CONTRACT NO. LCA-024-95

METRO

HARBOR FREEWAY
TRANSITWAY
EXTENSION

Milestone 2 –
Major Investment Study

December 11, 1996

Submitted by

DMJM

Prepared by Korve Engineering, Inc./DMJM

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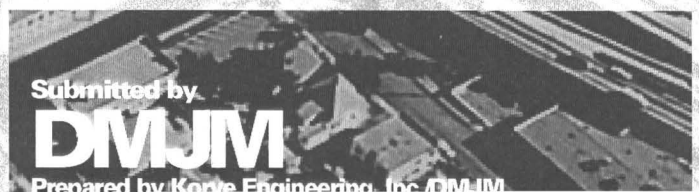

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1.0 Introduction

1.0 Introduction

This Major Investment Study (MIS) addresses a proposed project to extend the Harbor Freeway Transitway on Route I-110 in Los Angeles. The Harbor Freeway Transitway has been constructed and is operational along I-110 (the Harbor Freeway) in Los Angeles County, from San Pedro to 39th Street just south of downtown Los Angeles. The transitway is currently under construction between 39th Street and Adams Boulevard and will be fully operational in the spring of 1997. The terminus at Adams Boulevard is about one mile south of downtown, just south of the Santa Monica Freeway. The transitway is operating with one lane in each direction for buses and carpools in the freeway median between Route 91 and I-105 and two lanes in each direction between I-105 and 39th Street. The transitway is mostly at freeway grade with some sections of aerial structure.

The Harbor Freeway Transitway Extension Project would extend the transitway north along the Harbor Freeway (I-110) to the I-110/101 interchange (commonly referred to as the four level interchange), then east along the Hollywood Freeway (US-101) to Union Station and connect to the El Monte Transitway (formally termed the El Monte Busway) on the San Bernardino Freeway (I-10). There would also be a spur from the Harbor Freeway Transitway at Eighth Street that would run north and south along Bixel Street through the Central City West area to connect with planned HOV lanes on Glendale Boulevard at Beverly Boulevard/1st Street.

This Major Investment Study (MIS) report summarizes the steps taken in a preliminary evaluation of transportation improvements and strategies that are possible alternative actions for providing enhanced transit and High Occupancy Vehicle (HOV) access via the Harbor Freeway to Downtown Los Angeles, and also providing through transit and HOV connections. The MIS is the result of a collaborative process that was developed to establish a range of alternatives, review previous efforts and analyses and evaluate the relative effectiveness and reasonableness of alternative strategies. The process also includes an ongoing public involvement component.

An MIS needs to consider all reasonable alternatives that could be implemented in order to solve identified transportation problems and issues. The range of alternatives needs to include both highway and transit solutions and be multi modal in nature. In some cases, alternatives may not have any reasonable likelihood of being an effective solution and should therefore receive no detailed analysis or further consideration. Agreements among the interested parties reached during the consensus building process help to define the level of detail that will be necessary for the MIS.

This MIS will be used to narrow down the number of alternative strategies investigated in more detail and lead to the selection of a design concept and the scope of a preferred alternative. The MIS will develop sufficient documentation to support the reduction of alternatives early on in the planning stage, thus reducing the amount of analysis required during subsequent environmental analyses.

Basic physical configuration and operational characteristics of the alternatives will be identified. Engineering, economic, social and environmental criteria are analyzed to identify potential impacts and fatal flaws or serious impediments to implementing the various alternatives. These analyses will allow for reasonable comparisons to support the selection of alternatives. More detailed analyses in particular areas such as air quality, traffic operations and environmental impacts would be the subject of later study.

The MIS process allows affected agencies and public bodies the opportunity to participate in the collaborative process. Firstly, the project was processed through the Project Development Team (PDT) which is made up of technical staff of all affected agencies such as Caltrans, the Metropolitan Transportation Authority (MTA), The Los Angeles Department of Transportation (LADOT), the Federal Highway Administration, the Federal Transit Administration, and others. Secondly, the Policy Direction Committee (PDC) was used as a forum to discuss and review the MIS process and to assist MTA and Caltrans to select the alternatives for further study and to reach additional consensus with the affected parties. Finally, the Southern California Association of Governments (SCAG) MIS Committee served as a forum for reviewing the MIS and determining that the MIS process was completed.

In addition, a public participation process was established that allowed local community groups, individuals, elected officials and their staffs access to the information and study elements as they were being developed and provided a forum for their input and collaboration during the course of the study effort.

1.1 Project Background

Harbor Transitway

Development of the Harbor Freeway Transitway was originally part of the Regional Transportation Development Plan (RTDP) developed in 1976. The RTDP recommended a combination of freeways and transit using the freeways and new exclusive bus/carpool lanes, a Transportation System Management (TSM) program, and a regional rail system (now identified as Metro Rail). In December 1976, the U.S. Department of Transportation allocated $7.8 million to the California Department of Transportation (Caltrans) to study freeway transit and highway related aspects of Transportation System Management.

In late 1978, Caltrans and the Southern California Rapid Transit District selected two high priority corridors, the Harbor Freeway and the Santa Ana Freeway, for the next phase of project development of a transitway for transit and high occupancy vehicles.

In September 1980, Caltrans informally circulated a Draft Initial Study / Environmental Assessment for the Harbor Freeway in conformance with Federal and State planning guidelines. In early 1985, Caltrans issued the Final Environmental Impact Statement for the Harbor Freeway Transitway, clearing the way for construction to begin in 1991. At its northern end, the Transitway will end at Adams Boulevard south of Downtown Los Angeles, and connect to surface streets (primarily to Figueroa and Flower Streets). There is currently no provision made, however, for the distribution of buses and HOVs into and through Downtown

and for the connection of the Harbor Freeway Transitway, to allow HOV/bus lanes serving the Downtown, particularly the El Monte Transitway and various rail and bus transit facilities converging at Union Station. LADOT has received monies from MTA, in the last call for projects, to look at surface street extensions of the Harbor Freeway Transitway into Downtown. Figure 1.1 presents the overall study area in question and identifies key facilities and landmarks in the area.

Past Planning Studies

Over the years many studies and reports have been produced that address transportation facilities and access improvements in the Downtown area. The major studies are listed in Table 1.1. A number of these studies have, during the last five or ten years, directly addressed the concept of improving HOV and bus access links to and around Downtown, as well as extending the Harbor Freeway Transitway northwards to better serve Downtown and Central City West and to connect to the El Monte Busway. Principal among these are the following:

Central City West Specific Plan

Central City West (CCW) is an area of planned high density residential and office development immediately to the west of the Downtown section of the Harbor Freeway. A Specific Plan, EIR and Ordinance were completed in 1992. Generally, this plan focused on reducing auto trips and encouraging ridesharing and transit usage. While the plan identified significant freeway and surface street improvements in and around Central City West, it also called for major transit and HOV/rideshare facilities and an aggressive transportation demand management program.

The centerpiece of the transportation plan is to provide for significant improvements in rideshare and transit usage by extending the Harbor Transitway north from Adams Boulevard up the Harbor Freeway and along Bixel Street and then to connect to HOV lanes on Glendale Boulevard north of 1st Street. This facility would provide significantly improved access for buses and HOVS's not only to Central City West, but also to the CBD of Downtown Los Angeles. The plan also calls for providing a new Metro Red Line rail subway station between Bixel Street and Witmer Avenue, to serve Central City West.

Blueprint Report

Towards the end of the Central City West planning effort, a subsequent collaborative effort between Caltrans, the Los Angeles Department of Transportation (LADOT), and other affected jurisdictions, produced the "Blueprint Report". This effort broadened the transportation discussion from the Central City West area to the Downtown as a whole and addressed both access to the CBD, and regional trips passing the Downtown area.

The Blueprint Report identified opportunities and proposed key strategies for maintaining and improving accessibility to the Downtown. It also recognized and identified the need for significant additional improvements, particularly in the Harbor Freeway corridor, to provide for the significant volume of through traffic that passes Downtown and that neither starts nor ends in Downtown.

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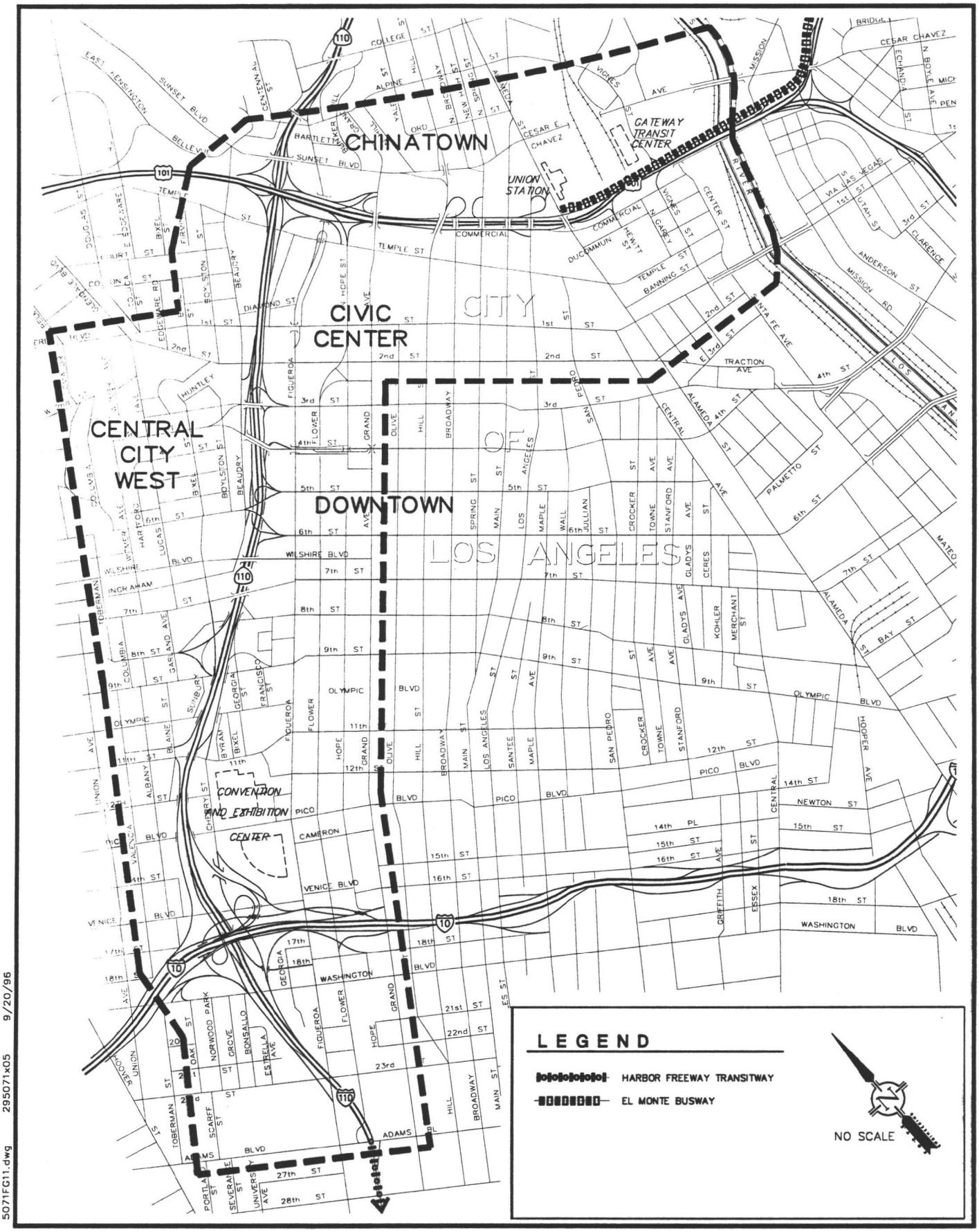

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 1.1

VICINITY MAP

Table 1.1: Relevant Past Studies and Plans

Doc. No.	Report Name	Report Type	Organization	Date
1	LA - 110 PM 0.9 / 23.0	Final EIR	Caltrans & FHWA	Mar-85
2	LA - 110 Transitway Northern Terminus to Adams Blvd.	Environ. Assessment	Caltrans & FHWA	Feb-92
3	LA - 110 Transitway, PM 20.2/20.9 (incl. Adams Bl)	Roadway Plans	Caltrans	Aug-93
4	LA - 110 Traffic Management Plan	Quarterly Reports	Caltrans	Jul-94-Mar-96
5	Gateway Plaza Connection to El Monte Busway	Project Report	Caltrans	Mar-95
6	Glendale Freeway / Blvd. Corridor Study - Phase 1	Final Report	LACMTA	Jan-92
7	Glendale Blvd. Corridor - Phase II Study	Prelim. Plng. Study	LACMTA	Jun-94
8	Caltrans HOV Long Term Plan	Final Plan	Caltrans	Nov-95
9	Caltrans District 7 Urban Freeway Congestion Relief Program	10-yr. Master Plan	Caltrans	Nov-90
10	SCAG Regional Mobility Element	Final Plan	SCAG	Jun-94
11	LACMTA Long Range Plan	20-yr. Long Range Plan	LACMTA	Mar-95
12	Los Angeles Rapid Transit Project: Union Station to Wilshire/Alvarado	Environ. Assessment	US DOT & SCRTD	Aug-84
13	Rail Rapid Transit Project - Metro Rail	Final Suppl. EIS	US DOT & SCRTD	Jul-89
14	LA Metro Red Line East Side Extension (MIS Reg.)	Memo on Compliance	LACMTA	Aug-94
15	Exposition Park Branch Line Rail Transit	Final EIR	LACMTA	Oct-92
16	Blue Line Connection Prelim. Planning Study	Draft Report	LACMTA	Jun-93
17	Electric Trolley Bus	Draft EIR	SCRTD	Nov-92
18	Electric Trolley Bus	Final EIR	SCRTD	Feb-93
19	Bunker Hill Transit Tunnel Study	Report	City of LA DOT	Jun-90
20	Bunker Hill Transit Tunnel Study	Tech. Rep & Prelim. Recom.	City of LA DOT	Jun-93
21	Los Angeles Downtown Strategic Plan Fact Book	Report	City of Los Angeles	Jan-91
22	Travel Demand Model - LA Downtown CBD	Report	City of LA & Caltrans	Jan-92
23	Los Angeles Downtown Strategic Plan	Report	LACRA	Jan-91
24	LA Downtown Strategic Plan, Transportation Plan	Final Report	LACRA	May-95
25	Engr. Feasibility of Key Transp. Elements -- Central City West	Final Report	Central City West	May-90
26	Central City West Specific Plan	Ordinance No. 167944	City of Los Angeles	May-92
27	Central City West Specific Plan	Specific Plan	City of Los Angeles	May-92
28	Central City West Specific Plan	Final EIR	City of Los Angeles	May-92
29	Union St., LAUPT Long Range Cap. & Access Study	Final Report	SCAG	Jan-95
30	Alameda District Plan	Final EIR	City of Los Angeles	May-95

Los Angeles Downtown Strategic Plan and Blueprint Report II

The Downtown Strategic Plan took up a more comprehensive review of CBD transportation issues, again addressing both Downtown access and through traffic. The Plan focused on moving people rather than vehicles, thereby maximizing effective use of system capacity by reducing the number of single occupancy vehicles (SOV's). Through the Blueprint II Report it recommended improved facilities for HOV's/buses both for CBD access and for through traffic. It developed the concept of not only extending the Harbor Freeway Transitway northward, but also eastward to connect to the El Monte Busway thereby completing the "missing link" around Downtown in the regional HOV lane system planned to focus on Downtown. This study reviewed various different corridors to provide this linkage, and recommended the Harbor Freeway/Hollywood Freeway corridor as the most direct and the one that would most conveniently serve the most Downtown destinations.

Intermodal Surface Transportation Efficiency Act (ISTEA)

This legislation was passed by Congress in 1991 to provide for a comprehensive planning framework in developing multimodal, systematic transportation services throughout the nation. This act also provides significant funds for pilot and demonstration projects that meet the criteria of the legislation. The Harbor Transitway extension was identified in the legislation as a specific demonstration project "to improve methods of congestion relief". A total of $10.1 million was allocated in ISTEA for environmental study, engineering study/feasibility and preliminary design.

1.2 Definition of the Problem and Need

There are a number of current problems and issues associated with transportation access and mobility in the central area of Los Angeles, particularly with respect to HOV and bus transit. These are identified primarily as the following:

Significant Traffic Congestion on Downtown Freeways

The Downtown area of Los Angeles is located at the confluence of several major freeways. These include the I-110 from the south, the I-10 and the US-101 from the northwest, the I-5 and SR-2 Freeways from the northwest, the SR-110 Freeway from the north and the I-10 and SR-60 Freeways from the east. For most all of this central freeway system, particularly the US-101 and SR-110 freeway corridors, congestion levels are unacceptable according to Caltrans standards for numerous hours in both the morning and evening peak periods. This congestion affects both access to the CBD and trips passing Downtown on the way to other destinations.

Current Transitway Facilities Stop Short of Downtown

Current HOV/bus facilities, and those nearing completion, stop short of Downtown. For example, the El Monte Busway does not extend into the Downtown area but terminates near Union Station at Alameda Street. The recently opened Harbor Transitway currently terminates

at 39th Street, but is being constructed to terminate at Adams Boulevard, to the south of the Downtown area.

El Monte Transitway

The El Monte Transitway is an existing two-lane, one in each direction, High Occupancy Vehicle facility in the median of the San Bernardino Freeway (I-10) from the El Monte Busway Station to its current terminus at Union Station at the edge of Downtown Los Angeles. It is one of the oldest and most successful transitways in the country. At one time it stopped at Mission Road, but was extended several years ago to Alameda Street. The facility serves buses and high occupancy vehicles from the San Gabriel and Pomona Valleys and the Inland Empire. While passengers might transfer to different transit modes at Gateway Plaza at Union Station, the buses from the El Monte Transitway must travel through Downtown to distribute passengers to their destinations within the Central Business District.

The El Monte Transitway typically carries 100 buses, 40,980 bus passengers daily (1995/96 data). It also carries 485 and 545 HOV's during the AM and PM peak hours, respectively. The HOV numbers are somewhat lower than corresponding numbers earlier in the decade (1989-1992) when AM/PM peak hour volumes totaled 1,150 in each peak hour.

Harbor Transitway

The Harbor Transitway is a four-lane High Occupancy Vehicle facility currently constructed in the center of the existing Harbor Freeway (I-110) to 39th Street. Transitway construction is continuing northerly to Adams Boulevard, with completion scheduled for spring of 1997. The facility will carry vehicles from the South Bay to the planned terminus at Adams Boulevard just south of Downtown Los Angeles. In addition, a fully separated HOV interchange with the HOV lanes on the Glenn Anderson Freeway (I-105) will bring additional HOV traffic to the Harbor Transitway from Los Angeles International Airport and the communities along the Glenn Anderson Freeway. This facility is forecast to carry approximately 154 buses, 74,800 bus passengers daily, and 1,975 and 2,285 HOV's during the AM and PM peak hours, respectively. (Forecasts from the EIS for the Harbor Freeway Transitway - traffic flows in both directions).

Both of these facilities enhance travel time for buses and HOV's in heavily congested corridors to the Downtown, by providing special priority lanes enabling buses and HOV's to by-pass congested mixed flow lanes on adjacent freeways. However, their effectiveness is limited by stopping short of Downtown, because buses/HOV's then have to use either surface streets or congested freeways for some distance to access Downtown destinations or go past Downtown.

With additional future development will come additional travel demand. Most every planning study in recent years in the Downtown area has emphasized the importance of ridesharing and transit as key means of accommodating additional travel demand, rather than focusing on automobile-oriented policies.

Summary of Key Problems

- The Freeway system serving Downtown is severely congested.
- There is no priority access into the CBD for HOV/Bus, despite regional access facilities on the El Monte Transitway and the Harbor Transitway, because both facilities stop short.
- There is no connection past the Downtown area for HOV's and buses traveling past the CBD to other regional destinations.
- There are missing links in the regional HOV system in the key Downtown area, and no integration of planned and existing HOV/bus facilities.
- Future development growth forecasts will increase travel demand to Downtown. The most effective way of dealing with such growth is through rideshare and transit facilities.

1.3 Project Purpose and Goals

The purpose of the Harbor Freeway Transitway Extension is to address many of the problems and needs identified above, by providing a multi-modal transportation facility dedicated to HOV's and buses, and thereby encouraging use of those modes over single occupant autos. Many studies, reports, and plans in recent years have defined the following goals and objectives for a Harbor Transitway Extension Project.

- Improve HOV/bus access to Downtown.
- Improve HOV/bus access to Central City West.
- Improve HOV/bus access to/from adjacent residential communities.
- Improve regional mobility for HOV/bus through trips
- Encourage Use of Transit and HOV vehicles.
- Improve efficient use and integration of existing HOV/transit facilities.
- Improve access to regional transit hub at Union Station.
- Support Downtown and regional economic and land use goals.

- Improve air quality.
- Improve local and regional mobility.

1.4 Evaluation Criteria

The project alternatives evaluated as part of this MIS and the subsequent PSR need to address the problems identified earlier and be evaluated in terms of their effectiveness in dealing with the goals and issues defined above.

The project alternatives for the Harbor Freeway Extension Project must be compared according to several criteria. These criteria should include the effects upon the performance and operations of the existing transportation network, engineering feasibility, benefits and costs, and environmental issues. Criteria will be analyzed to identify potential impacts and serious or fatal flaws, and to permit reasonable comparisons to support the selection of alternatives. More detailed analysis and evaluation will be conducted in subsequent studies and environmental documentation.

The evaluation criteria that will be used in this MIS are the following:

Engineering Feasibility and Costs

- Fatal Flaws
- Obstacles to Constructibility
- Right of Way Needs
- Conformance to Design Standards
- Capital Costs
- Right-of-Way Costs
- Operating Costs

Transportation and Traffic Operations

- Facility/System Connectivity
- Patronage/Usage
- Freeway Level of Service
- Traffic impacts
- Level of rideshare/transit use
- Compatibility with other plans

Environmental Issues

- Noise and Vibration
- Air Quality
- Visual
- Land Use
- Right-of-Way Acquisition

- Socioeconomics
- Sensitive Uses and Resources
- Historic Resources
- Archaeological Resources
- Hazardous Waste
- Energy

1.5 Public Outreach Program

The extension of the Harbor Freeway Transitway would fill an important gap in the regional HOV system. The potential expansion would also improve the linkage between the mainly low-income residential community within and around Downtown Los Angeles to regional transit facilities, thereby improving and often creating economic opportunities. In finding solutions, plans for the Transitway extension must recognize and respond to the special needs and concerns of all of the Downtown communities. During the MIS process, the public information program focused on engaging the interest and participation of these communities by providing information about the transportation needs in the Downtown area, the process of the Study to find solutions and foremost, by soliciting feedback on the MIS report.

As discussed earlier in this chapter, there are numerous transportation and land-use plans for the Downtown area. Each have been through rigorous public input processes. The Harbor Freeway Transitway Extension Study builds on the extensive work already done and approved.

The objectives in the public outreach program for the MIS were twofold:

1. to provide a thorough introduction of the Study to Downtown communities including modal alternatives being studied;

2. to provide a strong foundation for continuing public participation throughout the subsequent Project Study Report (PSR) process.

To do this, coordination was conducted through the elective offices and community organization leaders whose jurisdictions would have direct concern or interest with the Study. Many of these people also were members of the Policy Direction Committee (PDC) for the Study.

The PDC members also assisted in identifying community groups for the outreach efforts. From this process, an initial database of more than 1,250 people was developed.

These public outreach and consensus building activities began with a series of briefings for staff of the area's elected officials by the Project Manager and representatives of Caltrans, the MTA, and the City of Los Angeles. These briefings covered the Study's goals, schedule and the public outreach program. Project staff stressed the importance of public outreach and requested the assistance of area elected officials in identifying community concerns and community organizations and leaders whose participation should be sought.

On July 24, 1996, a community Open House was held at the Holiday Inn City Center located Downtown, adjacent to the Harbor Freeway. Twenty-seven people attended this first MIS public information meeting. Because there was limited awareness of the Study, this meeting was held early in the process to first engage the interest of community leaders who were focused on land use and transportation issues Downtown. The goal was to incorporate comments received at the July Open House in the MIS report so that feedback could be included in the report presented at the second public information meeting (held in October). The Open House format of the meeting allowed attendees to freely visit stations which provided visual information on specific components of the Study – the process, timeline, need, solutions, planning context, environmental considerations, etc. Members of the Study team were assigned to specific stations to answer any questions. Attendees were provided with comment sheets to fill in as they visited each station. Attendees also received brochures (available in English, Spanish and Chinese) which provided information on the Study. Attendees were asked to fill out reply cards to ensure they were kept up to date as to the progress of the Study. Verbal and written comments indicated that the first meeting essentially was successful in serving as an introduction for the attendees – mainly representing business, government agencies and elected officials.

Notification for the July meeting was done by mailing invitation letters to the database of 1,250 community members. In addition, advisories were issued to local publications. The announcements appeared in several publications including the Downtown News, Eastside Sun, LA Weekly and the CCA Hotline Newsletter.

Following the July Open House, phase two of the MIS public outreach process was initiated. This phase consisted of 1) distributing the MIS report and requesting feedback from agencies, community groups and elective offices and 2) holding a second public information meeting to preview the MIS report and provide opportunity for general public comments.

In addition to sending information to the entire community database including groups/individuals in the Central Business District, Chinatown, Little Tokyo, South Park, etc., a concerted effort was made to reach out to communities west of the Harbor Freeway for the second phase. To reach the grass-roots levels, elective offices serving the areas west of the Harbor Freeway were contacted as well as churches and other local organizations to reach the core of the community. Presentations were offered to these groups and invitations were extended to their members to attend the public meeting on October 9. Presentations to these groups focused on effects of the proposed extension on their community (local versus regional perspective).

To distribute the MIS and obtain feedback, community groups were notified of the availability of the MIS report when project team members met with them. Additionally, the draft report was mailed to specific community groups with particular interest in the Study. Follow up calls were made to those groups/individuals who were mailed the report to request their comments.

The public was notified of the availability of the draft report through a mailing to the community database. The same mailing served as an invitation to the public information meeting. Additionally, advisories were issued to the media (outlined above) which also informed the public of the availability of the MIS report and of the second public information meeting.

The second public information meeting was held on October 9 at the Youth Fair Chance building located west of the Harbor Freeway. Sixteen people attended the meeting – mostly representing Downtown businesses and government agencies. The objective for the meeting was to review the results of the MIS as documented in the draft report. Study team members gave a 30-minute overhead presentation then held a question and answer session at the conclusion of the meeting. In addition to the presentation, four stations were set up for the public to visit and to obtain further information before and after the presentation. Study team members staffed the stations – Project Background, Public Participation, MIS Transportation Issues, MIS Environmental Issues.

Attendees of the meeting were encouraged to request copies of the MIS report and were given copies of the display material and the project brochure. Each attendee was given a comment form and his/her feedback was requested on any of the information provided at the community meeting. Copies of the report were mailed to those who requested information. Also, their names were added to our community database. In case there was a need, a Spanish-language interpreter was made available at the meeting and summaries of the draft MIS report in Spanish were provided.

The public was allowed to provide comments to the draft report for approximately two weeks following the meeting.

A chart of comments both to the draft MIS report and to the overall study are included in the appendix to this report. To summarize, concerns included:

- Urban design issues -- particularly important to residents and businesses located west of the Harbor Freeway.
- The TSM alternative-- for many business located along the Figueroa corridor.
- How the transitway will link with local streets.
- Where the funds will come from to build the transitway.
- The consistency of the alternative with existing land use and transportation plans locally and regionally.
- The actual benefits of the transitway to the many low-income, transit-dependent residents and their communities.
- Ensuring there is an adequate amount of public outreach and participation throughout the PSR phase.

2.0 Description of Alternatives

2.0 Description of Alternatives

This section describes potential transportation improvement strategies for the corridor. These alternatives are primarily derived from the significant number of previous planning efforts, and are presented here in terms of physical and operational characteristics.

As the following discussion will reveal, certain previously identified alternatives are not practical or feasible in the corridor. Although they will not be carried forward into the evaluation process, they are identified here for purposes of completeness. The alternatives and subalternatives include the following:

1. No Build Alternative

2. TSM Alternative
   a. Freeway Corridor
   b. Through Downtown
   c. SMART Corridor

3. HOV/Transit Lane Alternative
   a. Frontage Roads
   b. Elevated Structures
   c. Freeway Widening

4. Mixed Flow Lane Alternative
   a. Freeway Widening
   b. Elevated Structures

5. Rail Alternative
   a. Light Rail-convert and Extend
   b. Light Rail-Blue Line Coliseum and Downtown Connector
   c. Heavy Rail (Red Line)

2.1 No - Build

The No-Build option represents the "do nothing" condition and would not employ any additional strategies beyond any currently planned or programmed improvements. Transportation improvements for transit and high occupancy vehicles thus would be comprised of the current Harbor Transitway facility which will terminate at Adams Blvd., and a planned project by LADOT to improve bus/HOV access from the end of the Harbor Transitway into Downtown. This would involve the use of Figueroa and Flower Street and the use of a PM peak hour bus/HOV lane at the curb. This would extend at least as far as Pico Boulevard and possibly further. However, the No Build assumes curb bus/HOV lanes on Figueroa and Flower from Adams to Pico. Figure 2.1 illustrates this alternative.

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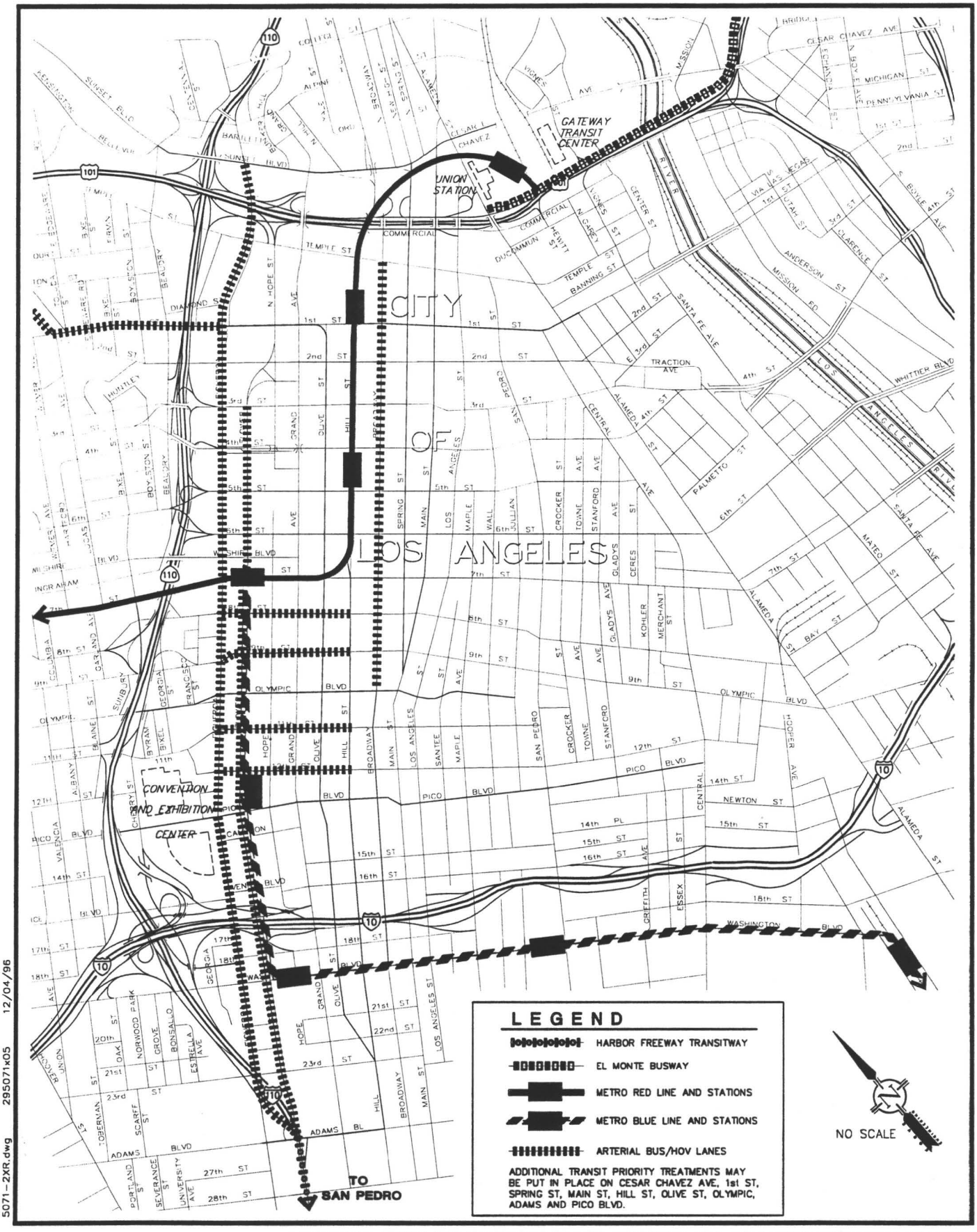

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 2.1

NO BUILD ALTERNATIVE

2.2 Transportation System Management (TSM)

TSM measures focus on lower cost, operational improvements. FHWA/FTA require the inclusion of a low cost alternative in the MIS. This offers a way to provide improved access and connectivity for buses and HOV's without building significant infrastructure. This would primarily be accomplished by providing priority usage in curb lanes for HOV's and buses during peak periods, in a similar fashion to those described in the No-Build alternative, but with more extensive coverage to access more of the Downtown and connect to both transitways. Because the Downtown area is fully built up, street widenings would not occur to accommodate these lanes. Instead, curb lanes would be converted to bus/HOV only for peak periods. In certain locations, two lanes may be necessary where street widths can accommodate such a configuration. Other measures that might accompany the designation of HOV/bus lanes in Downtown streets include signal improvements, preemption by buses, and coordination through the use of LADOT's ATSAC system to improve bus speeds and minimize bus delays. There are a number of potential ways to provide this.

a) HOV / Bus Lanes -- Downtown Surface Streets (Vicinity of Freeway Corridor)

Overall Concept

This alternative would extend the HOV/Bus lanes planned for Figueroa and Flower north of Pico through the Financial District, Bunker Hill, and the Civic Center to Union Station, and return as shown in Figure 2.2., along with a spur along Bixel Street to Glendale Boulevard. By keeping the lanes in the vicinity of the Harbor and Hollywood Freeways, the HOV and bus traffic would not be directed through the more central parts of the Downtown area, which would avoid impacting streets in the central Downtown area.

An HOV / Bus lane connection would be made from the Harbor Transitway to Union Station and the El Monte Transitway by this alternative.

Physical/Operational Description

Buses and high occupancy vehicles would travel in reserved curb lanes along Figueroa Street to the Civic Center and then travel east to Union Station and the El Monte Transitway and return on Flower Street. Similar lanes would be provided along 7th Street between Flower and Bixel and along Bixel Street to Glendale Boulevard. Buses would make frequent stops along the way for passenger loading and unloading. If sufficient capacity were available, high occupancy vehicles would leave and join the lanes along the route. Because the lanes would be at-grade, buses and HOV's would have to pass through intersections along with all other traffic. It is probable that these lanes would operate only in peak periods. During the off-peak, curb parking/loading would be permitted.

