-grade analysis, queuing and delay calculations were used in determining at-grade crossing impacts.

5.4.3 Existing Traffic Conditions

Existing (1991) Geometrics and Level of Service. The existing approach lane geometrics for each study intersection is illustrated in Figure 47. Existing (1991) level of service at the study intersections is depicted in Table 20. All of the study intersections with the exception of the San Fernando Road and Doran Street intersection operate at a level of service of "D" or better. The existing level of service at the San Fernando Road and Doran Street intersection is "F". This is caused mainly by congestion resulting from the single-lane eastbound approach to the intersection.

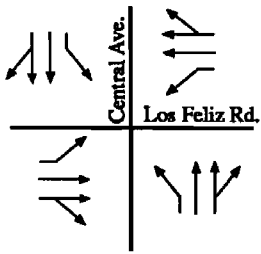
As previously mentioned, the proximity of the South San Fernando Boulevard and Buena Vista Street signalized intersection to the at-grade crossing required that special consideration be given to this intersection. The methodology contained in the *Highway Capacity Manual* for calculating level of service based on delay was used to determine the existing intersection level of service for the intersection. The results of this calculation for the existing condition revealed that the existing intersection delay is 12.5 seconds per vehicle, or a level of service of "B". Existing levels of service for all study intersections are depicted in Figure 48.

EXISTING INTERSECTION CONDITION

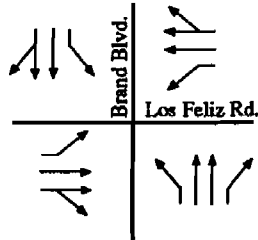
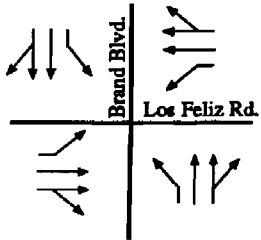
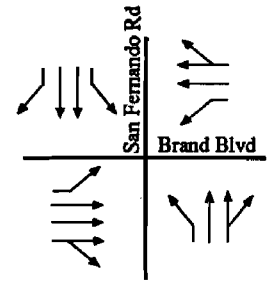
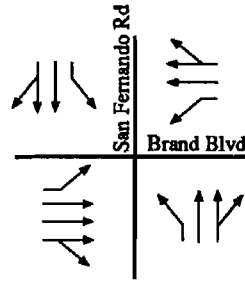
AFTER MITIGATION

EXISTING INTERSECTION CONDITION

AFTER MITIGATION



**NO
MITIGATION
NEEDED**

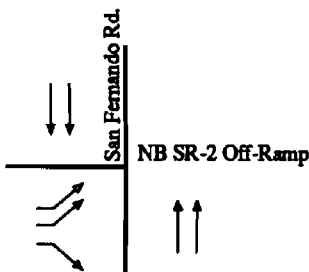
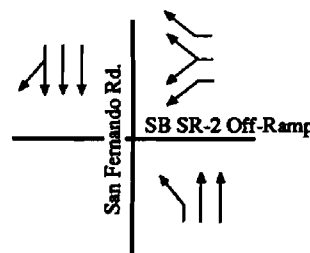
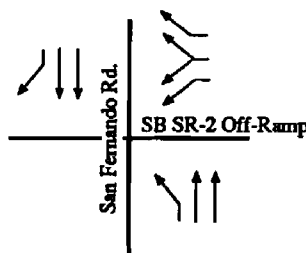
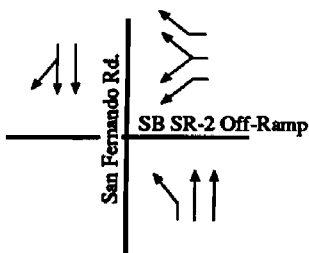
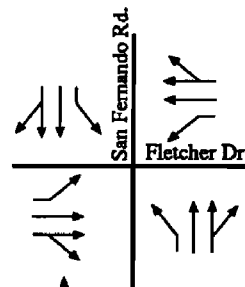
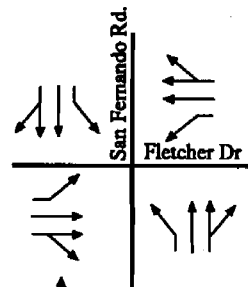
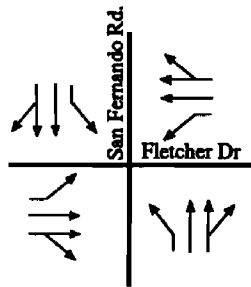


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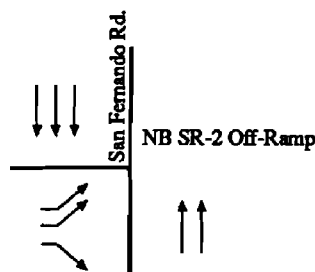
AFTER MITIGATION

HUGHES OPTION

**To be mitigated
with ATSAC**



**NO
MITIGATION
NEEDED**



GRAPHICS BY GRUEN ASSOCIATES

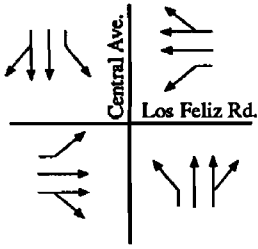


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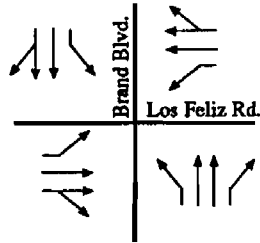
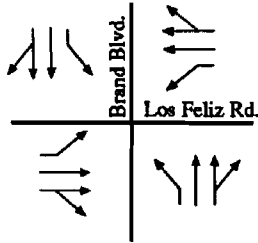
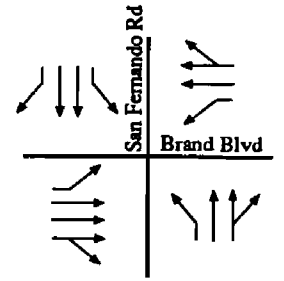
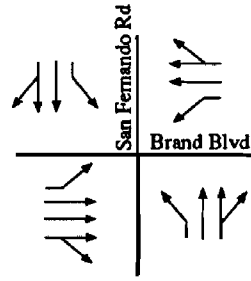
AFTER MITIGATION

EXISTING INTERSECTION CONDITION

AFTER MITIGATION



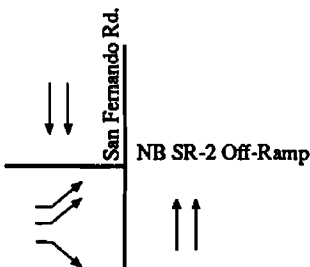
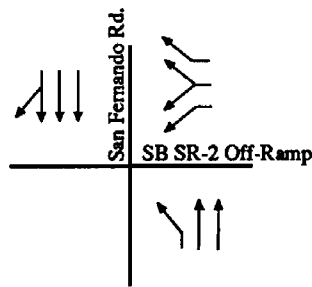
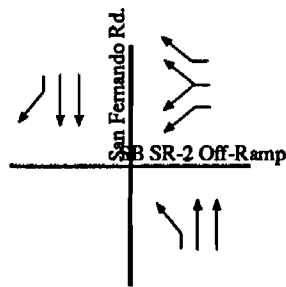
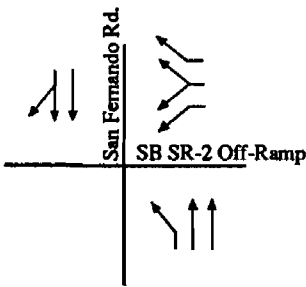
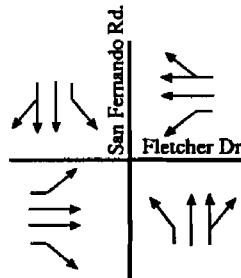
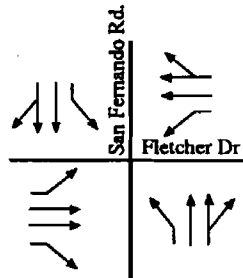
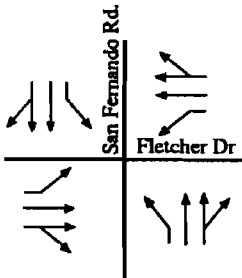
**NO
MITIGATION
NEEDED**



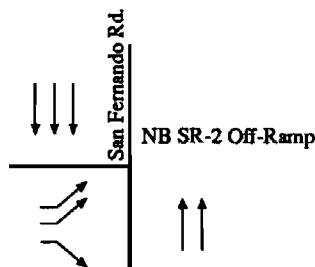
EXISTING INTERSECTION CONDITION

AFTER MITIGATION

HUGHES OPTION



**NO
MITIGATION
NEEDED**



GRAPHICS BY GRUEN ASSOCIATES



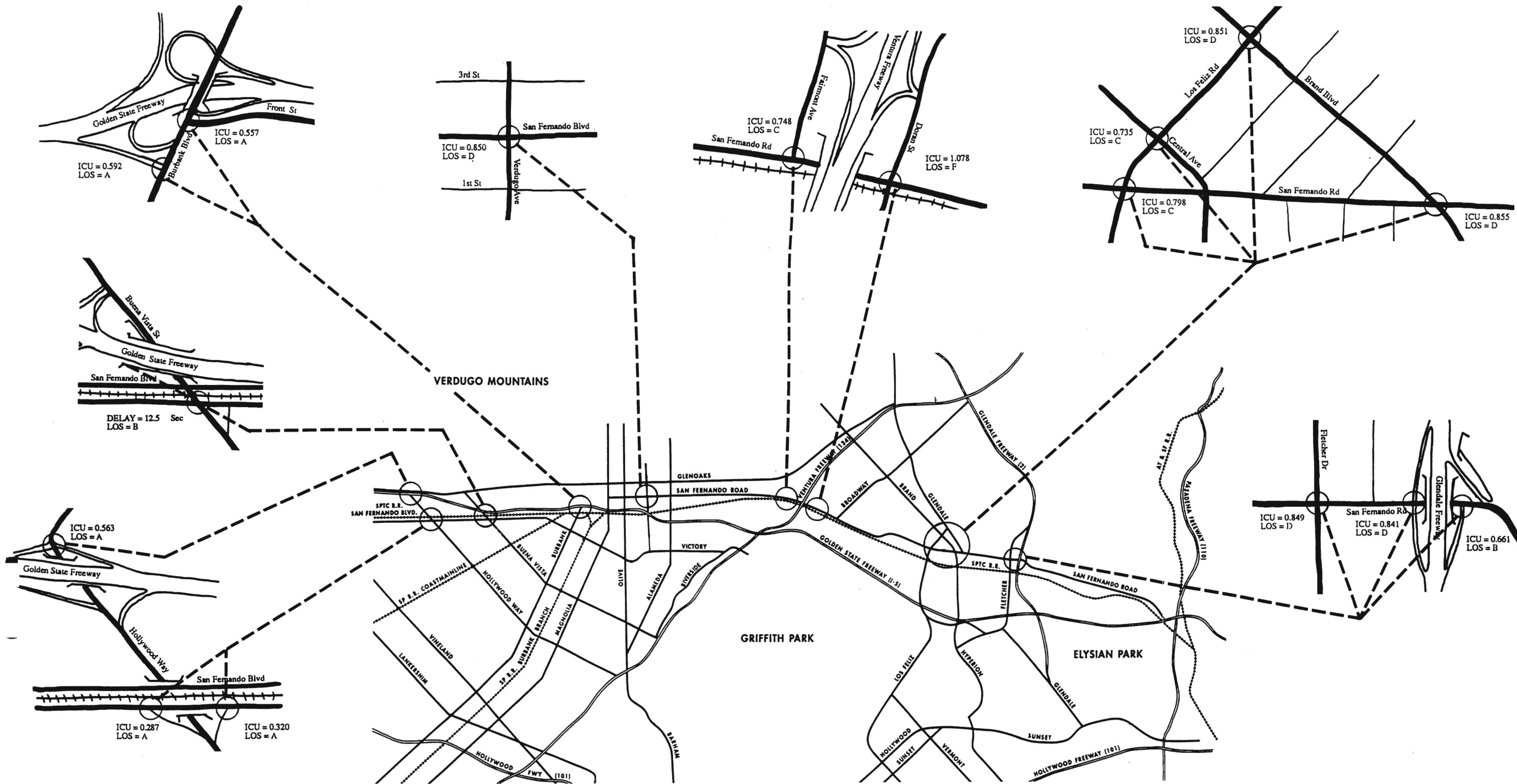
Table 20
Existing and Future Levels of Service and Traffic Impacts

Intersection	Existing (1991)		Future (2010) Base Without Project		Future (2010) Base With Project			Future (2010) Base With Project and Mitigations		
	ICU	LOS	ICU	LOS	ICU	LOS	ΔICU	ICU	LOS	ΔICU
I-5 Northbound and Hollywood Way	0.563	A	0.679	B	0.890	D	0.211	0.890	D	0.211
S. San Fernando Road and SB Hollywood Way	0.287	A	0.339	A	0.520	A	0.181	0.520	A	0.181
S. San Fernando Road and NB Hollywood Way	0.320	A	0.380	A	0.685	B	0.305	0.685	B	0.305
S. San Fernando Road and Buena Vista*	12.5 seconds	B	17.2 seconds	C	28.3 seconds	D	11.1 seconds	28.3 seconds	D	11.1 seconds
SB I-5 Off-Ramp and Burbank	0.592	A	0.779	C	0.795	C	0.016	0.795	C	0.016
Front and Burbank	0.557	A	0.730	C	0.941	E	0.211	0.817	D	0.087
San Fernando Road and Verdugo	0.850	D	1.058	F	1.216	F	0.158	0.864	D	-0.194
San Fernando Road and Fairmont	0.748	C	0.884	D	0.939	E	0.055	0.813	D	-0.071
San Fernando Road and Doran	1.078	F	1.283	F	1.346	F	0.063	1.129	F	-0.154
San Fernando Road and Los Feliz	0.798	C	0.944	E	1.014	F	0.070	0.934	E	-0.010
Central and Los Feliz	0.735	C	0.868	D	0.893	D	0.025	0.893	D	0.025
Brand and Los Feliz	0.851	D	1.008	F	1.047	F	0.039	0.954	E	-0.054
San Fernando Road and Brand	0.855	D	1.014	F	1.159	F	0.145	1.022	F	0.008
San Fernando Road and Fletcher	0.849	D	1.006	F	1.085	F	0.078	1.015	F	0.009
San Fernando Road and SB SR-2	0.841	D	0.996	E	1.097	F	0.101	0.907	E	-0.089
San Fernando Road and NB SR-2	0.661	B	0.779	C	0.792	C	0.013	0.792	C	0.013

SOURCE: Gruen Associates.

* Intersection delay in seconds per vehicle is shown for the S. San Fernando Road and Buena Vista intersection.

Shading indicates a significant impact requiring mitigation.



NO SCALE

GRAPHICS BY GRUEN ASSOCIATES

5.4.4 Future Base Traffic Conditions

Future Traffic Volumes. Future background traffic volumes for the year 2010 were developed for each of the study intersections. For intersections within the City of Burbank, the City's Draft Streets and Roads Study was used to determine growth factors that would be applied to the existing turning counts in order to estimate future 2010 traffic volumes. These growth factors varied between 1.1 and 1.7 percent growth per year. Once these growth factors were identified, they were applied to the existing turning counts, and 2010 turning counts were estimated. In the Cities of Glendale and Los Angeles, a constant one percent per year growth factor was used in the derivation of future 2010 traffic volumes. This rate of growth is consistent with the overall traffic growth in the area.

Trip generation for the project was calculated by adding the park and ride and kiss and ride trips together. Patronage forecasts were conducted by Schimpeler-Corradino Associates, and these patronage estimates were used in calculating the trip generation of the project. The following methodology was used in the calculations:

- **Park and Ride Trips.** Inbound trips, peak-period arrival by auto percentage multiplied by the number of peak-hour boardings divided by 1.4, reflecting expected auto occupancy. If this value is greater than the parking capacity, then the number of park and ride trips is equal to the parking capacity. Outbound trips, equal either to the total parking capacity or the LRT parking demand, whichever is less, at stations where LRT shares parking with other transportation modes, such as commuter rail or express bus. At stations where parking is not shared, the number of outbound park and ride trips is equal to the number of parking spaces.
- **Kiss and Ride Trips.** 25 percent of peak-hour station boardings and alightings from the LRT. For stations where parking demand exceeds parking capacity, the figure is multiplied by the ratio of parking capacity to parking demand. Trips are assigned both in and out.

The results of this trip generation are depicted in Table 21.

Background Traffic Analysis. For the areas proposed for quantitative analysis, an examination of the background traffic volumes was performed. This analysis serves as the background condition to which the traffic generated by the light rail will be added. Future traffic volumes were added to the existing roadway network and ICU calculations were conducted for this condition. Results of the calculations for the background conditions are depicted in Table 20.

**Table 21
Trip Generation**

Station	Parking Demand	Parking Supply	NB Trains		SB Trains		% By Auto	Kiss and Ride		Park and Ride	
			ON	OFF	ON	OFF		IN	OUT	IN	OUT
Avenue 26	0	0	67	0	0	7	0.0	19	19	0	0
Taylor Yard	861	300	22	879	31	59	79.9	86	86	30	300
Fletcher Drive	597	500	18	907	332	48	54.3	273	273	136	500
Glendale Transportation Center	1255	1500	34	1049	30	53	99.0	292	292	45	1255
Broadway	0	0	162	3	37	7	0.0	52	52	0	0
Ventura Freeway	552	500	0	316	0	164	100.0	109	109	0	500
NW Glendale	0	0	107	96	207	20	0.0	108	108	0	0
Burbank City Center	623	1300	21	531	55	52	92.6	165	165	50	623
Buena Vista	74	75	80	50	221	15	100.0	92	92	75	74
Hollywood Way	651	1500	0	725	186	0	81.6	525	525	108	1500

SOURCE: Schimpeler-Corradino Associates.

5.4.5 Quantitative Impact Analysis

The traffic generated by the light rail was added to the background condition and the difference in intersection ICU was used as the basis for the determination of impacts. For areas where there was a quantitative analysis done, the impacts of the movement of the LRT were determined using the following methodology. A significant impact was assumed to be an increase in the ICU of 0.020 or more at an intersection, with a final ICU of 0.900 or more. This methodology was used to determine the number of impacted intersections. The goal of mitigation measures, then, is to bring the project impact down to a level of insignificance. According to these criteria, nine study intersections are significantly impacted by the LRT. These intersections are identified in Table 20 by the shading of the difference between the Cumulative plus project and the Cumulative ICU. Future levels of service for the 2010-plus project condition and the intersections experiencing significant impacts are illustrated in Figure 49. The significantly impacted intersections are:

- Front Street and Burbank Boulevard (Burbank)
- San Fernando Boulevard and Verdugo Avenue (Burbank)
- San Fernando Road and Fairmont Avenue (Glendale)
- San Fernando Road and Doran Street (Glendale)
- San Fernando Road and Los Feliz Boulevard (Glendale)
- Brand Boulevard and Los Feliz Boulevard (Glendale)
- San Fernando Road and Brand Boulevard (Glendale)
- San Fernando Road and Fletcher Drive (Los Angeles)
- San Fernando Road and Southbound Glendale Freeway ramps (Los Angeles)

Under the Hughes Market station site alternative, the San Fernando Road and Northbound Glendale Freeway on-ramp intersection is also significantly impacted.

The South San Fernando Boulevard and Buena Vista intersection experiences a delay increase of 11.1 seconds. This change in delay was not considered significant because the final level of service of "D" is considered acceptable.

5.4.6 Qualitative Impact Analysis

Frequency and Speed of the LRT and At-Grade Crossing Impacts. Headway estimates and the projected speed of the LRT were prepared by Manuel Padron & Associates, and are depicted in Table 5, Chapter 3.0. This data was used to determine the impacts caused by the movement of the light rail vehicles themselves. For calculation purposes, it was assumed that headways on the line during the PM peak would be five minutes for both the northbound and southbound directions. This averages out to one LRT train passing a given point on the line every 2.5 minutes. The City of Glendale provided traffic volume counts for each of the at-grade crossings within the City. The Wiltec turning counts for the San Fernando Boulevard and Buena Vista intersection were used for the determination of impacts at this intersection.

The methodology to calculate the impacts of the LRT at each of the crossings other than the Buena Vista crossing was to first apply the growth factors described above to the traffic volumes, and to then add any traffic generated by LRT stations to get an estimation of 2010 traffic volumes. Following identification of these future volumes, the headway and speed estimates were used determine the amount of time that the road would be blocked by the passing of the LRT. It was assumed that the sum of the clearance times that the crossing gates would be down before the arrival and after the departure of the LRT would be 20 seconds. The time the LRT would be in the intersection was calculated by using the speed of the LRT taken from the speed estimates. This time was then added to the 20 seconds the gates would come down for clearance, to get the average time an intersection would be blocked per LRT arrival. This time varies for each intersection as the speed of the LRT and the width of the intersection varies. For those crossings near a station, the speed of the LRT was assumed to be 10 mile per hour.

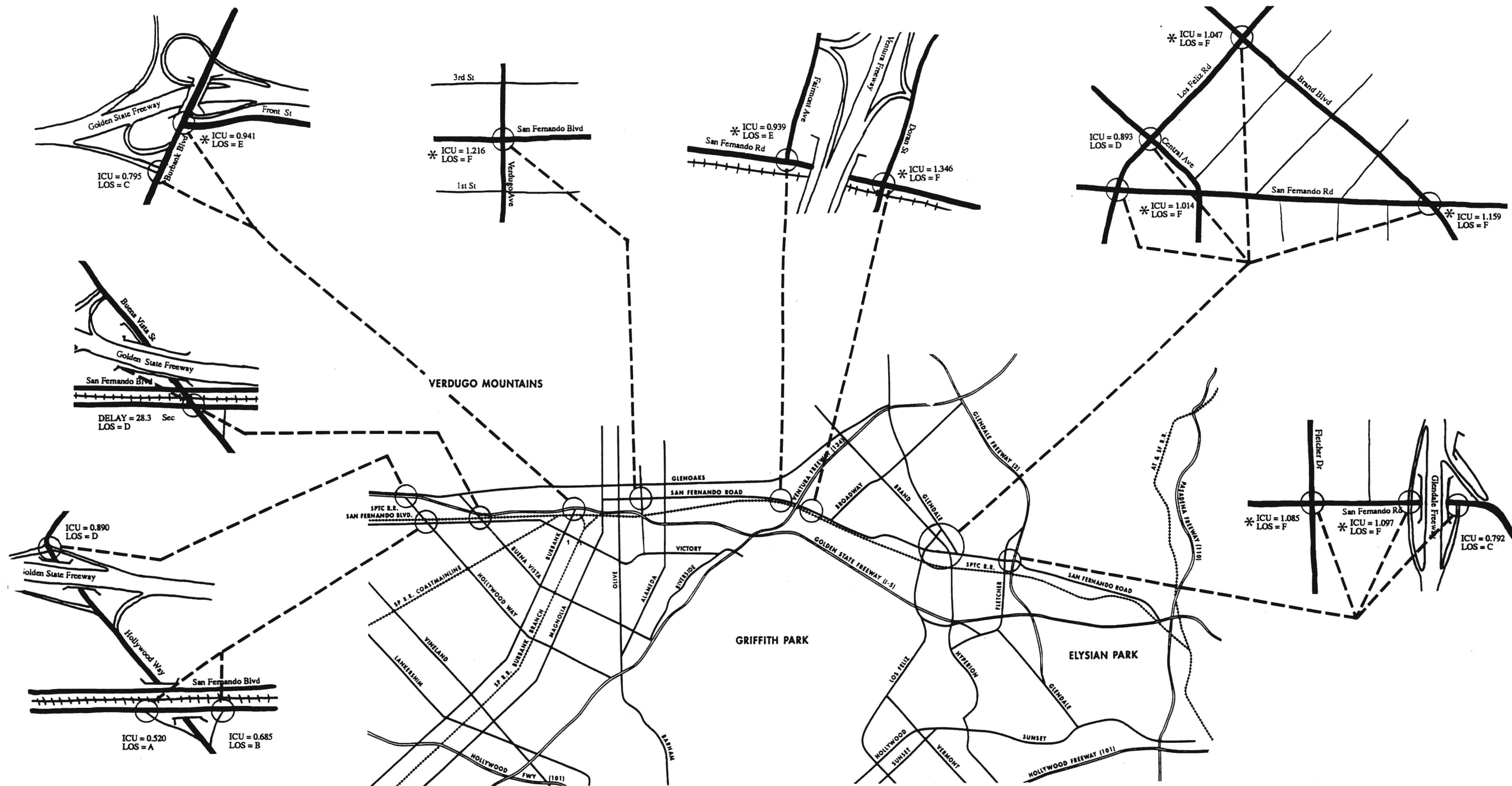
The delays and queuing that would result from the operation of the LRT are depicted on Table 22. Each of these delays falls into the "A" to "B" range of level of service and are not considered significant. Queuing is also not considered to be significant at any of these crossings. At the Sonora Avenue eastbound crossing, the queue is expected to reach the Sonora/Air Way intersection. Given that this intersection is signalized and will be preempted when LRT vehicles pass, the impacts of this queuing should not be significant.

Table 22				
Delay and Queuing at At-Grade Crossings				
Future 2010 Condition With LRT				
Crossing	Delay per Vehicle (seconds)		Length of Queue (feet)	
	EB	WB	EB	WB
Allen Avenue Crossing	1.8	1.8	60	60
Sonora Avenue Crossing	6.1	5.8	140	120
Grandview Avenue Crossing	2.0	1.8	60	40
Bekins Way Crossing	1.7	1.9	20	60
Broadway Street Crossing	5.3	5.0	120	100
Goodwin Avenue Crossing	1.7	1.8	40	40
Chevy Chase Drive Crossing	2.0	1.9	80	60
SOURCE: Gruen Associates.				

5.4.7 Mitigation Measures

The following mitigation measures have been identified to mitigate significant LRT impacts:

- **Front Street and Burbank Boulevard.** The project will increase the ICU at this intersection from a future 2010 base of 0.730 to 0.941, an increase of 0.211. If the eastbound Burbank Boulevard approach to the intersection were widened to accommodate a right-turn lane, and the northbound Front Street approach were restriped to allow for two left-turn lanes, the mitigated ICU would be 0.817. This would still be an increase in the ICU of 0.087, however, this would be considered to be an insignificant impact due to the fact that the final ICU would be under 0.900. Construction of the right-turn lane would require that the south side of the eastbound approach be widened by 12 feet between the Burbank Boulevard overcrossing and Front Street. This widening would take place in the slope easement and would not require additional right-of-way. However, retaining walls would be needed below the lane to make the construction of this improvement feasible. The re-striping of the northbound approach can take place between the existing curb faces, and would not require widening of the approach.
- **San Fernando Boulevard and Verdugo Avenue.** The project will increase the ICU at this intersection from a future 2010 base of 1.058 to 1.216, an increase of 0.158. If the northbound San Fernando Boulevard approach to the intersection were restriped to accommodate a left-turn lane, the mitigated ICU would be 0.864, 0.194 below the base 2010 ICU. Restriping of the northbound approach would require that parking on both sides of the approach be eliminated in order for the improvement to take place between the existing curb faces, without the need of widening the approach. Establishments that would be affected by this parking removal would be the Four Square Church, Tae Kwon Do Studio and WT Towing on the west side of the street; and Henry's Liquors, O.H. Lynn Printing and Instant Print on the east side of the of San Fernando Boulevard.
- **San Fernando Road and Fairmont Avenue.** The project will increase the ICU at this intersection from a future 2010 base of 0.884 to 0.939, an increase of 0.055. If the northbound San Fernando Road approach to the intersection were restriped to accommodate a right-turn lane, the mitigated ICU would be 0.813, 0.071 below the base 2010 ICU. Restriping of the northbound approach could take place in the existing roadway width without the need of widening the approach.
- **San Fernando Road and Doran Street.** The project will increase the ICU at this intersection from a future 2010 base of 1.283 to 1.346, an increase of 0.063. If the eastbound Doran Street approach to the intersection were widened to accommodate a left-turn lane, the mitigated ICU would be 1.129, 0.154 below the base 2010 ICU. Construction of this improvement would require the widening of the eastbound approach. This widening, however, can be constructed on City and railroad rights-of-way. Widening of this approach will require that the railroad crossing guards be relocated.



* INDICATES SIGNIFICANT IMPACT REQUIRING MITIGATION

NO SCALE

GRAPHICS BY GRUEN ASSOCIATES

FIGURE 49

Future (2010) Level of Service (LOS)
 With L.R.T.

- **San Fernando Road and Los Feliz Boulevard.** The project will increase the ICU at this intersection from a future 2010 base of 0.944 to 1.014, an increase of 0.070. If the southbound San Fernando Road approach to the intersection were restriped to accommodate a right-turn lane, the mitigated ICU would be 0.934, 0.010 below the base 2010 ICU. Restriping of the southbound approach would require that parking on the west side of the approach be eliminated in order for the improvement to take place between the existing curb faces, without the need of widening the approach. The El Portal Restaurant would be affected by this removal of parking.
- **Brand Boulevard and Los Feliz Boulevard.** The project will increase the ICU at this intersection from a future 2010 base of 1.008 to 1.047, an increase of 0.039. If the northbound Brand Boulevard approach to the intersection were restriped to accommodate a right-turn lane, the mitigated ICU would be 0.954, 0.054 below the base 2010 ICU. Restriping of the northbound approach would require that parking on the east side of the approach in front of Allen Gwynn Chevrolet, between Los Feliz Boulevard and the dealership's driveway, be converted from angle to parallel parking in order for this improvement to take place between the existing curb faces, without the need of widening the approach.
- **San Fernando Road and Brand Boulevard.** The project will increase the ICU at this intersection from a future 2010 base of 1.014 to 1.159, an increase of 0.145. If the southbound San Fernando Road approach to the intersection were restriped to accommodate a right-turn lane, the mitigated ICU would be 1.022, 0.008 above the base 2010 ICU, but below the 0.020 significance criteria. Restriping of the southbound approach would require that the bus stop on southbound San Fernando Road, north of Brand Boulevard, be moved to the south of Brand Boulevard, in front of the Seeley's furniture store. The existing parking on this west side of the street would be eliminated in order for the improvement to take place between the existing curb faces, without the need of widening the street.
- **San Fernando Road and Fletcher Drive.** The project will increase the ICU at this intersection from a future 2010 base of 1.006 to 1.085, an increase of 0.079. In order to mitigate project impacts, the project will implement ATSAC (Automated Traffic Surveillance and Control) improvements at this intersection. ATSAC is the City of Los Angeles' computerized traffic signal system which will enhance traffic flow by better coordinating area traffic signals. Experience has shown this type of system, when applied to traffic signals, can increase traffic capacity by five to thirteen percent. LADOT currently credits an intersection with the installation of ATSAC with a reduction of 0.070 in its ICU. With the 0.070 credit applied to the future base plus project ICU, the mitigated ICU would be reduced to a value of 1.015, resulting in an insignificant impact.

- **San Fernando Road and Southbound Glendale Freeway ramps.** The project will increase the ICU at this intersection from a future 2010 base of 0.996 to 1.097, an increase of 0.101. If the southbound San Fernando Road approach to the intersection were restriped to accommodate a right-turn lane, the mitigated ICU would be 0.907, 0.089 below the base 2010 ICU. Restriping of the southbound approach could take place in the existing roadway width, without the need of widening the approach.

Mitigation Measures for the Hughes Market Station Site Alternative. Should the Glendale Freeway Station be located at the Hughes site, the following mitigation measures would be needed:

- **San Fernando Road and Fletcher Drive.** The project will increase the ICU at this intersection from a future 2010 base of 1.006 to 1.069, an increase of 0.063. If ATISAC were installed at this intersection, the mitigated ICU would be reduced to a value of 0.999, resulting in an insignificant impact.
- **San Fernando Road and Southbound Glendale Freeway ramps.** The project will increase the ICU at this intersection from a future 2010 base of 0.996 to 1.221, an increase of 0.225. If the southbound San Fernando Road approach to the intersection were restriped to accommodate a third through lane, the mitigated ICU would be 1.010. This would still be an increase in the ICU of 0.014, however, this would be considered to be an insignificant impact due to the fact that the mitigated difference in the ICU is less than 0.020. Restriping of the southbound approach and moving the median could take place in the existing roadway width without the need of widening the approach. The third lane could be dropped at the SR-2 northbound on-ramp as a left-turn only lane. Since the restripe may mean removing the median where there are existing signal poles, the signal indications on these median poles may need to be relocated to overhead mast arms.
- **San Fernando Road and Northbound Glendale Freeway off-ramp.** The project will increase the ICU at this intersection from a future 2010 base of 0.779 to 0.908, an increase of 0.129. If the southbound San Fernando Road approach to the intersection were restriped to accommodate a third through lane, the mitigated ICU would be 0.894. This would still be an increase in the ICU of 0.115, however, this would be considered to be an insignificant impact due to the fact that the final ICU would be under 0.900. Restriping of the southbound approach and moving the median could take place in the existing roadway width, without the need of widening the approach. The third lane could be dropped at the SR-2 northbound on-ramp, just to the south of this intersection, as a left-turn only lane. Since the restriping may mean removing the median where there are existing signal poles, the signal indications on these median poles may need to be relocated to overhead mast arms.

5.5 NOISE

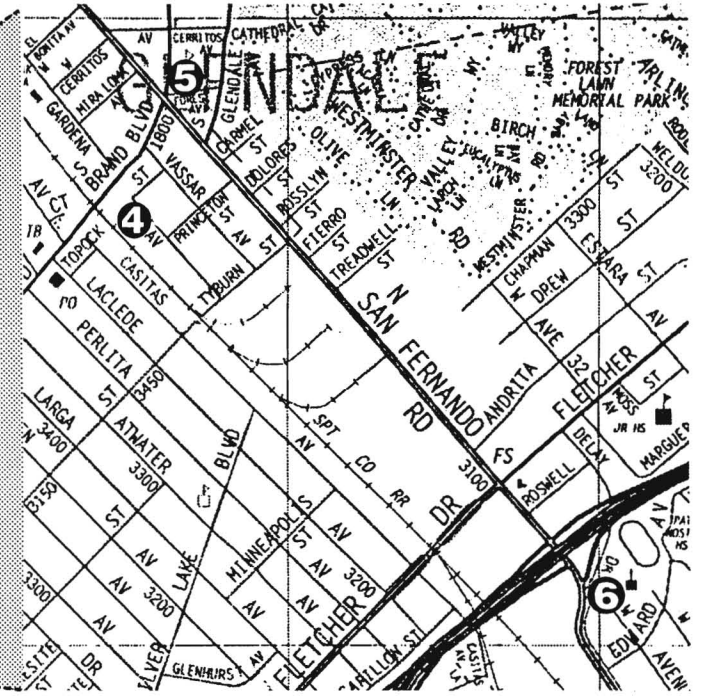
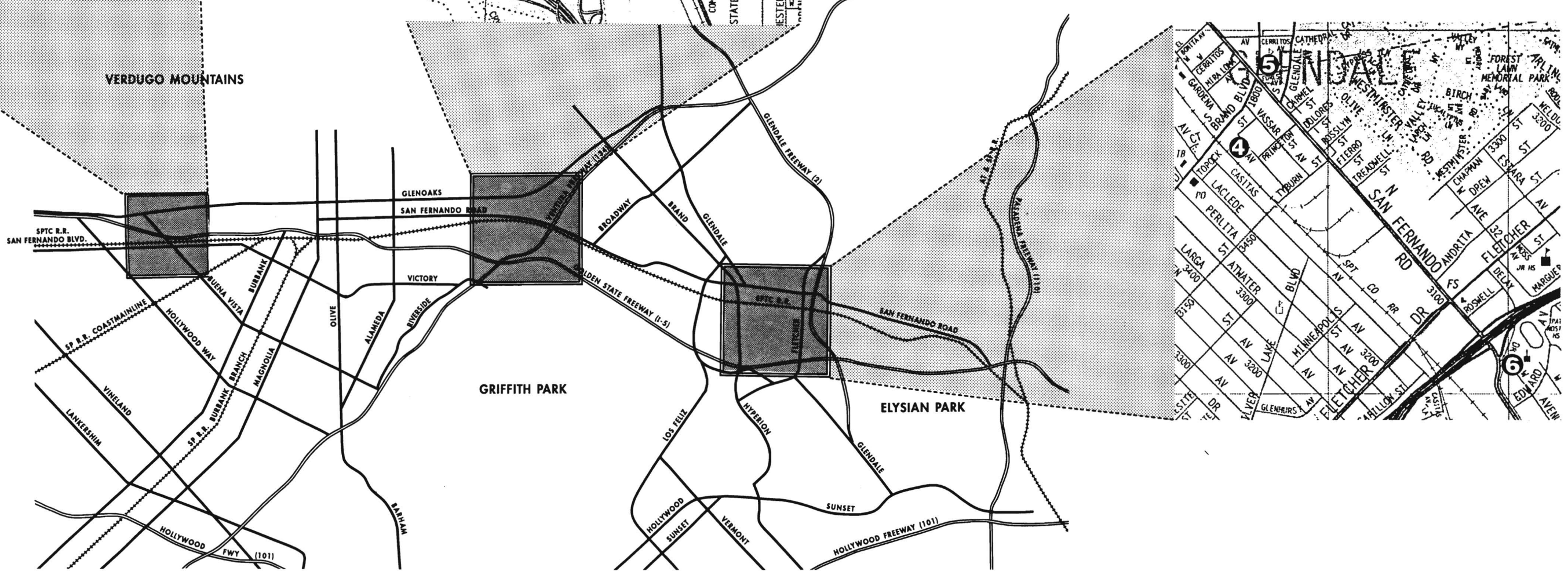
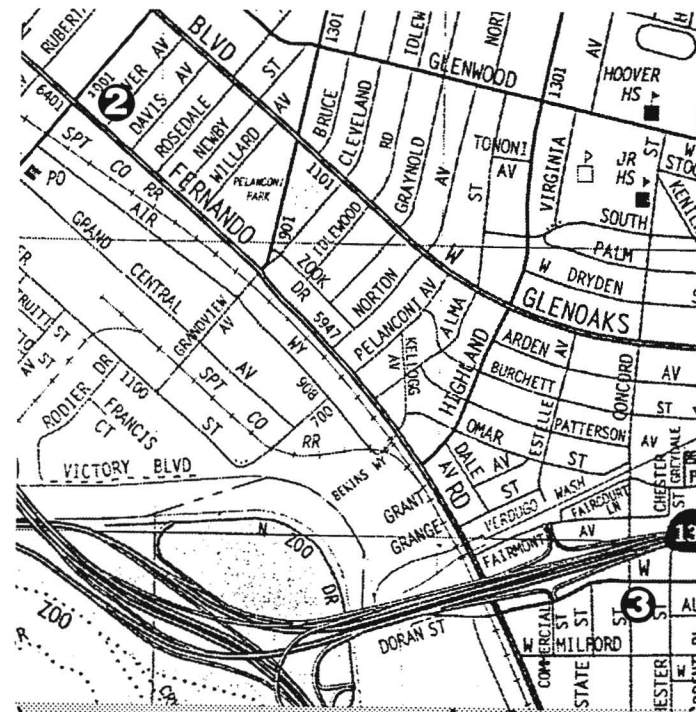
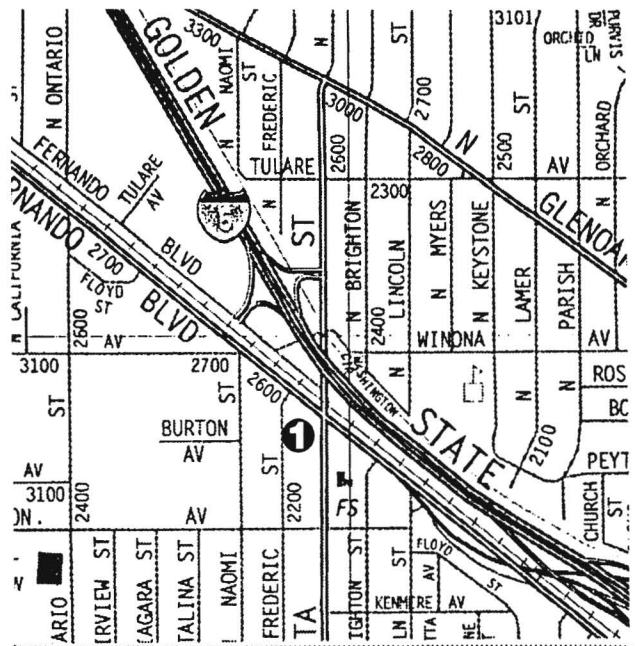
Environmental Setting

The predominant source of noise in the project vicinity is vehicular traffic, including buses and trucks. At some locations, traffic noise is further augmented by traffic on the Golden State Freeway (I-5). Freeway traffic is clearly discernible at some locations in the project vicinity, particularly on the segment of Victory Place from Buena Vista Street to the intersection with the Southern Pacific Coast Route and near the Glendale Freeway (SR-2). Noise levels are highest where there is a direct line of sight to the freeway. Furthermore, heavy train traffic along the Southern Pacific mainline, which accommodates approximately three round-trip passenger trains and three one-way freight trains daily, adds to the existing noise environment. Nighttime train traffic is particularly noticeable. Ambient noise levels in the vicinity of the proposed alignment range from approximately 66 to 77 decibels.

