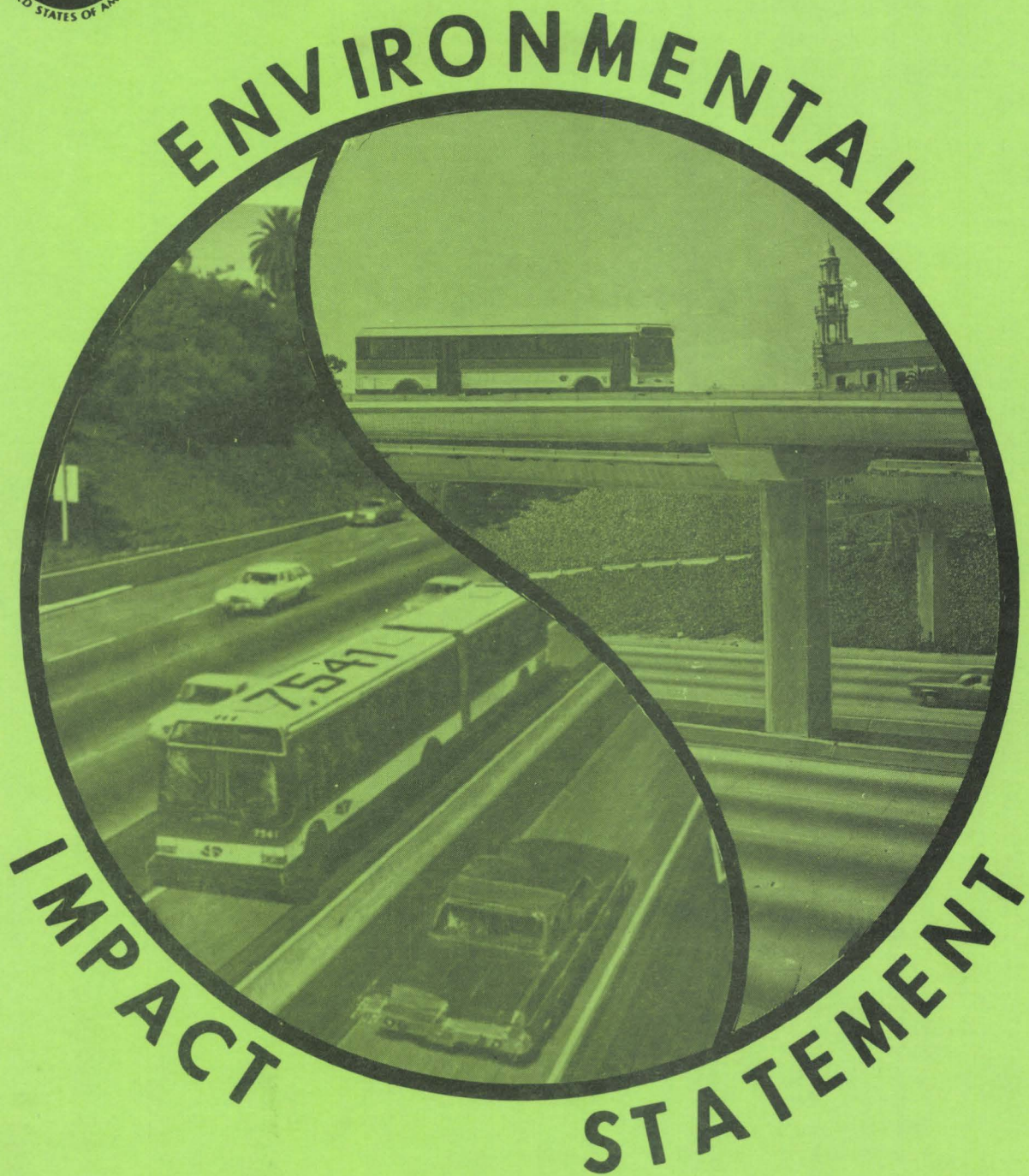


FEDERAL HIGHWAY
ADMINISTRATION



FINAL

CALTRANS
DISTRICT SEVEN



Interstate 110 Freeway Transit
HARBOR FREEWAY CORRIDOR

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JUN 30 2006

Report Number: FHWA-CA-EIS-82-04-F

SCH Number: 79032658
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Proposed transitway construction in the Harbor Freeway Corridor (I-110) between San Pedro and the Convention Center in the City of Los Angeles.

FINAL
ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to (State) Division 13, Public Resources Code (Federal) 42 U.S.C. 4332(2) (C) by the
U. S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
and
STATE OF CALIFORNIA
Department of Transportation
Cooperating Agency
Urban Mass Transportation Administration

Jan 25, 1985

Date

E. W. Blackmer

E. W. BLACKMER, Chief
Office of Environmental Analysis
California Department of Transportation

March 20, 1985

Date

Walter Kisselburg

Federal Highway Administration
Region 9

ABSTRACT

Proposed transit construction in the Harbor Freeway Corridor (I-110) between San Pedro and the Convention Center in the City of Los Angeles, a distance of 22 miles. Recommended Alternative is Bus/HOV 4, a high capacity Bus/High Occupancy Vehicle Transitway built on structure and at-grade in the median of the Harbor Freeway. Impacts of the recommended alternative include business and residential displacement, congestion and noise around stations, loss of landscaping, infringement on wetlands and construction impacts--noise, dust, loss of access, and detours. Mitigation measures will reduce some of these impacts.

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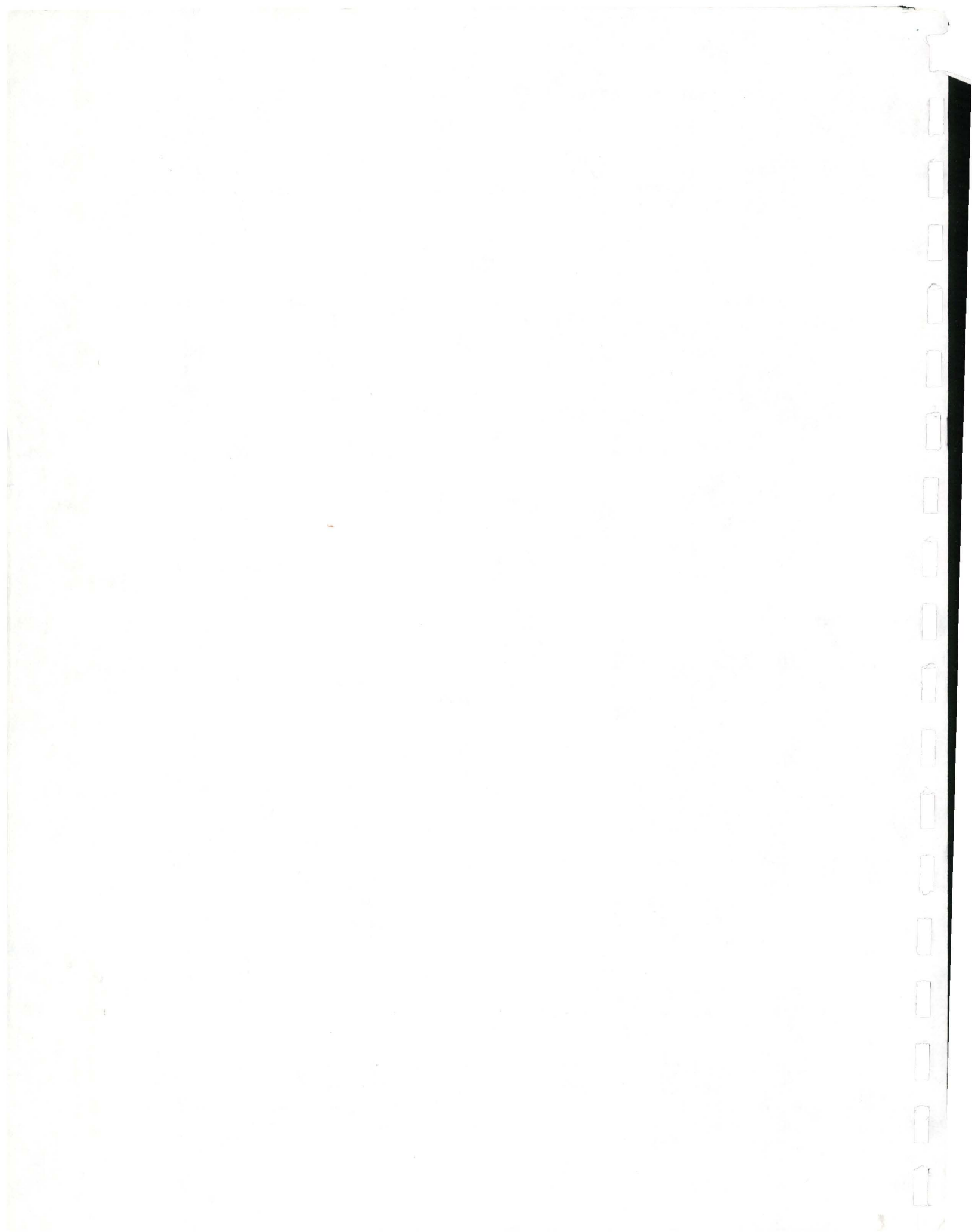


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Interstate 110 Freeway Transit
HARBOR FREEWAY CORRIDOR

SUMMARY



SUMMARY

NOTE: A vertical line in the margin indicates changes in the text from the original Draft Environmental Impact Report/Statement. All data for the recommended alternative is highlighted on the various tables.

Environmental Setting

The proposed project study area extends from downtown Los Angeles to San Pedro, along the Harbor Freeway corridor (See Figure S-1). Topography in the study area is flat, natural features have been modified by urbanization. Two wetlands, the Willows and Bixby Slough are located in the study area. The climate is mild and dry. Air quality is generally poor and State and Federal standards are often exceeded. The transportation network consists of the Harbor Freeway and a grid of arterial streets, including Vermont Avenue. Public transit is by bus. There are railroad lines which carry freight primarily to and from the various port facilities.

Need for Transit Improvements

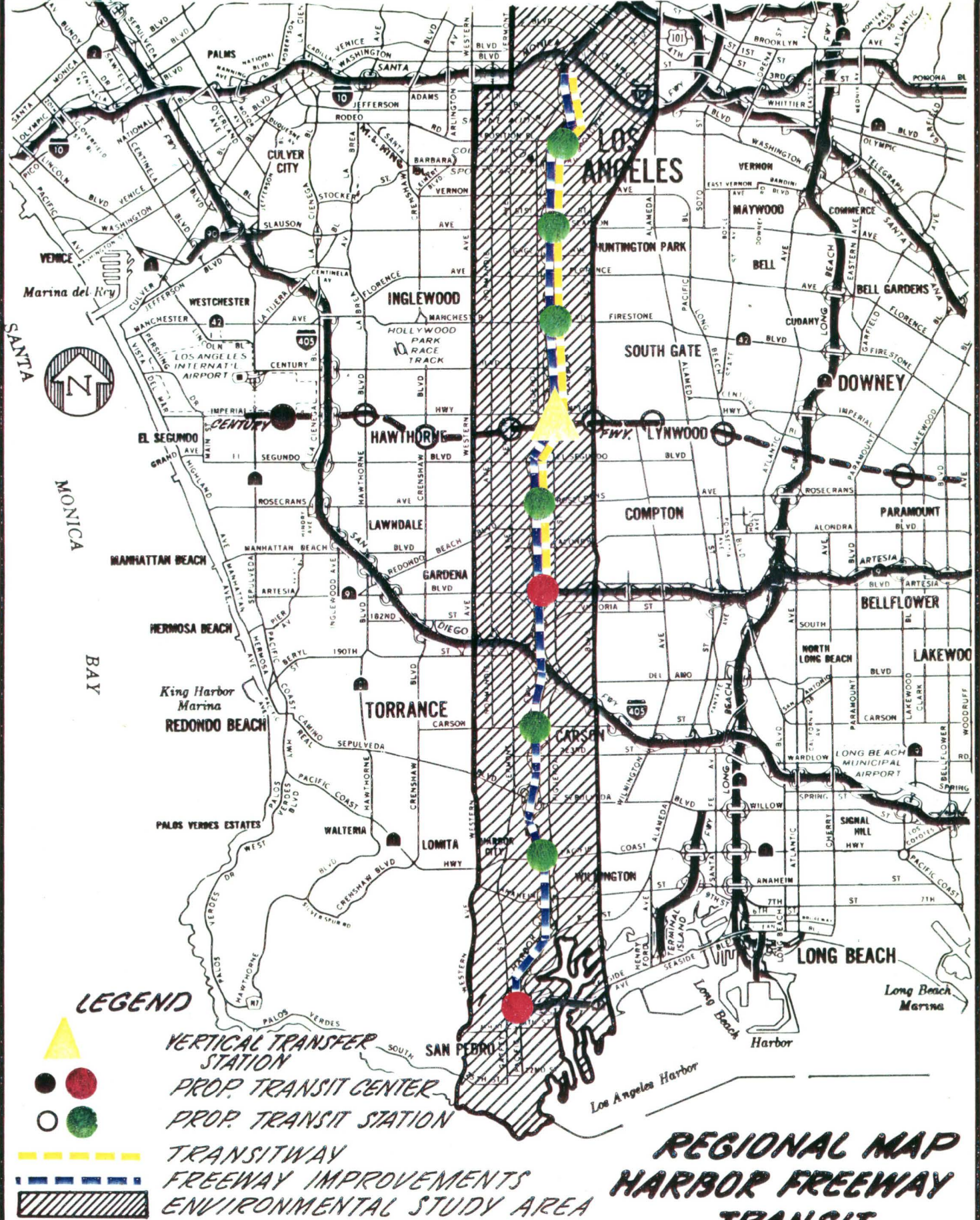
The Harbor Freeway corridor (I-110) was identified in the Regional Transit Development Plan as one of two top priority transportation corridors deserving more intensive study. Multiagency analyses of transit needs determined that there is a need to provide energy efficient service to the large concentrations of transit dependent and other potential patrons within this corridor.










Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

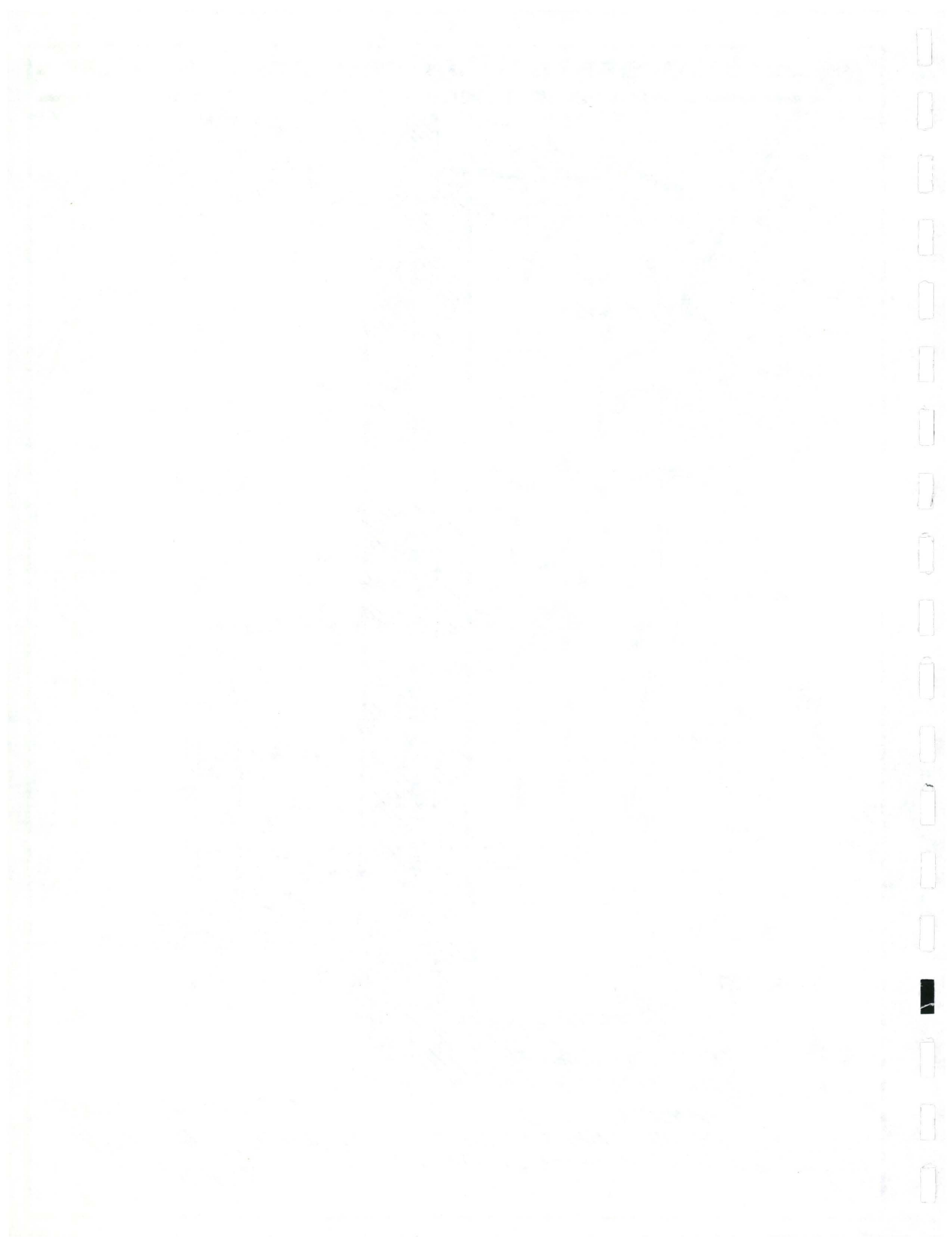


LEGEND

-  VERTICAL TRANSFER STATION
-  PROP. TRANSIT CENTER
-  PROP. TRANSIT STATION
-  PROP. TRANSIT STATION
-  TRANSITWAY
-  FREEWAY IMPROVEMENTS
-  ENVIRONMENTAL STUDY AREA

REGIONAL MAP HARBOR FREEWAY TRANSIT

FIGURE S-1



Recommended Alternative

Caltrans has selected the two-way bus/high occupancy vehicle alternative (Bus/HOV 4), located in the median of the Harbor Freeway, as the recommended alternative for this project. This alternative provides 10.3 miles of exclusive guideway for buses and high occupancy vehicles (HOV) between the Route 91 Freeway (Artesia Boulevard) and downtown Los Angeles. South of the Route 91 Freeway, all vehicles would travel in mixed-flow traffic to San Pedro. The recommended alternative was superior in terms of financial feasibility, cost effectiveness, improved transportation and community/institutional acceptance.

The final ranking and criteria used in evaluating the alternatives are described in Chapter III.

Conductivity with Other Proposals

The recommended project (Bus/HOV 4) will enhance local and regional mass transportation development and is consistent with the goals established by the local agencies. Like the Harbor Freeway itself, the Harbor Freeway Transitway project (Bus/HOV 4) will be a part of a system of interconnecting transit facilities. This project will have connectivity with the following local mass transit proposals:

- o The Century (I-105) Transitway/Light Rail Line
- o The Wilshire Metro Rail Line
- o The Los Angeles - Long Beach Light Rail Line
- o The Santa Ana (I-5) Transitway

Alternative Transit Solutions Considered

A wide range of transportation alternatives responsive to the identified needs were considered. After a comparative evaluation, ten alternatives (plus the no project alternative) were selected for Stage II/Tier II analysis (see Glossary for definition of technical terms). These alternatives are listed on Table S-1, their ridership projections summarized on Table S-2, and their costs compared on Table S-3. Detailed explanations of these factors are located in Chapter III.

Los Angeles Central Business District (LACBD) Access

The northerly terminus of the exclusive transitway for the recommended alternative (Bus/HOV 4) would be located near 23rd and Figueroa Streets, approximately one mile South of the LACBD. Buses and HOV's can gain access to the LACBD via local streets from transitway ramps located south of the 23rd and Figueroa Streets intersection. The proposed transitway bus routing for the LACBD is depicted on Figure III-2 in Chapter III.

Environmental Consequences

Each of the alternatives carried into Stage II of the corridor study would have had significant environmental impacts. A summary of the major impacts can be found on Table S-4.

Environmental factors are organized within three general categories: physical, biological, and socio-economic considerations. Chapters IV through X provide additional information on environmental impacts including the alternatives' relationship to growth and energy.