Conclusion

This alternative should be studied further, although it does not eliminate the conflicts between HOV's and buses and general traffic traveling past the Downtown area and may

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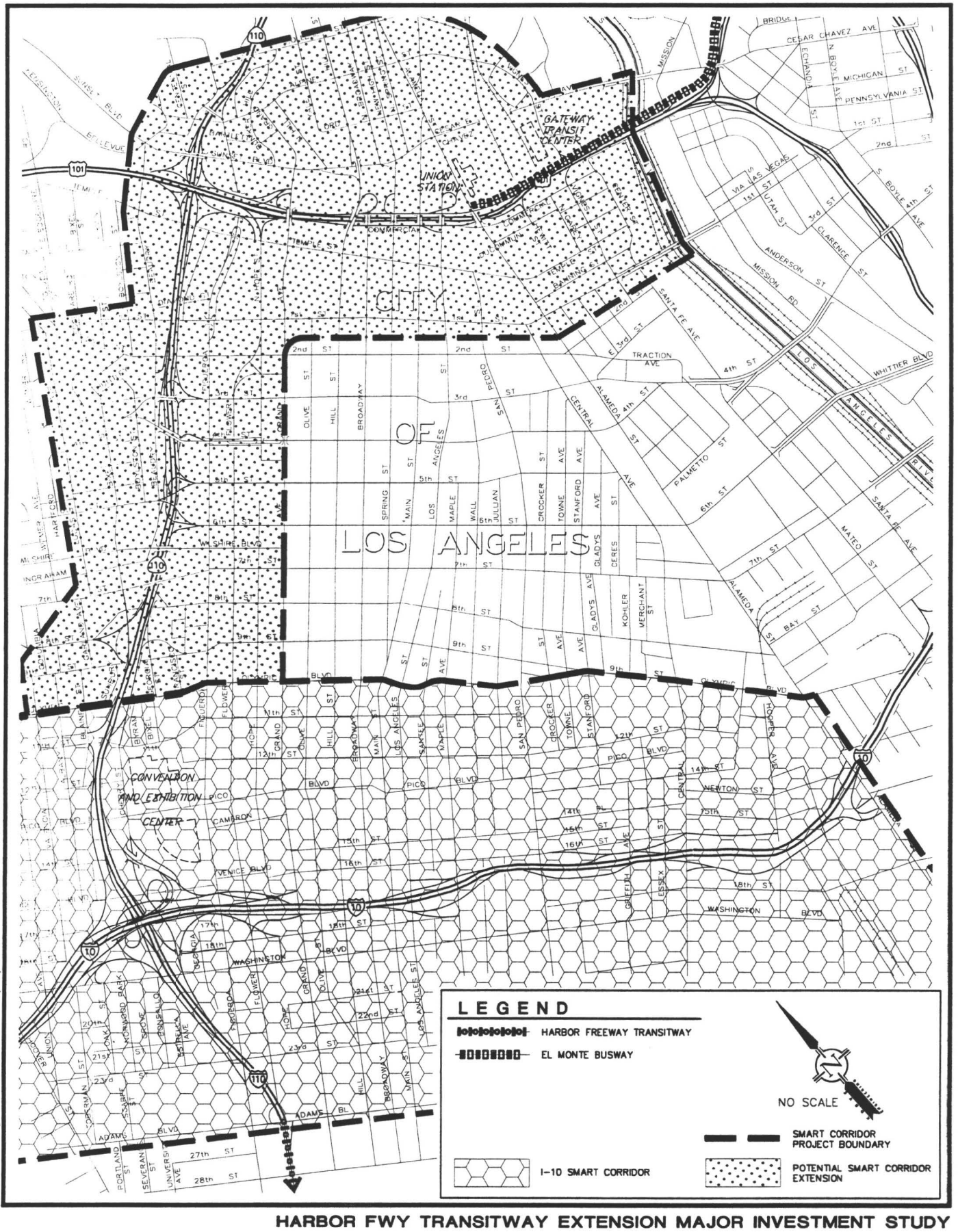

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 2.4

EXPANSION OF SMART CORRIDOR

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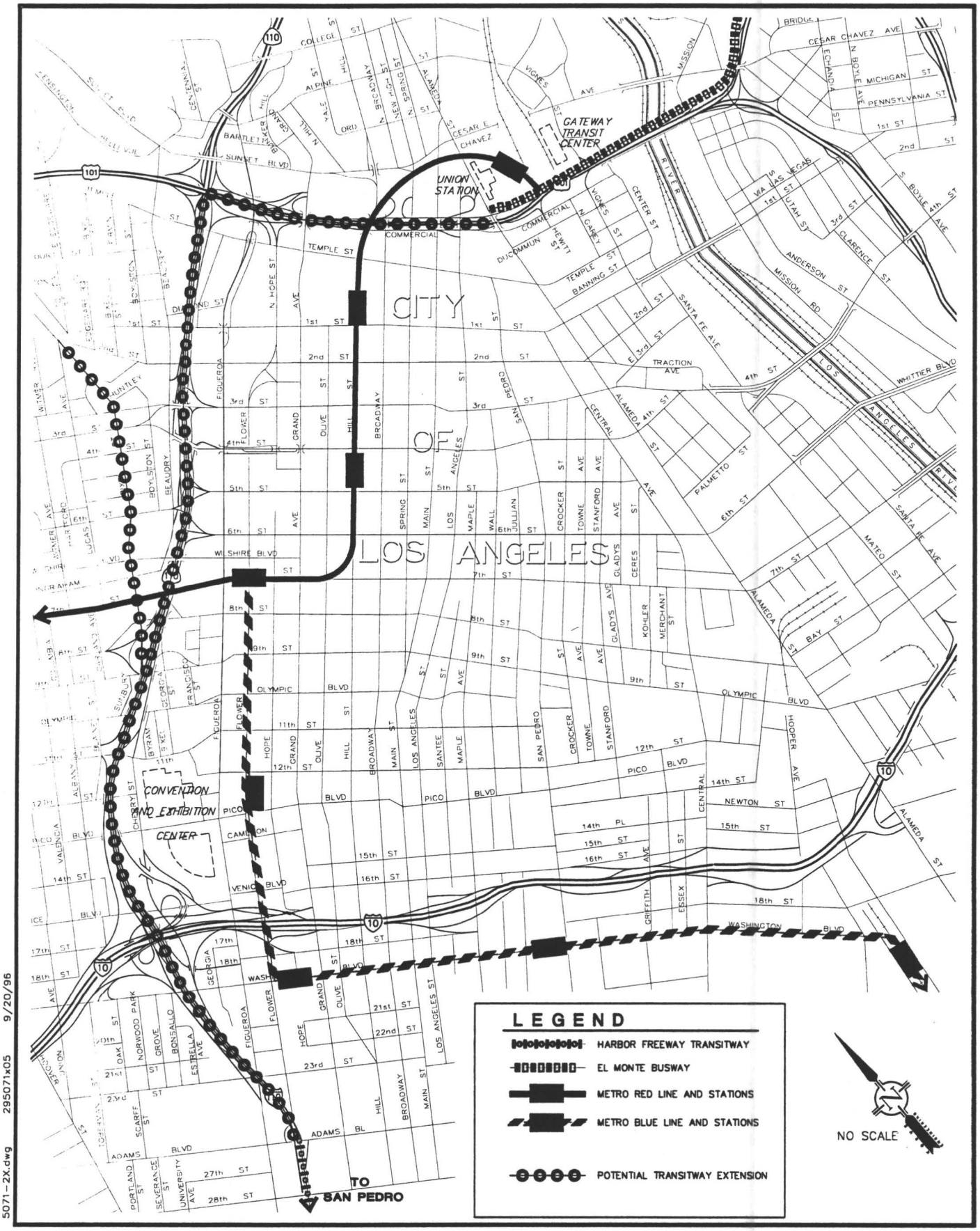

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 2.5

BUS/HOV LANE ALTERNATIVE (EXTEND IN FREEWAY RIGHT-OF-WAY)

There are three principal ways of providing this type of connection, as described below and shown in Figure 2.6. In all cases, a surface bus/HOV lane would be provided along Bixel Street, with a direct connection to the freeway HOV lane in the vicinity of 8th Street.

a) Use of Freeway Auxiliary Lanes/Frontage Roads

The existing transitway could be extended northerly through the use of existing frontage roads and auxiliary/connector roads along the west and east side of the Harbor Freeway. This might include conversion of certain lanes to HOV / bus lanes or some additional widening of these facilities in order to accommodate additional lanes and/or to close the gaps between the connectors.

The HOV/transit lane would continue along the frontage roads on both sides of the Hollywood Freeway. One scenario that has been suggested would replace the two separate frontage roads along US 101 by decking over the freeway to provide a single combined road way and placing the HOV/transit lane in the center of that road way.

The purpose of this alternative would be to reduce the structure cost by using portions of the existing facilities to the extent possible.

b) Elevated Structures

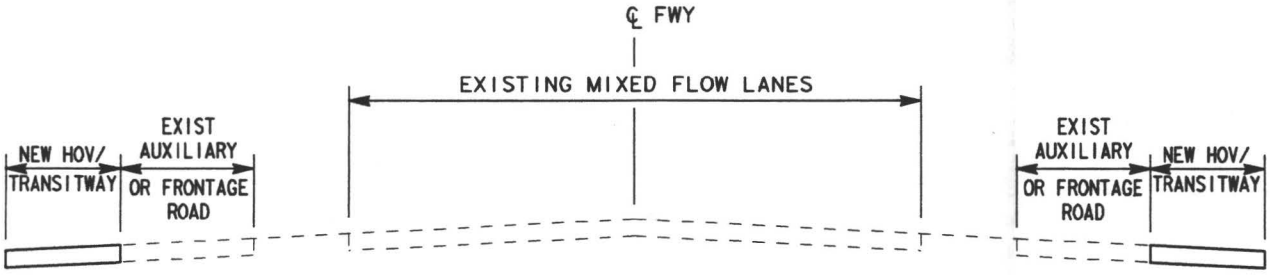
The elevated structures would join the existing transitway near 28th Street and extend northerly to the four level interchange. The HOV/transit lane would then extend easterly to connect to the El Monte transitway near Union Station. The transitway structure may be located in the median or on each side of the freeways as a single divided lane structure or as a one-way structure (split) on each side of the freeways. Figure 2.6 illustrates the cross section for each scenario.

The HOV/Transit lane structures would span over most of the existing overcrossings along the Harbor Freeway and Hollywood Freeway. In the area of the Santa Monica Freeway (I-10) interchange, it may be possible to go under the separation structure.

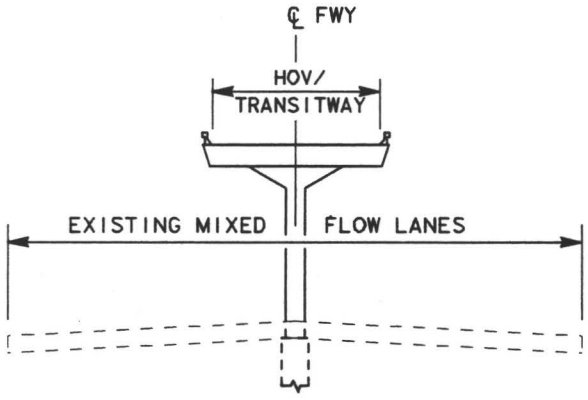
Depending on the location of the transitway structure, the alternative could also require significant freeway widening and other modifications to accommodate the construction of the viaduct structures.

c) Freeway Widening

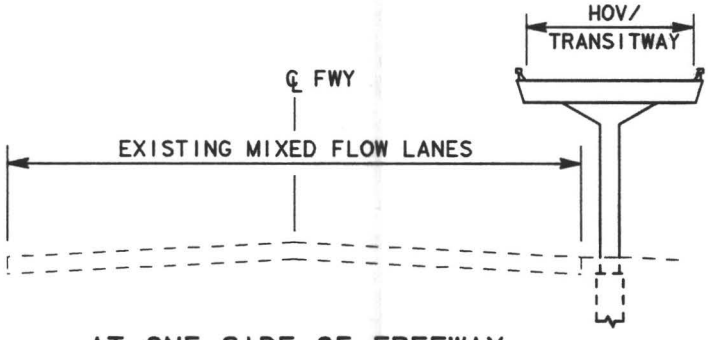
This alternative would require the addition of one or two HOV/transit lanes in the median in of the Harbor and Hollywood freeways. In this scenario, the existing transitway near 28th Street would be extended to drop down to meet existing grade. At that point, the freeway would be widened to accommodate the additional HOV/transit lanes. This alternative would require widening of several undercrossing structures. In addition, numerous overcrossing structures would have to be lengthened to accommodate the additional lanes. This would also significantly impact other components of the freeway facility such as retaining walls, ramps, and connectors.



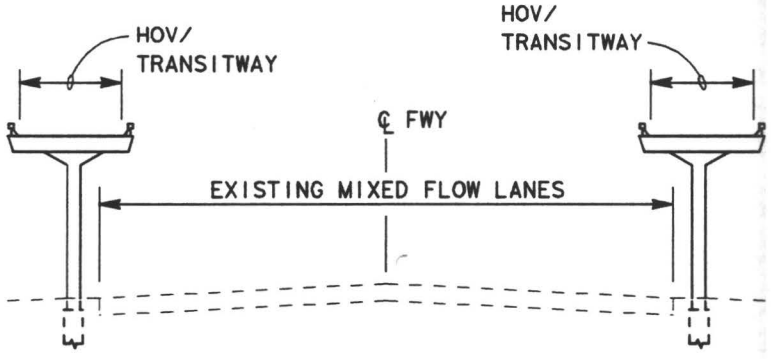
TYPICAL SECTION A
USE OF FREEWAY AUXILIARY LANES/FRONTAGE ROADS



AT MEDIAN

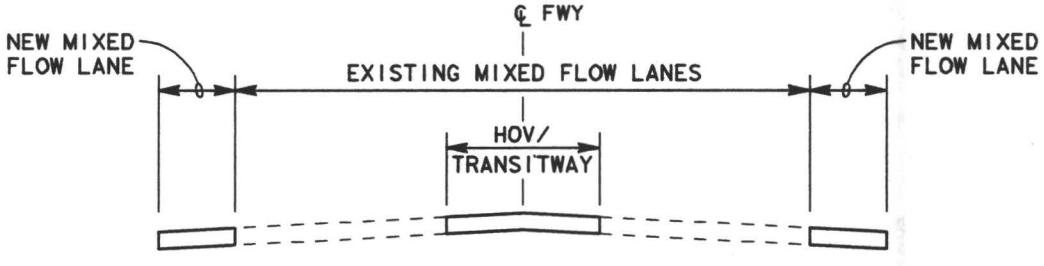


AT ONE SIDE OF FREEWAY



SPLIT STRUCTURES ON EACH SIDE OF FREEWAY

TYPICAL SECTIONS B
ELEVATED STRUCTURES



TYPICAL SECTION C
FREEWAY WIDENING

HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY
TRANSITWAY EXTENSION
TYPICAL CROSS SECTIONS
Figure No. 2.6

Depending on the number of HOV lanes added, the alternative could require an extensive amount of right-of-way along both the Harbor Freeway and the Hollywood Freeway. The extent of the freeway widening would increase in the areas where on-line transit stations would be located.

Conclusion

This alternative meets the goal of HOV/bus connections which has been a component of regional planning for the last ten years. The freeway widening alternative in its entirety is not considered to be feasible throughout its entire length because of the need for substantial additional right-of-way which is unavailable, and the complexity of reconstructing the entire ramp and collector-distributor road system.

At this time, it is recommended that the other two alternative means to provide this alternative, use of auxiliary lanes and frontage roads, and use of elevated structures, be carried forward for further analysis.

In reality, elevated structures may not be necessary or appropriate throughout the entire length of the corridor. There may be sections where other design options such as covered tunnel and at-grade in the freeway median may be more appropriate. This might be particularly the case where additional right-of-way would not be required or no complex ramp systems would need reconstruction. Such alternatives to elevated structures in certain segments might also comprise design solutions that help mitigate or avoid visual and right-of-way impacts that may otherwise occur.

2.4 Mixed Flow Lane Alternative

Overall Concept

This alternative would add one or two mixed flow lanes in each direction of the Harbor Freeway (I-110) and Hollywood Freeway (US 101) to provide additional freeway capacity on those congested sections of freeway through the Downtown area. This concept was suggested as part of the original Blueprint Report to address the significant pressures from regional through traffic on the Harbor Freeway corridor through Downtown. This alternative would add additional capacity for all vehicles, regardless of passenger load, on the congested Downtown freeway sections.

Physical/Operational Description

It is likely that this would operate as a separate (express) facility for through traffic not destined to Downtown, so ramp connections to Downtown streets would not be necessary. The following describes the key physical and operational components of the alternative, as shown in Figures 2.7 and 2.8.

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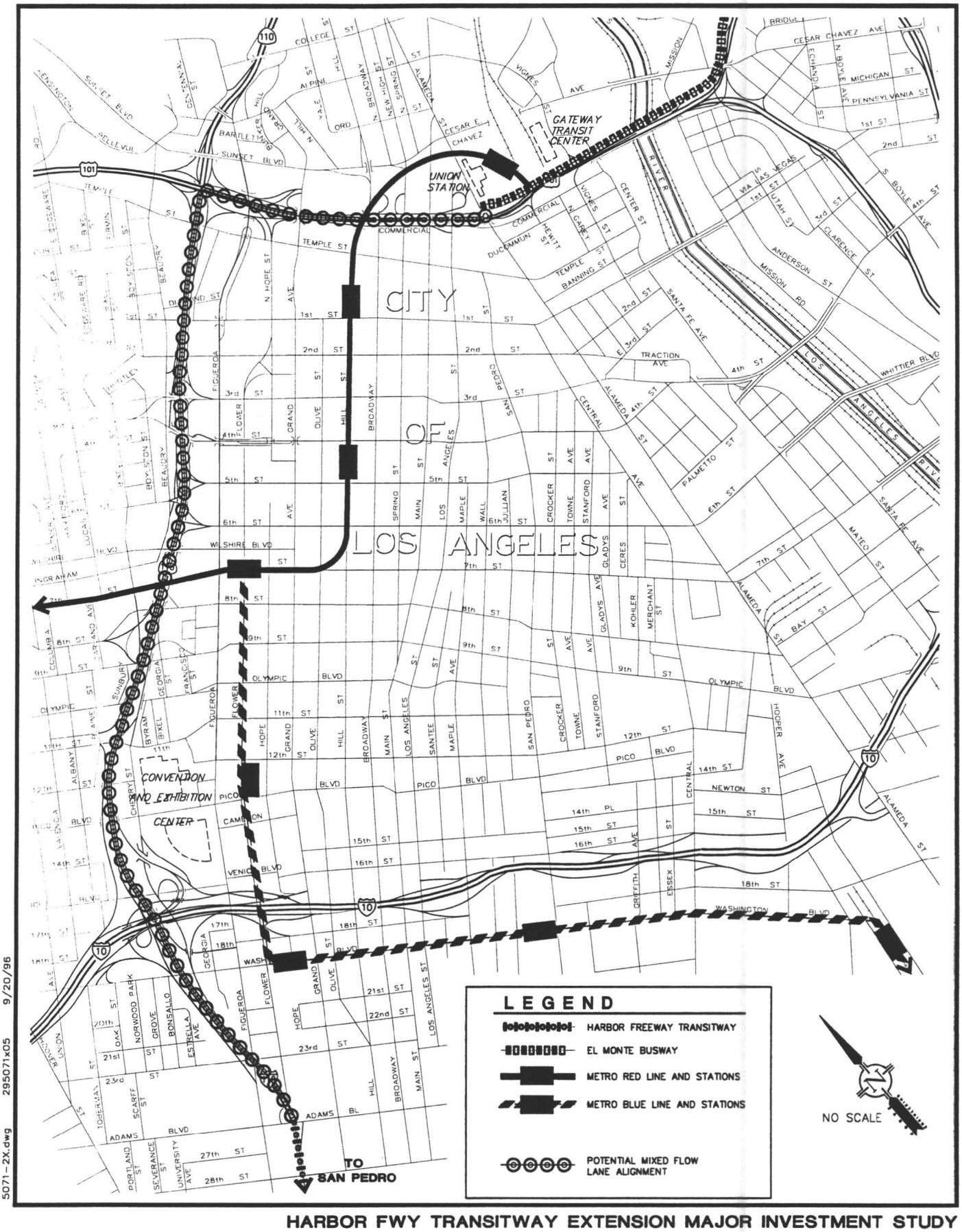

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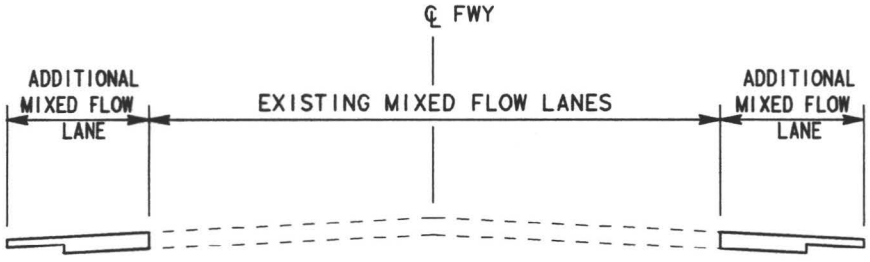
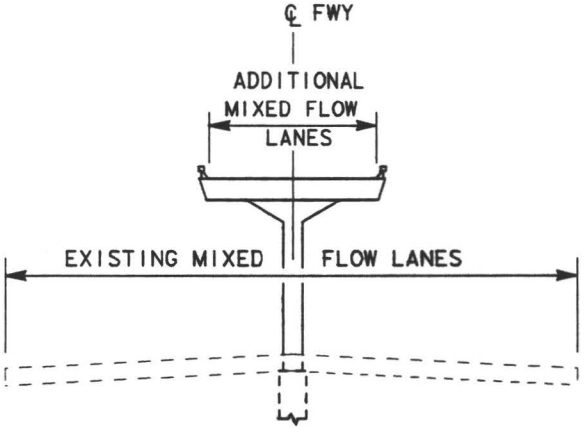
HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 2.7

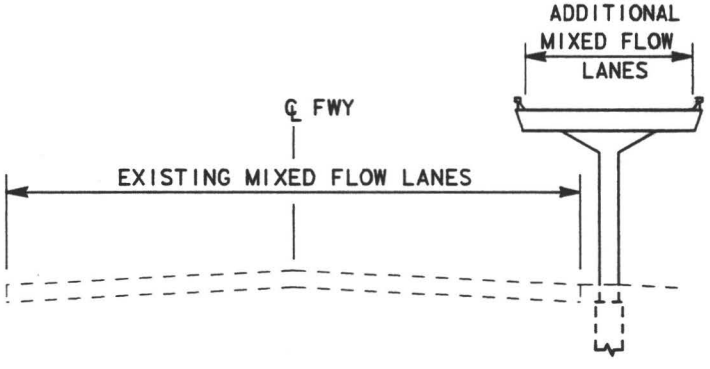
MIXED FLOW LANES ALTERNATIVE (IN FREEWAY RIGHT-OF-WAY)



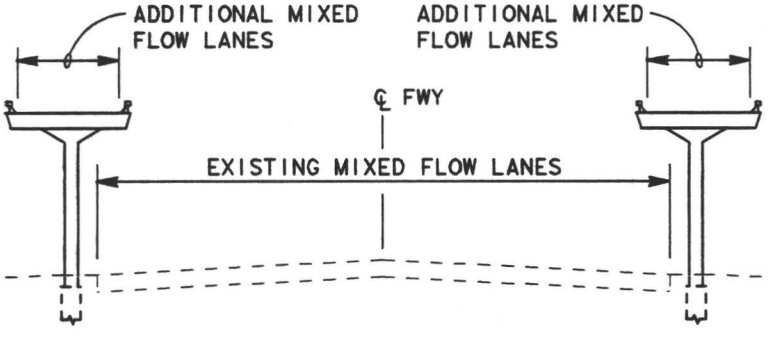
TYPICAL SECTION A
WIDENING OF I-110 AND ROUTE 101 FREEWAYS



AT MEDIAN



AT ONE SIDE OF FREEWAY



SPLIT STRUCTURES ON EACH SIDE OF FREEWAY

TYPICAL SECTIONS B
ELEVATED STRUCTURES

HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY
MIXED FLOW LANES
TYPICAL CROSS SECTIONS
Figure No. 2.

a) Widening of I-110 and Route 101 Freeways

The Harbor Freeway (I-110) could be widened at grade between Adams Boulevard and the four level interchange and the Hollywood Freeway (US 101) between the four level interchange and as far to the east as the Los Angeles River.

Virtually all the overcrossing and the undercrossing structures along the Harbor and Hollywood Freeways would need lengthening or widening, respectively, to accommodate the additional lanes. Also, the retaining walls that parallel these two freeways would need to be reconstructed for considerable lengths within the above described limits. In addition, significant modifications to other freeway facilities such as ramps would be required. This alternative would require significant additional right-of-way along both the Harbor and Hollywood Freeways.

b) Elevated Structures

The elevated structures could join the existing transitway near 26th Street and extend northerly to the four level interchange and then easterly along the Hollywood Freeway to approximately the Los Angeles River where it would drop down to meet existing grade. The elevated structure could be located in the median, on either side of the freeways or split structures on each side of the freeways. Depending on the location of the elevated structures, particularly if placed in the median, where more space would be needed, substantial amounts of retaining walls paralleling these freeways would be required as well as other associated freeway modifications.

Conclusion

This alternative would provide additional freeway capacity in the corridor, however, because it would allow mixed flow traffic, it would not provide exclusive capacity for HOV's and buses. It would also not provide direct access to Central City West as there would be no Bixel spur. As for the HOV/transit lane alternative, the freeway widening option throughout its entire length is not considered feasible. It is recommended that the elevated structures option be carried forward for further evaluation. Further review will be necessary to determine whether there is sufficient capacity on the approach corridors to feed this capacity improvement, as well as consideration of its compatibility with regional plans and policies.

2.5 Rail Alternative

Overall Concept

A range of rail transit improvement options have been suggested by various planning studies in recent years, all focused on expanding the regional rail system and improving its connectivity to the Downtown Area. These improvements would add service to both the Blue and Red Lines. This section describes the physical and operational issues associated with both light rail and heavy rail options.

Physical/Operational Description

a) Light Rail Transit -- Convert and Extend Harbor Transitway in Freeway Right of Way

This alternative would provide a Light Rail Transit (LRT) connection. It would be based on the conversion of the existing Harbor Transitway to LRT, and then the extension north along the Harbor Freeway to the 4-Level interchange, and eastwards to Union Station in a similar fashion to that described for the HOV/transit lane alternative. This LRT alternative (shown in Figure 2.9) then connects to the Pasadena Blue Line at Union Station.

This alternative is possible because of provisions made in the design of the original Harbor Transitway, which allow for the possible conversion of one bus lane in each direction to light rail transit. This conversion could take place if demand along the corridor grew to warrant the higher capacity of light rail transit technology. According to the Final Environmental Impact Statement, the HOV component of the Transitway would be maintained and intensified by a combination of access metering and increasing ridership requirements (3 person rather than 2 person car pools) before light rail conversion would be considered.

The LRT Harbor Transitway conversion to LRT and Extension option would provide an LRT connection through Downtown and would close the gap between the end of the Harbor Transitway and the beginning of the El Monte Busway at Union Station.

b) Light Rail Transit -- Blue Line Coliseum Extension and Downtown Connector

This alternative would provide an LRT connection between the end of the Harbor Transitway and Union Station (and the El Monte Busway). It would be provided by a combination of two projects already studied by MTA - the Coliseum Extension Study and the Downtown Connector Study.

The Exposition Park branch extension of the Metro Blue Line would extend light rail from the 7th Street/MetroCenter station to the south along Flower to Exposition Boulevard and then west along Exposition Boulevard to a terminus at Vermont Avenue. This corridor is in the MTA Long Range Plan but is currently unfunded. As can be seen in Figure 2.10, the corridor intersects with the Harbor Transitway in the vicinity of Adams. Connectivity to the transitway would be provided by an intermodal station allowing transfers between buses on the Transitway and Blue Line LRT service on the Exposition Branch. Parking structures could also be provided in this vicinity, to enable HOV's to exit the Transitway, park and transfer to the Blue Line.

The Blue Line Connector would extend the Blue Line north either from the 7th Street /MetroCenter station to Union Station through Bunker Hill and the Civic Center, or north from the San Pedro station along San Pedro through Central City East and Little Tokyo to Union Station, as shown in Figure 2.10. The Blue Line Downtown Connector is similarly in MTA's Long Range Plan, but is unfunded. The Downtown Strategic Plan

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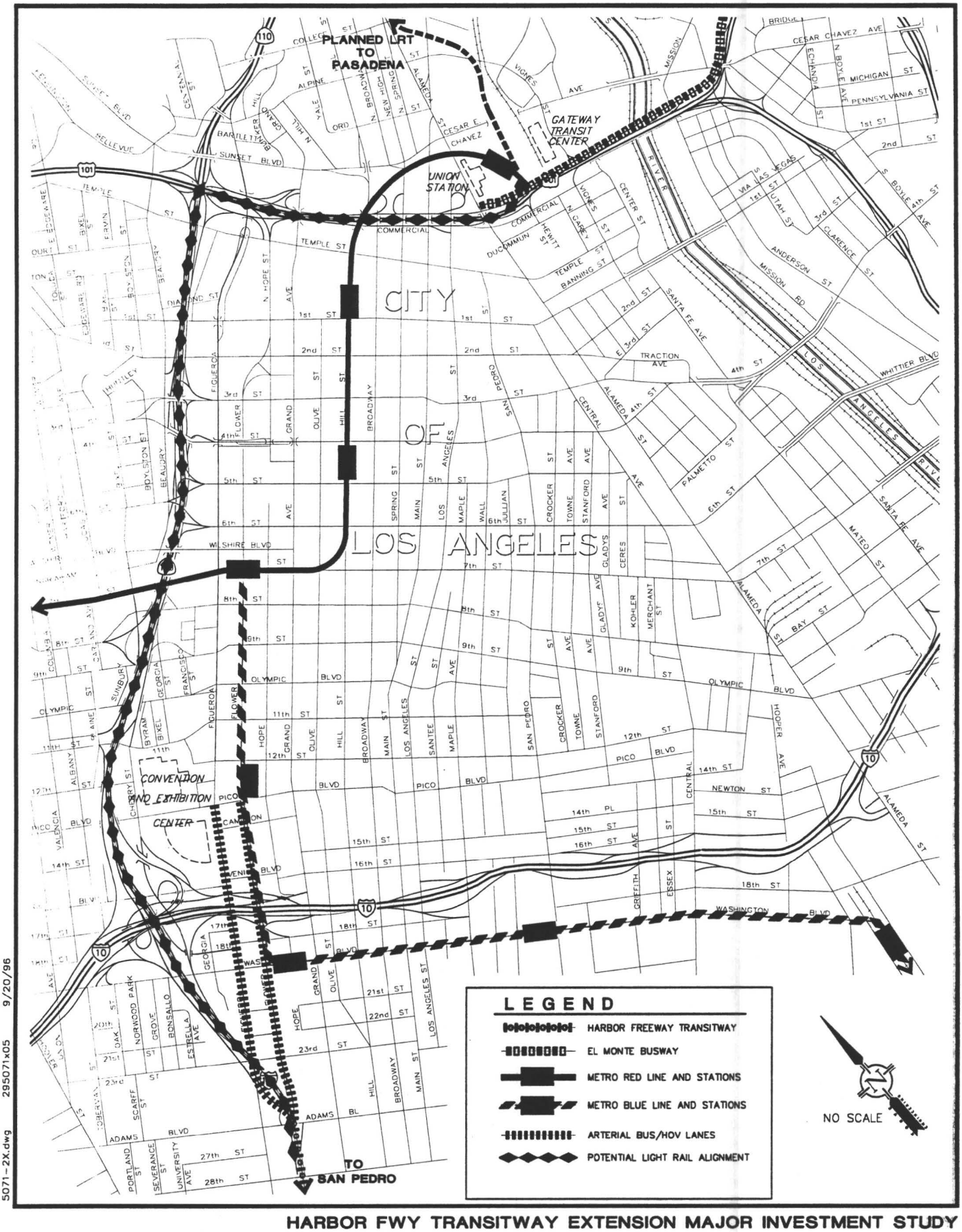

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

LIGHT RAIL TRANSIT
(CONVERT TRANSITWAY AND EXTEND IN FREEWAY RIGHT-OF-WAY)

Figure No. 2.9

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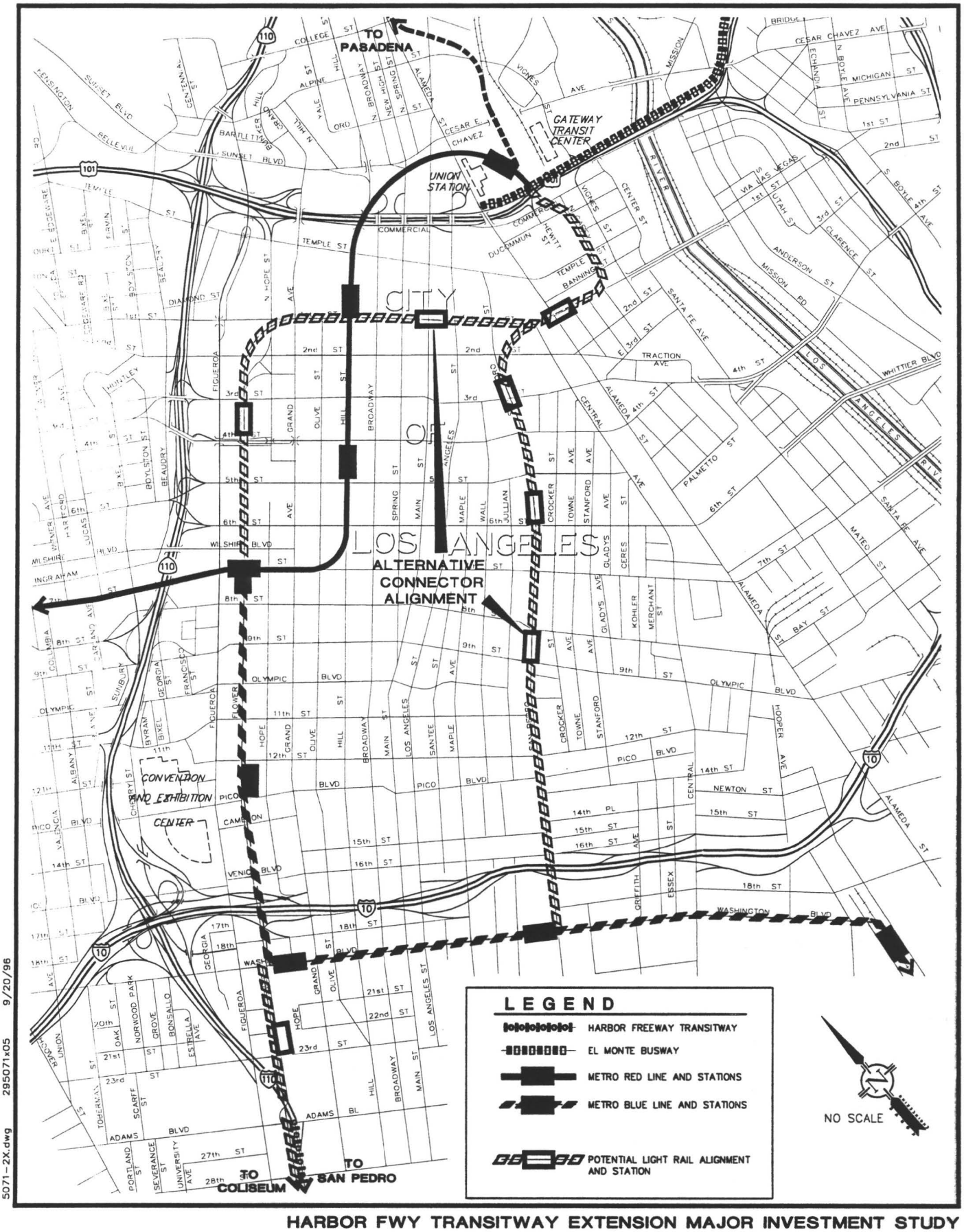

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

LIGHT RAIL TRANSIT ALTERNATIVE **Figure No. 2.10**

(COLISEUM EXTENSION AND DOWNTOWN CONNECTOR)

identified two route options through Downtown to connect the Long Beach and Pasadena Blue Lines.