Based on existing surface street and freeway daily traffic volumes and on current daily passenger and freight train trips, existing Community Noise Equivalent Levels (CNEL) were calculated using the Federal Highway Administration's Highway Traffic Noise Prediction Model at various sensitive locations along the route, as shown on Table 23. CNEL is a 24-hour noise measurement that emphasizes noise created during the evening (7:00 p.m. to 10:00 p.m.) and at night (10:00 p.m. to 7:00 a.m.). Elements of the noise environment included in this calculation are vehicular traffic noise, train traffic noise, and air horns used at road crossings by train traffic.

Sensitive land uses within approximately 0.25 miles of the proposed alignment include parks, schools, and recreational facilities. Residential uses exist in the vicinity of the proposed alignment near the intersection of Buena Vista Street and San Fernando Boulevard; north of San Fernando Road between Allen Avenue and Verdugo Wash; and north and south of the proposed alignment from Chevy Chase Drive to South Taylor Yard. Many sensitive uses and most residential areas are set back from the alignment by commercial and industrial land uses or by a freeway.

For the purpose of noise assessment, six representative locations have been selected for analysis. These locations, shown on Figure 50, include residences near the intersection of Buena Vista Street and San Fernando Boulevard in the City of Burbank; residences near Sonora Avenue in Glendale; residences near San Fernando Road and Doran Street in Glendale; residences and an elementary school near San Fernando Road and Brand Boulevard in Glendale; and the Pater Noster High School site and residences near San Fernando Road and the northbound Glendale Freeway (SR-2) on ramp in the City of Los Angeles.



NO SCALE

GRAPHICS BY GRUEN ASSOCIATES

SOURCE: Terry A. Hayes Associates, 1992.



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FIGURE 50

Table 23 Existing Noise Environment (CNEL)			
#	Location	Distance from alignment	Noise Level, Db
1	Residences San Fernando Blvd. at Buena Vista Street	400 feet	71.2
2	Residences San Fernando Road near Sonora Avenue	500 feet	69.5
3	Residences Doran Street at Concord Street	1300 feet	66.6
4	Residences San Fernando Road at Brand Boulevard	100 feet	77.2
5	Elementary School San Fernando Road at Brand Boulevard	1200 feet	73.0
6	Pater Noster High School (not in use) San Fernando Road at Glendale Freeway on and off ramps	250 feet	72.0
Source: Terry A. Hayes Associates			

In its noise element, the City of Burbank has adopted the maximum outdoor noise level that will allow people to converse easily as its outdoor standard for residential land uses. The acceptable noise level, measured in Ldn, is 55 dB. For urban single-family residences, the Noise Element of the Glendale General Plan classifies noise levels up to 60 dBA as being normally acceptable, noise levels up to 70 dBA as being conditionally acceptable, and noise above 70 dBA as being either normally or clearly unacceptable. As shown on Table 23, ambient noise levels at all monitoring locations exceed or marginally comply with accepted noise guidelines. None of the cities through which the rail line passes have adopted guidelines that limit noise from light rail operations.

Environmental Impact

This impact assessment focuses on noise resulting from the operation of light rail transit. As noted, noise levels have been estimated using CNEL, which is a weighted 24-hour noise measure that places a 5 decibel penalty on noise occurring between 7:00 p.m. and 10:00 p.m. and a 10 decibel penalty on noise occurring between 10:00 p.m. to 7:00 a.m. It has been demonstrated that additional sound during these hours is more intrusive and annoying than sound produced during daylight hours. Elements of the noise environment included in this assessment are vehicular traffic noise, train traffic noise, air horns used by trains, and light rail vehicle traffic.

The Metro Blue Line currently uses air horns at street crossings to alert motorists of its approach. Air horns, which produce single event noise levels of 105 dB, are the most noticeable and intrusive component of train noise. Because of their unusually disruptive attributes, air horns are being replaced on the Metro Blue Line by electric horns, which produce single event noise levels of approximately 87 dB. This noise level (87 dB) meets the standards set by the Public Utilities Commission (PUC). Cars will continue to be equipped with air horns, but these will only be used in emergency situations. According to vehicle specifications developed by the Los Angeles County Transportation Commission, the allowable noise from a light rail vehicle is 77 decibels at a distance of 50 feet at a speed of 50 miles per hour. Vehicles used for the proposed project would comply with this specification.

The basic premise of the noise evaluation criteria used by the Los Angeles County Transportation Commission is that the allowable incremental change in additional noise levels decreases as the ambient noise level increases. Thus, when the ambient noise level is 55 decibels, a 5 decibel change or more is considered a significant impact. However, when the ambient noise level is 65 decibels, an incremental change of more than one decibel would be considered significant. This relationship is best illustrated on Figure 51, which shows the Draft Federal Transportation Administration (FTA) noise guidelines.

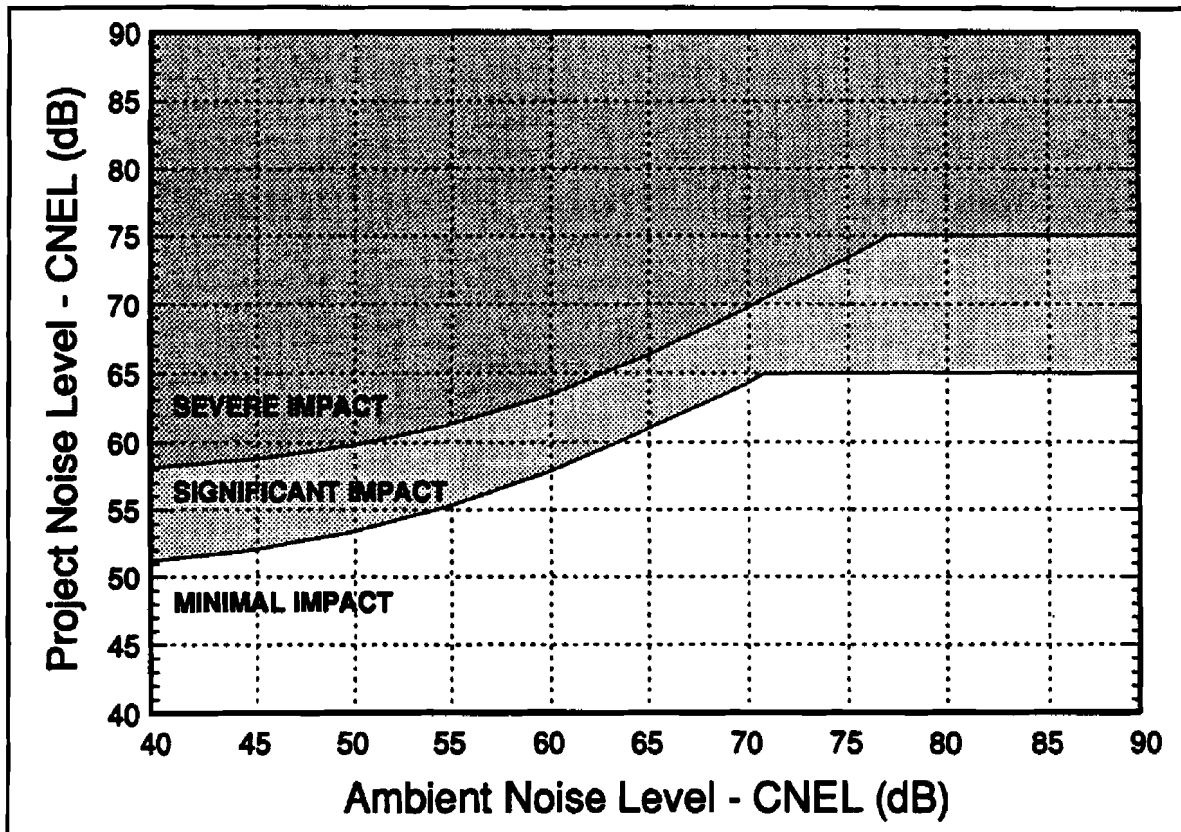


FIGURE 51

Draft FTA Noise Guidelines
 SOURCE: Harris Miller Miller Hanson Inc.

ENVIRONMENTAL ISSUES ANALYSIS

Existing ambient and future ambient conditions without the LRT are relatively high along the corridor. These ambient conditions were projected using the FHWA RD77108 model for traffic noise and a HUD noise nomograph for railroad noise. Traffic noise ranges from CNEL 66 to CNEL 77, while railroad noise ranges from CNEL 58 to CNEL 73. The addition of the proposed LRT would not significantly affect ambient conditions largely because the LRT noise would be masked. Increase in the noise environment between the future ambient conditions and future with LRT are largely due to the additional traffic in the area. Using a model based on the Harris Miller Miller Hanson, Inc. (HMMH) procedure, estimates indicate that LRT CNELs range from 53 to 64 dB, depending on the receptor distance from the track centerline. These findings are consistent with HMMH projections for other LRT projects in the region.

Table 24 illustrates the anticipated change in ambient noise levels at sensitive land use locations along the proposed rail alignment in the future without project condition and in the future with implementation of the proposed rail alignment. Construction of the project would result in increases in the noise environment ranging from 0.2 to 1.5 dB. The highest LRT CNEL estimated was 64 dB near the residences at Location 4. According to the Draft FTA noise graph, the ambient noise would have to be less than 76 dB to result in a significant impact. In this case, the ambient is 77 dB.

Table 24 Future Noise Levels (CNEL)							
#	Location	Existing	Future Without Project	LRT CNEL	Future With Project	Change	Impact Evaluation
1	Residences San Fernando Rd-Buena Vista St.	71.2	71.7	58.1	71.9	+0.2	Not Significant
2	Residences San Fernando Rd.-Sonora Ave.	69.5	69.5	57.1	69.7	+0.2	Not Significant
3	Residences Doran St.-Concord St.	66.6	66.6	53.0	66.8	+0.2	Not Significant
4	Residences San Fernando Rd.-Brand Blvd.	77.2	77.2	64.1	78.7	+1.5	Not Significant
5	Elementary School San Fernando Rd.-Brand Blvd.	73.0	73.8	53.3	74.7	+0.9	Not Significant
6	Pater Noster H.S., Residences (H.S. currently not in use) San Fernando Rd. at SR-2 on and off ramps	72.0	72.5	56.3	72.6	+0.1	Not Significant

SOURCE: Terry A. Hayes Associates

Mitigation Measures

Mitigation of construction noise would be required of contractors to comply with local noise ordinances. A set of guidelines for the planning and operation of construction machinery will be provided by the contractor. To minimize or avoid operational noise impacts to sensitive land uses, the following measures should be implemented:

- Because the highest potential of impacts will likely occur where sensitive land uses are in close proximity to an at-grade LRT crossing, lower sound level horns should be used in these areas without compromising safety. The horns primarily serve as an audible warning for pedestrians, while the rail crossing guards alert motorists of on-coming trains. Audible warning devices for pedestrians which are more quiet should be explored.
- Sensitive land uses directly adjacent or with no screening from the rail line should be buffered from the alignment by means of berms, noise barriers, or other buffering technique.

If these mitigation measures are implemented, the impact near sensitive land uses and at-grade crossings should reduce the significant levels of noise during sensitive hours of operation to acceptable levels.

Unavoidable Adverse Impacts

Successful implementation of the mitigation measures should leave the proposed project with no adverse noise impacts.

5.6 EARTH, WATER, AND RISK OF UPSET

5.6.1 Geology

Environmental Setting

The study area for the proposed rail transit project consists primarily of relatively flat topography, which slopes gently downward to the southeast. The alignment is located near the eastern margin of the Santa Monica Mountains. The Santa Monica Mountains are an uplifted block of folded metamorphic granitic and sedimentary rocks that belong to the Transverse Ranges Geomorphic Province.

The northernmost portion of the proposed rail alignment traverses thick, generally historic sandy and gravelly alluvial soils interspersed with predominately local alluvial boulder deposits from the washes that drain the San Gabriel and Verdugo Mountains. These soils are associated with the Tujunga-Soboba formation and overlie Pleistocene terrace deposits to a depth of about 300 feet. The southernmost portion of the rail alignment crosses older Quaternary silt, sand, and gravel alluvial and stream terrace deposits associated with the Hanford formation, which overlie the La Habra Formation to a depth of approximately 2,500 feet⁹.

Groundwater levels in the vicinity of the proposed alignment vary from approximately 100 to 70 feet in depth along the western portion of the alignment to approximately 50 to 10 feet in depth along the easternmost portion of the alignment. The flow of groundwater is generally southeasterly.

The majority of the project alignment is not subject to flooding. The City of Burbank has identified a small area near the intersection of Chandler and Victory Boulevards as subject to flooding. Those portions of the alignment in the City of Los Angeles have been classified by the Federal Emergency Management Agency (FEMA) as Zone C, which has little or no flood hazard potential.

Environmental Impacts

Implementation of the proposed project would result in the operation of a light rail transit line within the 100-foot SPTC right-of-way that is currently in operation. Construction of the proposed project would entail the laying of smaller gauge rails, the construction of ten transit stations, and the widening of the existing bridge over the Verdugo Wash to accommodate passage of the light rail line. The bridge would be designed in accordance with accepted engineering practices. No known geological conditions exist that would restrict the widening of this bridge or the laying of new track.

⁹ R.F. Yerkes, et.al. "Geology of the Los Angeles Basin California - an Introduction", U.S. Geological Survey Professional Paper 420-A, 1965.

Construction and operation of the proposed project are not anticipated to affect groundwater beneath the project site. Excavation and foundation construction would occur in areas where groundwater is located at a minimum depth of 10 feet. Construction activities are not anticipated to affect groundwater. Widening of the existing bridge across the Verdugo Wash is not expected to result in geological impacts.

Mitigation Measures

No mitigations are recommended.

Unavoidable Adverse Impacts

The proposed project route would not result in net adverse effects to the project study area's geological environment.

5.6.2 Seismicity

Environmental Setting

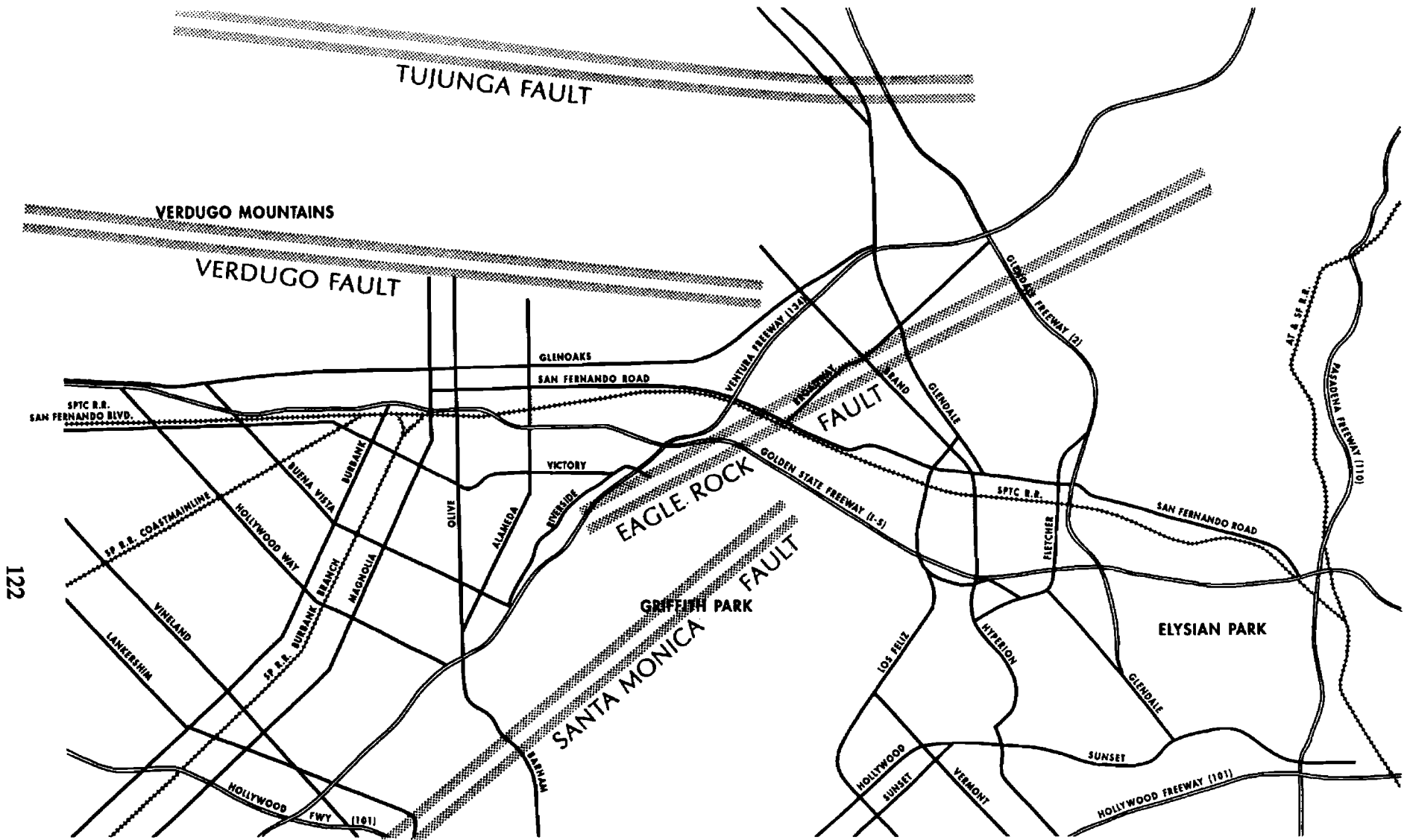
The proposed rail alignment is located in southern California, which is subject to periodic earthquake-induced ground shaking. No portion of the site is located within an Alquist-Priolo Special Studies Zone, although the alignment crosses a Los Angeles Department of City Planning Fault Rupture Zone (1975). Some evidence suggests that the Santa Monica-Hollywood-Raymond Fault Zone may traverse the proposed light rail alignment in the vicinity of Glendale Boulevard, however, the precise location of this fault is unknown¹⁰. Studies have not clearly identified whether this fault should be considered active or potentially active¹¹. The easternmost portion of the Santa Monica-Hollywood-Raymond Fault Zone is known as the Raymond Hill fault. This fault has been identified as an Alquist-Priolo Special Studies Zone, however, the rail alignment does not cross this zone.

As illustrated in **Figure 52**, other faults are located within approximately two miles of the proposed rail alignment. These faults include the Eagle Rock Fault, Verdugo Fault, Santa Monica Fault, and Tujunga Fault. The Verdugo Fault has exhibited offset of recent alluvial sediments and is, therefore, considered to be active. Evidence for Holocene activity along the Eagle Rock Fault is not as conclusive¹².

¹⁰ California Dept. of Conservation, Division of Mines and Geology, File Report 79-16, 1979, p. A-5 to A-8.

¹¹ Ibid, p. B-9 to B-11.

¹² Ibid, p. D-15 to D-17.



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NOTE: Santa Ynez-San Gabriel Fault Zone is located north of Project Study Area.

NO SCALE 

SOURCE: Los Angeles Times, Davis and Namson, November 1989.

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 52
 Existing Faults and
 Fault Zones

Another seismic effect to be considered is the potential for liquefaction. Liquefaction occurs when the water pressure between soil grains is increased to the point that the grains separate and the soil loses its bearing capacity. Significant seismic forces can provide the pressure increase. The results can include differential settlement or lateral spreading of the ground surface or settlement of structures founded on the liquefying layer. Liquefaction commonly occurs in saturated, cohesionless, fine-grained soils of low relative density. The juncture of the proposed rail line with the proposed Pasadena-Los Angeles Rail Transit Project at the easternmost end of the proposed rail alignment lies within an area having a moderate potential for liquefaction.¹³

Environmental Impacts

The location of the project relative to known active and potentially active faults indicates that the site is not exposed to greater seismic risk than other locations in Southern California. However, the southeastern end of the alignment at the juncture with the proposed Pasadena-Los Angeles Rail Transit Project would be subject to moderate liquefaction in the event of an earthquake occurring in close proximity to this portion of the rail alignment.

Implementation of the proposed project would include the construction of ten transit stations and associated parking areas, the laying of smaller gauge rails, and the widening of the bridge over Verdugo Wash. Design and construction of the project would be consistent with standard engineering practices.

Mitigation Measures

The following measures would reduce the potential for adverse geological impacts:

- All structures should be constructed in anticipation of a major earthquake. Structures should be designed to withstand the maximum probable earthquake predicted for the area.
- Detailed engineering studies should be conducted at sites identified by soils testing (refer to Section 5.6.4) that may have an elevated risk potential due to factors such as soil liquefaction or subsidence. Seismic parameters shall be defined for the project and would take into account those generally accepted engineering factors, parameters, and forces pertaining to the expected maximum credible seismic event predicted for the area.

¹³ United States Geological Survey, Professional Paper 1360, 1985.

5.6.3 Watercourses and Drainage

Environmental Setting

The proposed rail alignment crosses the Burbank Western Channel, the Arroyo Verdugo Wash and the Arroyo Seco. The rail line also intersects numerous minor drainage channels. All of these channels are eventually tributary to the Los Angeles River, which serves as the primary storm drain outlet in this area.

The majority of the project alignment study area is not susceptible to flooding. The City of Burbank has identified a small area near the intersection of Chandler and Victory Boulevards as subject to flooding. Those portions of the alignment in the City of Los Angeles have been classified by the Federal Emergency Management Agency (FEMA) as Zone C, which has little or no flood hazard potential.

Environmental Impact

Implementation of the proposed project includes the construction of ten transit stations and associated parking areas, the laying of smaller gauge rails, and the widening of the bridge crossing Arroyo Verdugo Wash. Construction of the project would entail activities that could temporarily increase the sediment load of the local drainages and of the Los Angeles River. Widening of the bridge over the Arroyo Verdugo may entail the placement of additional supports, which would result in the disturbance of the wash bottom and temporarily increase downstream sediment loads. These impacts would be temporary and are not anticipated to be significant.

In addition, the City of Burbank has identified potential impacts to the Burbank Western Channel and Lockheed Channel where an increase in impervious surfaces would increase storm runoff and potentially alter the flow of storm water. At-grade crossing of streets and alleys could also impact flow of flood waters along streets and alleys which may require addition to or extension of storm drain systems. The SPTC right-of-way presently impact the course and flow of flood waters as it creates an embankment that cuts diagonally across the natural drainage pattern in Burbank. Development of the proposed alignment would add a new set of rail tracks on the corridor. This addition would alter the existing form of the right of way and could potentially affect the existing flow of flood waters.

Mitigation Measures

During the initial design phase of the project, detailed coordination with the Los Angeles County Department of Public Works and the California Regional Water Quality Control Board (NPDES permit) will be sought to establish flood design parameters for the project that would avoid impacts on surface runoff and the flow of flood waters.

Unavoidable Adverse Impacts

None anticipated.

5.6.4 Risk of Upset

Environmental Setting

The subject property is currently owned by Southern Pacific Railroad, which operates a rail line for the transportation of freight and passengers. This rail line consists primarily of a single line; spurs and multiple tracks exist in some areas.

A reconnaissance of the proposed alignment was performed by GEOFON Environmental to determine whether potential hazards from hazardous wastes existed along the proposed alignment. GEOFON identified approximately 35 sites that contain potentially hazardous substances. Each site was assigned a priority level ranging from low to high. Sites that had no visual signs of surface staining, small to moderate quantities of stored hazardous materials, or were on a government list were assigned a low priority level. Sites that had small areas of surface staining and/or were in close proximity to a large quantity of hazardous materials were assigned a medium priority level. Sites that had large areas of surface staining were assigned a high priority level. Additionally, thick oil deposits exist on some portions of the track and the railroad ties have been treated with creosote. These materials should be considered hazardous.

Environmental Impacts

Because of the long industrial history of the project study area, there may exist areas with traces of soil and building contamination. Areas of potential impact include sites proposed for park-and-ride facilities such as:

- **Burbank Airport-Hollywood Station:** The proposed parking facility would be located on a parking lot owned by the Lockheed Corporation. Grading or excavation near this facility would likely have a high potential for encountering contaminated soils.
- **Buena Vista Station:** This Caltrans maintenance yard supports vehicle maintenance and fueling operations. The site would have potential for contamination and the existing building on the property may contain materials which could be considered hazardous.
- **Ventura Freeway Station:** The proposed station and parking area are located in a predominately industrial area. Some of the properties on the proposed park-and-ride facility have long histories of industrial use. These properties have a high probability for contaminated soils and hazardous waste in the building materials.

- **Glendale Freeway-Fletcher Drive Station:** The area for the proposed park-and-ride facility is within the Pollock Superfund site and listed on the National Priority List (NPL). The NPL was established in 1980 under the Comprehensive Emergency Response Compensation Liability Act (CERCLA). This Act provides money for the clean up of accidental hazardous spills or abandoned hazardous waste sites in emergency situations. An abandoned hazardous waste site must be studied and ranked for its risk to the environment and human health to receive NPL status. A remediation investigation Feasibility Study (RIFS) must be performed to determine the applicable ranking. RIFS are two-phase studies: the first entails a records search, while the second encompasses on-site sampling for contamination type and extent. The Environmental Protection Agency hotline was contacted to determine the status of the Pollock site. The site was not listed in the 1989 or 1992 state expenditure plan for clean up money allocation.

The Hughes Market Site Alternative would require demolition of a warehousing structure which may possibly have contaminated soils and hazardous waste in its building materials.

- **Taylor Yard, Division Street Site Alternative:** This station is outside the parcels owned by LACTC. The Taylor Yard site is currently undergoing cleanup under the supervision of the California Environmental Protection Agency.

High priority sites may require extensive subsurface investigations to determine the nature and extent of contamination and may require subsequent remediation. Any high priority sites that exist within the construction zone should be addressed first. Medium and low priority sites may, however, also be extensively contaminated. Therefore, it is recommended that all sites within the construction zone should be addressed at the earliest opportunity.

Mitigation Measures

The following mitigations are recommended:

- During the design phase of the project, soils testing shall be conducted to establish the geotechnical characteristics of soils in areas traversed by the project and at sites having permanent system facilities. The testing shall be conducted to determine specific subsurface conditions pertinent to potential hazardous conditions.
- Detailed geotechnical investigations of station locations should be performed as a part of the preliminary engineering phase of the proposed project. These studies would help provide more detailed data on the potential for upset.

Unavoidable Adverse Impacts

Although the proposed project is located within an area that has a high risk for potential upset, implementation of the proposed mitigations should leave the project with no net adverse effects.

5.7 PUBLIC SERVICES

This section evaluates the rail transit alignment's potential impact on local public services provided by the Cities of Burbank, Glendale, and Los Angeles. The services which will be examined are schools, police protection, and fire prevention.

5.7.1 Schools

Environmental Setting

The proposed Burbank-Glendale-Los Angeles rail alignment traverses three school districts: the Los Angeles Unified School District, the Glendale Unified School District, and the Burbank Unified School District. Based upon map surveys and field investigations, 15 public schools have been identified within one-half mile of the proposed rail transit route (Figure 53).

Table 25 School Institutions				
#	School District	School/Address	Grades	Enrollment (1990-1991)
1	Los Angeles Unified	Aragon Avenue, 1118 Aragon Avenue	K-6	762
2	Los Angeles Unified	Atwater Avenue, 3271 Silver Lake Boulevard	K-5	471
3	Los Angeles Unified	Dorris Place, 2225 Dorris Place	K-5	561
4	Los Angeles Unified	Fletcher Drive, 3350 Fletcher	K-6	966
5	Los Angeles Unified	Glassell Park, 2211 W. Avenue 30	K-6	970
6	Los Angeles Unified	Glenfeliz, 3955 Glenfeliz Boulevard	K-5	589
7	Los Angeles Unified	Washington Irving, 3010 Estara Avenue	6-8	1,468
8	Los Angeles Unified	Florence Nightingale, 3311 N. Figueroa	7-9	1,726
9	Glendale Unified	Cerritos Elementary, 120 Cerritos Avenue	K-6	443
10	Glendale Unified	Thomas A. Edison, 440 W. Lomita	K-6	826
11	Glendale Unified	Thomas Jefferson, 1540 Fifth Street	K-6	767
12	Glendale Unified	Benjamin Franklin, 1610 Lake Street	K-6	447
13	Burbank Unified	Ralph W. Emerson, 720 E. Cypress	K-5	506
14	Burbank Unified	George Washington, 2322 N. Lincoln	K-5	554
15	Burbank Unified	Burbank Senior High, 902 N. Third Street	9-12	1,935

SOURCE: Los Angeles, Glendale, and Burbank Unified School Districts

Of these 15 institutions, Los Angeles Unified administers six elementary schools and two junior high schools; Glendale Unified governs four elementary schools; and Burbank Unified supervises two elementary schools as well as Burbank Senior High School. During the 1990-1991 school year, nearly 13,000 students attended classes in these fifteen schools. According to representatives from each of the school districts, enrollment in the public education system has increased in all three districts respectively over the past year.

In addition to these public schools, there are also private education facilities within one-half mile of the proposed rail line. These private institutions include:

- Divine Savior Catholic School, 624 W. Cypress Avenue
- Pater Noster High School, 2911 Delay Drive (not currently in use)
- Holy Trinity Parish School, 3716 Boyce Avenue
- Bellarmine-Jefferson High School, 465 E. Olive Avenue
- St. Robert's Elementary School, 154 N. Fifth Street

Environmental Impacts

Some of the campuses in close proximity to the proposed rail line could experience impacts related to air, noise, traffic, and pedestrian movement. Air quality impacts are discussed in Section 5.3, traffic impacts in Section 5.4, and noise impacts in Section 5.5.

It is anticipated that some students and teachers would commute on the Burbank-Glendale-Los Angeles Blue Line extension. However, it cannot be determined how many students from campuses close to the alignment would use the future rail facility. Safety and circulation problems could arise from persons walking to and from classes. In addition, field investigations of the rail transit route in the Fall, Winter, and Spring revealed that some students use the SPTC right-of-way as a pedestrian passageway to travel from school to home. This is particularly evident in the South Glendale-Atwater Village area where school children can access the right-of-way via cul-de-sac streets.

Mitigation Measures

- LACTC has developed safety criteria to protect students from rail lines, substations, and construction activities. In an effort to heighten rail safety awareness, the information should be made distributed to students and teachers close to the rail line.
- Pedestrian rights-of-way near the rail line should be clearly marked to minimize trespassing, vandalism, and short-cut attractions. Methods of demarcation could include signage, landscaping, and fencing.
- Construction sequencing should be coordinated with local community officials to minimize conflicts with school walk routes, school buses, and carpools.

LEGEND

 SCHOOL

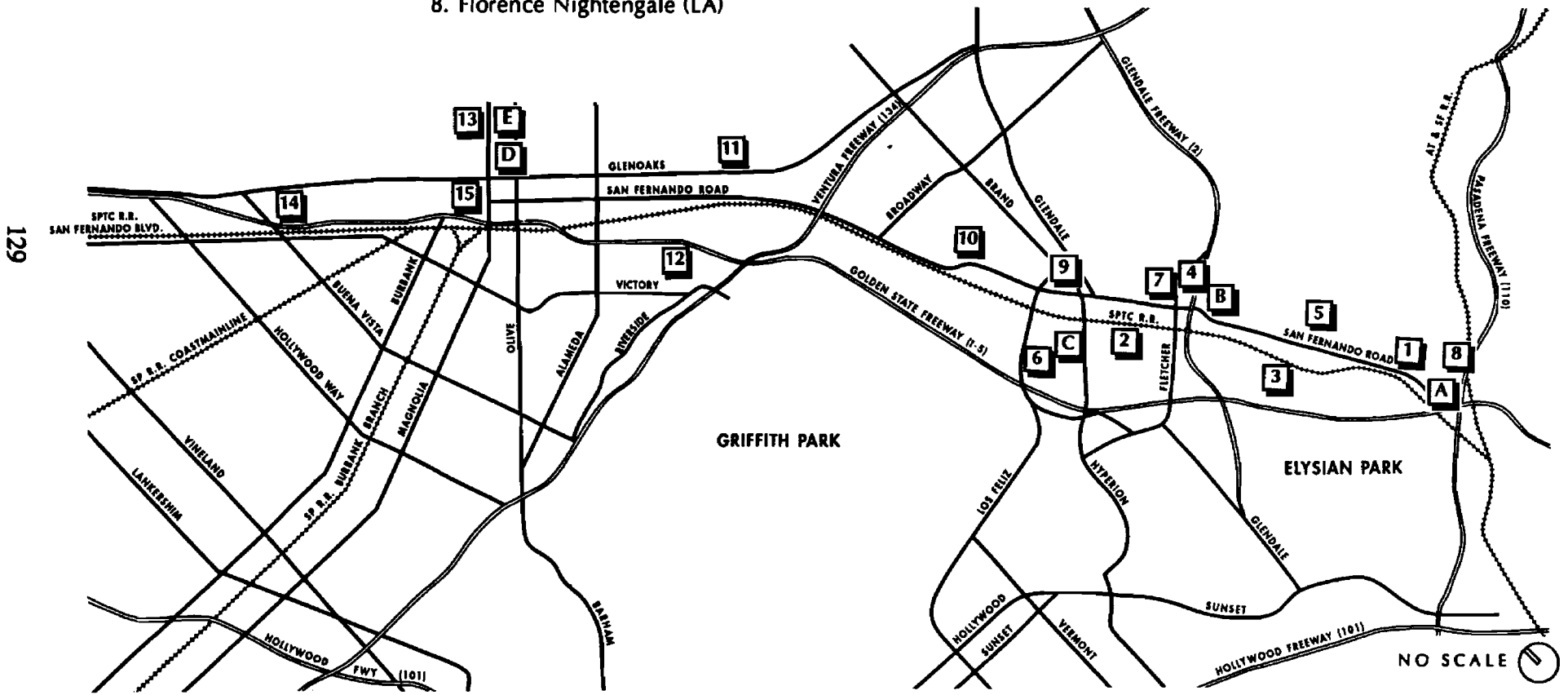
LA: Los Angeles Unified SD
 GLN: Glendale Unified SD
 BUR: Burbank Unified SD

PUBLIC SCHOOLS

- | | |
|------------------------------|-------------------------------|
| 1. Aragon Avenue (LA) | 9. Cerritos (GLN) |
| 2. Atwater Avenue (LA) | 10. Thomas Edison (GLN) |
| 3. Dorris Place (LA) | 11. Thomas Jefferson (GLN) |
| 4. Fletcher Drive (LA) | 12. Benjamin Franklin (GLN) |
| 5. Glassell Park (LA) | 13. Ralph Emerson (BUR) |
| 6. Glenfeliz (LA) | 14. George Washington (BUR) |
| 7. Washington Irving (LA) | 15. Burbank High School (BUR) |
| 8. Florence Nightengale (LA) | |

PRIVATE SCHOOLS

- A. Divine Savior Catholic School
- B. Pater Noster High School
- C. Holy Trinity Parish School
- D. Bellarmine-Jefferson High School
- E. St. Robert's Elementary School



SOURCE: Los Angeles, Glendale, and Burbank Unified School Districts

GRAPHICS BY GRUEN ASSOCIATES



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FIGURE 53
 Location of Schools

- Conspicuously posted warning signs and barriers should be placed near overhead power sources, power substations, crossing areas, and construction sites in order to deter unauthorized access.

Unavoidable Adverse Impacts

None anticipated.

5.7.2 Police

Rail transit operations for the Los Angeles-Long Beach Blue Line maintain its own transit security force to patrol train cars, station platforms, and parking areas. It can be expected that similar operations would be undertaken for the proposed rail transit alignment. Police services for responsible jurisdictions will be called upon for assistance, as required, to respond to emergencies and to perform police-related activities.

Environmental Setting

Police service for the project study area falls under the jurisdiction of the Police Departments of the Cities of Los Angeles, (Northeast Division LAPD), Glendale (GPD), and Burbank (BPD). As illustrated in **Figure 54** and **Table 26**, one station in each jurisdiction provides police protection in the project study area. In total, nearly 600 sworn officers are responsible for crime prevention, investigation, and law enforcement. In an effort to maximize security and law enforcement throughout the region, the Cities of Burbank, Glendale, and Los Angeles operate in cooperation with surrounding law enforcement agencies under the State Mutual Aid Pact.

Table 26 Police Stations			
Station	Address	Sworn Officers	Estimated Emergency Response Time
Los Angeles Northeast Division	3353 San Fernando Road	235	7.9 minutes
Glendale	140 N. Isabel Street	212	2.0 minutes
Burbank	272 East Olive Avenue	143	5.0 minutes
SOURCE: The Police Departments of the Cities of Los Angeles (Northeast Division), Glendale, and Burbank.			

Environmental Impacts

According to the SCRTD Operations Division, the existing Long Beach to Los Angeles Blue Line experiences very little crime. Under a contracted agreement with the Los Angeles County Sheriffs Department, uniform and undercover deputies patrol Blue Line trains, station platforms, and station areas. Typical rail-related crimes and infractions that they encounter include petty theft, fare evasion, and rule violations (smoking, eating, graffiti, etc.).

In addition to these crimes, the Police Departments of the Cities of Los Angeles and Glendale reported their concerns regarding crimes related to park-and-ride facilities. Each Police Department indicated that auto theft, plain theft, and burglary are crimes which may occur at park-and-ride areas. To reduce the potential for crime-related impacts on the Burbank-Glendale-Los Angeles Blue Line extension, LACTC will work with the Police Departments of each of these cities to develop a Memorandum of Agreement concerning delegation of security responsibilities.

LACTC will also deploy a separate rail transit police force and train roving fare inspectors to respond to emergency situations. These inspectors will ride the lines and monitor station platforms. They will have walkie-talkies at all times and report problems along the rail line to a central command control. Closed circuit cameras will monitor train platform access at station locations and relay images to central control. With respect to on-train security, passenger assistance telephones will be located in each rail car.

Mitigation Measures

Mitigation measures can be incorporated into the physical design of the stations and parking areas. Design methods for reducing crime could include brightly lighted signs and signals, well lit definable areas which avoid dark spaces and blind spots; security telephones and pull box alarms in readily identifiable areas; and highly visible signage and signals. In addition to these design features, the following mitigations should also be implemented:

- Riders should be protected from the train and rail line by security fencing to help prevent unnecessary injuries, as well as control pedestrian and vehicular access points along the rail system. In addition, parking areas should have limited access and be well-illuminated, and designed with minimum dead space to eliminate areas of concealment.
- Transit District Police should consider the development of a centralized substation along the rail line to provide for faster response to rail-related emergency situations.

Unavoidable Adverse Impacts

None anticipated.

5.7.3 Fire

Fire protection services involve fire suppression, paramedic aid, and prevention planning. Station design consultation, building review, and inspection as it relates to fire safety would also fall under the jurisdiction of the Fire Departments of each governing municipality.

Environmental Setting

Fire protection for the East Valley involves the cooperative efforts of the Burbank, Glendale, and Los Angeles Fire Departments. As illustrated in Figure 54 and Table 27, a total of 11 fire stations are located in close proximity of the proposed rail alignment.