TABLE S-1

GENERAL DESCRIPTION OF THE ALTERNATIVES
 CONSIDERED FOR THE HARBOR FREEWAY CORRIDOR TRANSITWAY PROJECT

Alternative	General Description	Profile From Convention Center To Route 47 (20.6 Miles)				
		Elevated	At-Grade	At-Grade* Mixed Flow	At-Grade** City Streets	Subway
No Project	Existing approved transportation system	---	---	---	---	---
T.S.M.	Low cost improvements to the existing transit and highway system	---	---	18.0	2.5	---
Bus 1	Elevated in I-110 median	8.2	2.1	9.3	1.0	---
Bus 4†	At-grade and elevated in I-110 median	4.3	6.0	9.3	1.0	---
Bus 7	At-grade in I-110 median	1.0	9.3	9.3	1.0	---
Bus 8a	Peak-directional elevated in I-110 median	8.2	2.1	9.3	1.0	---
Bus 8b	Peak-directional at-grade and elevated in I-110 median	4.3	6.0	9.3	1.0	---
Rail 1	Elevated in I-110 median	19.0	1.6	---	---	---
Rail 4	At-grade and elevated in I-110 median	10.3	10.3	---	---	---
Rail 7	At-grade in I-110 median	5.1	15.5	---	---	---
Rail 6	Elevated and subway in Vermont Avenue median	15.6	---	---	---	5.0

*Bus alternatives are in mixed flow from Artesia Boulevard to Route 47.

**T.S.M buses operate from Martin Luther King Jr. Boulevard to the Convention Center on city streets, the bus alternatives operate from 23rd Street to Convention Center on city streets.

† Preferred Alternative

S-5

TABLE S-2

2005 DAILY TRANSIT RIDERSHIP

(BETWEEN SAN PEDRO AND L.A. CONVENTION CENTER ONLY)

ALTERNATIVE	TRANSIT*	HOV*	TOTAL*
No Project	16,200	Base	16,200
TSM	28,500	0	28,500
Bus** 1, 4†, 7	65,200	38,800	104,000
Bus*** 8a, 8b	53,900	20,400	74,300
ICTS			
Rail 1, 4, 7	81,000	0	81,000
LRT			
Rail 1, 4, 7	73,800	0	73,800
HRT			
Rail 6	83,700	0	83,700

*Transit and HOV includes transitway users only.

**Two-way transitway operations.

***One-way transitway operations.

Abbreviations: ICTS - Intermediate Capacity
Transit System
LRT - Light Rail Transit
HRT - Heavy Rail Transit
HOV - High Occupancy Vehicle

† Recommended Alternative

TABLE S-3

PROJECT DATA

(cost in millions of 1984 dollars)

Alternatives	Capital Cost	2005 OPERATING COSTS					2005 DAILY TRANSIT RIDERSHIP			Benefit Costs Ratio
		Line Haul*	Feeder*	Total*	Back-ground	Total Corridor	Transit**	HOV	Total	
No Project	-	13.43	-	13.43	76.88	90.31	16,200	base	16,200	-
TSM	63.2	26.66	-	26.66	88.41	115.07	28,500	-	28,500	2.7
Bus/HOV 1	633.3	18.58	11.82	30.40	86.56	116.96	65,200	38,800	104,000	1.8
4†	578.0	18.58	11.82	30.40	86.56	116.96	65,200	38,800	104,000	2.0
7	700.4	18.58	11.82	30.40	86.56	116.96	65,200	38,800	104,000	1.7
***8a	482.6	18.50	11.28	29.78	87.18	116.96	53,900	20,400	74,300	1.9
***8b	484.0	18.50	11.28	29.78	87.18	116.96	53,900	20,400	74,300	1.9
ICTS 1	855.7	31.52	11.95	43.47	84.60	128.07	81,000	-	81,000	1.1
4	770.2	31.52	11.95	43.47	84.60	128.07	81,000	-	81,000	1.2
7	991.1	31.52	11.95	43.47	84.60	128.07	81,000	-	81,000	1.0
LRT 1	832.7	20.84	14.18	35.02	85.19	120.21	73,800	-	73,800	1.2
4	747.2	20.84	14.18	35.02	85.19	120.21	73,800	-	73,800	1.3
7	968.1	20.84	14.18	35.02	85.19	120.21	73,800	-	73,800	1.0
HRT 6	1063.0	25.15	14.64	39.79	83.36	123.15	83,700	-	83,700	1.0

*Line Haul only

**Transit and HOV includes transitway users only.

***One-way transitway operations.

† Recommended Alternatives

Abbreviations: ICTS - Intermediate Capacity Transit System

LRT - Light Rail Transit

S-4 SUMMARY OF DIFFERENCES IN ENVIRONMENTAL IMPACTS

IMPACTS ALTERNATIVES	ENERGY* CONSERVATION EEO SAVINGS/ DAY 2005	DISPLACEMENTS RESIDENTIAL/ COMMERCIAL	HISTORIC PROPERTIES IMPACTED (Primarily Visual)	LONG TERM CIRCULATION VMT REDUCTION**	AIR QUALITY 2005 & RELIEFION			IMPACTS ON BIOHA	CONSTRUCTION IMPACT		Start Team Jobs
					CO	HC	NO		Utility Relocation	Local Street Closures	
ISM	624	0	0	650,000	1.4	1.6	0.6	Wetlands	None	Minor	775
BLS/10/1	791	20/14	4	988,000				Wetlands	Minor	Minor	5,750
4	805	11/4/27	0	988,000				Wetlands	Minor	Minor	8,850
7	784	1/0/27	4	988,000	2.6	2.5	1.6	Wetlands 13 acres Landscaping	Moderate	Major Closure	11,000
8a	710	16/14	4	862,000				Wetlands	Minor	Minor	7,350
8b	713	16/14	4	862,000				Wetlands	Minor	Minor	7,350
10S 1	625	16/14	7	862,000				Wetlands	Moderate	Moderate Detour	13,700
4	649	16/14	7	862,000				Wetlands	Moderate	Moderate Detour	7,050
7	806	29/14	7	862,000	2.7	2.8	1.8	Wetlands 13 acres Landscaping	Major	Major Closure	11,900
10T 1	662	16/14	7	839,000				Wetlands	Moderate	Moderate Detour	13,700
4	687	16/14	7	839,000				Wetlands	Moderate	Moderate Detour	16,150
7	644	29/14	7	839,000				Wetlands 13 acres Landscaping	Major	Major Closure	14,600
10T 5	682	43/29	8	872,000				Wetlands 100 mature Pine Trees	Severe	Moderate Detour	19,150

*Equivalent Barrels of Oil

**Corridor Wide

***Recommended Alternative
VMT Vehicle Miles Traveled

Updated: December, 1984

Several physical impacts were identified as requiring careful attention. The recommended alternative would modestly reduce pollutant burdens relative to the no project option. After required mitigation, long term noise levels at sensitive receptors would be reduced. Noise levels would increase near all station parking lots. New shadows and nuisance lighting will, to varying extents, impact portions of the study area.

The Artesia Boulevard Station would be constructed adjacent to the Willows, a 10-acre deciduous forest wetland. Station impacts would be mitigated for the recommended alternative.

Circulation improvements are envisioned within the Harbor Freeway corridor if a transitway project is implemented. This is a "net" improvement which encompasses various benefits as well as some negative impacts as person-trips are redistributed.

Adverse construction impacts would be extensive. Impacts would include, to varying degrees, traffic congestion, equipment noise, pollution and dust. The recommended alternative would not impact any historic and archaeological resources. Although construction of transit facilities would require energy, there would be an annual reduction in petroleum based energy as a result of implementing improved transit capacity.

Displacement and Relocation

The majority of the displacements necessary for development of the recommended project are located north of the I-105 Freeway in the

Central Los Angeles Area. (See Appendix L for Housing Study). This area is generally characterized by low median income residential and some business property. The area also has a high minority population.

Current studies indicate that the project will necessitate the acquisition of 114 residential, 24 business and two non-profit organizations and one abandoned church. The majority of the business and residential units displaced are expected to be relocated within the general vicinity.

Relocation assistance will be provided to all persons, businesses, or non-profit organizations displaced due to acquisition of real property for public use.

Consultation and Controversy

Many organizations, individuals and government agencies were contacted during preparation of this environmental document. This includes members of the community, local, county, regional, state and federal agencies the business community and all responsible agencies. The Public Hearings and an extensive Draft EIS circulation generated extensive public and agency involvement. Primary concerns were raised about adverse impacts of the Vermont Rail Alternative, project costs and safety, potential wetland impacts, and LACBD street impacts.

Continued coordination is needed to ensure the proper interconnection within the downtown Los Angeles area between this

I-110 project service and the Wilshire Metro Rail and LA/Long Beach Light Rail proposals.

The recommended project is supported by all local, county regional and state agencies with permit authority or approval responsibility on this project. FHWA is the only federal agency involved required to take an action on this recommended project.

CHAPTER I

Need for the Harbor Freeway Corridor Transitway Project



I. NEED FOR THE HARBOR FREEWAY (I-110) CORRIDOR TRANSITWAY

A. Introduction

The need for additional transportation facilities in the Harbor Freeway corridor has become acute. The existing facility cannot adequately move people and goods during peak hours due to congestion. Additionally, there is a need in this transportation corridor for an energy efficient low polluting element of a regional transit system designed to serve commuters and the transit dependent. Consequently, the alternatives analysis process has been undertaken with the fundamental goal of achieving effective agreement on the most efficient and safe transportation system for the Harbor corridor, consistent with the the community's expressed social, environmental, economic, and financial goals.

Los Angeles, which is the second largest populated metropolitan area in the United States, spreads out in a distinctive style of development. Although the Los Angeles Central Business District (LACBD) has a strong financial base, major centers of employment and residential development are scattered throughout the Los Angeles Basin in a decentralized, low to medium density pattern. However, in the twenty (20) years from 1980 to 2000, the LACBD employment is predicted to increase from 235,000 to 332,000 jobs, a growth of 41.7%. During this same period, the population in the I-110 corridor is projected to grow to 1,000,000, of which approximately 1/3 or 330,000 will be transit dependent. (1) (References are listed in Chapter XIII.)

Roadway congestion on the existing network of freeways has become aggravated and has steadily spilled over onto local streets, causing increasing intrusion into and disruption of residential

neighborhoods, particularly during peak commute hours. In earlier transportation studies, the Harbor Freeway (I-110) was identified as one of two corridors needing improved public transportation to service the needs of the commuter (2).

Improvements as envisioned for this I-110 Study would reduce automobile dependence. This would provide a corridor wide reduction of between 650,000 and 988,000 vehicle miles traveled (VMT) per day. Accompanying this would be a reduction in petroleum product usage and a lessening of air pollution. The transitway would also reduce the need for additional new parking facilities in the LACBD ranging from 2000 spaces to 5400 spaces during the next 10 years. Overall, the I-110 Transitway would greatly enhance the capacity of the existing facilities and is financially feasible through a combination of local, State and Federal monies.

B. Transit Planning in the Los Angeles Region

Los Angeles has been searching for a solution to its regional transit problems for over twenty years. Since 1964 the Southern California Rapid Transit District (SCRTD) has provided regional transit service by operating a conventional fixed route bus system. Over the years, innovations such as dial-a-ride, improved bus routing, express bus service on freeways and park-and-ride facilities have been introduced. Yet, transit service is acknowledged to be in need of improvement.

A program to create an effective integrated transit system for the Los Angeles region began to evolve in the mid 1970's. Over time

Caltrans and local agencies involved in transportation planning and operation created a regional transportation plan designed to provide effective transportation throughout the region.

In 1973, the San Bernardino Freeway Busway (El Monte Busway) demonstration project opened for use. In 1976 the entire length of the busway was opened to high occupancy vehicles (carrying three or more people) during peak traffic hours. By 1978 the net effects of busway usage were the daily elimination of 4100 one-way auto commute trips, the saving of about 146,000 vehicle miles traveled, and the saving of 9200 gallons of gasoline (taking into account the added daily consumption of diesel fuel by buses), and a reduction in air pollution relative to conditions which would have existed without the busway (3).

In 1975, SCRTD conducted a "Starter Line" study with the goal of determining the most logical initial starter project for a regional rail system. This study culminated in an alternatives analysis which included rail and bus options in selected regional transportation corridors. (See Figure I-1)

In the summer of 1976, a Task Force Study recommended a fully integrated transit plan for Los Angeles County. This Regional Transportation Development Plan (RTDP) included State, regional and city transportation proposals. This plan included the following elements:

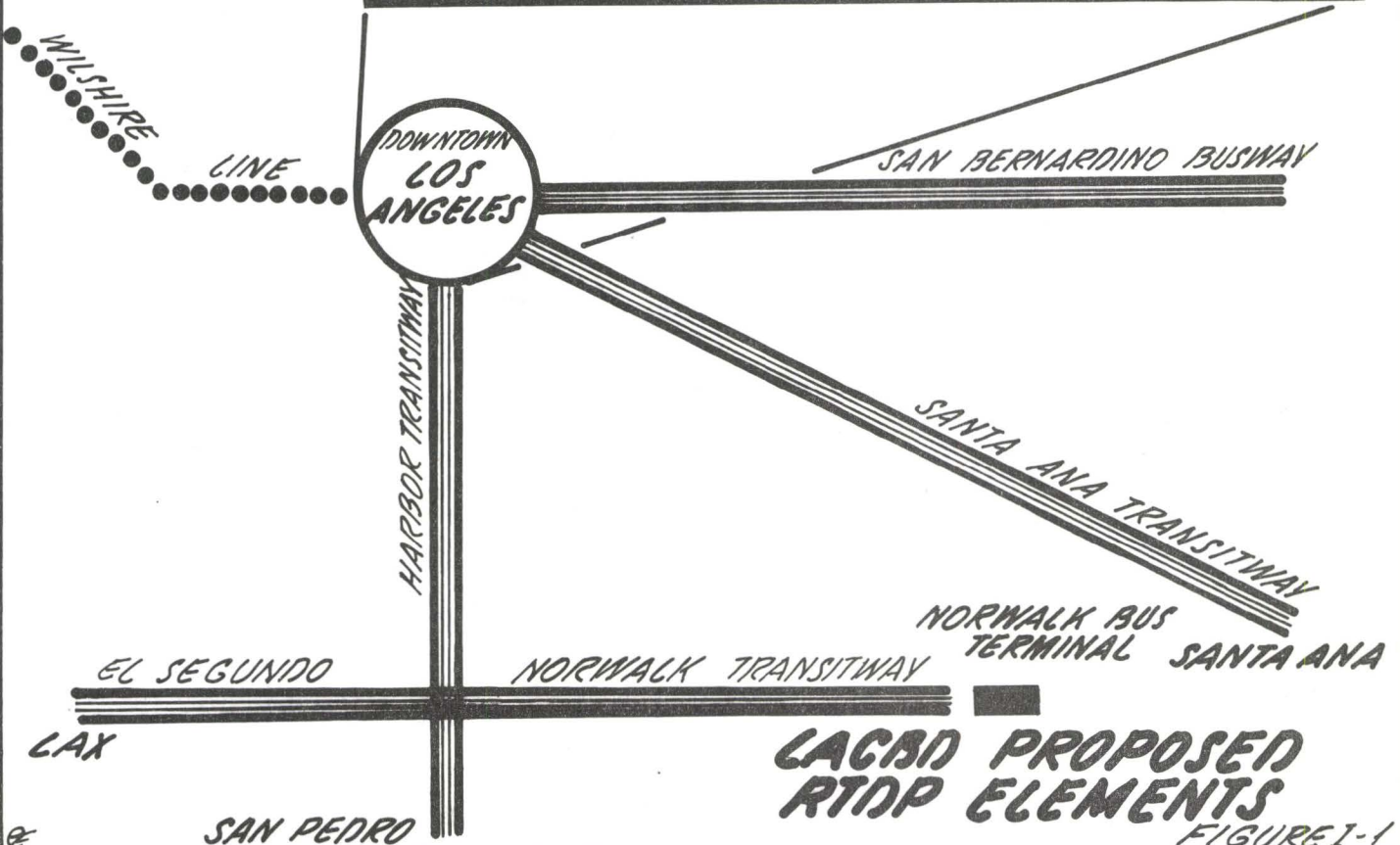
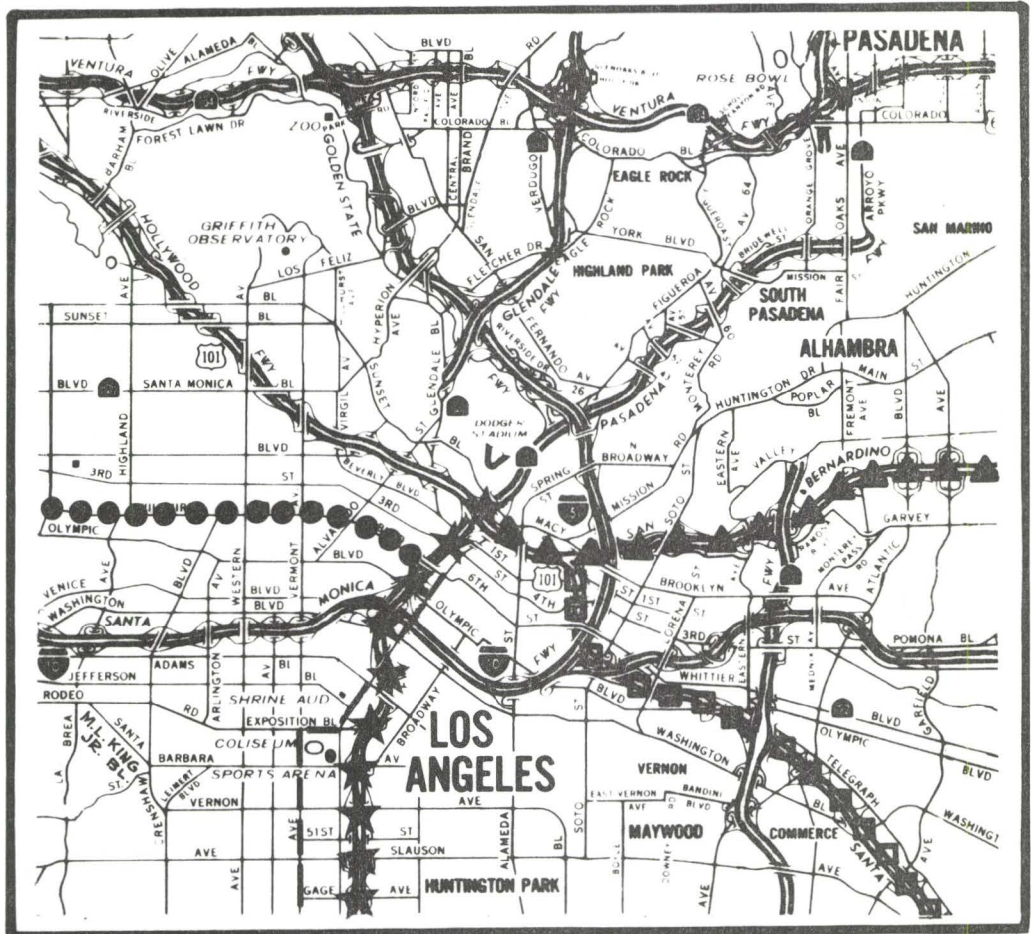


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

LEGEND

- WILSHIRE RAIL LINE
- ▲▲▲▲ SAN BERNARDINO BUSWAY
- SANTA ANA TRANSITWAY
- ***** HARBOR FREEWAY TRANSITWAY
- VERMONT RAIL



LACAD PROPOSED RTDP ELEMENTS

FIGURE 1-1

1. Freeway Transit: A system of express buses using the freeways and new exclusive bus/carpool lanes.
2. Transportation System Management Program (TSM): Short range operational improvements to the existing transportation network. (TSM elements such as ramp metering and ridesharing are being implemented.)
3. Downtown People Mover (DPM); a 2.7-mile automated guideway through the Los Angeles CBD. (Final EIS approved by UMTA in June 1980; now indefinitely deferred due to loss of funding.)
4. Regional Core Rail (now identified as Metro Rail); has requested Federal Funding approval for 4.4 miles of the 18.6 mile rail transit line along the Wilshire corridor. Construction to begin late, 1985.

In December 1976, the U. S. Department of Transportation approved \$11.08 million for studying the RTDP. Approximately \$7.8 million of this was allocated to Caltrans to study freeway transit and highway related aspects of the Transportation System Management (TSM) element.

In conjunction with the approval of the Regional Transit Development Plan, the Executive Committee of SCAG in 1978 endorsed the elements of the RTDP in the Regional Transportation Plan and the Regional Transportation Improvement Plan for Fiscal Year 1979-1983 funding.

In late 1978, Caltrans and SCRTD concluded that it was best to select a portion of the proposed freeway transit for the next

study phase, project development. Two high priority corridors, the Harbor Freeway and the Santa Ana Freeway were selected. To reflect new concerns brought about by the energy crisis, and to ensure conformance with Federal requirements, the project work program was expanded to include rail alternatives in addition to initial bus/HOV (high occupancy vehicle) alternatives. In July 1979, Caltrans completed a study comparing capital costs and patronage projections for freeway transit rail and bus/HOV modes on the Harbor, the Santa Ana, and the proposed Century Freeways. This study also reviewed other important factors of the financial and political climate.