The combination of the Coliseum Blue Line extension and Downtown Connector would provide an LRT connection between the end of the Harbor Transitway and Union Station (and the El Monte Busway), thereby providing a transit connection.

c) *Heavy Rail Transit (Red Line)*

This alternative could capitalize on the existing Red Line subway in Downtown. The Central City West plan recommended a new subway station at Witmer Street in Central City West. The Harbor Transitway could be extended north from Adams to Witmer/7th Street and terminate in Central City West, with transfers to the Red Line and distribution to surface streets in both Central City West and the CBD, as shown in Figure 2.11.

No new Red Line route/extension options are possible in this area. The Red Line is currently constructed west to Alvarado and is planned to extend west and east to Mid Cities, Hollywood, the San Fernando Valley and West Los Angeles (Westwood). It is not in a north-south orientation, and a spur could not be built to the south because it could not be accommodated operationally. In fact, previous regional rail planning decisions have focused on LRT and transitways to the south.

Conclusion

These different alternatives provide varying degrees of connectivity into Downtown and between the Harbor Transitway and the El Monte Busway for buses and HOV's. Because of the nature of the rail connection, they tend to focus on the transit connection rather than the HOV connection.

At this time it is recommended that the first option described, conversion of the existing Harbor Transitway to light rail, and extension northward in the freeway alignment to the El Monte Transitway as light rail, be dropped from further consideration. There are three reasons for this. Firstly, regional planning decisions have focused on buses/HOV's in the Harbor Freeway Corridor to avoid duplication of rail service with the Long Beach Blue Line south of Los Angeles. Because of this, other corridors in the region will receive priority status for rail projects over a Harbor Transitway conversion project. Secondly, there is significant capacity potential in the Harbor Transitway (through both adding bus service and raising the passenger requirement for car pools) for some time to come. Thirdly, conversion to light rail remains a viable option in the future and would not be precluded by many of the other alternatives being considered for the Transitway Extension.

It is also recommended that the Blue Line Coliseum Extension and Downtown Connector light rail option be retained for further evaluation as a viable option that has already progressed into current long range planning and against which Harbor Transitway Extension options need to be compared.

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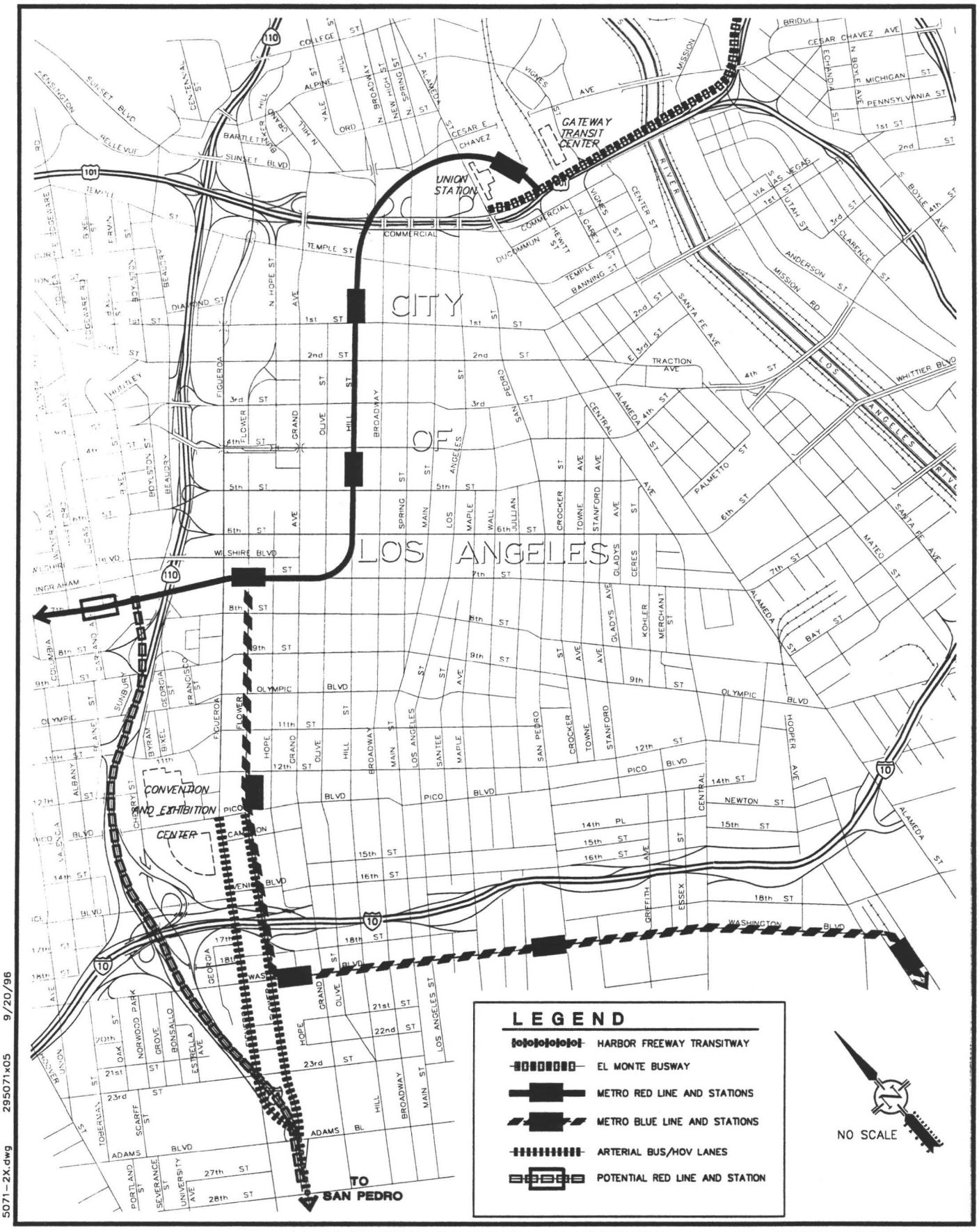

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 2.11

HEAVY RAIL TRANSIT (METRO RED LINE)

Finally, it is recommended that the Red Line option not be carried forward due to the lack of applicability or feasibility in extending the Red Line southward. The Red Line Station at Witmer is part of the Central City West Specific Plan, and the concept of extending the Harbor Transitway north to this station near Bixel could be implemented as a subset or an implementation phase of other alternatives that will be considered further in this study.

2.6 Alternatives for Evaluation

Based on the above documentation and description of alternatives, and the recommendations set forth, it is suggested that the following alternatives be carried forward to the evaluation stage of the MIS:

1. No-Build

2. TSM Alternative
   a) within freeway corridor
   b) through Central Downtown

3. HOV/Transit Lanes
   a) use of frontage roads
   b) elevated structure

4. Mixed Flow Lanes (Elevated)

5. Rail Transit - Blue Line Coliseum/Downtown Connector

An evaluation of these alternatives will be conducted in the next stage of the MIS, according to the criteria set out in the first section of this document.

3.0 Evaluation of Alternatives

3.0 Evaluation of Alternatives

This Chapter documents the evaluation of the five transportation alternatives identified for the Harbor Freeway Transitway Extension Corridor against the mobility goals set out in Chapter 1 (Section 1.3). Each alternative is evaluated in terms of 1) engineering and cost considerations, 2) transportation and traffic operations, and 3) environmental considerations. The engineering and cost evaluation measures include: conformance to construction needs and design standards; right of way needs; obstacles to constructibility and fatal flaws; capital, operating/maintenance and right of way costs. Measures for evaluating the effect of alternatives on transportation and traffic operations include: potential capacity added and demand for the facility, including potential to increase the use of HOVs and buses; potential improvements to level of service; ability to improve local and regional HOV/bus access to Downtown and past Downtown (system connectivity), and compatibility with current plans. Measures to evaluate environmental considerations include both construction and long term impacts in the following areas: noise and vibration; air quality; visual; land use; right-of-way acquisition; socioeconomics; sensitive uses and resources; historic resources; archaeological resources; hazardous waste; and energy.

The capital and right-of-way costs shown for the following alternatives represent "order of magnitude," estimates in 1996 dollars. Costs for the Bixel Street improvements are included in the alternative's cost as applicable. As these costs are refined during subsequent engineering studies, they may change accordingly.

Alternatives that do not meet identified mobility goals in the corridor and that are identified to be ineffective in meeting transportation needs, create significant adverse environmental effects, are infeasible from an engineering perspective or are not cost effective will be removed from further consideration.

3.1 No Build Alternative

3.1.1 Concept

The No Build alternative assumes no major changes to freeways or streets in the study area. It does include improvement measures programmed for Downtown streets by the Los Angeles Department of Transportation (LADOT), including arterial HOV lane(s) along Glendale Boulevard from First Street to the Glendale Freeway, as shown in Figure 3.1, to improve access to the Downtown for buses and HOVs. These improvements are expected to be constructed in the next few years, and will be included in all the "Build" alternatives evaluated. In the No Build alternative, all bus and HOV traffic using the Harbor Transitway would have to exit that facility at Adams Boulevard and continue northbound either by merging into the mixed flow traffic lanes on the Harbor Freeway or by exiting the freeway and using surface streets such as Figueroa to access the Downtown.

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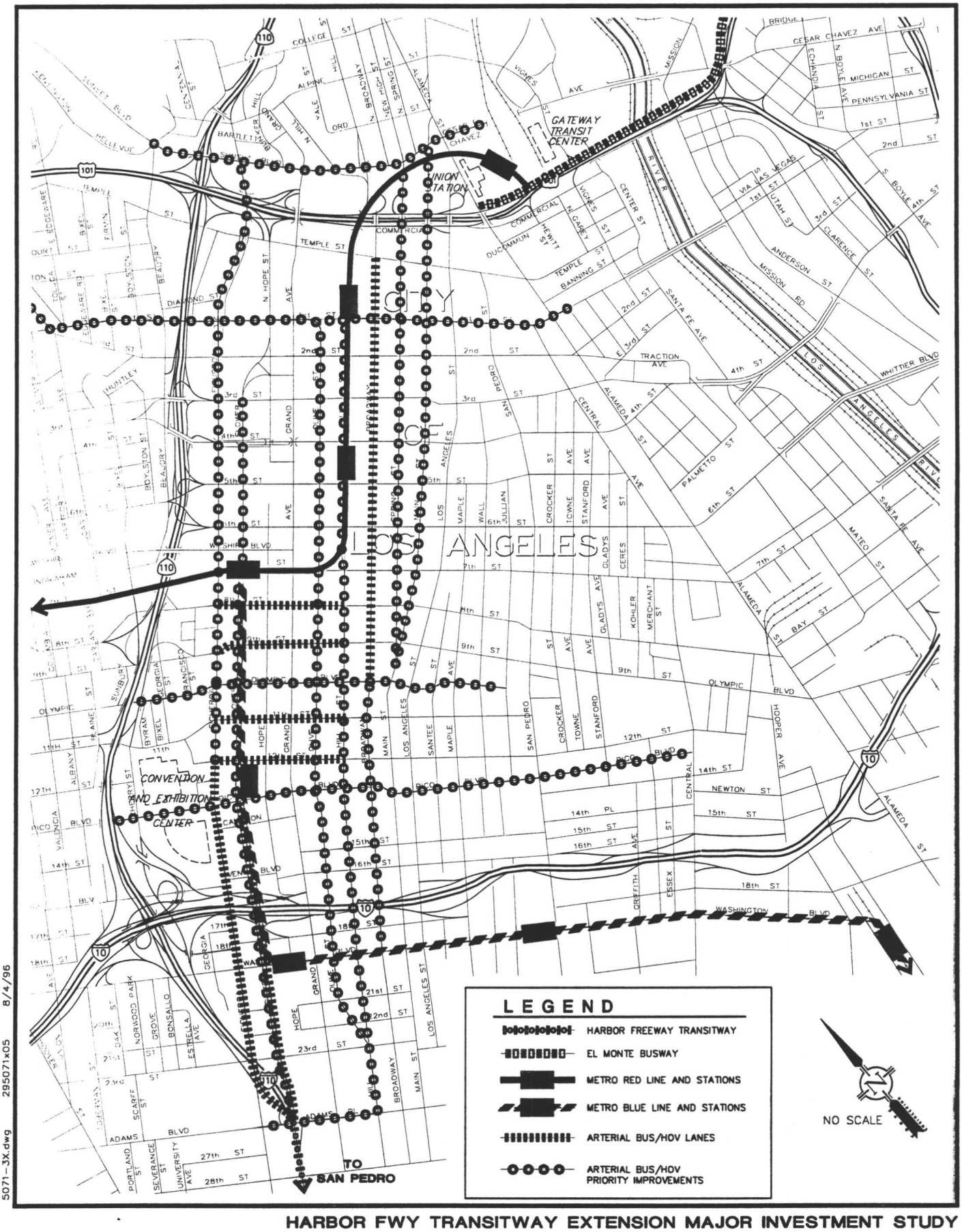

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 3.1

NO BUILD ALTERNATIVE

3.1.2 Engineering and Costs

The total capital costs of these street improvements programmed by LADOT is approximately $17.4 million. Operating costs will be negligible, comprising incremental street and sign maintenance, and will be borne by LADOT.

These improvements comprise a combination of bus/HOV lanes and measures to provide transit priority on various Downtown streets, including Figueroa, Flower, Hill, Olive, Broadway, Spring, Main as well as a number of east-west streets. The actual configuration of many of these improvements has still to be precisely defined by LADOT.

The improvements will largely be implemented within the existing right-of-way and in most cases within existing curbs. They will essentially comprise roadway, restriping and channelization, signal equipment enhancements and signal timing improvements, and additional signing.

3.1.3 Transportation and Traffic Operations

The provision of bus lanes and bus priority treatments in Downtown will provide some improvement in access and travel speed for buses and HOVs. These improvements would provide increases in people moving capacity rather than vehicle capacity, for local access to Downtown but would not add significant regional capacity. These improvements would start to provide an enhanced network for buses (and perhaps HOVs) in the Downtown area, and would therefore encourage bus and HOV use to increase. These improvements would not be expected to significantly change traffic levels of service on Downtown arterials, or in the freeway corridors around Downtown.

The improvements would enhance local Downtown access to some degree, but would not improve regional connectivity in the HOV network, as the critical gap in the Downtown area would still exist. The improvements in the No Build alternative are compatible with both local and regional plans. They provide initial steps for measures to improve bus and HOV access into and through the Downtown area that are called for in both the Downtown Strategic Plan and the Central City West Specific Plan.

3.1.4 Environmental Considerations

Noise and Vibration

Since the No-Build Alternative would not provide any additional transportation improvements beyond those currently planned or programmed, this option would not result in noise or vibration impacts on sensitive uses in the project area. No construction noise or vibration impacts would occur. It should be recognized, however, that without additional transportation improvements, existing streets and highways would experience increased traffic in future years due to projected growth and development in the region. This additional traffic could increase community noise and vibration levels. As congestion increases beyond a certain point, however, the noise and vibration effects of additional traffic may be somewhat offset by reductions in vehicle speeds.

Air Quality

Without additional transportation improvements beyond those currently planned or programmed, existing streets and highways would experience increasing levels of congestion in future years. Increased traffic congestion would have an adverse effect on local and regional air quality. The No-Build Alternative would not result in any construction-related air quality impacts.

Visual

The No-Build Alternative would have no adverse visual effects since it proposes no new transportation improvements beyond those currently planned or programmed. No new structures or facilities are proposed or would be constructed that could have adverse visual effects.

Land Use

Because the No-Build Alternative proposes no transportation improvements beyond those currently planned or programmed no land use incompatibility impacts would occur. Increased congestion on existing streets and highways under this alternative could, however, have adverse noise and air quality effects on adjacent land uses as discussed above.

The No-Build Alternative would only partially meet most of the relevant policy goals of the Central City Community Plan because it would not substantially improve transit, expand bus service, or improve roadways. The No-Build Alternative would also not provide transportation improvements to serve other communities in the project study area including portions of the Westlake Community Plan area, the Southeast Los Angeles Plan area, the Central City North Community Plan area, or the Central City West Specific Plan area. The No-Build Alternative would be partially supportive of the Southern California Association of Governments (SCAG) Regional Mobility Element (RME), which calls for numerous stringent traffic reduction strategies to be implemented. Additionally, because of the limited improvements proposed in the Downtown area, this alternative would be only partially supportive of the Downtown Strategic Plan (DSP).

Right-of-way Acquisition

The No-Build Alternative does not include the construction of new transportation facilities beyond those currently planned or programmed. Therefore, this alternative would not require the acquisition of right-of-way.

Socioeconomics

The No-Build Alternative would not be expected to result in any direct impacts to population, housing, or businesses because no new transportation improvements, which could require property acquisitions, are proposed.

Sensitive Uses and Resources

No significant impacts to sensitive land uses, such as St. Vincent's church and school on Figueroa Street and residential buildings on Flower and Figueroa Street, would occur under the No-Build Alternative. However, as discussed above, without additional transportation improvements, existing streets and highways could experience increased congestion due to traffic generated by future regional growth. This increased congestion could result in potential adverse noise and air quality effects on adjacent sensitive land uses.

Since no wetlands, habitat for threatened or endangered species, or other sensitive biological resources are located within the project study area, no impacts to these sensitive resources would occur under this alternative.

Historic Resources

The No-Build Alternative would not involve the construction of any new transportation improvements beyond those currently planned or programmed. Therefore, no right-of-way, noise, or visual impacts would occur that could adversely affect existing historic resources in the project area.

Archaeological Resources

No construction would occur under the No-Build Alternative; therefore, no archaeological resources would be disturbed or affected by this alternative.

Hazardous Waste

Because no construction would occur under the No-Build Alternative, this alternative would not result in the disturbance, release, or generation of hazardous substances.

Energy

Under the No-Build Alternative, the increased congestion on existing streets and highways due to additional traffic generated by regional growth could result in an increased rate of energy consumption. This alternative could also have detrimental long-term energy impacts because it would not substantially reduce regional use of single-occupant vehicles or encourage regional transit use. Since no new transportation improvements are proposed under this alternative, the consumption of energy during construction would not occur.

3.2 TSM Alternatives

3.2.1 TSM Alternative in the Freeway Corridor

3.2.1.1 Concept

This low cost alternative would go significantly beyond the bus/HOV improvements identified in the No Build alternative, by providing a continuous bus/HOV lane connection from the end of the Harbor Freeway Transitway at Adams Boulevard through Downtown adjacent to the Harbor and Hollywood freeways to connect to the El Monte Busway at Alameda Street. This alternative would focus on providing bus/HOV lanes along Figueroa and Flower streets, along Bixel Street in Central City West, and along Temple and First streets and the frontage roads (Arcadia and Aliso) adjacent to the Hollywood Freeway, as shown in Figure 3.2.

In order to be effective as a regional connection, provide local Downtown access, and accommodate both buses and HOVs, two HOV/bus lanes would be needed on each street to provide sufficient capacity. This would allow moving buses to pass buses stopped at bus stops, as well as to allow for the effective use of car pools and van pools in these lanes. Either buses and HOVs could use both lanes, or one lane could be reserved for buses only and one for HOVs only.

3.2.1.2 Engineering and Costs

Providing HOV/bus lanes, whether one or two lanes, would involve little new construction as the lanes would be constructed by generally reconfiguring between existing curbs. The new lane would be reconfigured through mostly restriping and spot location widenings involving some roadway, curb and gutter and sidewalk modifications. A 10-foot minimum sidewalk would be maintained throughout but with emphasis on providing greater than 10-foot sidewalks. In addition, signal modification to LADOT's ATSAC system and frequent signage and pavement markings would be placed along the HOV lanes.

Although some of the streets might require limited widening, the intent would be to accomplish the street reconfiguration without requiring additional right of way. Any trees or other landscaping impacted would be replaced consistent with maintaining a clear 10-foot minimum sidewalk width.

The provision of two bus/HOV lanes on individual streets would require both restriping and conversion of existing mixed flow lanes to bus/HOV lanes. In certain locations, restriping may allow the creation of an additional lane , although lane widths may have to be reduced to as low as nine feet in order to accomplish this. In most locations, conversion of at least one (and often two) mixed flow lanes to bus/HOV lanes would be necessary. (The impact on traffic operations is discussed in the following section).

While there are sections of Figueroa and Flower streets that have roadway widths that could accommodate two exclusive bus/HOV lanes along with mixed flow lanes, there are other sections of these and other streets with much more constrained rights-of-way and where providing two bus/HOV lanes would be very difficult while still maintaining other traffic lanes.

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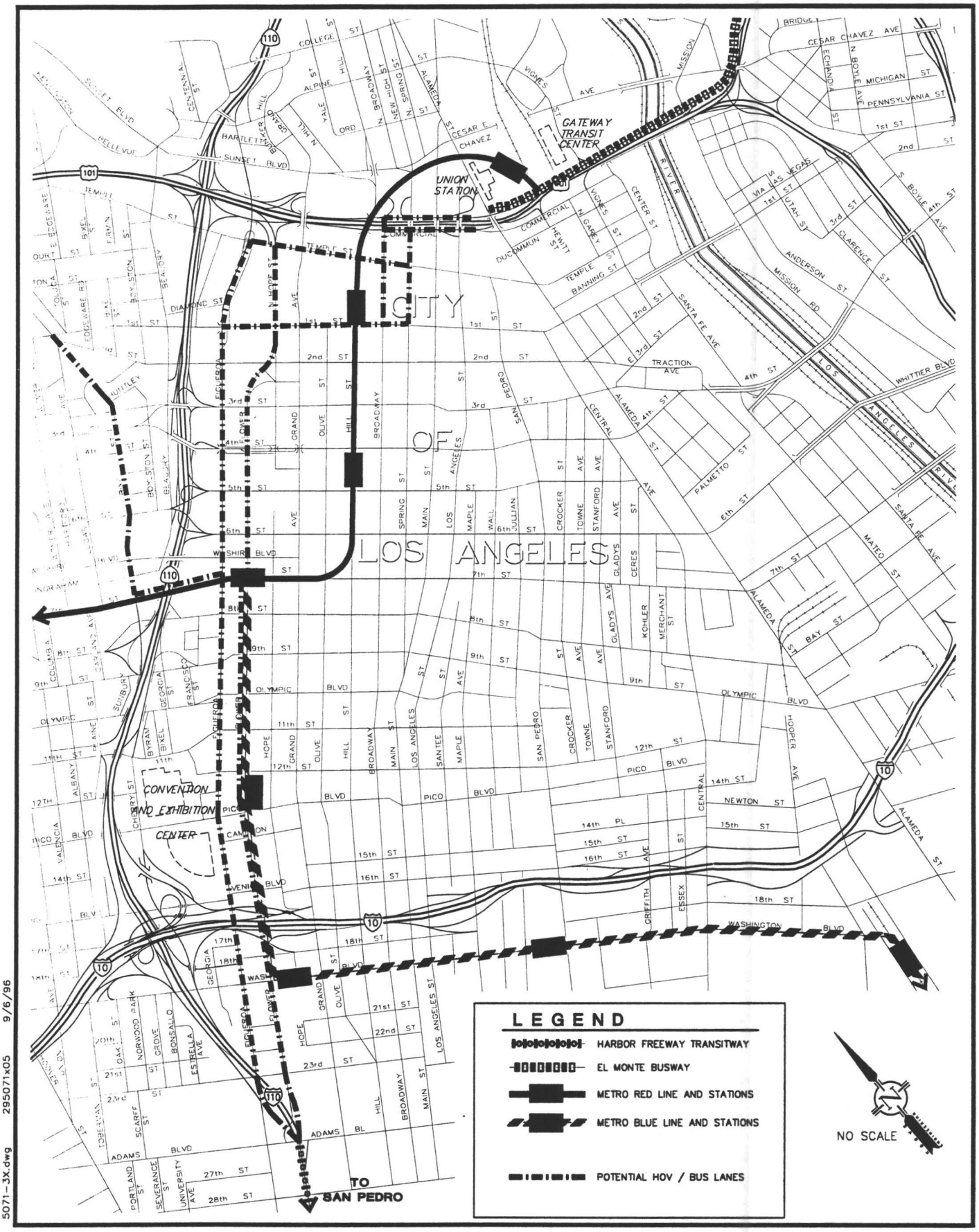

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 3.2

TSM ALTERNATIVE - IN FREEWAY CORRIDOR

For example, Flower Street between 12th Street and Washington Boulevard has only three lanes adjacent to the Blue Line tracks; Temple Street is only a four-lane street in a narrow right-of-way, and the Arcadia and Aliso frontage roads are three lanes in each direction. There are also limited physical connections between Figueroa/Flower streets and First/Temple streets.

These issues not withstanding, there do not appear to be any major obstacles to actual constructibility of bus/HOV lanes as the work could be done at off peak periods to minimize traffic disruption.

The capital costs of this alternative are estimated to be on the order of $16 million. Right of way costs would be negligible and annual maintenance costs, which would include maintenance of traffic signals, signing, striping and pavement markings would be nominal.

3.2.1.3 Transportation and Traffic Operations

In order to operate effectively, the capacity of a surface bus lane is about 100 buses/hour (one direction), and of a surface HOV lane is about 500 vehicles/hour. This compares to about 650 vehicles/hour for a regular Downtown street lane. This alternative would reduce vehicle capacity on a typical street by about 700 vehicles/hour, but because of the far greater carrying capacity of HOVs and buses, would increase the person carrying capacity of the street by about 3,700 persons/hour.

Because dedicated lanes would be provided for buses and car pools, then improved travel times through the CBD would be expected for these modes. Travel times between the end of the Harbor Transitway and the end of the El Monte Busway would be reduced by approximately three to four minutes under this alternative. (Compared to a total of 18-19 minutes travel time in the No Build alternative.) It would be expected that some existing traffic on these streets would divert from the mixed flow lanes to the HOV/bus lanes, and this is estimated at a minimum of twelve to fifteen percent of current traffic flows based on existing ride share usage in the Downtown. Actual usage of the lanes would depend on their final configuration and the level of bus service provided, although they would probably be well used by buses. The inability to provide two lanes, and possible discontinuities through the Downtown would limit potential usage, however.

It is considered unlikely, however, that this alternative would divert significant volumes of traffic from the freeway, as these improvements would be oriented more to local access than regional connections. Significant improvements to freeway levels of service on the Harbor and Hollywood freeways would not be expected.

These types of improvements have been previously studied by SCAG and are currently under consideration by LADOT. These previous and current studies have identified the ability to provide one lane for buses/HOVs in certain corridors in the Downtown. However, many streets vary in width through the Downtown, and on many Downtown streets the sidewalks cannot be reduced in width because of high pedestrian flows and the intent of the Downtown Strategic Plan to enhance the pedestrian environment by at least maintaining or increasing current

sidewalk widths as well as enhancing pedestrian amenities on certain "Avenidas" through the Downtown.

It should be noted, as have previous studies, that there would be potential operational issues with the implementation of bus/HOV lanes on certain Downtown streets. These include the following: the necessity for right turning vehicles to use the bus/HOV lane at certain intersections; the need to maintain driveway and garage access from the curb lane and potential conflicts with bus/HOV vehicles; potential conflicts between HOV lane users and pick/drop off zones in the Downtown area; potential difficulties entering and exiting the bus/HOV lanes if users are only traveling for short distances in the Downtown. These and traffic operations in the remaining mixed flow lanes would need to be analyzed in more detail to assess the effectiveness of the HOV lanes for buses and HOVs as well as the potential impact on the mixed flow lanes.

Recent studies by LADOT have recommended an HOV/bus lane on Figueroa south of Olympic, by restriping to retain the current lane configuration while also adding a lane. They have also decided against an HOV/bus lane on Figueroa north of Olympic because restriping is not possible, lane conversions are not feasible because of heavy traffic volumes, and operational conflicts such as heavy turn moves and access requirements. Similarly, LADOT has decided against an HOV/bus lane on Flower Street because operational conflicts would impair efficient operations and because of the lack of right-of-way south of 11th Street due to the Blue Line tracks.

Even in areas where two bus/HOV lanes may be possible, the reduction of mixed flow traffic lanes by one or two lanes could lead to a significant worsening of traffic congestion in the remaining mixed flow lanes. Locations of particularly heavy traffic activity in the corridor include the following: along Figueroa Street at Seventh Street and Wilshire Boulevard, as well as the on ramps to the Harbor Freeway at Fifth and Third streets. Similarly along First Street, there is regularly heavy traffic, including substantial volumes of turning traffic along the section between Hope Street and Main Street.

Without substantial shifts from single occupant vehicles to HOVs and buses, the conversion of two lanes to HOV/bus lanes on these streets would in most cases worsen traffic levels of service in the remaining lanes because they would not be able to accommodate the traffic demand. In the Figueroa/Flower, Temple/First, and Arcadia/Aliso corridors, the reduction of two mixed flow lanes would lead to traffic flows being at or above the capacity of the remaining lanes. There are, however, a number of locations where the conversion of one lane appears to be feasible.

This alternative would improve local access and connectivity to Downtown locations for buses and HOVs, but would provide only limited improvements in this context for regional and through traffic. This alternative would be consistent with local and regional plans in that it would add bus and HOV capacity to the Downtown street system as well as providing improved connections to the regional system.

Based on earlier studies and the technical review conducted as part of this evaluation, it appears that whereas single bus/HOV lanes might be effectively accommodated on certain

Downtown streets to help improve local access to Downtown destinations, the implementation of two bus/HOV lanes on each street to provide additional capacities for a regional HOV/bus connection may not be feasible, either physically or operationally without substantial shifts from SOVs to HOVs and buses. Further detailed geometric and operational analysis is recommended to address potential physical configurations and traffic operations of both mixed flow and bus/HOV lanes.

3.2.1.4 Environmental Considerations

Noise and Vibration

There are a few scattered noise-sensitive land uses along the Downtown streets that would be the proposed alignments for HOV/bus lanes. Large multi-story residential complexes include the Bunker Hill Towers and the Promenade Towers bordering Figueroa Street between 1st and 3rd streets and the skyline and the Metropolitan residential buildings on the east side of Flower Street between 9th Street and Olympic Boulevard. Several smaller low-income multi-family apartment buildings are located along Flower Street south of Pico Boulevard and along Bixel Street between 3rd Street and Wilshire Boulevard. Noise-sensitive institutional and religious uses include Orthopaedic Hospital located south of 23rd Street along Flower Street, Los Angeles Trade Tech College on flower Street south of Washington Boulevard, St. Vincent's Church and School located along Figueroa Street north of Adams Boulevard, and St. John's Church near the intersection of Adams Boulevard and Figueroa Street. Central Library Park borders Flower Street on the he east and 5th Street on the south. A recreational facility is located west of Bixel Street and north of 3rd Street. In addition, there are several large hotels along the proposed alignments, including the Sheraton Grande, Weston Bonaventure, Omni, Holiday Inn, Hyatt, and Hotel Figueroa. A few smaller hotels are also located along Figueroa and Flower streets.

The use of curb or parking lanes for HOVs and buses during peak periods may result in minor increases in noise levels at properties along the alignments due to the proximity of an additional travel lane(s) within the existing street rights-of-way.

This alternative would not generate substantial operational vibration impacts; however, vibration may increase minimally at sensitive receptors due to greater speeds and additional traffic on the Downtown streets that would accommodate the HOV/bus lanes.

Significant construction noise and vibration impacts would not occur because no significant infrastructure improvements would be required or constructed under this alternative.

Air Quality

By providing improvements that accommodate and encourage the use of HOVs and buses as alternatives to the single-occupancy vehicle, this alternative could have a beneficial effect on regional air quality. In addition, beneficial localized impacts may occur if improved traffic conditions and reduced congestion occur along Figueroa, Flower, Temple, and First Streets. However, if improvements result in increased congestion due to the reduction of mixed flow lanes, it is possible that some localized adverse air quality impacts may occur. To definitively

determine the extent and significance of any localized air quality impacts or benefits, a more detailed air quality analysis and modeling effort would be required.

Since this alternative would be limited to improvements within the existing street right-of-way and would consist primarily of street restriping, no significant construction air quality impacts are anticipated.

Visual

This alternative would keep the HOV/bus lanes in the vicinity of the freeway corridor and out of the more central parts of Downtown Los Angeles. The affected area includes the Financial District, Bunker Hill, and the Civic Center. Uses along the streets include surface parking lots, mid- and high-rise office buildings, retail facilities, restaurants, hotels, and apartment buildings as well as buildings which are of civic, cultural, historical, and architectural significance (e.g., Los Angeles Central Public Library, Los Angeles Music Center, and City Hall). The Downtown Strategic Plan (DSP) recommends establishing pedestrian-oriented uses along the north-south streets in the Financial District and on Bunker Hill and improving the pedestrian orientation of the Financial district by requiring 15-foot minimum width sidewalks throughout, active ground floor uses, and pedestrian-scaled landscaping and improvements on Olive and Hill Streets. The Bunker Hill Amended Design for Development, which is currently under environmental review, proposes new high-rise residential, office, and commercial development for Bunker Hill.

The improvements proposed under this alternative would be generally limited to the existing right-of-way; no major structures are required or proposed. Therefore, the visual impacts of this alternative would not be significant. However, buses and high occupancy vehicles traveling the curb lanes of the surface streets through the Downtown could be incompatible with the DSP recommendations to create a pedestrian-friendly streetscape and to widen sidewalks to accommodate such a streetscape. The visual effects of this alternative would depend upon the numbers and types of buses (e.g., diesel-powered versus new clean-fuel buses, trolleys, or shuttles), headways between buses, bus speeds, the location and design of the bus stops, and the ability to integrate these transit improvements with the proposed recommendations to improve the visual context of these corridors.

Land Use

This alternative would be consistent with, though not highly supportive of, the Central City Community Plan, one of the two community plans applicable to the area in which the TSM improvements are proposed. The plan calls for a vastly improved transit system and extensive HOV facilities. This alternative would not substantially meet these goals. The alternative would be consistent with the goal in the Southeast Los Angeles Community Plan of improving public transportation. Likewise, this alternative would be generally consistent with the RME and the DSP, but because the alternative does not propose substantial traffic congestion relief measures, it would not be very supportive of most measures in either plan.