Table 27 Fire Stations				
#	Department	Station Number	Operation/equipment	Personnel
1	Los Angeles	Station No. 1 2230 Pasadena Ave.	1 truck 1 paramedic ambulance 2 piece engine	12
2	Los Angeles	Station No. 4 800 N. Main St.	1 truck 1 hazardous materials squad 2 piece engine	15
3	Los Angeles	Station No. 44 1410 Cypress Ave.	1 piece engine	4
4	Los Angeles	Station No. 50 3036 Fletcher Dr.	1 truck 2 piece engine	12
5	Glendale	Station No. 21 210 S. Orange	1 truck Single engine Air unit, Mobile Command unit	11
6	Glendale	Station No. 22 1201 S. Glendale	Single engine	4
7	Glendale	Station No. 26 1145 N. Brand	Single engine 1 truck	8
8	Glendale	Station No. 27 1127 Western	Single engine Hazardous materials squad	4
9	Burbank	Station No. 11 353 E. Olive Ave.	2 piece engine 1 truck 1 paramedic rescue	13
10	Burbank	Station No. 13 2244 N. Buena Vista	1 engine 1 paramedic rescue	5
11	Burbank	Station No. 16 1600 N. Bel Aire Dr.	Single engine	3

LEGEND

○ POLICE STATION

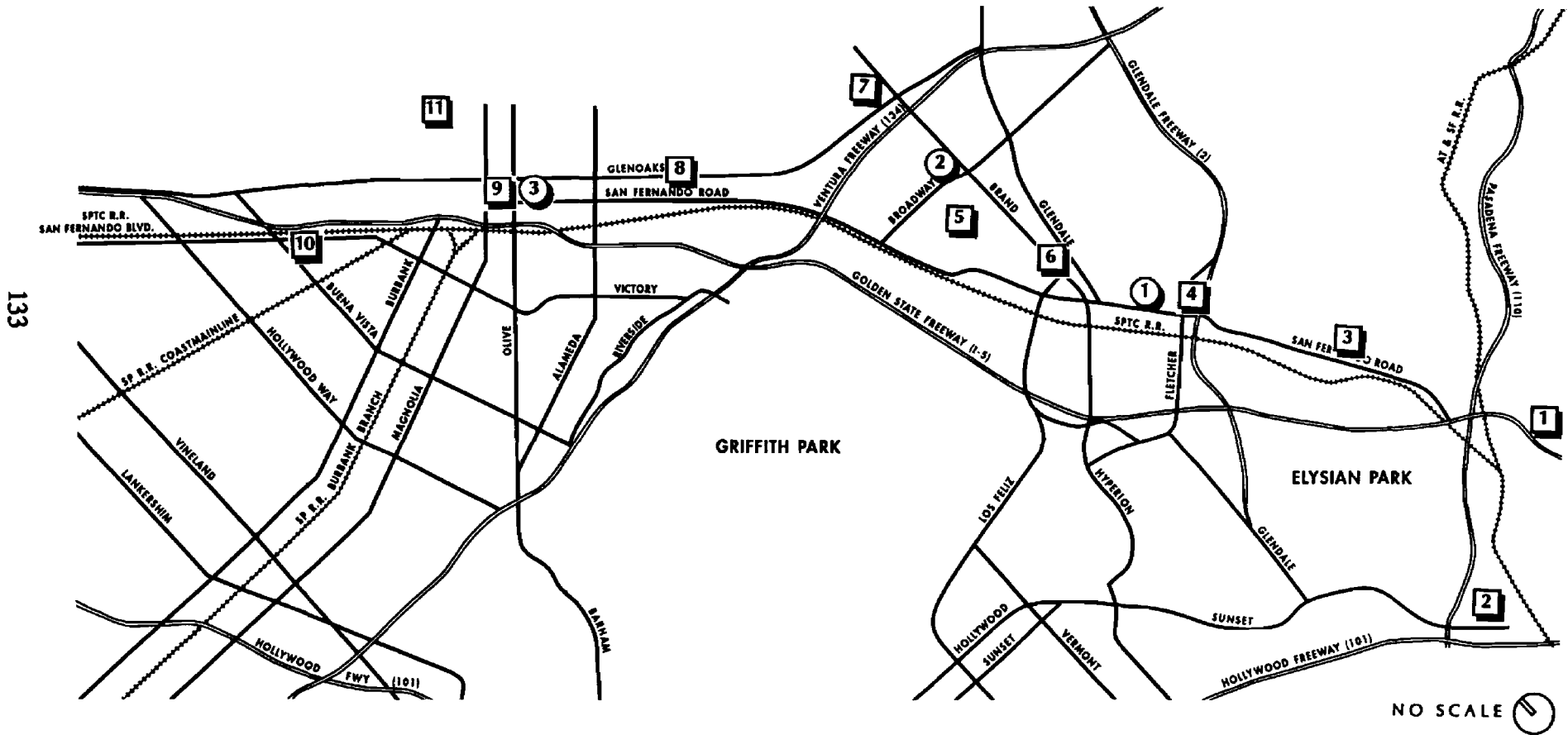
□ FIRE STATION

POLICE STATION

1. Los Angeles Northeast Division
2. City of Glendale Police Department
3. City of Burbank Police Department

FIRE STATIONS

- | | |
|----------------------------|----------------------------|
| 1. L.A. Station No.1 | 7. Glendale Station No. 26 |
| 2. L.A. Station No. 4 | 8. Glendale Station No. 27 |
| 3. L.A. Station No. 44 | 9. Burbank Station No. 11 |
| 4. L.A. Station No. 50 | 10. Burbank Station No. 13 |
| 5. Glendale Station No. 21 | 11. Burbank Station No. 16 |
| 6. Glendale Station No. 22 | |



SOURCE: Los Angeles, Glendale, and Burbank Police and Fire Departments.

GRAPHICS BY GRUEN ASSOCIATES



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LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 54

Location of Police and Fire Stations

ENVIRONMENTAL ISSUES ANALYSIS

Staffing at these stations vary from 3 to 12 personnel, depending upon the operations and equipment of each station. Although the Fire Departments for each city indicated that emergency response times would be between 3 to 5 minutes, response to emergency situations will vary depending upon the nature of the incident and the physical conditions along the route.

Environmental Impacts

The Fire Departments for the Cities of Burbank, Glendale, and Los Angeles indicate that the proposed rail transit project may result in impacts to fire protection services. Development of the light rail system could adversely affect fire flow, fire protection, emergency medical services, and increased incidents of false alarms.

In addition, because the light rail will have priority at at-grade intersections, accessibility to other parts of the project study area may diminish. Increased concentrations of pedestrian and vehicular traffic within the proximity of the transit stations during peak commuting hours may lengthen response times by interfering with the movement of emergency fire vehicles. Because portions of the rail line are not easily accessible by local streets, emergency access to all areas of the rail system will be a primary concern.

The adequacy of fire protection for the proposed project is based on three factors: 1) required fire-flow response; 2) distance from existing fire stations, and 3) a Fire Department's judgment regarding the needs in the area. Fire-flow, or the quantity of water necessary for fire protection, will vary with the type of land use adjacencies, life hazard potential, occupancy, and the degree of fire hazard. High voltage apparatus such as catenary wires and power substations will require a minimum of one engine and one rescue unit to adequately combat a rail-related fire emergency. Equipment and personnel needs should be determined by each of the city's respective Fire Departments.

Mitigation Measures

A primary goal underlying all mitigation measures is the ability of the responding Fire Department to provide emergency services within an acceptable response time based on community needs. The following mitigation measures should be implemented to meet this goal:

- Fire, Life, and Safety criteria shall be established and used during preliminary engineering, final design, construction, and operation of the rail transit project. Final plans will be review by each of the affected Fire Departments and inspections will be scheduled during construction and operation.
- Fire lanes should follow the standards of the responsible fire department through which the rail line passes.

- Fire protection equipment should be available throughout the entire construction process, as well as during the operation of the rail transit system. Smoke detectors, fire alarms, and fire retardant materials should be included in all trains, stations, and power substations. Automatic sprinkler systems and hand-held fire extinguishers should be located in every station and train.
- There must be clear access to telephones in every station to report emergencies to Fire Departments along the rail line.

Unavoidable Adverse Impacts

None anticipated.

5.8 NATURAL AND RECREATIONAL RESOURCES

The proposed Burbank-Glendale-Los Angeles Rail Transit Project traverses highly urbanized areas in the East Valley and North Los Angeles. Yet despite its urban nature, the project study area still maintains a number of significant topographic features and natural resources that include the riparian habitats of the Los Angeles River and the Arroyo Verdugo Wash; the open spaces of Griffith Park, Elysian Park, and Brand Park; and the natural communities located within the Santa Monica and Verdugo Mountains.

The impact analysis in this section assesses the effects of the proposed project on natural and man-made plant and animal habitats as well as the recreational resources of the East Valley and North Los Angeles. Species and areas of ecological importance are inventoried in light of the proposed rail alignment.¹⁴ The assessment also includes an examination of potentially affected plant life along the Southern Pacific Transportation Corridor, and recreational facilities such as parks and playgrounds.

5.8.1 Plant and Animal Life

Environmental Setting

The project study area contains a diverse mix of natural resources that are dispersed throughout the East Valley and North Los Angeles. Special plants and animals exist within habitats found in the Los Angeles River, the arid coastal scrub of the Verdugo Mountains, and the woodland and forested areas of Griffith Park. However, as shown in Figure 55, plant life can also be found adjacent to, and in some instances within, the proposed rail transit alignment. Evergreen pears and Oleander shrubs are illustrated in this photo.

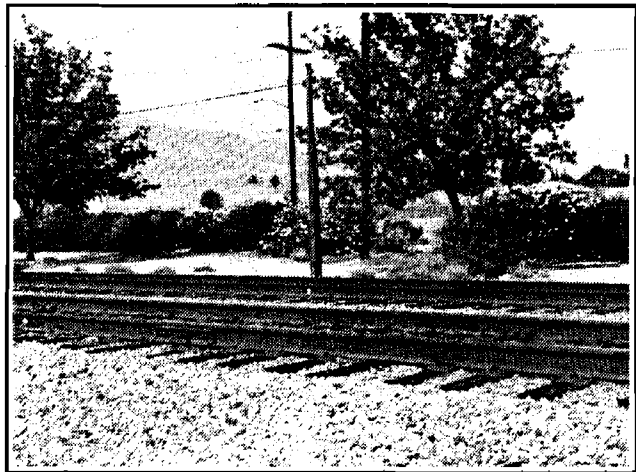


FIGURE 55

Plant Life along SPTC R.O.W.

Although much of the native vegetation in the East Valley and North Los Angeles has been disturbed by urban development, the area still retains several terrestrial habitats that support various plant and animal life. Much of this flora and fauna exists in open space preserves,

¹⁴ Based on information provided from the California Department of Fish and Game Natural Diversity Data Base (CNDDDB). The CNDDDB is a computerized inventory that depicts the location and condition of California's rare and threatened animals and plants. It also inventories both terrestrial and aquatic natural communities that exhibit extremely high quality or very limited distribution.

parklands, and territories on the outskirts of urbanized areas. The major types of natural communities in the project study area include riparian corridors, woodlands, and chaparrals and coastal scrubs. The mountain and foothill areas tend to provide the least disturbed and most pristine terrestrial habitats.

As illustrated in Table 28 and Figure 56, the East Valley has a wide mix of natural communities and special animals and plants. Although no flora or fauna in this inventory has received listed status as endangered or threatened species, the Nevin's Barberry (Category 1), the Davidson's Bush Mallow (Category 2), the California Gnatcatcher (Category 2), and the Southwestern Pond Turtle (Category 2) are Candidates for Federal Listing. Only the Nevin's Barberry has received California state status as an endangered species.

#	Common Name	Element Name	Type	Federal Status	State Status	Location
1	California Gnatcatcher	<i>Poliopitila californica</i>	Animal	Candidate 2	None	Sun Valley near Burbank Airport
2	Southwestern Pond Turtle	<i>Clemmys marmorata pallide</i>	Animal	Candidate 2	None	Los Angeles River at Lankershim Boulevard
3	None	<i>Southern Coast Live Oak Riparian Forest</i>	Natural Community	None	None	Griffith Park
4	None	<i>Southern Cottonwood Willow Riparian Forest</i>	Natural Community	None	None	Los Angeles River near Disney Studios
5	None	<i>Southern Sycamore Alder Riparian Woodland</i>	Natural Community	None	None	Griffith Park and Forest Lawn of Burbank
6	None	<i>California Walnut Woodland</i>	Natural Community	None	None	Griffith Park
7	Nevin's Barberry	<i>Mahonia nevinii</i>	Plant	Candidate 1	Endangered	Griffith Park below Water Tower #113
8	Davidson's Bush Mallow	<i>Malacothamnus davidsonii</i>	Plant	Candidate 2	None	Cabrini Canyon near Burbank Airport

SOURCE: California Department of Fish and Game, *Natural Diversity Data Base*, December 1991.

With respect to plant life adjacent to the proposed rail transit alignment, various non-indigenous species accent the landscape adjacent to or within the Southern Pacific Transportation Corridor. Although a wide variety of trees and shrubs are located along the alignment, Oleander shrubs, and Evergreen and Bradford Pear Trees are the most prevalent species.

- Oleander: Oleander (*Nerium oleander*) can be found adjacent to the alignment at two locations where the rail line travels parallel to San Fernando Road: 1) In

the City of Burbank between Hollywood Way and the SP Coast Mainline Junction; and 2) in the City of Glendale between Grandview Avenue and Colorado Street. The species exists at these locations in both its dwarf and tall shrub form. Commonly used as screens, windbreaks, and roadside borders, Oleander should be treated with caution as it is poisonous if eaten.




- Evergreen and Bradford Pear Trees: These trees (*Pyrus kawakamii* and *Pyrus calleryana*) grow between 15 to 25 feet in height and are distinguished by their dark green, glossy, oval foliage. Commonly used as street trees, these species only appear along the rail line between Grandview Avenue and Colorado Street in Glendale. Approximately 30 Pear trees are planted adjacent to or within the proposed rail alignment.

Table 29 presents the total inventory of plant life used as landscape treatment along the SPTC right-of-way:

Table 29 Plant Life located along SPTC Right-of-Way		
Common Name	Botanical Name	Location
Oleander Shrub	<i>Nerium oleander</i>	Along SPTC R.O.W. between Hollywood Way and SP Coast Mainline Junction in Burbank, and Grandview and Colorado in Glendale.
Oleander Tree	<i>Nerium oleander</i>	Along eastside of SPTC R.O.W. between Hollywood Way and Winona Avenue in Burbank.
Firethorn	<i>Pyracantha coccinea</i>	On both sides of the SPTC R.O.W at Buena Vista.
Brush Cherry Tree	<i>Syzigium paniculata</i>	Along eastside of SPTC R.O.W. between Hollywood Way and Winona Avenue in Burbank.
Canary Island Pine	<i>Pinus canariensis</i>	Along eastside of SPTC R.O.W. between Hollywood Way and Winona in Burbank.
Bradford Pear	<i>Pyrus calleryana "Bradford"</i>	Along eastside of SPTC R.O.W. and within LACTC-owned 40' R.O.W between Doran and Colorado in Glendale.
Evergreen Pear	<i>Pyrus kawakamii</i>	Along eastside of SPTC R.O.W. and within LACTC-owned 40' R.O.W between Grandview and Colorado in Glendale.
Podocarpus	<i>Podocarpus gracilior</i>	Adjacent to residential uses south of Brand Boulevard in South Glendale.
Canary Island Date Palm	<i>Phoenix canariensis</i>	Adjacent to residential uses south of Brand Boulevard in South Glendale.
Mexican Fan Palm	<i>Washingtonia robusta</i>	Adjacent to residential uses south of Brand Boulevard in South Glendale.

SOURCE: Gruen Associates, Field Reconnaissance, April 1992.

LEGEND

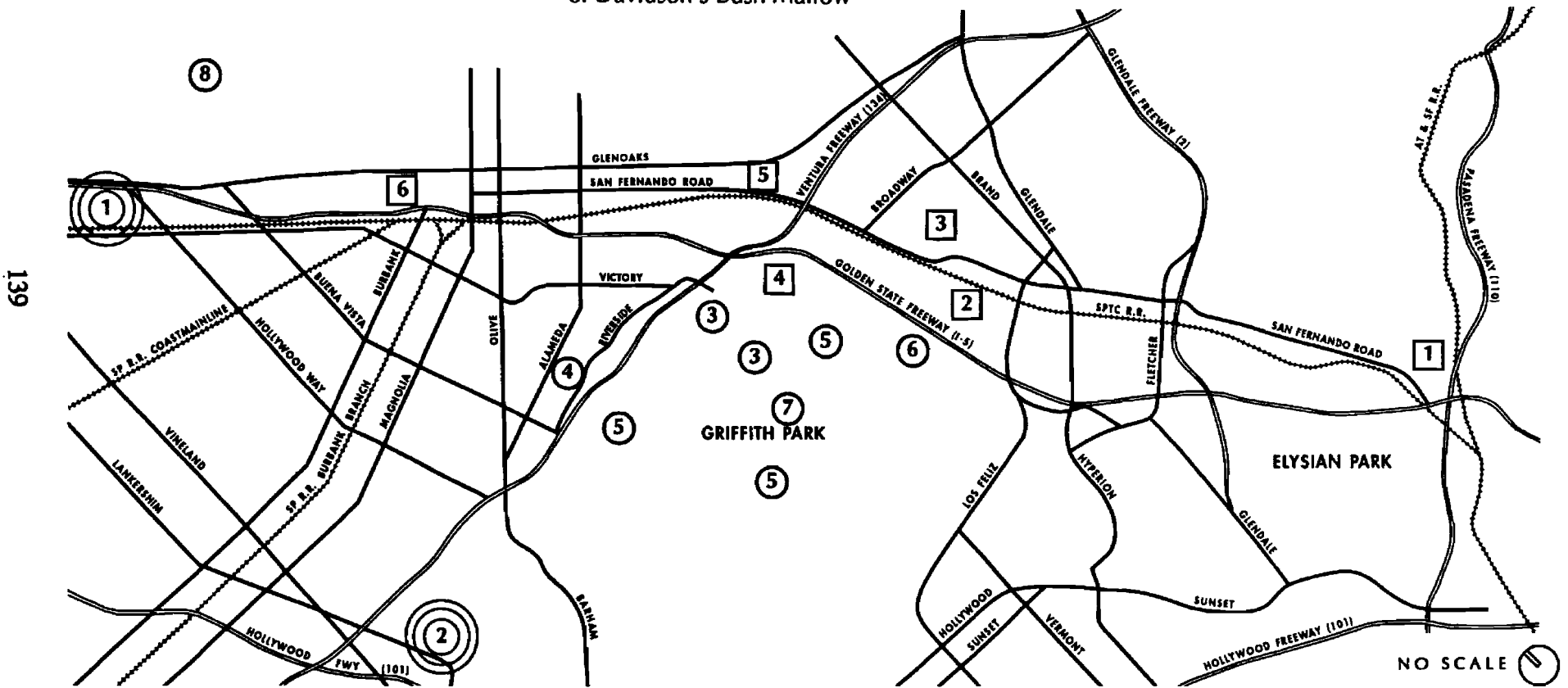
-  SPECIAL FAUNA
-  SPECIAL FLORA
-  PARK

SPECIAL FLORA AND FAUNA

1. California Gnatcatcher
2. Southwestern Pond Turtle
3. Southern Coast Live Oak Riparian Forest
4. Southern Cottonwood Willow Riparian Forest
5. Southern Sycamore Alder Riparian Woodland
6. California Walnut Woodland
7. Nevin's Barberry
8. Davidson's Bush Mallow

PARKS

1. Cypress Park
2. Chevy Chase Park
3. Pacific Park
4. Griffith Park
5. Pelanconi Park
6. McCambridge Park



SOURCE: California Natural Diversity Data Base, December 1991.

GRAPHICS BY GRUEN ASSOCIATES



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LOS ANGELES COUNTY TRANSPORTATION COMMISSION

FIGURE 56
Location of Natural
and Recreational Resources

Environmental Impacts

Development of the proposed rail alignment would not result in the removal or loss of any rare or endangered plants, animals, or natural communities. However, two Federal Category 2 animals could potentially be affected. Because of their mobility and preferred microhabitats, the California Gnatcatcher and the Southwestern Pond Turtle may be subject to impacts related to the construction of the rail line. Both animals have been sighted within the general vicinity of the alignment, and may wander into the SPTC right-of-way to take advantage of their preferred habitats:

- **California Gnatcatcher:** This species has been sighted near the Burbank-Glendale-Pasadena Airport. It typically inhabits arid coastal scrub regions, and prefers a low, dense habitat in arid washes and mesas. The Gnatcatcher has been mapped as close as one mile from the rail alignment at the Roscoe Elementary School in Sun Valley.
- **Southwestern Pond Turtle:** This species has been seen in the Los Angeles River near Lankershim Boulevard. It primarily inhabits permanent or nearly permanent bodies of water below 6,000 feet. The Southwestern Pond Turtle requires basking sites such as partially submerged logs, vegetation mats, or open mud banks. Some of these conditions can be found where the Arroyo Verdugo Wash empties into the Los Angeles River.

With respect to plant life adjacent to the SPTC right-of-way, plant species serving as landscape treatment would be disturbed primarily between Hollywood Way and Buena Vista Street in Burbank, and between Grandview Avenue and Colorado Street in Glendale.

- Plant life between Hollywood Way and Buena Vista Street serve as landscaping for the parking lots located within the SPTC right-of-way. Construction of the rail alignment will require the removal of these parking spaces and the associated landscaping. Species to be removed include Oleander shrubs and trees, as well as a number of Brush Cherry and Canary Island Pine trees.
- Between Grandview Avenue and Colorado Street, over 30 Evergreen and Bradford Pear trees located adjacent to or within the SPTC right-of-way would be uprooted in order to construct the proposed rail alignment. These trees are relatively mature, ranging in height from 15 to 25 feet. Because these trees serve to provide both a landscape buffer and aesthetic amenity to the area, the loss of these species represent a significant environmental impact that will require mitigation.

Mitigation Measures

Because of potential significant impacts to biological resources, the following mitigation measures should be considered:

- In the area between Grandview Avenue and Colorado Street in Glendale, the uprooted Pear trees should be boxed, maintained, and transplanted during the time of project construction. The trees should be utilized as part of the landscaping along this segment of the alignment or in the landscaping of rail-related facilities.
- When existing landscaping is removed for the purposes of constructing the proposed rail alignment, new landscaping shall be planted as specified in an established landscaping plan. The landscaping plan shall identify the types of plant species to be used, its appropriate location, and its coordination with the surrounding environment.
- As part of the overall operations of this light rail system, a program should be established to provide for the regular maintenance of system-related landscaping.

Unavoidable Adverse Impacts

Implementation of the recommended measures should successfully mitigate any significant environmental impacts.

5.8.2 Recreational Facilities

Environmental Setting

As illustrated in Figure 56 and Table 30, six parks have been identified to be within close proximity of the proposed rail transit route: Cypress Park, Chevy Chase Park, and Griffith Park in the City of Los Angeles; Pacific Park and Pelanconi Park in the City of Glendale; and McCambridge Park in the City of Burbank. Cypress, Chevy Chase, Pacific, Pelanconi, and McCambridge Parks primarily provide recreational opportunities on a localized, neighborhood scale. Typical facilities include playground equipment, ball fields, and passive, landscaped recreation areas. By comparison, Griffith Park, located west of the Golden State Freeway and south of the Ventura Freeway, provides regional recreation activities. In addition to its vast open space areas, the Park also houses attractions such as the Los Angeles Zoo, the Gene Autry Western Heritage Museum, Travel Town, and Wilson and Harding Public Golf Courses.

<p align="center">Table 30 Recreational Resources within 1/4 mile of Rail Transit Alignment</p>				
#	Park	City	Location	Size (Acres)
1	Cypress Park	Los Angeles	San Fernando Road between Pepper and Poplar Streets	3.4
2	Chevy Chase Park	Los Angeles	Chevy Chase Drive at Alger	2.4
3	Pacific Park	Glendale	Pacific Avenue at Riverdale	4.9
4	Griffith Park	Los Angeles	West of Interstate 5 and south of Ventura Freeway	4,107
5	Pelanconi Park	Glendale	Between Grandview and Cleveland at San Fernando Road	3.1
6	McCambridge Park	Burbank	Scott Road at San Fernando Boulevard	3.5
<p>SOURCE: City of Los Angeles Department of Recreation and Parks. City of Glendale Community Facilities Element. City of Burbank, McCambridge Park Staff.</p>				

Environmental Impacts

Table 30 identifies those recreational facilities in close proximity of the SPTC right-of-way that may be impacted by the proposed project. Impacts typically associated with park facilities include land displacement, pedestrian circulation, accessibility, and noise. The following discussion highlights impacts experienced by each recreational facility as a result of the proposed rail transit route:

- **Cypress Park:** Located on San Fernando Road opposite the rail alignment in South Taylor Yard, the primary impact to this park would be noise. However, the impact of LRT-associated noise would be diminished due to the presence of existing auto traffic on San Fernando Road.
- **Chevy Chase Park:** Located in the City of Los Angeles east of the rail transit route, Chevy Chase Park could experience impacts related to noise. Because Chevy Chase Drive is an at-grade intersection, noise at this location may be amplified as a result of the LRT horn that must be sounded at all at-grade intersections for safety purposes (refer to Noise, Section 5.3).
- **Pacific Park:** This 4.9-acre park is not expected to experience any environmental impacts. Although it is in close proximity to the SPTC right-of-way, industrial and residential uses separate and screen the park from the rail transit route.

- **Griffith Park:** No impacts are anticipated for Griffith Park since man-made barriers such as the Golden State and Ventura Freeways separate this facility from the rail alignment. The development of the LRT could potentially improve accessibility to this park and its associated activity centers via a shuttle bus system at the Northwest Glendale Station. This improved access should be considered a net beneficial effect.
- **Pelanconi Park:** Located at the intersection of Grandview Avenue and San Fernando Road, Pelanconi Park would experience noise impacts similar to those that could take place at Chevy Chase Park. The impacts, however, may be magnified since Pelanconi Park is not screened from the rail transit route.
- **McCambridge Park:** Located west of both the proposed rail alignment and the Golden State Freeway, this park is not expected to experience any environmental impacts.

Mitigation Measures

Implementation of the Burbank-Glendale-Los Angeles Rail Transit Project would not result in the taking of any park land or displacement of recreational facilities. Access to these parks from nearby residential areas would also not be disturbed since access to the parks would not require the crossing of the light rail tracks. The principal impact on these recreational facilities would be noise. Appropriate mitigation for minimizing noise impacts (screening, landscape buffers) are detailed in the Noise chapter of this EIR.

Unavoidable Adverse Impacts

No net adverse effects to recreational resources are anticipated from implementation of the proposed rail transit project.

5.9 PUBLIC UTILITIES AND ENERGY

5.9.1 Utilities

Environmental Setting

The project study area is a highly urbanized environment, with much of its necessary infrastructure in place. The age of the area, and much of its character, are defined by its utilities. Two examples of this exist in the presence of the SPTC railroad right-of-way and the overhead utility poles that line San Fernando Road, as well as many other neighborhoods in the project study area. With respect to existing utilities, an assortment of electrical, gas, water, drainage, and sanitary sewer lines cross the proposed rail transit route. In addition, fiber optic cables for MCI Telecommunications (MCI), US Sprint, and American Telephone & Telegraph (AT&T) run below the surface of the SPTC right-of-way.

Environmental Impacts

The two potentially significant impacts would be on electrical supply to the rail alignment and the relocation of utilities. Construction of the proposed LRT alignment would require the relocation of the following:

- Southern Pacific Transportation Company freight rail alignment.
- Western Union Telegraph underground lines
- MCI, US Sprint, AT&T fiber optic cables
- Southern California Edison Company electrical lines

The SPTC alignment would be shifted to the western half of the 100-foot right-of-way. The Western Union lines will have to be relocated underground between Taylor Yard and Glendale, and above ground on utility poles for the remainder of the route. The phone fiber optic cables will be relocated by Southern Pacific, which is responsible for a one-time move of the cables at any given point along the route where the lines conflict with the construction program of LACTC. These lines are expected to be relocated in several sections along the route as part of the Commuter Rail Metrolink program. Elsewhere on the route, the relocation of the lines by Southern Pacific will be undertaken when the construction of the LRT is initiated.

In addition to these impacts, the City of Burbank Public Service Department indicated that the proposed light rail alignment passes over the City water mains at approximately 17 locations. These pipes may require protection against vertical loading and impact. Corrosion caused by stray currents resulting from track returns may also be a factor. Underground pipes are corroded by electrolytic action from nondirectional stray currents in the ground.

Mitigation Measures

The following mitigation measures should be implemented:

- To avoid the additional costs of relocating additional phone lines, LACTC shall work with Southern Pacific in relocating the MCI, US Sprint, and AT&T fiber optic cables when these lines come in conflict with the LRT alignment.
- LACTC shall coordinate with appropriate agencies regarding water and other appropriate utilities to ensure cathodic protection of underground pipes, and that sufficient room is provided for utility maintenance.

Unavoidable Adverse Impacts

None anticipated.

5.9.2 Energy Conservation

Environmental Setting

Transportation represents a major consumer of energy in the Los Angeles region. Vehicle trips within the region are estimated to involve over 234 million miles of travel per day¹⁵. Fuel consumption from vehicle trips with origins or destinations in the region amount to about 4.9 billion gallons of fuel per year¹⁶, of which approximately 89 percent is gasoline and 11 percent is diesel¹⁷. Transportation energy consumption is equivalent to about 739 trillion Btu's per year, or about 126 million barrels of oil.

Environmental Impacts

CEQA defines energy impacts as project characteristics that result in substantial additional use of existing energy sources. Based on projections by the Southern California Association of Governments (SCAG), there would be 310.2 million miles of daily vehicle traffic in the Los Angeles region by 2010. As a result, approximately 14.2 million gallons of fuel would be consumed, equivalent to 2,030 Btu's.

¹⁵ South Coast Air Quality Management District, *Air Quality Management Plan, 1988 Revision, Draft Appendix III-A, 1985 Emissions Inventory South Coast Air Basin, March 1988, Table IV-32.*)

¹⁶ A fuel consumption rate of 17 miles per gallon is assumed.

¹⁷ South Coast Air Quality Management District, AQMP, Appendix III-A, Table IV-32.

Implementation of the proposed alignment would reduce vehicle miles traveled, thereby resulting in energy savings. Approximately 37,800 vehicle miles per day¹⁸ would be saved, due to implementation of this rail extension into the East Valley and North Los Angeles. This would result in a reduction of 1,720 gallons of fuel per day¹⁹. However, it is difficult to estimate the number of vehicle miles that would be saved due to the development of the line because not all passengers would be switching from private cars to electric rail.

Energy savings would be minimally offset by energy requirements for the rail transit system and associated stations. Each of the ten stations has an approximate area of 72,900 square feet. Based on consumption estimates of 19.7 kWh/sf/year²⁰ for at-grade stations, the energy consumption for each station will be approximately 1.44 million kWh/year. Therefore, the total energy consumption for all ten stations would be approximately 14.4 million kWh/year. It is also assumed that the rail line would use 1,250 kWh per mile of track²¹. Since the length of the route is approximately 12 miles, the usage for the line would be approximately 15,000 kWh per day. The total increase in consumption would be approximately 0.13 billion Btu's/day; therefore, rail transit-related energy increases would reduce the potential daily energy savings in vehicular fuel by approximately 0.1 percent. Because the anticipated reduction in transportation-related energy requirements would be approximately 103 billion Btu's per day, implementation of the project would result in no adverse impacts on energy consumption.

Mitigation Measures

Although the rail transit would result in an overall benefit in energy conservation for the region, the following measures should be employed to further reduce the energy demands of the rail transit system:

- Regenerative transit vehicle braking improvements.
- Coordination of traffic and rail signal systems.
- Implement design features that would meet or exceed the requirements of Title 24.

Unavoidable Adverse Impacts

None anticipated.

¹⁸ Southern California Association of Governments, 1992.

¹⁹ Fuel savings is based on a factor of 0.0457 gallons per vehicle mile (approximately 22 miles per gallon).

²⁰ LACTC and Terry A. Hayes Associates.

²¹ Based on factors presented in the Pasadena-Los Angeles Light Rail Alternatives EIR prepared by the LACTC.

5.10 AESTHETICS

Environmental Setting

The East Valley is physically defined by its picturesque setting between the Santa Monica and Verdugo Mountains. Although comprised primarily of foothill and flatland areas, the East Valley contains other significant landforms such as the San Rafael Hills and Adams Hill in Glendale, and Mount Washington in Northeast Los Angeles. As illustrated in **Figure 57**, the project study area also maintains other significant natural features that include the Los Angeles River, Elysian Park, and Griffith Park.



FIGURE 57

East Valley: Project Study Area
PHOTO: L.A. Aerial Photography, Nov. 1991

With respect to the built environment around the proposed rail transit route, the area surrounding the Southern Pacific transportation corridor is a predominantly industrial area. Having transformed from agricultural lands and low density residential neighborhoods prevalent

in the early part of the century to its current mix of manufacturing and warehousing uses, the rail transit corridor is now highly urbanized, with commercial and industrial uses located along the spine of the route and low to medium density residential areas adjacent to these businesses. Although the East Valley has a number of visually interesting corridors with viewsheds (i.e., Brand Boulevard, Glenoaks Boulevard, Olive Avenue), the scenic and visual character of the proposed rail corridor is clearly defined by the existing freight service traveling along the rail line and the commerce and industry that surrounds it (refer to **Figure 58**). Like many older neighborhoods that have remained stable over a period of time, overhead utility poles represent one of the dominant physical features of the SPTC corridor.

Among the attractive existing features along this route include the riparian habitat of the Los Angeles River east of Taylor Yard; the landscape treatment of the alignment in Northwest Glendale and near the Burbank Airport; and architecturally-interesting structures such as Dayton Tower, the Van de Kamp's Bakery Building, the Old Glendale Rail Depot, and the Glendale Grand Central Air Tower.

In order to assess potential visual and aesthetic impacts, the following factors, as they relate to transportation-oriented projects, will be used as the criteria to determine visual impacts as perceived by both system users and non-users:²²

- **Scale:** The size, proportion, and suitability, or "fit," of a transit improvement to the surrounding development.
- **Coherence:** The extent to which the improvement allows the continuation, or adaption, of existing activities. Coherence also applies to the compatibility of the design of the improvement with existing architectural forms and patterns.
- **Visibility:** The extent to which the transit improvement can be seen. This variable depends upon the configuration of the facility. Visibility from the system will often vary in relation to the visibility of the system itself.
- **Color and Light Values:** Contrasts between light and dark. A transportation facility can be made to blend with surrounding features through approximation of existing colors.
- **Speed:** Where attention is attracted in contrast with surrounding transportation systems, particularly when different transportation modes (vehicular and rail) share adjacent rights-of-way.

²² U.S. Department of Transportation. *Guidelines for Assessing the Environmental Impact of Public Mass Transportation Projects*. UMTA-IT-060049-79-1, 1979.

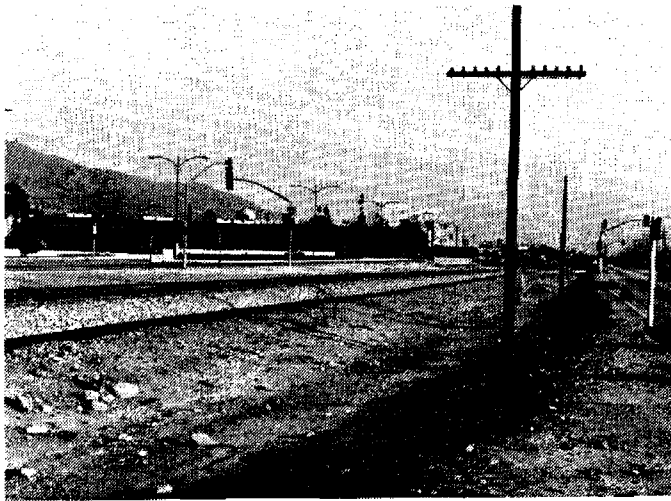


PHOTO 1: SPTC R.O.W at Hollywood Way

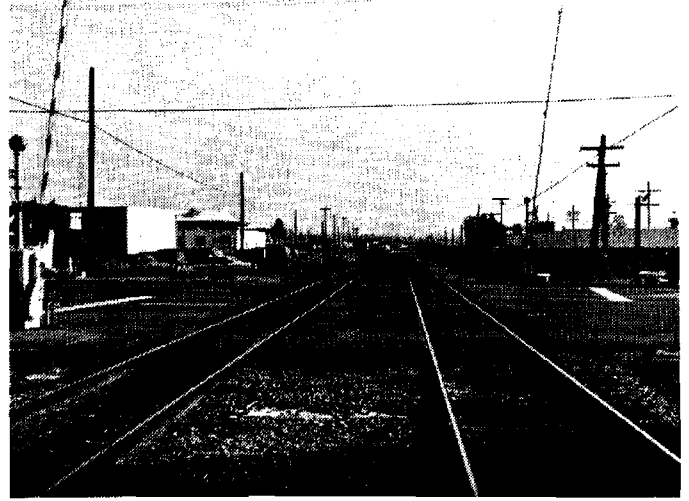


PHOTO 2: At-grade intersection at Sonora Avenue



PHOTO 3: Landscaped area of R.O.W. at Ventura Freeway



PHOTO 4: Doran Street at San Fernando Road



PHOTO 5: Overhead utility poles along SPTC R.O.W.



PHOTO 6: Rail alignment near Riverside Drive.

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RAIL TRANSIT PROJECT EIR

LOS ANGELES COUNTY TRANSPORTATION COMMISSION

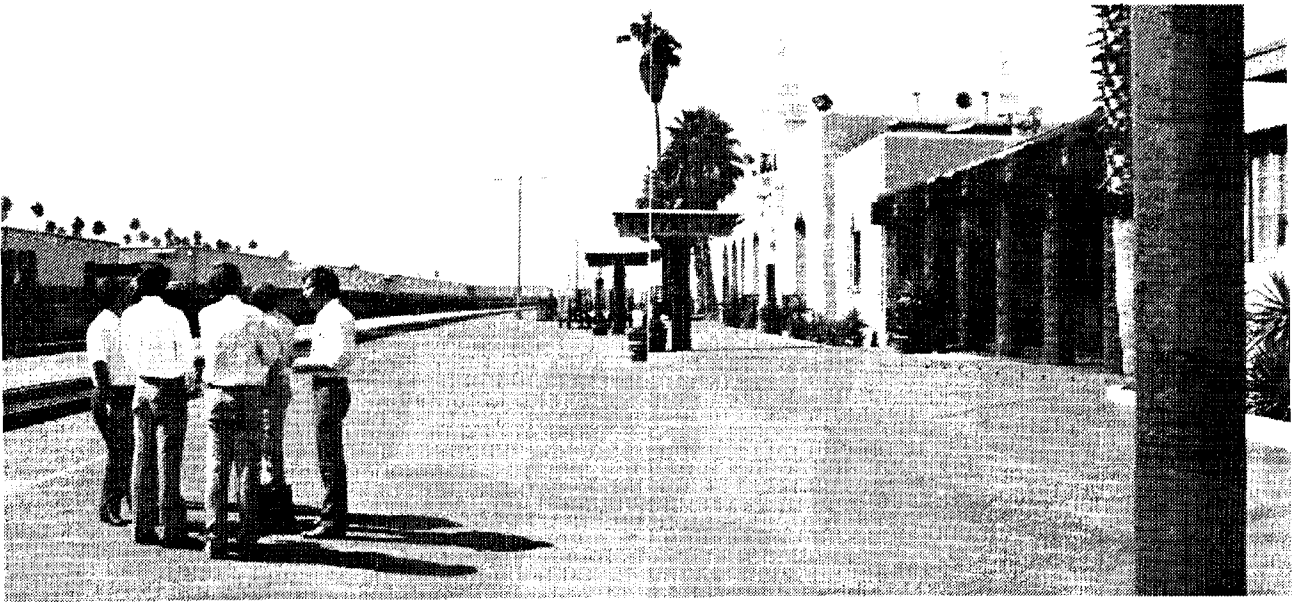
Environmental Impacts

For the purposes of this EIR, visually sensitive land uses have been defined to include residential neighborhoods, schools, and passive outdoor spaces such as parks, playgrounds, and recreation areas. On both a local and regional scale, measures of potentially significant visual impacts include the following:

- Disruption of important vistas which have aesthetic value;
- Light and glare of new structures;
- Loss of landscaping along the rail transit corridor;
- Compatibility of the rail transit corridor and its associated structures with the existing scale and spatial characteristics of the surrounding area.

Visual Quality. The proposed light rail alignment would result in changes to the project study area's physical environment in built out areas adjacent to the rail line and at station areas. Figures 59-62 illustrate the "developed" context of the proposed rail alignment at the Burbank Airport, Glendale Transportation Center, and Lawry's California Center. The following discussion describes the visual effects of the proposed project:

- Colorado Street to Grandview Avenue: As discussed in the Biological Resources section of this EIR, development of the proposed project would result in the removal of some of the streetscape planted within the SPTC right-of-way along this segment of the rail transit route. Because these trees and shrubs function both as an aesthetic amenity and as a landscape buffer between the rail line and nearby residential land uses east of San Fernando Road, the removal of the trees and shrubs would change the visual character of the area.
- SPTC rail corridor adjacent to roadways: This condition occurs in both Northwest Glendale and in Burbank's Golden State Redevelopment Area. Implementation of the proposed project would add 25-foot catenary poles at 120-foot intervals along the SPTC right-of-way. The overhead catenary system could potentially obstruct views or create visual clutter in these areas. The impacts, however, would not be considered significant due of the presence of existing overhead utility poles, as well as elevated portions of the Golden State, Glendale, and Ventura Freeways.
- Station Areas: Station platforms and rail-related facilities (parking areas, pedestrian bridges) could potentially create visual impacts. Although many of the proposed station areas have no significant aesthetic value, station development at the Glendale Transportation Center and Glendale Freeway Van de Kamp's station alternative could potentially impact the visual character of architecturally-interesting structures such as the old Glendale Rail Depot and the Van de Kamp's Bakery Building. In addition, the pedestrian bridge planned at the Burbank Airport station would create a visual barrier.