The primary objectives of the Harbor Freeway Corridor Transit Study are to:

1. Improve existing transportation facilities by making the existing freeway system more efficient in moving people.
2. Increase mobility for all people by providing a high speed and easily accessible transit system.
3. Promote energy conservation in transportation by emphasizing mass transit and encouraging carpooling and vanpooling.
4. Minimize the potential for adverse environmental impacts by developing a transitway within the boundaries of existing transportation right of way, eliminating new extensive right of way requirements, and by providing alternatives to the single occupancy vehicle.
5. Improve the urban economy by attracting jobs and facilitating "joint development" at corridor stations.

In September 1980, Caltrans informally circulated a Draft Initial Study/Environmental Assessment for the Harbor Freeway in conformance with early consultation requirements of Federal and State planning guidelines. Since that time, the Vermont Avenue rail alternative has been added because of input from government agencies and the public.

This transportation/environmental planning process produced a coordinated plan to provide efficient and comfortable public transit to serve the Los Angeles region. The Harbor Freeway Corridor transitway is an integral part of the proposed system. It would provide a vital link between downtown Los Angeles and the Los Angeles Harbor, as well as between the proposed Century Freeway (I-105) Transitway and downtown Los Angeles.

C. Transit Dependent Needs

The generally accepted characteristics which define transit dependency are age group, poverty and auto ownership. Surveys show that 45% of the corridor population is either under 18 years of age or over 65, one third of the population is at poverty level and 32% of the occupied units house a family with no automobile.

The areas most affected by these factors are the Central City, the area between Exposition Boulevard and Manchester Avenue and the San Pedro area. These are also areas with high concentrations of minorities. Because many residents throughout the corridor are in lower income brackets, or on fixed incomes and do not own cars,

transportation to jobs, shopping and services becomes an important issue. In the South Central District, 19.7% of work trips were on public transit in 1977 as opposed to 10.3% for the City of Los Angeles. Given the widening income gap and increasing cost of owning and maintaining a vehicle, the apparent trend of increasing use of public transit is likely to continue.

Many transit users in the corridor believe that the current transit system is inadequate to meet current transit demands. The projected demand for 2005, detailed in Chapter III-F could not be met by the existing system. The Harbor corridor transitway would provide the levels of service necessary to meet the needs of transit dependents and the future transit demand in the study area.

D. Energy Efficient Transportation

One of the reasons for building a transitway in the I-110 corridor is to promote energy savings by increasing the use of energy efficient forms of transit such as bus, rail, or high occupancy vehicle. Currently, the majority of commuters on the Harbor Freeway travel alone in private autos. Caltrans studies indicate that in 1980, average daily vehicle volumes on the Route I-110 ranged from 29,500 at Ninth Street in San Pedro to 219,000 at the Eight and Ninth Street connections in the Los Angeles CBD, while the peak hour vehicle volumes ranged from 2,300 to 15,700 in the same locations. The freeway is at free flow (35 M.P.H. or greater) from the San Diego Freeway (I-405) south to San Pedro during peak travel periods.

About 55% of the cars and HOV's and 90% of the buses in service travel north during the morning peak traffic period, while about 45% of the cars and HOV's and 10% of the buses in service travel south. The reverse is true in the evening. The overall average auto occupancy in 1980 was 1.23 people, with an average of 18.5% of the vehicles on the Harbor Freeway having an occupancy of 2 persons or more.

A primary way of reducing energy use is to attain a higher average home to work trip vehicle occupancy for the freeway network lying within Los Angeles County. Locally, the San Bernardino Freeway Busway, which approximates the exclusive guideway requirement for freeway transit, increased vehicle occupancy across all lanes from a pre-carpool average of 1.19 to 1.37. Implementation of exclusive freeway transit facilities will have the greatest effect on increased vehicle occupancy (approximately 15% increase) in attaining the 1990 Regional Transportation Plan (RTP) goal of a vehicle occupancy of 1.30.

E. Urban Revitalization

Most of the South Los Angeles corridor area experiences the common inner city problems of crime, housing and commercial deterioration, lack of sufficient affordable housing, decline in public services, disinvestment, and high unemployment rates. The city general plan contains a "Centers Concept" with some centers located along the corridor. The Centers Concept envisions within a quarter mile radius of the center, a Rapid Transit Station, high-rise office structures, department stores, hotels, theatres, restaurants and government offices.

Analysis of joint development opportunities shows that there are 134 acres of land available along the Harbor Freeway Corridor which could provide 6,500 to 9,500 new jobs and 475 to 500 new housing units within walking distance of public transit. The proposed transit improvements may also improve the perception of the corridor as an appropriate location for future office, commercial and industrial development.

Transportation systems by themselves cannot cause the economic revitalization of a depressed area. However, a Harbor corridor transitway could be part of a comprehensive program to revitalize structures, department stores, hotels, theatres, restaurants and government offices. Any such program would, like the city's Centers Concept, be a long term goal, that is not likely to be realized in the near future.

F. I-105 Consent Decree Requirements

An action was filed on February 16, 1972 in the U. S. District Court by several individuals who reside in the path of the proposed I-105 Freeway, the Los Angeles Chapter of The National Association for the Advancement of Colored People, The Sierra Club, and the Environmental Defense Fund which enjoined the construction of the I-105 Freeway. One of the eventual conditions resulting from the 1981 Consent Decree was that transitway linkage be provided between the I-110 and the I-105 freeways. A direct connector or a vertical transfer station at the I-110/I-105 interchange would provide the needed transit service from LAX to downtown Los Angeles.

G. Use of Existing Right-of-Way

The transitway project would make use of existing right-of-way, thereby minimizing community disruptions and possible relocations. By using the existing roadway rights-of-way, a transit facility would also be more cost-effective and create fewer social, economic and environmental impacts.

H. Congestion Relief

The present congested conditions approximate level of service F (forced flow operations at low speed) where volumes exceed capacities, particularly in the vicinities of the I-105, Imperial Highway, and from Manchester Boulevard north to Route I-10 (refer to Table I-1 and Figure II-8). Traffic conditions usually include long queues and delays. Between I-405 and I-10, today's commuter experiences an average total daily two-way delay of approximately 20 minutes going to and from work. Continued growth in the Los Angeles CBD will cause increased congestion and delay on I-110 north of the I-405, (see Figure I-2).

A transitway would increase the total transportation capacity of the corridor. Commuters utilizing the transitway could virtually eliminate their previous freeway delay by being separated from the congestion. The delay experienced on LACBD streets could also be reduced or eliminated by the implementation of an improved public transportation system in the downtown area.

TABLE I-1

1980 AM Peak Period Traveling Speeds at Selected Locations

<u>Location on I-110</u>	<u>Travel Speed</u> (Miles per Hour)
<u>Northbound</u>	
Route 47 - Carson Street	Greater than 40
Carson Street - Route I-405	20 - 40
I-405 - Manchester Boulevard	20 - 40
Manchester Boulevard - Route I-10	Less than 20

1980 PM Peak Period Traveling Speeds at Selected Locations

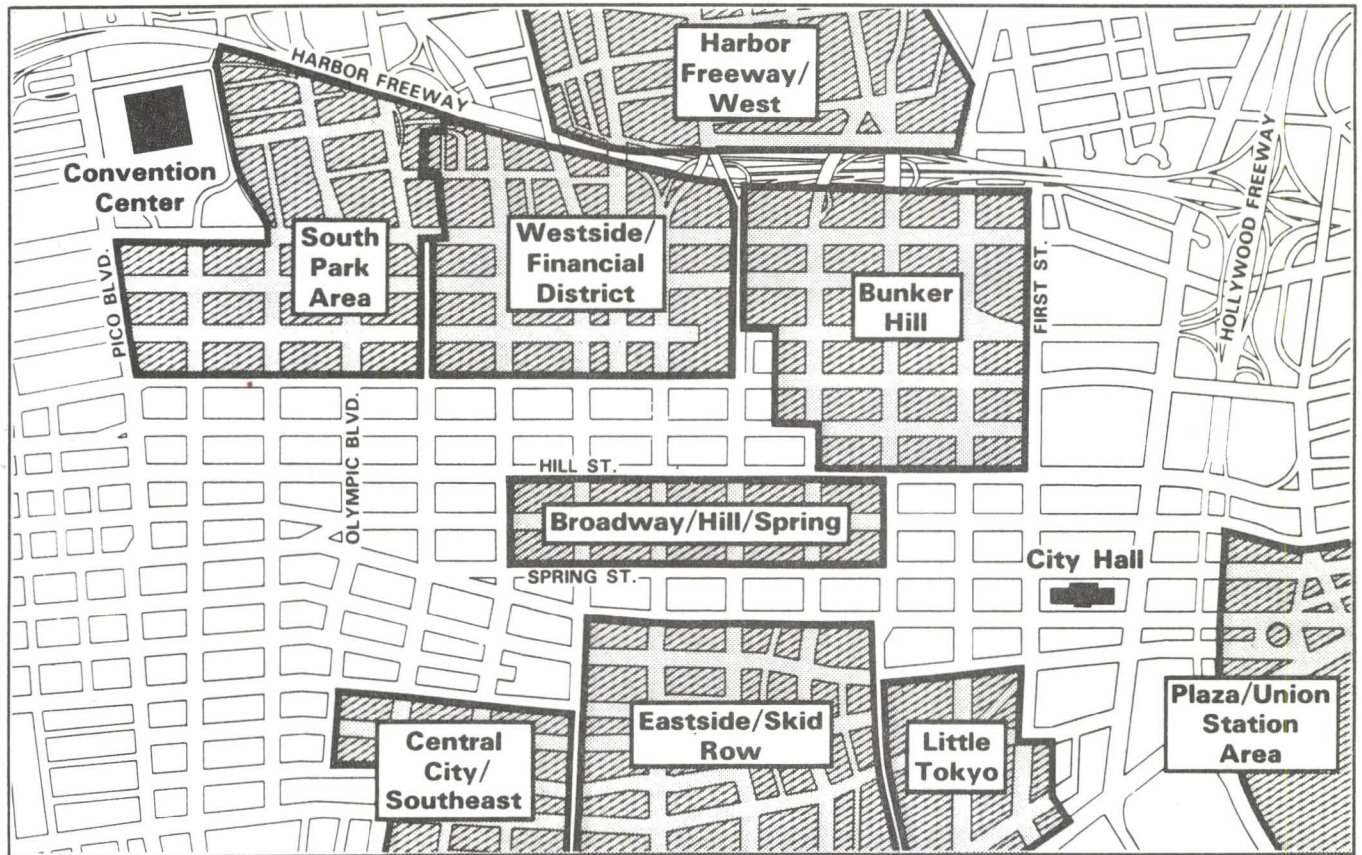
<u>Location on I-110</u>	<u>Travel Speed</u> (Miles per Hour)
<u>Southbound</u>	
Route I-10 to Manchester Boulevard	Less than 20
Manchester Boulevard to Route I-405	20 - 40
Route I-405 to Route 47	Greater than 40

Source: California Department of Transportation Traffic Operations Branch.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



Major Development Areas in Downtown L.A.

Most of downtown is feeling an unparalleled construction boom with heaviest activity shown in shaded areas. With \$3.5 billion in projects planned or under construction, new office space will create demand for 100,000 more downtown workers—up from today's 200,000—by 1990. Office space being built and planned is equivalent to about 20 City Halls.

Bunker Hill

Recently Completed or Under Construction

Four office buildings, \$580 million, 3.8 million sq. ft.; 533-room hotel, \$66 million; 322 units of housing for elderly and handicapped; 135 condominium units.

Planned

California Plaza, with three office towers, 450-room hotel, Museum of Contemporary Art, \$1.2 billion, 3.2 million sq. ft.

Westside/Financial District

Recently Completed or Under Construction

Six office buildings, \$278 million, 3.6 million sq. ft. offices.

Planned

Eight office buildings, \$420 million, 2.6 million sq. ft. offices

South Park Area

Under Construction
412 condominium units.

Planned

Federal Reserve Bank, \$55 million, 348,000 sq. ft. offices.

Broadway/Hill/Spring

Recently Completed or Under Construction

International Jewelry Center, \$35 million, 350,000 sq. ft. offices and showrooms; Design Center of Los Angeles, \$15 million, offices and showrooms; 299 units of housing for the elderly.

Planned

State office building, \$110 million, 825,000 sq. ft. offices; 176 residential units; \$10.6 million office conversion.

Eastside/Skid Row

Under Construction

Weingart Neighborhood Revitalization Center, \$8.4 million, 250 beds, 200 housing units, detoxification center; transitional residential dormitory, \$1.5 million.

Planned

135 units of housing for the elderly.

Central City/Southeast

Under Construction

Wholesale Flower Market, \$15 million for expansion.

Planned

Wholesale Produce Market, \$89 million.

Harbor Freeway/West

Under Construction

Bank headquarters, computer complex, \$90 million, 770,000 sq. ft.; Office building, \$80 million, 660,000 sq. ft.

Plaza/Union Station area

Planned

RTD central maintenance facility, \$54 million, 350,000 sq. ft.; Union Station improvements; Pico-Garnier block (El Pueblo de Los Angeles State Park), \$6 million for theater, restaurant, facilities. Conversion to restaurant, theater, other facilities.

Little Tokyo

Under Construction

Two banks/office buildings, \$14.5 million, 96,000 sq. ft.; Cultural theater, \$5.5 million, 850 seats.

Planned

Four office buildings, \$105 million, 690,000 sq. ft. offices; two hotels, 373 rooms, parking and retail facilities.

Chinatown

Under Construction

Medical building, \$5.2 million, 60,000 sq. ft.

Planned

425,000 sq. ft. condominium units, 270 housing units for elderly.

TOM TRAPNELL-DON CLEMENT
Los Angeles Times

Congestion also contributes to the accident rate and vice versa. Our studies indicate that on the I-110 between Gaffey Street and Route I-405 Freeway experiences 0.86 auto accidents/million vehicle miles (MVM). Between I-405 and I-10 the accident rate is 1.39 auto accidents/MVM which is above the average of 0.90 auto accidents/MVM on the other urban freeways in the Los Angeles basin. With an average vehicle occupancy rate of 1.2 persons per auto, the 0.86 and 1.39 auto accidents/MVM equates to an accident rate of 0.72 and 1.16 auto accidents/million persons-miles, respectively. Figure II-9 (in Chapter II) depicts the accident severity and distribution per mile between specific cross streets from January 1980 and December 1983.

Exclusive transitways have proven to be much safer for people than congested freeways and arterial roadways. The San Bernardino Freeway Busway, considering its higher occupancy rate, experiences 0.3 auto accidents/million person-miles. In fact, when focusing upon the grade-separated sections of the busway that closely resemble the transitway of this study, this auto accident rate approaches zero.

I. Transit Corridor Studies and Consistency

There is one existing and four proposed transit corridors in Los Angeles County that have either a direct or indirect influence on the Harbor Freeway transitway service and patronage level. The existing operational transitway is the San Bernardino Freeway Busway which runs between El Monte and Union Station. The four proposed

projects are: (1) the Wilshire Rail Line, which runs from Lankershim Boulevard and Chandler Street in the San Fernando Valley to Union Station in the downtown area; (2) The Century I-105 Freeway Transitway, which runs from west of Sepulveda Boulevard in El Segundo to the San Gabriel I-605 Freeway in Norwalk; (3) the Santa Ana Freeway Transitway which runs from Orange County to Union Station; and (4) Long Beach to Los Angeles Light Rail Transit (LRT) which runs from the City of Long Beach to Los Angeles downtown area. Taken as a regional system, all four projects allow for transfer possibilities from the Harbor Freeway (assuming it terminates at Union Station) to areas east and west of the Harbor Freeway corridor, to the San Fernando Valley, to points throughout the Los Angeles CBD, and with the proposed Santa Ana Transitway. By networking, or providing a number of transfer opportunities to other transportation corridors, the level of service becomes much more attractive to potential transit riders, as reflected in the high demands projected on the Harbor Freeway transitway as part of a regional transportation system.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

CHAPTER II

Affected Environment



II. AFFECTED ENVIRONMENT

A. Introduction

This chapter examines the affected environment and provides an overview of the environmental characteristics of the Harbor Freeway corridor study area, and its relationship to the Los Angeles region (Figure II-1). First, the characteristics of the region are discussed, then the study area is discussed in detail.

B. Regional Setting

The Los Angeles metropolitan region is the largest in California. Most of the urban development of the region is confined to the Los Angeles Basin, in Southern Los Angeles County, and to Orange County. The population of these two counties was 9.36 million in 1980 (13). Table II-1 shows the historic and projected population levels of the region and the Harbor Freeway Corridor. The Harbor Freeway (I-110) corridor study area lies in the heart of the Los Angeles metropolitan region. The study area extends from the LACBD to San Pedro generally between Avalon Boulevard and Western Avenue. Figure II-2 shows the relevant details of the study area.

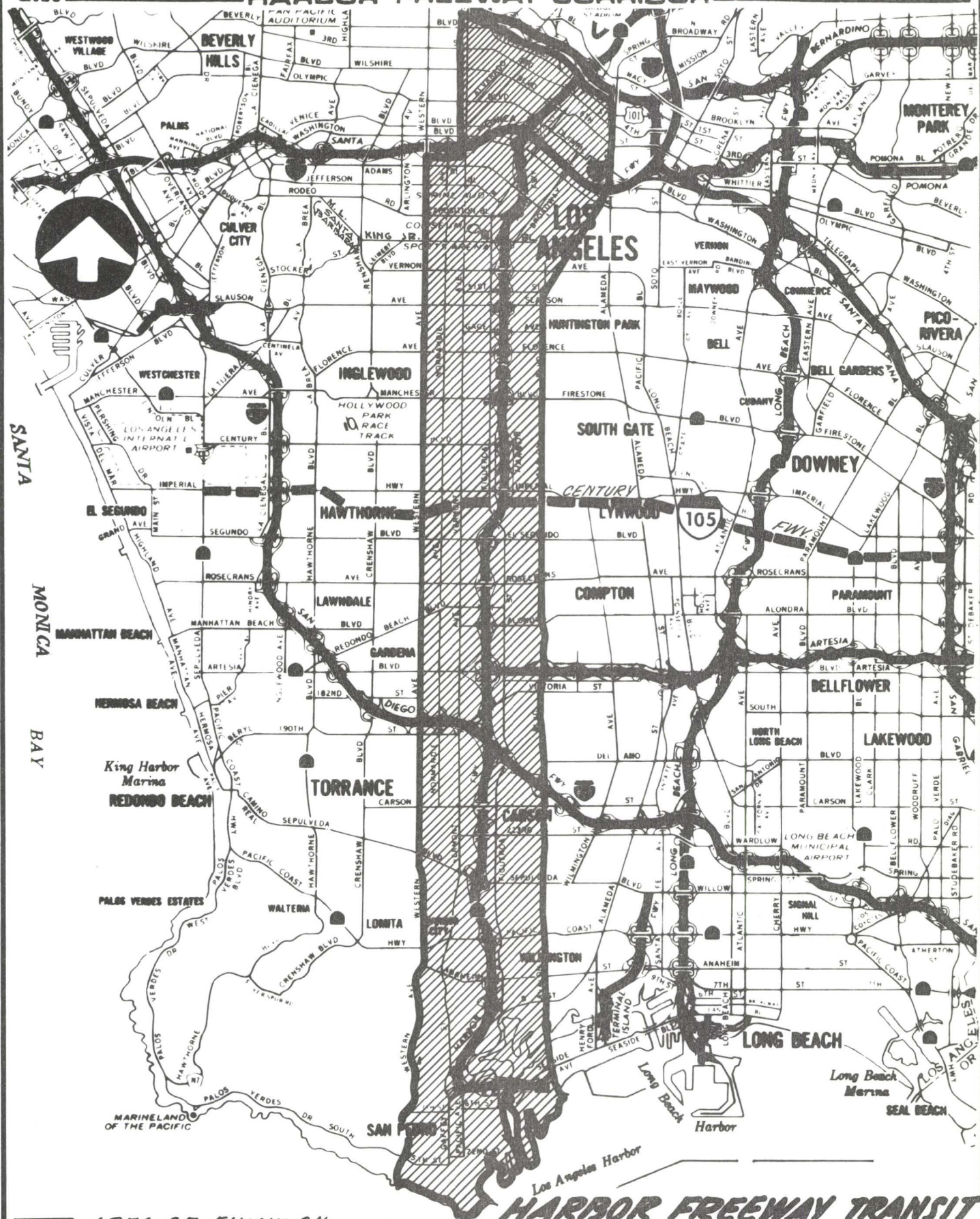
C. Socioeconomic Setting

1. Demographic Profile

The study area's population is approximately 900,000. Figure II-3 shows subareas, neighborhoods, and political subdivisions within the study area. Population density in the study area is 7850 people/square mile compared to 6600 people/urban square mile Los Angeles County (13). Figures II-4 and II-4A show the study

Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



 AREA OF ENVIRONMENTAL STUDY.