Land uses along streets slated for TSM improvements under this alternative are predominantly commercial; however, several residential properties and churches, including the proposed site

of the new cathedral of the Archdiocese of Los Angeles, are located along the affected streets. Because this alternative proposes only minor improvements (e.g., signal improvements and restriping to accommodate peak-hour HOV/bus lanes) on a few Downtown streets, it is not expected to result in land use incompatibilities. (Also, see the Visual discussion above for possible conflicts with the urban design goals and objectives of local plans.)

Right-of-way Acquisition

No acquisition of private property is anticipated in order to implement the roadway improvements proposed under this alternative.

Socioeconomics

Because this alternative would not require property acquisitions, no direct impacts to population, housing, or businesses are anticipated. This alternative could, however, result in the removal of curb-side parking spaces. The presence of buses and high-occupancy vehicles in the curb lanes could conflict with future plans to create pedestrian-friendly streets and thereby hinder opportunities for economic revitalization of these streets. However, the extent of this potential impact would depend upon the ability to integrate the proposed transit improvements (i.e., design of bus stops) with the proposed recommendations to improve the streetscapes for economic development. Additionally, the potential for possible socioeconomic benefits would depend on the extent to which this alternative improves transit accessibility to local businesses and provides a link among various Downtown districts and neighborhoods.

Sensitive Uses and Resources

Sensitive uses include four large multi-story residential complexes bordering Flower and Figueroa streets. Several smaller low-income apartment buildings are located along Flower Street south of Pico Boulevard and along Bixel Street between 3rd Street and Wilshire Boulevard. Orthopaedic Hospital is located south of 23rd Street on Flower Street. Other sensitive uses near the southern end of the proposed bus/HOV lanes on Flower and Figueroa streets include St. Vincent's Church and School, St. John's Church, and the Los Angeles Trade Tech College. A recreational facility is located just west of Bixel Street along 3rd Street. A number of large and small hotels are also located along Flower and Figueroa streets in this section of Downtown Los Angeles. Central Library Park is located immediately east of flower Street and south of 5th Street. In addition, the Archdiocese of Los Angeles is proposing to build its new Cathedral of Our Lady of the Angles on a 5.53-acre parcel bordered by the Hollywood Freeway to the north, Temple Street to the south, Grand Avenue to the west, and Hill Street to the east. As discussed above, this alternative could result in localized noise and air quality impacts on these sensitive land uses. Although these impacts are expected to be minor, a definitive determination would require more detailed analyses and modeling.

There are no sensitive natural or biological resources in the project area such as wetlands, water bodies, or habitat for threatened or endangered species. The Los Angeles River is located just east of Union Station and the western end of the El Monte Busway. The river in this location is a concrete-lined flood control channel. There would be no impacts to sensitive natural resources under this alternative.

Historic Resources

Because the TSM Alternative would entail extending HOV/bus lanes on Downtown streets in the vicinity of the freeway corridor and would not involve building significant infrastructure, this alternative would not adversely affect any historic properties.

Archaeological Resources

Since improvements would be primarily limited to the existing street right-of-way and no significant subsurface excavation is anticipated, this alternative would not adversely affect or disturb archaeological resources that may be present in the project area.

Hazardous Waste

Because this alternative would not require construction that would expose hazardous waste and because its implementation and operation would not generate hazardous appreciable amounts of hazardous materials, no significant hazardous waste impacts are anticipated.

Energy

This alternative may result in a minor reduction in energy consumption to the extent that it improves fuel efficiency by reducing stop-and-go congestion and vehicle miles traveled.

3.2.2 TSM Alternative through Central Downtown

3.2.2.1 Concept

This low cost TSM alternative is similar in concept to the previous alternative in that bus and HOV lanes would be provided on Downtown surface streets. However, rather than focusing on streets adjacent to the freeway corridor, this alternative would install these lanes through the central Downtown area, as shown in Figure 3.3 and using north-south streets such as Hill and Olive, Spring and Main, and east-west streets such as Eighth and Ninth and Eleventh and Twelfth to provide for a connected system of bus/HOV lanes on Downtown surface streets between the ends of the Harbor Transitway and the El Monte Busway.

As described in the previous alternative, in order for this to be an effective local access and regional connection system for both buses and HOVs, two bus/HOV lanes would be necessary on each Downtown street. It should be noted that a bus lane already exists on Spring Street between Ninth Street and the Hollywood Freeway.

3.2.2.2 Engineering and Costs

The same issues apply to this alternative as discussed for the previous alternative with respect to both physical feasibility and operational feasibility. With this alternative there would be greater difficulty in obtaining two bus/HOV lanes on each street because streets such as Hill, Olive, Main and Spring are narrower than Figueroa and Flower streets and have fewer traffic lanes. Also east-west streets through the Downtown area generally tend to be narrower than

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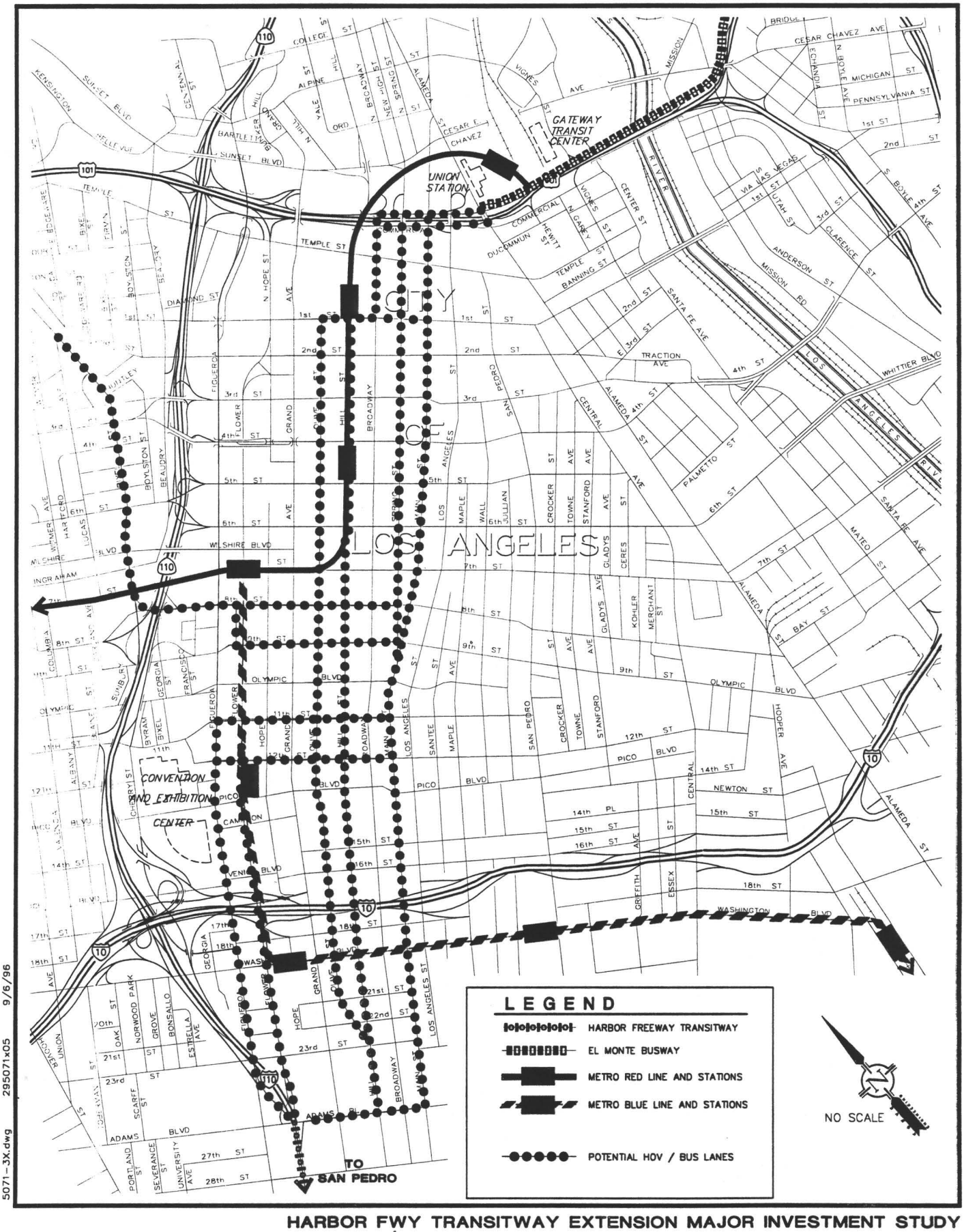

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 3.3

TSM ALTERNATIVE - CENTRAL DOWNTOWN

north -south streets and provide greater constraints to reconfiguring traffic lanes. It would therefore be harder to restripe and convert these streets to accommodate multiple bus/HOV lanes without losing more capacity than in the previous alternative.

A previous SCAG study investigated the feasibility of bus/HOV lanes on Hill and Olive. This study concluded that lanes could not generally be added in these streets because restriping would result in lanes as narrow as nine feet or that reduced sidewalks widths would be necessary. (These streets are both identified as "Avenidas" in the LADSP, so sidewalk narrowing would not be an option). The study concluded that conversion of one traffic lane to bus/HOV would be necessary along these streets, but also noted the key physical constraint where Olive Street is two-way with five lanes between 5th Street and 1st Street. South of Pico Boulevard, however, bus/HOV lanes could be added by eliminating curb parking and by reducing sidewalks to ten feet (in areas where pedestrian flows are much lower than in the CBD).

With respect to the Spring Street/Main Street corridor, conversion of general traffic lanes would also be necessary to provide bus/HOV lanes. An additional constraint in this corridor is that these streets combine south of 9th Street, although HOV lanes could be added to the south by removing on-street parking.

Actual constructibility does not appear to be an issue as the work would occur at off peak hours to minimize traffic interference.

The capital costs for this alternative are estimated to be on the order of $ 29 million. These are higher than for the TSM Freeway Corridor alternative because of the more extensive coverage of these improvements. The right-of-way costs are also negligible as this alternative would require little or no new right-of-way. The maintenance costs, which include maintenance of traffic signals, signing, striping and pavement markings, are expected to be nominal.

3.2.2.3 Transportation and Traffic Operations

The scale of additional capacity provided by this alternative would be similar to the TSM-Freeway Corridor alternative, but the overall level of additional capacity provided would be about double because of the more extensive system of bus/HOV lanes. Overall, this alternative would reduce the vehicle capacity on the north-south streets identified by 1,400 vehicles/hour, but significantly, an additional person capacity of about 7,400 persons/hour (including bus and HOV riders) would be provided.

This alternative, while serving more of the Downtown directly (except for the Bunker Hill area) than the TSM-Freeway Corridor alternative, would also traverse greater distances. For these reasons travel times in these dedicated lanes would probably be higher than the previous alternative and would therefore not provide as attractive a route for regionally oriented buses/HOVs. The greater number of bus/HOV lanes in this alternative could lead to higher bus/HOV volumes using the dedicated lanes, although it would be expected that facility users would be more locally destined than through trips, and be predominantly bus users. Again,

the difficulties of providing two bus/HOV lanes on these streets would limit actual usage, particularly for HOVs.

The impact of this alternative on freeway operations is therefore expected to be about the same as the previous alternative.

The earlier SCAG study suggested that converting one lane on HIll and Olive streets to a bus/HOV lane could be accommodated without significantly worsening traffic levels of service. Preliminary analysis conducted for the current study indicates that if two lanes were converted to bus/HOV use on Olive, Hill, Spring and Main streets, then the mixed flow traffic volumes would exceed the capacity of the remaining traffic lanes north of Pico Boulevard, and particularly in the northern part of the CBD. Surplus roadway capacity on adjacent streets is generally not available, as both Broadway and Los Angeles streets are two-way streets and carry heavy traffic volumes.

While this alternative would significantly improve access for buses and HOVs into the financial district and the Downtown area, it would not significantly enhance regional connectivity. Similar to the previous alternative, this alternative would be compatible with local and regional plans, particularly the Downtown Strategic Plan, which called for improved accessibility to Downtown areas by providing bus priority and potentially HOV priority on the streets identified in this alternative.

Based on the preceding analysis, a similar conclusion is drawn to that made for the previous alternative whereby single HOV/bus lanes on certain Downtown streets might be feasible both physically and operationally. The provision of two bus/HOV lanes on each Downtown street in order to provide for enhanced regional connectivity would, however, lead to significant impacts on general traffic flow, unless there were substantial shifts from SOV to HOV and bus usage that would be worse than those in the TSM-Freeway Corridor alternative.

3.2.2.4 Environmental Considerations

Noise and Vibration

Although the Downtown streets proposed for HOV/bus lanes contain predominantly commercial office and retail uses, there are scattered noise-sensitive uses along the proposed alignments. Large residential complexes are located along Flower Street between 9th Street and Olympic Boulevard, on Olive Street north of 4th Street, and Hill Street north of 3rd Street. A number of small hotels and single-room-occupancy buildings and several low-income multi-family apartment buildings border Flower, Olive, Hill, Spring, and Main streets. The intercontinental Hotel is located on Olive Street just north of 4th Street. Along Bixel Street, there are several low-income apartment buildings and a YMCA facility. A recreational facility is located just west of Bixel Street along 3rd Street. Orthopaedic Hospital occupies the site on the east side of Flower Street and south of 23rd Street. Other noise-sensitive uses near the southern end of the proposed bus/HOV lanes on Flower and Figueroa streets include St. Vincent's Church and School, St. John's Church, and Los Angeles Trade Tech College. El Pueblo de Los Angeles is a State Historic Park that is immediately north of Arcadia Street and the Hollywood/Santa Ana Freeway between Hill and Alameda streets.

Similar to the other TSM HOV/Bus lanes alternative (surface streets in the vicinity of the freeway), implementation of this alternative could result in minor increases in noise levels at properties along the proposed alignments. Noise impacts would occur due to the addition of the HOV/bus lane(s) within the street rights-of-way and their proximity to noise-sensitive uses along the affected streets.

This alternative would not generate substantial operational vibration impacts; however, vibration may increase minimally at sensitive receptors due to the greater speeds and additional traffic on the Downtown streets that would accommodate the HOV/bus lanes.

Significant construction noise and vibration impacts would not occur because no significant infrastructure improvements would be required and constructed under this alternative.

Air Quality

By providing improvements that accommodate and encourage the use of HOVs and buses as alternatives to the single occupancy vehicle, this alternative could have a beneficial effect on regional air quality. In addition, beneficial localized impacts may occur if improved traffic conditions and reduced congestion occurs along the streets proposed for HOV/bus lanes. However, if the improvements increase congestion due to the removal of mixed flow lanes, it is possible that some localized adverse air quality impacts may occur. To definitively determine the extent and significance of any localized air quality impacts or benefits, a more detailed air quality analysis and modeling effort would be required.

Since this alternative would be limited to improvements within the existing street right-of-way and would consist primarily of street restriping, no significant construction air quality impacts are anticipated.

Visual

In addition to providing HOV/bus lanes in the curb lanes of surface streets in the Civic Center, Bunker Hill, Financial Core, Convention Center, and South Park districts, this alternative would provide HOV/bus lanes in the Center City. The Center City includes Los Angeles' historic commercial core and the theater district. It contains a concentrated retail corridor and office, housing, and industrial uses. The DSP proposes a revitalization of the districts within Center City and the development of mixed uses, residential uses, and neighborhood amenities. The DSP recommends streetscape improvements, pedestrian linkages between streets, and restaurants and cafes along the street to create a more pedestrian-friendly environment and to connect the different activity centers within the Center City.

The improvements proposed under this alternative would be generally limited to the existing right-of-way; no major structures are required or proposed. Therefore, the visual impacts of this alternative would not be significant. However, minor adverse visual effects could affect a wider area than the TSM HOV/Bus lanes alternative (surface streets in the vicinity of the freeway) because reserved HOV/bus lanes are proposed over a larger area of Downtown Los Angeles. The visual effects of this alternative would depend upon the numbers and types of buses (e.g., diesel powered versus new clean-fuel buses, trolleys, or shuttles), the headways

between the buses, bus speeds, and the location and design of the bus stops and the ability to integrate the design of the proposed network of reserved HOV/bus lanes and facilities with the proposed recommendations to improve the visual context of these corridors.

Land Use

Improvements under this alternative would occur within the Central City, Southeast Los Angeles, and Westlake Community Plan areas. Because TSM improvements are proposed for many Downtown streets, this alternative has the potential to have a substantial beneficial effect on traffic congestion. Thus, the alternative could be fairly supportive of the transportation related goals of all three plans. It would also be supportive of RME and DSP goals of promoting TSM strategies, supporting HOV facilities, and enhancing Downtown circulation. Improvements under this alternative would also serve developments proposed under the Alameda District Specific Plan.

Improvements under this alternative are proposed for streets within Downtown that are chiefly commercial in their use. Some improvements, particularly within the southern portion of Downtown, would occur along streets with a moderate degree of residential use. There are also clusters of industrial uses (along some of the southern reaches of the improvement area) and institutional uses (along streets in central and north Downtown). The HOV/bus lanes would be compatible with these uses; however, as discussed above, minor increases in noise levels and possible localized air quality impacts may adversely affect adjacent sensitive land uses. The proposed TSM improvements would not substantially affect land use patterns.

Right-of-Way Acquisition

No acquisition of private property is anticipated in order to implement the roadway improvements proposed under this alternative.

Socioeconomics

This Alternative would not require property acquisitions because the HOV/Bus lanes generally would be provided within the curb lanes of the existing street rights-of-way. Thus, the alternative would not result in direct impacts to population, housing, or businesses. It would not disrupt community cohesion and would not result in economic impacts due to loss of businesses. However, as with the TSM HOV/Bus lanes alternative (surface streets in the vicinity of the freeway), this alternative could increase congestion on Downtown streets if existing mixed flow lanes are converted to HOV/bus lanes and result in the removal of curb-side parking which could indirectly affect local businesses. The extent of potential impacts would depend upon the ability to integrate the transportation improvements with the plans to revitalize the streets and the degree to which the HOV/bus lanes would improve accessibility to local businesses. This alternative would provide the most extensive network of HOV/bus lanes through the central Downtown of any of the alternatives and, thus, would provide the most opportunity to link businesses, residences, and the Downtown centers via HOV/bus lanes which could have an economic benefit.

Sensitive Uses and Resources

Sensitive land uses are scattered along the Downtown streets proposed for bus/HOV lanes under this alternative and include several large residential complexes and smaller low-income apartment buildings, the Intercontinental Hotel, a number of small hotels, Orthopaedic Hospital, Trade Tech College, several churches, and El Pueblo de Los Angeles State Historic Park. This alternative would have similar impacts to sensitive uses as the TSM HOV/Bus lanes alternative (surface streets in the vicinity of the freeway). However, the impacts could be more widespread because this alternative would provide a more extensive network of HOV/Bus lanes through the Downtown area and, thus, would expose more residences to the potential noise and air quality impacts from the concentration of buses and HOV traffic in the curb lanes during peak hours. Although these impacts are expected to be minor, a definitive determination would require more detailed analyses and modeling efforts.

There are no sensitive natural or biological resources in the project area such as wetlands, water bodies, or habitat for threatened or endangered species. The Los Angeles River is located just east of Union Station and the western end of the El Monte Transitway. The river in this location is a concrete-lined flood control channel. There would be no impacts to sensitive resources under this alternative.

Historic Resources

Because this alternative would entail extending HOV/bus lanes on Downtown streets through the central Downtown area and would not involve building significant infrastructure, this alternative should not adversely affect any historic properties.

Archaeological Resources

Since improvements would be primarily limited to the existing street right-of-way and no significant subsurface excavation is anticipated, this alternative should not adversely affect or disturb archaeological resources that may be present in the project area.

Hazardous Waste

Because this alternative would not require construction that would expose hazardous waste and because implementation and operation of this alternative would not generate any appreciable amounts of hazardous materials, no significant hazardous waste impacts are anticipated.

Energy

This alternative may result in a minor reduction in energy consumption to the extent it improves fuel efficiency by reducing stop-and-go congestion and vehicle miles traveled. Potential benefits may be greater than those of the TSM HOV/Bus Lanes Alternative (surface streets in the vicinity of the freeway) because this alternative would provide a more extensive network of HOV/bus lanes through the Downtown area.

3.3 HOV/Transit Lane Alternatives

3.3.1 Alternative Using Freeway Auxiliary Lanes/ Frontage Roads

3.3.1.1 Concept

The intent of this alternative is to provide a regional level HOV/bus connection between the Harbor Transitway and the El Monte Busway within the right-of-way of the Harbor Freeway and the Hollywood Freeway, but to do so at a lower cost by utilizing existing frontage roads and/or collector distributor roads rather than building a new structure throughout the entire corridor. Up to two lanes in each direction might be required to accommodate potential demand. This alternative is illustrated in Figure 3.4.

3.3.1.2 Engineering and Costs

These HOV/bus lanes could be provided either by widening the existing frontage roads to add HOV/bus lanes or by converting lanes on the existing frontage roads/collector distributor road lanes from mixed flow to bus/HOV. Earlier analysis eliminated the possibility of the general widening of the freeway because of significant right-of-way limitations and the significant number of structure modifications that would be necessary, particularly in the Harbor Freeway corridor.

There would be significant engineering difficulties in implementing this alternative, mainly because there is no current continuous frontage road or collector-distributor road system throughout the corridor. The most significant stretch of collector-distributor road that exists is on the east side of the Harbor Freeway, from 11th Street north to Third Street. This collector-distributor road could be enhanced at the south end by connecting the Pico/Cherry off ramp from the northbound Harbor Freeway past the Convention Center to connect to the collector-distributor road at 11th Street. There is, however, no comparable collector-distributor (C-D) road on the west side of the Harbor Freeway, with the exception of a C-D road between Second Street and Wilshire Boulevard. There is also no continuous adjacent street or frontage road system for any significant length on the west side of the Harbor Freeway.

Attempting to develop a west side collector-distributor road would be a major engineering undertaking and may require complete reconstruction of all overcrossings, with an attendant significant disruption of traffic.

Along the Hollywood Freeway there is a frontage road system, comprised of Arcadia Street on the south and Aliso Street on the north, that currently extends from Broadway east to Alameda, and generally comprises three traffic lanes in each direction.

One variation to the use of existing frontage roads on both sides of the Hollywood Freeway between Broadway and Alameda would be to replace them with a deck over the freeway to provide a single combined roadway. This would also free up the space currently used for the frontage roads to be used for other purposes such as open space or new buildings. The construction of such a decking over the Hollywood Freeway would involve median piers in a

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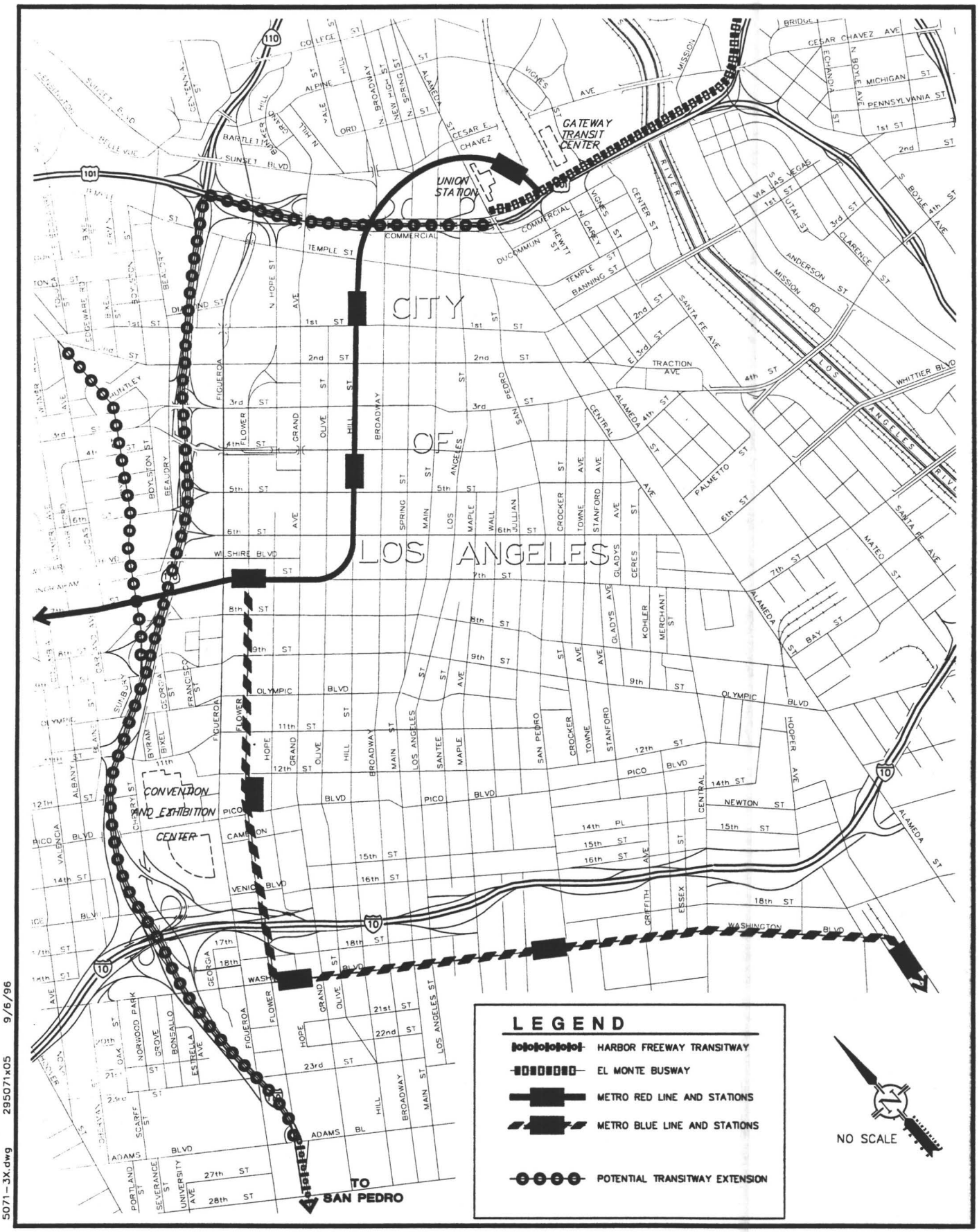

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 3.4

BUS/HOV LANE ALTERNATIVE - FREEWAY FRONTAGE ROADS

section of Freeway with minimal median width, however, this would need to be analyzed further.

In order to provide a continuous regional bus/HOV connection in the freeway corridor, there would need to be substantial new construction in a number of areas, particularly on the west side of the Harbor Freeway for almost the full length between the Hollywood and Santa Monica freeways, as well as major connections through the area of the four-level to connect to the frontage roads east of Broadway on the Hollywood Freeway. This reconstruction would involve new structures, new or widened connector roads with associated retaining walls, modification or reconstruction to many of the overcrossing structures and revisions to many of the ramp connections to city streets. The level of construction necessary to provide sufficient capacity could in many cases approach that of a separate elevated transitway (which is considered as the next alternative). To minimize both right-of-way needs and construction costs, it is likely that extensive exceptions to design standards would be required.

Constructibility would be a major concern with this alternative because of the potential to impact virtually the entire ramp and collector-distributor road system which provides ingress and egress to Downtown, depending on the ultimate scope of this alternative. Any reconstruction of the existing connector roads would be extensive and complex. Limiting work to off peak periods would likely not reduce significantly the negative impacts to Downtown access during construction.

The capital costs for this alternative are estimated to be in the order of $240 million. Capital costs for this and other alternatives include construction and engineering. The right-of-way costs are very preliminary at this stage of the study but are estimated to be on the order of magnitude of $70 million. Right-of-way costs for this and other alternatives include all associated administrative costs, including applicable Relocation Assistance.

In terms of providing a regional connection there are thus serious flaws and shortfalls with this alternative, particularly for the southbound direction, although it may be possible to provide a northbound/eastbound connection.

3.3.1.3 Transportation and Traffic Operations

Because of the physical limitations preventing the provision of additional lanes on existing frontage roads, HOV/bus Lanes in this alternative would have to be provided in many locations by converting existing mixed flow lanes or frontage roads/collector-distributor roads to bus/HOV lanes. As the existing frontage road segments comprise two to three lanes, conversions to provide two bus/HOV lanes would leave only one to two lanes for other traffic.

This would have significant operational impacts, particularly on the Harbor Freeway because the current collector distributor lanes are heavily congested both during the morning and evening peak hours. To convert even one of these lanes to an HOV/bus lane would not only significantly impact the mainline freeway by worsening levels of service but also provide only limited effectiveness in the bus/HOV lane because of the significant number of weave-merge activities that take place on the collector-distributor road system in order for traffic to access ramps to the Downtown street system.

Because of the probable discontinuity of these lanes it is unlikely that any significant travel time reduction could result from this alternative. While theoretical demand may be quite high, actual usage would be limited by the discontinuity of these lanes, the marginal increases in capacity provided, and the significant traffic operational conflicts between HOV traffic and mixed flow traffic exiting the freeway via the Downtown ramps. Such usage as would occur would be predominantly HOV traffic destined to local Downtown destinations.

It does appear possible, however, that certain parts of the existing C-D or frontage roads systems might be utilized for local bus/HOV lanes for improved Downtown access. This appears to be the case, particularly along the Hollywood Freeway corridor where there may be available capacity to convert one lane in each direction along Aliso and Arcadia to a bus/HOV lane, as well as potentially extending these frontage roads westerly to Grand Avenue to improve access to Downtown.

This alternative would therefore provide only limited improvements for bus/HOV access to Downtown and very limited improvements for regional through trips by bus/HOV. It could somewhat enhance local connections to Downtown but would not enhance connectivity in the regional HOV lane system.

This alternative would be compatible with local and regional plans by providing additional facilities for buses and HOVs but would not be as effective as the alternative of an elevated dedicated HOV facility.

3.3.1.4 Environmental Considerations

Noise and Vibration

The alignment is bordered primarily by commercial and industrial uses; however, noise-sensitive uses adjacent to the alignment include several churches, Orthopaedic Hospital, Good Samaritan Hospital, and clusters of multi-family residential buildings. El Pueblo de Los Angeles State Historic Park is located north of the Hollywood Freeway between Hill and Alameda streets. In addition, the proposed site of the new cathedral of the Archdiocese of Los Angeles is located immediately south of the Hollywood Freeway between Grand Avenue and Hill Street. The multi-family buildings are located along Grove Avenue between Washington Boulevard and 21st Street, near Albany Street between Venice and Olympic Boulevards, on Figueroa Street south of 1st Street, on Bixel Street between 3rd Street and Wilshire Boulevard, and on Lucas Street north of 3rd Street. Because this alternative could include additional lanes to the Harbor and Hollywood Freeways, there is the potential for significant noise impacts to sensitive receptors located along the alignment. The degree of noise impacts would vary since this alternative could include conversion of freeway auxiliary lanes to HOV/bus lanes and/or some additional widening of the existing freeway facilities in order to accommodate the HOV/bus lanes. However, because ambient noise levels along the freeways are already high, it is expected that projected noise levels at adjacent sensitive uses would approach or exceed the FHWA noise abatement criterion of 67 dBA L_{eq} for noise-sensitive uses (i.e., picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, churches, schools, libraries, and hospitals). Existing noise barriers, freeway structures, and non-residential buildings fronting the freeway corridor may help buffer

nearby residential uses from freeway noise and mitigate potential noise impacts; however, implementation of this alternative could require construction of additional soundwalls to reduce noise levels below the FHWA criterion.

Construction noise impacts could also be a significant source of annoyance to residences and other sensitive uses if construction occurs during noise-sensitive evening and nighttime hours and/or sensitive uses are affected by construction activities over a period of many months.

Significant construction vibration impacts could occur if extensive new construction including pile driving is required in the vicinity of sensitive uses, e.g., Orthopaedic Hospital. Vibration levels generated by operation of the new HOV/bus lanes, however, are not expected to be significant.

Air Quality

By providing improvements which accommodate and encourage the use of high-occupancy vehicles and buses as alternatives to the single-occupancy vehicle, this alternative could have a beneficial effect on regional air quality. If this alternative reduces congestion along the freeway as well as parallel surface streets, significant regional air quality benefits may be realized. However, it is also possible that additional congestion could occur in the vicinity of existing on/off ramps or on the freeway mainline due to the conversion of mixed flow lanes on the frontage roads to HOV/bus lanes. To definitively determine the extent and significance of any localized air quality impacts or benefits, a more detailed air quality analysis and modeling effort would be required.

This alternative could require significant reconstruction of the freeway facility. Although construction activities would be temporary, construction-generated pollutant emissions including fugitive dust could exceed South Coast Air Quality Management District (SCAQMD) thresholds of significance.

Visual

The Harbor Freeway is bordered on the west by the Central City West Specific Plan Area and on the east by the Civic Center, Bunker Hill, Financial Core, and Convention Center districts in Downtown Los Angeles. The Hollywood Freeway is bordered on the north and south by the Civic Center district of the Central City Community Plan area. The area south of the Hollywood Freeway is also referred to as the Civic Center district in the DSP.

Uses along the west side of the Harbor Freeway include commercial-retail uses, residential uses, religious institutions and schools, surface parking lots, a playground, commercial-offices, industrial buildings and parking structures. Uses along the east side of the Harbor Freeway include the Orthopaedic Hospital, residential, commercial-retail, industrial, commercial-office, religious institutions, the Los Angeles Convention Center, parking structures, surface parking lots, medical facilities, commercial office buildings, hotels, and apartment buildings. In general buildings are low- to mid-rise south of 9th Street and mid- to high-rise north of 9th Street. The freeway is within the vicinity of several historic buildings (e.g., the Automobile Club, St. Vincent Church and School, and Iglesia Adventista Church) in the South Park area (see Historic

Resources) and some of Downtown's premier high-rise office space which looks out over the Harbor Freeway. Uses along the north side of the Hollywood freeway include residential uses, low-rise office buildings, surface parking lots, the historic buildings of El Pueblo, and Union Station. Uses along the south side of the Hollywood Freeway include the monumental government office buildings in the Civic Center. A vacant parcel immediately south of the Hollywood Freeway between Grand Avenue and Hill Street is the proposed site of the new cathedral of the Archdiocese of Los Angeles.

The Harbor and Hollywood freeways are visually prominent structures in the Downtown area and play a major role in defining and creating an image of the project area. They form an entrance into the Downtown and boundaries between the different Downtown neighborhoods. Impressive views of the Downtown are available from both freeways. The Harbor Freeway is the only major southern approach into Downtown Los Angeles, where views of the Downtown begin at Exposition Boulevard and buildings in the study area become visible beginning near the Convention Center. The freeways consist of above- and below-grade lanes, overcrossings, and the elevated four-level interchange. Those portions of the existing landscaping (e.g., palm trees, ivy, and green plantings) in the freeway right-of-way that are well maintained are an important visual resource. Expansive views of the Downtown are available looking south from the Hollywood Hills. Bixel Street is bordered by small- and medium-scale buildings which include parking structures, surface parking, office buildings, and apartment units. Bixel Street, which is directly west of the Downtown and is built on an incline, offers views of the Downtown.

Views from within the study area vary depending upon the elevation of the view location and adjacent structures. Views from the high-rise buildings, which look out over the freeway on the edge of the Downtown, would be more extensive than views from buildings in the central part of the Downtown. Views from high-rise buildings along the freeway would include the freeway, but could also include the Downtown and the Hollywood Hills.