View looking north at the old Glendale Rail Depot. The proposed rail alignment's station platform would be located approximately 400 feet south of the existing depot. LRT Vehicles (as depicted in the rendering) would come no closer than 25 feet to the historic structure.

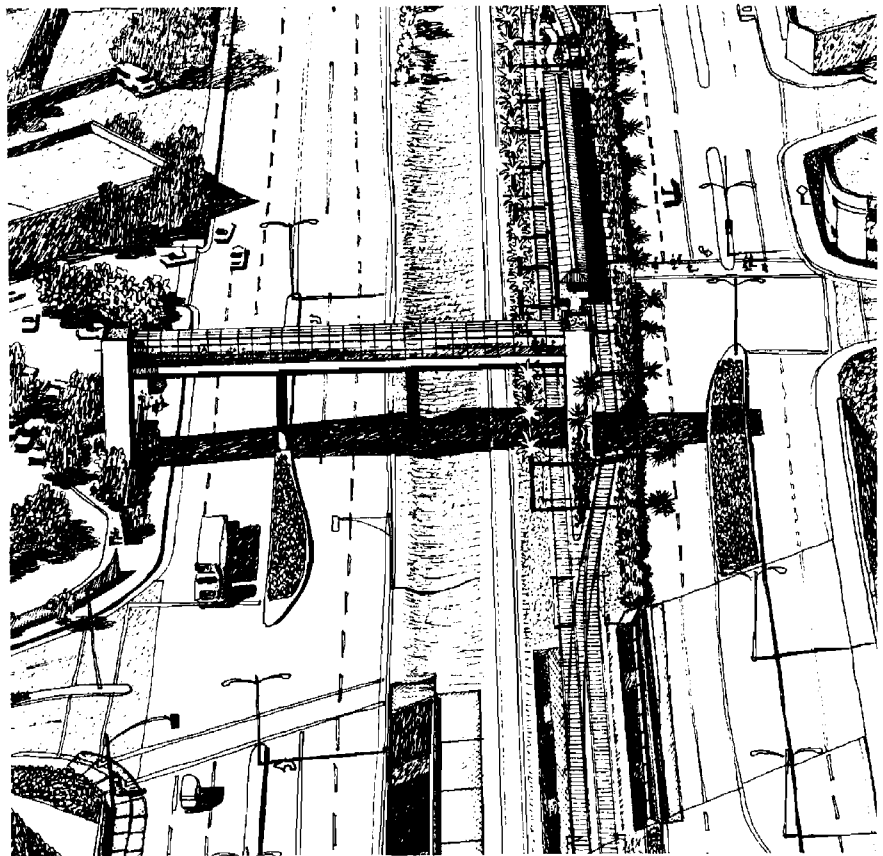
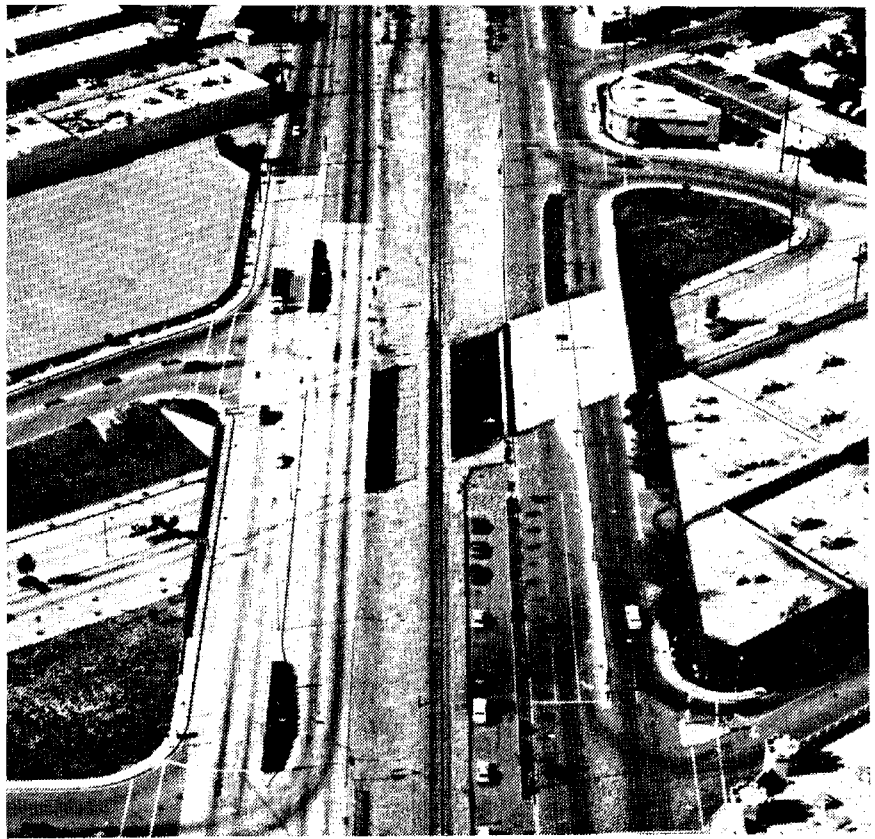
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FIGURE 59
Developed Context of
Glendale Transportation Center



View looking at the northern terminus of the rail transit alignment. The intersection of Hollywood Way and San Fernando Boulevard appears in the center of the photo. This station area would be served by a park-and-ride lot west of the alignment, with pedestrian access to the station platform provided via a pedestrian bridge spanning San Fernando Boulevard.

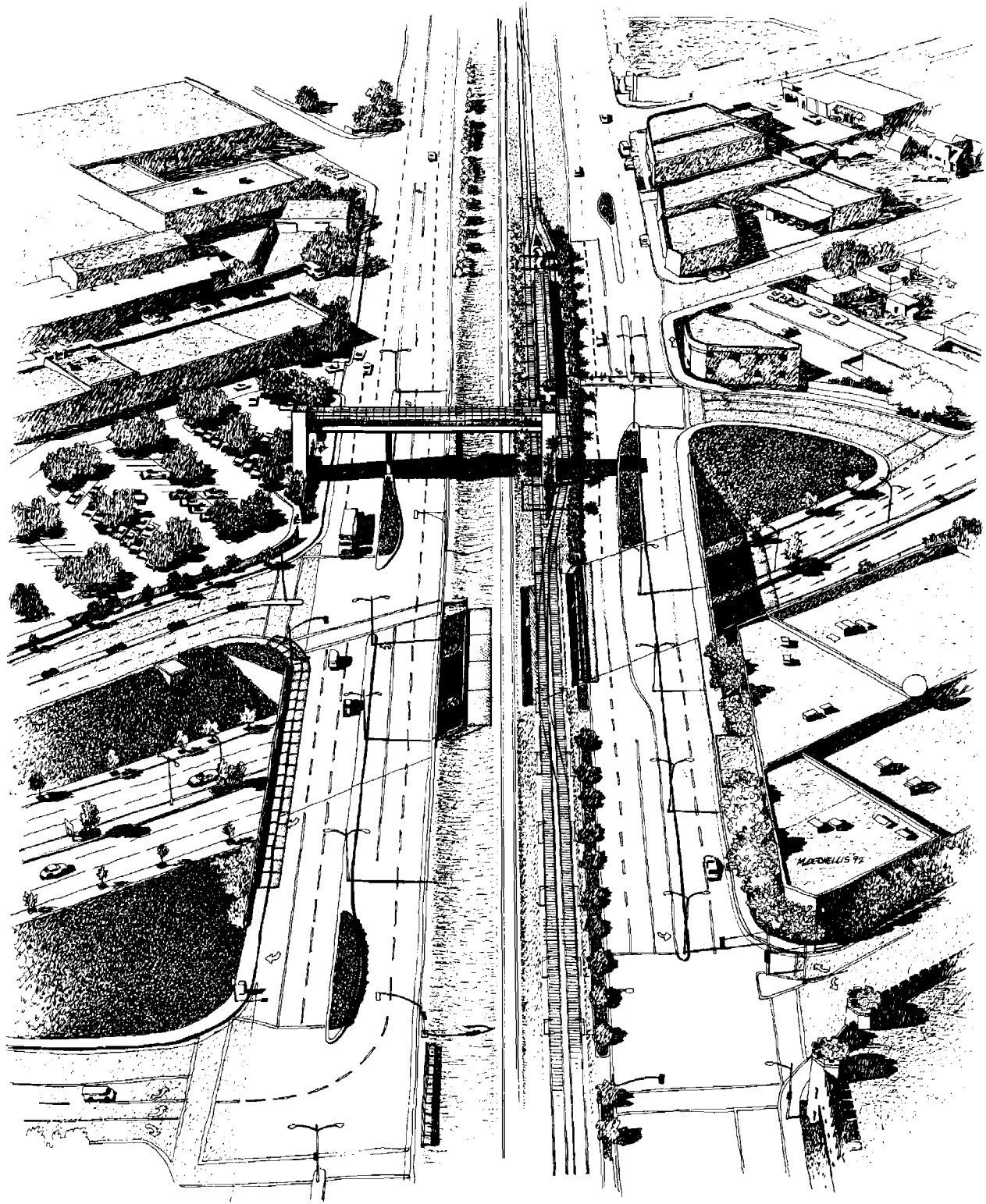
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FIGURE 60
Developed Context of
Burbank Airport-Hollywood Way Station



Aerial Perspective of proposed Burbank Airport-Hollywood Way Station area. The station platform would be located north of Hollywood Way . Facilities which will need to be constructed include a railroad bridge to span Hollywood Way, a 1,500-car park and ride facility on the northwest corner of the intersection, and a pedestrian overpass to access the station platform.

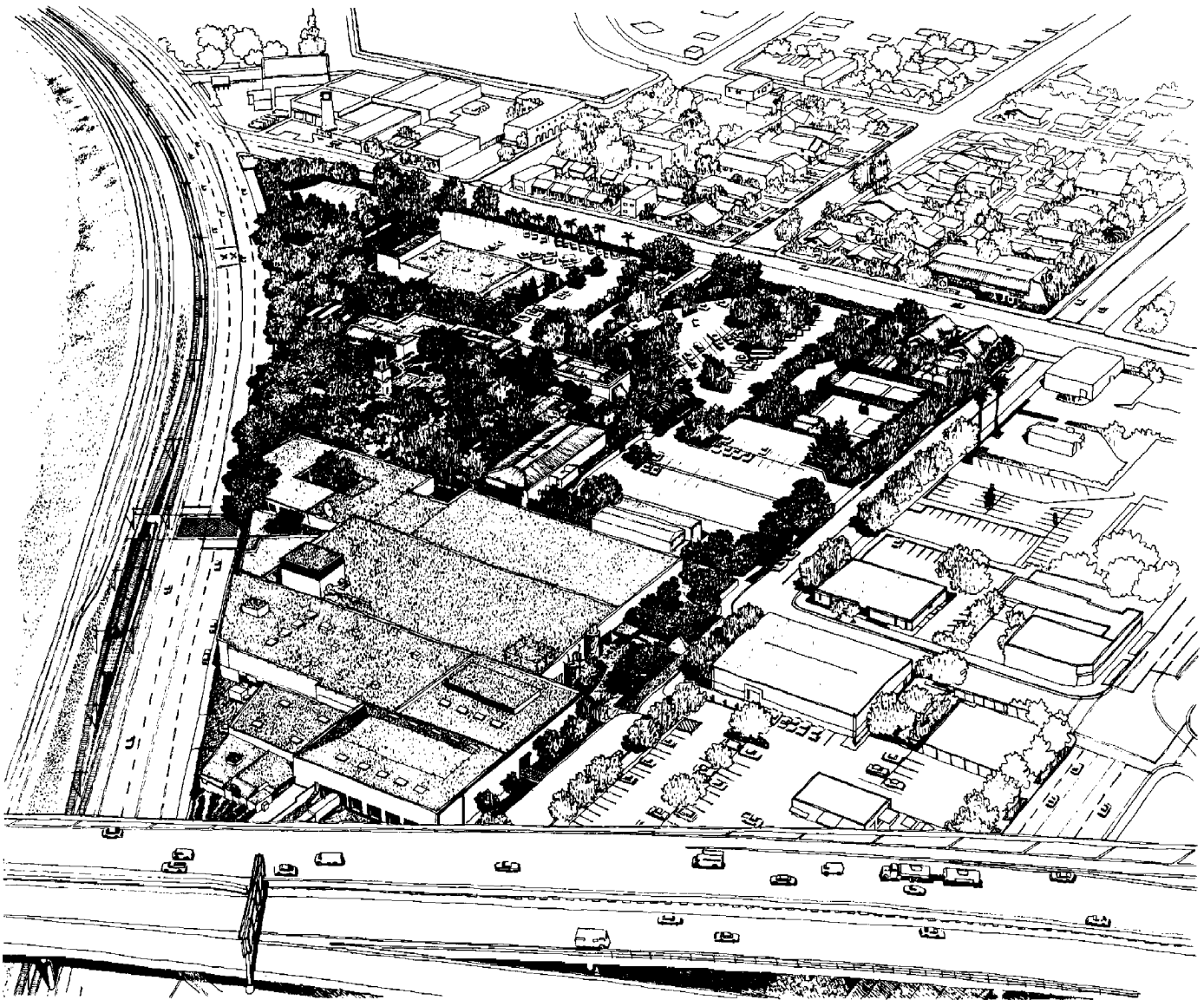
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FIGURE 61
View of Proposed Rail Line at
San Fernando Blvd. - Hollywood Way



Aerial Perspective of proposed Avenue 19 Station near Lawry's California Center. The Center could become the focal point of a potential joint development project following the construction of the rail line. In order to develop a station platform at this location, three feet of right-of-way will be displaced along San Fernando Road.

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FIGURE 62
View of Proposed Rail Line at
at Lawry's California Center

Light and Glare. Light and glare impacts would be common at station locations and at-grade intersections. Impacts would include lighting at station platforms and park-and-ride facilities, lighting from high beam headlights on light rail trains, and potential glare from new structures. These new light and glare sources could affect vehicles on adjacent roadways. However, due to the existing presence of automobile and street lights on adjacent streets, the impact associated with LRT-related light sources is not expected to create a significant negative light or glare impact.

Mitigation Measures

- Any streetscape removed from the rail transit route between Colorado Street and Grandview Avenue in Northwest Glendale should be replaced and relocated on either side of San Fernando Road (refer to mitigations recommended in Section 5.8).
- Stations shall be designed to be attractive and non-intrusive on surrounding areas. Emphasis should be placed on low building maintenance and graffiti resistance. In the case where station platforms and parking structures would be constructed adjacent to architecturally-interesting buildings, design standards should be established for rail-related facilities in order to be sensitive to the style of the building.
- The lead agency shall work in conjunction with the City of Glendale to create design and development standards for the LRT alignment as it passes through the Glendale Transportation Center. The standards should take into consideration the relationship between the old rail depot and the LRT station platform and alignment.
- Urban design standards and specific landscape design considerations shall be established where the proposed rail alignment comes in close proximity to identified visually sensitive land uses.
- Station lighting should incorporate directional shielding and should be designed to reduce spill-over light and glare on adjacent sensitive land uses.
- A fixed percentage of the construction budget should be set aside, as per LACTC policy, to provide a budget for public art in station areas.

Unavoidable Adverse Impacts

Implementation of the recommendation mitigation measures would leave the project with no net adverse visual or aesthetic impacts.

5.11 CULTURAL AND HISTORIC RESOURCES

The potential development of the Burbank-Glendale-Los Angeles Rail Transit Project raises questions related to cultural and historic resources that may exist in the vicinity of the proposed rail alignment. In order to assess the potential affects of the proposed project on such resources, Greenwood and Associates conducted a comprehensive cultural resource survey of the area. The complete findings of this report appears under separate cover, *Cultural Resources- Archaeology and Historic Structures Report*, May 1992. The following section highlights the salient information from this document and discusses the environmental setting and impacts on archaeological resources and historic structures.

5.11.1 Archaeology

For the purposes of this investigation, the project area consisted of an approximate 80-foot wide corridor following the existing SPTC right-of-way, and those areas designated as potential parking and/or station locations. The natural landform of the subject parcels has in all cases suffered heavy mechanical modification in order to construct and maintain the railroad right-of-way, parking areas, and improved road surfaces.

Environmental Setting

The resource materials most attractive to aboriginal populations within the project area occur along the undeveloped slopes and canyons of the Santa Monica and Verdugo Mountains. These areas include chapparal and oak woodland plant communities, their associated faunal species, and source materials suitable for stone tool manufacturing. In addition, the Los Angeles River's readily accessible riparian environment and its tributary systems can be considered of equal value.

Historical development in recent decades, however, has transformed the natural environment of the Los Angeles Basin to the extent that little of the original biotic environment can be observed. While historic development has obscured habitation sites, ethnographic and historical accounts indicate extensive aboriginal occupation and exploitation of available resources in the region prehistorically. The primary occupant of the project area was a group of Native American people that have come to be known as the Gabrielino. At the time of European contact these people occupied an area that included the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers, the Los Angeles Basin, the coast from Orange County's Aliso Creek north to Topanga Canyon, and the Channel Islands of Santa Catalina, San Clemente, and San Nicholas.

Literature and Archival Review. A review of available literature, archaeological site archives, and relevant historical maps was performed at U.C.L.A.'s Archaeological Information Center. Archival resources indicate that there have been seven archaeological surveys conducted within a one-half mile radius of the project area. None of the surveys encountered any surface evidence for the presence of prehistoric or significant historical resources within the study area.

The seven surveys which were conducted between 1980 and 1991 were the following:

- Beroza, 1980.
- Dames & Moore, 1988.
- Blodgett, 1989.
- Frierman, 1989.
- Singer & Atwood, 1989.
- Dillon, 1991.
- Wlodarski, 1991.

The archaeological surveys conducted in the vicinity of the proposed rail transit corridor have, in large part, consisted of block examinations associated with redevelopment and expansion activities. These surveys have for this reason been confined to rather limited areas of examination, and have provided little information regarding overall settlement patterns within the local coastal mountain and plain environments.

Environmental Impacts

The proposed rail transit corridor was examined by conducting a pedestrian survey of the existing SPTC right-of-way from the vicinity of South Taylor Yard to the Burbank-Glendale-Pasadena Airport at Hollywood Way. Parcels proposed for development as parking and station areas were investigated as encountered along the route.

Virtually all of the areas examined have undergone considerable mechanical disturbance with the majority of the ground surface outside the railroad right-of-way paved. One of these areas -- the site of the old Burbank Rail Depot -- was completely hidden at the time of the survey. Based on information attained from the archival review concerning this area, and the reasonable concern that subsurface remains of earlier structures may be present in the vicinity, an archaeological site record was completed for the property in the course of the field examination. In those areas within the project corridor where the ground surface was visible (i.e., adjacent to the railroad bed), evidence suggests that the landform has experienced sufficient impact. This effect on the landform obscures any surface evidence of architectural remains.

The results of the field investigation revealed that no significant cultural resources of either prehistoric or historical origin were directly encountered in the course of the study. No artifacts, flakes, or debitage, faunal remains, midden soil or features were observed. Although the negative results of the survey suggests that no significant cultural resources are, or were, present in the area investigated, the potential for undiscovered buried sites must still be considered, both in the vicinity of known historical developments and along the existing SPTC right-of-way. Because the proposed project corridor traverses the dividing line between the lower elevation slopes leading to the Verdugo Mountains and the upper edge of the Los Angeles River floodplain, the rail transit corridor and its adjacent parcels may thus be confined to areas of primarily alluvial deposits which have the potential to bury or obscure sites.

Mitigation Measures

The importation of fill materials and export of topsoil has resulted in a uniformly flat, linear topography that, in association with the wholesale development and paving of open areas, may have resulted in the removal or covering of potential archaeological deposits. In an effort to avoid impacts to unrecorded cultural resources that may be buried or obscured, the following mitigation measure is recommended:

- A qualified archaeological monitor should be in attendance during the initial phases of any land clearing in the course of project construction. Grading which should be monitored include pavement and base material removal and any subsurface excavation.

Unavoidable Adverse Impacts

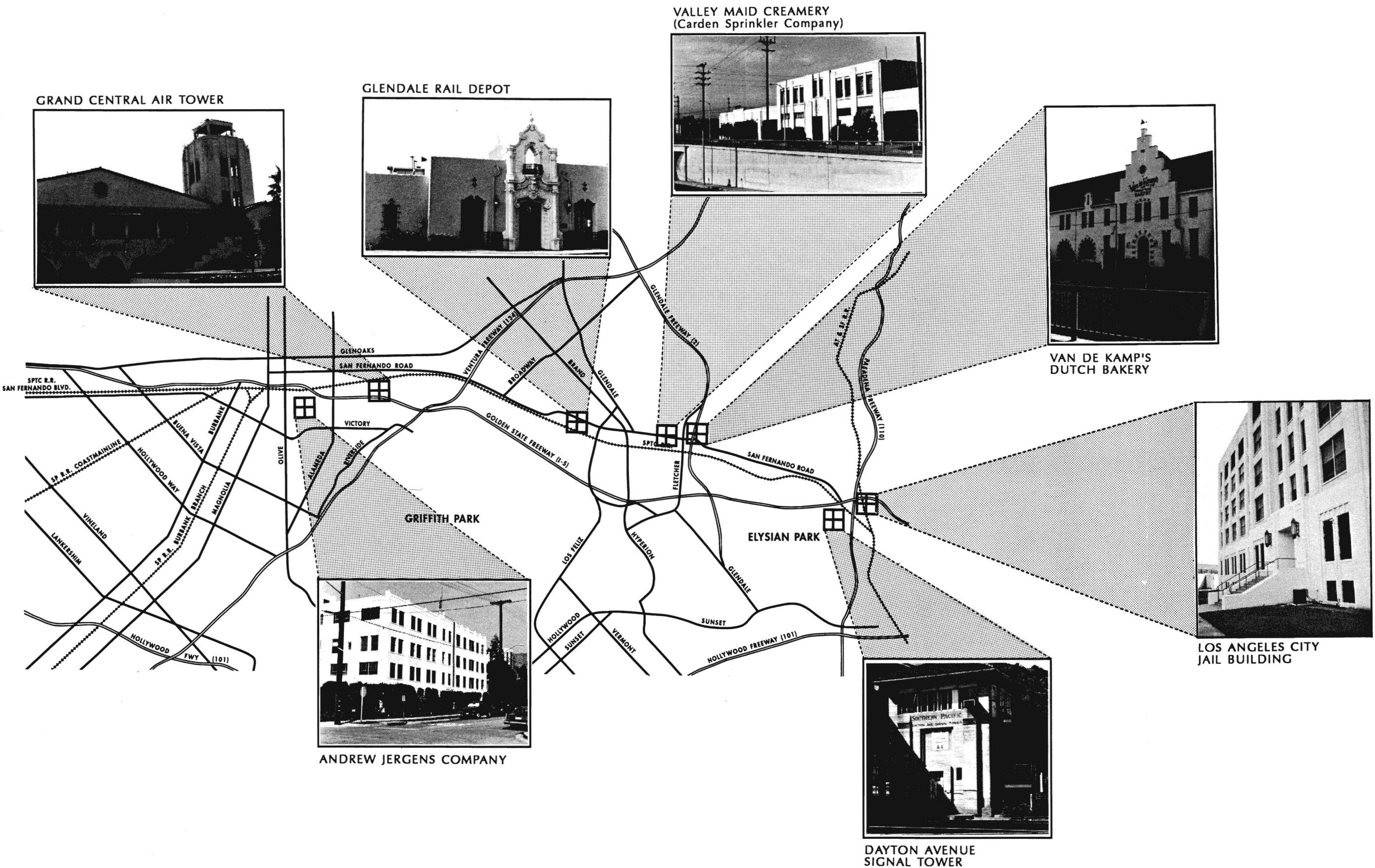
Implementation of the proposed rail transit project is not expected to result in net adverse effects on cultural resources in the East Valley and North Los Angeles region.

5.11.2 Historic Resources

Environmental Setting

28 properties in the vicinity of the proposed rail alignment were examined by an architectural historian. Of these 28 properties, seven were more closely analyzed and documented on State of California Historic resources Inventory forms (refer to *Cultural Resources- Archaeology and Historic Structures Report*, May 1992). As illustrated in Table 31, each of these structures are in close proximity to the rail transit corridor. Although none of these structures are currently on the National Register of Historic Places, some appear eligible for listing or currently hold some local landmark status.

Of the seven, the Andrew Jergens Company Building in Burbank does not appear eligible for separate listing or designation. The two properties in Glendale -- the Old Rail Depot and Grand Central Air Tower -- already have local designations under the City's Historic Preservation Element. The four properties in the City of Los Angeles each appear to merit potential listing. The Van de Kamp's Dutch Bakery has a Los Angeles City Historic-Cultural Monument nomination pending, while the Valley Maid Creamery Building and the Dayton Avenue Signal Tower appear eligible for inclusion on the National Register of Historic Places under Criterion C at the local level of significance. The old Los Angeles City Jail Building at Avenue 19 is listed in the City of Los Angeles Northeast Los Angeles District Plan as an eligible landmark for local listing.



SOURCE: Portia Lee, California Archives, Spring 1992.

NO SCALE 

GRAPHICS BY GRUEN ASSOCIATES

Table 31 Inventory of Historic Resources			
Structure	Address	Date Built	Distance to Alignment
Grand Central Air Tower	1310 Air Way, Glendale	1928	Within 1/4 mile
City Jail Building	401 W. Avenue 19, Los Angeles	1930	Adjacent
Dayton Avenue Signal Tower	569 San Fernando Rd., Los Angeles	1932	Adjacent
Andrew Jergens Company	99 W. Verdugo Avenue, Burbank	1920	Adjacent
Glendale Rail Depot	400 Cerritos, Glendale	1923	Adjacent
Van de Kamp's Dutch Bakery	2900-30 Fletcher Dr., Los Angeles	1930	Adjacent
Valley Maid Creamery (Carden Sprinkler Company)	2909 Fletcher Dr., Los Angeles	1931	Adjacent
SOURCE: Portia Lee- California Archives, Historic Resources Inventory, May 1992.			

Environmental Impacts

Four of the structures inventoried in **Table 31** and illustrated in **Figure 63** on the previous page face potential changes in the near future: the Los Angeles City Jail Building, the Dayton Tower Signal Tower, the Van de Kamp's Dutch Bakery, and the Glendale Rail Depot. In the case of the Dayton Tower Signal Tower, plans by Southern Pacific call for the structure to continue to be used as an observation tower for the next six months. Owned by LACTC, no plans for the tower have been defined passed this period. The Van de Kamp's Dutch Bakery recently received a nomination to be designated as an Historical-Cultural Monument within the City of Los Angeles. The site has been identified in this EIR (Section 3.0) as a potential joint development site for station parking. The Glendale Rail Depot is scheduled to be rehabilitated as part of the City's Master Plan for a multi-modal transportation center. Its environmental clearance is being completed by the City of Glendale. The LRT alignment will pass in front of the depot, but approach no closer than 25 feet. While each of these plans are related to the Burbank-Glendale-Los Angeles Rail Transit Project, the proposed alignment would not directly create an impact on these historic structures.

The proposed rail transit project would, however, directly impact the old Los Angeles City Jail Building. After a thorough analysis of various alignment alternatives, the engineering feasibility for the proposed project recommends that the most effective alignment connecting the Burbank-Glendale-Los Angeles rail line to the Pasadena-Los Angeles Blue Line would be through the site of the Old City Jail Building. This results in the taking of the jail, the displacement of its three existing tenants, and the demolition of the structure. Owned by the City of Los Angeles, the Northeast Los Angeles District Plan indicates that the Old City Jail Building exhibits significant architectural and cultural characteristics which would make it eligible for designation as a local

Historical-Cultural Monument of the City of Los Angeles. In addition, the 1930 portion of the building exhibits features which may make it eligible for listing under the National Register of Historic Places. The demolition of the Old City Jail Building would constitute a significant impact to local historical resources.

Mitigation Measures

In order to verify that the old Los Angeles City Jail Building site must be taken, the following measures should be implemented prior to the demolition of the structure:

- During the design phase of the project, a cost-benefit and engineering analysis should be prepared to determine if the demolition of the building can be avoided. Merits that should be considered include environmental superiority of the alignment and the structural and operational feasibility of constructing an alignment without taking the structure.
- If demolition cannot be avoided, an Historic Structures Report shall be prepared. This report will document the significance of the building and its physical conditions, both historic and current, through measured drawings, photographs, written data, and text. This measure would not mitigate the impact of demolition to a level of insignificance, but is nonetheless important to assure that information regarding the structure's contribution to local history is retained.

Unavoidable Adverse Impacts

The taking and demolition of the old Los Angeles City Jail Building may be unavoidable.

5.12 CONSTRUCTION IMPACTS

This section examines the impacts that can be expected to occur as a result of the construction of the proposed rail transit alignment. Key impact areas include utility relocations, circulation detours, noise, and dust. It should be noted that impacts related to the construction of the project are short term in nature, as opposed to the long-term impacts that results from the operation of the rail transit system.

Environmental Setting

The project would be constructed at-grade throughout, with the exception of five bridges that would be built at Hollywood Way, San Fernando Boulevard, the Verdugo Wash, Colorado Street, and Brand Boulevard. As illustrated in Table 32, the 11.9-mile route would take nearly two years to construct. This assumes that approximately 5,000 feet of track would be constructed every eight weeks, and does not include the additional time and constraints associated with constructing the railroad bridges above various underpasses and drainage channels.

Table 32 Estimated Construction Duration by Route Segment		
Segment	Distance (feet)	Estimated Construction Time (weeks)
Burbank Airport-Hollywood Way to Buena Vista	4,277	6.8
Buena Vista to Burbank City Centre	9,821	14.8
Burbank City Centre to Northwest Glendale	9,926	15.9
Northwest Glendale to Ventura Freeway	5,122	8.2
Ventura Freeway to Broadway	3,115	5.0
Broadway to Glendale Transportation Center	9,715	15.5
Glendale Transportation Center to Glendale Freeway-Fletcher Drive	4,910	7.9
Glendale Freeway-Fletcher Drive to Taylor Yard	5,280	8.4
Taylor Yard to South Taylor Yard	5,280	8.4
South Taylor Yard to Pasadena Line Junction	5,280	8.4
Total	62,726 (11.9 miles)	99.3 (nearly 2 years)
SOURCE: Gruen Associates based on LACTC, San Fernando Valley East-West Rail Transit Project DEIR, November 1989.		

Environmental Impacts

Utility Relocations. The concept engineering phase of this study identified existing utilities which would be impacted by the construction of the proposed project. This analysis indicated that the following utilities would be totally or partially relocated: the Southern Pacific Transportation Company freight rail alignment; Western Union Telegraph underground lines; MCI Telecommunications, US Sprint, and American Telephone & Telegraph fiber optic cables; and Southern California Edison Company electrical lines. The relocation of the Southern Pacific alignment could create potential service impacts on existing and future heavy rail operation such as SP freight service, Amtrak passenger service, and Metrolink commuter rail service. An assortment of other electrical, gas, telephone, water, storm drain, and sanitary sewer lines also cross or run parallel to the proposed rail transit project. A more detailed discussion regarding the proposed project's impacts on utilities are discussed in Section 5.9 of this DEIR.

Traffic. Because of the relatively short construction duration for at-grade rail systems, it is expected that the proposed project would create few traffic-related impacts. Nevertheless, some impacts can be identified:

- At-grade intersections such as Buena Vista Street (Burbank), Sonora Avenue (Glendale), Grandview Avenue (Glendale), and Doran Street (Glendale) would experience temporary lanes closures during the day. With the exception of Doran Street, existing traffic volumes at these intersections are at acceptable levels. At Doran Street, the existing and anticipated future level of service is F. Construction of the rail line at this segment may need to be performed at off-peak, nighttime hours.
- The construction of new single- or double-track bridges where the SPTC right-of-way intersects with major streets such as Hollywood Way (Burbank), San Fernando Boulevard (Burbank), Colorado Street (Glendale), and Brand Boulevard (Glendale) could potentially create significant traffic-related impacts. The building of these spans over major arterials may require construction to be phased, thereby exacerbating other impacts such as noise. In addition, the demands of bridge construction would require the closure or rerouting of traffic when the beams and girders are set in place over these intersections.
- In addition to impacts associated with the construction of the alignment, it can be expected that the proposed project would also create impacts related to the movement of earth material and truck traffic generation to and from job sites. These impacts would be accentuated at stations with large park-and-ride facilities and/or stations with joint development potential. These sites, which include stations at Burbank Airport-Hollywood Way, Burbank City Centre, Ventura Freeway, Glendale Transportation Center, Glendale Freeway-Fletcher Drive, and Taylor Yard, would involve the movement of earth as a result of grading and minor site excavation to construct structures. The specific construction impacts created at these station sites will be addressed during the initial design phase of each station.

Noise and Dust. The exposure to noise and dust impacts would be of relatively short duration for the proposed project, due to the at-grade alignment which requires much shorter construction times and fewer types of heavy equipment than in other types of construction. The building of the alignment's bridges could, however, create localized noise and dust impacts at each location. The expanded period of time and the heavier construction equipment used to construct the bridges would affect residences, particularly at the Hollywood Way and Brand Boulevard construction sites. The construction of the Verdugo Wash bridge could also create dust impacts on the content of the water runoff in the drainage channel.

Mitigation Measures

In order to mitigate construction-related impacts along the project route, the following mitigation measures are recommended:

- Prior to the start of construction, traffic control plans, including detour plans, shall be formulated with the Cities of Burbank, Glendale, and Los Angeles, as well as with the California Department of Transportation. Unless unforeseen circumstances dictate, no major roadways would be closed to pedestrian or vehicular traffic. In addition, sidewalks and delivery routes will remain open and storefronts will be kept as visible as possible.
- A public information campaign will be implemented to provide prior notice to affected property owners and the public on specific dates and locations where construction would be taking place. Visible road signs will be provided for all detours or rerouting of travel patterns.
- Noise specifications for subsequent inclusion in the construction documents shall be prepared to ensure compliance with local noise ordinances. Whenever construction-generated noise exceeds acceptable CNEL standards during night or weekend periods, affected residents will be offered alternative lodging accommodations.
- The construction of the Verdugo Wash bridge should be undertaken during the dry season in an effort to ensure that no water in the drainage channel is exposed to construction-related dust impacts.
- LACTC will work with Southern Pacific and the Southern California Regional Rail Authority to coordinate train and construction schedules in an effort to minimize impacts on passenger train time tables.

Unavoidable Adverse Impacts

Although temporary, noise, dust, and vehicular and pedestrian traffic impacts would constitute a significant, short-term, adverse daytime impact throughout the residential areas in close proximity of the route.

CHAPTER 6.0 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA Guidelines require the consideration of reasonable alternatives to the proposed project which would: (a) evaluate the comparative merits of the alternatives; (b) attain the basic objectives of the project; and (c) minimize the significant impacts associated with the project. This section summarizes the various alternatives previously proposed and details the related implications considered for each alternative relative to the proposed Burbank-Glendale-Los Angeles Rail Transit Project.

Because the lead agency prepares thorough feasibility studies for potential high capacity transportation corridors, the proposed rail transit alignment studied in this report is the product of previously considered alternatives. This alternatives analysis will examine those alternatives presented in the *Glendale Corridor LRT Alignment Alternatives Study* and the *Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study*. In addition to studying these alternatives, the environmental impacts associated with a "No Project" Alternative will be analyzed.

The following lists the project alternatives which have been identified, analyzed, and environmentally documented for the proposed project:

- No Project
- Alternative Alignments
- Alternative Transit Modes
- Alternative Station Sites

6.1 NO PROJECT ALTERNATIVE

Project Description: The No Project Alternative would leave LACTC's 40-foot transportation easement and the designated parking sites in their existing condition. Under this alternative, the transportation easement would remain unused, and the existing heavy rail tracks that carry freight rail, Amtrak, and Commuter Rail Metrolink (expected to open in Fall 1992) would not need relocation within the 100-foot SPTC right-of-way. Without the light rail transit system, commuting services would continue to be provided by local and express bus service in the area.

Population and Housing: Like the proposed project, there would be no direct impact to population and housing as a result of implementation of the no project alternative.

Land Use: Execution of the no project alternative would not result in a change in the type or intensity of uses in the project area. In addition, there would be no property displacements associated with this alternative.

Air: Implementing the no project alternative would mean that a key element in the Tier I Control Strategy of the Air Quality Management Plan would not be achieved. The no project alternative would not provide for the daily reduction of .24 tons of carbon monoxide, .02 tons of total organic gases, .02 tons of reactive organic gases, .05 tons of nitrogen oxides, and .01 tons of particulate matter.

ALTERNATIVES TO THE PROPOSED PROJECT

Transportation: This alternative would remove the potential savings of 37,800 vehicles miles of travel achieved by the rail transit project would be lost. Transportation mobility and access problems projected and documented by the Southern California Association of Governments would not be reduced or alleviated.

Noise: The no project alternative would not increase the intensity of use along the rail transit corridor, thereby leaving traffic generation unchanged. The absence of construction activities would also eliminate short-term noise impacts.

Earth: This alternative would not result in the removal of any soil or materials from the proposed rail transit project and its rail-related facilities. This would leave the existing topography undisturbed. Retaining the relatively low intensity of the area would minimize the number of persons who would be exposed to the risk of injury due to earthquakes.

Public Services: The no project alternative would not increase demand for or create impacts to fire, police, or school services. No change in the type or intensity of uses at the site would create no additional need for services.

Natural and Recreational Resources: Implementation of this alternative would result in the retention of the existing streetscape within the SPTC right-of-way.

Energy: Execution of the no project alternative would not result in any substantial change in electrical consumption over the existing levels. It would, however, also remove the possibility of reducing the consumption of gasoline by approximately 1,720 gallons of fuel per day.

Aesthetics: The existing visual character of the site would remain unchanged under this alternative. The existing streetscape along the SPTC right-of-way would be undisturbed, but implementation of a no project alternative would also preclude the improvements related to providing additional landscaping, adding decorative features along the corridor, and designing interesting structures that enhance the visual quality of this relatively nondescript environment.

Cultural Resources: The no project alternative would not displace and demolish the old Los Angeles City Jail building. It would also maintain the existing relationship between potentially historic structures along the rail line and the SPTC right-of-way.

6.2 ALTERNATIVE ALIGNMENTS

Project Description: Previously considered alignment alternatives studied rail transit routes that passed through the City of Glendale’s Central Business District. The *Glendale Corridor LRT Alignment Alternatives Study* analyzed seven alignment alternatives. Prior to selecting the Southern Pacific rail transit corridor as the preferred right-of-way, six other alignments, primarily utilizing the Central Avenue and the Brand Boulevard corridors were examined.