HARBOR FREEWAY TRANSIT REGIONAL MAP

FIGURE II-1

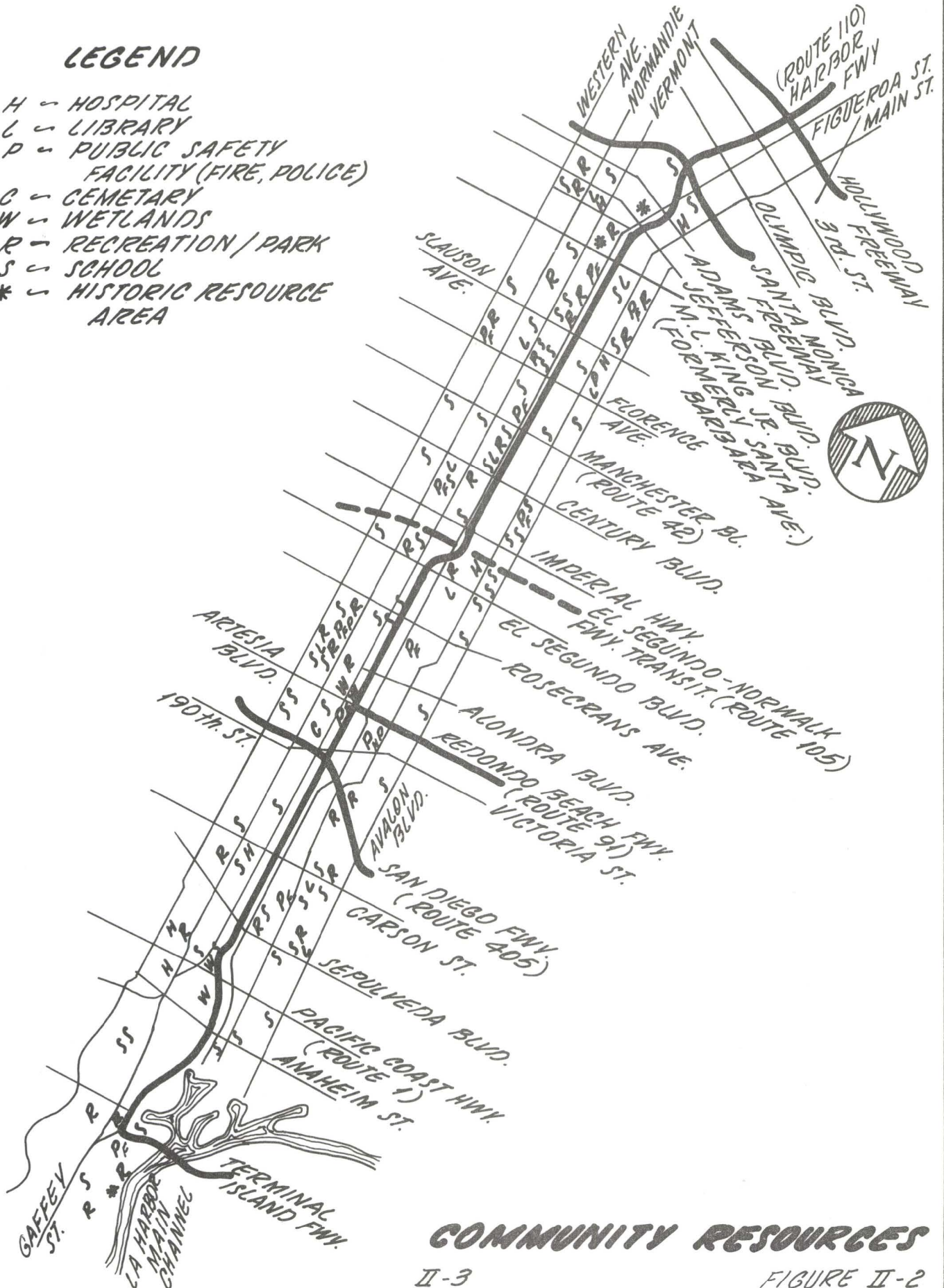


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

LEGEND

- H - HOSPITAL
- L - LIBRARY
- P - PUBLIC SAFETY FACILITY (FIRE, POLICE)
- C - CEMETARY
- W - WETLANDS
- R - RECREATION / PARK
- S - SCHOOL
- * - HISTORIC RESOURCE AREA



COMMUNITY RESOURCES

TABLE II-1

Historic and Projected Populations for Los Angeles and Orange Counties
and the Harbor Freeway Corridor

	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Los Angeles	6,040,805	7,038,764	7,441,302	7,557,000	7,905,000
Orange	703,925	1,421,233	1,919,264	2,369,000	2,656,000
Harbor Freeway Corridor	-	-	C.900,000		C.1,000,000

Source: 1940-1980 U.S. Census Bureau
1990-2000 SCAG-78 Growth Forecast Policy January 1978.
Caltrans

TABLE II-2

Unemployment in the Harbor Freeway Corridor Study Area

	<u>1970</u> (%)	<u>1980</u> (%)
South Central L.A.	9.0	19.8
Southeast L.A.	12.5	26.8
Gardena	4.7	5.0
Athens/Westmont	9.0	11.0
San Pedro	7.8	--
L.A. City	7.0	11.8

Sources: L.A. County Community Development Department
Community Analysis
Los Angeles Population, Employment and Housing
Survey 1977.
San Pedro Community Plan.

Interstate 110 Freeway Transit

Caltrans

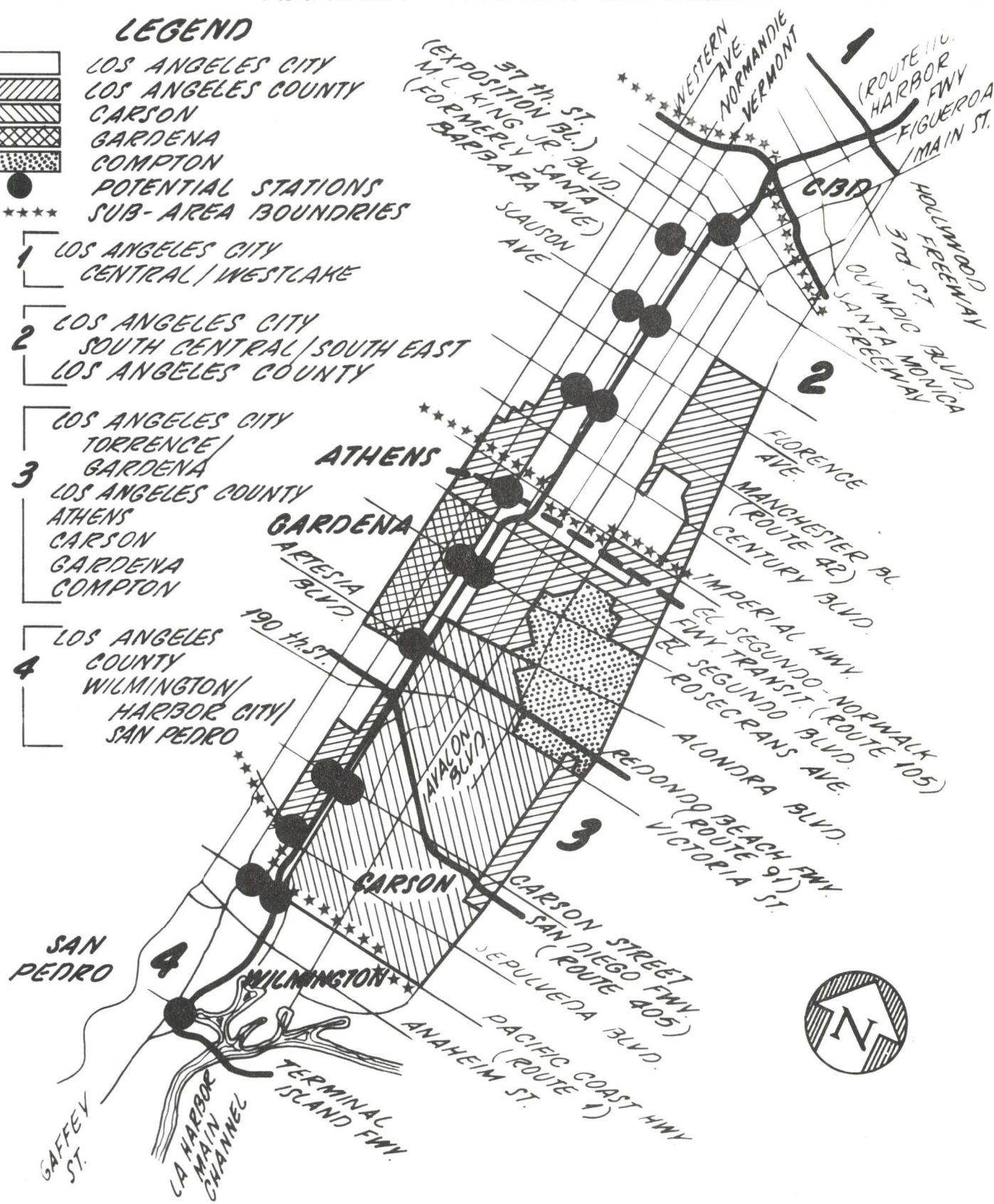
HARBOR FREEWAY CORRIDOR

LEGEND



- LOS ANGELES CITY
- LOS ANGELES COUNTY
- CARSON
- GARDENA
- COMPTON
- POTENTIAL STATIONS
- SUB-AREA BOUNDARIES

- 1 LOS ANGELES CITY
CENTRAL / WESTLAKE
- 2 LOS ANGELES CITY
SOUTH CENTRAL / SOUTH EAST
LOS ANGELES COUNTY
- 3 LOS ANGELES CITY
TORRENCE /
GARDENA
LOS ANGELES COUNTY
ATHENS
CARSON
GARDENA
COMPTON
- 4 LOS ANGELES
COUNTY
WILMINGTON /
HARBOR CITY /
SAN PEDRO



JURISDICTION - PLANNING AREAS

FIGURE II-3

e

Interstate 110 Freeway Transit

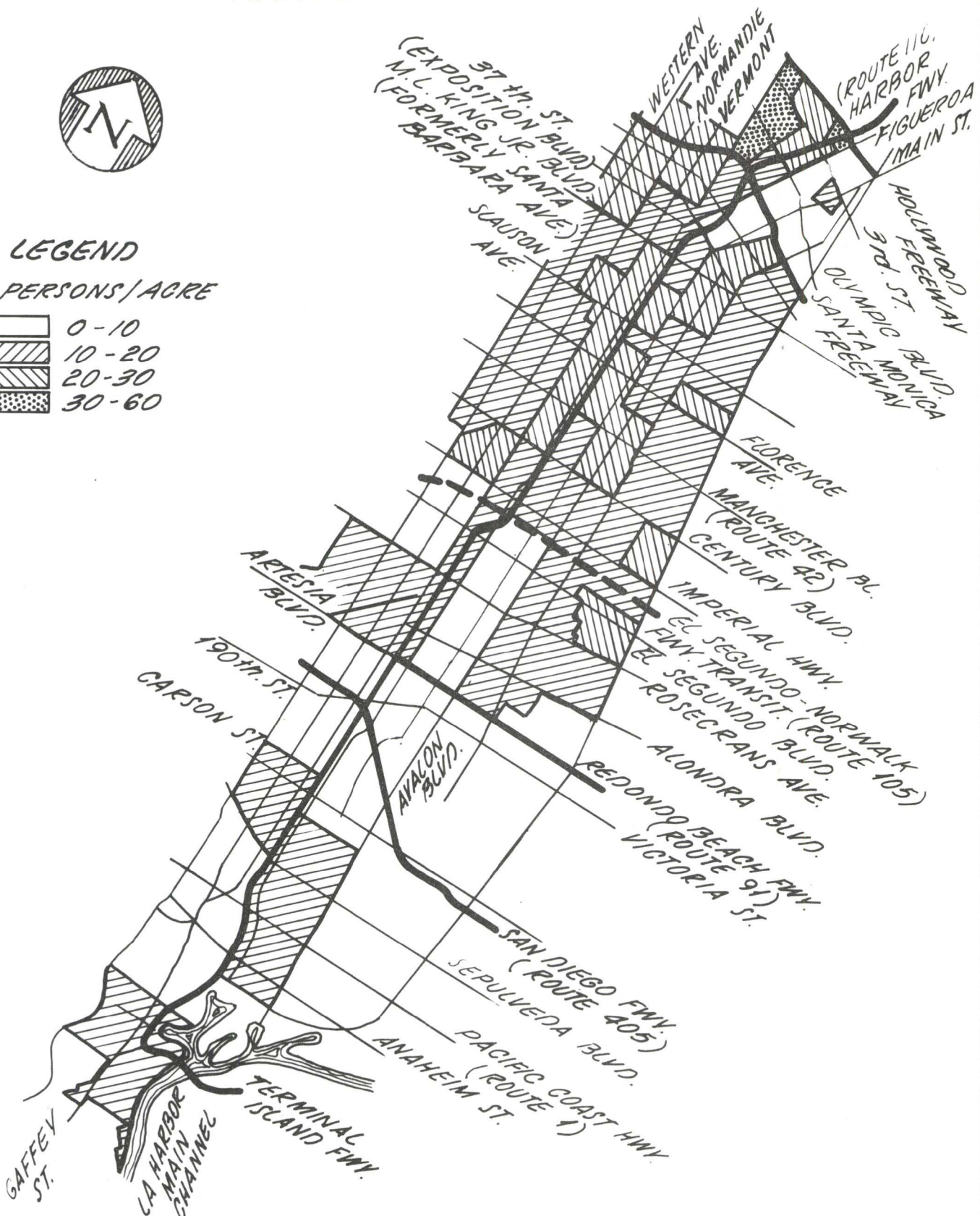
HARBOR FREEWAY CORRIDOR



LEGEND

PERSONS/ACRE

	0-10
	10-20
	20-30
	30-60



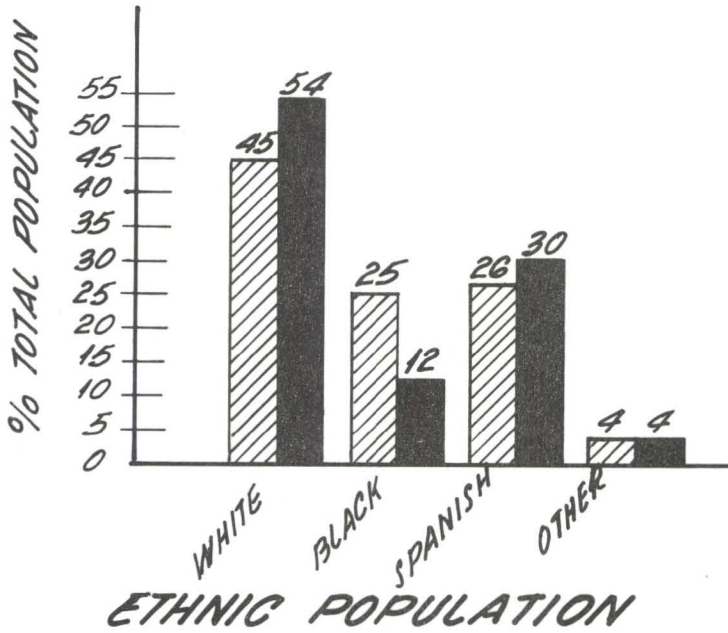
1979 POPULATION

FIGURE II-4

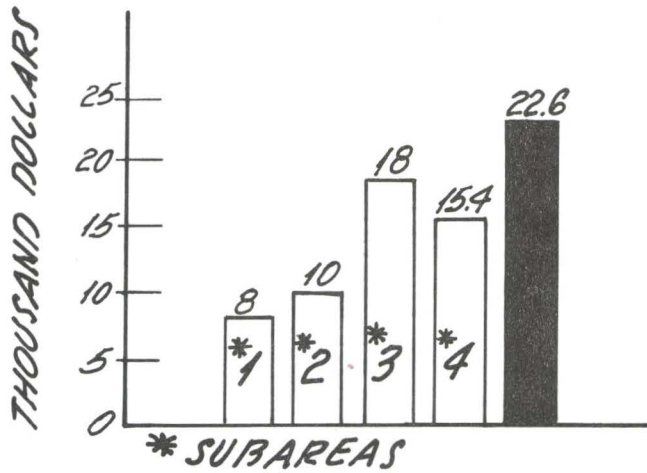
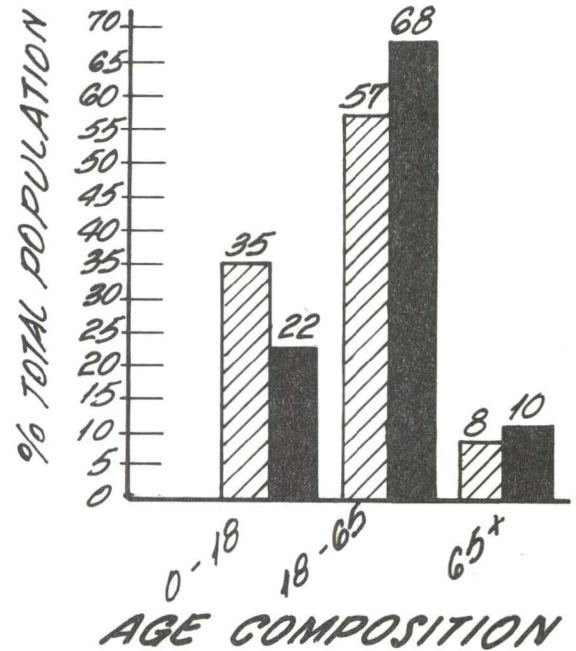


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

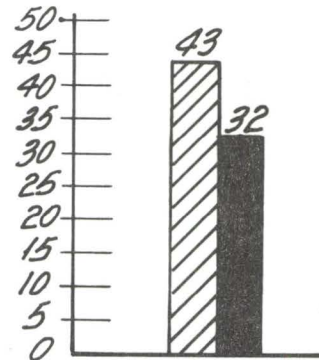


LEGEND
 [Hatched Box] 110 CORRIDOR
 [Solid Black Box] LA COUNTY



NOTE: 110 SUBAREAS REPRESENTED ON FIGURE II-23

ESTIMATED MEDIAN INCOME



(DEFINED AS UNDER 18 AND OVER 65 YEARS OF AGE.)

TRANSIT DEPENDANT POPULATION

NOTE:
 SOURCE OF DATA:
 1979 CANTS (110 CORRIDOR
 DEPARTMENT OF HEALTH
 SERVICES (LA COUNTY))

1979 POPULATION

FIGURE II-4A

area's population characteristics. The majority of the study area's population is composed of minorities. While the White population declined over the last decade, the Hispanic population increased greatly and predominates in some neighborhoods (Figure II-5). Blacks continue to be the majority in many neighborhoods (Figure II-6). The average age of the study area's population is less than the average for Los Angeles County (Figure II-4A).

2. Economic Profile

The income of the majority of people in the study area is substantially below the county median income (Figure II-4A). The average income tends to be higher in the southern part of the study area than it is in the northern part. The unemployment rate is substantially higher than the average rates for the City or County of Los Angeles. Unemployment rose between 1970 and 1980 (Table II-2). Many people in the area receive some form of public assistance.

The study area still is a diversified industrial and employment center despite the closing of some major plants and smaller businesses. Occupational distribution for 1980 are not yet available. The data for 1970 indicate that most jobs in the study area were in the operative, service, craft, and clerical professions.