The use of the existing frontage roads and auxiliary/connector roads along the freeways for HOV/bus lanes could result in a significant visual impact, depending on the extent of widening and the scale and scope of new structures. Adverse visual impacts could also occur if this alternative results in the removal of freeway landscaping and adjacent buildings.

Land Use

Construction of the HOV/bus lanes under this alternative would affect areas within the Central City, Westlake, Central City North, Southeast Los Angeles, and South Central Los Angeles community plans. This alternative would be highly supportive of the first three of these plans because it promotes both HOV and public transit solutions to circulation problems in the Downtown area; it would be consistent with the latter two plans as long as adverse impacts to the plan areas resulting from freeway improvements would be mitigated sufficiently. This alternative would also support the Central City West Specific Plan goals of improving access to the plan area, increasing the capacity of the Harbor Freeway, and providing new freeway ramps; the DSP goal of improving the HOV system that serves Downtown; and the RME goal of providing new HOV facilities that meet travel demand and air quality objectives.

Land uses along the Harbor and Hollywood freeways through the study area are as follows. Along the Harbor Freeway and south of the Santa Monica Freeway, parking facilities predominate. The west side of the freeway has a clustering of residences, while there are some industrial uses on the east. Orthopaedic Hospital is a large institutional use at Adams Boulevard and Flower Street, in the southeast corner of the project area. The segment between the Santa Monica Freeway and 8th Street is dominated by the Los Angeles Convention Center on the east side of the Harbor Freeway and by industrial uses with scattered residential uses on the west. Between 8th Street and the Hollywood Freeway, commercial uses (retail and office) predominate on both sides of the Harbor Freeway. Around the Harbor Freeway and Hollywood Freeway interchange, several vacant parcels exist. Between the Harbor Freeway and Alameda Street, the Hollywood Freeway corridor contains a preponderance of government and institutional uses as well as a number of parking lots. Union Station and El Pueblo Historic Park lie to the north of the corridor near Main and Los Angeles Streets. The proposed site of the new cathedral of the Los Angeles Archdiocese borders the Hollywood Freeway on the south between Grand Avenue and Hill Street.

Except for isolated sensitive uses within this corridor, which may be affected by noise, visual, or air quality impacts, existing land uses would be compatible with improvements proposed under this alternative. Existing land uses would benefit from improved circulation and access afforded by improvements to the Harbor and Hollywood Freeways through Downtown.

The Bixel Corridor extension of this alternative contains primarily vacant land, parking lots, institutional uses, and some residential buildings. There may be some land use impacts (e.g., possible increased traffic noise or right-of-way acquisitions for street widening) resulting from proposed improvements along Bixel Street.

Right-of-way Acquisition

This alternative may require property acquisitions along the existing freeway right-of-way to widen the freeway in order to accommodate additional lanes and freeway ramps.

Socioeconomics

The Harbor Freeway is bordered on the west by the Central City West Specific Plan Area and on the east by the Civic Center, Bunker Hill, Financial Core, and the Convention Center districts in Downtown Los Angeles. The Hollywood Freeway is bordered on the north and south by the Civic Center district of the Central City Community Plan Area. The area south of the Hollywood Freeway is also referred to as the Civic Center district in the DSP.

The Civic Center District is the regional center for Los Angeles City, county, state, and federal government. The Bunker Hill District is the main center for legal, financial, and other corporate services for Southern California and is a major employment node in Los Angeles County. The Bunker Hill Amended Design for Development which is currently under environmental review, proposes new high-rise residential, office, and commercial development for Bunker Hill. The DSP advocates linking Bunker Hill to the region through the rail transit network by routing light rail transit through the district and rebuilding the street network to integrate local pedestrian and vehicular movement. The Financial Core is the premier and most dense location for

commercial office space, hotels and retail in the Downtown and a source of employment for residents in the Downtown, the adjacent neighborhoods, and the region. The DSP recommends promoting the further development of retail, office, and hotel development in the Financial Core. The DSP promotes transit linkages between the Convention Center district and surrounding neighborhoods and districts and recommends making the Convention Center highly accessible to the rest of Downtown through DASH and the rail transit system.

This alternative could result in some displacement of land uses next to the freeway if lanes are widened to accommodate the HOV/bus lanes and/or to close the gaps between the connectors. If residential acquisitions are required, then the alternative would result in direct impacts to residents and the housing supply and could disrupt community cohesion. If social services, churches, parks or schools are acquired during construction, the alternative could also have an effect on residents and community cohesion. If this alternative requires the removal of businesses, it would result in economic impacts. The significance of these impacts would depend upon the extent and type of acquisitions. Construction work and staging area activity could also result in business disruption, loss of access, and noise impacts to those uses adjacent to the project site (see Noise). However, construction work would be temporary and, therefore, would not result in a significant long-term impact.

Sensitive Uses and Resources

Sensitive uses adjacent to the freeways include St. John's Church, the Orthopaedic Hospital, St. Vincent's Church and School, the Temple Church and School, Seventh Day Adventist Church, a playground, single-family houses, and apartment buildings. A vacant parcel bordering the Hollywood Freeway on the south is the proposed site of the Archdiocese of Los Angeles' new cathedral. Residences located within several blocks of the freeways could also be affected by impacts of the project.

Located along Bixel Street, west of the Harbor Freeway and central Downtown, are low-income housing and community outreach services in addition to parking structures, surface parking, and office buildings. Sensitive uses include apartment buildings, the Children's Home of California, the YMCA recreation yard, a store-front church, and a job training and employment center. Gratis Elementary School (Third and Lucas streets) and the Good Samaritan Hospital (Sixth and Lucas streets) are within a few blocks of Bixel Street.

Impacts to sensitive uses would depend upon the extent of freeway widening and property acquisitions and whether the HOV/transit lanes would be provided by using existing frontage roads or freeway lanes. Potential impacts to sensitive uses could be displacement in the event of road widening and acquisitions; noise, air quality, and visual impacts; and disruption to community cohesion (see Noise, Air Quality, and Visual).

Historic Resources

This alternative could affect historic resources along the corridor depending on the extent of the improvements and the locations of on/off ramps and in-line transit stations. Significant impacts could occur if acquisition of property from a historic resource is required. Several properties within the study area are listed in or are eligible for the National Register of Historic

Places. They include the Stimson House at 2421 South Figueroa Street, St. John's Episcopal Church at 514 West Adams Boulevard, St. Vincent de Paul's Catholic Church at 621 West Adams Boulevard, the Automobile Club of Southern California at 2601 South Figueroa, Union Station at 800 North Alameda Street, and El Pueblo Historic Park at 841 Alameda Street.

Properties not eligible for the National Register but which may be significant at the state or local level are listed below:

- Dennis House; 767 South Garland Avenue; Year Built: 1910
- Scholts Advertising Company; 1201 West Fourth Street; Year Built: 1937
- Jonathon Club; 545 South Figueroa; Year Built: 1924
- Patriotic Hall; 1816 South Figueroa; Year Built: 1926
- Chester Place; Between W. 23rd St. and W. Adams Blvd., west of S. Figueroa St.; Year Built: ~1900
- Iglesia Adventista; Corner of Georgia Street and 18th Street; Year Built: Unknown
- Hall of Justice Building; NE corner of S. Broadway and W. Temple St.; Year Built: 1925
- U.S. Federal Courthouse; NE corner of S. Spring and Temple; Year Built: 1938-1940

Archaeological Resources

While the potential for archeological resources along the proposed alignment is not thoroughly known, because of the possible extent of construction required, this alternative has the potential to affect existing archeological resources. The Exposition Park Branch Line Rail Transit Corridor Route FEIR did not find any archeological sites south of 18th Street along the corridor. The Central City West Specific Plan found that little archeological information is known about the study area west of I-110. The Central City West Specific Plan does note that the potential for archeological resources within its study area is greatest north of Sixth Street. Significant archaeological resources have been uncovered in the Union Station and El Pueblo Historic Park area.

Hazardous Waste

Years of lead gasoline usage have resulted in elevated lead concentrations in the soil adjacent to many freeways. Thus, construction along the Harbor and Hollywood Freeways may uncover extensive soil contamination that would require remediation. Lead contamination would pose the greatest risk to workers involved in soil removal or remediation. Right-of-way acquisitions and the possible displacement of existing businesses may also present hazardous waste cleanup issues. Concerns could involve asbestos or lead in older buildings or other types of hazardous waste, such as underground storage tanks in present or former industrial areas. The extent of potential hazardous waste impacts would depend on the number of acquisitions and degree of ground disturbance that would be required.

Energy

This alternative could result in a beneficial reduction in energy consumption to the extent that it improves fuel efficiency by reducing stop-and-go congestion and vehicle miles traveled. Potential benefits may be greater than those of the TSM HOV/Bus lanes alternatives because the proposed alignment would be within the existing freeway right-of-way, thereby avoiding surface street congestion, and would provide a direct link via the freeway between the existing Harbor Freeway Transitway and the El Monte Transitway. However, the operational difficulties associated with this alternative may limit any potential energy savings.

3.3.2 Elevated Structure Alternative

3.3.2.1 Concept

This alternative would provide an elevated structure within the freeway right-of-way that would be dedicated to bus and HOV vehicles only. This facility would provide either two lanes or four lanes, depending on ultimate projected demand. It could be provided either on a single structure, or on two separate structures, one for the northbound/eastbound direction and one for the westbound/southbound direction. If a single structure were provided, it would be located either in the median or on one side of the freeway; if a split structure were provided, each structure would be smaller and would be provided on each side of the freeway.

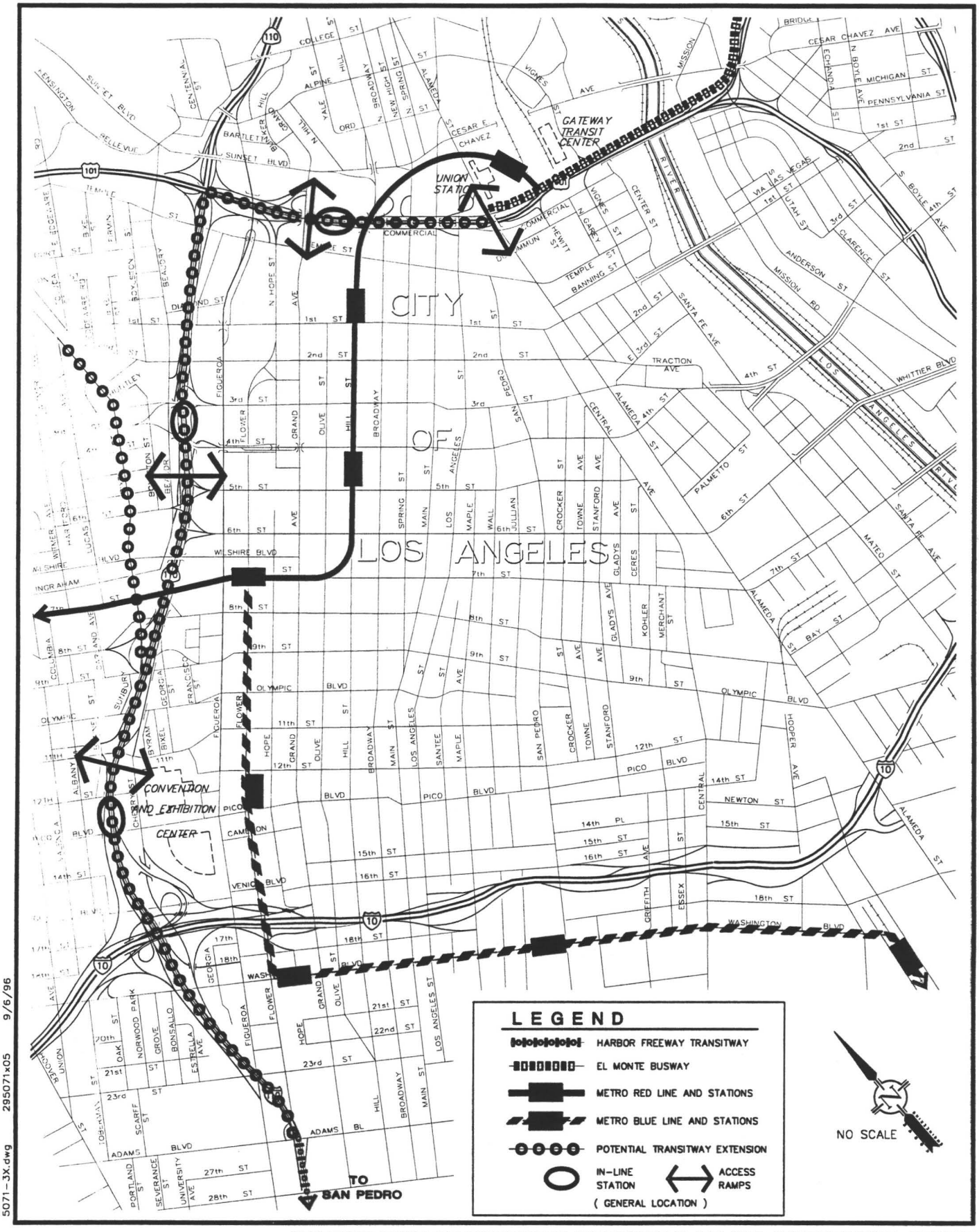
Ramp connections would be provided from the facility for HOVs and buses to exit to Downtown streets at the following general locations: Olympic Boulevard, 3rd/4th Street, Grand Avenue and Alameda Street. Ramp connections would also be provided to the Bixel Street corridor, which would become a transit mall between 3rd and 6th streets. These ramps would allow expedited access to the core Downtown area for buses and HOVs. In-line bus stations would be provided to allow boarding and alighting of buses without buses leaving the transitway. These would probably be provided at up to three locations along the facility, for example, in the vicinity of Grand Avenue, between Third and Fourth streets, and south of 11th Street near the Convention Center. These in-line bus stations would be located at major Downtown streets with frequent Downtown bus service, to facilitate transfers between regional and local buses. This alternative is illustrated in Figure 3.5.

3.3.2.2 Engineering and Costs

The elevated HOV/Transit Lane alternative extending through the corridors of the Harbor and Hollywood Freeways would most likely be located as some combination of the cross sections shown earlier in Figure 2.6.

This alternative could not be placed entirely on one side or the other of the existing freeways, particularly along the Harbor Freeway, because of significant right-of-way constraints from existing major buildings. If the elevated structure were placed entirely in the median, significant and costly freeway widening would be required to accommodate the construction of the columns and provide adequate clearances after construction. (Some of the freeway medians within the project limits have been reduced in width to as narrow as 4 feet, which is

Korve Engineering



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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 3.5

BUS/HOV LANE ALTERNATIVE - ELEVATED STRUCTURE

insufficient to accommodate a typical column for a structure of this type.) Wholesale freeway widening is not a feasible alternative.

The most feasible option would therefore either be a single structure that might be located on different sides of the freeway at different locations, depending on right-of-way availability, or two smaller one-directional structures with one on each side of the freeway.

The most feasible location would be determined based upon the detailed evaluation of geometric alternatives. Based on preliminary analysis, one option that would minimize right-of-way impacts/needs could extend the existing Harbor Transitway from Adams Boulevard northerly in the median over the I-10 Interchange to near 7th Street where it would either swing along the west side of the Harbor Freeway or split into one way structures on each side of the freeway up to the Route 101/110 Interchange. Just south of this interchange, the elevated structure would cross over to the east side of the Harbor Freeway and continue on the southerly side of the Hollywood Freeway to connect to the El Monte Transitway near Union Station.

A significant element of this alternative would be the structures necessary for the provision of on-off ramps to Downtown streets, and for the in-line stations for bus loading and unloading. Detailed engineering studies would be necessary to determine the locations, configuration, and feasibility of such ramps, and their integration into the existing street/ramp system. Some, potentially extensive, modifications to existing ramp structures, column locations, and retaining walls, as well as additional right-of-way, may be necessary to accommodate these new ramps. Whereas the travel lanes could be supported on single columns, the wider structures necessary for the in-line bus stations would require additional columns. Placement of these columns could require modifications to the existing freeway configuration.

This alternative would provide direct connections to/from the south into the Bixel Street corridor at 8th Street in Central City West, via ramps that would fly over the freeway and 8th Street and join Bixel Street south of 7th Street. As identified in the Central City West Specific Plan, the Bixel Street corridor would become a transit/HOV priority street by converting two lanes (one in each direction) to bus/HOV lanes and providing a transit mall (local access traffic only) between 3rd and 6th streets.

At the south end of the corridor, this alternative would connect to the existing Harbor Transitway near Adams Boulevard via the stub end connection being constructed as part of that facility. At the northern end, a connection to the El Monte Busway would need to be constructed near Alameda Street. This could either be a direct connection on new structure, which would need to avoid conflicting with planned/potential light rail and mainline tracks extending south from Union Station across the freeway, or a surface connection to the existing end of the Busway at Alameda Street. This could also provide an opportunity to improve westbound connections from the El Monte Busway to the Gateway Center Transit Plaza.

Depending on future plans for HOV/bus lanes on other freeways in the Downtown area, direct connector ramps for bus/HOV lanes might also be provided to the Santa Monica (I-10), Hollywood (US-101), and Pasadena (SR-110) freeways. Because of the elevated nature of this alternative, any such connectors could also require extensive new structures.

Because of the right-of-way constraints in this corridor, it may not be physically or economically possible to fully meet all Caltrans' design standards for this alternative. A number of design exceptions may be necessary, including for example, a reduced facility cross-section as was used for the existing four-lane elevated Harbor Transitway currently under construction.

Many of the construction techniques used in building the recently opened I-110 elevated transitway would also need to be utilized for this alternative. No reduction in the number of existing traffic lanes other than at night would be allowed, because of the heavy traffic volumes on these facilities throughout the day. Because of the need to retain the number of existing traffic lanes during daylight construction, it is likely that many of the structures would be precast or built segmentally. Where the transitway crosses over the existing freeways and roadways, the extensive use of outrigger structures could be anticipated. A comprehensive Transportation Management Plan would also be an essential integral part of the construction program. Although this alternative presents some unique constructibility issues, none seem to be insurmountable at this stage of consideration.

The order-of-magnitude of capital costs of this alternative is estimated at $480 million. The right-of-way costs are difficult to quantify at this stage of the study but are estimated to be potentially on the order-of-magnitude of $80 million. It was assumed for this alternative's estimate of cost and right-of-way that the cross section of the existing I-110 elevated transitway be used in lieu of the full standard section. A cost increase of approximately $68 million would occur if the full standard cross section is used.

Non-Elevated Options

Given significant concerns voiced by numerous sources regarding visual and other impacts of elevated structures, other design options will need to be explored for certain sections of the corridor. Whereas wholesale freeway widening to accommodate at-grade solutions is not feasible along the entire corridor, there may be feasible non-elevated options such as covered tunnel and at-grade in median at certain locations. For example, along the Hollywood Freeway Corridor adjacent to the site of the new cathedral, the freeway could be widened to accommodate HOV lanes at-grade in the median, and the frontage roads reconstructed over the freeway at their existing elevation. This could be accomplished without taking additional right-of-way, and by reconstructing the frontage roads, which could also reduce the physical separation between them and the Civic Center and El Pueblo.

3.3.2.3 Transportation and Traffic Operations

This alternative would provide a dedicated facility for buses and HOVs not only to gain priority access to Downtown but also to provide a regional connection at the heart of the regional HOV lane system in Los Angeles County. The facility would allow buses and car pools to access Downtown destinations without long circuitous routes over surface streets as currently necessitated by the El Monte Busway and Harbor Freeway Transitway, both of which stop short of Downtown. It would provide for through HOV/bus traffic to continue on a dedicated facility past Downtown without either having to merge into mixed flow lanes to travel pass Downtown or use surface streets. It would also provide for significant bus/HOV access to Central City West via Bixel Street and connections to Glendale Boulevard.

A four-lane facility would provide substantial additional capacity, particularly person capacity for car pools or for ride share vehicles and buses. The practical capacity of a HOV/bus lane is estimated conservatively at 1,200 vehicles per hour compared to 2,000 vehicles per hour for a mixed flow lane. However, considering that car pools typically have an average occupancy of 2.5 people per car or higher, and buses in the Downtown area typically carry forty people or more, then the capacity of a bus/HOV lane is 6,750 people, of which 2,750 would be HOV users and 4,000 would be bus passengers (assumes 100 buses and 1,100 HOVs). The corresponding capacity for a mixed flow lane, assuming an average occupancy of 1.2 is only 2,400 people per hour. The provision of two dedicated HOV/bus lanes in each direction would therefore provide a significant increase in capacity through the Downtown area of about 13,500 persons per hour per direction, by far the highest capacity increase of all the alternatives being considered.

Usage of the HOV/bus lanes would also be significant, and based on a preliminary analysis of peak hour low demand in 2020 is estimated to be on the order of 2,500 vehicles per hour, or almost 8,800 people per hour in the peak hour and peak direction, of which 6,000 would be in ride share vehicles and 2,800 would be in buses. This would be the highest usage of all the alternatives being considered.

Bixel Street would be reconfigured as part of on-going land use development in the area, and would probably comprise one bus/HOV lane in each direction between Third and Eighth streets, with direct connections at Eighth Street to the freeway HOV lane, and connections north of Third Street to Glendale Boulevard.

This alternative would provide significant reductions in travel time into and past the Downtown area. It is estimated that the travel time from Adams Boulevard to Alameda Street would be reduced by as much as twelve to fourteen minutes over the mixed flow lanes.

It would be expected that this alternative would improve overall levels of service on the mainline freeway. Some of the vehicles in the current mixed flow lanes would be expected to transfer to the dedicated HOV/bus lanes, although it would also be expected that additional single occupant vehicles would then also start to utilize the freeway mainline to take advantage of the capacity that was made available. Overall freeway level of service will therefore probably improve, but not by a large amount. However, level of service for the HOV/bus traffic would improve significantly.

This alternative would reduce traffic volumes on surface streets in the Downtown to some extent as buses and HOVs would take a more direct and faster route to Downtown destinations, although some HOV vehicles and buses would still continue to use surface streets into the Downtown area because of the need to serve local destination and bus stops along those streets.

This alternative would significantly improve bus and HOV access to Downtown and into Central City West. It would also significantly improve regional HOV and bus access, in that the dedicated facility would close the gap in the regional HOV system. It would thereby significantly increase the use of buses and HOVs both locally with respect to the Downtown area, and for regional travel.

This alternative would be fully compatible with local and regional plans, particularly the Central City West Specific Plan, the Downtown Strategic Plan, and the SCAG RME and LACTMTA Long Range Plan, in that it would improve both local and regional mobility, focusing on buses/HOVs, and would provide a high potential for increasing the person carrying capacity of the regional access system.

3.3.2.4 Environmental Considerations

Noise and Vibration

The locations of sensitive receptors that might be affected by this alternative are the same as those identified under the HOV/Transit Lane Alternative (Use of Freeway Auxiliary Lanes/Frontage Roads). Noise impacts may be greater than those of the Freeway Auxiliary Lane Alternative depending upon the visibility and proximity of the elevated structure to noise-sensitive uses along the freeway. Soundwalls or other noise mitigation could be required to reduce projected noise levels below the FHWA noise abatement criterion.

Construction noise impacts could be a significant source of annoyance to residences and other sensitive uses if construction occurs during noise-sensitive evening and nighttime hours and/or sensitive uses are affected by construction activities over a period of many months. Because of the more extensive construction required under this alternative, construction noise impacts could be greater than the Freeway Auxiliary Lane alternative.

Air Quality

By providing improvements that accommodate and encourage the use of high-occupancy vehicles and buses as alternatives to the single-occupancy vehicle, this alternative could have a beneficial effect on regional and local air quality. If this alternative reduces congestion along the freeway as well as parallel surface streets, significant regional air quality benefits may be realized. Because this improvement would be operationally more efficient than the Freeway Auxiliary Lane alternative, it could result in greater air quality benefits.

Visual

The proposed route for this alternative covers the same study area as does the Freeway Auxiliary Lane Alternative. The effects on the visual quality of the study area would depend on the transit option chosen. Positioning the transitway on each side of the freeway as a single divided lane structure or as a one-way structure (split) on each side of the freeways would place the elevated structures within close proximity of adjacent buildings and could obstruct views from these buildings. An elevated transitway in the freeway median would allow more distance between the adjacent buildings and the structures and thereby could have less of an effect on views. The area that may be most visually sensitive to the presence of an elevated structure and possible obstruction of views could be the El Pueblo State Historic Park. A new cathedral proposed on a site immediately south of the Hollywood Freeway could also be adversely affected by the visual impacts of an elevated structure.

The elevated structure in the freeway median would provide an impressive freeway entrance for motorists entering the Downtown because it would provide a panoramic view of Downtown Los Angeles and the Hollywood Hills. The structure would be consistent with the four-level interchange and with the overcrossings in the freeway corridor. Significant freeway widening and other modifications to accommodate the construction of the viaduct structures could result in significant visual impacts, however, if architecturally significant buildings are disturbed or displaced. The removal of freeway landscaping could have a significant impact on the visual quality of the freeway.

Land Use

The same plans applicable to the Freeway Auxiliary Lane Alternative would be applicable to this alternative. Consistency of this alternative with these plans would be the same as described above for the Freeway Auxiliary Lane Alternative.

The compatibility of this alternative with adjacent uses would be similar to the discussion above for the Freeway Auxiliary Lane Alternative, with the differences in noise and visual impacts noted above.

Right-of-way Acquisition

The elevated structure proposed under this alternative may be built in the freeway median or as one-way structures on either side of the freeways. In order to accommodate the transitway structure in the median or along the sides of the freeway and the new freeway ramps, acquisition of adjacent property may be required at certain locations. Additional study will be required to determine the extent of needed right-of-way and the potential number of displacements.

Socioeconomics

This alternative would extend along the same freeway alignment as the Freeway Auxiliary Lane Alternative. It could result in greater impacts to population, housing, and businesses than the Freeway Auxiliary Lane Alternative, depending upon the location of the transitway structure and the amount of freeway widening and property takes. This alternative could result in construction impacts (i.e., business disruption, loss of business access, and noise impacts); however, these would not be significant as they would be short term.

Sensitive Uses and Resources

This alternative would cover the same study area as the Freeway Auxiliary Lane Alternative and thus the same sensitive uses could be affected. The impacts on sensitive uses would depend upon the extent of the freeway widening and property acquisitions. At some locations, the elevated transitway could have greater noise and visual impacts on residences than those of the Freeway Auxiliary Lane Alternative. (See Noise, Air Quality, Visual, and Historic Resources.)

Historic Resources

Similar to the Freeway Auxiliary Lane Alternative, this alternative could adversely affect historic resources along the corridor depending on the extent of the improvements and the locations of on/off ramps and in-line transit stations. Significant impacts could occur if acquisition of property from a historic resource is required. The historic resources in the vicinity of the alignment are the same as those identified above for the Freeway Auxiliary Lane Alternative. The El Pueblo Historic Park area north of the Hollywood Freeway could be potentially sensitive to visual impacts of an elevated structure in the freeway right-of-way.

Archaeological Resources

Archaeological impacts would be generally similar to those identified for the Freeway Auxiliary Lane Alternative discussed above. However, the more extensive subsurface excavation required to construct transitway structures could result in a greater potential for disturbing resources that may be present in the area.

Hazardous Waste

Potential hazardous waste impacts would be greater than those described for the Freeway Auxiliary Lane Alternative above because of the more extensive ground disturbance that would result from construction of the transitway structures..

Energy

This alternative could result in a beneficial reduction in energy consumption to the extent that it improves fuel efficiency by reducing stop-and-go congestion and vehicle miles traveled. Because the transitway facility proposed under this alternative would operate more efficiently than the Freeway Auxiliary Lane alternative, it could result in potentially greater energy consumption benefits.

3.4 Mixed Flow Lanes Alternative

3.4.1 Concept

This alternative, illustrated in Figure 3.6, would provide additional capacity in the freeway corridor, on elevated structure in a very similar configuration to the previous alternative. However, this alternative would provide only mixed flow lanes and would not provide any dedicated bus/HOV lanes. In addition, this alternative would not provide any direct ramps to Downtown streets and would thereby function as a bypass for regional traffic traveling past the Downtown. Regional traffic entering or exiting the Downtown would continue to use the existing freeway lanes and extensive ramp system to Downtown surface streets.

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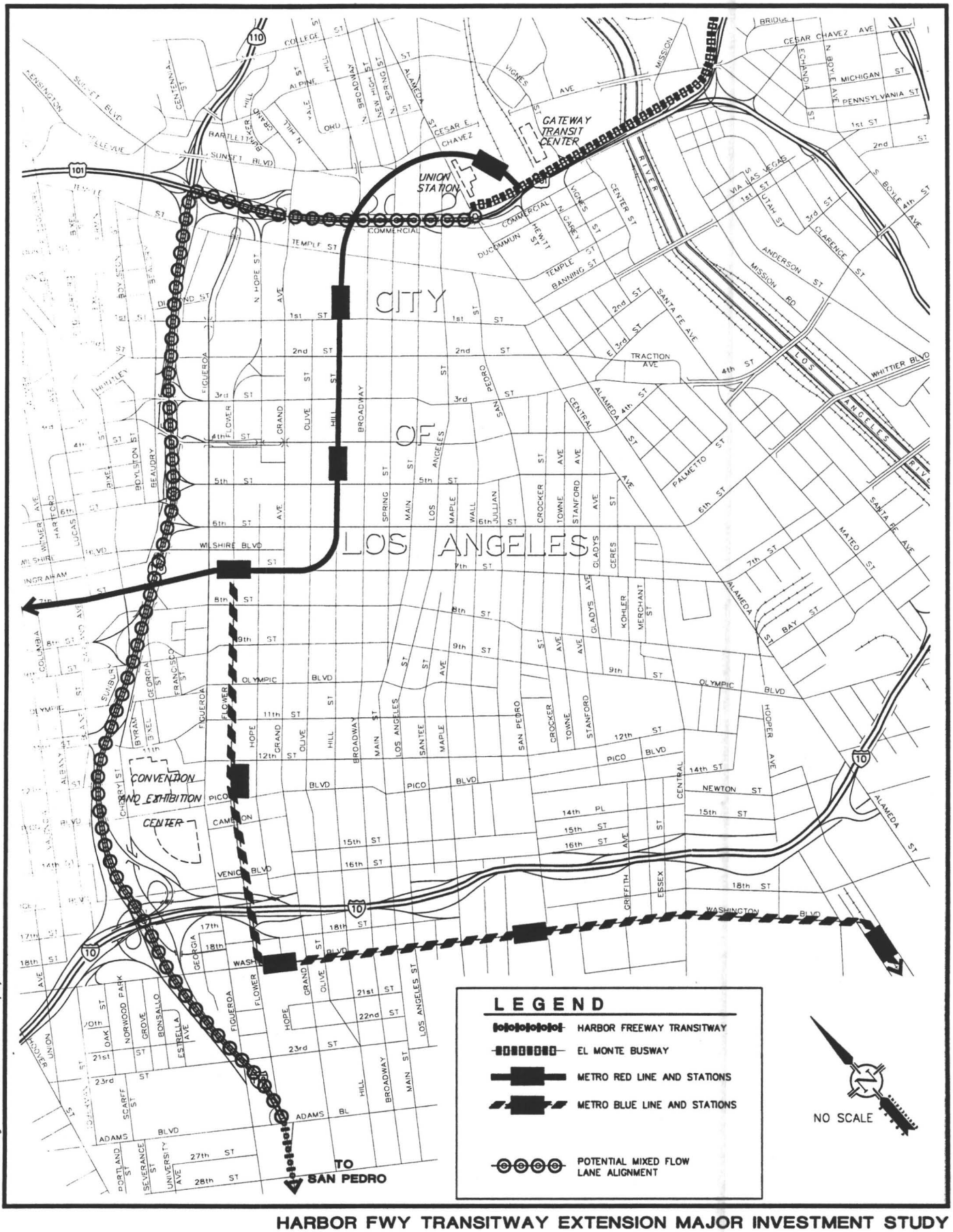

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

Figure No. 3.6

MIXED FLOW LANES ALTERNATIVE (IN FREEWAY RIGHT-OF-WAY)

3.4.2 Engineering and Costs

This alternative would have many of the same engineering and cost issues as the elevated HOV/Transit lane alternative. The structure for the mixed flow lanes could be nearly identical to that for the elevated transitway alternative. Overall, new structure requirements would be less because of the lack of ramps and station stops. However, this alternative would require significant new structural connections at either end, where provisions would be needed to allow mixed flow traffic traveling on the Harbor and Hollywood Freeways to connect with the elevated structure.

These connections would need to serve two purposes. Firstly, to provide connections between the existing freeway lanes and the new elevated lanes for mixed flow traffic. Secondly, to connect the elevated HOV/bus lanes on the transitway to the mixed flow lanes on the freeway (most of these connections would already exist). These could comprise potentially complex structures to accommodate connector ramps and merge/weave areas, which would involve widening and retaining wall modification and/or construction as well as potentially additional right-of-way needs. As for the transitway, design exceptions may be necessary due to right-of-way constraints.

Overall, this alternative would face very similar constructibility issues to the elevated transitway alternative. While on the one hand the engineering would be less complex because of no ramps and in-line stations, on the other hand, it would be more complex at each end because of the connecting structures.

Capital costs would be less than for the elevated transitway alternative and are estimated on the order of $360 million. Like the previous alternative, a cost increase of approximately $68 million would occur should the full standard structure cross section be used. Right-of-way costs could add a further $20 million. All costs associated with this alternative would be lower than the transitway alternative because of the lack of ramps and in-line stations.

3.4.3 Transportation and Traffic Operations

By separating through traffic from local traffic destined to Downtown, this alternative would reduce weave/merge conflicts on the freeway mainline, and should therefore improve traffic operations in terms of traffic speed and levels of service on the freeway. By providing two lanes in each direction, this alternative would increase capacity by approximately 4,000 vehicles per hour and about 4,800 persons per hour (or somewhat higher depending on the mix of HOVs) in each direction along the Harbor and Hollywood freeways.

However, the current freeway system is already operating at capacity both past the Downtown and on the corridors approaching Downtown. While this alternative would enhance capacity through the immediate Downtown area, it would not provide increases in capacity on the approach corridors to Downtown.

Because the overall level of traffic in the Downtown freeway corridors could not increase due to the remaining capacity constraints in the approach corridors, this alternative would have the

effect of providing additional lanes for the same number of vehicles traveling in the corridor. While improvements in level of service would therefore be expected in the Harbor and Hollywood Freeway corridors in the study area, this alternative would not reduce overall congestion around the Downtown because of the remaining capacity constraints on the approach corridors. The need for the traffic using the elevated mixed flow lanes to merge back into the existing freeway lanes at either end of the facility (at Alameda Street and at Adams Boulevard) may also produce significant backups and queues at each end of the new facility that could also limit the effectiveness of this alternative.

Because of this, travel time savings provided by this alternative are estimated at about eight minutes. These would be about half of those of the transitway alternative, but significantly greater than for the TSM alternatives.

Since current studies have shown that 40 to 50 percent of traffic on the Downtown freeways is traveling past Downtown, demand for this alternative would be high. Usage of this facility is projected at approximately 2,900 vehicles per hour or about 3,500 persons per hour in the peak period. This would be, however, largely a result of spreading the same total volume of traffic across existing and added traffic lanes. Overall traffic flow in the corridor would not increase because of the remaining capacity constraints on the approaches at either end of the system. For these reasons, no significant diversion of traffic from local Downtown streets, or corresponding improvements in levels of service on these streets, would be expected.