As illustrated in **Figure 64**, these alignments included the following:

- 1) Central Avenue-Ventura Freeway
- 2) Brand-Glenoaks Boulevard
- 3) Brand Boulevard-Broadway West
- 4) Brand-Colorado-Broadway Loop
- 5) Central-Orange St-Ventura Fwy.
- 6) Brand-Orange St-Glenoaks

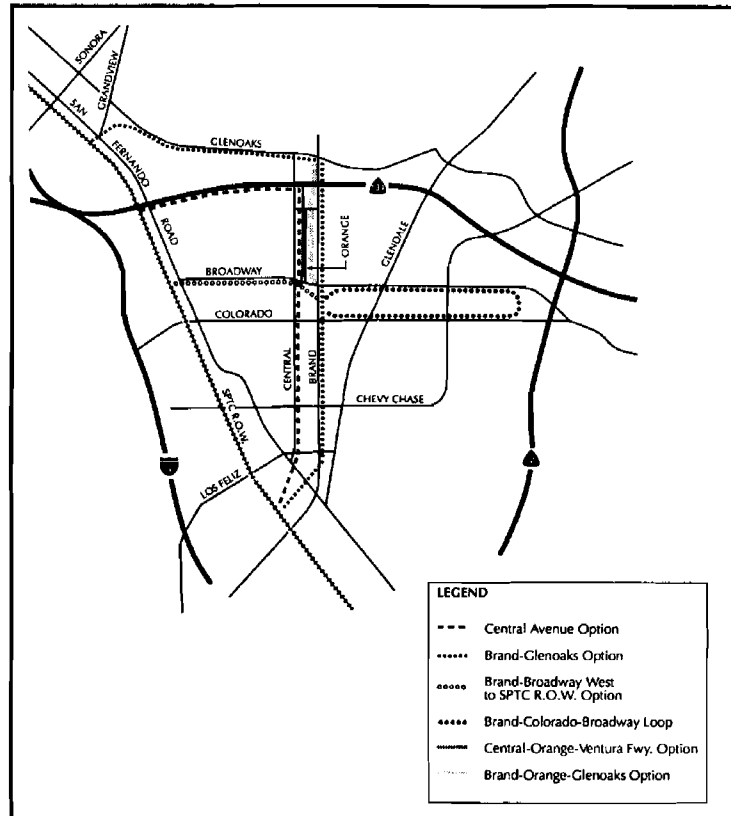


FIGURE 64

Alternative Alignments
SOURCE: LACTC and City of Glendale

In addition to refining these alignments, the *Glendale Corridor LRT Alignment Alternatives Study* also provided a preliminary environmental evaluation of each of the alignments. Because each of these alignments share the same goal of providing rail transit service to the Glendale Central Business District, each of these alternatives create similar impacts. The primary areas of impact that differ from impacts created by the proposed rail transit project include land use, traffic and circulation, noise, engineering constraints, aesthetic quality, and in some instances, cultural and historic resources. **Table 33** on the following page summarizes the potential environmental impacts of the six alignment alternatives, while the discussion that follows highlights the different environmental impacts between these alternatives and the proposed project.

ALTERNATIVES TO THE PROPOSED PROJECT

Table 33 Summary of Impacts Created by Alignment Alternatives						
Evaluation Factor	Alignment Alternative					
	1	2	3	4	5	6
TRAFFIC						
Loss of Parking	Minor	Minor	Minor	Major	Minor	Minor
Loss of Parking Lanes	Verdugo Wash	None	Pacific Avenue	Station Areas	None	None
Loss of Turning Lanes	Minor	Minor	Minor	Major	Minor	Minor
Conflict with At-Grade Intersections	Major	Major	Major	Major	Major	Major
Conflict with Signaled Intersections	Major	Major	Major	Major	Major	Major
OTHER ENVIRONMENTAL						
Noise Sensitive Receptors	29	177	29	121	13	173
Aesthetic Quality (Level of Impact)	Medium to High	High	High	High	Medium to High	Medium to High
SOURCE: LACTC and City of Glendale, <i>Glendale Corridor LRT Alignment Alternatives Study</i> , April 1990.						

Alternative Alignment #1: Central Avenue-Ventura Freeway. This alignment would create impacts different from the proposed project with respect to land use, noise, traffic, and cultural and historical resources.

Land Use: This alignment has several isolated uses (residences, convalescent homes, and churches) that would be less compatible with an LRT line.

Noise: These uses can also be considered sensitive receptors, the majority of which are located south of the Glendale Galleria between San Fernando Road and Colorado Street. A total of 29 sensitive receptors were located along this route alternative.

Traffic: The primary impact focuses on conflicts between the LRT line and vehicular and pedestrian at major at-grade and signalized intersections such as Colorado Street and Broadway.

Cultural and Historic Resources: Two second order local landmarks are located along this alignment. However, of the two, only the former Christian Science Church is standing.

Alternative Alignment #2: Brand-Glenoaks Boulevard. This alignment would create impacts different from the proposed project with respect to land use, noise, traffic, cultural and historical resources, and aesthetic quality.

Land Use: This alternative would pass through a city-designated "Automotive Commercial Center along the southern Portion of Brand Boulevard. This would create a loss of on-street customer parking and can be considered an adverse impact to the auto dealerships. As the alignment travels along Glenoaks Boulevard, the LRT is less compatible with the residential land uses on each side of the alignment.

Noise: Among the sensitive uses along this alignment include two churches, over 100 residential structures, and a neighborhood park.

Traffic: Construction and implementation of the proposed project would result in major impacts to at-grade and signalized intersections in the City's Central Business District.

Cultural and Historic Resources: This alignment passes through Glendale's older commercial district where several sites have been designated by the city as historically significant. Some of the more significant landmarks are located north of Glenoaks Boulevard.

Aesthetic Quality: The presence of the LRT would modify the existing streetscape of Brand Boulevard as well as add new elements to the visual setting. Existing views of the Verdugo Mountains along northbound Brand could potentially be threatened.

Alternative Alignment #3: Brand Boulevard-Broadway West. This alignment would create impacts different from the proposed project with respect to noise, traffic, cultural and historical resources, and aesthetic quality.

Noise: A total of 29 sensitive receptors such as residences, convalescent homes, and churches are located along this alignment.

Traffic: Same as Alignment #2

Cultural and Historic Resources: Same as Alignment #2.

Aesthetic Quality: The existing built environment near the Glendale Galleria is already complex. The addition of the LRT, particularly if the route were elevated, would add a new visual element that could be construed as a physical obstacle.

Alternative Alignment #4: Brand-Colorado-Broadway Loop. This alignment would create impacts different from the proposed project with respect to land use, noise, traffic, and aesthetic quality.

Land Use: Broadway is predominately residential from Chevy Chase Drive to the Glendale city line, as is the north-south access to Colorado Street along Eagle Dale Avenue. These two areas should be considered less compatible due to potential disruptions of noise and reduced access.

ALTERNATIVES TO THE PROPOSED PROJECT

Noise: Five churches and three schools (including Glendale High School) are on or near Broadway. A total of 121 sensitive receptors have been identified along this alignment alternative.

Traffic: This alternative would result in the greatest traffic-related impacts. It would reduce the number of on-street parking spaces along Broadway and Colorado Street, result in the elimination of turning lanes, and it would significantly impact key traffic intersections where Brand Boulevard, Glendale Boulevard, and Verdugo Avenue cross Broadway and Colorado Street.

Visual Quality: The presence of the LRT would modify the existing visual character in this area as well as add new elements to the visual setting. This is especially true of the east-west loop along Broadway and Colorado where sensitive land uses may perceive of the LRT as an intrusion, particularly if the alignment were an aerial configuration.

Alternative Alignment #5: Central-Orange St-Ventura Freeway. The environmental issues along the Central Avenue-Ventura Freeway alignment have been detailed in the analysis of Alternative Alignment #1. The examination of this alternative will discuss only those impacts along Orange Street. This alignment would create impacts different from the proposed project with respect to land use, noise, traffic, and aesthetic quality.

Land Use: Land uses along Orange Street are almost exclusively commercial. Construction of this alignment would necessitate the elimination of on-street parking and mid-block left turn lanes, as well as reduce sidewalk widths. All of these improvements can be considered as significant impacts to businesses.

Noise: A total of 13 sensitive receptors have been identified along this route, the lowest total for any alternative alignment. These receptors include motels, theaters, and a few residences.

Traffic: Traffic along Orange Street would be impacted by means of the removal of turning lanes and the displacement of on-street parking. In addition, there may be significant traffic impacts at key at-grade and signalized intersections.

Aesthetic Quality: The presence of the LRT along Orange Street would accentuate the narrowness of the street, thereby creating both a sense of closure and clutter of the physical form along this arterial.

Alternative Alignment #6: Brand-Orange St-Glenoaks. The environmental issues along the Brand Boulevard-Glenoaks Boulevard alignment have been detailed in the analysis of Alternative Alignment #2. The environmental issues along Orange Street are detailed in the examination of Alternative Alignment #6.

Based on this evaluation, Alternative Alignment #5, the Central Avenue to Orange Street to the Ventura Freeway route, would be the project that minimizes impacts to the environment. Although this alignment would be superior to the five other CBD alignments, Alternative Alignment #5 would still result in more significant impacts to the environment than the proposed rail transit alignment that travels along the SPTC right-of-way.

6.3 ALTERNATIVE TRANSIT MODES

Project Description: In addition to previously studied alignment alternatives, the *Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study* explored the potential of providing commuter services along the Southern Pacific Transportation Corridor by means of a variety of alternative transit modes. This alternative would involve utilizing other modes of transit that still meet the objectives of the project. These alternatives are described below.

- **Commuter Rail:** Characterized by "mainline railroad" transportation operation, this mode would provide urban passenger train service for short distance travel between a central city and adjacent suburbs. Service is distinguished by long average trip length, large intersection spacing, and high riding comfort. This transit mode is expected to begin operation along the SPTC right-of-way in the Fall of 1992.
- **High Speed Rail:** This transit mode has the capability to achieve a maximum speed of 186 miles per hour (mph). Typical of this type of technology is the TGV Atlantique, which consists of two power units separated by 10 trailers with 485 seats per train. The TGV trains are completely grade-separated, either horizontally or vertically on structures or embankments. Due to the nature of its speed, this alternative mode would bypass at-grade rail sections by means of overpasses or viaducts to maintain grade separations.
- **Magnetic Levitation System (Maglev):** The Maglev technology can reach a top, safe cruising speed of 310 mph since it wraps around the guideway and cannot derail. Its electromagnetic support and guidance system is based on the attracting forces of individually controlled electromagnets, and the stator packs installed on the underside of the guideway. The Maglev would travel on a grade-separated, elevated system.

Because this alternative would utilize the same right-of-way and develop the same rail-related facilities (i.e., park-and-ride lots), it can be expected that the alternative transit modes project would have similar impacts related to population and housing, land use, public services, natural and recreational resources, and cultural and historical resources. The following discussion outlines the impacts which may differ from the proposed project:

ALTERNATIVES TO THE PROPOSED PROJECT

Noise: Noise assessments conducted as part of the *Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study* indicate that at a distance of 100 feet from sensitive receptors, the Commuter Rail produces a dBA of 84 at its maximum speed of 80 mph, the High Speed Rail a dBA of 89 (186 mph), and the Maglev a dBA of 78 (310 mph). By comparison, the LRT produces a dBA of 69 while travelling at its maximum speed of 55 mph.

Transportation: Each of the modes of transportation analyzed as part of this alternative could potentially reduce traffic impacts. Because of the high speeds at which these the Maglev and High Speed Rail travel, they would be grade-separated at all at-grade intersections. However, station parking impacts would be the same as the proposed project.

Air: Implementation of this alternative can be expected to contribute to the improvement of regional air quality. However, it is assumed that the proposed light rail system would provide greater relief since it is expected to attract a higher patronage.

Earth: Development of an aerial guideway system (Maglev) or grade-separated route (High Speed Rail) could create construction impacts that would not occur as part of the proposed project.

Aesthetics: Execution of the Maglev or High Speed Rail Alternatives could potentially create physical barriers and block important vistas and viewsheds. An elevated guideway system could also create light and glare from the Maglev vehicle and station platform structures.

6.4 ALTERNATIVE STATION SITES

Project Description: As part of the iterative design process for identifying station sites, the proposed rail transit project has examined a variety of station site and facility alternatives at some of the designated station areas. The criteria for selecting station and park-and-ride locations takes into consideration the following factors:

- Ease of pedestrian access to station platforms
- Availability of land
- Connectivity to other transit modes
- Compatibility with adjacent land uses
- Engineering constraints
- Safety and security of train passengers

The station sites and their alternative site locations are indicated in **Table 34** on the following page.

ALTERNATIVES TO THE PROPOSED PROJECT

Table 34 Alternative Station Sites		
Station Area	Designated Station Site	Alternative Site Locations
BURBANK AIRPORT-HOLLYWOOD WAY	Platform: North of Hollywood Way. Parking: NW corner of San Fernando Boulevard and Hollywood Way	None.
BUENA VISTA	Platform: North of Buena Vista. Parking: Caltrans property located below I-5.	<i>Alternative 1</i> Platform: South of Buena Vista Parking: Fire Station No. 13 site.
BURBANK CITY CENTRE	Platform: Between Magnolia and Olive. Parking: Front Street depot site.	None.
NORTHWEST GLENDALE	Platform: 50 feet south of intersection of Sonora and SPTC right-of-way.	<i>Alternative 1</i> Platform: 500 feet south of intersection of Sonora and SPTC right-of-way.
VENTURA FREEWAY	Platform: South of Doran Street. Parking: SE corner Doran and San Fernando.	<i>Alternative 1</i> Platform: Below Freeway. Parking: SE corner Fairmont and San Fernando. <i>Alternative 2</i> Platform: Below Freeway. Parking: Below Freeway. <i>Alternative 3</i> Platform: South of Doran. Parking: SW corner Doran and San Fernando.
BROADWAY	Platform: South of Broadway.	<i>Alternative 1</i> Platform: North of Colorado.
GLENDALE TRANSPORTATION CENTER	Platform: South of Old Rail Depot. Parking: North of Old Rail Depot.	None.
GLENDALE FREEWAY-FLETCHER DRIVE	<i>Van de Kamp's site Alternative</i> Platform: Above Fletcher Drive underpass. Parking: West of Van de Kamp's Building. <i>Hughes Market site Alternative</i> Platform: South of Glendale Freeway. Parking: Hughes Market Building #1.	None.
TAYLOR YARD: DIVISION STREET	<i>Division Street site Alternative</i> Platform: North of planned access road. Parking: East of station platform. <i>LACTC-owned property site Alternative</i> Platform: South of Arvia Street. Parking: In property.	None.
SOUTH TAYLOR YARD: AVENUE 19	Platform: South of Avenue 26 and Lawry's California Center.	<i>Alternative 1</i> Platform: Adjacent to Lawry's California Center.

The following discussion provides an explanation of the factors that led to the selection of the proposed station site rather than the alternatives that were considered. Because some station sites, such as at Burbank Airport-Hollywood Way, Burbank City Centre, and Glendale Transportation Center, met the selection criteria for stations, no alternatives were identified for these station sites. The site selection process for two other station areas, Glendale Freeway-Fletcher Drive and Taylor Yard, determined that more than one site met the selection criteria,

ALTERNATIVES TO THE PROPOSED PROJECT

and should be carried forward for environmental clearance (refer to Chapter 5.0). Because CEQA also states that an EIR need not consider an alternative whose implementation is remote and speculative, the alternatives proposed for the five other station areas have been rejected for the following reasons:

Buena Vista: The alternative site at this station proposed locating the station platform south of Buena Vista Street, and the station park-and-ride facility west of San Fernando Boulevard and south of Buena Vista Street on the property occupied by Burbank's Fire Station No. 13. This alternative was removed from further consideration due to the following factors: relatively small size of the property; the need to displace other land uses to accommodate the necessary number of parking spaces; and circuitous pedestrian access to the station platform.

Northwest Glendale: The alternative platform location for this station site would be situated approximately 500 feet south of the intersection of Sonora Avenue and the SPTC right-of-way. Implementation of this alternative would result in impacts related to potential land use displacements of properties along San Fernando Road and Air Way to facilitate pedestrian access. In addition, placement of the platform at this location would also raise safety concerns since it would require pedestrians to cross the heavy rail tracks at a noncontrolled intersection.

Ventura Freeway: This station site examined three alternatives in addition to the proposed station site that places the station platform south of Doran Street and the park-and-ride facility on the southeast corner of Doran Street and San Fernando Road. The three alternatives were removed from consideration because of the following factors:

- Alternative 1 proposed a platform below the freeway and the park-and-ride facility on the Southern California Gas Company site on the southeast corner of Fairmont Avenue and San Fernando Road. Concerns associated with this alternative include safety and security factors, as well as an unfriendly pedestrian environment; engineering constraints associated with the platform being designed on a curve; and construction impacts related to underground equipment below the Gas Company site.
- Alternative 2 would place all facilities below the freeway. Impacts created by this alternative would be similar to Alternative 1, but would also include greater traffic impacts, vehicular safety concerns related to the crossing of the LRT and heavy rail tracks, and site design constraints created by the freeway columns.
- Alternative 3 would locate the platform south of Doran Street and the park-and-ride facility on the southwest corner of Doran Street and San Fernando Road in the City of Los Angeles. The primary concern with this alternative focuses on impacts associated with vehicles crossing the LRT and heavy rail tracks. In addition, the site identified could not accommodate the number of parking spaces required at this station location.

Broadway: The initial site plan for this station area located the station platform at Colorado Street. This alternative was removed from consideration not for its own potential impacts but because of the benefits associated with a platform closer to Broadway: more friendly pedestrian environment, more convenient shuttle access to Downtown Glendale, and easier vehicular access.

South Taylor Yard at Avenue 19: Under this alternative, the station platform would have been located adjacent to the entrance of the Lawry's California Center. Although this would provide superior access to an important destination center along the rail transit route, it would also result in engineering constraints and potential safety hazards for pedestrians accessing the station platform.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The California Environmental Quality Act requires the identification of an environmentally superior alternative for the proposed project. If the No Project Alternative attains this designation, then an additional environmentally superior alternative should be designated if feasible.

Based upon the environmental impact categories documented in Chapter 5.0 of this EIR and the project alternatives proposed in this section, the proposed Burbank-Glendale-Los Angeles Rail Transit Project and the Alternative Transit Modes project can be considered environmentally superior to the No Project Alternative. The no development alternative of No Project can be categorized as not clearly environmentally superior, since many of the proposed mitigations reduce project impacts to non-significant levels, and since the No Project Alternative does not yield the net beneficial effects of the proposed project, including those related to air quality, energy conservation, reduced vehicle miles traveled daily, improved commuting opportunities, and its overall compatibility with planning efforts in the East Valley and North Los Angeles region.

CHAPTER 7.0 OTHER ENVIRONMENTAL EFFECTS

Information provided in this chapter focuses on additional environmental effects related to the proposed Burbank-Glendale-Los Angeles Rail Transit Project. The subject matters include potential growth-inducing effects, cumulative impacts of related transportation-oriented projects, and long term implications of the proposed project. In addition to this discussion, the requirements of a mitigation monitoring and reporting program are discussed.

7.1 GROWTH-INDUCING EFFECTS

CEQA directs an Environmental Impact Report to discuss a project's potential for fostering economic or population growth, or spurring the construction of housing in the nearby environment. This level of discussion is important in the cumulative sense since an increase in population may further tax existing community service facilities.

At the regional scale, no evidence exists that the institution of a rail transit system promotes a direct net increase in population growth or economic activity. Furthermore, the proposed project traverses an area which is already highly urbanized and built out. The potential exists, however, for redevelopment and infill to occur in response to the increased accessibility offered by a rail transit system. During the late 1980s and early 1990s, planners and policy makers for the Cities of Burbank, Glendale, and Los Angeles have recognized the need for this redevelopment of the project area, and have taken the initiative to palm for anticipated improvements. These efforts are evidenced by recent updates of Burbank's Land Use Element, Glendale's Land Use Plan and Housing Element, and Los Angeles' Community Plan Revision of the Northeast District Plan.

Other recent planning efforts prepared by these municipalities also support redevelopment for areas near the rail transit corridor, and give evidence of each municipality's understanding that the proposed project may facilitate redevelopment in their respective activity centers. Within the past two years, the following studies have been completed or commenced: the Burbank-Glendale-Pasadena Airport Land Acquisition and Terminal Replacement Project; Multi-Modal Transportation Facility feasibility studies for the Burbank and Glendale rail depot sites; San Fernando Road and Glendale Grand Central Industrial Business Park redevelopment feasibility plan; Taylor Yard Development Study currently being jointly prepared by the City of Los Angeles and LACTC; Taylor Yard Redevelopment Area Prefeasibility Study; and the Los Angeles River Recreational Reconnaissance Study. In the case of most of these studies, the rail transit service provided by the proposed project is a key component. Because the rail transit system would serve as a branch line to one of the Metro Rail Project's primary routes, the proposed project can be viewed as a relatively moderate to high capacity feeder system that could potentially redistribute growth and development along its route. Therefore, the implementation of a rail transit system can be viewed as a facilitator rather than inducer of growth already anticipated in the region.

In summary, the degree to which potential growth redistribution would be realized depends upon the complex interplay between actual pressure for development, existing or emerging local growth management measures, and local attitudes toward such growth. All of this discussion should be viewed against a general backdrop of anticipated growth in the East Valley and North Los Angeles.

7.2 CUMULATIVE IMPACTS

The long-term implications of the project in terms of vehicular traffic, air quality, energy usage, and transit patronage are based on the Southern California Association of Governments' 2010 projections for population, housing, and employment. As such, these projections represent the best current information for the expected cumulative growth over the next 18 years. Thus, to the best of our ability to predict future growth for the region, the information contained in this EIR covers all anticipated cumulative impacts. Those impact categories examined in this EIR which can be expected to create both project and cumulative impacts include the following: Land Use, Air Quality, Transportation, Noise, Risk of Upset, Public Services, Natural and Recreational Resources, Energy Consumption, Cultural and Historical Resources, and Construction.

With respect to related transit-oriented projects, several committed and planned projects could change the anticipated cumulative impacts of the Burbank-Glendale-Los Angeles Rail Line. However, it should also be noted that cumulative development could provide net beneficial effects related to improved mobility and commuting capability in the East Valley and North Los Angeles. Net beneficial effects from cumulative development in the region would include energy savings related to reduced energy and fuel consumption, improved air quality with the reduction of auto-related emissions, and increased home-work commuting opportunities.

Table 35 on the following page describes each of the proposed transit-oriented projects and their current status. The following summarizes the effects that may result from the cumulative development of these transit-oriented projects:

- Cumulative development would result in the further depletion of non-renewable resources, such as energy and building materials. In the case of some of these projects, development would further strain limited water resources and wastewater treatment facilities.
- Cumulative development of the Multi-Modal Transportation Centers in the Cities of Burbank and Glendale would result in a substantial intensification of use in the area, as compared to existing development. Traffic generation and associated increases in air pollutants could also be expected. Development of these centers would, however, also facilitate connections between transit facilities and the major activity centers in Burbank and Glendale.

Table 35
Cumulative Development of Transit-Oriented Related Projects

#	Project	Description	Status
1	Glendale Municipal Transportation Center ¹	Multi-Modal Transit facility. At full buildout would include LRT, Commuter Rail, Amtrak, SCRTD bus service, Bee Line shuttle, and Greyhound. Improvements would include 1,500 parking spaces, restoration of Rail Depot, and streetscape enhancements on Cerritos Ave.	Depot grounds acquired. Preparation of project Environmental Impact Report to begin in Fall 1992.
2	Burbank Multi-Modal Transportation Facility ²	Multi-Modal Transit facility. At full buildout would include LRT, Commuter Rail, Amtrak, Intercity Monorail, and bus bay terminals. Improvements would include 1,300 parking spaces and pedestrian bridge over I-5.	Depot grounds acquired. Preliminary environmental work in progress.
3	Commuter Rail Metrolink: ³ Moorpark and Santa Clarita to Downtown Los Angeles	Commuter rail lines utilizing SPTC and SP Coast Mainline rights-of-way. Lines would connect cities in Ventura and Los Angeles Counties with Downtown Los Angeles.	Scheduled to begin operation in October 1992.
4	Pasadena-Los Angeles Rail Transit Project ³	Fundable rail project under LACTC's 30-year Plan. Extends from Union Station to Sierra Madre Villa, utilizing Blue Line technology.	Funded light rail transit project. Expected development schedule: 1993-1998, with potential opening of first segment in 1996-97.
5	San Fernando Valley East-West Rail Transit Project ³	Fundable rail project under LACTC's 30-year Plan. Extends from North Hollywood to Warner Center in Canoga Park. Would utilize either advanced aerial technology on Ventura Freeway or rail vehicle along SP Burbank Branch on Chandler Blvd. Would be constructed in two segments: 1. North Hollywood to I-405 2. I-405 to Warner Center	Pending completion of Final EIR. Expected development schedule: Segment 1: 1998-2001 Segment 2: 2010-2018
6	Burbank Intercity Monorail ²	Aerial guideway that would interconnect Burbank-Glendale-Pasadena Airport, Burbank Media District, Burbank City Centre, and Universal City.	Initial Feasibility Study completed in September 1989. Continued Planning and Pre-Engineering work expected to be completed in Fall 1992.
7	Carpool Lane Program: ³ Fundable Plan- 10-year Implementation Program • Golden State Freeway • Ventura Freeway	Component of LACTC's 30-year Plan to build over 200 miles of carpool lanes to ease congestion of heavily used freeways. Plan supported by Caltrans.	Golden State Freeway (from Route 134 to Route 10): 1998-2000 Ventura Freeway: 1995-1999
8	Freeway Express Bus System: ³ Ventura Freeway Golden State Freeway	Component of LACTC's 30-year Plan. Express service utilizes carpool lanes. Station planned on Ventura Freeway in Glendale near Brand Boulevard.	Based on conceptual plan developed by Automobile Club of Southern California. Plan and implementation schedule will be updated by LACTC.
9	Bus Electrification Program ³	Component of LACTC's 30-year Plan. Would supplant existing conventional bus service on high-ridership routes. Routes 190/191 and 92/93 in Glendale and Burbank are candidate corridors.	Preliminary engineering and formal route selection underway. First electric trolleybus service expected to begin operation in December 1994.

SOURCES: ¹ City of Glendale
² City of Burbank Advanced Planning Division
³ LACTC 30-Year Integrated Transportation Plan

- The majority of these transit-oriented projects comprise a portion of LACTC's *30-year Integrated Transportation Plan*. The Plan aims to reduce congestion on Southern California Highways by means of providing a balanced mix of highway, bus, rail, and transportation demand programs. Part of this integrated plan includes the opening of Commuter Rail Metrolink lines in October 1992. Although development of these and other transit projects outlined in Table 35 could result in cumulative land use, aesthetic, public service, and construction impacts, these projects can also be expected to provide a net beneficial cumulative effect on the region's transportation system with respect to providing a variety of transit mode choices to commuters, improving home-work commuting trips, reducing daily vehicle miles travelled, and saving consumption of non-renewable energy resources.

7.3 LONG TERM IMPLICATIONS OF THE PROPOSED PROJECT

7.3.1 Relationship Between Local Short-Term Uses and Long-Term Productivity

Construction of the Burbank-Glendale-Los Angeles Rail Transit Project would result in short-term impacts which must be weighed against the achievement of long-term objectives. The short-term impacts consist primarily of required property acquisitions, displacement of current uses, construction-related activities, and the possibility of creating pressure for land use changes in the vicinity of the proposed rail transit corridor.

In the longer term, implementation of the project would help facilitate the planning goals of redistributing growth and establishing new centers throughout the East Valley and North Los Angeles region. In addition, the project would meet the purposes of the Southern California Air Quality Management District's Regional Air Quality Master Plan. If developed, the proposed project would offer an additional mode of transportation for area residents, and could potentially lead to long-term benefits such as shorter commuting trips, increased energy savings, reduced levels of pollution, and improved regional air quality.

7.3.2 Significant Irreversible Changes

The implementation of the proposed rail alignment will require the long-term commitment of non-renewable resources to the construction and operation of the project, including land, manpower, energy, and construction materials. Most significant is the long-term commitment of the right-of-way to transportation use.

7.4 MITIGATION MONITORING PROGRAM

Effective January 1989, State Legislators amended the California Environmental Quality Act to include Section 21081.6, implementing Assembly Bill (AB) 3180. As part of the environmental review procedures under CEQA, AB 3180 requires a project's responsible agency to adopt a monitoring and reporting program for assessing and ensuring efficacy of required mitigation measures applied to proposed projects. AB 3180 provides general guidelines for implementing monitoring and reporting programs. Specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final approval of the project proposal by the responsible decision-making body.

As the responsible agency for the proposed rail transit project, LACTC will establish a Mitigation Monitoring Program that carries out the mitigations recommended for eliminating or substantially lessening the project's significant impacts. LACTC will coordinate the program with the Cities of Burbank, Glendale, and Los Angeles to determine which agencies will enforce and monitor the program, and at which phase of development the monitoring and reporting will take place. The Mitigation Monitoring Program must be prepared prior to project approval.

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APPENDICES



- BURBANK•GLENDALE•LOS ANGELES
- RAIL TRANSIT PROJECT
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**APPENDIX I:
INITIAL STUDY AND NOTICE OF PREPARATION**

The initial study and Notice of Preparation for the Burbank-Glendale-Los Angeles Rail Transit Project Environmental Impact Report was sent to the State Clearinghouse on 26 September 1991. The State Clearinghouse assigned the project SCH Number 91101017. The review period for the project began in early October 1991 and continued through December 1991. Responses to the Notice of Preparation appear in Appendix II.



**NOTICE OF PREPARATION
for an
ENVIRONMENTAL IMPACT REPORT**

Burbank-Glendale-Los Angeles Rail Transit Project

to be prepared by the

**Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017
Contact: Judy Schwartz (213) 623-1194**

The Los Angeles County Transportation Commission (LACTC) will be the Lead Agency and will prepare an Environmental Impact Report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. If your agency has an action related to the project, it will need to use the EIR prepared by our agency when considering your permit or other approval for the project. The project description, location, and the probable environmental effects are contained in the attached materials. A copy of the Environmental Checklist is attached.

Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. Please send your response to Judy Schwartz, Government and Public Affairs Manager for the San Fernando Valley/North County Area Team, at the address shown above. We will need the name for a contact person in your agency.



Neil Peterson
Executive Director

Date

7/26/91

NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENT TRANSMITTAL FORM

SC# # _____

1. Project Title: Burbank-Glendale-Los Angeles Rail Transit Project EIR
2. Lead Agency: LACTC 1. Contact Person: Judy Schwartz
3a. Street Address: 818 W. 7th St., 11th Floor 3b. City: Los Angeles
3c. County: Los Angeles 3d. Zip: 90017 3e. Phone: 213.623.1194
PROJECT LOCATION 4. County: Los Angeles 4a. City/Community: Burbank, Glendale, Los Angeles

4b. Assessor's Parcel No. _____ 4c. Section _____ 4d. Top _____ 4e. Range _____
5a. Cross Streets: _____ 5b. Community: _____
For Rural, Nearest

6. Within 2 miles: a. State I-5, Hwy 2 Hwy # Hwy 134 b. Air-ports Burbank c. Rail-ways SP d. Water- L.A. River Arroyo Verdugo

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|--|---|--|
| 7. DOCUMENT TYPE | 8. LOCAL ACTION TYPE | 9. DEVELOPMENT TYPE |
| <u>CEQA</u> | 01. <u>General Plan Update</u> | 01. <u>Residential: Units _____ Acres _____</u> |
| 01. <u>X</u> <u>NOP</u> 06. <u>NOE</u> | 02. <u>New Element</u> | 02. <u>Offices: Sq. Ft. _____</u> |
| 02. <u>Early Cons</u> 07. <u>NOC</u> | 03. <u>General Plan Amendment</u> | <u>Acres _____ Employees _____</u> |
| 03. <u>Mag Dec</u> 08. <u>NOD</u> | 04. <u>Master Plan</u> | 03. <u>Shopping/Commercial: Sq. Ft. _____</u> |
| 04. <u>Draft EIR</u> | 05. <u>Annexation</u> | <u>Acres _____ Employees _____</u> |
| 05. <u>Supplement/ Subsequent EIR</u> | 06. <u>Specific Plan</u> | 04. <u>Industrial: Sq. Ft. _____</u> |
| (Prior SC# No.: _____) | 07. <u>Community Plan</u> | <u>Acres _____ Employees _____</u> |
| <u>NEPA</u> | 08. <u>Redevelopment</u> | 05. <u>Water Facilities: MGD _____</u> |
| 09. <u>NEI</u> 11. <u>Draft EIS</u> | 09. <u>Rezone</u> | 06. <u>X</u> <u>Transportation: Type <u>Rail Transit Project</u></u> |
| 10. <u>FONSI</u> 12. <u>EA</u> | 10. <u>Land Division (Subdivision, Parcel Map, Tract Map, etc.)</u> | 07. <u>Mining: Mineral _____</u> |
| <u>OTHER</u> | 11. <u>Use Permit</u> | 08. <u>Power: Type _____ Watts _____</u> |
| 13. <u>Joint Document</u> | 12. <u>Waste Mgmt Plan</u> | 09. <u>Waste Treatment: Type _____</u> |
| 14. <u>Final Document</u> | 13. <u>Critical Ag Preserve</u> | 10. <u>OCE Related</u> |
| 15. <u>Other _____</u> | 14. <u>X</u> <u>Other _____</u> | 11. <u>Other: _____</u> |

10. TOTAL ACRES: 10.7 miles long 11. TOTAL JOB COSTS: _____

- | | | |
|---|--------------------------------|---------------------------------|
| 12. PROJECT ISSUES RECORDED IN DOCUMENT | 15. <u>Septic Systems</u> | 23. <u>Water Quality</u> |
| 01. <u>Aesthetic/Visual</u> | 16. <u>Sewer Capacity</u> | 24. <u>Water Supply</u> |
| 02. <u>Agricultural Land</u> | 17. <u>Social</u> | 25. <u>Wetland/Riparian</u> |
| 03. <u>Air Quality</u> | 18. <u>Soil Erosion</u> | 26. <u>Wildlife</u> |
| 04. <u>Archaeological/Historical</u> | 19. <u>Solid Waste</u> | 27. <u>Growth Inducing</u> |
| 05. <u>Coastal Zone</u> | 20. <u>Toxic/Hazardous</u> | 28. <u>Incompatible Landuse</u> |
| 06. <u>Economic</u> | 21. <u>Traffic/Circulation</u> | 29. <u>Cumulative Effects</u> |
| 07. <u>Fire Hazard</u> | 22. <u>Vegetation</u> | 30. <u>Other _____</u> |
13. FUNDING (approx) Federal \$ _____ State \$ _____ Total \$ _____

14. PROJECT LAND USE AND ZONING: _____
15. PROJECT DESCRIPTION: Rail Transit Project to construct a light rail along the existing SP Right-of-Way between Taylor Yard in the City of Los Angeles Northeast Community to the Burbank Airport. The line will serve as a branch of the Los Angeles to Pasadena Rail Transit Project. Nine transit stations are preliminarily planned for the project.

16. SIGNATURE OF LEAD AGENCY REPRESENTATIVE: [Signature] DATE: 9-26-91

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SC# number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in.

NOTICE OF PREPARATION

BURBANK-GLENDALE-LOS ANGELES RAIL TRANSIT PROJECT ENVIRONMENTAL IMPACT REPORT

I. PROJECT DESCRIPTION

Planning Background

In 1988, the Glendale City Council requested that a feasibility study be conducted of the Los Angeles-Glendale route alignment. With 50 percent of the study funded by the City of Glendale, the Los Angeles County Transportation Commission (LACTC) agreed to examine the potential for light rail service to the City of Glendale. In April 1990, the City, in conjunction with LACTC, completed the Glendale Corridor Light Rail Transit Study. The study assessed the feasibility of extending the regional rail transit system into the City's Central Business District. The project's seven alignments examined an array of north-south routes that utilized 1) the SP Right-of-Way, 2) Brand Boulevard, and 3) Central Avenue-Orange Street. As a result of the study, the SP Right-of-Way was selected as the preferred route.

While the City of Glendale and LACTC conducted this analysis, other planning studies were also being prepared. In the Summer and Fall of 1990, LACTC, in conjunction with the City and County of Los Angeles, prepared the Downtown Los Angeles to Sylmar/Santa Clarita Rail Transit Study. The study encompassed 22 miles from the Los Angeles Union Passenger Terminal to the City of Santa Clarita, and analyzed 17 Light Rail stations, 5 Commuter Rail stations, and 3 High-Speed Rail/Maglev stations. The feasibility study was primarily undertaken to assess the relative merits of light rail and high speed passenger rail service along the Southern Pacific Railroad right-of-way, which included the proposed rail alignment route. Because the alternative rail services reviewed in this study would be part of the County's larger 300-mile Metro Rail Plan, the study examined the alternatives as separate entities for purposes of providing a relative comparison and staging analysis since the County's rail network has yet to be completely defined.

In September 1990, the City of Burbank completed its Burbank Metrolink Monorail Feasibility Study. Because the City has three commercially- and geographically-distinct areas, this study examined the potential of linking the City's three redevelopment areas via an intracity monorail system. The alignment's initial phase proposes to connect Burbank's Media District with its City Center, while utilizing the Old Rail Depot site as a multi-modal station and parking reservoir that would interface with rail transit projects along the SP Right-of-Way. In March 1991, Burbank completed its Multi-Modal Feasibility Study for the Burbank City Center Transportation Facility.

Based on these previous studies, LACTC and the Cities of Glendale and Burbank agreed to further evaluate the merits of the proposed rail alignment in the hopes that the project could gain inclusion in the Commission's 30-year plan as a funded project. In an effort to pool the rail transit planning efforts of these various jurisdictions, LACTC and the Cities of Glendale and Burbank commissioned an Environmental Impact Report in July 1991 to study a Burbank-

Glendale-Los Angeles Light Rail alignment that would operate as a branch of the Los Angeles to Pasadena Rail Transit Project. For the purposes of the CEQA process, the study corridor will begin at the maintenance yard for the Los Angeles to Pasadena Line in Taylor Yard and continue to Hollywood Way at the Burbank Airport. The overriding goal of this project is to evaluate and refine Light Rail Transit alternatives to ensure the improvement of overall public transit service and to either avoid or successfully mitigate negative impacts within the budgeting constraints of the project.

Study Area

The 10.7-mile Burbank-Glendale-Los Angeles Light Rail Route Corridor study area extends from Taylor Yard to Hollywood Way at the Burbank Airport, via the Southern Pacific Railroad right-of-way. Rail service along this alignment would serve the Cities of Glendale and Burbank, as well as the Sun Valley and Northeast communities of the City of Los Angeles. Presently, the railroad right-of-way is utilized by Southern Pacific for freight transportation to Saugus and Northern California, and by AMTRAK from the Los Angeles Union Passenger Terminal (LAUPT) through Glendale, Burbank, and Van Nuys to Santa Barbara and Northern California.

Based on projections by the Southern California Association of Governments (SCAG), the population in this corridor is expected to increase from 511,000 residents in 1987 to 596,000 by 2010 (16.6%). Employment projections indicate that jobs in the corridor will increase from 309,000 in 1987 to 378,000 in 2010 (22.3%). Major economic activity centers served by the rail transit route include the Glendale Central Business District, Glendale Civic Center, Burbank Media District, Burbank City Center, and the Burbank Media City Shopping Center. In addition to the residents and employees that would gain greater mobility through light rail service along this alignment, the Planning Context Map illustrates other centers that would be served by the proposed project:

- Burbank-Glendale-Pasadena Airport
- Griffith Park-Los Angeles Zoo
- Gene Autry Western Heritage Museum
- Dodger Stadium

Rail Transit Route

The Planning Context Map illustrates the general alignment of the proposed project from Taylor Yard to Hollywood Way. Generally, the entire route would follow the existing SP Right-of-Way with possible variations within Taylor Yard. Maintenance facilities to serve this alignment may be located in the Taylor Yard area, and would utilize the facilities that will accommodate the Los Angeles to Pasadena Rail Transit Project.

The proposed rail alignment would be at-grade throughout, except at locations where traffic constraints dictate a grade separation and at the bridge crossings where the transit route spans various underpasses and the Arroyo Verdugo Wash. Currently, nine at-grade stations will be analyzed in the EIR:

- Taylor Yard
- Fletcher Drive-Glendale Freeway
- Glendale Transportation Center
- Colorado-Broadway
- Ventura Freeway
- Northwest Glendale
- Burbank City Center (site of Burbank Train Depot)
- Buena Vista
- Hollywood Way-Burbank Airport

In addition to the station locations, analysis of the alignment's right-of-way will also be conducted to assess the study corridor's capacity for accommodating the proposed light rail project, the planned commuter rail line, and existing freight transportation that services many of the industrial uses along the alignment. Aside from the constraints that may be associated with the proposed project's station areas and right-of-way carrying capacity, the alignment also traverses a variety of sensitive land uses.

The built environment that surrounds the rail alignment is comprised primarily of industrial land uses, but also includes a number of sensitive residential communities. The area between Taylor Yard and the Northwest Glendale Station location is characterized primarily by low density industrial uses and small businesses. Throughout this section of the corridor, the rail alignment is at-grade while major arterials and highways are grade-separated above or below the Southern Pacific right-of-way. With respect to sensitive land uses, the Gardena Avenue neighborhood in South Glendale represents the only residential pocket directly adjacent to the route corridor. Nevertheless, residential neighborhoods surrounding the proposed Glendale Transportation Center and the Northwest Glendale stations as well as residential clusters in the Atwater Community of the City of Los Angeles could be affected by the proposed project due to their relative proximity to the rail line.