Interstate 110 Freeway Transit

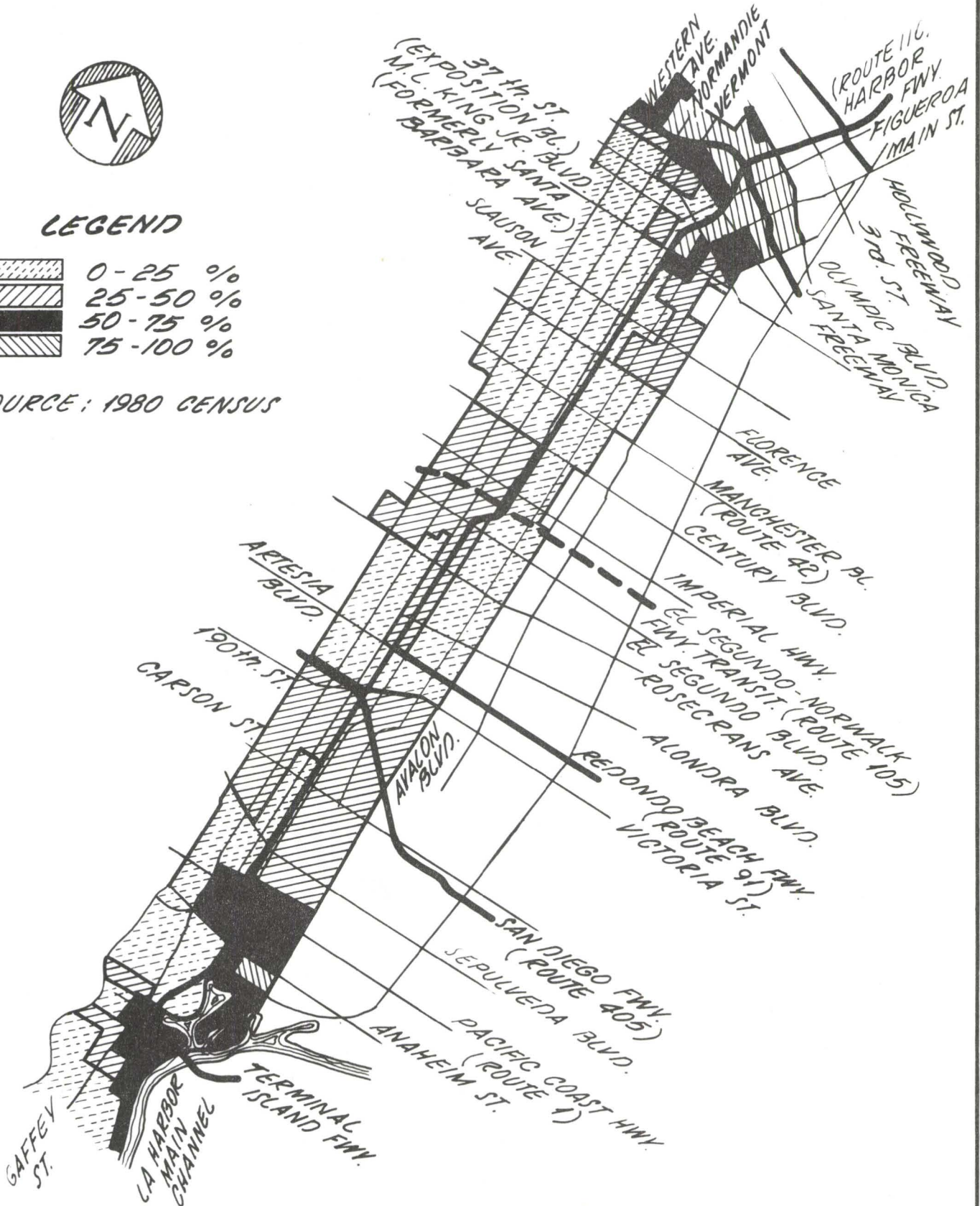
HARBOR FREEWAY CORRIDOR



LEGEND

	0 - 25 %
	25 - 50 %
	50 - 75 %
	75 - 100 %

SOURCE: 1980 CENSUS



HISPANIC POPULATION DISTRIBUTION

FIGURE II-5



Interstate 110 Freeway Transit

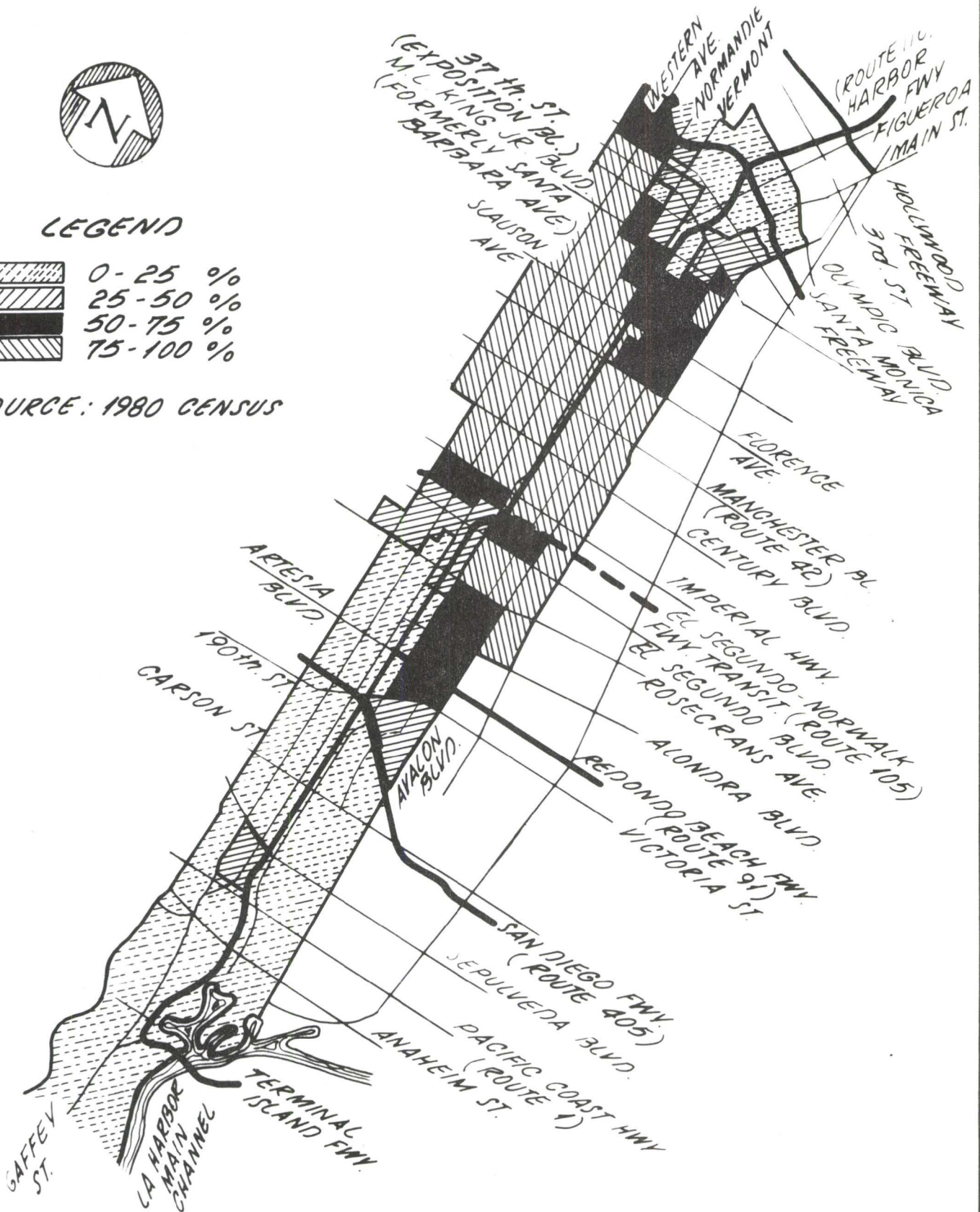
HARBOR FREEWAY CORRIDOR



LEGEND

	0 - 25 %
	25 - 50 %
	50 - 75 %
	75 - 100 %

SOURCE: 1980 CENSUS



BLACK POPULATION DISTRIBUTION

FIGURE II-6

3. Crime Profile

Between 1970 and 1980 crime in the study area increased. The 1979 and 1980 crime rates for much of the area were about twice as high as rates for the County. Selected criminal statistics are shown in Table II-3. Increased crime and vandalism are major causes for the closing of many stores, particularly chain stores. In parts of the study area, residents must travel relatively long distances to shop for groceries and other basic items. Gang related violence occurs in some neighborhoods. The number of people associated with gang activity is increasing. Graffiti covered walls attest to the separation of territory.

4. Land Use and Housing Profile

Land use in the study area varies from single family residential use to heavy industrial use (Figure II-7). Much of the study area consists primarily of single and multiple family residences with strip commercial development on major streets. Industrial pockets lie throughout the study area although they are more predominant in the south. Approximate percentage composites of the land uses within the study are: Residential 55%, Public Uses (including schools, parks, transportation facilities) 26%, Industrial 9%, Commercial 4%, and Vacant Lands 6%.

In the northern and central parts of the study area the number of housing units has declined in recent years. Between 1970 and 1977 the number of housing units in the south central and southeast districts of Los Angeles declined by 28,552.

TABLE II-3

Selected Crime Statistics For L.A. City Police Areas

Crime	Harbor Area	77th St. Area	Southwest Area	Newton Area	Total L.A. City
Vehicle Burglary	1428 (10.3)	1671 (11.22)	2953 (22.08)	3074 (37.66)	43003 (14.62)
Theft of vehicles from parking lots	5 (0.04)	3 (0.02)	16 (0.12)	6 (0.74)	187 (0.06)
Homicide	24 (0.17)	92 (0.62)	61 (0.46)	82 (1.0)	817 (0.28)
Rape	63 (0.45)	301 (2.02)	236 (1.76)	134 (1.64)	2532 (0.86)
Aggravated Assault	771 (5.54)	2009 (13.49)	1853 (13.86)	1656 (20.29)	19780 (6.72)
Robberies in public depots and on public conveyance	1 (0.007)	18 (0.12)	26 (0.19)	25 (0.31)	194 (0.06)
Pick pocket and purse snatching	29 (0.21)	273 (1.83)	369 (2.76)	261 (3.2)	3976 (1.35)

Total (per 1000 population)

Source: LAPD



Interstate 110 Freeway Transit

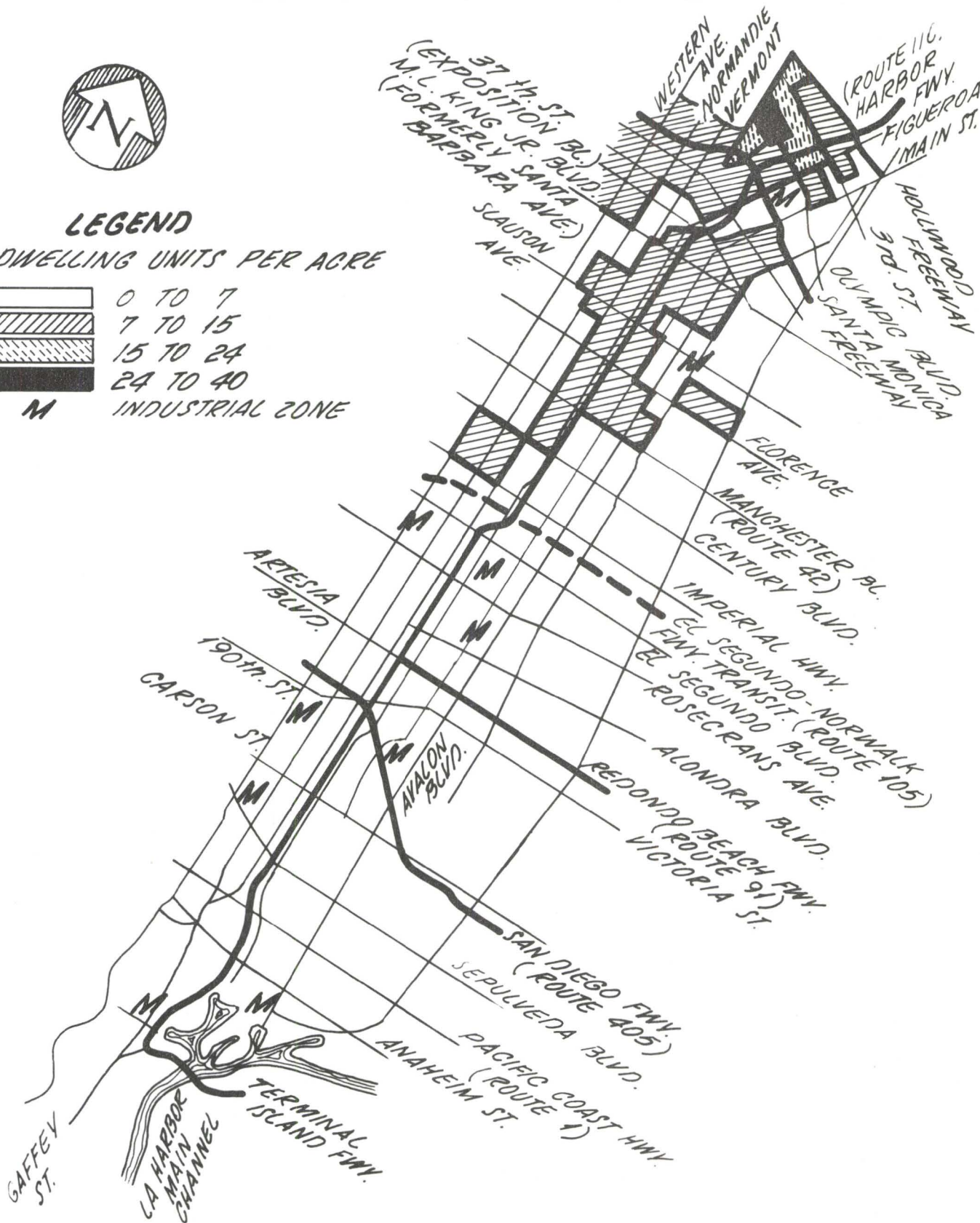
HARBOR FREEWAY CORRIDOR



LEGEND

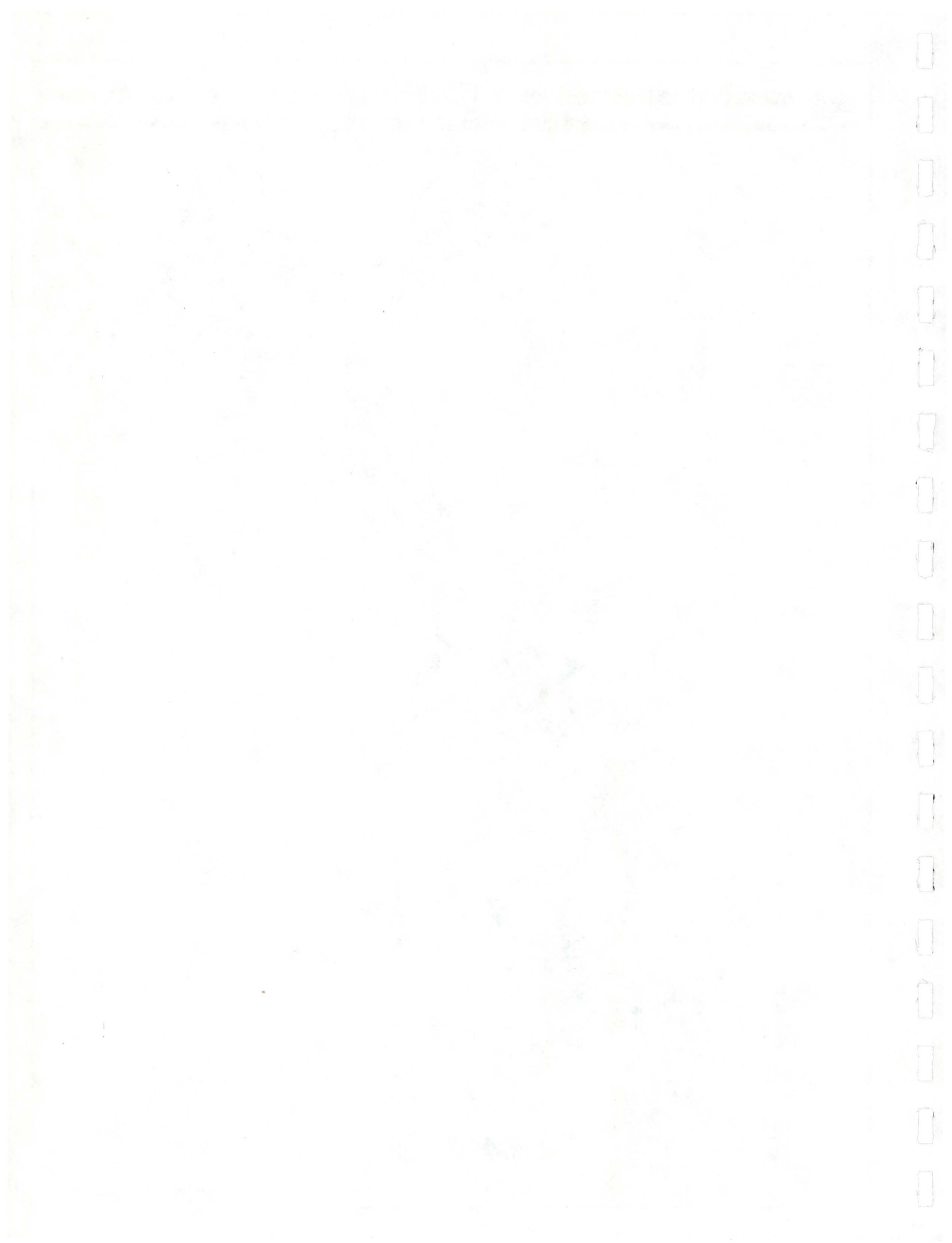
DWELLING UNITS PER ACRE

	0 TO 7
	7 TO 15
	15 TO 24
	24 TO 40
M	INDUSTRIAL ZONE



LAND USE

FIGURE II-7



In the unincorporated Athens/Westmost area, it is estimated that the number of housing units declined by 4621 between 1970 and 1979. Some new housing development has occurred in the southern part of the area. The housing stock in the study area tends to be older with many units appearing to be substandard or experiencing deferred maintenance. The study area contains over 200,000 housing units. Over 10,000 of these units are vacant. The vacancy rate is 4.89%.

5. Transit Dependent Concentrations

Transit dependent areas are characterized by the following four indices:

1. A large proportion of the population under 18 years of age and over 65 years of age. (See Figure II-4A.)
2. A population with a median income 25% or more below the county median income level.
3. A population with a greater number of children per household than the county average.
4. A population which has a significant proportion without access to an automobile.

In the Harbor Freeway corridor these characteristics are associated with neighborhoods which have large concentrations of minorities. The neighborhoods with large minority populations shown in Figures II-5 and II-6 may be considered to be heavily transit dependent.

The future residential locations of the study area's transit dependents cannot be projected accurately. It is possible, however, to discuss the potential accessibility to major activity centers for transit dependents in 2005 based on current residential location.

6. Major Activity Centers and Community Resources

Activity centers are important in transportation planning because they frequently represent the destination for people traveling by automobile or transit. The following types of activity centers were considered in this analysis:

- Major employment centers;

- Major medical and health facilities;

- Cultural centers including museums, libraries and auditoriums;

- Major educational facilities including universities and colleges;

- Major retail centers; and

- Major recreational centers including parks and stadiums.

Major activity centers are shown in Figure II-2.

In the northern and central parts of the study area many schools, parks, and other public facilities are in physical decline.

Community plans indicate a shortage of parkland within the study area.

D. Circulation Setting

1. Harbor Freeway Conditions

The Harbor Freeway (I-110), constructed in the early 1960's is primarily an 8-lane freeway. The majority of commuters from the southern and coastal communities use the Harbor Freeway. High volumes of traffic are experienced daily. The traffic load exceeds 200,000 annual average daily trips on the freeway's northern section (15). Peak hour volumes reach the freeway's capacity along much of its central and northern sections, thus commuters often experience delays of up to 20 minutes due to congestion. The traffic peaks occur between 6 and 9 A.M. and between 3:30 and 6:30 P.M. Operational weekday characteristics are shown in Figure II-8. The operational weekday characteristics of the 2005 no project alternative are also shown on Figure II-8.

Figure II-9 shows accident information for the Harbor Freeway. The accident rate generally increases toward the Central Business District. Several isolated accident concentration locations occur along the length of the freeway. Most of the accidents north of Slauson Boulevard are related to heavy congestion during peak traffic hours.