This alternative would not improve bus/HOV access to the Downtown, nor improve regional connections for bus/HOV traffic. It would also not encourage increased use of transit and HOV vehicles because of its focus on single-occupant vehicles only.

Because this would essentially be an express facility it would only benefit regional traffic bypassing the Downtown and would provide no additional benefit to traffic accessing the Downtown because of the lack of ramps from the expressway facility. This alternative would not be compatible with either local or regional plans, because of its emphasis on single-occupant vehicles and the fact that it would not support local and regional goals for enhancing people movement capacity and providing priority for buses and HOVs. It was for these reasons that the initial concept in the Blueprint Report for a regional throughway of mixed flow lanes was later refined in the Blueprint II Report during the LADSP to an HOV/bus transitway facility.

3.4.4 Environmental Considerations

Noise and Vibration

The locations of sensitive receptors are identical to those identified for the HOV/Transit Lane Alternatives. The noise and vibration impacts of this alternative would be similar to or slightly less than the Elevated Transitway Alternative. Because this alternative would not increase overall traffic flow in the corridor and as a result of potential congestion at each end of the facility, noise levels at some locations may be less than the levels under the Elevated Transitway alternative.

Air Quality

This alternative is likely to have less of a beneficial effect on regional air quality than the HOV/Transit Lane Alternatives because it would not provide an alternative to the use of single-occupancy vehicles. Some emissions reductions may occur, however, due to the congestion relief provided by the increased freeway capacity.

Visual

This alternative would have similar visual impacts to the HOV/Transit Lane Alternatives.

Land Use

This alternative would not be consistent with relevant community plans (i.e., Central City, Westlake, Southeast Los Angeles, South Central Los Angeles, and Central City North community plans) primarily because it would not directly serve the Downtown area but instead would carry regional through traffic past Downtown Los Angeles. It would also fail to be consistent with the goals of many of these community plans to encourage HOV and transit usage. Likewise, the alternative is not consistent with the RME or DSP because the alternative does not seek to reduce single-occupant vehicle travel and does not support increased HOV or transit usage. The Central City West Specific Plan goal of reducing single-occupancy-vehicle travel would also not be supported by this alternative.

Land use compatibility impacts of this alternative would be similar to those of the HOV/Transit Lane Alternatives.

Right-of-way Acquisition

Right-of-way acquisition for the mainline would be similar to that required for the HOV/Transit Lane Alternatives with the exception that the ramp connections and in-line stations would not be proposed under this alternative. This alternative would also not include a Bixel Street extension.

Socioeconomics

Impacts would be similar to those for the HOV/Transit Lane Alternatives with the exceptions noted above. However, this alternative may have less of a benefit to Downtown businesses and activity centers because it would not adequately address the need for direct access to the central Downtown area.

Sensitive Uses and Resources

This alternative would have the potential to affect the same sensitive uses as the HOV/Transit Lane Alternatives with the exception of those along Bixel Street and in the vicinity of the ramp connectors. Some impacts, noise and air quality for example (see above), may differ from those generated by the HOV/Transit Lane Alternatives.

Historic Resources

This alternative would have impacts on historic resources similar to those due to the HOV/Transit Lane Alternatives with the exceptions noted above.

Archaeological Resources

This alternative would have impacts on historic resources similar to those due to the HOV/Transit Lane Alternatives with the exceptions noted above.

Hazardous Waste

Hazardous waste issues would be similar to those discussed for the HOV/Transit Lane Alternatives. The extent of potential impacts would depend on the number of acquisitions and degree of ground disturbance that would be required.

Energy

This alternative would likely increase energy consumption because, by providing additional mixed flow freeway lanes, it encourages continued use of single-occupancy vehicles.

3.5 Rail Transit Alternative - LRT (Blue Line Coliseum/Downtown Connector)

3.5.1 Concept

This alternative would use two-planned light rail transit (LRT) lines to provide local access to the Downtown as well as a regional connection between the two transitways. Users of the Harbor Freeway Transitway could transfer at Adams Boulevard to a planned light rail line traveling along Flower Street from the USC/Coliseum area to connect to the Long Beach Blue Line along Flower Street at Washington Boulevard. Passengers wanting to continue north of the station at 7th and Flower, or east of Downtown could then use the planned Blue Line Downtown Connector to Union Station. This alternative would therefore require transfer facilities, including bus and park-and-ride facilities at Adams Boulevard. Such facilities are already provided at Union Station, at the end of the El Monte Transitway.

3.5.2 Engineering and Costs

Previous work conducted for the USC/Coliseum LRT Extension for the Blue Line identified an at-grade route along Flower Street with a station at 23rd Street. The Downtown Connector Study identified two potential alignments through Downtown: a subway route through the Bunker Hill, Civic Center and Little Tokyo areas; and an at-grade route along San Pedro Street, through Central City East and Little Tokyo, as illustrated in Figure 3.7. Engineering issues have been addressed and described in these previous documents.

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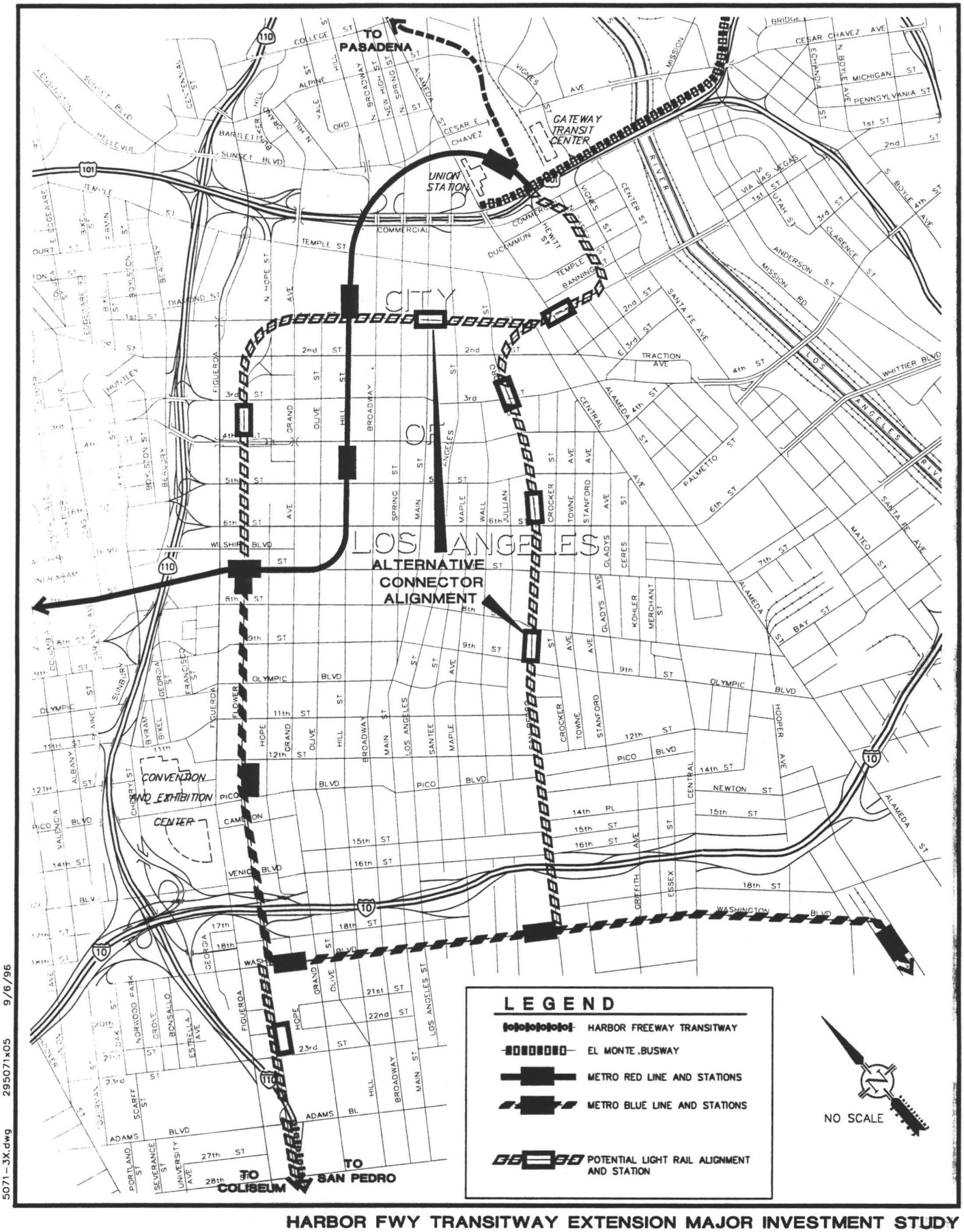

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HARBOR FWY TRANSITWAY EXTENSION MAJOR INVESTMENT STUDY

LIGHT RAIL TRANSIT ALTERNATIVE **Figure No. 3.7**

(COLISEUM EXTENSION AND DOWNTOWN CONNECTOR)

This Harbor Transitway Extension alternative would require enhanced connections at the end of the transitway near Adams Boulevard. The connection would consist of an intermodal transit station at 23rd Street that would include an assumed 500 vehicles parking structure and bus bays. Bus passengers on the transitway could transfer to the Blue Line LRT, which would continue to Downtown and on to Union Station via the Blue Line connector. HOV passengers could park at the 23rd Street parking structure and also use the Blue Line to continue into Downtown or connect to Union Station.

At Union Station, at the end of the El Monte Busway, there are already significant multimodal connection facilities, including the recently completed Gateway Transit Center. The Blue Line Downtown Connector would enter the Union Station trainyard on the west side via a new bridge over both the Hollywood Freeway and the El Monte Busway. Passengers could then transfer to other rail modes at Union Station, or to buses via either the busway in-line station at Alameda Street or via the Gateway Transit Center.

Since these rail improvements are not currently programmed or funded, they would need to be developed as part of this alternative in order to accomplish a rail transit connection. This alternative would include the portion of the Blue Line Exposition Park Branch Line between Washington Boulevard and Adams as well as the Blue Line Downtown Connector, in addition to the parking structure and any modifications to accommodate buses at the 23rd Street station.

This alternative would not involve any engineering changes to the Harbor or Hollywood freeways.

Cost estimates for this alternative were derived from the Preliminary Planning Study for the Blue Line Downtown Connector, and the EIR for the USC/Coliseum LRT Blue Line Extension (for the segment from Washington Boulevard to Adams Boulevard). Capital costs are estimated at about $180 million to $560 million for this alternative, depending upon which alignment through Downtown were to be selected. Right-of-way costs are estimated at about $20 million to $35 million. This alternative would not significantly change existing highway operating and maintenance costs.

3.5.3 Transportation and Traffic Operations

The EIR for the USC/Coliseum LRT Extension identified an LRT service frequency of two car trains every six minutes during peak periods in the corridor. In terms of passenger seats (a comparable statistic to the other alternatives), this alternative would add a travel capacity of 2,000 persons/hour in one direction, much lower than for either the transitway or mixed flow lane alternatives.

This capacity would not be in the freeway corridor but would be through the Downtown area thereby directly serving Downtown destinations. However, this additional person capacity would be rail transit based rather than bus/HOV based. Users of the Harbor Transitway would need to transfer at Adams Boulevard to continue into Downtown and regional travelers wishing to use both the Harbor and El Monte transitways would need to change twice to effect a through trip.

This would significantly add to travel times for this alternative. The travel time between Adams Boulevard and Alameda Streets with this alternative would be ten to twelve minutes more than in the No Build Alternative.

While a certain number of HOVs would probably use a remote park-and-ride lot/structure at Adams Boulevard and access Downtown via the light rail, it is extremely unlikely that bus passengers using the Harbor Transitway would transfer from a bus already destined to Downtown to another transit mode also destined to Downtown. It is also unlikely that regional trips passing Downtown would get off the transitways or freeways and change to a transit mode through Downtown.

Previous studies such as the Exposition/Coliseum and Downtown Connector Preliminary Planning Study have demonstrated the viability of these light rail connections in terms of potential patronage based on their connectivity to the rest of the regional rail system in Los Angeles County, and in providing critical Downtown rail links and capacity. However, it is not the intent of these lines to provide regional connections in the countywide HOV lane system. Correspondingly, it would be expected that potential patrons of this connection from either the Harbor Transitway or the El Monte Busway would be very low (on the order of only 500 passengers per hour in one direction in the peak period) for the reasons described above associated with the inconvenience and time consuming transfers between different transit modes.

This alternative would therefore not substantially improve levels of service or reduce traffic congestion either on the Downtown street system or on the Downtown freeway system.

This alternative would not improve bus/HOV access to Downtown or pass Downtown, and in fact, through the necessity for transfers might actually provide less convenient access. While it would encourage rail transit use it would not encourage significant additional use of bus transit or HOVs. Because of the need to transfer from Harbor Transitway modes to rail transit modes it would provide poor connectivity to the Downtown, and for regional trips. It would not improve access to Central City West, as no spur line could be constructed across the Harbor Freeway or into the Bixel Corridor.

While this alternative is compatible with certain elements of local and regional plans, including the Downtown Strategic Plan and MTA's Long Range Plan, it would not be compatible with the regional HOV plan. The critical gap past Downtown in the regional HOV system would remain with this alternative. While this alternative is therefore fully consistent and compatible with future rail plans in the area it would not enhance bus/HOV access. The MTA Long Range Plan identifies the need for a regional HOV lane system to supplement the regional rail system, and provide improved mobility and access to those areas not served by the rail corridors. To this extent the coexistence of both a rail and HOV system is a critical and integral part of the MTA Long Range Plan. Therefore in this context this alternative, by focusing on rail transit, would not meet the bus/HOV goals and needs identified for this corridor.

3.5.4 Environmental Considerations

Noise and Vibration

An at-grade or aerial alignment along San Pedro Street could result in significant noise impacts on adjacent sensitive receptors. An elementary school and several multi-family apartment buildings could be adversely affected.

The subway alignment through Bunker HIll would not create substantial noise impacts during operation because noise would be confined to the below-ground tunnel in which the LRT would be located. The Light Rail Transit Alternative could result in significant adverse vibration impacts during both construction and operation; however, with special treatment of the tracks (e.g., continuously welded rail and resiliently mounted direct fixation fasteners) and proper construction techniques these impacts could be mitigated.

Air Quality

Air quality benefits under this alternative would depend on the number of drivers this alternative could attract from single-occupant motor vehicles. Because the alternative duplicates existing rail transit in the Downtown area to some extent and would provide marginally better transit accessibility, air quality benefits may be limited.

Visual

The Downtown Connector would extend north in a subway configuration from the Blue Line at the 7th Street/Metro Center station through Bunker Hill and the Civic Center to Union Station or north from the San Pedro Station along San Pedro Street either at-grade or as an aerial alignment through Central City East and Little Tokyo to Union Station. As stated above Bunker Hill, as the primary corporate center of Southern California, contains a mix of high-rise office/commercial buildings, hotels, and apartments and new high-rise residential, office, and commercial development is planned for the area. The Civic Center contains mid- and high-rise government office buildings of civic and cultural importance. San Pedro Street is lined predominantly with commercial-retail markets and industrial buildings which are low- and mid-rise. Little Tokyo is an ethnic neighborhood with high-rise hotels, offices, and apartment buildings.

The Downtown Connector could have adverse visual impacts during construction if cut-and-cover construction is used and the streetscape and buildings are disturbed. Above-ground stations could also result in changes to the streetscape. The at-grade or aerial alignment along San Pedro Street could result in significant adverse visual impacts.

Land Use

The Central City, Central City North, and Southeast Los Angeles Community Plans encompass the area through which this alternative would travel. This alternative would be compatible with all three plans because it seeks to improve public transportation in the Downtown area. This alternative would also be consistent with the RME and DSP because

the alternative would strengthen public transit options in Downtown. It would not, however, serve the Central City West area.

This alternative would not have substantial land use impacts. Land uses along the proposed alignment are heavily commercial. Industrial uses exist east of San Pedro Street and there are scattered residential uses along both sides of San Pedro Street, especially in the southern portion of the project area. The Bunker Hill alignment alternative would be constructed below ground and thus potential land use impacts would likely be confined to the construction period. Such impacts could involve impaired access, relocation issues, and temporary noise and vibration impacts. The at-grade or aerial alignment along San Pedro could be incompatible with adjacent sensitive uses because of potential noise and visual impacts.

Right-of-way Acquisition

This alternative would be constructed below ground or as an at-grade or aerial alignment along San Pedro Street and may require private property acquisitions at station areas, for possible utility relocations and shaft sites, and for station parking facilities.

Socioeconomics

This alternative could have a significant impact on populations, housing, and businesses along the alignment route if property acquisitions are necessary. Construction activity could result in business disruption and loss of access, but these impacts would be temporary. Noise and vibration during construction could also disturb residents over the duration of the construction. The alternative would have a beneficial effect on residents and businesses in the area because it would provide a transit link between the different activity centers and neighborhoods in the central Downtown.

Sensitive Uses and Resources

Sensitive uses along the alignment from the 7th Street/Metro Center station to Union Station through Bunker Hill and the Civic Center include the Central Library Park at Fifth and Flower streets, the Bonaventure hotel, and an apartment building at Third Street and Broadway. Sensitive uses along the Downtown Connector route from the San Pedro station along San Pedro Street through Central City East and Little Tokyo to Union Station include an elementary school at San Pedro Street and Washington Boulevard, residential units, hotels and apartments in Little Tokyo, and historic buildings.

The extent and type of potential impacts this alternative would have on these sensitive uses would depend upon the construction method used. However, because the connector alignment through Bunker Hill would be in a subway the impacts of the project would occur primarily during construction rather than during operation. Thus, there could be fewer long-term impacts with this alternative than with the other alternatives. Potential concerns would be noise, vibration, loss of access, and displacement during construction. The at-grade or aerial alignment along San Pedro Street could result in noise, vibration, loss of access, impacts on sensitive uses during both construction and operation.

Historic Resources

This alternative could affect several historic resources along the corridor depending on the location of the Metro stations and parking structures. Several properties within the study area are listed in or are eligible for the National Register of Historic Places. They include the Stimson House at 2421 South Figueroa Street, St. John's Episcopal Church at 514 West Adams Boulevard, St. Vincent de Paul's Catholic Church at 621 West Adams Boulevard, the Automobile Club of Southern California at 2601 South Figueroa, Union Station at 800 North Alameda Street, El Pueblo Historic Park at 841 Alameda Street, Los Angeles Public Library at Fifth St. and Hope Street, and St. Viviana's Cathedral at 114 East 2nd Street.

Properties not eligible for the National Register but which may be significant at the state or local level are listed below.

- Jonathon Club; 545 South Figueroa Street; Year Built: 1924
- Patriotic Hall; 1816 South Figueroa Street; Year Built: 1926
- Chester Place; Between W. 23rd Street and W. Adams Boulevard, west of S. Figueroa Street; Year Built: ~1900
- Iglesia Adventista; Corner of Georgia Street and 18th Street; Year Built: Unknown
- Commercial Block; 740-748 South San Pedro Street; Year Built: ca.1889

Archaeological Resources

While the potential for archeological resources in the vicinity of the alignment is not thoroughly known, the construction required for this alternative has the potential for affecting any existing archeological resources. The potential for archeological resources is especially great near Union Station and El Pueblo Historic Park.

Hazardous Waste

If this alternative were to require right-of-way acquisitions, the acquisitions could present hazardous waste concerns if displaced businesses contained asbestos or lead or otherwise were sites contaminated by hazardous wastes. The extent of hazardous waste impacts would depend on the presence of preexisting hazardous waste materials and on the number of acquisitions and degree of ground disturbance that would be required. Soil containing hazardous substances may also be encountered as a result of excavation and tunneling required to construct the subway alignment.

Energy

This alternative would be beneficial in terms of energy conservation because it aims to convert single-occupant vehicle trips to light-rail passenger trips and thus reduce energy consumption. Because the light rail transit line would be electrically powered, it may lessen dependency on petroleum fuels. Energy benefits may be limited, however, because it would duplicate to some extent existing rail transit in the Downtown area and because it would not encourage additional use of bus transit or HOVs.

4.0 Summary and Recommendations

4.0 Summary of Evaluation and Recommendations

This chapter summarizes the evaluation of alternatives described previously, and provides a recommendation as to whether an alternative should be eliminated from further consideration or carried forward into subsequent more detailed technical and environmental analysis. The key findings of the evaluation are summarized in Table 4.1.

4.1 TSM Alternative in the Freeway Corridor

This alternative would increase person carrying capacity, although this would probably be at the expense of reducing vehicular capacity. While the alternative would provide small improvements in travel times for bus/HOVs, it would have a limited operational effectiveness due to potential difficulties of physical implementation, and traffic operations associated with providing two lanes in each direction for buses/HOVs and regional connections (particularly in the east-west corridor south of the Hollywood Freeway). Single bus lanes for local bus access to Downtown appear more feasible. More detailed study is necessary to explore potential solutions to address those issues. This alternative would result in mostly minor adverse environmental impacts. This alternative would provide incentives for bus/HOVs, which would be oriented more towards local access to the Downtown rather than improving regional connections. At $16 million construction costs, this is a lower cost alternative, that would partially meet the project goals. It is recommended that this alternative be included in further study, primarily focusing on the north-south corridor adjacent to the Harbor Freeway. In further study of a TSM Alternative, the feasibility of mixed flow lanes with bus priority, as well as a broad range of other operational measures, should be addressed.

4.2 TSM Alternative Through Central Downtown

Similarly to the TSM Alternative in the Freeway Corridor, this alternative would increase person carrying capacity through the central Downtown. This alternative would be more difficult to implement and would have greater operational impacts than the previous alternative, because of the more constrained nature of the streets in the central Downtown area. It would provide smaller improvements to travel times. This alternative would have potentially significant impacts on Downtown traffic congestion. Again, single bus lanes for local access appear more feasible, but would not provide for regional connectivity. The environmental effects of this alternative would be similar to but perhaps more widespread than the previous alternative because of the more extensive network of HOV/bus lanes proposed under this alternative. This alternative would provide incentives for bus/HOVs, but be limited to local Downtown access, as no effective regional linkages would be established. For this reason this alternative would only partially meet project goals and objectives. At $29 million this is also a lower cost alternative. It is not recommended that this alternative be included in subsequent analysis.

4.3 HOV Transit Lane Alternative - Using Freeway Auxiliary Lanes/Frontage Roads

This alternative would provide limited capacity improvements and present significant engineering difficulties to implement. Particularly in the Harbor Freeway Corridor, it would require extensive amounts of new construction, and present very difficult constructability problems to overcome. Substantial new construction would be needed because no current continuous frontage road or collector-distributor road system exists throughout the corridor. Construction would involve new structures, new or widened connector roads with associated retaining walls, and modification to many of the overcrossing structures. Constructability would be a major issue as this alternative would impact the entire ramp and collector-distributor road system providing access to Downtown. It could require significant conversion of mixed flow lanes to dedicated HOV/bus lanes on existing frontage roads, which would have significant negative impacts on the remaining mixed flow traffic lanes on both the frontage roads and the freeway mainline.

This alternative could result in significant environmental impacts during both construction and operation. This alternative would provide limited beneficial effects on regional air quality. In addition, some localized adverse air quality impacts may occur if existing mixed flow lanes and frontage roads are converted to bus/HOV lanes. This alternative would provide very limited operational improvements and benefits for HOV/buses. It would provide minimal improvements to Downtown access for buses/HOVs and negligible improvements to bus/HOV regional connections. This relatively higher cost alternative ($310 million) would not meet project goals. The cost-effectiveness of this alternative would be low because of its high cost, low operational effectiveness and potentially high impacts. It is recommended that this alternative be dropped from further technical and environmental analysis, with the possible exception of the frontage roads alongside the Hollywood Freeway Corridor, which could be considered as part of either a project alternative or a TSM alternative.

4.4 HOV/Transit Lane Alternative - Elevated Structure

This alternative would provide significant benefit to buses/HOVs. It would improve direct Downtown access for buses/HOVs. This is the only alternative that would provide continuous dedicated HOV/bus lanes to close the missing Downtown gap in the regional HOV lane system, also providing an important HOV/bus connection between East Los Angeles and Los Angeles International airport and the ports of Los Angeles. It would provide the highest increase in person carrying capacity of all the alternatives, and the highest demand/usage. It would significantly reduce travel times in the corridor and could improve both freeway and arterial levels of service. The most significant engineering issue of this alternative is determining the most feasible alignment through the Harbor and Hollywood freeway corridors. Superimposing an elevated structure through these freeway corridors requires constructability evaluations, including provision for on-off ramps and in-line bus stations, and consideration of significant right-of-way constraints from major buildings. Engineering, operational and environmental issues need further detailed study.

This alternative would result in similar but potentially greater construction impacts than the previous alternative. Visual impacts may be significant because of the presence of new elevated structures that could obstruct views or cast shadows in visually sensitive areas. Potential benefits to regional air quality would be the highest of all the alternatives. The alternative would be at the high end of the cost range of the alternatives considered, at $560 million. The cost-effectiveness is potentially among the highest of the alternatives studied because of the higher capacity and usage, and the local and regional transportation benefits. This alternative would be compatible with local and regional plans, and would meet project goals and objectives. It is recommended that this alternative be included in subsequent and further technical and environmental analyses.

Given significant concerns voiced by numerous sources regarding visual and other impacts of elevated structures, other design options will need to be explored for certain sections of the corridor. Where as wholesale freeway widening to accommodate at-grade solutions is not feasible along the entire corridor, there may be feasible non-elevated options such as covered tunnel and at-grade in median at certain locations.

4.5 Mixed Flow Lanes Alternative

While this alternative would provide flexibility in accommodating mixed flow traffic and HOVs, its orientation would be to accommodate single occupant vehicles with no priority or dedicated facilities for HOV/buses. This alternative would provide no overall new capacity or new users in the corridor because of the capacity constraints that would remain on the approach corridors. This alternative would provide limited, if any, travel time savings and minimal overall improvements to traffic levels of service. Many of the same engineering and cost issues apply to this alternate as the HOV Transit Elevated Structure alternative. The structure for the mixed flow lanes could be nearly identical to that for the elevated transitway alternative, although without local street on and off ramps and in-line bus stations. It would require new structural connections at either end. This alternative would cost $380 million, but would not be cost-effective because there would be no increase in overall travel capacity or demand.

Construction impacts would be similar or slightly less than the previous alternative (HOV - Elevated Structure). Right-of-way impacts and potential displacements may be less than the previous alternative. The visual impacts of the elevated structure and operational noise impacts could be significant and similar to the previous alternative. The alternative would provide no incentive to increase HOV/bus usage. This alternative would not be compatible with local or regional plans and would not meet stated project goals. It is recommended that this alternative be excluded from further technical and environmental analysis.

4.6 Rail Transit Alternative - LRT

This alternative would provide local Downtown and regional connections through the use of the Blue Line USC/Coliseum extension and the Blue Line Downtown Connector. This alternative would provide limited person carrying capacity on a travel mode (rail) that would be

different to the modes used in the Harbor Transitway and the El Monte Busway approach corridors (bus and HOV). Use of this alternative would therefore require transfers between modes. Because of this, this alternative would actually lengthen travel times in the corridor, would not provide convenient transportation access, and would have relatively low usage.

Construction activities for both the at-grade and subway alignments could disturb soil contaminated with hazardous materials and adversely affect historic and archaeological resources. The at-grade light rail alignment could have significant noise, vibration, and visual impacts on adjacent sensitive resources. The air quality benefits of this alternative are expected to be limited. At a construction cost of $200-595 million (depending on the alignment of the Downtown Connector), this would not be a cost-effective solution to extending the Harbor Freeway Transitway. This alternative would not improve either local or regional access for buses/HOVs. It would not meet the stated project goals and objectives. While the light rail extensions are clearly viable as part of the developing rail transit system in Los Angeles, they are incompatible with the bus/HOV needs of the corridors under discussion in this study. It is recommended that this alternative be dropped from further technical and environmental analysis.

4.7 Considerations for Subsequent Studies

For continuing studies beyond this MIS document, the following broader issues will need to be considered.

- Any final project configuration might consist of a combination of various individual elements of the alternatives recommended for further study.

- Given significant concerns voiced by numerous sources regarding visual and other impacts of elevated structures, other design options will need to be explored for certain sections of the corridor. Whereas wholesale freeway widening to accommodate at-grade solutions is not feasible along the entire corridor, there may be feasible non-elevated options such as covered tunnel and at-grade in median at certain locations.

- The final project will need to address the ease of transfer between HOV/bus modes and the current and future planned rail system in Downtown.

- Subsequent studies should explore the potential for phasing any infrastructure improvements into discrete segments, in connection with such issues as funding availability, constructibility, and operational benefits.

Table 4.1: Summary Evaluation Matrix of Harbor Transitway Extension MIS Alternatives

Transportation and Traffic Operations	Engineering and Costs	Environmental Considerations
TSM-Freeway Corridor Alternative		
• Increases person-carrying capacity. • Encourages use of bus/HOV. • Small improvements in travel times. • Negligible improvements to freeway LOS. • Potential traffic operations conflicts/problems. • Potential traffic impacts. • Relatively low demand/usage (bus oriented). • Improves HOV/bus access to Downtown. • Does not improve regional HOV/bus connections.	• $ 16 million to construct this alternative. • Negligible operating costs. • Two bus/HOV lanes not feasible without converting at least one mixed flow lane. • Continuous bus/HOV lanes through Downtown may not be feasible. • Minimal/negligible right-of-way needs.	• Minor increases in noise levels. • Possible localized air quality impacts. • Potential regional air quality benefits. • Loss of curbside parking spaces could affect local businesses. • Reductions in sidewalk widths could conflict with local plans to create more pedestrian-friendly streetscapes.
TSM - Central Downtown Alternative		
• Increases person-carrying capacity. • Encourages use of bus/HOV. • Negligible travel time improvements. • Negligible improvements to freeway LOS. • Potential traffic operation conflicts/problems. • Significant traffic impacts. • Limited/low demand/usage (bus oriented). • Improves HOV/bus access to Downtown. • Does not improve regional bus/HOV connections.	• $ 29 million to construct this alternative. • Negligible operating costs. • Two bus/HOV lanes not feasible without converting at least one mixed flow lane. • Minimal/negligible right-of-way needs.	• Minor increase in noise levels at more adjacent sensitive receptors than under the TSM-Freeway Corridor Alternative. • Possible localized air quality impacts. • Potential regional air quality benefits. • Removal of curb-side parking spaces could affect local businesses. • Reductions in sidewalk widths could conflict with local plans to create more pedestrian-friendly streetscapes.

Table 4.1: Summary Evaluation Matrix of Harbor Transitway Extension MIS Alternatives

Transportation and Traffic Operations	Engineering and Costs	Environmental Considerations
HOV/Transit Lane Alternative - Using Auxiliary Lanes/Frontage Roads		
• Requires conversion of mixed flow lanes to HOV/bus. • Significant operational impacts on mixed flow lanes. • Negligible person-carrying capacity increases, likely vehicle capacity reductions. • Negligible travel time improvements. • Limited effectiveness of HOV/bus lanes due to conflict with mixed flow traffic on ramps. • Limited improvements to HOV/bus access to Downtown. • Does not improve regional bus/HOV connections. • Limited compatibility with local/regional plans. • Low demand/usage (HOV oriented). • Highest potential along Hollywood Freeway. Lowest potential along Harbor Freeway.	• $ 310 million to construct this alternative. • No current continuous frontage road system throughout corridor. • Would require significant construction of new facilities to provide continuous system. • Would require extensive modification of frontage roads (widening or lane conversion) to provide continuous system. • Constructability a major issue, particularly in Harbor Freeway Corridor. • Potentially significant ROW needs. • Considered infeasible in Harbor Freeway Corridor. May be feasible in Hollywood Freeway Corridor.	• Potentially significant operational noise impacts. Construction noise and vibration could adversely affect adjacent sensitive uses. • Potential construction air quality impacts. • Limited regional air quality benefits. • Potential adverse visual impacts. • Some acquisition of property and displacement of existing land uses may be required. • Historic/archeological resources could be affected by construction activities and ROW acquisition. • Construction activities could disturb soil contaminated with lead or other hazardous materials.

Table 4.1: Summary Evaluation Matrix of Harbor Transitway Extension MIS Alternatives

Transportation and Traffic Operations	Engineering and Costs	Environmental Considerations
HOV/Transit Lane Alternative - Elevated Structure		
• Substantial increase in person-carrying capacity. • Encourages use of bus/HOV. • Significant reduction in transit time. • High demand/usage. • Some improvements to freeway and street levels of service. • Significant improvements to HOV/bus access to Downtown. • Significant improvements to regional HOV/bus connections closes Downtown gap. • Compatible with local/regional plans.	• $ 560 million to construct this alternative. • Single structure or twin smaller structures on side(s) of freeway. • Provides direct ramp connections to Downtown streets, and in-line stations. • Additional structures for ramps and in-line stations may require modifications to existing freeway. • Potential for improved El Monte Busway connections to Gateway Transit Center. • ROW constraints may require design exceptions from Caltrans standards. • Limited additional right-of-way needs because of elevated structure. Further right-of-way needs depend on location/configuration of ramps and in-line stations. • Non-elevated options may need to be studied at certain locations	• Potentially significant operational noise impacts, may be greater than Freeway Auxiliary Lane Alternative. Construction noise and vibration could adversely affect freeway adjacent sensitive uses. • Potential construction air quality impacts. • Highest potential for regional air quality benefits. • Potential reductions in vehicle miles travelled and corresponding reductions in energy consumption. • Elevated structures could obstruct views. Loss of freeway landscaping could also result in an adverse visual impact. • Historic/archaeological resources could be affected by construction activities and ROW acquisition. • Construction activities could disturb soil contaminated with lead or other hazardous materials.

Table 4.1: Summary Evaluation Matrix of Harbor Transitway Extension MIS Alternatives

Transportation and Traffic Operations	Engineering and Costs	Environmental Considerations
Mixed Flow Lanes Alternative		
• Significant increase in vehicle capacity - limited increase in person-carrying capacity. • Capacity increase limited to Harbor/Hollywood Freeway corridors. Does not increase regional capacity. • Level of service improvements limited to freeways past Downtown. • Capacity constraints remain at each end of corridor - would create congestion. • Limited travel time savings. • No net increase in usage/demand. • Does not encourage bus/HOV use. • Oriented to single occupant autos. • Would not improve bus/HOV access to Downtown. • Would not improve bus/HOV regional connections. • Not compatible with local/regional plans.	• $ 380 million to construct this alternative. • Similar structure requirements to HOV/Bus Elevated alternative, without ramps and in-line stations. • No local Downtown access. • Moderate/limited right-of-way needs. • ROW constraints may require design exceptions from Caltrans' standards.	• Potentially significant operational noise impacts similar or less than Transit Lane-Elevated Structure alternative. Construction noise and vibration could adversely affect freeway adjacent sensitive uses. • Potential construction air quality impacts. • Limited beneficial impact on regional air quality. • Elevated structures could obstruct views. Loss of freeway landscaping could also result in an adverse visual impact. • ROW requirements and displacement impacts may be less than Transit Lane - Elevated Structure alternative because of absence of ramp connections and Bixel extension. • Historic/archaeological resources could be affected by construction activities and ROW acquisition. • Construction activities could disturb soil contaminated with lead or other hazardous materials.