The Burbank portion of the rail line passes through an industrial corridor. The primary interest along this section of the alignment focuses on the Old Burbank Rail Depot. Recently gutted by a fire, the building and its surrounding site can still serve as a transportation hub for the City, particularly with the potential interface between a Burbank monorail system and the proposed light rail service. The immediate surrounding area is comprised of either vacant or underutilized land, and provides ample space for automobile parking. The freeway on and off ramps are a short distance to the south of the station area. The southbound ramps connect with Front Street, which leads directly to the station area. The Burbank Media City Shopping Center is partially completed on the east side of the freeway, a short distance north of the station. A shuttle bus service, similar to the Glendale Beeline that connects the Glendale CBD with the Glendale Rail Depot, could be used for downtown and mall pickup and distribution.

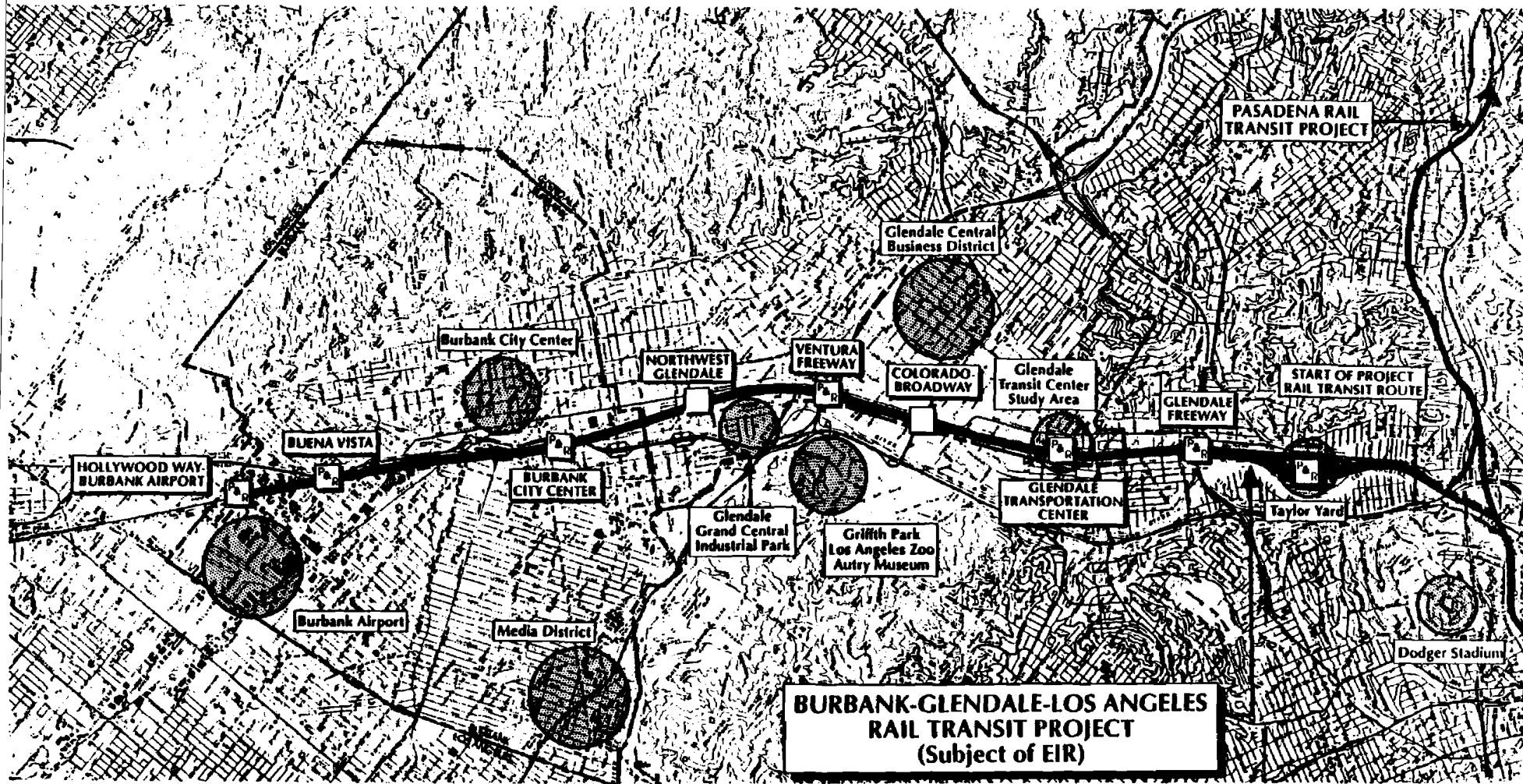
With regard to potentially-sensitive land uses, the City of Burbank and the Sun Valley community of the City of Los Angeles have two distinct residential pockets that may be affected by the proposed project: 1) The Enclave, located in the City of Burbank's Golden State Redevelopment Area along Thornton Avenue, and 2) the residential neighborhood located north and east of the Hollywood Way-Burbank Airport station.

Setting and Scope of the SEIR

Traversing portions of the Cities of Los Angeles, Glendale, and Burbank in the North Valley, the proposed project forms a part of a larger regional transit system that would link these centers with Metro Rail service in Downtown Los Angeles and beyond. Because the entire project lies within a developed urban setting, it has the potential to create varying degrees of adverse environmental impacts. The following key impacts, as well as others to be identified during the formal environmental process, will be assessed in the Draft Environmental Impact Report for this project:

- **Land use effects, including property acquisition and potential pressure for land use changes and economic impacts.**
- **Circulation and parking effects, including cross-street traffic conflicts, loss of existing street capacity, station access and possible spillover of station-area parking demand into nearby areas.**
- **Visual effects related to aerial (elevated) guideway structures and stations, and potential privacy effects.**
- **Noise/vibration effects associated with rail transit operations.**
- **Safety and security effects including pedestrian and vehicular accident potential, on-board security, and station-area security.**
- **Cultural resource impacts including potential effects on archaeological, historical, and cultural resources that may be listed as national, state, or local landmarks of significance.**
- **Recreation and parkland impacts, including potential effects on adjacent recreation areas and**
- **Construction impacts, including the temporary closure of traffic lanes, utility relocations, and noise and dust associated with heavy construction.**

Some of the probable impacts of these issues can be mitigated via the incorporation of specific design and/or operational features. The Draft EIR will discuss such mitigation measures and their effectiveness in reducing the impacts.



PASADENA RAIL TRANSIT PROJECT

Glendale Central Business District

Burbank City Center

NORTHWEST GLENDALE

VENTURA FREEWAY

COLORADO BROADWAY

Glendale Transit Center Study Area

START OF PROJECT RAIL TRANSIT ROUTE

BUENA VISTA

HOLLYWOOD WAY BURBANK AIRPORT

BURBANK CITY CENTER

GLENDALE FREEWAY

GLENDALE TRANSPORTATION CENTER

Taylor Yard

Burbank Airport

Media District




Glendale Grand Central Industrial Park

Griffith Park Los Angeles Zoo Autry Museum

Dodger Stadium

BURBANK-GLENDALE-LOS ANGELES RAIL TRANSIT PROJECT
(Subject of EIR)

LEGEND

-  PROPOSED STATION AREAS
-  PROPOSED PARK & RIDE STATION AREAS
-  MAJOR CENTERS ALONG RAIL CORRIDOR



II. ENVIRONMENTAL CHECKLIST

The following checklist of environmental issues complies with Section 15063 of the California Environmental Quality Act (CEQA) guidelines.

ENVIRONMENTAL CHECKLIST

I. Background

1. Name of Proponent: Los Angeles County Transportation Commission
2. Address/Phone Number: 818 W. 7th Street, LA, CA 90017; 213/623-1194
3. Date Checklist Submitted: 9-26-91
4. Agency Requiring Checklist: Los Angeles County Transportation Commission
5. Name of Proposal: Burbank-Glendale-Los Angeles Rail Transit Project Environmental Impact Report

II. Environmental Impacts

(Explanations of all answers are provided in Attachment A sheets.)

		Yes	Maybe	No
1.	Earth. Will the proposal result in:			
a.	Unstable earth conditions or in changes in geologic substructures?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Disruptions, displacements, compaction or overcovering of the soil?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Change in topography or ground surface relief features?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	The destruction, covering or modification of any unique geologic or physical features?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Any increase in wind or water erosion of soils, either on or off the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f.	Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Yes	Maybe	No
g.	Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	Air. Will the proposal result in:			
a.	Substantial air emissions or deterioration of ambient air quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	The creation of objectionable odors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Water. Will the proposal result in:			
a.	Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Alterations to the course or flow of flood waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Change in the amount of surface water in any water body?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f.	Alteration of the direction or rate of flow of ground waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Yes	Maybe	No
g.	Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Substantial reduction in the amount of water otherwise available for public water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i.	Exposure of people or property to water related hazards such as flooding or tidal waves?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Plant Life. Will the proposal result in:			
a.	Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Reduction of the numbers of any unique, rare or endangered species of plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Reduction in acreage of any agricultural crop?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.	Animal Life. Will the proposal result in:			
a.	Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Reduction of the numbers of any unique, rare or endangered species of animals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

		Yes	Maybe	No
c.	Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Deterioration to existing fish or wildlife habitat?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	Noise. Will the proposal result in:			
a.	Increases in existing noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Exposure of people to severe noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Light and Glare. Will the proposal produce new light or glare?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.	Natural Resources. Will the proposal result in:			
a.	Increase in the rate of use of any natural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.	Risk of Upset. Will the proposal involve:			
a.	A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Possible interference with an emergency response plan or an emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11.	Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

		Yes	Maybe	No
12.	Housing. Will the proposal affect existing housing, or create a demand for additional housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13.	Transportation/Circulation. Will the proposal result in:			
a.	Generation of substantial additional vehicular movement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Effects on existing parking facilities, or demand for new parking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Substantial impact upon existing transportation systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Alterations to present patterns of circulation or movement of people and/or goods?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Alterations to waterborne, rail or air traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f.	Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.	Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a.	Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Parks or other recreational facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Maintenance of public facilities, including roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Other governmental services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Yes	Maybe	No
15.	Energy. Will the proposal result in:			
	a. Use of substantial amounts of fuel or energy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.	Utilities. Will the proposal result in a need for new systems, or substantial alterations to utilities: (See response)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Human Health. Will the proposal result in:			
	a. Creation of any health hazard or potential health hazard (excluding mental health)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b. Exposure of people to potential health hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18.	Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19.	Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20.	Cultural Resources.			
	a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Yes	Maybe	No
c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Will the proposal restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21. Mandatory Findings of Significance.			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

III. DISCUSSION OF ENVIRONMENTAL EVALUATION

(Narrative description of environmental impacts). See Attachment A

IV. DETERMINATION

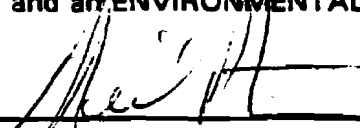
(To be completed by the Lead Agency).

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. **A NEGATIVE DECLARATION WILL BE PREPARED.**

I find the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.



Neil Peterson
Executive Director

Los Angeles County
Transportation Commission

9-26-91

Date

Attachment A
GLENDALE/BURBANK TO DOWNTOWN LOS ANGELES RAIL TRANSIT PROJECT

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

1. Earth

- a. **No:** Because the proposed project would be constructed entirely above grade, unstable earth conditions or changes in the geologic substructure along the route are not expected during construction.
- b. **Yes:** Construction of the route alignment would require earthwork for station construction. Paving of undeveloped areas for parking lots would also represent a disruption.
- c. **No:** Topographic or ground surface relief feature changes would be minor in sloped portions of the corridors, the insignificant changes need not be analyzed further in the EIR.
- d. **No:** Construction of the proposed project would not involve destruction, covering, or modification of any unique geologic or physical features.
- e. **Maybe:** Earthwork required during project construction may create the potential for soil erosion during the construction period. The EIR will examine the erosion potential and recommend erosion control measures.
- f. **No:** The proposed project would not alter the deposition or erosion of beach sands, or change siltation, deposition or erosion which would modify a river or stream or bed of the ocean or bay, inlet or lake.
- g. **Maybe:** There may be the potential for damage resulting from possible surface soil abatement during project construction, as well as from the construction of bridges or other overhead structures.

2. Air

- a. **Maybe:** The rail transit project would potentially create a beneficial impact to regional air quality by diverting vehicular trips to transit. However, the proposed project could potentially create substantial localized air emissions around station areas, where slight decreases in ambient air quality would occur. In addition, a temporary, construction-related increase in air emissions may occur from use of heavy construction equipment. Potential increases in dust emissions during construction activities are expected to be controlled by watering the soil.

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

2. Air (cont'd.)

- b. No: The proposed project would not create objectionable odors.**
- c. No: The proposed project would not alter air movement, moisture, or temperature, or change climate, either locally or regionally.**

3. Water

- a. No: The proposed project would not affect the direction of water movements.**
- b. Maybe: Because the rail transit route traverses the Arroyo Verdugo, potential impacts to the drainage channel's flow could occur during project construction while the rail bridge is enhanced to accommodate additional tracks.**
- c. No: The proposed project would not alter the course or flow of floodwaters.**
- d. No: The proposed project would not increase or decrease the amount of surface water in any water body.**
- e. Maybe: The quantity and flow of surface water discharge could be affected by the increase in impervious surface areas associated with station parking facilities.**
- f. No: The direction or rate of ground water flow would not be altered by the proposed project.**
- g. No: The rail transit route is not expected to alter the quantity of ground waters through interception of an aquifer by cuts or excavations.**
- h. No: The proposed project would not include any element(s) that would reduce the amount of water available for public water supplies.**
- i. No: Because the proposed project would not contain water and would not affect the flow of floodwaters during its operation, the project is not expected to expose people or property to water related hazards.**

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

4. Plant Life

- a. **Maybe:** Although the proposed project would be developed in an urban area, there may be some plant species that would be disrupted or removed during construction of parking and station facilities.
- b. **Maybe:** See response to 4a.
- c. **No:** The proposed project would introduce landscaping along some portions of the route, but would not introduce new species of plants into an area.
- d. **No:** The proposed project would not result in a reduction of acreage of any agricultural crop.

5. Animal Life

- a. **Maybe:** See response to 4a.
- b. **Maybe:** The State Natural Diversity Database should be consulted to determine whether any state- or federally-designated rare, threatened, or endangered animal species exist along the route corridor.
- c. **No:** The proposed project would not include any element(s) that would introduce new species of animals into an area.
- d. **Maybe:** See response to 4a.

6. Noise

- a. **Yes:** The proposed project would result in increases in existing noise levels at station locations and along the entire route in areas particularly sensitive to noise such as residential neighborhoods and recreational resources.

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

6. **Noise** (cont'd.)

- b. **Maybe:** The use of certain types of construction equipment could potentially expose people adjacent to construction sites to substantial increases in noise levels during some construction periods. Such construction will adhere to City ordinances affecting construction equipment noise and hours of operation. It is not anticipated that operation of the project, after incorporation of mitigation measures, would expose people to adverse noise levels.

7. **Light and Glare**

Yes: New sources of light and glare would be created by the proposed project for parking and operation of stations near residential areas.

8. **Land Use**

Maybe: Although the proposed project area is currently used primarily for rail-oriented and associated industrial/warehousing uses, the potential exists for the rail transit route to create potential land use changes. Actual zoning changes, however, can only be enacted by the responsible jurisdictions.

9. **Natural Resources**

- a. **Maybe:** The proposed project would increase the rate of electrical energy consumption, but the rate of use is not expected to be at significant levels. In addition, gasoline consumption can be expected to decline from reduced automobile usage thereby offsetting the increases associated with electrical energy consumption.

10. **Risk of Upset**

- a. **Maybe:** Safety measures would be implemented to reduce the likelihood of conflicts, but the possibility exists for conflicts between rail transit and automobiles or other vehicles (as is currently the case at existing rail crossings) which could constitute a risk of upset.
- b. **Maybe:** Because the transit route would increase the number of delays at at-grade crossings, local emergency response or evacuation plans could be affected.

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

11. **Population**

Maybe: The proposed project could alter the location, distribution, density, or growth rate of the human population due to greater transportation access to the areas served by the alignment. The rail transit system, particularly in station areas, may encourage more intensive commercial and/or residential development. Many of these factors, however, are dependent on growth and planning policies of the affected municipalities.

12. **Housing**

No: No residential displacement would occur with construction of the proposed project.

13. **Transportation**

- a. **Yes:** The proposed project would generate additional vehicular movement in highly localized areas to and from station locations.
- b. **Yes:** The proposed project would create a demand for new parking facilities at rail transit stations.
- c. **Yes:** Some increase in vehicular traffic can be expected around stations during peak periods and during construction of the rail transit system.
- d. **Yes:** The proposed rail line would alter the present pattern of circulation as a result of traffic traveling to and from station locations.
- e. **Maybe:** Because the proposed project would share the Southern Pacific Rail Right-of-Way with freight and commuter rail services, the proposed light rail route could alter the serving capacity of these services. In addition, light sources from the rail line and from trains in operation could affect air traffic at nearby Burbank Airport.
- f. **Maybe:** Because the proposed rail alignment would be at-grade at some locations, the possibility exists for increased traffic hazards to motor vehicles, bicyclists, or pedestrians. In addition, the development of rail stations and parking structures could create conflicts between rail transit users and pedestrians and motorists.

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

14. **Public Services**

- a. **Maybe: See 10a.**
- b. **Maybe: Although transit security personnel would be available, existing police protection may have to be enhanced.**
- c. **No: The proposed project would not adversely affect schools or school students.**
- d. **Maybe: Because the rail alignment would be at-grade at some intersections, access to parks such as Chevy Chase Park in the City of Los Angeles and Pelanconi Park in the City of Glendale could create conflicts between rail vehicles and pedestrians and motorists.**
- e. **No: The proposed project would not affect maintenance of public facilities.**
- f. **No: The proposed project would not affect any other governmental services. Change to Maybe: parking lots could potentially displace other municipal services, i.e., 134 Freeway Station.**

15. **Energy**

- a. **Yes: The project will result in the increased use of electrical energy. Gasoline consumption is expected to decrease from reduced automobile usage, which has the potential to offset the increased use of electricity needed to operate the transit system.**
- b. **No: Operation of the proposed project would result in an increase in electrical use but the demand is not expected to be substantial nor is the demand expected to require the development of new sources of energy.**

16. **Utilities**

Yes: Construction of the proposed project may require the relocation of utilities. Electrical utility substations will also be required to provide electric power to the transit system.

ENVIRONMENTAL CHECKLIST FORM

Responses to "Yes", "Maybe", and "No" Answers:

17. **Human Health**

- a. **No:** The project would not include any element(s) that would create a health hazard or a potential health hazard.
- b. **No:** The rail alignment would not expose persons to potential health hazards.

18. **Aesthetics**

Maybe: The alignment and station areas of the proposed project could affect vistas, potentially creating shadow effects on adjacent properties, and disrupting the privacy of adjacent properties.

19. **Recreation**

Maybe: Refer to response for 14d.

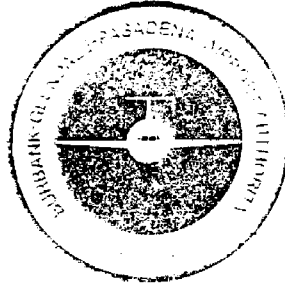
20. **Cultural Resources**

- a. **Maybe:** Although it is not expected that construction of the proposed project would affect undiscovered prehistoric or historic archaeological sites, a archaeological record search for the corridor should be conducted to verify that construction of the alignment would not affect any significant sites.
- b. **Maybe:** The proposed project could affect the physical or aesthetic integrity of a number of historic structures including but not limited to the Glendale and Burbank Rail Depots and the Glendale Grand Central Air Tower.
- c. **No:** The proposed project would not affect unique ethnic cultural values along the rail transit route.
- d. **No:** The proposed project is not anticipated to restrict existing religious or sacred uses along the rail transit route.

**APPENDIX II:
RESPONSES TO THE NOTICE OF PREPARATION**

The following list of government agencies, officials, and citizens have voiced their concerns and comments regarding the Burbank-Glendale-Los Angeles Rail Transit Project EIR. The letters from these correspondents have been arranged in chronological order below.

Correspondent	Date
1. Burbank-Glendale-Pasadena Airport Authority	1 October 1991
2. Shell Pipeline Corporation	9 October 1991
3. City of La Canada Flintridge	15 October 1991
4. Los Angeles Unified School District	16 October 1991
5. City of Burbank Fire Department	21 October 1991
6. City of Burbank Public Service Department	22 October 1991
7. City of Burbank Community Development Department	23 October 1991
8. City of Los Angeles Council District #1	25 October 1991
9. California Regional Water Quality Control Board	25 October 1991
10. Los Angeles Police Department	28 October 1991
11. Southern California Rapid Transit District	29 October 1991
12. City of Burbank Public Works Field Services Division	31 October 1991
13. County of Los Angeles Department of Health Services	1 November 1991
14. City of Burbank, Supervising Civil Engineer	4 November 1991
15. South Coast Air Quality Management District	5 November 1991
16. City of Los Angeles Department of Water and Power	7 November 1991
17. City of Los Angeles Department of City Planning	8 November 1991
18. State of California Department of Conservation	13 November 1991
19. Metropolitan Water District of Southern California	13 November 1991
20. City of Los Angeles Department of Fire	20 November 1991
21. County of Los Angeles Department of Public Works	21 November 1991
22. City of Glendale Fire Prevention Bureau	17 December 1991
23. City of Glendale Planning Division	17 December 1991
24. City of Glendale Police Department	26 December 1991



194344

Ms. Judy Schwartz
Los Angeles County Transportation Commission
818 West Seventh Avenue, Suite 1100
Los Angeles, CA 90017

October 1, 1991

Dear Ms. Schwartz:

The Burbank-Glendale-Pasadena Airport fully supports the Los Angeles-Glendale-Burbank rail transit project as evidenced by the attached Resolution 235 recently passed by the Airport Authority. This resolution strongly urges the Los Angeles County Transportation Commission to include an east-west rail line in their thirty year transportation plan.

The staff at the Burbank-Glendale-Pasadena Airport will continue to work with and support the Cities of Burbank, Los Angeles and Glendale to address the transportation needs of the area.

Sincerely,

Randall D. Berg
Deputy Director, Airport Operations

cc: T. Greer
V. Gill

G. a.

A RESOLUTION OF THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY STRONGLY URGING THE LOS ANGELES COUNTY TRANSPORTATION COMMISSION TO INCLUDE AN EAST-WEST RAIL LINE AS A FUNDED, HIGH PRIORITY PROJECT IN THE 1991 INTEGRATED 30-YEAR TRANSPORTATION PLAN.

WHEREAS, the Burbank-Glendale-Pasadena Airport Authority is a regional air transportation center serving the needs of the surrounding community; and,

WHEREAS, the Burbank-Glendale-Pasadena Airport Authority has identified a need for light rail service serving the adjacent communities and linking the airport with surface transit systems; and,

WHEREAS, The Los Angeles County Transportation Commission's recommended Integrated 30-Year Transportation Plan fails to identify an East to West light rail line linking Burbank, Glendale, Pasadena and the Foothill corridor as a priority project.

NOW, THEREFORE, BE IT RESOLVED by the Burbank-Glendale-Pasadena Airport Authority and it is so ordered, that the Burbank-Glendale-Pasadena Airport Authority expresses grave concern over the Los Angeles County Transportation Commission's decision to exclude an East-West rail line from the rail development program targeted for completion by the year 2020, which creates a rail transit void in a section of the county that has the need for rail, supports rail, and is prepared for rail with its own transportation center, available right-of-way and existing feeder shuttle services.

The Burbank-Glendale-Pasadena Airport Authority strongly urges the Los Angeles County Transportation Commission to reconsider this omission and to include a light rail linkage of the cities of Burbank, Glendale and Pasadena in their recommended Integrated 30-Year Transportation Plan as a high priority, funded, rail project.

Furthermore, the Authority directs that copies of this Resolution be sent to the individual members comprising the Angeles County Transportation Commission.

ADOPTED, this _____ day of _____ 1991.

President of the Burbank-Glendale-Pasadena Airport Authority

Attest:

Secretary

Shell Pipe Line Corporation



West Coast Division
P.O. Box 4848
511 N. Brookhurst Street
Anaheim, CA 92803

L.A.C.T.C.
1991 OCT 11 PM 12:39

October 9, 1991

Ms. Judy Schwartz
Government and Public Affairs Manager
San Fernando Valley/North County Area Team
Los Angeles County Transportation Commission
818 West 7th Street, Suite 1100
Los Angeles, California 90017

Dear Ms. Schwartz;

BURBANK-GLENDALE-LOS ANGELES
RAIL TRANSIT PROJECT; ONV910335

No Shell pipeline facilities are impacted by the captioned project.

Yours very truly,

A handwritten signature in cursive script, appearing to read "O. N. Vaughn". The signature is written in black ink and is positioned above the typed name.

O. N. Vaughn
Senior Land Agent

ONV:GM



LA CAÑADA FLINTRIDGE
OCT 15 PM 12:43

Mayor
John W. Hastings

Mayor Pro Tem
Joan C. Feehan

City Council
Jim Edwards
Edward M. Phelps
Christopher Valente

October 15, 1991

Los Angeles County Transportation Commission
818 West Seventh Street, Ste. 1100
Los Angeles, CA 90017

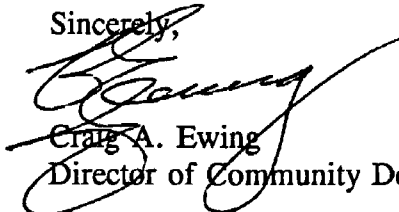
Attn: Judy Schwartze

RE: Notice of Preparation for an Environmental Impact Report
for the Burbank-Glendale- Los Angeles Rail Transit Project

On September 26, 1991, the City received a Notice of Preparation and Environmental Checklist for the above project. Based on a review of this information, the City of La Cañada Flintridge has no comments at the present time. Please forward a copy of the draft EIR when it is available.

Please contact me at 790-8880 if you have any questions.

Sincerely,



Craig A. Ewing
Director of Community Development

EIR
CMNT

Los Angeles Unified School District

Business Services Division

WILLIAM R. ANTON
Superintendent of Schools

ROBERT BOOKER
Chief Business and Financial Officer
Environmental Review File
Miscellaneous-Responses #E

EE: 001 21 00 0 14

DAVID W. KOCH
Division Administrator, Business Services

C. DOUGLAS BROWN
Deputy Administrator, Business Services

BOB NICCUM
*Director of Facilities Planning &
Real Estate*

195719
13471302814

October 16, 1991

Judy Schwartz
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

Dear Ms. Schwartz:

Re: Burbank-Glendale-Los Angeles Rail Transit Project


Thank you for providing us the opportunity to comment on the scope and content of the EIR for the above-referenced project. We are concerned about how the project will impact the District schools which are in close proximity of the proposed light rail route alignment. In the EIR, please identify District schools which are within $\frac{1}{4}$ mile of any alignment or station.

Of particular concern is the proposed park and ride station at Taylor Yard, because of the impact it could have on the District's Glassell Park School. Please identify the exact location of this station in the EIR. Then, please address the possible impacts on that school. For instance, increases in traffic going to and from the station could affect both vehicular and pedestrian routes to the school.

Air emissions from increased traffic are also a concern since children are particularly sensitive to these emissions. If the park and ride station is within $\frac{1}{4}$ mile of Glassell Park School, please take air measurements at the school, and then determine the post-project air quality.

If we can provide any additional information as you prepare the EIR, please contact me at (213) 742-7581.

Very truly yours,


Joan Friedman
Realty Agent

JF:lld

c: Don Rector

CITY OF BURBANK
FIRE DEPARTMENT
Memorandum

Date: October 21, 1991

To: Gary Yamada, Zoning Administrator

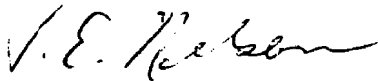
From: Michael W. Davis, Fire Chief

Subject: Notice of Preparation - Burbank-Glendale Light Rail
Line

The fire department finds no area of concern for the above project. It is advised that when any planning for structures or parking lots takes place, that our Fire Safety Analyst be included to be certain that all code items are considered at the time of planning.

If we may be of further assistance, please contact me at (818) 953-8771.

Michael W. Davis
Chief of Fire Department

By. 

S. E. Nelson, Battalion Chief/Fire Marshal
Fire Prevention Bureau

SEN:NOP-RAIL

City of Burbank Public Service Department Water-Light-Power

MEMORANDUM

DATE: October 22, 1991

TO: Gary Yamada, Zoning Administrator

FROM: Kevork Parseghian, Assistant Civil Engineer

SUBJECT: **Burbank-Glendale Light Rail Line**

The proposed light rail line passes over the city water mains at approximately 17 different locations. These pipes have to be protected against vertical loading and impact. They may have to be installed in steel casings at all crossings.

A more important factor is the corrosion caused by stray currents resulting from track returns. Underground pipes are corroded by electrolytic action from unidirectional stray currents in the ground.

If proper measures are not taken to prevent this corrosion, the PSD Water Division will be in continuous trouble. Most likely remedial action will be active (i.e. impressed current) cathodic protection.

PF:KP:dal
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RECEIVED

OCT 28 1991

PLNG. DEPT. BUR.

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R. Brink
22 OCT 91



MEMORANDUM

DATE: October 23, 1991

TO: Rick Pruetz, Asst. CDDirector/City Planner
Attn: Gary Yamada, Zoning Administrator

FROM: Bruce S. Feng, Asst. CDDirector/Building Official
By: John Cheng, Deputy Building Official *John Cheng*

SUBJECT: Notice of Preparation (NOP)
Burbank-Glendale Light Rail Line

We have no comment on the above project.

BSF:JC:sc



COUNCILMEMBER
MIKE HERNANDEZ
First Council District

City Hall, Room 380
Los Angeles, CA 90012
(213) 485-3451

District Office
163 S. Ave. 24
Room 202
Los Angeles, CA 90031
(213) 485-0763

October 25, 1991

Mr. Neil Peterson
Executive Director
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA. 90017

Dear Mr. Peterson:

Re: Response to Notice of Preparation -
E.I.R. for Burbank-Glendale-Los Angeles
Rail Transit Project

This is to advise you of my views regarding the scope and content of the environmental information in connection with the preparation of an E.I.R. for the proposed project. As you may be aware, the proposed rail alignment extends through the Taylor Yard area, which is located within the First Councilmanic District of the City of Los Angeles. I am committed to ensure that the project not only serves the transportation needs of the people who live and work in the local community, but also contributes to improving their quality of life.

The N.O.P. identifies one proposed Park and Ride Station in the Taylor Yard area. However, instead of siting a Park and Ride Station area in this location, I request that three station areas be analyzed at the following locations:

- Avenue 26 and San Fernando Road;
- Division Street and San Fernando Road; and
- Fletcher Drive and San Fernando Road.

Please contact Mr. Eduardo Reyes of my staff at (213) 485-3451 if you need additional information or have any questions.

Very truly yours,

MIKE HERNANDEZ
Councilmember, First District

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EY 400

MICROFILMED
COPY IN FILE

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGIONAL BOARD

101 CENTRE PLAZA DRIVE

MONTEREY PARK, CA 91754-2156

(213) 266-7500

001 30 14 12:25



197057

October 25, 1991

File: 700.300

Judy Schwartz
Transportation Commission
County of Los Angeles
818 West 7th Street, 11th Floor
Los Angeles, CA 90017

**NOTICE OF PREPARATION - CONSTRUCT LIGHT RAIL TO SERVE BURBANK-
GLENDALE-LOS ANGELES. SCH#91101017: L. A. COUNTY TRANSPORTATION
COMMISSION**

We have reviewed the subject document regarding the proposed project, and have the following comments:

Based on the information provided, we recommend the following:



We have no further comments at this time.



The proposed project should address the attached comments.

Thank you for this opportunity to review your document. If you have any questions, please contact Eugene C. Ramstedt at (213) 266-7553.

A handwritten signature in cursive script that reads "John L. Lewis".

JOHN L. LEWIS, Unit Chief
Technical Support Unit

cc: Tom Loftus, State Clearinghouse

(07-13-89)

112700
SI420

LOS ANGELES POLICE DEPARTMENT

MICRO
COPY



DARYL F. GATES
Chief of Police

91 NOV 7 10:01

197379

TOM BRADLEY
Mayor

P. O. Box 30158
Los Angeles, Calif. 90030
Telephone:
(213) 485-3202
Ref #: 9.4
GF#: 91-181

October 28, 1991

Ms. Judy Schwartz
Consultant
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

Dear Ms. Schwartz:

The Los Angeles Police Department has reviewed the notice of preparation of an environmental impact report (EIR) for the proposed Burbank-Glendale-Los Angeles Rail Transit Project. The Department is concerned about the proposed Park and Ride Station near the Taylor Railroad Yard. The new station is in the Police Department's Northeast Area. The address of the Northeast Area station is 3353 San Fernando Road, Los Angeles, CA 90065.

The proposed development will be in one of three Reporting Districts (RD). They are 1133, 1167, and 1178. Past annual crime statistics for these RD's indicate they have a crime rate above the Citywide average. The predominate crimes in the area are auto theft, plain theft, and burglary. The current average response time to emergency calls in the Northeast Area is 7.9 minutes. The current Citywide average for response time to emergency calls is 7.3 minutes. Northeast Area currently has 235 sworn officers deployed over three watches.

The proposed Park and Ride Station will have a significant impact on police service. It is anticipated that vehicles will park at the facility and on nearby streets, thereby causing traffic congestion. In order to maintain the current level of police service, additional officers will be needed.

Strong security measures are necessary to mitigate a potential crime problem for the parking facility. The parking facility is near RD 1178. While the total overall crime rate in the area is above the Citywide average, RD 1178 alone is particularly high in auto thefts.



Ms. Judy Schwartz
Page two
9.4

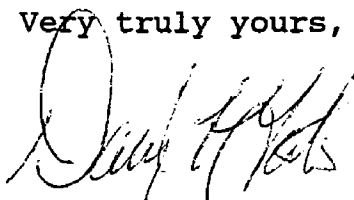
Additional security measures are suggested for the facility. The Los Angeles Police Department supports the recommendation for fixed-post security at the parking lots. The Police Department cannot provide sufficient coverage for such a large facility. Parking areas should be surrounded by adequate fencing to deter transients and vandals. In addition, parking areas should be controlled by electronic gates in conjunction with a closed-circuit television system. Elevators, lobbies, and parking areas should be well illuminated and designed with minimum dead space to eliminate areas of concealment. Alternate entrances, other than the main entrance, should be provided for emergencies.

The Northeast Area commanding officer reviewed the proposal for the project and believed that crime problems will significantly increase because of the close proximity of local gangs. It is believed that vandalism and gang-related crimes will increase.

Upon completion of the project, the developer should be encouraged to provide the Northeast Area commanding officer with a diagram of the project. The diagram should include access routes and any information that might facilitate police response. The Department's Crime Prevention Unit, (213) 485-3134, is available to advise the developer on crime prevention features appropriate to the design of the project.

Questions regarding rail transit projects should be referred to Commander Ronald C. Banks, Operations-South Bureau, who is the Department's liaison to all rail transit projects. He can be reached at (213) 485-4252.

Very truly yours,



DARYL F. GATES
Chief of Police



Dana A. Woodbury
Director of Planning

October 29, 1991

Ms. Judy Schwartze
Los Angeles County
Transportation Commission (LACTC)
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017-1606

Dear Ms. Schwartze:

**Re: Environmental Impact Report for the
Burbank-Glendale-Los Angeles Light Rail Transit (LRT) Project**

The Southern California Rapid Transit District (SCRTD) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the proposed Burbank-Glendale-Los Angeles rail transit project and offers the following comments and concerns.

SCRTD is concerned about the fact that the Glendale portion of the Southern Pacific Right-of-Way (SP ROW) which would be utilized for this project, bypasses the Glendale Central Business District (CBD) where much of the city's population and employment is concentrated. The proposed alignment traverses some of the most sparsely populated areas of the city. According to the NOP: "The area between Taylor Yard and the Northwest Glendale Station location is characterized primarily by low density industrial uses and small businesses." Thus, while utilizing this portion of the right-of-way may be the least costly in terms of initial capital outlay it is potentially the least cost effective from an operational viewpoint if it lacks the level of population and employment necessary to support the proposed light rail project.

The effectiveness of the proposed alignment will be highly dependent on the adequacy of frequent, feeder bus service providing accessibility to built-up residential areas, and the Glendale Central Business District. An alternative, which may be considered, would be an alignment which more directly serves these areas. A possibility for consideration would be as follows:

An alignment running from Taylor Yard using the SP ROW, leaving the SP ROW at Brand Boulevard, continuing north on Brand to Glenoaks Boulevard where it would turn west on the Glenoaks parkway, continuing to Olive Avenue, where it would turn left and return to the SP ROW. It would then continue on the SP ROW to Hollywood Way at the Burbank Airport. Under this option,

Ms. Judy Schwartze
October 29, 1991
Page 2

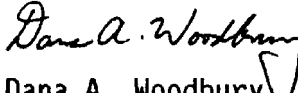
construction of high platforms at stations should be avoided, especially in the CBD. High platforms obstruct views, impede pedestrian movement and are often disliked by businesses around stations. Avoiding high platforms might make this option acceptable to Glendale City officials.

Obviously, there are some trade-offs to this alternative. The mix of high- and low-platform operation could be a problem. Also, the availability of street space may be a constraint. Nevertheless, the benefits of more direct service to potential users should be explored.

The DEIR, as part of its traffic mitigation measures, should discourage any reduction in sidewalk widths. It should also provide for wider sidewalks around station areas.

SCRTD is willing to work with the LACTC and the cities of Glendale and Burbank on any operations related aspects of the proposed rail transit system. We look forward to receiving the DEIR when it becomes available. If you need additional information, please contact Joel Woodhull, Planning Manager, at (213) 972-4850.

Sincerely,


Dana A. Woodbury

CITY OF BURBANK

MEMORANDUM

DATE: October 31, 1991

TO: Chuck Gustafson, Supervising Civil Engineer

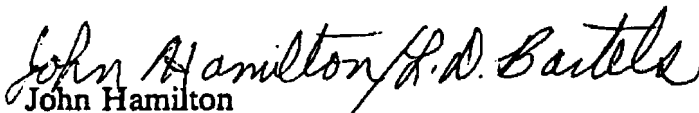
FROM: John Hamilton, Assistant Public Works Director, Field Services

SUBJECT: NOTICE OF PREPARATION,
BURBANK-GLENDALE LIGHT RAIL LINE

The Public Works Field Services Divisions have reviewed the subject documents. We have the following requirements, comments and questions:

- Sufficient clearances and maneuvering room must be maintained for sewer mainline maintenance by City forces on private property.
- All depots in Burbank should have a bin enclosure and all depots should meet enclosure requirements.
- Will maintenance and custodial services be provided by contract for stations? If so, who will administer the contract?

If you have any questions, please don't hesitate to contact me.


John Hamilton
Assistant Public Works Director
Field Services

pa
attachments

SANITARY ENGINEERING DIVISION

SUBJECT: NOTICE OF PREPARATION

LOCATION: ALONG THE S.P. RAILROAD RIGHT-OF-WAY

PROJECT: BURBANK - GLENDALE LIGHT RAIL LINE

Required Information Missing on Plans:

- Dimensions, depth, and location of sanitary sewer lines.
- Chemical and hazardous material storage, if any, including containment provisions.
- Location and type of pretreatment facilities.
- Type of existing use, including the gross square footage of the building, and its disposition.
- Other _____

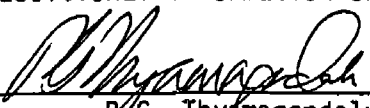
General Requirements:

- An Industrial Waste Discharge Permit is required [BMC 25-601 and 25-502].
- Per the current rate structure, the proposed development is subject to a Sewer Facilities Charge estimated at \$SEE BELOW and is due prior to issuance of a Building Permit [BMC Section 25-802 and 25-806].
- Other PASSENGER TERMINALS WILL BE SUBJECT TO SEWER FACILITIES CHARGE. THE APPLICANT WILL BE NOTIFIED OF THESE COSTS AT THE RECEIPT OF THE CONSTRUCTION PLANS.

PLEASE ANSWER THE FOLLOWING QUESTIONS:

- Can the existing sewer lines accommodate the proposed project, or do they need improvement?
- Does the proposed project impact the wastewater flows? If yes, indicate the amount of increase or decrease.
- Does the proposed project use existing sewer lines, or does it require new public sewers?

For additional information or questions, please contact Adam Salehi at (818) 953-3169.



 P.G. Thyamagondalu
 Supervising Sanitary Engineer

Processed by: ADAM 10/29/91

NOP Burbank -
Glendale Light Rail
Line

Page 5.