2. Surface Street Conditions

Traffic conditions along north-south arterial streets are generally better than traffic along east-west arterial streets, except in the LACBD where both are equally congested. Between the Santa Monica Freeway (I-10) and the Pacific Coast Highway



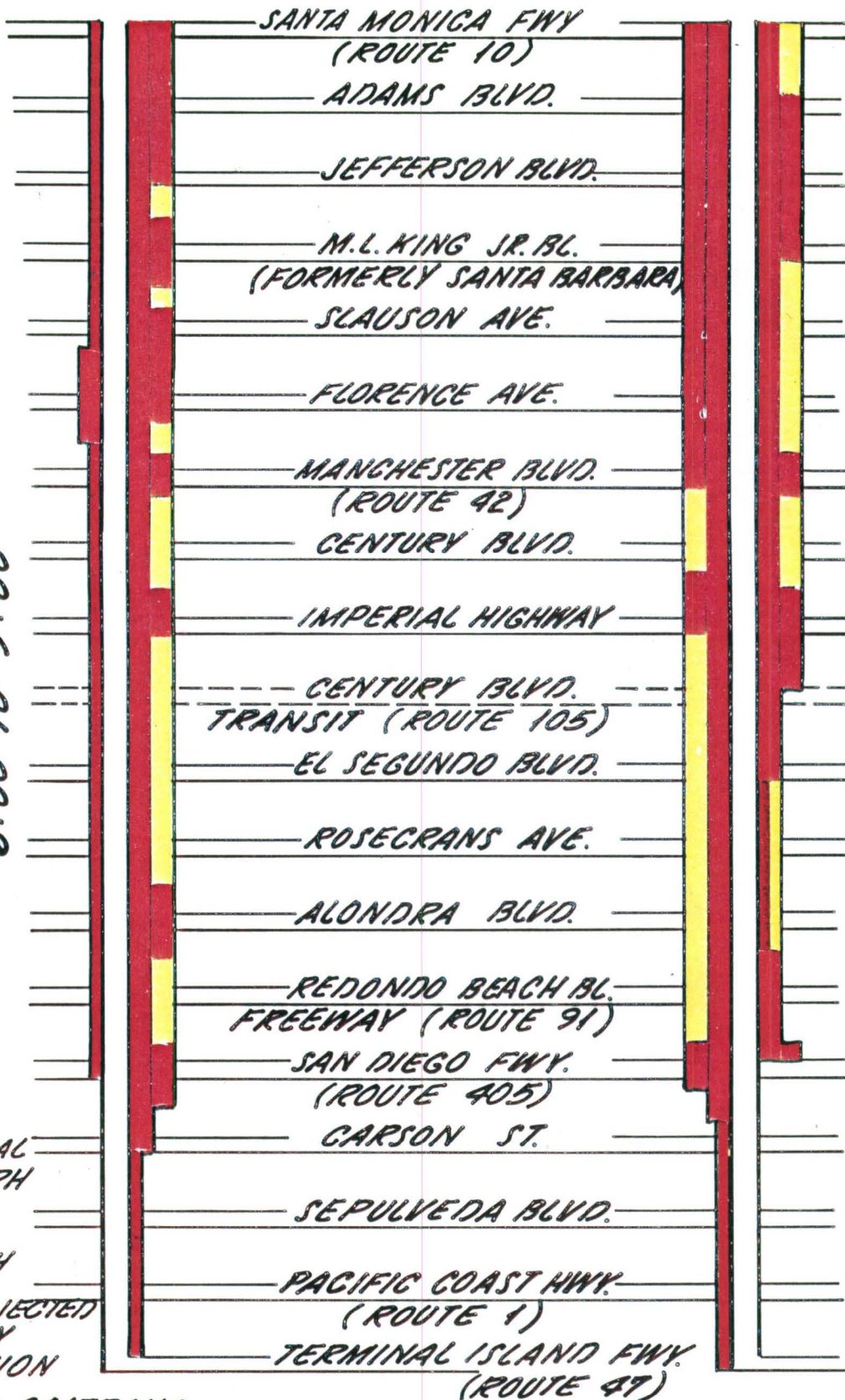
Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



AM PEAK PERIOD
6:00 TO 9:00

P.M. PEAK PERIOD
3:30 TO 6:30



LEGEND

- < OR EQUAL TO 20 MPH
- 20 TO 40 MPH
- > 40 MPH
- 2005 PROJECTED WEEKDAY CONGESTION

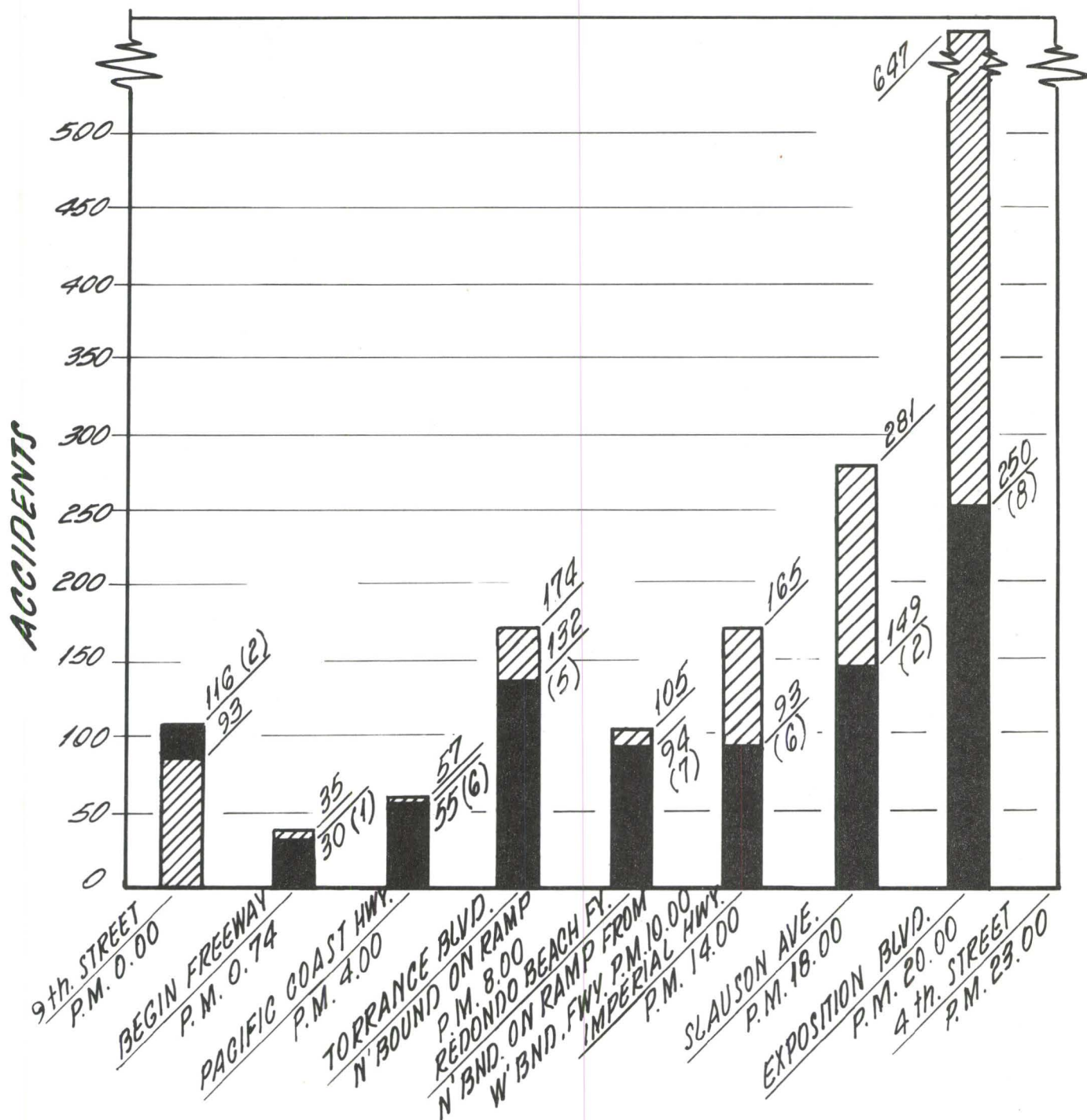
SOURCE: CALTRANS.

CURRENT AND 2005 PROJECTED BASELINE OPERATIONAL CHARACTERISTICS



4 Interstate 110 Freeway Transit

Caltrans

HARBOR FREEWAY CORRIDOR



LEGEND

-  PROPERTY DAMAGE ONLY
-  INJURY ACCIDENTS
- () TOTAL FACILITIES

ACCIDENT SEVERITY AND DISTRIBUTION PER MILE

SOURCE:
CALTRANS

JANUARY 1980 TO DECEMBER 1983

FIGURE I-9

(Route 1), drivers experience various degrees of congestion during peak hours. Traffic occasionally backs up on 37th Street, Exposition Boulevard, Martin Luther King Jr. Boulevard, Slauson Avenue, Manchester Avenue, Rosecrans Avenue and at the San Diego Freeway (I-405) interchange when the number of vehicles attempting to enter the Harbor Freeway exceeds metering or merging rates.

Parking along arterial streets is limited or restricted.

The Vermont Avenue/Gaffey Street route is a major north-south arterial connecting the Wilshire/Westlake district with San Pedro and intervening neighborhoods. Traffic volumes along this route are shown in Table II-4. Currently, the traffic capacity of Vermont Avenue is not exceeded. Gaffey Street, however, experiences congestion at peak hours due to traffic getting on and off the Harbor Freeway.

3. Transit Service Conditions

The Harbor Freeway Corridor which extends from Western Avenue on the west to Avalon Blvd. on the east and from the LACBD on the north to San Pedro in the south, has a very high level of local bus service with routes on almost every major street. Base bus service operates at 15-30 minute headways on most lines with peak period service on some of the heavier routes increasing to 2-3 minute headways. The majority of the service is operated by SCRTD but the corridor does include portions of three municipal operators,

TABLE II-4

VERMONT AVENUE AND GAFFEY STREET CURRENT AND PROJECTED VOLUMES
AVERAGE WEEKDAY TRAFFIC VOLUMES IN THOUSANDS

<u>GAFFEY STREET</u>	<u>CURRENT (1978)</u>	<u>PROJECTED (1995)</u>
Between Channel Street and Capitol Drive	21.1	26.0
Between Westmont and Anaheim	12.8	14.7
<u>VERMONT AVENUE</u>		
Between Pacific Coast Highway and Lomita	12.0	11.1
Between Lomita and Sepulveda	12.9	17.0
Between Del Amo and Route 405 (San Diego Freeway)	11.7	14.2
Between Artesia Boulevard and Gardena Boulevard	18.0	21.1
Between Redondo Beach Boulevard and Rosecrans Avenue	15.6	18.4
Between El Segundo Boulevard and 120th Street	13.4	15.7
	<u>(1977)</u>	<u>(1995)</u>
Between Imperial Highway and 108th Street	17.1	22.2
Between Century Boulevard and 92nd Street	19.1	24.8
Between Manchester Avenue and 79th Street	20.2	26.2
	<u>(1977)</u>	<u>(1990)</u>
Between Slauson Avenue and 54th Street	22.1	26.9
Between Vernon Avenue and Martin Luther King, Jr. Boulevard	23.3	27.2
Between Exposition Boulevard and Jefferson Boulevard	28.7	33.4

Source: City of Los Angeles Department of Transportation

Torrance, Gardena and Long Beach. Limited express service presently exists on the Harbor Freeway. SCRTD operates 6 bus lines that utilize the Harbor Freeway with 4 of these lines operated only in the peak period. In addition to SCRTD express routes the Torrance and Gardena muni operators each operate one Harbor Freeway express bus in the peak direction at peak hours. Collectively these express lines carry 4,000-5,000 passengers per day. Of the existing 26 north/south bus routes serving the corridor during the peak 16 penetrate the LACBD. These 16 lines produce approximately 60 buses during the peak hour. Figures II-10a and II-10b depict the existing bus service within the corridor. No passenger rail exists within the study area.

E. Natural Setting

1. Geology

The study area is located on the coastal plain of the Los Angeles Basin. Most of the study area is covered by alluvial sediments consisting of slightly consolidated silty to sandy gravel, locally with cobbles and boulders. Below the surface deposits are massive siltstone units, and units of siltstone interbedded with fine sandstone and diatomeaceous shale. These bedrock units are exposed in the downtown area due to erosion. Near Dominguez Channel and Bixby Slough fine grained organically rich sediments occur near the surface.

Two fault zones, the Newport-Inglewood and the Palos Verdes, cross the study area (see Figure II-11). The Newport-Inglewood



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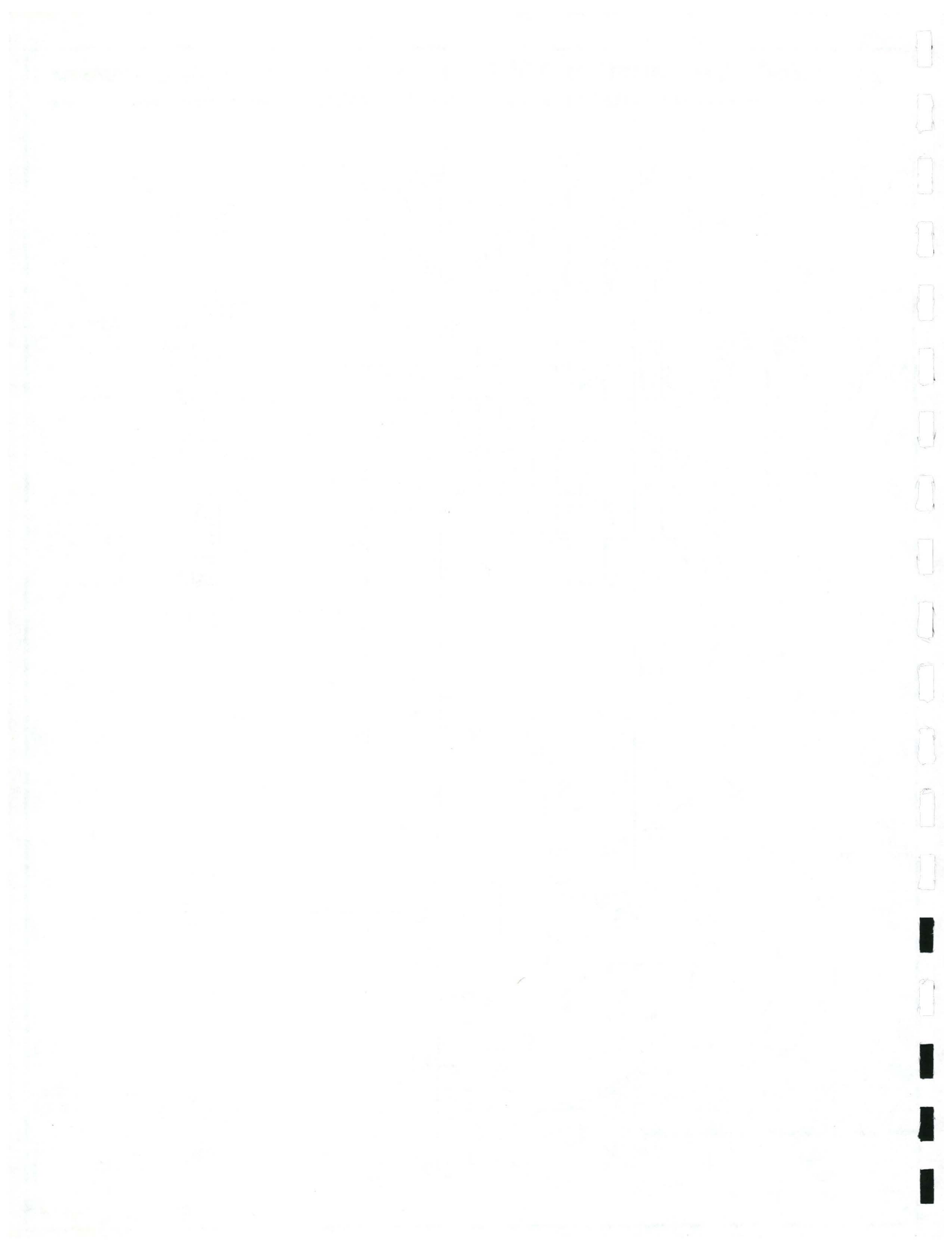
HARBOR FREEWAY CORRIDOR



South Bay Bus Routes

Information presented in this brochure is subject to change without notice.

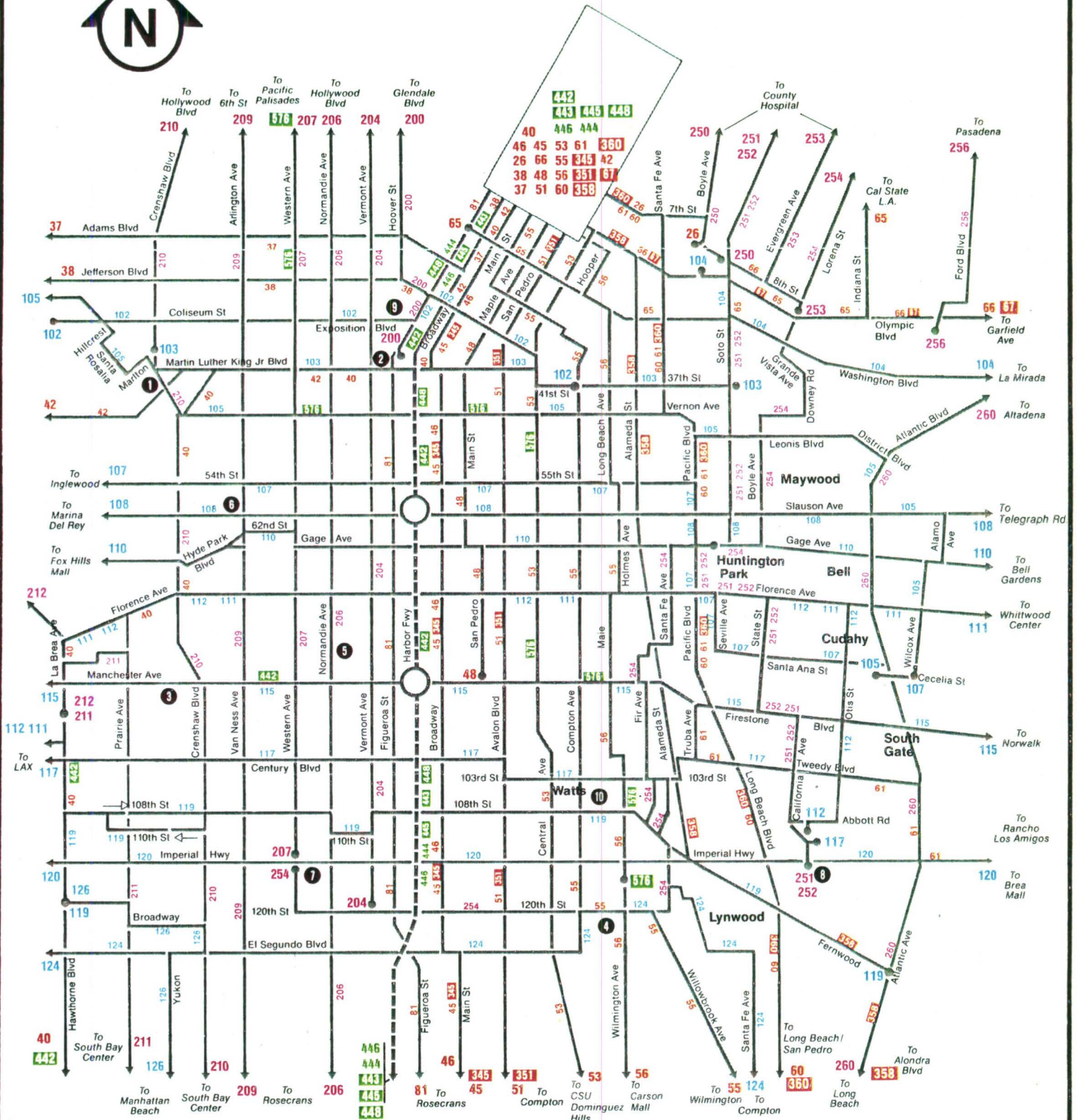
FIGURE II-10A





Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



South Central Los Angeles Bus Routes

FIGURE II-10 B

fault has a maximum credible magnitude of 7.5 on the Richter scale and an estimated rock acceleration of up to 1.0g.

The maximum credible magnitude for an earthquake with an epicenter in the Palos Verdes fault zone is 6.0 on the Richter scale with a maximum rock acceleration of .45g. On the basis of observed rock strata offsets, the last movement of studied parts of the Palos Verdes fault occurred 11,000 to 300,000 years ago. This, however, does not preclude the possibility of more recent movement on other unstudied strands of the fault. The Palos Verdes fault is potentially capable of producing a damaging earthquake although the probability of such an earthquake is low (7,8).

The maximum magnitude earthquake likely to be produced by the San Andreas Fault, which is 36 miles from the study area at its closest point, is magnitude 8.3 on the Richter scale. In the study area this earthquake would produce moderate ground acceleration and have a duration of 40 seconds or more.

Generally, conditions conducive to sediment liquefaction (when water saturated unconsolidated sediments behave as a fluid during an earthquake) are minimal in the study area. However, in locations where the water table is shallow, particularly in the vicinities of the Dominguez Channel, Bixby Slough and the San Pedro Harbor, liquefaction damage is potentially likely.

Tsunamis are extreme long period waves most often generated by earthquakes. The risk of tsunami damage in the study area is very low. Earthquakes occurring off the Southern California Coast are either of too little magnitude, or the epicenters are too deep within the earth to generate major tsunamis. Tsunamis generated by distant seismic events cause waves and surges in Los Angeles Harbor with large horizontal velocities but little vertical water motion. Table II-5 shows the height of recent tsunami waves in Los Angeles Harbor (6).