Table 4.1: Summary Evaluation Matrix of Harbor Transitway Extension MIS Alternatives

Transportation and Traffic Operations	Engineering and Costs	Environmental Considerations
Rail Transit Alternative		
• Low increase in person-carrying capacity. • Encourages use of rail transit only. • Requires transfers to LRT line from bus/HOV. • Would increase bus/HOV travel times. • Low usage/patronage. • Would not improve freeway or street levels of service. • Does not improve bus/HOV access to Downtown. • Does not improve regional bus/HOV connections. • Compatible with local/regional plans but does not meet project goals.	• $200-595 million to construct this alternative. • At-grade LRT connection along Flower Street. Subway or at-grade LRT connection through Downtown. • New intermodal transit station at 23rd Street, including parking structure. • No engineering changes to freeway.	• At-grade section of alignment could result in significant operational noise impacts. Potential adverse vibration impacts from subway and at-grade LRT. Construction noise and vibration could adversely affect adjacent uses. • At-grade section of alignment could result in significant visual impacts. • At-grade alignment may affect access to properties along the alignment during construction and operation. • Some ROW acquisition may be required for stations, parking, shaft sites, or utility relocation. • Historic/archeological resources could be affected by construction activities and ROW acquisition. • Construction activities could disturb soil contaminated with hazardous materials.

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Appendix A

Comments and Responses, Elected Officials and Community Organizations

Appendix A
Harbor Freeway Transitway Extension Study
Public Comments and Responses:
Meetings with Representatives of Elected Officials and Community Organizations

Date	Commentator/Organization	Comments	Response
6/3/96	Ed Reyes, Office of Councilman Mike Hernandez	1. Concerned that the project coordinate and be consistent with local community plans and that it define access points so that residents can use the transitway (e.g., at Third and Loma).	1. Comment noted. These issues will be addressed in the Project Study Report (PSR).
		2. Concerned that we understand the profile of the district's residential communities and their commutes.	2. Outreach begun during the Major Investment Study (MIS) and will be continued and widened through the PSR.
		3. Will the transitway help to bridge the east and west sides of Downtown, both operationally and by its design?	3. Comment noted. The PSR will review all design and operational issues. The goal of the Transitway Extension is to enhance local access/mobility as well as regional connectivity.
		4. Will busway stations be compatible with surrounding neighborhoods?	4. Comment noted. The PSR will review issues related to busway stations and other modal links. Urban design and compatibility issues will be an important part of this review.

Date	Commentator/Organization	Comments	Response
		5. How will the transitway study fit into the northeast bus restructuring study, the Pasadena Blue Line and possible Glendale Boulevard HOV lanes?	5. Comment noted. See response to preceding question
6/7/96	Dan Farkas, Office of Councilman Richard Alatorre	1. Concerned that there is sufficient community input throughout the process. 2. He understands the need for the transitway. 3. Concerned about how this transitway fits in with the MTA's long-range plan. 4. Concerned about how the project will be financed.	1. Outreach begun during the MIS and will be continued and widened through the PSR. 2. Comment noted. 3. Comment noted. The PSR will review issues related to feasibility and potential funding. 4. Comment noted. See response to question #3.
6/10/96	Sandra Yamane, Central City Association (CCA) Government Relations Vice President	1. Wanted the Central City Association (CCA) to be involved throughout the project.	1. The CCA is on the Policy Direction Committee and will continue active participation throughout the PSR. Meetings held with CCA committees including the DSP Implementation, Transportation and Housing/Land Use committees.

Date	Commentator/Organization	Comments	Response
		2. Concerned about impacts of the transitway on local traffic within the Central Business District.	2. Comment noted. The PSR will review the impacts on Downtown streets, especially with regard to the TSM alternative.
6/10/96	David Grannis, Central City West Association	1. Wanted to be kept informed. 2. Felt public outreach and coalition building should be aggressive. 3. Felt the project fills a very important regional need and would help meet the goals of local land-use and transportation plans. 4. Believes that continuation of the transitway to Union Station will provide an important HOV and bus connection linking East Los Angeles to the airport and the harbor.	1. Comment noted. 2. Comment noted. Outreach and consensus building efforts will continue throughout the PSR. 3. Comment noted. 4. Comment noted.
6/10/96	Bill Mabie, Office of State Senator Richard Polanco	1. Wanted to make sure the public had the ability to participate and comment. 2. Had questions about financing of the project, e.g., where would the money come from to fund the project.	1. Outreach begun during the MIS and will be continued and widened through the PSR. 2. Comment noted. The PSR will review issues related to feasibility and potential funding.

Date	Commentator/Organization	Comments	Response
7/8/96	Anora Tracy, Jeffrey D. Goldberg and Eloise Helwig, Orthopaedic Hospital	1. Concerned about construction-related impacts from the future project on the hospital because of the sensitive equipment at the facility (e.g., effect of vibrations). 2. Concerned about the impacts of the transitway on the local street system as it affects egress and ingress to the hospital. 3. Concerned about how the transitway might affect the Figueroa Corridor.	1. Comment noted. The PSR will consider potential impacts of the transitway. 2. Comment noted. The PSR will review potential impacts on the local street system for both the TSM alternative and the transitway. 3. Comment noted. The PSR will review the impacts on Downtown streets, especially with regard to the TSM alternative.
7/9/96	CRA Redevelopment Staff	1. Concerned that the project take into account all the local land-use planning that has gone on over the past years in Downtown Los Angeles. 2. Concerned that the project be sensitive to urban design and economic development issues within the various redevelopment areas. 3. Agreed that public outreach was a very important component and encouraged it.	1. Comment noted. 2. Comment noted. 3. Comment noted. Outreach begun during the MIS and will be continued and widened through the PSR.

Date	Commentator/Organization	Comments	Response
9/4/96	George Kieffer, CCA Transportation Committee Chair	1. Concerned about the financing of the project. 2. Concerned about egress and ingress into Downtown Los Angeles. 3. Concerned about how the project would relate to MTA's 20-year transportation plan. 4. Requested information about anticipated usage of the transitway. 5. Wanted the Central City Association (CCA) to be on the Policy Direction Committee (PDC).	1. Comment noted. 2. Comment noted. The PSR will review this issue. 3. Comment noted. The PSR will review issues related to feasibility and potential funding. 4. The PSR will address this issue. 5. The CCA is on the PDC.
9/4/96	Chinese Chamber of Commerce	1. Concerned about how traffic would be dispersed into the city from the newly opened transitway. Specifically, wanted to know what streets and corridors would be used to bring HOV-related traffic (e.g., buses, carpools) into the Downtown area. 2. Wanted to know what the Los Angeles Dept. of Transportation is studying with regard to the above concern.	1. The PSR will review access routes and potential impacts of the transitway, including the Chinatown area. 2. LADOT is participating in the MIS and PSR Studies.

Date	Commentator/Organization	Comments	Response
		3. Very concerned about the effects that any of the alternatives might have on Chinatown, especially in terms of urban design issues and whether or not there would be on/off ramps into Chinatown. 4. Concerned about the engineering problems involved with the 101 Freeway segment and how a busway/HOV/transitway would fit into that corridor.	3. See response to question #1. 4. Comment noted. The PSR will review these issues.
9/5/96	CCA DSP Implementation and Transportation Committee	1. Most important issues for these two committees would be the on/off ramps. 2. Wanted the DSP Implementation and Housing and Land Use committees of the CCA to be kept apprised.	1. Comment noted. The PSR will review this issue. 2. Comment noted. The draft MIS was sent to Robert Harris, chairman of the CCA Downtown Strategic Plan Implementation Committee and Greg Vilkin, co-chairman of the CCA Housing/Land Use Committee. Efforts to keep committees informed will be continued.

Date	Commentator/Organization	Comments	Response
9/18/96	Central City South Association	1. Concerned about pedestrian impacts and historic areas in the Adams area.	1. Comment noted. The PSR will review urban design issues.
		2. Concern was expressed that Figueroa not be used as a high-volume transit thoroughfare and that sidewalks not be reduced in width since plans are now being formulated by local business and community groups which call for Figueroa to be a pedestrian-friendly street.	2. Comment noted. The PSR will review the impacts on Downtown streets, especially with regard to the TSM alternative.
		3. Concerned about the urban design issues including landscaping and the streetscape through the Adams/Figueroa/Flower corridor.	3. Comment noted. See response to question #1.
		4. How will the community be involved?	4. Outreach begun during the MIS and will be continued and widened through the PSR.
		5. How is the existing transitway being used?	5. The transitway recently opened in the summer of 1996, and current usage information is not yet available.
		6. How is traffic being dispersed now onto local streets?	6. The transitway currently ends at 39th St. HOV traffic either merges into the mixed-flow freeway lanes or

			exits the freeway at 39th St.

Date	Commentator/Organization	Comments	Response
		7. Are Figueroa and Flower being used? Are there plans to increase the volume of traffic on these streets?	7. The Los Angeles Department of Transportation is continuing studies on how to treat traffic on Figueroa and Flower (e.g., potential bus/HOV lane).
		8. Look carefully at how on/off ramps will be designed and if opportunities exist to create attractive themed entrances into communities.	8. Comment noted.
		9. Is an urban design consultant part of the team?	9. Yes. The team will be working with the City of Los Angeles and the CRA to study urban design issues.
9/19/96	Central City East Association	1. Concerned about the limits of the TSM alternative in the Downtown area and its impact on Central City East (CCE). As long as there was no encroachment of that alternative into CCE, the association did not have a problem with any of the alternatives under study.	1. Comment noted. The PSR will review this issue.
10/3/96	Los Angeles Headquarters Association	1. Organization would like to be kept informed as to the progress of the study and would participate in the public outreach activities during the PSR phase.	1. Comment noted.

Date	Commentator/Organization	Comments	Response
10/14/96	CRA Pico I and II Redevelopment Project Area Committees	1. Some committee members did not see a benefit to their community from the project, and they did not want the project to isolate them any more than they already were from the I-10 on the south and the I-110 on the east.	1. Comment noted.
		2. Concerned that transportation projects are geared toward the outsider or the people that are traveling through an area rather than for the people who reside in the area.	2. Comment noted. The goals of the Transitway Extension are to enhance access to local areas as well as improve regional connections.
10/17/96	CRA Hoover Redevelopment Project Area Committee	1. Was a path for the extension of the transitway east on the I-10 ever contemplated and if not, why not?	1. The Downtown Strategic Plan (DSP) Studies considered an "easterly" route. This was rejected as being too long and circuitous and not serving the highest density downtown areas of the Civic Center, Bunker Hill and the Financial District.
		2. Will the "no build" alternative be given serious study?	2. This will be one of the alternatives studied in both the MIS and PSR.
		3. Residents and businesses at the current terminus of the transitway are extremely concerned about how local street traffic will be affected.	3. Comment noted. This will be studied in the PSR.

Date	Commentator/Organization	Comments	Response
		4. There is wide anger / suspicion towards Caltrans. They claim Caltrans has a history of communicating poorly with neighborhoods. Several participants expressed anger at the design of the current transitway which they claim has destroyed neighborhoods and was built without concern for urban design, or integration with local streets.	4. Comment noted.
		5. They oppose using Figueroa as a bus transitway.	5. Comment noted.
		6. They want to be kept informed and involved but are skeptical that the transitway extension will be planned in such a manner that helps their community.	6. Comment noted.
11/6/96	CCA Figueroa Corridor Committee	1. Committee very concerned about TSM alternative along Figueroa Corridor.	1. Comment noted.
		2. TSM works against the goals of this committee. They need an alternative that attracts people rather than keeps people away.	2. Comment noted. LA DOT is addressing additional concerns relating specifically to the Figueroa Corridor.
		3. Question the goal of this study compared to the goal of the CCW Specific Plan.	3. Comment noted. Addressed concerns at sub-committee meeting on 11/21/96.

Date	Commentator/Organization	Comments	Response
		4. Believe that the TSM alternative along the Figueroa Corridor needs to mitigate some of the existing problems in the corridor.	4. Comment noted.
		5. Don't believe this is truly a low-cost alternative in light of the negative impact the TSM will have on businesses in the area.	5. Comment noted.
		6. Questioned the need to study the transitway structure alternative as there are no funds (or no foreseeable future allocations) to build the structure.	6. A major component of the study is to review funding mechanisms for the preferred alternative. This will take place during the PSR.
11/21/96	CCA Figueroa Corridor Committee - Harbor Freeway Transitway sub-committee	1. The committee wants to ensure that the transportation projects help serve their goals of making downtown a multi-dimensional community. The alternative selected by the Study must serve the multiple destinations of those traveling in the area.	1. Comment noted.

Appendix B

Comments and Responses, July 24, 1996 Community Workshop

Appendix B
Harbor Freeway Transitway Extension Study
Public Comments and Responses:
Community Meeting - July 24, 1996

No.	Commentator	Comments	Response
1	Ed Casey McClintock & Weston et al.	I think it's great that this study is being done since the Harbor Freeway congestion is horrific.	Comment noted.
2	Robert Harris USC Professor & Chairman of the CCA Downtown Strategic Plan Implementation Committee	I believe the most critical question relates to on/off ramps and their potential for disruption of urban fabric.	Comment noted. The PSR will review this issue.
3	Ken Nakano	Blue Line should be extended (or any other line).	Comment noted.
4	John Evans Planning & Economic Development Deputy, Office of Councilman Mark Ridley Thomas	"A lot of good information here."	Comment noted.
5	Captain John O'Connell LAPD Central Traffic Division	"Learned a lot today, very informative." The LAPD is concerned about the impact of the transitway on surface street traffic.	Comment noted. The PSR will review the impacts on the local street system.
6	John Blake	Taking light rail at grade through downtown is detrimental to local businesses. Blue line killed retail in downtown.	Comment noted.
7	Joan Friedman LAUSD Realty Agent	Need to look at impact on schools. New school site is not identified on the maps.	Comment noted. The PSR will address environmental impacts on the new school site adjacent to Beaudry Ave.
8	Downtown Building Manager	Freeway or HOV is needed. I live out of the city and use the 101 Freeway to Temple street.	Comment noted.
9	Public Commentator	Traffic accidents are a problem with LRT on street.	Comment noted.
10	Public Commentator	Japanese tourist bureau needs improved business access.	Comment noted.

No.	Commentator	Comments	Response
11	Public Commentator	Identification of meeting and directions to room in hotel was unclear.	Comment noted.
12	Public Commentator Hoover Redevelopment (CRA Representative)	Would like project team to come speak to group.	Comment noted. Team representatives presented information about the Study to the group on Oct. 17, 1996.

Appendix C

Comments and Responses, October 9, 1996 Public Workshop, Letters

Appendix C
Harbor Freeway Transitway Extension Study
Public Comments and Responses to the Draft MIS
(Includes comments received at Oct. 9, 1996 community meeting)

Date	Commentator/Organization	Comments	Response
10/9/96	Stephan Smith Smith & Hricik Development Company	1. What constraints are there with regard to on- and off- ramps with a center elevated structure?	1. The constraints include availability of space, right-of-way, interface with on- and off-ramps, and local streets.
10/9/96	Roger Christensen	1. Concerned that there is a conflict of having a structure through Chinatown. It does not seem compatible with the Downtown Strategic Plan. Concerned about the effects of putting a structure through the middle of Downtown (e.g., cathedral). This project is good in connecting to El Monte, but there are lots of issues of concern.	1. Comment noted. Project alternatives will be reviewed for actual and potential conflicts with existing or proposed land-use planning. The Downtown Strategic Plan (DSP) discussed needs for improving local access to downtown and regional connections for buses/HOVs.
10/17/96	Reverend Monsignor Terrance Fleming, Archdiocesan Catholic Center	1. Concerned about how the recommended alternatives will impact the proposed new Cathedral of Our Lady of the Angels to be built on 5.53 acre County-owned land bordered by the 101 Freeway to the north, Temple Street to the south, Grand Avenue to the west, and Hill Street to the east.	1. Subsequent work in the Project Study Report (PSR) will address physical design issues in more detail. The complexities and sensitivities of the corridor are recognized and acknowledged. Future work will develop a range of alternatives that address these issues, both through design and locational features of aerial structures as well as design alternatives to aerial structures.
		2. Concerned about impact of the TSM Alternative on Temple Street. Recommended that the TSM Alternative in the Freeway Corridor be coordinated with the recent Civic Center Plan which emphasizes giving new importance to Temple Street with enhanced trees, sidewalks and other amenities.	2. Comment noted. The TSM alternative will be reviewed for actual and potential conflicts with existing or proposed land-use planning within the Civic Center area.

Date	Commentator/Organization	Comments	Response
		3. Recommended that the TSM alternative not involve any widening of Temple Street between Figueroa/Flower Streets and Broadway/Spring Streets, but rather, that new engineering and striping of Temple Street accommodate any new usage. 4. With regard to the Elevated Structure, the Archdiocesan is concerned with negative environmental impacts of an elevated structure, and would prefer to see the placement of these HOV/transit lanes in the center of the existing freeway at freeway elevation, rather than the elevated structure contemplated in the MIS.	3. Comment noted. The MIS identifies the difficulties of using Temple Street in the TSM Alternative. 4. See response to comment #1.
10/17/99	Frank S. Catania, Acting General Manager, El Pueblo de Los Angeles Monument Authority Commission	1. El Pueblo is opposed to any plan that will increase the traffic through El Pueblo – specifically, the TSM alternative in the Freeway Corridor is of concern to El Pueblo because of fear that there would be some traffic spill over onto Main Street. El Pueblo would eventually like Main St. to be reduced in size through El Pueblo to make it more pedestrian friendly. The Central City North plan recommended the closure of Main St. in this area and the rerouting of traffic from Main to Spring. This is a preferable alternative. If it is not possible, they would prefer minimizing the traffic through Main St. from Arcadia to Cesar Chavez Blvd. 2. El Pueblo believes that on the whole, the HOV/Transit Lane Alternative, Elevated Structure (4.4) appears to be the best alternative because it would keep the major part of the traffic out of the	1. Comment noted. 2. Comment noted.

		Monument. Since the Hollywood Freeway is depressed	

Date	Commentator/Organization	Comments	Response
		where it is parallel to Arcadia St., the elevated structure should not be so high as to be very obtrusive. 3. El Pueblo likes the Light Rail Transit-Blue Line Extension and Downtown Connector because it would not affect the El Pueblo at all. 4. They feel that the Mixed Flow Lane Alternative might require widening of the Hollywood Fwy as it flows east and west and that might affect El Pueblo if it required construction relating to Arcadia St. If there were to be construction on Arcadia St., they would want to see appropriate archeological excavations since the area is extremely sensitive archeologically. 5. Not in favor of the TSM or No Build Alternative as shown on page 14 and Figure 2.2 of the draft MIS.	3. Comment noted. 4. Comment noted. 5. Comment noted.
10/21/96	Shannon Smith, Central City West Associates (CCWA)	1. Notes that both alternatives recommended for further study include an HOV element along Bixel Street in Central City West. As part of the future analysis, the CCWA requests that the PSR examine the transition from Bixel Street to the proposed Glendale Boulevard HOV program. 2. The TSM alternative may require additional right-of-way in order to implement the HOV lanes. The Central City West Specific Plan includes information on roadway widths within the Plan area. The CCWA would like any future study on this alternative to	1. Comment noted. 2. Comment noted. The PSR will address this issue.

		address proposed changes to these roadway configurations.	

Date	Commentator/Organization	Comments	Response
10/24/96	Allyn Rifkin, Los Angeles Department of Transportation	1. LADOT concurs with the alternatives recommended for further evaluation. However, the Elevated Mixed Flow Lanes Alternative should include connections to the 110 Fwy North, 101 Fwy North and 10 Fwy West. Also, the Blue Line connection along San Pedro St. should be deleted from the Rail Transit alternative looking at a Coliseum Extension and Downtown Connector.	1. Neither of these two alternatives were recommended for further evaluation.
		2. Some concept of a "Smart Corridor" should be retained since it may still be necessary to include TSM to manage the bottleneck from the 110 Fwy northbound to the 101 Fwy northbound.	2. Some individual elements of the "Smart Corridor" technology could be included in the TSM Alternative to be studied further in the PSR.
		3. There should be an increased focus on an Intermodal Center.	3. One of the purposes of the study is to improve access to the existing Intermodal Center at Union Station.
		4. The MIS should also include the reverse commute which the Caltrans/SCAG model had neglected to do.	4. The study included reverse commute data which is included in the Caltrans/SCAG model.
		5. The MIS should note that there is more demand for mixed flow connections to the 110 Fwy North and the 101 Fwy North.	5. Comment noted. There is demand for mixed-flow and HOV connections to these freeways.
		6. The MIS alternatives should preserve options for HOV connections to the 110 Fwy North, 101 Fwy North and the I-10 Fwy West.	6. Comment noted. These connections will be studied and evaluated in the PSR.
		7. The report understates the impact of No Build Alternative.	7. Section 3.1 addresses impacts and benefits of this alternative.

Date	Commentator/Organization	Comments	Response
11/5/96	Allyn Rifkin, Los Angeles Department of Transportation	Letter included attachment with additional comments mainly pertaining to copy edits. See attachment. Follow-up letter with additional comments pertaining to copy edits.	Draft MIS document modified accordingly.
10/25/96	Edward Fox, Chairman of the CCA Figueroa Corridor Committee	1. Concerned that the proposal to establish bus and HOV lanes along Figueroa and Flower Streets could defeat the efforts being made by the committee to create a well-planned urban environment that connects institutions along the Corridor within downtown.	1. Comment noted. The PSR will review the impacts on these streets, especially with regard to the TSM alternative.
10/25/96	Anora Tracy, Orthopaedic Hospital	1. Concerned about noise vibration that may be created by the transitway. Delicate instruments and patient treatment modalities could be affected by vibrations. 2. Concerned about patient access to the facility and how it might be affected by the transitway.	1. Comment noted. The PSR will consider potential impacts of a transitway. 2. Comment noted. The PSR will review potential impacts of the recommended alternatives on the local street system.
10/29/96	Bob Graziano, Los Angeles Dodgers	1. Supportive of further study of the transitway. 2. Would like to participate in the PSR phase that is scheduled to begin in January. 3. Would like the study to consider how the transitway might best serve Dodger Stadium and surrounding communities.	1. Comment noted. 2. Comment noted. The active participation of all community and business organizations will continue to be encouraged throughout the PSR. 3. Comment noted.

Date	Commentator/Organization	Comments	Response
10/29/96	John Molloy, CRA	See attached letter.	Responses correspond to comments identified in the attached letter. 1. Key Issues for the MIS and for the Project Study Chapter 1 (Introduction) of the MIS identifies the project purpose and goals (Section 1.3) and the definition of the transportation problems the project is intended to address (Section 1.2). The MIS identifies the value, benefits, costs, and likely effects of each alternative in Chapter 1 (Description of Alternatives) and Chapter 3 (Evaluation of Alternatives). Further detail will be addressed in the subsequent Project Study Report (PSR). 2. Development of Express Bus Concepts The goals of a Transitway Extension project that would connect the El Monte Transitway to the Harbor Freeway Transitway are primarily twofold: to improve access to Downtown for buses/HOVs, and to complete the arterial missing gap in

Date	Commentator/Organization	Comments	Response
			the regional HOV system around Downtown. The facility could therefore serve both buses destined to Downtown Streets and "trunkline" bus movements around Downtown. However, the facility would not just serve buses but would also serve carpools and vanpools, the number of which would far exceed buses in terms of vehicles using it. One of the most significant problems for "crosstown" bus routes is the difficulties of getting through the congested Downtown area. Downtown "intercept" terminals have been previously studied and have been determined to be infeasible and ineffective. The subsequent PSR will evaluate bus operation concepts in more detail, although many of the issues voiced in the comment are best addressed in the upcoming CRA study of strategic bus planning in Downtown.

Date	Commentator/Organization	Comments	Response
			3. Alternatives Presented in the Draft MIS The purpose of the project is partly to extend the two existing transitways further into Downtown to mitigate the current problem that both facilities stop well short of Downtown - the very destination they are primarily intended to serve. Alternate routes would not serve the key Downtown destination areas that are adjacent to the Hollywood and Harbor freeways Downtown. It was for these reasons, among others, that alternative "eastern" routes were previously rejected during analysis for the Blueprint Reports for the Downtown Strategic Plan. It is acknowledged that the transitways could be converted to rail at some point in the future. However, given the significant funding constraints for rail programs, the significant need for bus/HOV facilities in addition to a rail system, and the outstanding success of the El Monte Transitway, conversion to rail seems very unlikely for many, many years to come. In the meantime, the arterial Downtown gap in the regional HOV system needs to be addressed.

Date	Commentator/Organization	Comments	Response
			As studies of the Transitway Extension continue, connectivity to the rail system, and future convertibility to rail, will be addressed. 4. Treatment of the Alternatives Subsequent to the MIS The specific purpose of the MIS is to narrow down alternatives to those most effective in meeting project goals and objectives - in this case improving local Downtown access and regional mobility for HOVs and buses. While the MIS has identified and evaluated a wide range of possible alternatives, it remains focused on a single specific project and is not intended to be a comprehensive or strategic study of transportation in Downtown. There have been many studies of many aspects of this in recent years. It is therefore appropriate for the MIS to focus in on specific alternatives. The subsequent PSR will then address these alternatives in considerably more detail.

Date	Commentator/Organization	Comments	Response
			5. Aspects of Operational and User Value for Rail Alternatives Facilities for HOV/buses and rail are not mutually exclusive and in no way does the MIS suggest that a Harbor Freeway Transitway Extension would occur in lieu of the Downtown Connector for the rail system, or other necessary transportation access provisions to Downtown. Regional transportation planning in Los Angeles County has for many years now been based on the critical understanding that both rail and bus/HOV systems are needed and that neither can independently meet the county's transportation needs. As the MIS identifies, there is significant independent value to Downtown rail system connections. The MIS merely concludes that rail links are not an effective solution to the project goals/objectives of enhancing mobility for non-rail users (i.e. buses/HOVs). Again, it is incorrect to assume that a transitway facility in the freeway corridor would not serve Downtown destinations. The majority of

Date	Commentator/Organization	Comments	Response
			Downtown destinations are in fact adjacent to the freeway corridor (Civic Center, Bunker Hill, Financial District, South Park). Moreover, extension of the transitways would allow current transitway users improved dedicated access much closer to these destinations, without having to add to already congested surface streets as currently occurs because the transitways stop well short of Downtown. 6. Critical Considerations for Busway Extension Concepts Subsequent work in the PSR will address physical design issues in more detail. The complexities and sensitivities of the corridor are recognized and acknowledged. Future work will develop a range of alternatives that address these issues, both through design and locational features of aerial structures as well as design alternatives to aerial structures.
			7. Regional Bus Service Connections for Downtown Users The goal of the project is to enhance the quality of bus service to Downtown employees and residents.

Date	Commentator/Organization	Comments	Response
			The project would not replace, or divert, existing bus services, but would either expedite or augment such service with respect to accessibility to the Downtown.
11/1/96	Councilwoman Rita Walters	1. Supportive of the two recommended alternatives: the TSM Alternative in the Freeway Corridor and the HOV/Transit Lane Alternative - Elevated structure.	1. Comment noted.
		2. Concerned about impacts to surface streets and effects to street improvements and pedestrian-friendly enhancements planned for the Downtown area.	2. Comment noted. The PSR will review these issues.
		3. While it is important for future traffic needs to encourage HOV and other multiple-rider transit options in moving people through Downtown, the city must recognize that there are people whose destination is Downtown, and the city must continue to make their route as palatable as those who travel through Downtown.	3. Comment noted.
		4. Encourage more announcements about the Study in local newspapers.	4. Comment noted. Announcements about community meetings were sent to local community papers including the Wave Community Newspaper, La Opinion, Los Angeles Sentinel, Chinese Daily News, Downtown News, Eastern Group Publications, LA Weekly, Los Angeles Business Journal and Los Angeles Times.

Date	Commentator/Organization	Comments	Response
		5. It is important to reach out and encourage the involvement of the significant number of people who live in the proposed study area, and whose lives, like those in the path of the present Extension, will be impacted by the construction of the transitway. It is important that they participate in the preliminary discussions.	5. Community outreach will be continued and widened throughout the PSR to encourage the participation of residents who live in the study area.
11/8/96	Councilwoman Rita Walters	(Follow up letter with additional comments pertaining to the new cathedral.) Additional comments as follows: 1. The selected site for the new cathedral is bordered by the 101 Freeway to the north, Temple Street to the south, Grand Avenue to the west and Hill Street to the east. With regard to the evaluation of the recommended alternatives, please consider the concerns of the Archdiocese. The Archdiocese outlines their plans and concerns for the two alternatives. I strongly urge you to consider the impacts on the proposed cathedral.	1. Comment noted. See responses to Reverend Fleming's questions.
11/5/96	Lynn Terry, Air Resources Board	1. This project could provide incentives for more use of transit, carpools and other high occupancy vehicles (HOVs) in the region, consistent with the State Implementation Plan (SIP) to attain federal air quality standards. 2. The ARB congratulates the Los Angeles Metropolitan Transportation Authority (MTA) on its progress in implementing a network of HOV-transit facilities within the South Coast Air Basin. Providing	1. Comment noted. 2. Comment noted

Date	Commentator/Organization	Comments	Response
		direct connections between separate freeway HOV facilities are critical next steps. 3. The draft MIS presents a good overview of the project background and the preliminary alternatives. The figures display routes for each alternative against a map of Downtown streets, freeways and commuter rail lines providing a multi-modal framework for comparing various "Build" alternatives with the "No Build" alternatives. However, it is not clear which criteria were given the greatest weight in recommending that certain alternatives be eliminated from further evaluation. In addition, the nature of the HOV/transit demand that would be served by the potential project is unclear. If the primary destination is the central city, then alternatives that focus on Downtown access would be given greater weight. Your consultant provided my staff with estimates that over half of both HOV and mixed-flow traffic in 2015 will bypass Downtown and transfer to other freeways to reach their destinations. We recommend that the assumptions of current and future mixed-flow, HOV and transit demand used in these estimates be included in the final MIS to show how the MIS project alternatives would affect travel to Downtown and to other destinations.	3. Generally, criteria were given equal weight, although the overriding consideration was the ability of the alternative to meet the project goals of enhancing HOV/bus mobility and accessibility. The stated project need is multifaceted - to enhance access to Downtown and improve regional connectivity for both HOVs and buses. Alternatives were evaluated against ability to meet all these goals.

Date	Commentator/Organization	Comments	Response
		4. In addition to the above concerns, the ARB suggests that the final MIS include an evaluation of differences in projected vehicle emissions that documents the expected changes in total mode share, vehicle- and person-trips, hours of delay, average vehicle occupancy and average speeds that are related to the "Build" and "No Build" alternatives for the year 2015. We also suggest that cost-effectiveness of each alternative in meeting both Downtown and regional travel demand be displayed with the other findings in a matrix format, and these impacts be addressed in discussion of the preferred alternative. The letter included additional comments pertaining to copy edits.	4. Many of these parameters are beyond the scope of this MIS document. In many cases, a number of these parameters have been addressed in the numerous other planning and environmental studies that have been conducted in recent years in the Downtown area (see list in Table 1.1 of the draft MIS). It should also be noted that the MIS is only the first step in a long planning process that will include a subsequent Project Study Report (PSR) as well as a Project Report and EIR/EIS. While a number of the parameters identified in the comments were addressed at an order-of-magnitude level, these and other parameters will be addressed in increasing detail as the planning process continues. Draft MIS document modified accordingly.
12/3/96	Ned Fox, Chairman, CCA Figueroa Corridor Committee's subcommittee	1. Thank you for the briefing on Nov. 6, 1996. It provided many of our members with their first opportunity to review the MIS. As a result of the meeting, a subcommittee was formed to review and follow the progress of this project.	1. Comment noted.

Date	Commentator/Organization	Comments	Response
		2. Concerned about the impact increased traffic would have on the future development of Figueroa Corridor. It is important to share with you our vision of the corridor as you proceed with your plans for the transitway.	2. Comment noted.
		3. One of our primary objectives is to ensure that the city moves forward with a well-planned urban environment that connects institutions such as USC and Orthopaedic Hospital that are located along the corridor with the central business district. Figueroa Street must become a two-way street that is pedestrian friendly and conducive to retail trade.	3. Comment noted.
		4. The Committee and the City of Los Angeles are developing a plan for the corridor. This economic development study will include a comprehensive strategy of retention and expansion of commercial enterprises in the corridor. We look forward to sharing the findings of this study with you and hope that the results of this study will assist you in your efforts to site the transitway.	4. Comment noted.

Appendix D

Letters Received

Archdiocesan Catholic Center
3424 Wilshire Boulevard
Los Angeles, CA 90010-2241
(213) 637 - 7509

October 17, 1996

Ms. Andrea Ceragioli
Marathon Communications, Inc.
8436 West 3rd Street Suite 700
Los Angeles, CA 90048

Dear Ms. Ceragioli and Staff:

I am writing in response to the DRAFT document entitled **Harbor Freeway Transitway Extension** prepared by the Korve Engineering, Inc. and DMJM, and to meet the deadline of October 21, 1996 for written comments on the DRAFT.

I write in my official capacity as the Chancellor and Moderator of the Curia for the Roman Catholic Archdiocese of Los Angeles.

Your summary section beginning on page 81 of the DRAFT document lists the six alternatives being considered. Since four of the six are not being recommended for further study, I would like to comment on the two alternatives which have received the recommendation of the consultants:

1) **TSM Alternative in the Freeway Corridor**

2) **HOV/Transit Lane Alternative -- Elevated Structure**

My concerns with both of these alternatives lies in the decision recently announced by Cardinal Roger Mahony, the Roman Catholic Archbishop of Los Angeles, that the Archdiocese of Los Angeles has decided to build its new Cathedral of Our Lady of the Angels on a 5.53 acre County-owned parcel bordered by: the 101 Freeway to the north, Temple Street to the south, Grand Avenue to the west, and Hill Street to the east.

Our new Cathedral Complex project will involve an investment of a minimum of $55 million on that site, and will situate the Archdiocese's Cathedral Church in the heart of downtown Los Angeles--embracing the Cultural Community to the southwest, and the Civic Center Community to the southeast.

Please permit me to outline my concerns with each of the two alternatives now being proposed by the consultants:

1) **TSM Alternative in the Freeway Corridor**

While the major focus of this alternative is on Figueroa Street and Flower Street, directed north and south, both of this corridors then turn east at First Street and Temple Street.

We are concerned with the impact upon Temple Street since our new Cathedral and its associated facilities will already be built upon our new site by the time any action is taken on these alternatives. We are hopeful that we will be able to commence construction late 1997 or early 1998 at the latest.

It would create a very serious problem for us on the north side of Temple Street between Grand Avenue and Hill Street should it be necessary to widen Temple Street. Such a possible street widening would create havoc with our carefully master-planned site, Cathedral and its Plaza, together with our associated facilities.

We would strongly recommend that this alternative be coordinated with the recent Civic Center Plan which emphases giving new importance to Temple Street with enhanced trees, sidewalks, and other amenities.

We further recommend that this alternative <u>not</u> involve any widening of Temple Street between Figueroa/Flower Streets and Broadway/Spring Streets, but rather, that new engineering and striping of Temple Street accommodate any new usage.