TRAFFIC ENGINEERING DIVISION

Required Information Missing on Plans:

- Parking space dimensions [BMC 31-1406].
- A profile for ramp to subterranean garage [BMC 31-1406]. The building plans submitted shall show elevations at curb, gutter and property line with a driveway profile and elevations for the entrance and exit of the structure. All grades and elevations must be certified to the City Building Division per City Traffic Engineer.

General Requirements:

- No comments.
- Traffic signal improvements are to be constructed at _____
- Street lighting undergrounding and improvements maybe required.
- Parking does not comply with standards per BMC 31-1401 (see attached).
- Plan shows parking spaces (accessible) plus tandem parking spaces. The BMC does not provide for tandem parking to meet the required spaces.
- Construct 3 foot high masonry wall all along _____ contiguous to parking lot [BMC 31-1419].
- Driveway access does not meet City standards.
- Other _____

For additional information or questions, please contact Ron Morris, Traffic Engineer, at (818) 953-9525.

Checked by: Hill Date: 10/28/91



COUNTY OF LOS ANGELES-DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH / HEALTH FACILITIES
BUREAU OF ENVIRONMENTAL PROTECTION
2525 Corporate Place Room 150, Monterey Park, CA 91754 • (213)881-4011



November 1, 1991

Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

Attention: Judy Schwartz
Government & Public Affairs Manager
San Fernando Valley/North County Area Team

NOTICE OF PREPARATION FOR EIR
BURBANK-GLENDALE-LOS ANGELES RAIL TRANSIT PROJECT

This is in response to your September 26, 1991, Notice of Preparation regarding the above-referenced project. This Bureau has reviewed the Draft Environmental Impact Report, and we have no comments regarding the material.

If you have any questions or wish additional information, please let me know.

Very truly yours,

Jack Petralia, Director
Bureau of Environmental Protection

JP:kaj\LARAIL.EIR

1991 NOV 23 11:14:51

CITY OF BURBANK

MEMORANDUM

DATE: November 4, 1991
TO: Gary Yamada, Zoning Administrator
FROM: Chuck Gustafson, Supervising Civil Engineer
SUBJECT: RESPONSE TO NOP BURBANK - GLENDALE LIGHT RAIL LINE

The following sections of the Environmental Checklist need additional consideration as indicated:

3. WATER

- b. ADD - Route crosses and may impact Burbank Western Channel and the Lockheed Channel. Additionally, increase of impervious surfaces will increase storm runoff and may modify drainage patterns and alter flow of storm water.
- c. YES - At grade crossings of streets and alleys, will impact flow of flood waters along said streets and alleys which may require addition to or extension of storm drain systems. SPRR right-of-way presently impacts course and flow of flood waters as it creates an embankment that cuts diagonally across the natural drainage pattern in Burbank. Additional enhancement of corridor will impact the flow of flood waters.
- e. ADD - Entire corridor may provide changes in surface contaminants that will become pollutants in storm water runoff. Requirements of NPDES permit for rail transportation facilities should be discussed in the EIR.

14. PUBLIC SERVICES

- e. YES - Increased demand on transportation/circulation elements, i.e. streets, sidewalks and alleys, will increase need for maintenance of these facilities and attendant features such as traffic signals and storm drains.

Gary Yamada
November 4, 1991
Page Two

16. ADD - May also require addition to or extension of storm drain facilities. May also add impact on storm water quality delivered to municipal system requiring mitigation.



Chuck Gustafson
Supervising Civil Engineer

CG/kb

NOVPGT3



South Coast
AIR QUALITY MANAGEMENT DISTRICT

21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (714) 396-2000 FAX : 43

November 5, 1991

Judy Schwartze
Government and Public Affairs Manager
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

Dear Ms. Schwartze:

Subject: Notice of Preparation of a Draft Environmental Impact Report for Burbank-Glendale-Los Angeles Rail Transit Project

District #LAC911008-02

Thank you for the opportunity to comment on the above referenced environmental document. District staff has reviewed and assessed potential air quality impacts that may result from the above referenced project.

Preliminary staff assessment indicates that the proposed project may adversely affect air quality. Appropriate mitigation measures should be incorporated into the proposed project to reduce air quality impacts to insignificant levels. Refer to the District's "Air Quality Handbook for Preparing Environmental Impact Reports" to assess and mitigate adverse air quality impacts.

Due to the size and uniqueness of this project, early consultation with District staff is recommended. District staff can assist in identifying and mitigating air quality impacts.

Upon completion of the Draft Environmental Impact Report, please forward a copy to:

South Coast Air Quality Management District
Office of Planning and Rules
21865 Copley Drive
Diamond Bar, CA 91765

Attn: Connie A. Day
Local Government-CEQA Program Supervisor

If you have any questions, please call me at (714) 396-3055.

Yours truly,

Connie A. Day
Program Supervisor

CAD:al

Enclosure

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Department of Water and Power



the City of Los Angeles

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Mayor

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JAMES F. WICKSER, *Assistant General Manager - Water*
NORMAN L. BUEHRING, *Assistant General Manager - External Affairs*
NORMAN J. POWERS, *Chief Financial Officer*

November 7, 1991

Ms. Judy Schwartz
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, California 90017

Dear Ms. Schwartz:

**Notice of Preparation
Burbank-Glendale-Los Angeles Rail Transit Project**

This is in reply to your letter dated September 26, 1991 requesting comments concerning the above project.

The proposed project involves the construction of a Burbank-Glendale-Los Angeles light rail alignment that would operate as a branch of the Los Angeles-to-Pasadena Rail Transit Project. The 10.7-mile Burbank-Glendale-Los Angeles light rail route extends from Taylor Yard to Hollywood Way at the Burbank Airport via the Southern Pacific Railroad right-of-way.

Electric service will be provided in accordance with the Los Angeles Department of Water and Power's (LADWP) rules and regulations. The cumulative effect of this and other projects planned in the area may eventually require the construction of additional power distribution facilities. Power distribution facility construction may cause limited temporary impact on the surrounding communities in the form of unavoidable noise, air pollution, and traffic congestion during construction.

Further information will be needed in order to make additional comments on impacts to LADWP's Power System facilities.

Based on the project description, some of the enclosed energy conservation measures may apply and should be considered for inclusion into the Draft Environmental Impact Report.

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Water and Power Conservation... a way of life

Ms. Judy Schwartz

- 2 -

November 7, 1991

Thank you for the opportunity to comment on this project. If you or your staff have any questions regarding this letter, please contact Mr. Douglas E. Varner of my staff at (213) 481-3233.

Sincerely,



EDWARD KARAPETIAN
Manager of Environmental and
Governmental Affairs

Enclosure

c: Mr. Douglas E. Varner w/o Enclosure

Commercial Energy Conservation Mitigation Measures

During the design process, the applicant should consult with the Los Angeles Department of Water and Power, Energy Services Subsection, regarding possible energy conservation measures. The applicant shall incorporate measures which will exceed minimum efficiency standards for Title XXIV of the California Code of Regulations.

- Built-in appliances, refrigerators, and space-conditioning equipment should exceed the minimum efficiency levels mandated in the California Code of Regulations.
- Install high-efficiency air conditioning controlled by a computerized energy-management system in the office and retail spaces which provides the following:
 - A variable air-volume system which results in minimum energy consumption and avoids hot water energy consumption for terminal reheat;
 - A 100-percent outdoor air-economizer cycle to obtain free cooling in appropriate climate zones during dry climatic periods;
 - Sequentially staged operation of air-conditioning equipment in accordance with building demands; and
 - The isolation of air conditioning to any selected floor or floors.
 - Consider the applicability of the use of thermal energy storage to handle cooling loads.
- Cascade ventilation air from high-priority areas before being exhausted, thereby, decreasing the volume of ventilation air required. For example, air could be cascaded from occupied space to corridors and then to mechanical spaces before being exhausted.
- Recycle lighting-system heat for space heating during cool weather. Exhaust lighting-system heat from the buildings, via ceiling plenums, to reduce cooling loads in warm weather.
- Install low and medium static-pressure terminal units and ductwork to reduce energy consumption by air-distribution systems.
- Ensure that buildings are well-sealed to prevent outside air from infiltrating and increasing interior space-conditioning

loads. Where applicable, design building entrances with vestibules to restrict infiltration of unconditioned air and exhausting of conditioned air.

- A performance check of the installed space-conditioning system should be completed by the developer/installer prior to issuance of the certificate of occupancy to ensure that energy-efficiency measures incorporated into the project operate as designed.
- Finish exterior walls with light-colored materials and high-emissivity characteristics to reduce cooling loads. Finish interior walls with light-colored materials to reflect more light and, thus, increase lighting efficiency.
- Install thermal insulation in walls and ceilings which exceeds requirements established by the California Code of Regulations.
- Design window systems to reduce thermal gain and loss, thus, reducing cooling loads during warm weather and heating loads during cool weather.
- Install heat-reflective draperies on appropriate exposures.
- Install fluorescent and high-intensity-discharge (HID) lamps, which give the highest light output per watt of electricity consumed, wherever possible including all street and parking lot lighting to reduce electricity consumption.
- Install occupant-controlled light switches and thermostats to permit individual adjustment of lighting, heating, and cooling to avoid unnecessary energy consumption.
- Install time-controlled interior and exterior public area lighting limited to that necessary for safety and security.
- Control mechanical systems (HVAC and lighting) in the building with timing systems to prevent accidental or inappropriate conditioning or lighting of unoccupied space.
- Incorporate windowless walls or passive solar inset of windows into the project for appropriate exposures.
- Design project to focus pedestrian activity within sheltered outdoor areas.

For additional information concerning these conservation measures, please contact Mr. Brian Belier, Manager of the New Construction Unit of Energy Services Subsection, at (213) 481-5735.

CITY OF LOS ANGELES

CALIFORNIA



TOM BRADLEY
MAYOR

CITY PLANNING COMMISSION

WILLIAM G. LUDDY
PRESIDENT

THEODORE STEIN, JR.
VICE-PRESIDENT

LYDIA H. KENNARD

SUZETTE NEIMAN

FERNANDO TORRES-GIL

RAMONA HARO
SECRETARY

(213) 485-5071

DEPARTMENT OF CITY PLANNING

ROOM 561, CITY HALL
200 N. SPRING ST.
LOS ANGELES, CA 90012-4801

MELANIE S. FALLON
DIRECTOR

FRANKLIN P. EBERHARD
CHIEF DEPUTY DIRECTOR

(213) 237-1986

R. ANN SIRACUSA
DEPUTY DIRECTOR

ROBERT H. SUTTON
DEPUTY DIRECTOR

(213) 237-1818

FAX (213) 237-0552

November 8, 1991

Mr. Neil Peterson
Executive Director
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

ATTN: Ms. Judy Schwartze, Government and Public Affairs Manager

Dear Mr. Peterson:

REQUEST FOR COMMENTS - NOTICE OF PREPARATION FOR AN ENVIRONMENTAL
IMPACT REPORT FOR BURBANK-GLENDALE-LOS ANGELES RAIL TRANSIT PROJECT

The Transportation Unit staff has reviewed the Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the Burbank-Glendale-Los Angeles Rail Transit Project. We support LACTC's initiative to develop and implement transportation improvements throughout the Los Angeles County and appreciate this opportunity to make comments on this NOP.

Staff agrees with the proposed Environmental Evaluation presented in the NOP, and furnishes the following comments for consideration.

1. Cumulative Impacts

This part of Los Angeles City, from the Glendale Freeway to Union Station will be heavily impacted by the recently increased public funding for rail. We know of at least two commuter routes (Moorpark and Santa Clarita), in addition to this light rail line that will be traversing this corridor along the Los Angeles River. It is very important that the cumulative impact of this train traffic, including the development of the Taylor Yard as a maintenance site, a park and ride lot and a station be addressed.



Mr. N. Peterson
November 8, 1991
Page 2

Since this community will experience many negative externalities as a consequence of the expansion of LACTC's rail program, the community needs to also have some positive benefits built into the rail project. We suggest that the rail project mitigate its impacts by giving back to the community a well planned program for economic development and provision of affordable housing and open space. We suggest that LACTC evaluate the funding of a station area master plan as a potential mitigation effort.

Visual impacts and job generating land uses in relation to the station locations are very important. Staff feels strongly about the location of the lines and stations in relation to the Los Angeles River. Quality and safe access to the river is to be provided and we suggest that part of the mitigations is to be the clean up of the existing toxic materials in the Taylor Yards site, to encourage uses as open space - recreational/commerical and other that are to be deemed both useful to the community and to the environment.

2. Local Mobility

It is understood that LACTC's rail development program is regional in nature. However, to the extent possible, we would like to see the issue of local mobility addressed. Is this rail project going to increase the ability of the residents of this area to use transit? Can this project be used to solve access and traffic problems regarding Dodger Stadium?

3. Land Use and Development Impacts

The proposed project area is currently used primarily for industrial/warehousing uses; however, there is a potential for the rail transit route to create land use changes. The major issue is whether physical development that occurs in conjunction with the rail development would be consistent with the latest adopted Northeast Los Angeles District Plan. Community involvement is essential in the physical design of the station so that they are well integrated into the community's urban environment.

Staff recommends that a socio-economic impact analysis should be done to include: land use incentives such as

density bonuses for affordable housing and economic development opportunities that will benefit the residents of the area. Staff also recommend that the Citizens Participation Advisory Committee (CPAC) for the current revision of the Northeast Los Angeles District Plan be consulted as soon as possible to resolve these issues before the new district plan is adopted.

4. Transportation-Circulation-Driveway/Access

The proposed project would increase traffic volumes, parking demands and traffic flow in the community thereby causing traffic hazards to motorists, bicyclists and pedestrians. The construction may cause closure of traffic lanes, utility relocation, etc. Due to the increase in circulation and parking, loss of existing street capacity, and possible spillover of station-area parking, improvements need to be made prior to and after construction to provide access to transit stations, pedestrian walks, tunnels and escalators. Another issue of concern is accessibility for disabled persons. How will the transit stations be made accessible for the physically challenged?

A feeder system around the hillside areas could be linked to the transit stations. Consideration should also be given to the construction of a connector feeder line to the Dodger Stadium with a transit stop near the stadium.

5. Air Quality

Any transportation impacts of the project could result in changes in the level of mobile source air emissions. The provision of additional off-street parking may have the effect of encouraging single-occupancy vehicles and may discourage ridesharing, use of public transit and non-motorized transportation, which is contrary to the policy of the Air Quality Management Plan. The substitution of a community circulation system for some off-street parking should be examined.

Potential major impacts associated with the proposed project during and after construction are: noise, buffering, landscaping, vibration, dust, traffic disruption and reduced access which could affect local businesses and residents. Staff recommends mitigation measures be developed to offset these impacts.

Mr. N. Peterson
November 8, 1991
Page 4

6. Population and Social Environment

The proposed project could affect the social and economic environment resulting in relocation of housing, employment, and services in the community due to improved accessibility to the areas served by the alignment.

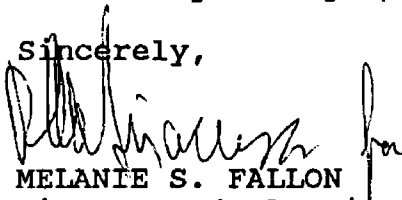
Staff is concerned with the possible displacement of population during and after construction and the potential socio-economic impact that the displacement will have on the local economy. Also, staff is concerned about relocation costs that might be incurred by local businesses and residences.

Staff recommends that a thorough assessment of any costs or damages that might result from project development, and an appropriate mitigation plan.

We request that the Environmental Impact Report address the abovementioned issues and requests. We also request that the City of Los Angeles be given the opportunity to participate in the location decision of the nine transit stations for the Burbank-Glendale-Los Angeles Rail Transit Project.

Thank you for the opportunity to respond to the NOP and for considering our input. If you have any further questions, please contact Lynn Harper/Mewland Watanabe at (213) 237-0130.

Sincerely,


MELANIE S. FALLON
Director of Planning

MSF:LH:mw

a:BGLRail

DRAFT
EIR
NOP

DEPARTMENT OF CONSERVATION

DIVISION OF ADMINISTRATIVE SERVICES
DIVISION OF MINES AND GEOLOGY
DIVISION OF OIL AND GAS
DIVISION OF RECYCLING

L.A.C.T.C.

1991 NOV 18 PM 12:17



1416 Ninth Street
SACRAMENTO, CA 95814
TDD (916) 324-2555

ATSS 454-2555
(916) 445-8733

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November 13, 1991

Ms. Judy Schwartz:
Los Angeles County Transportation Commission
818 West 7th Street, 11th Floor
Los Angeles, California 90017

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (Draft EIR) for the Burbank-Glendale-Los Angeles Rail Transit Project, **SCH# 91101017**.

Dear Ms. Schwartz:

The Department of Conservation has reviewed the NOP of the Draft EIR for the proposed project. The Department submits the following comments for your consideration.

Oil and Gas Issues

Presently, there are three abandoned oil and gas wells in close proximity to the proposed transit route. If any structure is to be located over or in the proximity of a previously abandoned well, there is the possibility that the well may need to be plugged and abandoned to current Division specifications. Section 3208.1 of the Public Resources Code authorizes the State Oil and Gas Supervisor to order the reabandonment of any previously abandoned well when construction of any structure over or in the proximity of the well could result in a hazard. The cost of reabandonment operations is the responsibility of the owner of the property upon which the structure will be located.

Under Section 3208.1 of the Public Resources Code, the reabandonment responsibilities of the owner/developer of a property upon which a structure will be located need extend no further than the property boundaries. However, if a well requiring reabandonment is on an adjacent property and near the common property line, the Division recommends that the structure be set back sufficiently to allow future access to the well.

Furthermore, if any abandoned or unrecorded wells are uncovered or damaged during excavation or grading, remedial plugging operations may be required. If such damage occurs, the Division's district office must be contacted to obtain

Ms. Judy Schwartze
November 13, 1991
Page Two

information on the requirements for and approval to perform remedial operations.

Although the possibility for future problems from oil and gas wells that have been plugged and abandoned or reabandoned to the Division's current specifications is remote, we want to emphasize that a diligent effort should be made to identify and avoid building over any abandoned well. If construction over an abandoned well is unavoidable, we suggest that an adequate gas venting system be placed over the well.

To ensure proper review of building projects within the subject area, the Division has available an informational packet entitled, "Construction Project Site Review and Well Abandonment Procedure". The packet outlines the information that a project developer must submit to the Division for review. Developers should contact the local building department for a copy of the site review packet.

Prior to commencing operations, the project applicant should consult with the Division of Oil and Gas district office in Long Beach for information on the wells located in the project area.

The Division is mandated by Section 3106 of the Public Resources Code (PRC) to supervise the drilling, operation, maintenance, and abandonment of wells for the purpose of preventing: (1) damage to life, health, property, and natural resources; (2) damage to underground and surface waters suitable for irrigation or domestic use; (3) loss of oil, gas, or reservoir energy and, (4) damage to oil and gas deposits by infiltrating water and other causes. Furthermore, the PRC vests in the State Oil and Gas Supervisor the authority to regulate the manner of drilling, operation, maintenance, and abandonment of oil and gas wells so as to conserve, protect, and prevent waste of these resources, while at the same time encouraging operators to apply viable programs for the purpose of increasing the ultimate recovery of oil and gas.

The scope and content of information that is germane to the Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code, and administrative regulations under Title 14, Chapter 4 of the California Code of Regulations.

Mining and Geology Issues

The Department's Division of Mines and Geology (DMG) has special expertise in evaluating geologic and seismic hazards. The DEIR

Ms. Judy Schwartze
November 13, 1991
Page Three

should include a complete description of the geologic and seismic environment. DMG Note 43, "Recommended Guidelines for Determining the Maximum Credible and the Maximum Probable Earthquakes", and DMG Note 46, "Guidelines for Geologic/Seismic Considerations in Environmental Impact Reports", are enclosed. These documents may aid in the determination of potential impacts from earthquakes on nearby active faults, and other geologic hazards. A thorough review of past studies and reports relevant to the project area should be made, and the information used should be specifically referenced in the text. Any soils, engineering, or geological studies evaluating the adequacy of the site for development should be performed prior to the completion of the Draft EIR in order to allow for proper review by DMG through the California Environmental Quality Act process.

Southern California is a seismically active region with many active faults capable of causing damage to the proposed rail line during an earthquake. The following comments pertain to specific seismic and geologic hazards that could effect the project.

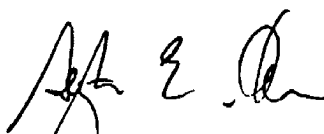
Fault Rupture Potential - A portion of the rail line will cross the Hollywood fault, thought by several sources to be active (Weber, 1980; Real, 1987; Los Angeles County Safety Element, 1990). Although the fault has not been zoned under the Alquist-Priolo Special Studies Zones Act of 1972, the potential for surface rupture from an earthquake on this fault should be evaluated. Studies to find the exact location of the fault in the subsurface may need to be performed in order to design the rail structure to withstand potential fault-rupture displacement.

Seismic Ground Shaking - The southern portion of the rail line is located approximately 7 miles away from the Newport-Inglewood fault zone. Based on a DMG planning scenario, the project can expect seismic shaking of Intensity VIII+ (Modified Mercalli scale) from a major seismic event on the Newport-Inglewood fault (Topozada and others, 1988). Earthquakes on this or a number of other active surface faults or amidst the buried Elysian Park fold/thrust belt, source for the 1987 Whittier Narrows Earthquake, could cause strong ground shaking to project structures (Ziony, 1985; Hauksson, 1990). For this reason, it is important to consider ground motion and seismic hazards when evaluating geotechnical and structural design. Seismic hazards that need to be evaluated include potential strong ground motion, liquefaction, seismic-induced settlement, and lateral spreading. Ground motion parameters that should be calculated include peak ground acceleration, duration of strong shaking, and site amplification. If mitigation measures are needed, they should be developed for inclusion in the Draft EIR so that they can be reviewed.

Ms. Judy Schwartz
November 13, 1991
Page Four

If you have any questions regarding the Oil and Gas issues discussed above, please feel free to contact John Jepson at the Division district office in Long Beach. The address is 245 West Broadway, Suite 475, Long Beach, CA 90802; phone (213) 590-5311. If you have any questions regarding the comments pertaining to Mining and Geology, please contact Roger Martin, Division of Mines and Geology Environmental Review Project Manager, at (916) 322-2562.

Sincerely,



Stephen E. Oliva
Environmental Program Coordinator

Enclosures

cc: John Jepson, Division of Oil and Gas, Long Beach
Mike Stettner, Division of Oil and Gas, Sacramento
Roger Martin, Division of Mines and Geology
Rick Wilson, Division of Mines and Geology

References:

Hauksson, E., 1990, Earthquakes, faulting, and stress in the Los Angeles Basin: Journal of Geophysical Research, Vol. 95, no. B10, p. 15,365-15,394.

Los Angeles County, 1990, Technical appendix to the safety element of the Los Angeles County General Plan, Hazard reduction in Los Angeles County, vol. 1: prepared for the Department of Regional Planning, County of Los Angeles by Leighton and Associates with Sedway Cooke Associates.

Real, C.R., 1987, Seismicity and tectonics of the Santa Monica-Hollywood-Raymond Hill fault zone and northern Los Angeles Basin in Recent Reverse Faulting in the Transverse Ranges, California: U.S. Geological Survey Professional Paper 1339, pp. 113-124.

Topozada, T.R., Bennett, J.H., Borchardt, G., Saul, R., and Davis, J.F., 1988, Planning scenario for a major earthquake on the Newport-Inglewood fault zone: California Division of Mines and Geology Special Publication 99, 197 pp.

Ms. Judy Schwartz
November 13, 1991
Page Five

Weber, F.H., Jr., 1980, Geological features related to the character and recency of movement along faults, north-central Los Angeles County, California in Weber, F.H., Jr., and others (Editors), Earthquake Hazards Associated With the Verdugo-Eagle Rock and Benedict Canyon Fault Zones, Los Angeles County, California: California Division of Mines and Geology Open-File Report, 80-10 LA.

Ziony, J.I. (Editor), 1985, Earthquake hazards in the Los Angeles region: U.S. Geological Survey Professional Paper 1360.



GUIDELINES FOR GEOLOGIC/SEISMIC CONSIDERATIONS IN ENVIRONMENTAL IMPACT REPORTS

The following guidelines were prepared by the Division of Mines and Geology with the cooperation of the State Water Resources Control Board to assist those who prepare and review environmental impact reports.

These guidelines will expedite the environmental review process by identifying the potential geologic problems and by providing a recognition of data needed for design analysis and mitigating measures. All statements should be documented by reference to material (including specific page and chart numbers) available to the public. Other statements should be considered as opinions and so stated.

1. CHECKLIST OF GEOLOGIC PROBLEMS FOR ENVIRONMENTAL IMPACT REPORTS

GEOLOGIC PROBLEMS		Could the project or geologic event cause environmental problems?			Is this conclusion documented in attached reports?	
PROBLEM	ACTIVITY CAUSING PROBLEM	NO	YES	ENVIRONMENTAL PROBLEMS	NO	YES
EARTHQUAKE DAMAGE	Fault Movement					
	Liquefaction					
	Landslides					
	Differential Compaction/ Seismic Settlement					
	Ground Rupture					
	Ground Shaking					
	Tsunamis					
	Seiches					
LOSS OF MINERAL RESOURCES	Flooding Due to Failure of Dams and Levees					
	Loss of Access					
	Deposits Covered by Changed Land-Use Conditions					
WASTE DISPOSAL PROBLEMS	Zoning Restrictions					
	Change in Groundwater Level					
	Disposal of Excavated Material					
SLOPE AND/OR FOUNDATION INSTABILITY	Percolation of Waste Material					
	Landslides and Mudflows					
	Unstable Cut and Fill Slopes					
	Collapsible and Expansive Soil					
EROSION, SEDIMENTATION, FLOODING	Trench-Wall Stability					
	Erosion of Graded Areas					
	Alteration of Runoff					
	Unprotected Drainage Ways					
LAND SUBSIDENCE	Increased Impervious Surfaces					
	Extraction of Groundwater, Gas, Oil, Geothermal Energy					
VOLCANIC HAZARDS	Hydrocompaction, Peat Oxidation					
	Lava Flow					
	Ash Fall					

(over)

II. CHECKLIST OF GEOLOGIC REPORT ELEMENTS

REPORT ELEMENTS	YES	NO
A. General Elements Present Description and map of project. Description and map of site. Description and map of pertinent off-site areas.		
B. Geologic Element (refer to checklist) Are all the geologic problems mentioned? Are all the geologic problems adequately described?		
C. Mitigating Measures Are mitigating measures necessary? Is sufficient geologic information provided for the proper design of mitigating measures? Will the failure of mitigating measures cause an irreversible environmental impact?		
D. Alternatives Are alternatives necessary to reduce or prevent the irreversible environmental impact mentioned? Is sufficient geologic information provided for the proper consideration of alternatives? Are all the possible alternatives adequately described?		
E. Implementation of the Project Is the geologic report signed by a registered geologist? [*] Does the report provide the necessary regulations and performance criteria to implement the project?		

^{*}Required for interpretive geologic information.

III. PUBLISHED REFERENCES (selected)

<p>A. California Division of Mines and Geology Publications</p> <ol style="list-style-type: none"> 1. Alfors, J.T., et al., 1975. Urban geology master plan for California: Bulletin 198. 2. Greensfelder, R.W., 1974. Maximum credible rock acceleration from earthquakes in California: Map Sheet 23. 3. Jennings, C.W., 1975. Fault Report: 13 of California. GDM No. 1. 4. Oakeshott, G.B., 1974. San Fernando, California, earthquake of 9 February 1971: Bulletin 196. 5. Note No. 37. Guidelines to geologic/seismic reports. 1973. 6. Note No. 43. Recommended guidelines for determining the maximum credible and the maximum probable earthquakes. 1975. 	<ol style="list-style-type: none"> 7. Note No. 44. Recommended guidelines for preparing engineering geologic reports. 1975. 8. Note No. 45. Recommended guidelines for preparing mine reclamation plans. 1975. 9. Parke, D.L., Real, C.R., Topozada, T.R., 1978. Earthquake Epicenter Map of California, showing events from 1900 through 1974. 10. Real, C.R., Topozada, T.R., and Parke, D.L., 1978. Earthquake catalog of California, January 1, 1900-December 31, 1974 (microfiche). <p>B. Other Publications</p> <ol style="list-style-type: none"> 1. Allen, C.R., et al., 1965. Relationship between seismicity and geologic structure in the southern California region: Bulletin of the Seismological Society of America, v. 55, no. 4. 	<ol style="list-style-type: none"> 2. Bolt, B.A. and Miller, R.D., 1971. Seismicity of northern and central California, 1965-1969: Bulletin of the Seismological Society of America, v. 61, no. 6. 3. California Department of Water Resources, 1964. Crustal strain and fault movement investigation: Bulletin No. 116-2. 4. Coffman, J.L. and von Hake, C.A., ed., 1973. Earthquake history of the United States: U.S. Department of Commerce, Publication 41-1. 5. Hileman, J.A., et al., 1973. Seismicity of the southern California region, 1 January 1932 to 31 December 1972: California Institute of Technology, Contribution 2385. Periodical updates to this are available.
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IV. PUBLIC AGENCIES WITH GEOLOGIC DATA

Source	Data Available			
	Seismicity	Geology	Ground Water	Soils
Libraries and Geology and Engineering Departments of California Universities	X	X	X	X
California Institute of Technology	X			
California Division of Mines and Geology (Sacramento, San Francisco, Los Angeles, CA)	X	X		
California Department of Water Resources (Sacramento, CA)		X		X
California Department of Transportation (District Offices)				X
County Soil & Water Conservation Districts				X
County Engineer and Departments of Building and Safety	X	X		X
County Highway Department				X
County Flood Control District				X
U.S. Geological Survey (Menlo Park, CA)		X		
U.S. Corps of Engineers (District Engineer)		X		
U.S. Bureau of Reclamation (Regional Offices)		X		
U.S. Soil Conservation Service and Forest Service				X

MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

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Ms. Judy Schwartz
 Los Angeles County Transportation Commission
 818 West Seventh Street, Suite 1100
 Los Angeles, California 90017

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 DRAWINGS

Dear Ms. Schwartz:

Notice of Preparation for an Environmental Impact Report
 for the Burbank-Glendale-Los Angeles Rail Transit Project

We have received the Notice of Preparation (NOP) for an Environmental Impact Report for the Burbank-Glendale-Los Angeles Rail Transit Project. The project involves the proposed construction of a light rail from Taylor Yard in the City of Los Angeles to the Burbank Airport to serve as a branch of the Los Angeles to Pasadena Rail Transit Project. The comments herein represent Metropolitan's response as a potentially affected public agency.

Our review of the NOP indicates that Metropolitan has two facilities in the vicinity of your proposed project. Metropolitan's East Valley Feeder and Santa Monica Feeder both traverse and run parallel to the project area in an east/west direction. The attached map shows Metropolitan's facilities in relation to your proposed project. It will be necessary to consider this location in your project planning.

In order to avoid potential conflicts with Metropolitan's facility, we request that prints of plans for any activity in the area of Metropolitan's pipelines and rights-of-way be submitted for our review and written approval. You may obtain detailed prints of drawings of Metropolitan's pipelines and rights-of-way by contacting Mr. James E. Hale, Senior Engineering Technician at (213) 250-6564. Additionally, a statement of guidelines for development in Metropolitan's facilities area, fee properties or easements has been attached for your information.

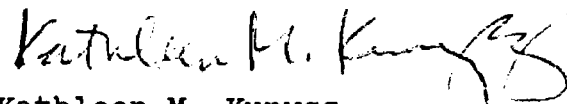
Ms. Judy Schwartz

-2-

NOV 13 1991

We appreciate the opportunity to provide input to your planning process. If we can be of further assistance, please contact me at (213) 250-6272.

Very truly yours,



Kathleen M. Kunysz
Manager, Environmental Affairs

JA/gg

Attachments

Guidelines for Developments in the
Area of Facilities, Fee Properties, and/or Easements
of The Metropolitan Water District of Southern California

1. Introduction

a. The following general guidelines should be followed for the design of proposed facilities and developments in the area of Metropolitan's facilities, fee properties, and/or easements.

b. We require that 3 copies of your tentative and final record maps, grading, paving, street improvement, landscape, storm drain, and utility plans be submitted for our review and written approval as they pertain to Metropolitan's facilities, fee properties and/or easements, prior to the commencement of any construction work.

2. Plans, Parcel and Tract Maps

The following are Metropolitan's requirements for the identification of its facilities, fee properties, and/or easements on your plans, parcel maps and tract maps:

a. Metropolitan's fee properties and/or easements and its pipelines and other facilities must be fully shown and identified as Metropolitan's on all applicable plans.

b. Metropolitan's fee properties and/or easements must be shown and identified as Metropolitan's with the official recording data on all applicable parcel and tract maps.

c. Metropolitan's fee properties and/or easements and existing survey monuments must be dimensionally tied to the parcel or tract boundaries.

d. Metropolitan's records of surveys must be referenced on the parcel and tract maps.

3. Maintenance of Access Along Metropolitan's Rights-of-Way

a. Proposed cut or fill slopes exceeding 10 percent are normally not allowed within Metropolitan's fee properties or easements. This is required to facilitate the use of construction and maintenance equipment, and provide access to its aboveground and belowground facilities.

b. We require that 16-foot-wide commercial-type driveway approaches be constructed on both sides of all streets crossing Metropolitan's rights-of-way. Openings are required in any median island. Access ramps, if necessary, must be at least 16-foot-wide. Grades of ramps are normally not allowed to exceed 10 percent. If the slope of an access ramp must exceed 10 percent due to the topography, the ramp must be paved. We require a 40-foot-long level area on the driveway approach to access ramps where the ramp meets the street. At Metropolitan's fee properties, we may require fences and gates.

c. The terms of Metropolitan's permanent easement deeds normally preclude the building or maintenance of structures of any nature or kind within its easements, to ensure safety and avoid interference with operation and maintenance of Metropolitan's pipelines or other facilities. Metropolitan must have vehicular access along the easements at all times for inspection, patrolling, and for maintenance of the pipelines and other facilities on a routine basis. We require a 20-foot-wide clear zone around all above-ground facilities for this routine access. This clear zone should slope away from our facility on a grade not to exceed 2 percent. We must also have access along the easements with construction equipment. An example of this is shown on Figure 1.

d. The footings of any proposed buildings adjacent to Metropolitan's fee properties and/or easements must not encroach into the fee property or easement or impose additional loading on Metropolitan's pipelines or other facilities therein. A typical situation is shown on Figure 2. Prints of the detail plans of the footings for any building or structure adjacent to the fee property or easement must be submitted for our review and written approval as they pertain to the pipeline or other facilities therein. Also, roof eaves of buildings adjacent to the easement or fee property must not overhang into the fee property or easement area.

e. Metropolitan's pipelines and other facilities, e.g. structures, manholes, equipment, survey monuments, etc. within its fee properties and/or easements must be protected from damage by the easement holder on Metropolitan's property or the property owner where Metropolitan has an easement, at no expense to Metropolitan. If the facility is a cathodic protection station it shall be located prior to any grading or excavation. The exact location, description and way of protection shall be shown on the related plans for the easement area.

4. Easements on Metropolitan's Property

a. We encourage the use of Metropolitan's fee rights-of-way by governmental agencies for public street and utility purposes, provided that such use does not interfere with Metropolitan's use of the property, the entire width of the property is accepted into the agency's public street system and fair market value is paid for such use of the right-of-way.

b. Please contact the Director of Metropolitan's Right of Way and Land Division, telephone (213) 250-6302, concerning easements for landscaping, street, storm drain, sewer, water or other public facilities proposed within Metropolitan's fee properties. A map and legal description of the requested easements must be submitted. Also, written evidence must be submitted that shows the city or county will accept the easement for the specific purposes into its public system. The grant of the easement will be subject to Metropolitan's rights to use its land for water pipelines and related purposes to the same extent as if such grant had not been made. There will be a charge for the easement. Please note that, if entry is required on the property prior to issuance of the easement, an entry permit must be obtained. There will also be a charge for the entry permit.

5. Landscaping

Metropolitan's landscape guidelines for its fee properties and/or easements are as follows:

a. A green belt may be allowed within Metropolitan's fee property or easement.

b. All landscape plans shall show the location and size of Metropolitan's fee property and/or easement and the location and size of Metropolitan's pipeline or other facilities therein.

c. Absolutely no trees will be allowed within 15 feet of the centerline of Metropolitan's existing or future pipelines and facilities.

d. Deep-rooted trees are prohibited within Metropolitan's fee properties and/or easements. Shallow-rooted trees are the only trees allowed. The shallow-rooted trees will not be permitted any closer than 15 feet from the centerline of the pipeline, and such trees shall not be taller than 25 feet with a root spread no greater than 20 feet in diameter at maturity. Shrubs, bushes, vines, and ground cover are permitted, but larger shrubs and bushes should not be planted directly over our pipeline. Turf is acceptable. We require submittal of landscape plans for Metropolitan's prior review and written approval. (See Figure 3).

e. The landscape plans must contain provisions for Metropolitan's vehicular access at all times along its rights-of-way to its pipelines or facilities therein. Gates capable of accepting Metropolitan's locks are required in any fences across its rights-of-way. Also, any walks or drainage facilities across its access route must be constructed to AASHTO H-20 loading standards.

f. Rights to landscape any of Metropolitan's fee properties must be acquired from its Right of Way and Land Division. Appropriate entry permits must be obtained prior to any entry on its property. There will be a charge for any entry permit or easements required.

6. Fencing

Metropolitan requires that perimeter fencing of its fee properties and facilities be constructed of universal chain link, 6 feet in height and topped with 3 strands of barbed wire angled upward and outward at a 45 degree angle or an approved equal for a total fence height of 7 feet. Suitable substitute fencing may be considered by Metropolitan. (Please see Figure 5 for details).

7. Utilities in Metropolitan's Fee Properties and/or Easements or Adjacent to Its Pipeline in Public Streets

Metropolitan's policy for the alinement of utilities permitted within its fee properties and/or easements and street rights-of-way is as follows:

a. Permanent structures, including catch basins, manholes, power poles, telephone riser boxes, etc., shall not be located within its fee properties and/or easements.

b. We request that permanent utility structures within public streets, in which Metropolitan's facilities are constructed under the Metropolitan Water District Act, be placed as far from our pipeline as possible, but not closer than 5 feet from the outside of our pipeline.

c. The installation of utilities over or under Metropolitan's pipeline(s) must be in accordance with the requirements shown on the enclosed prints of Drawings Nos. C-11632 and C-9547. Whenever possible we request a minimum of one foot clearance between Metropolitan's pipe and your facility. Temporary support of Metropolitan's pipe may also be required at undercrossings of its pipe in an open trench. The temporary support plans must be reviewed and approved by Metropolitan.

d. Lateral utility crossings of Metropolitan's pipelines must be as perpendicular to its pipeline alignment as practical. Prior to any excavation our pipeline shall be located manually and any excavation within two feet of our pipeline must be done by hand. This shall be noted on the appropriate drawings.

e. Utilities constructed longitudinally within Metropolitan's rights-of-way must be located outside the theoretical trench prism for uncovering its pipeline and must be located parallel to and as close to its rights-of-way lines as practical.

f. When piping is jacked or installed in jacked casing or tunnel under Metropolitan's pipe, there must be at least two feet of vertical clearance between the bottom of Metropolitan's pipe and the top of the jacked pipe, jacked casing or tunnel. We also require that detail drawings of the shoring for the jacking or tunneling pits be submitted for our review and approval. Provisions must be made to grout any voids around the exterior of the jacked pipe, jacked casing or tunnel. If the piping is installed in a jacked casing or tunnel the annular space between the piping and the jacked casing or tunnel must be filled with grout.

g. Overhead electrical and telephone line requirements:

1) Conductor clearances are to conform to the California State Public Utilities Commission, General Order 95, for Overhead Electrical Line Construction or at a greater clearance if required by Metropolitan. Under no circumstances shall clearance be less than 35 feet.

2) A marker must be attached to the power pole showing the ground clearance and line voltage, to help prevent damage to your facilities during maintenance or other work being done in the area.

3) Line clearance over Metropolitan's fee properties and/or easements shall be shown on the drawing to indicate the lowest point of the line under the most adverse conditions including consideration of sag, wind load, temperature change, and support type. We require that overhead lines be located at least 30 feet laterally away from all above-ground structures on the pipelines.