TABLE II-5

Heights of Tsunami Waves in Los Angeles Harbor

<u>Date</u>	<u>Wave Height</u>
1 April 1946	0.75 m (2.6')
4 November 1952	0.60 m (2.0')
9 March 1957	0.64 m (2.1')
22 May 1960	1.52 m (5.0')
28 May 1964	0.97 m (3.2')

Because of the low wave heights, facilities constructed on shore in the Ports O' Call area are under little danger from tsunami damage.

Figure II-11 illustrates the geologic features of the study area.

2. Water Quality

The study area lies within a developed urban area. Storm water runoff is carried to existing streets and then into a storm collector system which ultimately drains into the Los Angeles Harbor. Near its southerly end the Harbor Freeway crosses two major collectors, the Dominguez Channel and the Wilmington Drain. Vermont Avenue crosses the Dominguez Channel and lies adjacent to the Wilmington Drain.

Within the study area there are two ground water basins, the Central Basin, at the study area's northerly end, and the West Coast Basin, at the study area's southerly end. Concentrations of total dissolved solids are generally about 400 mg/l. The West Coast Basin has experienced salt water intrusion, however two salt water intrusion projects have halted this intrusion.

3. Flooding Hazards

A flood hazard survey was performed by Caltrans in consultation with Los Angeles County Flood Control District. According to National Flood Insurance Program Flood Insurance Rate Maps parts of the study area are subject to flooding hazards. Figure IV-1 shows the locations of flood hazard areas in study area.

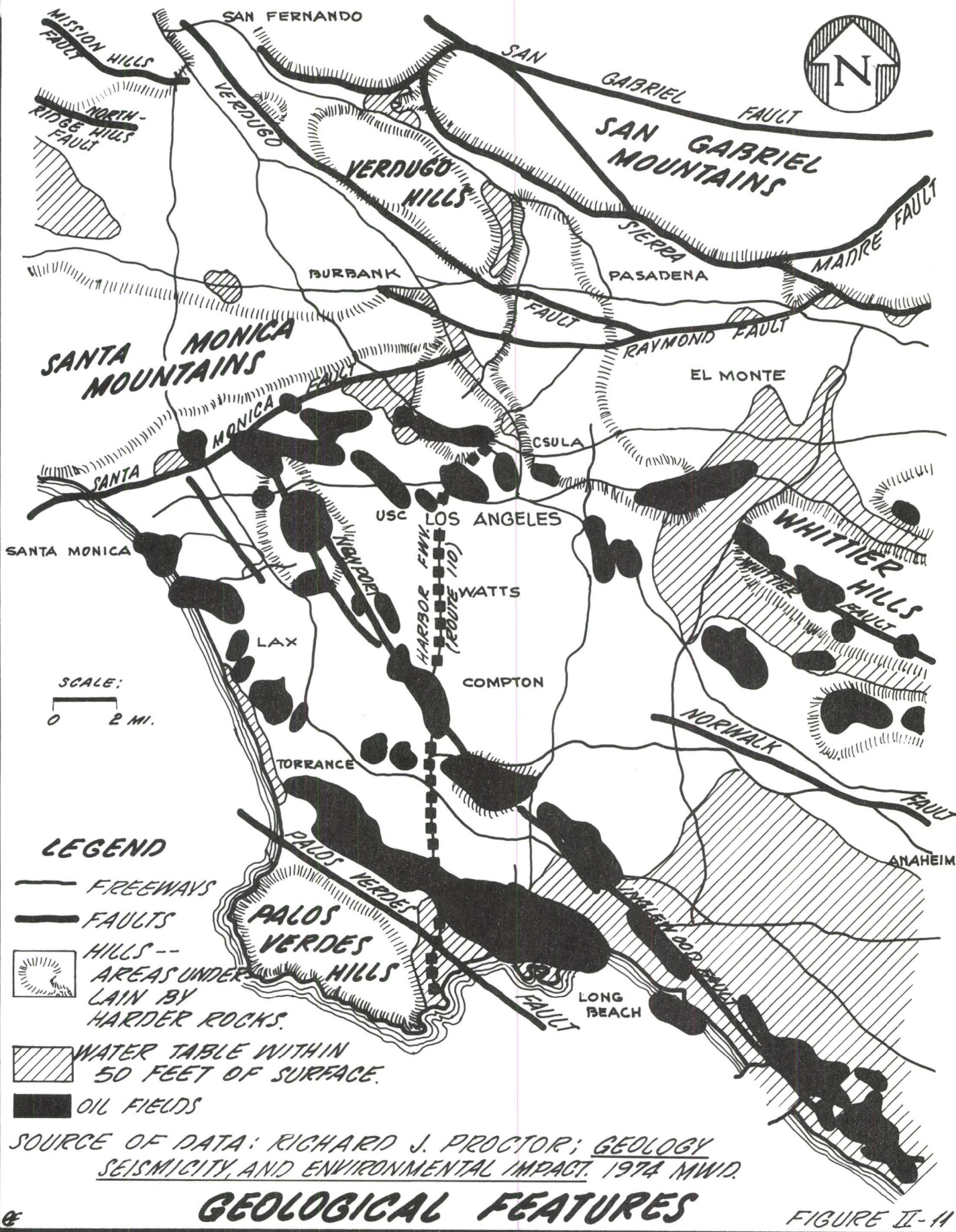
4. Biotic Community and Wetlands

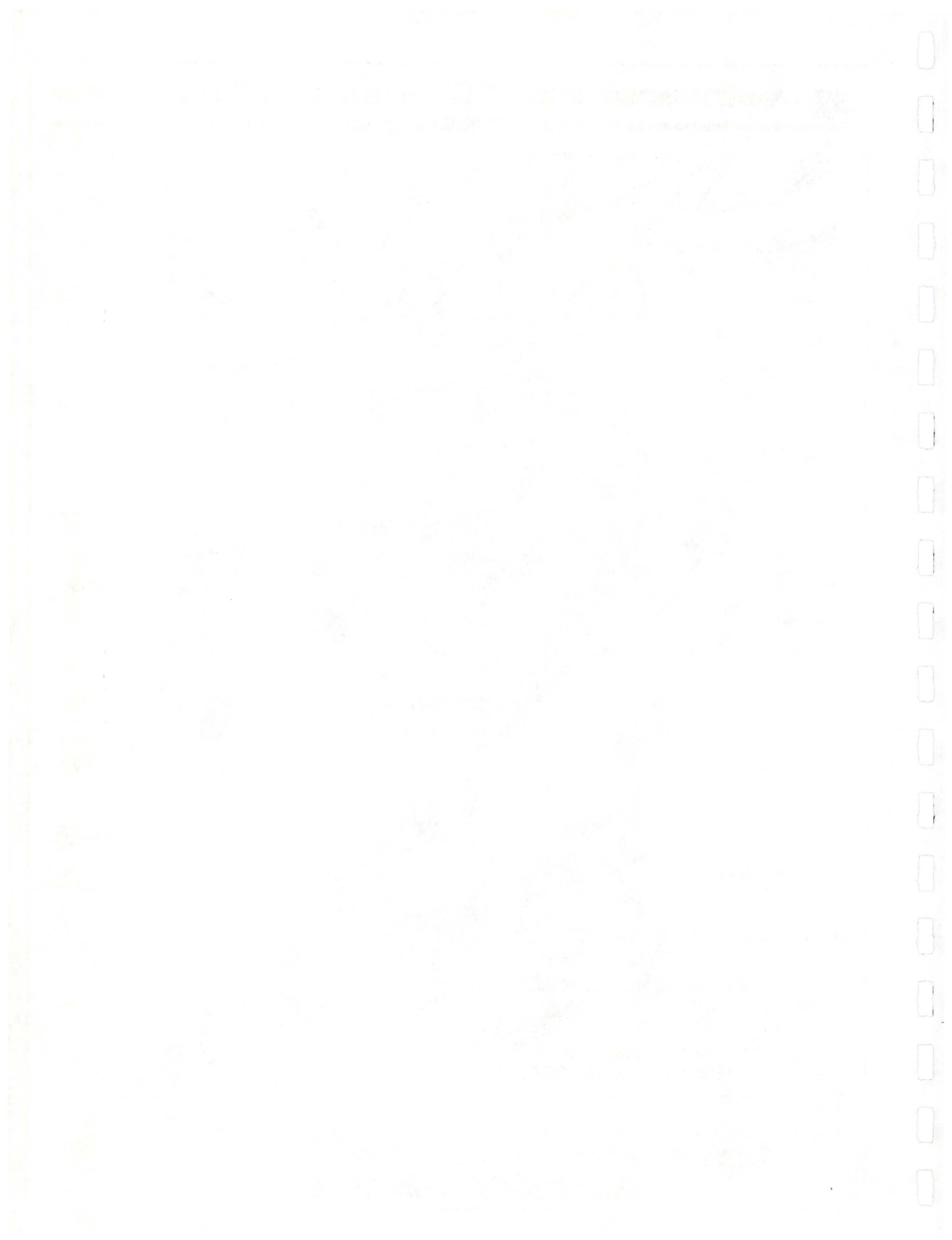
The urbanization of the study area restricts the amount of significant animal and plant habitat that occurs within it.



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Within the urbanized area, nearly all of the native biota was removed as development occurred. The majority of the flora consists of introduced species used for landscaping and ornamentation. A few native plants occur in vacant areas. A few squirrels, ground squirrels, rabbits, skunks, and urban adapted bird species exist in the study area. Stray dogs and cats are common. Typical urban pests reportedly inhabit some of the study area's neighborhoods (4, 5).

Two wetland areas, the Willows and Bixby Slough, exist in the study area. The locations of these wetlands are shown in Figures II-12 and II-13. The U. S. Army Corps of Engineers exercises jurisdiction over both of these areas as waters of the United States.

The Willows is a 10-acre remnant of a previously extensive wetland, Dominguez Slough. As the area developed urban encroachment reduced the wetland to its current size. The Willows is a marshy woodland dominated by the Arroyo Willow. It is subject to some refuse dumping and other human activities.

Small amounts of permanent water exists in depressions and channels. Seasonal inundation of the main part of the wetland is due to winter runoff. The water in the Willows contains a high concentration of organic material derived from the thick leaf litter layer and polluted urban runoff. Thick mats of green algae exist where permanent water is exposed to sunlight.

Habitat edges (ecotones) occur where openings occur in the tree canopy, where wetlands meet the uplands, and where uplands meet the



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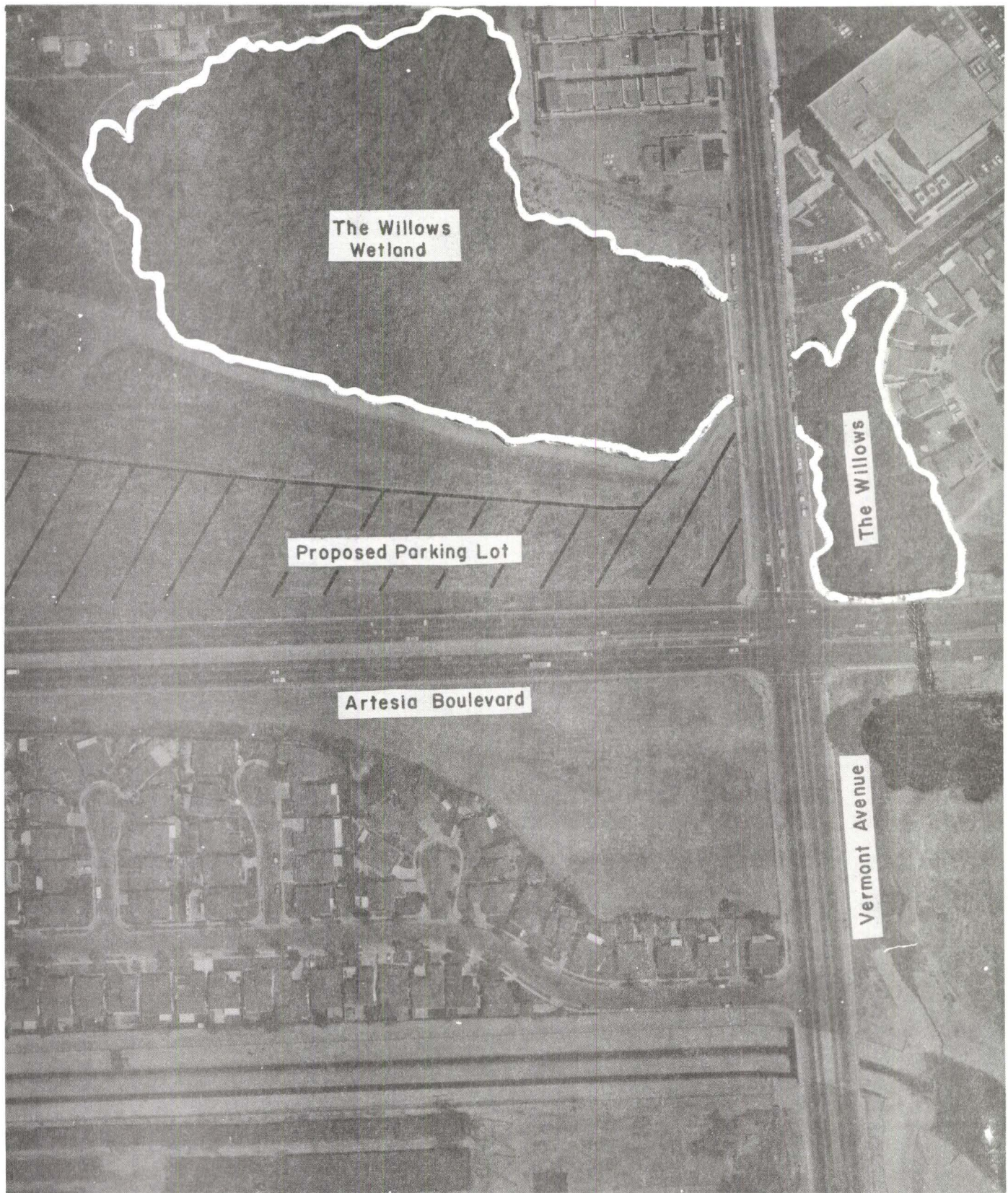


FIGURE II -12 THE WILLOWS WETLAND AND VICINITY



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

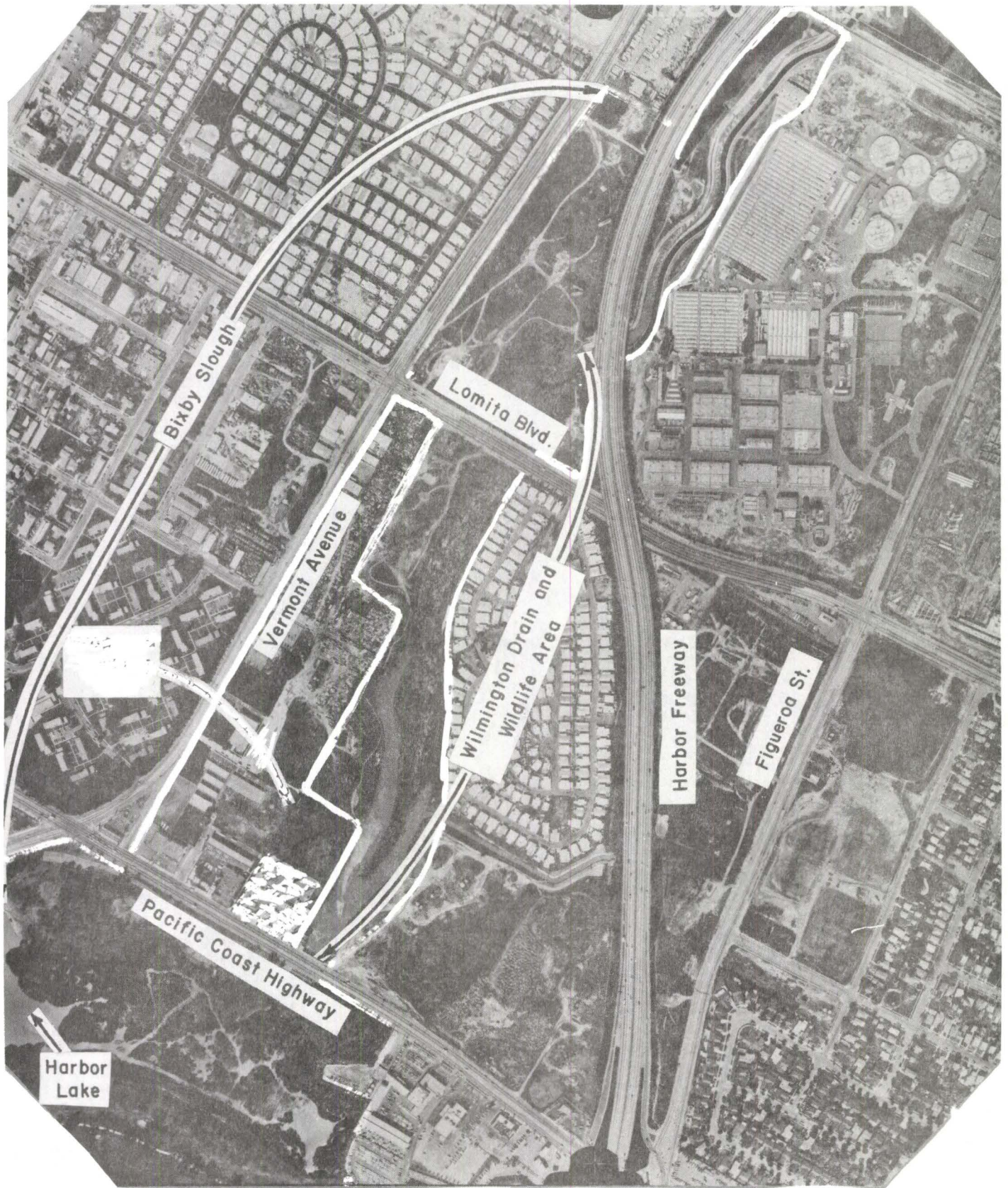
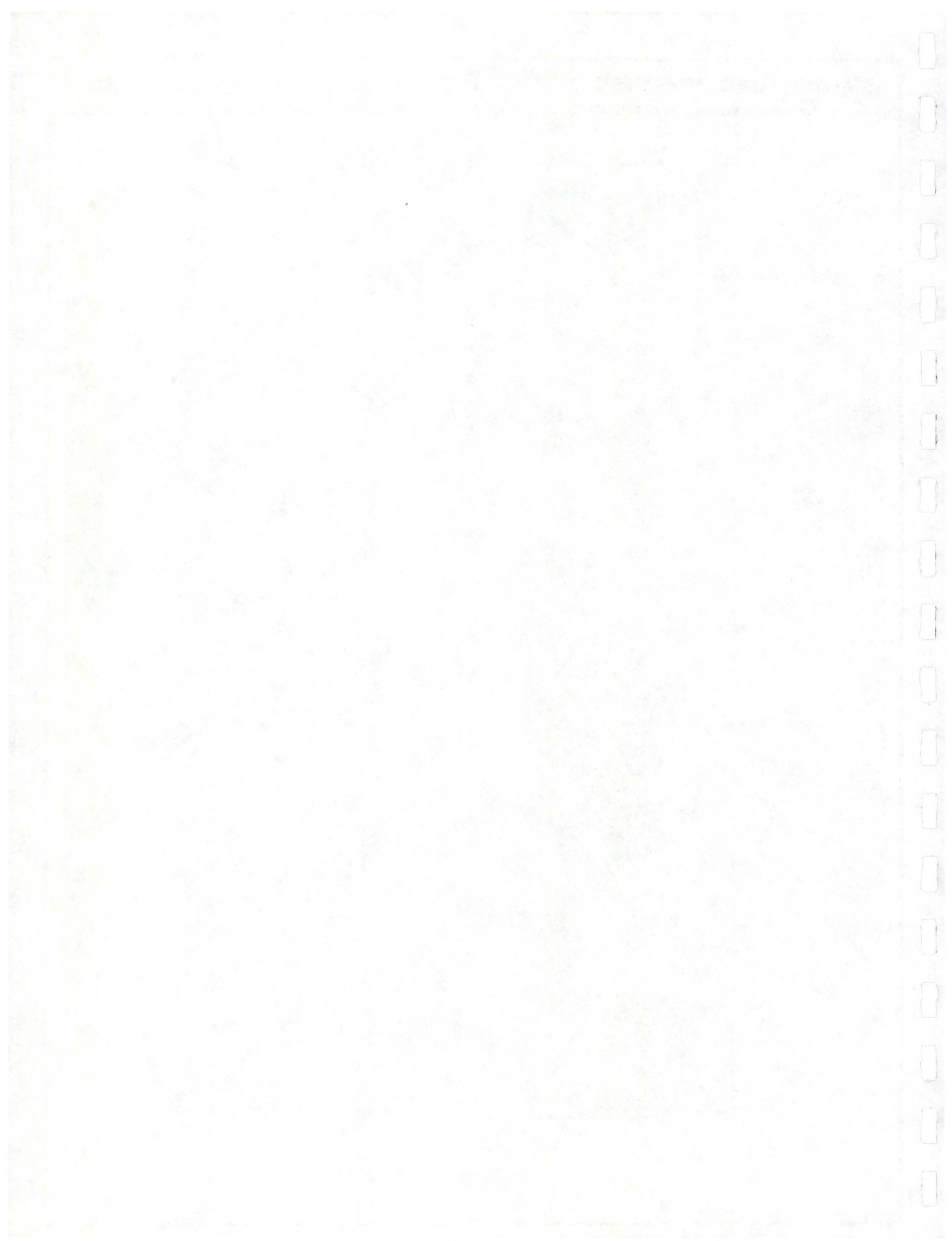


FIGURE II -13 BIXBY SLOUGH AND VICINITY



open urban areas. These edges have high diversity and are heavily utilized by birds and other fauna. The openings in the tree canopy are particularly important to the ecology of the Willows. Large numbers of flying insects utilize the clearings for feeding and breeding, while insect eating birds roost in the surrounding trees and forage on the insects. The diversity of bird species in the wetland would be greatly reduced if this interaction was disrupted.