2) **HOV/Transit Lane Alternative -- Elevated Structure**

This particular alternative probably presents more grave concerns to us at the new Cathedral of Our Lady of the Angels since we chose this particular site precisely because of its elevated location and the ability of motorists on the Hollywood Freeway to see the Cathedral both day and night.

The Hollywood Freeway is sub-surface adjacent to our property, and thus, the noise factor from the freeway would be negligible.

However, the construction of an elevated HOV/Transit lane structure down the center of the Hollywood Freeway at this point could create severe noise and visual problems for all of the major multi-story buildings located along this section of the

Hollywood Freeway. Unlike the Harbor Freeway elevated structure which transverses vast areas of single-story structures, your proposal actually infringes upon several major multi-story structures along its route: the Music Center, the County Hall of Administration, the old Hall of Justice, the Federal Courthouse, and our own new Cathedral Church. The environmental impact would be incredibly negative upon all of these buildings and their principal functions.

We would prefer to see the placement of these HOV/Transit Lanes in the center of the existing freeway at freeway elevation, rather than the proposed elevated structure contemplated in this proposal. We would point out that the Civic Center Plan envisions the covering of the Hollywood Freeway. That may not be possible if the HOV lane is built.

•••••

Should any of the other four proposed alternatives receive a favorable recommendation in the future, we would want to be notified and have the opportunity to have our input to those deliberations and discussions.

We would be pleased to collaborate with this planning effort and to offer any further written or oral testimony on the two alternatives you are recommending.

Do not hesitate to contact me at once should there be any further development on the progress of this DRAFT proposal:

Reverend Monsignor Terrance Fleming
Chancellor and Moderator of the Curia
Archdiocesan Catholic Center
3424 Wilshire Blvd.
Los Angeles, CA 90010-2241

(213) 637-7255

Thanking you for this opportunity to offer our response to your DRAFT, and with every best wish, I am

Sincerely yours,

Reverend Monsignor Terrance Fleming
Chancellor and Moderator of the Curia

cc: County Board of Supervisors
Mayor Richard Riordan
Councilmember Rita Walters
Mr. David Janssen, County Administrative Officer
Mr. Daniel Rosenfeld, City of Los Angeles

CITY OF LOS ANGELES
CALIFORNIA

RICHARD J. RIORDAN
MAYOR

EL PUEBLO DE LOS ANGELES
MONUMENT AUTHORITY
COMMISSION
125 PASEO DE LA PLAZA, SUITE 400
LOS ANGELES, CA 90012
(213) 628-7164
FAX: (213) 485-8238

October 17, 1996

Mr. Alan Patashnick, Acting Director,
Central Area Team, Metropolitan Transit Authority
One Gateway Plaza, Los Angeles, CA 90012

Dear Mr. Patashnick:

Thank you for sending me a copy of the Major Investment Study for extending the Harbor Freeway Transitway through Downtown. We appreciate the opportunity to comment on this study.

Before I discuss the study, please note that our address is 125 Paseo de La Plaza, Suite 400, Los Angeles, CA 90012, rather than "841 Alameda Street", as listed in the Plan.

Basically, El Pueblo is opposed to any plan that will increase the traffic through El Pueblo. I am specifically referring to one of the two proposals recommended in the document for further study. On page 81 in the summary, you identify the two preferred alternatives as TSM Alternative in the Freeway Corridor (4.1). On the map in the section where this alternative is described in more detail (Figure 3.2), it shows Potential HOV/Bus lanes along Spring and Broadway, then heading east or west on the frontage roads, Arcadia and Aliso. We fear that there would be some traffic spillover onto Main Street, which we would like, eventually, to be reduced in size as it goes through El Pueblo. We want to make this area more pedestrian friendly. You may recall, some years ago the Central City North plan recommended the closure of Main Street in this area and the rerouting of traffic from Main to Spring. This would still be a preferable alternative for us. But, if it is not possible, we would prefer minimizing the traffic through Main Street from Arcadia to Cesar Chavez Boulevard.

The other alternative recommended for further study in the MIS is the HOV/Transit Lane Alternative, Elevated Structure.(4.4). On the whole, this would appear to be the best alternative as far as El Pueblo is concerned because it would keep the major part of the traffic out of the Monument. Since the Hollywood Freeway is depressed where it is parallel to Arcadia Street, the elevated structure should not be so high as to be very obtrusive.

We liked another alternative shown on p.30, Light Rail Transit-Blue Line Extension and Downtown Connector as the map (figure 2.10) indicates that this would not affect El Pueblo at all.

We feel that the Mixed Flow Lane Alternative which might require widening the Hollywood Freeway as it flows east and west might affect El Pueblo if it required construction relating to Arcadia Street.(p.25, Map 2.7) Certainly, if there were to be construction on Arcadia Street we would want to see appropriate archeological excavations as this area is extremely sensitive, archeologically.

We are not in favor of TSM Transportation System Management or the No-Build alternative as shown on p. 14 and Map Figure 2.2.

Please contact Jean Bruce Poole at (213) 680-2525 should you have any questions regarding this information.

Very truly yours,

Frank S. Catania
Acting General Manager

Planning Company Associates

October 21, 1996

Ms. Sheila Gonzaga
Marathon Communications
8436 W. Third Street, Suite 700
Los Angeles, CA 90048

Dear Ms. Gonzaga,

On behalf of the Center City West Associates, we have reviewed the Draft Harbor Freeway Transitway Extension Major Investment Study (MIS). We appreciate the opportunity to be included in the Policy Direction Committee and we have only a few comments on the MIS.

The MIS indicates that two alternatives are recommended for future study: the TSM Alternative in the Freeway Corridor and the HOV/Transit Lane Elevated Structure Alternative. Both these alternatives include an HOV element along the Bixel corridor in Central City West. As part of the future analysis, we would request that the consultants examine the transition from Bixel Street to the proposed Glendale Boulevard HOV program.

Additionally, the TSM Alternative may require additional right-of-way in order to implement the HOV lanes. The Central City West Specific Plan includes information on roadway widths within the Plan area. We would like any future study on this alternative to address any proposed changes to these roadway configurations.

Again, thank you for the opportunity to review the MIS.

Sincerely,

Shannon Smith

cc: CCWA Members

550 North Brand Boulevard, Suite 530, Glendale, California 91203 (818) 545-4220 Fax (818) 545-4235

ROBERT R. YATES
GENERAL MANAGER

CITY OF LOS ANGELES
CALIFORNIA

RICHARD J. RIORDAN
MAYOR

DEPARTMENT OF
TRANSPORTATION
221 N. FIGUEROA STREET, SUITE 500
LOS ANGELES, CA 90012
(213) 580-1177
FAX: (213) 580-1188

October 24, 1996

RECEIVED
OCT 28 1996
DMJM

Don Cross
Daniel, Mann, Johnson & Mendenhall
3250 Wilshire Boulevard
Los Angeles, California 90010-1599

Dear Mr. Cross:

DRAFT MAJOR INVESTMENT STUDY (MIS) FOR HARBOR FREEWAY TRANSITWAY EXTENSION PROJECT

The Los Angeles Department of Transportation (LADOT) has reviewed the Draft MIS for the Harbor Freeway Transitway Extension Project and offers the following comments:

General Comments

1. LADOT concurs with the alternatives recommended for further evaluation. However the Elevated Mixed Flow Lanes Alternative should include connections to 110 Fwy North, 101 Fwy North and 10 Fwy West. Also, the Blue Line connection along San Pedro Street should be deleted from the Rail Transit alternative looking at a Coliseum Extension and Downtown Connector.

2. Some concept of a "Smart Corridor" should be retained since it may still be necessary to include TMS to manage the bottleneck from the 110 Freeway northbound to the 101 Freeway northbound.

3. There should be an increased focus on an Intermodal Center.

4. The MIS should also include the reverse commute which the Caltrans/SCAG model had neglected to do.

5. The MIS should note that there is more demand for mixed flow connections to the 110 Fwy North and 101 Fwy North.

6. The MIS alternatives should preserve options for HOV connections to the 110 Fwy North, 101 Fwy North and I-10 Fwy West.

7. The report understates the impact of No Build Alternative.

Additional specific comments are included as an attachment.

Inasmuch as DOT has not yet fully completed its review of the MIS due to the response deadline further coments may be submitted with a supplementary letter. If you should have any questions, please contact Robert T. Takasaki at (213) 580-5209.

Sincerely yours,

Allyn D. Rifkin, Principal Engineer

cgk/a:mis

c: Robert T. Takasaki, DOT

attachment

ATTACHMENT

1. Page 1
   a) Par. 1 - This should note that the Transitway is now open to 39th Street and will reach its final terminus at Adams Boulevard in April of 1997.
   b) Par. 2 - The spur would run north and **south** along Bixel Street in the ~~Center~~ Central City West area.
   c) Par. 3 - enhanced bus transit and HOV access via the Harbor Freeway to Downtown Los Angeles **and also provides through bus transit and HOV connections between the current terminus of the El Monte Busway Transitway.**

2. Page 2
   a) Par. 1 - SCAG MIS Committee will not serve as forum for selection of alternatives for further study. The selection of alternatives for further study **will be done by Policy Direction Committee (PDC) and Project Development Team (PDT).** It should also be noted that SCAG is only concerned that the MIS process is correctly followed.

   b) Par. 5 - there is currently no provision for the distribution of buses and HOV's through Downtown... **(LADOT has received monies from MTA, in last call for Projects, to look at surface street extension of Harbor Freeway Transitway into Downtown)**

3. Page 6
   a) Par. 4 - and the US-101from the ~~west~~ **northwest**

   b) Par. 5 - terminates at ~~Adams Boulevard~~ **39th Street**

4. Page 7
   a) Par. 1 - it stopped at Mission ~~Street~~ **Road**

   b) Par. 4 - to access Downtown destinations **or go past Downtown**

5. Page 8
   a) Par. 6 - Connections between El Monte Busway and the Gateway Center is good only for eastbound direction. Westbound direction has to exit El Monte Busway east of Santa Anna Fwy, travel in mixed flow and exit at Vignes Street.

6. Page 9
   a) Par. 1 - ... there are no good HOV/bus connections to Union Station from the west, the south, **and also from the north.**

7. Page 11
   a) Par. 1 - add to Transportation and Traffic Operations ... **Congestion Relief**

8. Page 13

a) Par. 6 - public information meeting... **also need to reach out to communities along 101 corridor, i.e. Chinatown, Civic Center, Olvera street, etc.**

9. Page 14

a) Par. 1 - In first paragraph, Description of Alternatives - provide table showing the alternatives first and subalternatives for major alternatives before going into description of each alternative:

1) No Build Alternative

2) TSM Alternative
   a) Fwy Corridor
   b) Thru Downtown
   c) SMART Corridor

3) HOV Transit Lane Alternative
   a) Frontage Lanes
   b) Elevated Structure
   c) Fwy Widening

4) Mixed Flow Alternative
   a) Fwy Widening
   b) Elevated Structures

5) Rail Transit Alt.
   a) Light Rail - Convert and Extend
   b) Light Rail - Blueline Coliseum and Downtown Extension
   c) Heavy Rail (Red Line)

b) Par. 3 - Figure 2.1 shows many arterial bus/HOV lanes and priority improvements that are not programmed.

c) Par. 4 - Report should indicate that there may be problems in converting 2 regular lanes to exclusive bus/HOV lanes.

10. Page 16

a) Par. 1 - to Union Station as shown...comment: **problems with Temple Street and 1st Street and with their connection to Figueroa Street and Flower Street.**

b) Par. 2 - Comment: **May operate in mixed flow but gives priority to buses.**

c) Par. 3 - Comment: Thru trips would stay on the Freeway?

11. Page 21

a) Par. 1 - Comment: Some of the concepts in this paragraph should be retained such as the overall TMS plan. Also Route 101 impacts the rail corridor. ???

b) Par. 6 - Comment: **Need to provide better westbound connection for El Monte Busway to Gateway Plaza/connection with El Monte Busway farther east of Vignes Street instead of joining at Alameda Street have on-line station at Gateway Plaza**.

12. Page 22

a) Figure 2.5 - **Show Stations.**

13. Page 25

Par. 2 - Comment: **must prepare a study concerning the connectivity to the El Monte Busway.**

14. Page 28

a) Par. 2 - Comment: **There is a problem providing HOV connection to the north at the Hollywood Freeway interchange and to the west at the Santa Monica Fwy Interchange.**

15. Page 30

a) Par. 4 - Comment: **Why have both connections? The connection down San Pedro Street should be dropped.**

16. Page 34

Par. 1 - 2.6 - 4. Mixed Flow Lanes (Elevated) **but with connections to I-110 North and I-10 West.**

- 5. Rail Transit - Blue Line Coliseum/Downtown Connector **but without San Pedro Connection**.

COMMONWEALTH PARTNERS, LLC

October 25, 1996

Ms. Andrea Ceragioli
Marathon Communications
8436 W. Third Street, Suite 700
Los Angeles, CA 90048

VIA FACSILIME

Re: **Harbor Freeway Transitway Extension**
Major Investment Study

Dear Ms. Ceragioli:

This letter responds to your request for comments on the draft Major Investment Study for the Harbor Freeway Transitway Extension. We appreciate the opportunity to comment and look forward to meeting with representatives of the projects to learn more about the options that are under consideration to extend the Harbor Freeway Transitway.

The Central City Association's (CCA) Figueroa Corridor Committee, comprised of stakeholders along Figueroa Street, was established to initiate, implement and advocate for improvement projects for the Corridor. One of the Committee's primary goals is to insure that the city moves forward with a well planned urban environment that connects institutions along the Corridor with downtown. This includes creating a human environment that will attract people and activity along the streets of the Corridor including students from USC, new business owners and employees, visitors, shoppers and others. Create a "place" of activity.

We are very concerned the proposal to establish bus and HOV lanes along Figueroa and Flower streets could defeat the efforts being made by our committee. Although some of our members have had an opportunity to review the Major Investment Study and have provided comments, others have not. Therefore, we are looking forward to hearing your presentation on November 6th and will provide you with more detailed comments after our November 6th meeting.

Sincerely,

Edward D. Fox
Chairman, Figueroa Corridor Committee

cc: Sandra Yamane - CCA

633 West Fifth Street Suite 5610 Los Angeles, CA 90071
Tel 213.629.2100 Fax 213.629.2114

OrthopaedicHospital

Anora Tracy
Chief Operating Officer

October 25, 1996

Andrea Ceraglioli
MARATHON COMMUNICATIONS
8436 West 3rd Street
Suite 700
Los Angeles, CA 90048

Dear Andrea:

Thank you for sending the information regarding the Harbor Freeway Transit Extension project. As we indicated in our meeting, we are very concerned about two issues.

First, is the noise vibration that may be created. Our research department has many delicate instruments that would be affected by vibrations. We also have patient treatment modalities that might be interrupted.

Second, is patient access to our facility. It is extremely important that patients have easy access to the hospital. Many of our patients, as you can imagine, are physically challenged, and ease to the hospital is critical.

We appreciate the lengthy evaluation process that you are doing to make sure the correct extension project will be suggested. Please keep us informed of your progress and how we might be able to assist you.

Sincerely,

Anora Tracy
Chief Operating Officer & VP of Patient Care Services

AT:ga

Community Redevelo ɹent Agency

of the City
of Los Angeles

354 South Spring Street
Suite 800
Los Angeles
California 90013-1258

213 977 1600

Telecopier
Number 213 977 1665

Date OCT 2 8 1996

File Code

RECEIVED
OCT 3 1 1996
DMJM

Mr. Joseph E. Drew
Chief Executive Officer
Los Angeles County Metropolitan
Transportation Authority
One Gateway Plaza, 22nd floor
Los Angeles, CA 90012

Mr. Kenneth H. Steele, District 7 Director
Department of Transportation
State of California
120 South Spring Street
Los Angeles, CA 90012

LA

RE: Comments on the Draft Major Investment Study ("MIS") for the Harbor Transitway Extension Study (September 26, 1996)

Gentlemen:

Consultants for the MTA and Caltrans have recently completed a review of the options the region has at hand for extending the Harbor Freeway's transitway through Downtown Los Angeles. We believe that this is an important piece of work that raises a number of very substantive, far-reaching issues that are deserving of some extended discussion. The comments we have to offer tend to focus on our immediate areas of involvement (Downtown, Westlake and Pico-Union, Hoover, the Coliseum, South Central and Southwest Los Angeles, etc.), but we believe that some of the issues we address are of regional importance as well.

Key Issue for the MIS and for the Project Study

Overall, we believe the key issue to be asked of all of the alternatives is what is the operational value to the regional transportation system of the alternative improvements proposed. The Study needs to provide substantive determinations as to what value each alternative has to transit operations and operators, what value there is in accommodating a given trip to the balance of the transportation system, as well as what

1

value there is to the tripmakers themselves of a trip by one system improvement or another.

Underlying this is the need for the Study to better articulate the major objectives that the proposed project intends to serve and it needs to better explain the value of serving these objectives as they relate to overall transportation priorities for Downtown and for the region. (1)

Development of Express Bus Concepts

How the project is proposed to relate to Downtown is critical to how different project alternatives need to be developed. If, for example, the objective is to deliver transit patrons to major Downtown destinations, a transitway viaduct along the west edge of Downtown will not provide the desired results. If the objective is to convey "trunkline" bus movements around Downtown, then the Study should be considering alternatives which do not further impact Downtown's most crowded, congested corridor segments.

LA

A transitway viaduct alternative, as currently presented in the DMIS, would appear to expedite express bus operations from San Gabriel Valley origins to the Gardena (Artesia) Transitway terminal and other points in the South Bay. The Study needs to define what bus operations and routings would use these various alternatives, what their usage levels are likely to be and then to assign the values that these operations would have for the region and its transit and carpool users. How useful is it, for instance, to be able to assemble express bus route systems that may be 50 or 60 or 70 miles in length? Is there a clear demand for these sorts of services? Can they be made to work well between very dispersed, low-density locales? (2)

Or, alternatively, would express bus operations more likely work better linked up to major nodes and terminals that are well served by local distributor bus systems? Past studies have raised the possibility that existing express routes from Downtown may already be too long to be effective and that Downtown "intercept" terminals might make the bus system more effective. What node or transfer terminal concepts would make the most sense to evaluate in the context of this Study? How might these terminal concepts be most effectively related to various special

access needs, such as the Coliseum and a prospective Downtown Arena, that are confronting us?

2

Alternatives Presented in the DMIS

As mentioned above, it is our observation that presently the primary objective of the proposed extension seems to be to provide a connection for carpools and buses between the Harbor Freeway and the El Monte Busway. We believe that this objective needs to be much more fully defined and evaluated. There is a question in our mind as to whether this should be the defining parameter of this project, as least until it is better understood.

LA

To the extent that this objective continues to be important for the project, however, the Study should develop one or more alternatives that make use of less crowded transportation corridors as opposed to the extremely congested Harbor Freeway "slot" and the Downtown portion of US 101. The route of the proposed "Industrial Freeway", the Santa Monica Freeway, the Golden State Freeway and the Santa Ana Freeway may offer more workable corridor connections than the very crowded Downtown freeways corridors now being focused on in the Study alternatives. It may also be that there are aspects of this project where carpools and express bus operations need to be addressed with different facilities.

3

We would also note that while both the El Monte and Harbor transitways are "trunkline" facilities now operating with express buses, buses may not ultimately turn out to best serve these corridors in the long run. At some future time, should usage grow to an appropriate level, rail transit would most likely become more effective in meeting the "trunkline" needs of one or both of these corridors. Both of these corridors were designed to accommodate such eventual conversions. Buses, on the other hand, will remain vital for what they do best: distribution and collection of local urban area trips and delivery of riders between dispersed trip ends and transit trunkline (bus or rail) nodes.

We believe it is important that the possibility of this "ultimate" project definition be kept in mind as a parameter for identifying and evaluating the different Study alternatives. On the one hand, it may well be useful

to consider the development of a transfer terminal near the current Harbor Transitway terminus to enhance the distribution function that might be the ultimate focus for bus operations. If the Transitway Extension is primarily to expedite buses around the Downtown rather than to serve destinations within Downtown itself, then a transfer terminal is needed so that Downtown travelers can most effectively get to those buses that will take them to their destinations.

On the other hand, the Study should give particular consideration to those alternatives that can best connect with and can transition into the evolving regional rail transit system. If the Harbor corridor someday matures to the point that it merits conversion to rail, weight should be given to those alternatives that best facilitate that transition or, at the very least, do not impede the corridor's development. 3

LA

With that in mind, it may be appropriate that the Study consultants revisit their recommendation to not give any further consideration to the alternative involving conversion of the Harbor Transitway itself to rail. While we would agree that conversion to rail may not be reasonable or feasible in the context of this project, the possibilities and requirements of ultimately transitioning the corridor to rail need to be a factor in the Study's evaluation of alternatives and alignment options.

Treatment of the Alternatives Subsequent to MIS

In our estimation, the MIS has been very useful in calling out at least some of the conceptual alternatives for the Study project. What the MIS appears unable to do in its present form, however, is to detail and evaluate these alternatives sufficiently for us to discern which represents the better transportation investment for the region.

The range of alternatives chosen by the MIS for further, more detailed evaluation presents special challenges to the Study in trying to identify meaningful, common criteria of value and importance. Rail elements, for instance, respond to very different needs and criteria than elements for express buses or elements for carpools. Nonetheless, it is absolutely essential that all of the selected alternatives be continued for full, in-depth evaluation. Since we are not yet at a point that the merits and costs of each alternative are definitive, it is important to note that each of 4

these alternatives should be treated as if it could be (or could contain elements of what will eventually be determined to be) the Locally Preferred Project Alternative.

Thus far, this Study has assumed a Caltrans highway-based project development process. It is unclear to us whether this process is truly multi-modal and able to provide a complete foundation for all of the alternatives being to be pursued from the MIS. (4)

Aspects of Operational and User Value for Rail Alternatives

LA

While the Study needs to invent transitway bus operations concepts to evaluate many of the alternatives, the MIS recognizes that some candidate rail improvement elements have already been developed and these are incorporated into its rail alternatives. What is not incorporated into the DMIS are some of the operational and ridership value considerations that might be attached to one or more of the rail alternatives.

For instance, while the value of through-routing of buses around Downtown is not clear at this point, the through-routing of rail trips and rail train operations has enormous potential value. Construction of the Downtown Blue Line Connector would have critical operational value for both the Pasadena Blue Line and the Long Beach Blue Line, as well as for the MOS-1 segment of the Red Line. Being able to directly convey trains between the two Blue Line segments makes myriad operational and cost efficiencies possible on these lines. Not having to force Blue Line transfers at Union Station and Metro Center to the Red Line forestalls a number of prospective overcrowding scenarios that have been held likely with the completion of MOS-3. (5)

From the patron standpoint, not having to make one (or in many cases, two) extra Blue Line-Red Line transfer has considerable value. Moreover, the value of these improvements to tripmakers are not limited to just the patrons using the Harbor Transitway, but are of potentially even greater value for patrons today that come from Long Beach and, in the future, from Pasadena and, possibly, from the Westside on an Exposition Line.

Most importantly, however, a rail (subway) connection through Downtown would provide stations--boarding and alighting points--precisely targeted to serve the needs of Downtown travelers. To the extent that an express bus project concept utilizes a separate viaduct structure, it will not be able to approach or connect travelers with most of the desired Downtown destinations. (5)

Critical Considerations for Busway Extension Concepts

Although the MIS has not yet progressed to a point where the physical design issues of the various alternatives can be evaluated, we believe that there are one or more critical segments in the identified busway alternatives where it is likely to be impossible to design an acceptable grade-separated (elevated) facility. Probably the most critical segment in this regard is the Harbor Freeway right-of-way between 7th and 3rd Streets. This is Downtown's signature view corridor, with the Downtown financial core framed by the hill that rises alongside of the Harbor Freeway on the west. Numerous surface street, pedestrian and freeway ramp connections cross the freeway, climbing up this hill, linking to Westlake and Center City West. Most any elevated structure would be forced up into a very high, disruptive profile and /or much too close to important Downtown properties. (6)

LA

We would be similarly concerned about the impacts of any "flyover" structure that might be needed to navigate the current "Four-Level" interchange. The south edge of Chinatown is already heavily impacted by its exposure to freeway operations and this could significantly aggravate that condition.

From Hope to Alameda along US 101, we believe any kind of facility above the grade of the surrounding streets in this area could seriously compromise the Music Center, future development of the Fort Moore (LAUSD) hill site, the expansion and revitalization of the Civic Center and El Pueblo Historic Park; the prospect of a new cathedral at the edge of this freeway further clouds any possibility that a facility could be made acceptable.

It may be desirable to undertake urban design analyses early in the next phase of work to better understand the physical and visual impact issues

in these critical segments. Such analyses could clarify to what extent any kind of structure in some of these critical segments can be made acceptable. (6)

Regional Bus Service Connections for Downtown Users

Related to the issue of operational value issues cited earlier, we are concerned that busway alternatives might adversely impact the level and quality of bus services available to Downtown employees and residents. We would like the Study to address the extent to which any express bus facility alternative is likely to diminish the accessibility that Downtown has to regional bus services. (7)

LA

The Agency and its staff look forward to the Study team's continued efforts and good work and stand ready to assist in whatever way we can.

Very truly yours,

John E. Molloy
Administrator

cc: James de la Loza, LACMTA
Leslie Roger, FTA, US DOT
Dominic Shambra, LAUSD
Robert Yates, LADOT
Hitesh Patel, Caltrans
David Stein, SCAG
Don Cross, DMJM

LOS ANGELES Dodgers®

ROBERT V. GRAZIANO
VICE PRESIDENT, FINANCE
(213) 224-1325

1000 ELYSIAN PARK AVENUE
LOS ANGELES, CA 90012-1199

October 29, 1996

VIA FACSIMILE - MAILED SUBSEQUENTLY

Harbor Freeway Transitway Extension Study
c/o MARATHON COMMUNICATIONS
8436 West Third Street, Suite 700
Los Angeles, CA 90048
Attn: Mr. James McDermott, Jr.

Re: Harbor Freeway Transitway Extension Study

Dear Jim:

Thank you for sending me the copy of the draft Major Investment Study report relating to the Harbor Freeway Transitway Extension Study. We are very supportive of further study of the Transitway and would very much like to participate in the Project Study Report phase that is scheduled to begin in January. Additionally, we would like the study to consider how the Transitway might best serve both Dodger fans and the communities around Dodger Stadium.

I look forward to continued discussions on this issue.

Sincerely,

Bob Graziano

BG/jl

City Council
of the
City of Los Angeles
City Hall

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200 N. SPRING ST.
LOS ANGELES 90012-4878
(213) 485-3351
(213) 485-8990 FAX
(213) 847-6822 TTY

DISTRICT OFFICE
4409 SOUTH MAIN STREET
LOS ANGELES 90037
(213) 237-1088

November 1, 1996

Don Cross
Project Manager
Harbor Freeway Transitway Extension
DMJM
3250 Wilshire Boulevard
Los Angeles, CA 90010-1599

Dear Mr. Cross:

In response to the call for comments on the draft of the Major Investment Study for the Harbor Freeway Transitway Extension, I would like to offer my support of the decision to drop the various alternatives initially considered and move forward with only the two as recommended: The TSM Alternative in the Freeway Corridor and the HOV/Transit Lane Alternative - Elevated Structure.

The City of Los Angeles has an agressive Downtown revitalization program in progress, which includes street improvements and pedestrian-friendly enhancements. We would not like to see these jeopardized by further freeway construction that would involve surface streets in any way. While it is important for future traffic needs to encourage HOV and other multiple-rider transit options in moving people through Downtown, we must also recognize that there are people whose destination is Downtown, and we must continue to make their route as palatable as those who travel through.

I would also like to support the Public Outreach element of the Project, and encourage more announcements in local newspapers, such as the Wave, L'Opinion, the LA Sentinel, and others that serve more than the Downtown community. While it is important to reach businesses in the Downtown area, there are a significant number of people who live in the proposed study area, and whose lives, like those in the path of the present Extension, will be impacted by the construction as well as the Extension, once it is built. It is important that they participate in the preliminary discussions.

I appreciate the opportunity to provide my comments, and look foward to working with you and the rest of the team as the project progresses.

Sincerely,

Rita Walters

RW:ghs

c: Allyn Rifkin- DOT

ROBERT R. YATES
GENERAL MANAGER

CITY OF LOS ANGELES
CALIFORNIA

RICHARD J. RIORDAN
MAYOR

DEPARTMENT OF
TRANSPORTATION
221 N. FIGUEROA STREET, SUITE 500
LOS ANGELES, CA 90012
(213) 580-1177
FAX: (213) 580-1188

November 5, 1996
Don Cross
Daniel, Mann, Johnson & Mendenhall
3250 Wilshire Boulevard
Los Angeles, California 90010-1599

Dear Mr. Cross:

DRAFT MAJOR INVESTMENT STUDY (MIS) FOR HARBOR FREEWAY TRANSITWAY EXTENSION PROJECT

The Los Angeles Department of Transportation (LADOT) has finalized its review of the Draft MIS for the Harbor Freeway Transitway Extension Project and offers the additional specific comments on Sections 3.0 and 4.0, which were not previously addressed, as a supplement to our letter dated October 24, 1996. The comments are included as a serial attachment to be added to the attachment that was included in the original letter.

If you should have any questions, please contact Robert T. Takasaki at (213) 580-5209.

Sincerely yours,

Allyn D. Rifkin,
Principal Transportation Engineer

cgk/a:mis2

c: Robert T. Takasaki, DOT

attachment

NOV-05-1996 17:13 FROM ARB CHAIR TO 91213486533 P.04

Again, thank you for the opportunity to review and comment on the Draft Report. If you have questions regarding these comments, or if we can provide further assistance, please contact me at (916) 322-2739 or Ms. Anne Geraghty of my staff at (916) 322-2745.

Sincerely,

Lynn Terry
Assistant Executive Officer

cc: Mr. Arnie Sherwood, Southern California Association of Governments
Mr. Barry Wallerstein, South Coast Air Quality Management District
Mr. Phil Jang, HOV Operations, Caltrans Headquarters
Mr. John Kulpa, Korve Engineering, Incorporated
Ms. Donna Lott, California Air Resources Board

ATTACHMENT

17. Page 35 - 3.1.1

a) Par. 1 - Comment: The last sentence of this paragraph implies that existing North bound Harbor Freeway Transitway traffic could exit the freeway and continue northerly on either Figueroa Street or Flower Street. However, these streets comprise a one-way couplet and only Figueroa Street is available to northbound traffic.

18. Page 37 - 3.1.1

a) Par. 1 - Comment: It is stated that improvements to encourage increased bus and HOV use in the downtown area would be desirable. However, the number of buses on CBD streets is already at a saturation level and the addition of other than express buses would adversely affect traffic on most streets.

19. Page 40 - 3.2.1.1

Par. 1 - Comment: The provision of two adjacent bus lanes to allow buses to pass stopped buses could mean the use of four lanes for exclusive bus/HOV use on two-way streets thereby severely reducing traffic capacity. Some streets such as Bixel Street would likely lack the roadway width to even provide a single lane in each direction.

20. Page 40 - 3.2.1.2

Par. 1&2 Comment: In most cases the current policy regarding the downtown area is to provide more than 10 foot wide sidewalks rather than a 10 foot minimum width.

21. Page 74 - 3.5.1

Par. 1 - This alternative would use ~~two-planned~~ **two planned** light ~~right~~ **rail** transit... .....planned Blue Line Downtown Connector **or the existing Red Line** to Union Station.

City Council
of the
City of Los Angeles
City Hall

RITA D. WALTERS
[illegible]

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200 N. SPRING ST.
LOS ANGELES, CA 90012-4801
213 485 3339

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4420 SOUTH MAIN STREET
LOS ANGELES, CA 90037
213 237 0456

November 8, 1996

RECEIVED
NOV 14 1996
DMJM

Don Cross, Project Manager
Harbor Freeway Transitway Extension
DMJM
3250 Wilshire Boulevard
Los Angeles, CA 90010-1599

Dear Mr. Cross:

As an addendum to my previous comments on the draft of the Major Investment Study for the Harbor Freeway Transitway Extension, I would like to add a major concern that has just come my attention.

As I'm sure you are aware, the Archdiocese of Los Angeles has selected a new Downtown site for the erection of a new cathedral. The site is bordered by the 101 Freeway to the north, Temple Street to the south, Grand Avenue to the west, and Hill Street to the east. I trust that in your evaluation of the two alternatives now on the table, you will take into consideration the concerns of the Archdiocese and add my strong concern as well. Their letter of October 17, 1996 to Marathon Communications outlines their plans for the cathedral and concerns with the two alternatives.

As you proceed with analysis of the various impacts of the project, I urge you to strongly consider the impact in the proposed cathedral.

Sincerely,

Rita Walters

Rita Walters

RW:dhf
c: Allyn Rifkin- DOT
Andrea Surgoli, Marathon

CCA
THE VOICE
for DOWNTOWN

December 3, 1996

CENTRAL CITY
ASSOCIATION
of Los Angeles

Ms. Andrea Ceragioli
Marathon Communications
8436 W. Third Street, Suite 700
Los Angeles, CA 90048

Re: Harbor Freeway Transitway Extension
Major Investment Study

Dear Ms. Ceragioli:

Thank you for facilitating the November 6th briefing on the Harbor Freeway Transitway Extension for CCA's Figueroa Corridor Committee. The briefing provided many of our members with their first opportunity to review the Major Investment Study. As a result of our November 6th meeting, the Figueroa Corridor Committee decided to form a subcommittee to review and follow the progress of the Harbor Freeway Transitway Extension and other major infrastructure investments being made along the corridor.

Although the subcommittee has yet to form an opinion with regard to the major investment study, we are very concerned about the impact increased traffic would have on the future development of the corridor. We believe it is important to share with you our vision of the Figueroa Corridor as you proceed with your plans for the Harbor Freeway.

One of the Committee's primary objectives is to ensure that the city moves forward with a well planned urban environment that connects institutions such as USC and Orthepaedic Hospital that are located along the Corridor with the central business district. This includes creating a human environment that will attract people and activity along the streets of the Corridor -- much like what is currently taking place in the "South of Market Area (SOMA)" in San Francisco. Figueroa Street must become a two-way street that is pedestrian friendly and conducive to retail trade.

The Committee and the City of Los Angeles are working together to develop a plan for the Figueroa Corridor. This economic development study will include a comprehensive strategy of retention and expansion of commercial enterprises in the corridor; recognition and discussion of potential development opportunities; consideration of past, present and future land use and market trends in the corridor; creation of a streetscape concept tying the corridor together as one market area; enhancing transportation linkages and encouragement of historic preservation.

TEL: (213) 624-1213 FAX: (213) 624-0858
606 South Olive Street, Suite 1000, Los Angeles, California 90014

We anticipate that this economic development study will be completed in mid-1997. We look forward to sharing the findings of this study with you and hope that the results of this study will assist you in your efforts to site the Harbor Freeway Tranistway Extension.

In the meantime, we look forward to working with you and members of your team. If you have any questions concerning the Figueroa Corridor or wish to provide the Committee with additional information about the Harbor Freeway, please contact Sandra Yamane at 213/624-1213.

Sincerely,

Ned Fox
Chairman, Figueroa Corridor Committee