4) When underground electrical conduits, 120 volts or greater, are installed within Metropolitan's fee property and/or easement, the conduits must be incased in a minimum of three inches of red concrete. Where possible, above ground warning signs must also be placed at the right-of-way lines where the conduits enter and exit the right-of-way.

h. The construction of sewerlines in Metropolitan's fee properties and/or easements must conform to the California Department of Health Services Criteria for the Separation of Water Mains and Sanitary Services and the local City or County Health Code Ordinance as it relates to installation of sewers in the vicinity of pressure waterlines. The construction of sewerlines should also conform to these standards in street rights-of-way.

i. Cross sections shall be provided for all pipeline crossings showing Metropolitan's fee property and/or easement limits and the location of our pipeline(s). The exact locations of the crossing pipelines and their elevations shall be marked on as-built drawings for our information.

j. Potholing of Metropolitan's pipeline is required if the vertical clearance between a utility and Metropolitan's pipeline is indicated on the plan to be one foot or less. If the indicated clearance is between one and two feet, potholing is suggested. Metropolitan will provide a representative to assist others in locating and identifying its pipeline. Two-working days notice is requested.

k. Adequate shoring and bracing is required for the full depth of the trench when the excavation encroaches within the zone shown on Figure 4.

l. The location of utilities within Metropolitan's fee property and/or easement shall be plainly marked to help prevent damage during maintenance or other work done in the area. Detectable tape over buried utilities should be placed a minimum of 12 inches above the utility and shall conform to the following requirements:

1) Water pipeline: A two-inch blue warning tape shall be imprinted with:

"CAUTION BURIED WATER PIPELINE"

2) Gas, oil, or chemical pipeline: A two-inch yellow warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

3) Sewer or storm drain pipeline: A two-inch green warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

4) Electric, street lighting, or traffic signals conduit: A two-inch red warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

5) Telephone, or television conduit: A two-inch orange warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

m. Cathodic Protection requirements:

1) If there is a cathodic protection station for Metropolitan's pipeline in the area of the proposed work, it shall be located prior to any grading or excavation. The exact location, description and manner of protection shall be shown on all applicable plans. Please contact Metropolitan's Corrosion Engineering Section, located at Metropolitan's F. E. Weymouth Softening and Filtration Plant, 700 North Moreno Avenue, La Verne, California 91750, telephone (714) 593-7474, for the locations of Metropolitan's cathodic protection stations.

2) If an induced-current cathodic protection system is to be installed on any pipeline crossing Metropolitan's pipeline, please contact Mr. Wayne E. Risner at (714) 593-7474 or (213) 250-5085. He will review the proposed system and determine if any conflicts will arise with the existing cathodic protection systems installed by Metropolitan.

3) Within Metropolitan's rights-of-way, pipelines and carrier pipes (casings) shall be coated with an approved protective coating to conform to Metropolitan's requirements, and shall be maintained in a neat and orderly condition as directed by Metropolitan. The application and monitoring of cathodic protection on the pipeline and casing shall conform to Title 49 of the Code of Federal Regulations, Part 195.

4) If a steel carrier pipe (casing) is used:

(a) Cathodic protection shall be provided by use of a sacrificial magnesium anode (a sketch showing the cathodic protection details can be provided for the designers information).

(b) The steel carrier pipe shall be protected with a coal tar enamel coating inside and out in accordance with AWWA C203 specification.

n. All trenches shall be excavated to comply with the CAL/OSHA Construction Safety Orders, Article 6, beginning with Sections 1539 through 1547. Trench backfill shall be placed in 8-inch lifts and shall be compacted to 95 percent relative compaction (ASTM D698) across roadways and through protective dikes. Trench backfill elsewhere will be compacted to 90 percent relative compaction (ASTM D698).

o. Control cables connected with the operation of Metropolitan's system are buried within streets, its fee properties and/or easements. The locations and elevations of these cables shall be shown on the drawings. The drawings shall note that prior to any excavation in the area, the control cables shall be located and measures shall be taken by the contractor to protect the cables in place.

p. Metropolitan is a member of Underground Service Alert (USA). The contractor (excavator) shall contact USA at 1-800-422-4133 (Southern California) at least 48 hours prior to starting any excavation work. The contractor will be liable for any damage to Metropolitan's facilities as a result of the construction.

8. Paramount Right

Facilities constructed within Metropolitan's fee properties and/or easements shall be subject to the paramount right of Metropolitan to use its fee properties and/or easements for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove any of the facilities from the fee properties and/or easements, such removal and replacement shall be at the expense of the owner of the facility.

9. Modification of Metropolitan's Facilities

When a manhole or other of Metropolitan's facilities must be modified to accommodate your construction or reconstruction, Metropolitan will modify the facilities with its forces. This should be noted on the construction plans. The estimated cost to perform this modification will be given to you and we will require a deposit for this amount before the work is performed. Once the deposit is received, we will schedule the work. Our forces will coordinate the work with your contractor. Our final billing will be based on actual cost incurred, and will include materials, construction, engineering plan review, inspection, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount.

10. Drainage

a. Residential or commercial development typically increases and concentrates the peak storm water runoff as well as the total yearly storm runoff from an area, thereby increasing the requirements for storm drain facilities downstream of the development. Also, throughout the year water from landscape irrigation, car washing, and other outdoor domestic water uses flows into the storm drainage system resulting in weed abatement, insect infestation, obstructed access and other problems. Therefore, it is Metropolitan's usual practice not to approve plans that show discharge of drainage from developments onto its fee properties and/or easements.

b. If water must be carried across or discharged onto Metropolitan's fee properties and/or easements, Metropolitan will insist that plans for development provide that it be carried by closed conduit or lined open channel approved in writing by Metropolitan. Also the drainage facilities must be maintained by others, e.g., city, county, homeowners association, etc. If the development proposes changes to existing drainage features, then the developer shall make provisions to provide for replacement and these changes must be approved by Metropolitan in writing.

11. Construction Coordination

During construction, Metropolitan's field representative will make periodic inspections. We request that a stipulation be added to the plans or specifications for notification of Mr. _____ of Metropolitan's Operations Services Branch, telephone (213) 250-_____, at least two working days prior to any work in the vicinity of our facilities.

12. Pipeline Loading Restrictions

a. Metropolitan's pipelines and conduits vary in structural strength, and some are not adequate for AASHTO H-20 loading. Therefore, specific loads over the specific sections of pipe or conduit must be reviewed and approved by Metropolitan. However, Metropolitan's pipelines are typically adequate for AASHTO H-20 loading provided that the cover over the pipeline is not less than four feet or the cover is not substantially increased. If the temporary cover over the pipeline during construction is between three and four feet, equipment must be restricted to that which

imposes loads no greater than AASHTO H-10. If the cover is between two and three feet, equipment must be restricted to that of a Caterpillar D-4 tract-type tractor. If the cover is less than two feet, only hand equipment may be used. Also, if the contractor plans to use any equipment over Metropolitan's pipeline which will impose loads greater than AASHTO H-20, it will be necessary to submit the specifications of such equipment for our review and approval at least one week prior to its use. More restrictive requirements may apply to the loading guideline over the San Diego Pipelines 1 and 2, portions of the Orange County Feeder, and the Colorado River Aqueduct. Please contact us for loading restrictions on all of Metropolitan's pipelines and conduits.

b. The existing cover over the pipeline shall be maintained unless Metropolitan determines that proposed changes do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance.

13. Blasting

a. At least 20 days prior to the start of any drilling for rock excavation blasting, or any blasting, in the vicinity of Metropolitan's facilities, a two-part preliminary conceptual plan shall be submitted to Metropolitan as follows:

b. Part 1 of the conceptual plan shall include a complete summary of proposed transportation, handling, storage, and use of explosions.

c. Part 2 shall include the proposed general concept for blasting, including controlled blasting techniques and controls of noise, fly rock, airblast, and ground vibration.

14. CEQA Requirements

a. When Environmental Documents Have Not Been Prepared

1) Regulations implementing the California Environmental Quality Act (CEQA) require that Metropolitan have an opportunity to consult with the agency or consultants preparing any environmental documentation. We are required to review and consider the environmental effects of the project as shown in the Negative Declaration or Environmental Impact Report (EIR) prepared for your project before committing Metropolitan to approve your request.

2) In order to ensure compliance with the regulations implementing CEQA where Metropolitan is not the Lead Agency, the following minimum procedures to ensure compliance with the Act have been established:

a) Metropolitan shall be timely advised of any determination that a Categorical Exemption applies to the project. The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

b) Metropolitan is to be consulted during the preparation of the Negative Declaration or EIR.

c) Metropolitan is to review and submit any necessary comments on the Negative Declaration or draft EIR.

d) Metropolitan is to be indemnified for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

b. When Environmental Documents Have Been Prepared

If environmental documents have been prepared for your project, please furnish us a copy for our review and files in a timely manner so that we may have sufficient time to review and comment. The following steps must also be accomplished:

1) The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

2) You must agree to indemnify Metropolitan, its officers, engineers, and agents for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

15. Metropolitan's Plan-Review Cost

a. An engineering review of your proposed facilities and developments and the preparation of a letter response

giving Metropolitan's comments, requirements and/or approval that will require 8 man-hours or less of effort is typically performed at no cost to the developer, unless a facility must be modified where Metropolitan has superior rights. If an engineering review and letter response requires more than 8 man-hours of effort by Metropolitan to determine if the proposed facility or development is compatible with its facilities, or if modifications to Metropolitan's manhole(s) or other facilities will be required, then all of Metropolitan's costs associated with the project must be paid by the developer, unless the developer has superior rights.

b. A deposit of funds will be required from the developer before Metropolitan can begin its detailed engineering plan review that will exceed 8 hours. The amount of the required deposit will be determined after a cursory review of the plans for the proposed development.

c. Metropolitan's final billing will be based on actual cost incurred, and will include engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount. Additional deposits may be required if the cost of Metropolitan's review exceeds the amount of the initial deposit.

16. Caution

We advise you that Metropolitan's plan reviews and responses are based upon information available to Metropolitan which was prepared by or on behalf of Metropolitan for general record purposes only. Such information may not be sufficiently detailed or accurate for your purposes. No warranty of any kind, either express or implied, is attached to the information therein conveyed as to its accuracy, and no inference should be drawn from Metropolitan's failure to comment on any aspect of your project. You are therefore cautioned to make such surveys and other field investigations as you may deem prudent to assure yourself that any plans for your project are correct.

17. Additional Information

Should you require additional information, please contact Mr. Jim Hale, telephone (213) 250-6564.

JEH/MRW/lk

Rev. January 22, 1989

Encl.

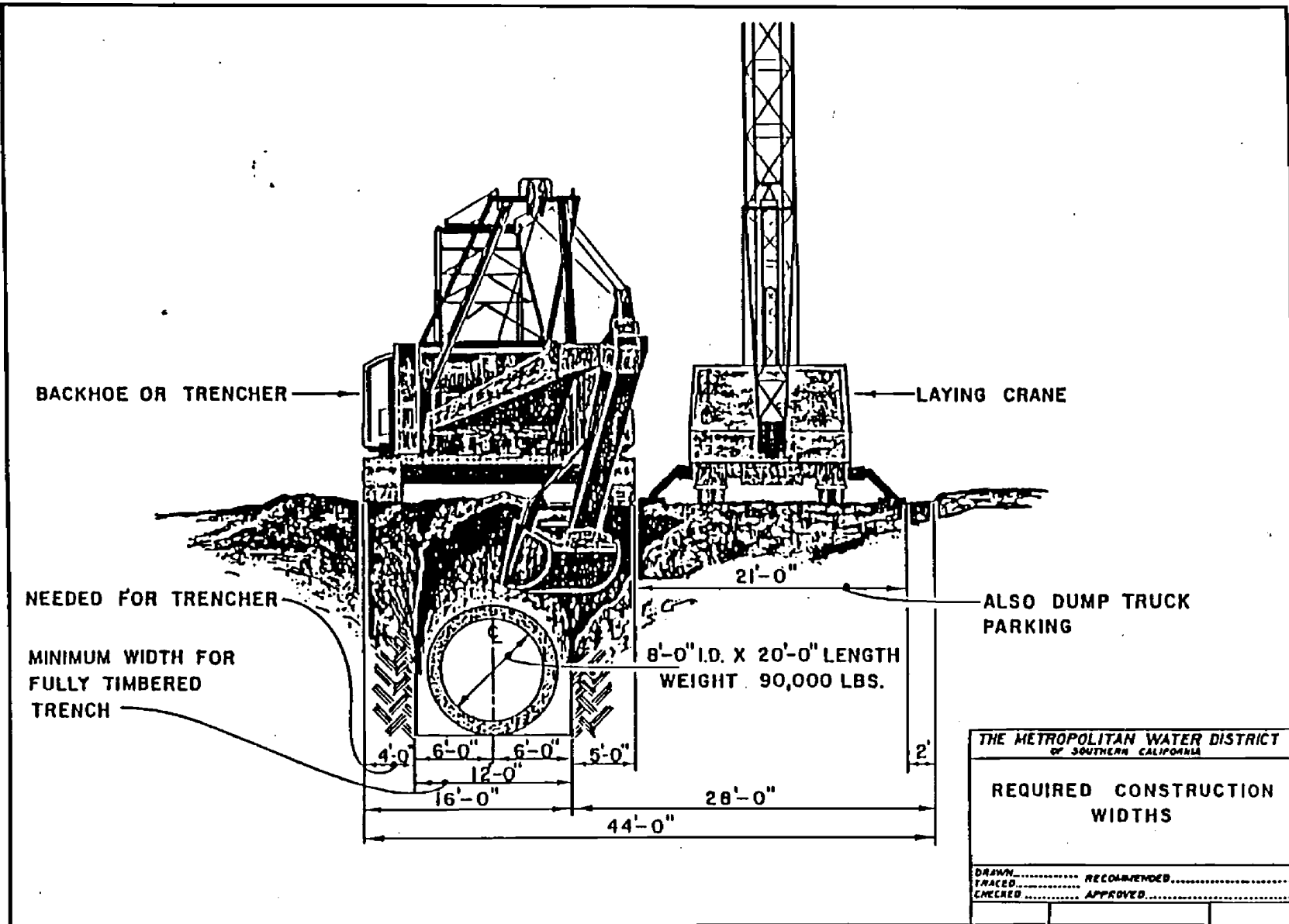
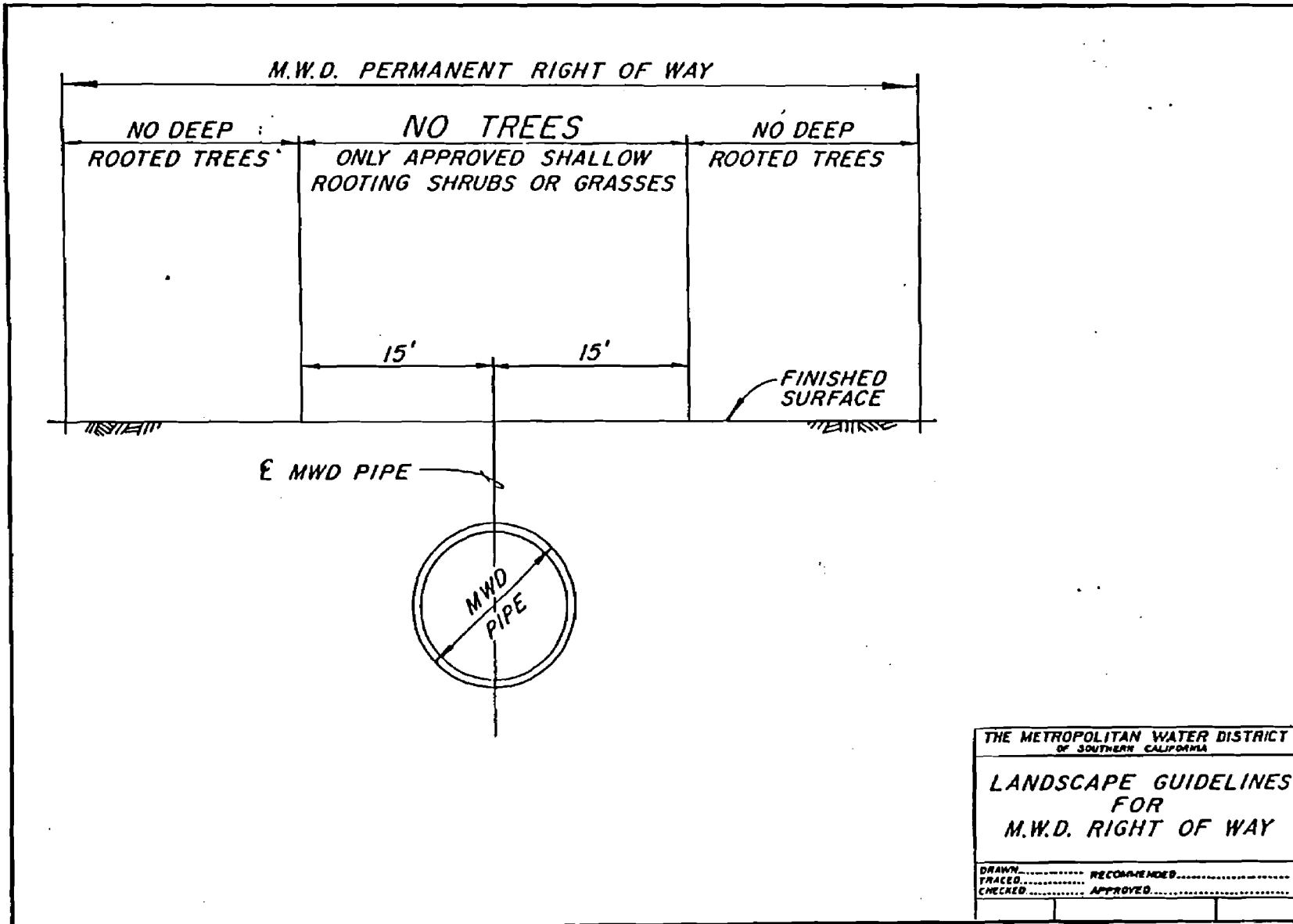


FIGURE 1

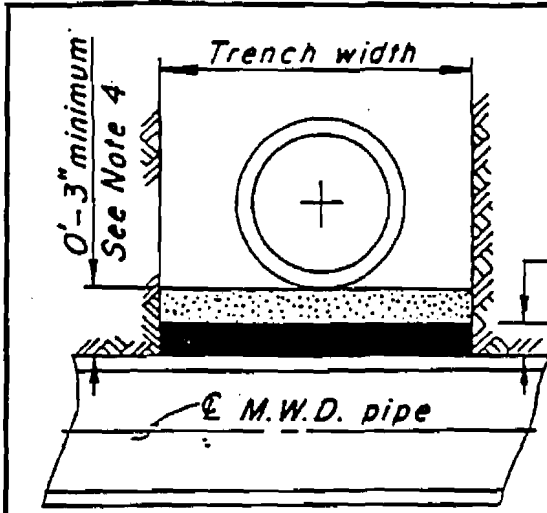


THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

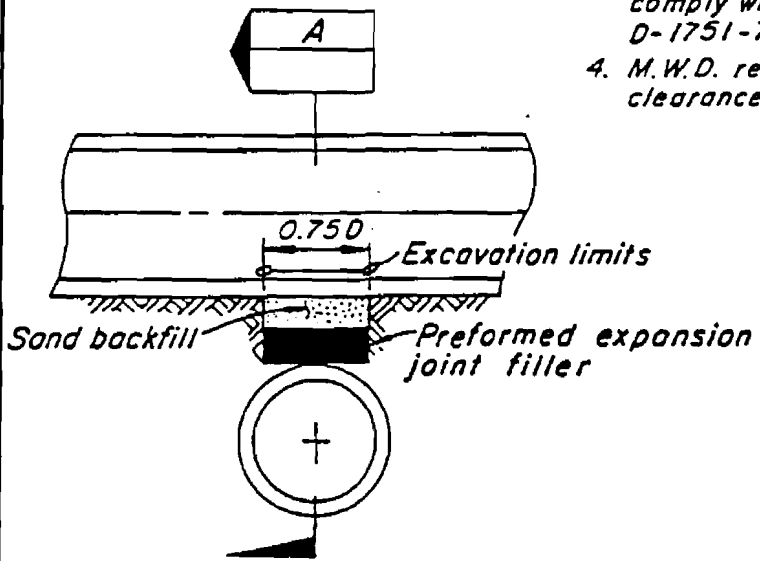
LANDSCAPE GUIDELINES
FOR
M.W.D. RIGHT OF WAY

DRAWN.....	RECOMMENDED.....
TRACED.....	APPROVED.....
CHECKED.....	

FIGURE 3



SECTION A



CROSS SECTION

3" Preformed expansion joint filler

NOTES

1. This method to be used where the utility line is 24" or greater in diameter and the clearance between the utility line and M.W.D. pipe is 12" or less.
2. Special protection may be required if the utility line diameter is greater than M.W.D. pipe or if the cover over the utility line to the street surface is minimal and there is 12" or less clearance between M.W.D. pipe and the utility line.
3. Preformed expansion joint filler to comply with ASTM designation D-1751-73.
4. M.W.D. requests 12" minimum clearance whenever possible.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	
TYPICAL EXPANSION JOINT FILLER PROTECTION FOR OVERCROSSING OF M.W.D. PIPELINE	
DRAWN.....	RECOMMENDED.....
TRACED.....	APPROVED.....
CHECKED.....	
C-11632	

CITY OF LOS ANGELES

CALIFORNIA



TOM BRADLEY
MAYOR

DEPARTMENT OF FIRE

200 NORTH MAIN STREET
LOS ANGELES, CA 90012

DONALD O. MANNING
CHIEF ENGINEER
AND
GENERAL MANAGER

BOARD OF
FIRE COMMISSIONERS
485-6032

JAMES E. BLANCARTE
PRESIDENT

CARL R. TERZIAN
VICE-PRESIDENT

AILEEN ADAMS

NICHOLAS H. STONNINGTON

KENNETH S. WASHINGTON

EVA WHITELOCK
EXECUTIVE ASSISTANT

L.A.C.T.C.

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November 20, 1991

Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

Dear Ms. Judy Schwartz:

Notice of Preparation of an Environmental Impact Report
Burbank-Glendale-Los Angeles Light Rail

The 10.7 mile Burbank-Glendale-Los Angeles Light Rail-Route Corridor extends from the Southern Pacific Taylor Railroad Yard, with at-grade stations through Glendale and Burbank, and terminating on Hollywood Way at the Burbank Airport.

The following comments are furnished in response to your request for this Department to review the proposed development:

Adequate public and private fire hydrants shall be required.

Any necessary improvements to the water system or to the existing fire hydrants due to the Light Rail Corridor Route will be at the applicant's expense.

Access for Fire Department apparatus and personnel to and into all structures shall be required.

All street intersection with a level of service of "E" or "F" decreases the level of fire protection and emergency medical services provided by this Department.



Ms. Judy Schwartze
November 20, 1991
Page 2

Fire lanes, where required, and dead-ending streets shall terminate in a cul-de-sac or other approved turning area. No dead-ending street or fire lane shall be greater than 700 feet in length or secondary access shall be required.

No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

CONCLUSION

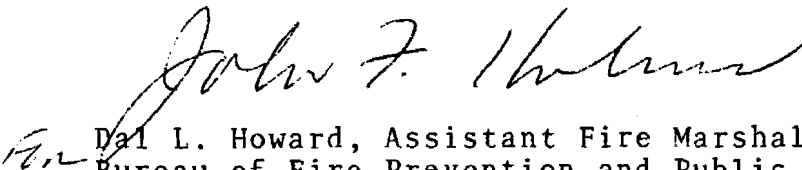
The proposed Burbank-Glendale-Los Angeles Light Rail Route shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles (C.P.C. 19708).

Definitive plans and specifications shall be submitted to this Department and requirements for necessary permits satisfied prior to commencement of any portion of this project.

For any additional information, please contact our Hydrant Unit, at (213) 485-5964.

Very truly yours,

DONALD O. MANNING
Chief Engineer and General Manager


Dal L. Howard, Assistant Fire Marshal
Bureau of Fire Prevention and Public Safety

DLH:ASM:cec:3140E

cc: Councilman Michael Hernandez
Councilman Joel Wachs
Councilman John Ferraro
Environmental Affairs Commission
Fire Department Planning Section



THOMAS A. TIDEMANSON, Director

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

L.A.C.T.C.
1991 NOV 22 PM 12:08
ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

200041

November 21, 1991

IN REPLY PLEASE
REFER TO FILE

P-6

Ms. Judy Schwartze
Government and Public Affairs Manager
San Fernando Valley/North County Area Team
Los Angeles County Transportation Commission
818 West Seventh Street, Suite 1100
Los Angeles, CA 90017

MICROFILMED
COPY IN BMC

Dear Ms. Schwartze:

RESPONSE TO A NOTICE OF PREPARATION
BURBANK-GLENDALE-LOS ANGELES RAIL TRANSIT PROJECT

Thank you for the opportunity to provide comments on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Burbank-Glendale-Los Angeles Rail Transit Project. We have reviewed the NOP and offer the following comments:

Waste Management

Los Angeles County is experiencing a shortage in solid waste disposal capacity this year. The proposed development will adversely impact disposal facilities. To alleviate this crisis, the California Integrated Waste Management Act of 1989 requires development of programs for diverting 25 percent of the solid waste stream from landfills and transformation facilities by 1995 and 50 percent by the year 2000. To meet these mandates, the DEIR should identify waste quantities that will be generated along with mitigation measures of waste reduction, recycling, and composting programs. Also, the DEIR should identify development standards to provide adequate "storage areas" for collecting recyclable materials.

The existing hazardous waste management facilities (HWM) in this County are inadequate to handle the hazardous waste currently being generated. The proposed residential development will generate hazardous waste, which could adversely impact existing HWM facilities. The DEIR should address this issue and provide mitigation measures.

Ms. Judy Schwartze
November 21, 1991
Page 2

The environmental documents should recognize the need to comply with the Federal Clean Water Act and the NPDES Permit issued to the Los Angeles County and Co-Permittees for Stormwater/Urban Runoff Discharge.

Compliance to protect Water Quality will be required.

Any mitigation measure monitoring program performed by the Los Angeles County Department of Public Works, Waste Management Division, will require a funding account be established by the project proponent to pay for the required services. The amount of necessary funds will be determined at the time monitoring will be performed. Waste Management Division must be contacted to establish the funding account.

If you have any questions regarding these comments, please contact Mr. Michael Bohlander of our Waste Management Division at (818) 458-3562.

Drainage Planning

Water

3b. Permits from this Department will be required for any improvements which affect Los Angeles County Flood Control District rights of way. Please contact Mr. Rudy Lee in our Mapping and Property Management Division at (818) 458-7039.

3i. Change "No" to "Maybe"

The proposed rail line severs the Southern Pacific Railroad's (SPRR) Taylor Yard property. We understand this was done at the request of SPRR to enhance marketability of parcels adjacent to San Fernando Road. Many citizen groups and agencies, including this Department, are interested in the remaining property for other uses. We have conducted a preliminary study, indicating use of the remaining parcels could be considered for a large flood control detention basin with recreational improvements and environmental enhancement/mitigation features. This proposal had developed genuine interest from key community groups.

Discussions between LACTC staff and representatives of this Department on July 18, 1991 indicated LACTC would be flexible in relocating the rail line in the future so that it is adjacent and parallel to San Fernando Road if our proposal for a large flood detention basin moves forward. We recommend LACTC maintain operational flexibility in developing its plans and programs to allow future alignment of the rail line through Taylor Yard to accommodate the potential interests of this Department and other proposals.

If the rail line remains along its present proposed alignment and the remaining property is developed as a large flood control detention basin, the rail line will be exposed to water-related hazards on both sides unless it is relocated adjacent to San Fernando Road.

Land Use

8. See comments to 3i above

Risk of Upset

- 10a. Safety measures should consider the potential for risk of explosion or release of hazardous substances to impact a proposed flood control detention basin at Taylor Yard which would include environmental enhancements and recreational features.

Public Services

- 14d. See comments to 3i. and 10a. above.
- 14e. See comments to 3i. and 10a. above.
- 14f. LACTC should contact the Corps of Engineers, Planning Branch regarding the status of a proposed Corps' study of the potential for widening the Los Angeles River in the vicinity of Taylor Yard. LACTC should address the impact the proposed rail line through Taylor Yard could have on that effort.

If you have any questions regarding these comments, please contact Mr. Michael Anderson of our Drainage Planning Section at (818) 458-4308.

Ms. Judy Schwartz
November 21, 1991
Page 4

Questions regarding the environmental reviewing process of this Department can be directed to Ms. Clarice Nash at the above street address or at (818) 458-4334.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works



CARL L. BLUM
Assistant Deputy Director
Planning Division

MA:aa
WP/42

CITY OF

Glendale CALIFORNIA

633 East Broadway, Room 303, Glendale, CA 91206-4310

(818) 548-4810

Fire Division
FIRE PREVENTION
BUREAU

December 17, 1991

Judy Schwartze, Public Affairs Manager
Los Angeles County Transportation Commission
818 W. Seventh Street, Suite 1100
Los Angeles, CA 90017

Subject: Burbank-Glendale-Los Angeles
Rail Transit Project EIR

Dear Judy,

The Glendale Fire Department is in receipt of the Notice of Preparation for an Environmental Impact Report. The Glendale Fire Department would like to see the following issues addressed within the EIR.

1. All new buildings constructed within the City of Glendale in conjunction with this project shall be provided with complete automatic sprinkler protection throughout.
2. Adequate fire flow shall be provided through the installation of water mains and fire hydrants as necessary to supply fire protection to any new structures related to the project.
3. Consideration should be given to emergency Fire Department vehicular access to commercial, industrial and residential structures which could potentially become unaccessible due to roadway blockage. Of particular concern would be those structures served by a single point or roadway access with the roadway being intersected by the rail system.

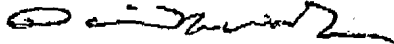


Judy Schwartz, Public Affairs Manager
Page 2
December 17, 1991

4. Develop a plan to insure maintenance of Fire Department emergency roadway access during construction of the rail system.

If I can be of any further assistance please feel free to contact me at 548-4810.

Sincerely,



Christopher R. Gray
Fire Marshal

By David Woods
Assistant Fire Marshal

DW:ap:Transit:EIR

CITY OF **Glendale** CALIFORNIA

833 E. Broadway, Rm. 104, Glendale, CA 91206-4386 • (818) 548-2140 (818) 548-2144
(818) 548-2115

Planning Division

December 17, 1991

Attn: Judy Schwartz
Neil Peterson, Executive Director
Los Angeles County Transportation Commission
818 West Seventh Street Suite 1100
Los Angeles California 90017

Re: Notice of Preparation for and EIR
Burbank-Glendale-Los Angeles Rail Transit Project

Dear Mr. Peterson:

The City of Glendale Planning Division has reviewed the Notice of Preparation for the proposed rail project. The proposed scope identifies all the concerns of the Planning Division at this time, and the Planning Division encourages the processing of an EIR for a project which could have substantial regional air quality and transportation benefits. The contact person for the City of Glendale Planning Division is David A. Bobardt at 818 548-2140. We look forward to receiving a copy of the Draft EIR when it is available.

Very truly yours,



John W. McKenna
Director of Planning

DB:ap



CITY OF

Glendale CALIFORNIA

140 North Isabel St., Glendale, CA 91206-4382

(818) 548- 4140

POLICE
DEPARTMENT

December 26, 1991

MICROFILMED
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RECEIVED
CITY OF GLENDALE
DEC 27 1991

Tim Galbraith
Public Affairs Officer
Los Angeles County Transportation Commission
818 W. Seventh St.
Los Angeles, CA 90017

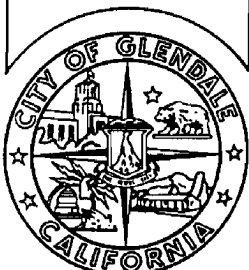
Dear Mr. Galbraith:

The Glendale Police Department has reviewed the notice of preparation of an environmental impact report (EIR) for the proposed Burbank-Glendale-Los Angeles Rail Transit Project. The department is concerned about the project's impact upon crime and police services.

Patrons using the Park and Ride Stations will park at the facility and on nearby streets. This will increase traffic, especially at rush hours, and create the need for additional parking control and traffic enforcement resources.

The stations themselves provide a site for numerous types of criminal activity against property and persons. Unattended vehicles parked all day long will tempt thieves and vandals. A combination of mechanical, electronic and human resources should be employed to provide protection for the vehicles on the lot and patrons using the facility. We would suggest the following be considered:

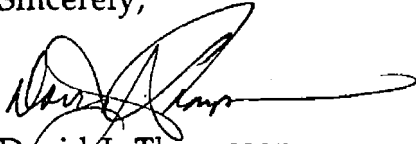
- Closed circuit television security systems.
- Designing the stations for maximum visibility, especially elevators, vending areas and lobbies.
- Electric gates (designed to allow immediate entrance to police and fire officials in an emergency).
- Security fencing/Controlled access parking lots.
- High intensity security lighting.
- Security guards.



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Because of the size of the Park and Ride system and the potential demand for police services, the Glendale Police Department is unable to provide constant on-site security. However, we will be glad to assist the developers of this project with crime analysis data and other technical guidance. Please contact Lieutenant Jack Bilheimer at (818) 548-3152 for further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "David J. Thompson", with a long horizontal flourish extending to the right.

David J. Thompson,
Chief of Police

DJT/JSB/nhb

cc: Steve Adams, Management Services
PA 91-075

APPENDIX III: REFERENCES, AGENCIES CONTACTED, AND PREPARERS

This appendix contains lists of all reference utilized in preparing this Environmental Impact Report; agencies which have participated in its preparation and review; and preparers of this document. These lists appear in this appendix under the following headings:

- III.i **REFERENCES**
- III.ii **AGENCIES CONSULTED**
- III.iii **PROJECT MANAGEMENT TEAM**
- III.iv **DOCUMENT PREPARERS**

III.i REFERENCES

The following reports, documents, and other resources were utilized in preparing this Environmental Impact Report:

City of Burbank, *Burbank City Center Multi-Modal, Transportation Facility Feasibility Study*, March 1991.

City of Burbank, *Burbank Metrolink Feasibility Study*, September 1990.

City of Burbank, *Land Use Element of the General Plan*, May 1988.

City of Burbank, *Redevelopment Plan for the Golden State Redevelopment Project*, January 1970.

City of Glendale, *Circulation Element of the General Plan*, March 1976.

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City of Glendale, in conjunction with the Los Angeles County Transportation Commission, *Glendale Corridor LRT Alignment Alternatives Study*, April 1990.

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City of Los Angeles, *Development of a Jobs-Housing Balance Strategy for the City of Los Angeles*, Department Memorandum, May 1990.

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GEOFON Environmental, *Phase I Environmental Audit Saugus Line*, July 1991.

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L.A. Aerial Photography, *Aerial Obliques of East Valley and North Los Angeles Region*, November 1991.

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Los Angeles County Transportation Commission, *Pasadena-Los Angeles Light Rail Transit Project Draft EIR*, November 1989.

Los Angeles County Transportation Commission, *Proposed 30-Year Integrated Transportation Plan*, April 1992.

Los Angeles County Transportation Commission, *San Fernando Valley East-West Rail Transit Project Draft EIR*, November 1989.

Manuel Padron and Associates, *Operation Plan for the Burbank-Glendale-Los Angeles Rail Transit Project*, November 1991.

Pacific Aerographics, *Aerial Photography for East Valley and North Los Angeles Region*, February 1990 and January 1992.

Remy, Thomas, and Moose, *Guide to the California Environmental Quality Act (CEQA)*, 6th Addition, 1992.

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South Coast Air Quality Management District, *Air Quality Handbook for Preparing Environmental Impact Reports*, Appendix D, 1989.

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Southern California Association of Governments, *Guidance for Implementation of 1989 AQMP Conformity Procedures*, March 1990.

State of California Department of Fish and Game, Natural Heritage Division, *Rarefind: California Natural Diversity Data Base Full Report*, December 1991.

State of California Department of Conservation, Division of Mines and Geology, *File Report 79-16*, 1979.

United States Department of Transportation, *Guidelines for Assessing the Environmental Impact of Public Mass Transportation Projects*, 1979.

United States Geological Survey, *Professional Paper #1360*, 1985.

R.F. Yerkes et al, *Geology of the Los Angeles Basin, California- an Introduction*, U.S. Geological Survey Professional Paper 420-A, 1965.

III.ii AGENCIES CONSULTED

The following agencies were contacted and consulted in order to retrieve information needed to prepare this Environmental Impact Report:

City of Burbank

- Advance Planning
- Burbank Redevelopment Agency
- Traffic Engineering
- Police Department
- Fire Department
- Burbank Unified School District

City of Glendale

- Management Services
- Glendale Redevelopment Agency
- Traffic Engineering
- Planning
- Public Works
- Police Department
- Fire Department
- Glendale Unified School District

City of Los Angeles

- City Planning
- Los Angeles Department of Transportation
- Police Department
- Fire Department
- Los Angeles Unified School District

County of Los Angeles

- Los Angeles County Transportation Commission
 - San Fernando Valley Area Team
 - Rail Construction Corporation
- Department of Public Works

South Coast Air Quality Management District (SCAQMD)

Southern California Association of Governments (SCAG)

Southern California Rapid Transit District (SCRTD)

Southern California Regional Rail Authority (SCRRA)

Southern Pacific Transportation Company

State of California

- Department of Conservation, Division of Mines and Geology
- Department of Fish and Game, Natural Heritage Division
- Department of Transportation (Caltrans)
- Environmental Protection Agency

United States

- Department of Transportation
- Environmental Protection Agency

University of California at Los Angeles (U.C.L.A.)

- Institute of Archaeology

III.iii PROJECT MANAGEMENT TEAM

The following agencies and individuals have participated in the project management and review of this environmental document:

Los Angeles County Transportation Commission

- Patricia McLaughlin, San Fernando Valley Area Team
- Judy Schwartz, San Fernando Valley Area Team
- Peter De Haan, San Fernando Valley Area Team
- David Mieger, San Fernando Valley Area Team
- Tim Galbraith, San Fernando Valley Area Team
- Ricardo Gonzales, Rail Construction Corporation
- Kathleen Sweet, Rail Construction Corporation
- Mani Churanakoses, Rail Construction Corporation

Southern California Regional Rail Authority

- John Rinard
- Marshall Allen

City of Burbank

- Lothar Von Schoenborn, Advance Planning
- Mark Yamarone, Advance Planning
- John Libby, Advance Planning
- Ronald Morris, Traffic Engineering

Burbank-Glendale-Pasadena Airport Authority

- Tom Greer
- Kim Becker

City of Glendale

- Steve Adams, Management Services
- Jano Baghdanian, Traffic Engineering
- Fred Zohrehvand, Traffic Engineering
- Felicia Victor, Traffic Engineering
- Bob Kadlec, Glendale Redevelopment Agency
- Ruth Martinez, Glendale Redevelopment Agency
- David Bobardt, Planning
- Christopher Baxter, Planning

City of Los Angeles

- Garland Cheng, City Planning

Los Angeles Department of Transportation

- James Okazaki
- Pauline Chan
- Helene Jacobs

City of Los Angeles Council District #1

- Mike Hernandez
- Ed Reyes
- John Morillo
- Ralph Oronoz

City of Los Angeles Council District #2

- Joel Wachs
- Heather Dalmont

City of Los Angeles Council District #4

- John Ferraro
- Tom La Bonge

City of Los Angeles Council District #14

- Richard Alatorre
- Gerard Orozco

III.iv DOCUMENT PREPARERS

The following organizations and individuals participated in the preparation of the Burbank-Glendale-Los Angeles Rail Transit Project Environmental Impact Report:

LOS ANGELES COUNTY TRANSPORTATION COMMISSION, Lead Agency

- Neil Peterson, Executive Director
- Patricia McLaughlin, San Fernando Valley Area Team Director
- Judith Schwartze, San Fernando Valley Manager of Government & Public Affairs
- Peter De Haan, Project Manager
- David Mieger, Project Manager

Gruen Associates- Planning, Traffic Engineering, and Project Management

- Ki Suh Park, FAIA, AICP, Principal-in-Charge
- John M. Stutsman, AICP, Project Manager
- Rhonnel Sotelo, Urban Planner
- Don Holloway, Senior Transportation Engineer, P.E.
- Eve Meng, Graphic Designer

Benito A. Sinclair & Associates- Civil and Structural Engineering

- Jim Dade, P.E.
- Peter P. Zimmerman, P.E.

Anil Verma Associates- Station Site Design

- Anil Verma, Principal
- Leland Curran, Project Designer

Terry A. Hayes Associates- Environmental Planning

- Terry A. Hayes, AICP, Principal
- Cynthia van Empel, Environmental Planner
- Andrew Pimm, Assistant Planner
- Fedolia B. Harris, Assistant Planner

Greenwood and Associates- Cultural and Historical Resources

- Roberta S. Greenwood
- John Foster
- Portia Lee

Jones, Day, Reavis, & Pogue- Environmental Law Review

- J. Scott Schoeffel