The marshy woodland habitat type is now greatly restricted within Los Angeles County. The area provides a refuge for species that were once widespread in the region and are now greatly reduced. Because of its isolation from similar habitat by large stretches of urban development and channelized streams which form a barrier to dispersal by some organisms, the Willows is potentially of interest to scientists studying evolution, genetics and taxonomy. These characteristics make the Willows an area of high regional biological significance. Biotic communities that are highly restricted in distribution on a regional basis, and biotic resources that are of scientific interest because they are isolated and show genetic distinctiveness, are resources of regional value (9).

Native organisms encountered during reconnaissance trips to the Willows are listed in Appendix F.

The land that is adjacent to the wetlands that will be used for the Artesia Transit Station is being used as a construction staging site for the Route 91 Interchange. This area had landfill on it for the continuation of the Route 91 Freeway west of the I-110. This landfill has been removed and utilized in the construction of Route 91 Interchange.

The area is now flat and is being temporarily used as a construction site. The portion of the land that will be used for the transit station has been disturbed by the construction of the Route 91 Interchange.

Bixby Slough, which includes Harbor Lake and the Wilmington Drain and Wildlife Area is a channelized and lake front wetland consisting primarily of cattail and tule marshes and wooded uplands.

Extensive amounts of water exist in the wetland the entire year. Organisms encountered during reconnaissance trips to Bixby Slough are listed in Appendix F.

Harbor Lake is part of Harbor Regional Park and is used for recreational purposes. The Wilmington Drain and Wildlife Area has a series of nature trails adjacent to the wetland. It is used for recreational purposes and for noncommercial crayfish harvesting. The vegetation within the channel is clipped yearly to facilitate the flow of winter runoff.

Two endangered species exist in the Bixby Slough area, the California Least Tern and the Brown Pelican. Least Terns (Sterna antillarum (=albifrons) browni) utilize Harbor Lake as a major, post-breeding season, feeding area. Banding studies indicate that many Least Terns from Los Angeles, Orange and northern San Diego Counties congregate here after fledging is completed in July. Many of these birds remain in Harbor Lake into September because of the abundant food at the lake and adjacent wetland areas. The

Brown Pelican (Pelecanus occidentalis californicus) occasionally feeds throughout the Los Angeles Harbor and Bixby Slough area.

Because Bixby Slough is a concentration point for endangered Least Terns, and because it contains a restricted habit type, it too is an area of high regional biological significance.

A variety of marine organisms exist in the Los Angeles Harbor. The Todd Shipyard EIR discusses the marine biology of the harbor area. For more information on marine biology, see this document.

4. Climate

The Climate of the study area is Mediterranean or dry subtropical. It is characterized by a small difference between average winter and summer temperatures, moderate winter rainfall, severe summer drought and the absence of severe storms. Typical winter low temperatures range from 40-50° F. Typical summer high temperatures range from 75-90° F. The average rainfall is 14" per year. The Pacific Ocean is the primary moderating influence while the San Gabriel Mountains to the north buffer the Los Angeles Basin from the interior deserts. The basin is subject to temperature inversions when winds are light. Prevailing winds are from the southwest during the day and from the northeast during the night. This back and forth air circulation aggravates air pollution problems.

5. Air Quality

The South Coast Air Quality Management District maintains several field stations in Los Angeles County. The air monitoring stations

nearest the study area are located at Los Angeles CBD, Lennox, Lynwood and Long Beach. Air quality in the study area is variable, with San Pedro generally having better air quality than inland locations. The Los Angeles CBD generally has poor air quality and pollutants levels frequently exceed both Federal and State standards.

Air pollutants typically show seasonal fluctuations owing to changes in meteorological regimes and source strengths. For instance, CO, NO_x, and RHC have distinct seasonal cycles. The months that these primary pollutants exhibit highest concentrations are roughly November through January. During the winter, surface inversions occur frequently during the night and early morning hours, but tend to lift rapidly or be destroyed by morning ground heating. The result is that primary pollutants accumulate during and the night early morning, but disperse before some of the airborne chemicals react to produce much photochemical (secondary) pollutants. Because of the lower intensity and shorter duration of winter sunlight, photochemical activity is less than in summer. Highest photochemical concentrations (ozone) occur in summer and early fall when sunlight is intense and a persistent low-elevated inversion traps the pollutants beneath.

There is also a diurnal variation of air pollutants. CO, RHC, and NO_x concentrations are typically highest during late night and early morning hours with highest values associated with morning and evening peak hours, and most often lowest during midday.

Ozone concentrations are most often highest during midday and lowest in the evening and morning.

The Federal Clean Air Act Amendments of 1977 require that the State prepare an Implementation Plan (SIP) to attain and maintain the national ambient air quality standards. The SIP includes transportation control measures designed to reduce transportation related air pollution in areas where the air quality standards are exceeded. This particular project is in an area where the ozone and carbon monoxide standards are currently being exceeded.

The Clean Air Act also requires that all transportation plans, programs and projects be consistent with the measures set forth in the SIP. If they are not, the federal government will not participate in funding.

This project is listed in the Regional Transportation Improvement Plan. This plan was reviewed by the Federal Highway Administration and found to be in conformance with the control measures and predictions listed in the SIP. The regional plans are the basis for the State Transportation Improvement Plan. The State Plan was reviewed in June, 1984, by the Highway Administration and was found to also be in conformance with the SIP.

Since this project is included in transportation plans which conform to the SIP it follows that it also conforms to the SIP pursuant to Title 23, part 770 of the Code of Federal Regulations (23CFR770) and the Clear Air Act Amendments of 1977 Section 176(c). The SIP itself was conditionally approved by the Environmental Protection Agency in July 1984.

6. Noise

The heavy traffic on the Harbor Freeway and Vermont Avenue high levels of noise. Except for the portion of the freeway between Ports O' Call and Anaheim Street, the noise produced by the Harbor Freeway subjects the adjacent receptors to a noise level in excess of the FHWA design noise level of 67 dBA L_{eq} . Some soundwalls currently exist on the Harbor Freeway to reduce noise impacts.

Much of Vermont Avenue north of Pacific Coast Highway exceed the 67 dBA noise standard. No noise mitigation exists along Vermont Avenue. See Appendix G for an explanation of noise measurement criteria.

F. Historical and Archaeological Setting

A number of historical buildings exist within the study area. Most of these are concentrated in the LACBD, Adams, Exposition, and San Pedro areas.

An Area of Potential Environmental Impact (APEI) was established by consultation with the State Historic Preservation Officer (SHPO). A historical survey of the APEI was performed in consultation with SHPO. The following properties were found to be historically significant.

The following National Register properties are in the Area of Potential Environmental Impact (APEI):

Union Passenger Terminal	800 North Alameda
Broadway Theater District	300-849 South Broadway
Stimson House	2421 South Figueroa
ST. Vincent De Paul Church	6121 West Adams
John Muir Branch Library	1005 West 64th
Stella Maris Convent	2303 South Figueroa

Request for Determination of Eligibility for inclusion in the National Register of Historic Places have been prepared for the following properties which are in the APEI:

St. John's Episcopal Church	514 West Adams
Patriotic Hall	1816 South Figueroa

United Artist Theater/ Texas Company Building	915-936 South Broadway
--	------------------------

San Pedro City Hall	638 South Beacon
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Other properties in the APEI which might be potentially eligible for the National Register are:

Miller Home	15625 South Vermont Avenue
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Pepperdine University Properties	78th to Manchester on the west side of Vermont
-------------------------------------	---

City of Los Angeles Historic- Cultural Monument #146 is in the APEI (Municipal Ferry Building)	Harbor Boulevard at 6th St., San Pedro
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The Chester Place Historical District near Adams is in close proximity to the Harbor Freeway.

Wilmington and San Pedro contain a number of known archaeological sites. Within the Area of Potential Environmental Impact of the proposed Harbor Freeway corridor transitway are two known sites.

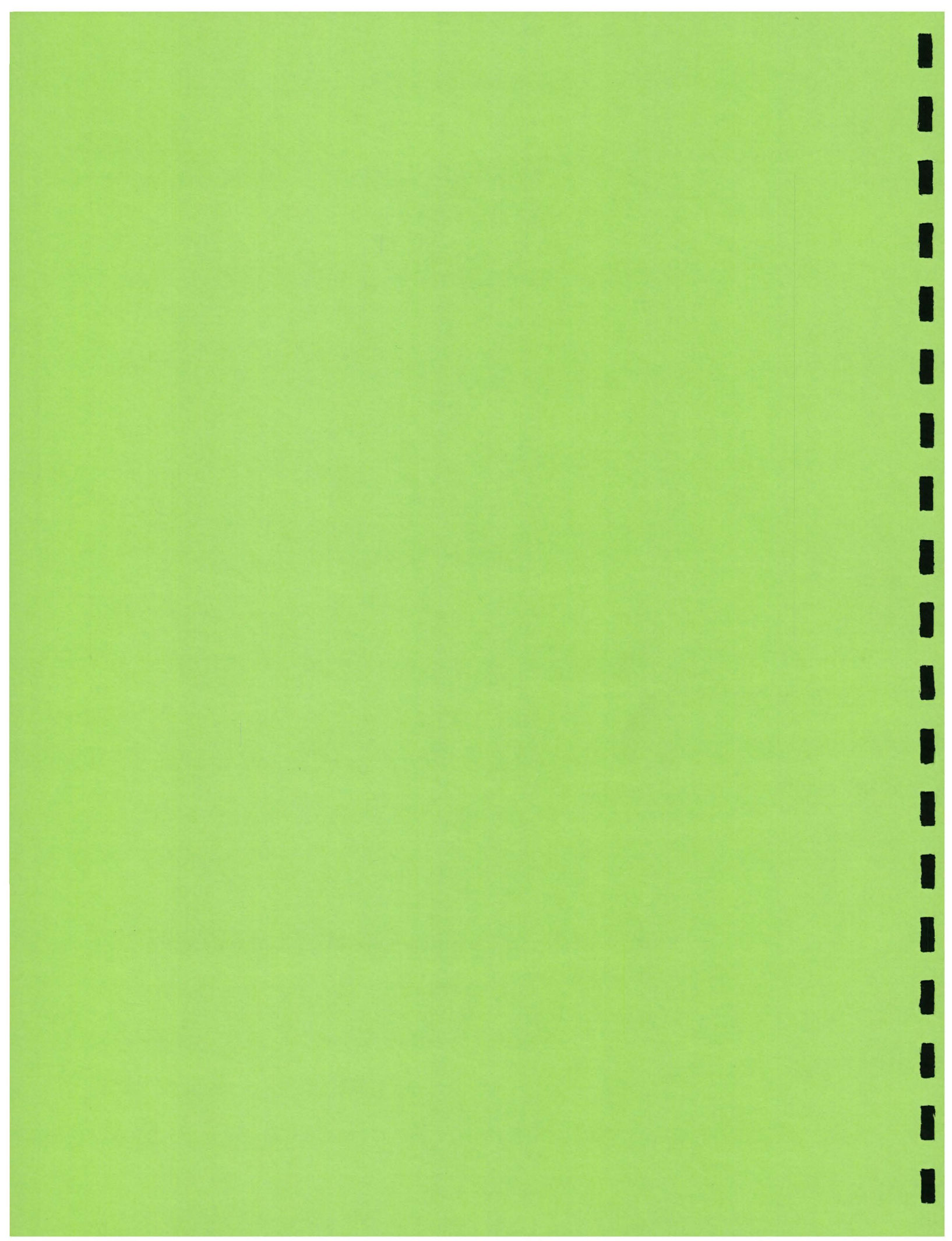
One site is located southwest of Harbor Lake beneath Vermont Avenue. Field surveys indicate that this site may exist intact beneath several feet of fill. During the surveys several pieces of unmodified Monterey chert as well as Pismo clam (Tivella stultorum) and Venus Clam (Chione sp.) shells were recovered from the site. The other site located just south of the Vincent Thomas Bridge in San Pedro has been totally destroyed by development.

G. Paleontological Setting

Sites of possible paleontological significance occur in a corridor extending from the southern terminus of the Harbor Freeway to Point Fermin. Low lying areas near the harbor have the greatest potential to yield significant fossils.

CHAPTER III

Alternatives



III. ALTERNATIVES ANALYSIS

A. Introduction

This chapter contains a description of the transit improvement alternatives proposed for the Harbor Freeway (I-110) Transitway project. It also contains the process by which the recommended alternative was selected. All of the tables have been updated to the year 2005 projections as per FHWA requirement for the 20-year design life. This update from 1995 projections did not substantially change the relative patronage of the alternatives to each other. The chapter is divided into the following subsections.

1. A brief overview of the alternatives analysis and selection process.
2. Recommended alternative and why it was selected.
3. Alternatives considered and rejected.
4. Collateral facilities considered.
5. The relationship of the I-110 Transitway alternatives to other transit projects proposed in the study area.
6. Important elements of the proposed transit alternatives such as patronage, costs, financing and phasing.

B. The Alternatives Analysis Process

1. Introduction

This section provides an overview of the process by which the 13 build alternatives, and ultimately, the recommended alternative were evaluated and selected.

2. Alternatives & Initial Evaluation Criteria (Stage I)

Chapter I provides a background history of transit planning for the region and the evolution of the Harbor Freeway Transitway Study. This study officially began in July 1979. The alternatives selected for consideration were developed over the past few years through consultation with local, state, and federal agencies and the public. The selection process was guided by a number of considerations including engineering, financial costs, environmental, transit technologies and constraints. State and Federal policies require that a no-project and Transportation System Management (TSM) alternative be considered along with major facility improvement alternatives.

Initially the major improvement alternatives involved only bus/HOV guideways located within the Harbor Freeway rights-of-way. As the study developed, however, citizen and public agency input led to the inclusion of rail alternatives including the Vermont Avenue alignment. Although other off-freeway alignments were investigated, the Vermont Avenue alternative was selected as the most reasonably feasible alignment within the study area.

A wide range of transit technologies (modes) were evaluated for their applicability to the needs of the I-110 corridor. These modes included various bus modes, light rail vehicles (LRT), intermediate capacity transit vehicles (ICTS), heavy rail transit vehicles (HRT), cable-suspended systems, and monorails. A description of each of these modes, their chief advantages and disadvantages, and conclusions regarding their applicability to the needs of the I-110 corridor is provided in Appendix I. Ultimately the bus, LRT and ICTS modes were identified as appropriate on the I-110 Freeway alignment, while HRT was identified as the only appropriate technology for the Vermont Avenue alignment.

The next phase involved geometric feasibility studies and guideway design to accommodate the selected modes. This task was performed by Caltrans' staff. Transit characteristics and operational plans were developed by SCRTD and their consultants. A total of 19 major alternatives (plus the no project alternative) were identified and a comparative analysis was performed by the project interdisciplinary team. All of the alternatives analyzed are listed in Table III-1. The major evaluation criteria used to select the 13 final alternatives are identified in Table III-2. Table III-3 provides a comprehensive summary of how all 19 alternatives were rated showing why the 13 alternatives were selected.

I-110 ALTERNATIVE FEATURES

TABLE III-1

NO PROJECT	NO PROPOSED IMPROVEMENTS	NOT APPLICABLE - USES EXISTING ROADWAYS	LACBD TO SAN PEDRO	NO IMPROVEMENTS	NOT APPLICABLE
TSM	Minor highway system improvements, SCRTRD's 1981 Transit Sector Plan	"	"	Minor upgrading to I-110 on line bus stops & 2 off Stations (Artesia Blvd. & Channel St.)	"
Bus/HOV-1	Two-way transitway elevated over fwy. median (49' wide)	Elevated 8.2 miles at grade 2.1 miles (I-105 Interchg.)	Between Santa Monica & Artesia Fwys. (Rtes 10 & 91). South of Rte.91 is mixed fwy. traffic flow.	7-on line 3-off line (Union Station, Artesia Blvd. & Channel St.)	5 fwy. connection & 1 local street ramp connection
Bus/HOV-4***	Two-way transitway elevated and at grade in fwy. median (49' & 50' widths)	Elevated 4.3 miles at grade 6.0 miles	Between Santa Monica & Artesia Fwys. (Rtes 10 & 91). South of Rte.91 is mixed fwy. traffic flow.	7-on line 3-off line (Union Station, Artesia Blvd. & Channel St.)	7 fwy. connections & local street ramp connection
Bus/HOV-7	Two-way transitway at fwy. grade (50' wide)-requires fwy. widening	At grade 10.3 miles	"	"	8 fwy. connections
Bus/HOV-8A	One-way directional transitway elevated over fwy. median (30' wide)	Same as Bus/HOV-1	"	"	4 fwy. connections & 2 local street ramp connections
Bus/HOV-8B	One-way directional transitway elevated and at grade in fwy. median (30' wide)	Same as Bus/HOV-4	"	"	3 fwy. connections & 3 local street ramp connections
Rail-1 (LRT)	Same as Bus/HOV-1 except with a 30' wide structure	Elevated 23.3 miles at grade 2.1 miles (I-105 Interchg.)	LA CBD (7th St.) to San Pedro's Ports O'Call Village	8-on-line 1-off line (Artesia Blvd.) 2-Terminals (7th St. & San Pedro's Ports O'Call)	Not applicable
Rail-4 (LRT)	Same as Bus/HOV-4 except with a 30' wide structure	Elevated 14.0 at grade 11.4 miles	"	"	"
Rail-7 (LRT)	Same as Bus/HOV-7 except with a 30' wide structure	Elevated 4.7 at grade 20.7 miles	"	"	"
Rail-1 (ICTS)	Same as Rail-1 (LRT)	Same as Rail-1 (LRT)	LA CBD (Union Station) to San Pedro's Port O'Call	16-on line (includes 8 LA CBD Sta.) 1 off (Artesia) 2-terminals (Union Sta. & San Pedro's Ports O'Call)	"
Rail-4 (ICTS)	Same as Rail-4 (LRT)	Same as Rail-4 (LRT)	"	"	"
Rail-7 (ICTS)	Same as Rail-7 (LRT)	Same as Rail-7 (LRT)	"	"	"
Rail-6 (HRT)	Two-way transitway elevated and in subway section. (30' & 70' resp. widths.	Elevated 18.0 miles subway 7.0 miles	LA CBD (Union Station) to San Pedro Port O'Call	17-on line 2-Terminals (Union Station & San Pedro's O'Call)	"

*Refer to Table III-4 & Appendix A

**Refer to Table III-9 & Appendix A

***Recommended Alternative

Table III-2

EVALUATION CRITERIA
Stage I/Tier I Analysis

Responsiveness to Transit Needs

- A. Serves transit dependent
- B. Minimizes the needs for new right-of-way
- C. Relieves traffic congestion in the corridor
- D. Consistent with RTDP, corridor studies, and 105 Consent Decree; contributes to urban revitalization
- Energy conservation (see Item P below)

Design Feasibility

- E. Impact on the I-110 freeway design
- F. Profile uniformity; vertical and horizontal clearances

Construction Impacts

- G. Length of time required for construction
- H. Safety for workers and the public during construction
- I. Traffic detour flexibility on I-110 and city streets

Project Cost

- J. Cost to construct the physical project (double weighted)

Operational Criteria

- K. Station access, vertical and horizontal walking distance
- L. Transit and freeway operations
- M. Maintenance operations on the completed facility
- N. Security and emergency vehicle access

Environmental Impacts

- O. Air and Noise Impacts
- P. Energy Conservation
- Q. Aesthetic impacts and impact on privacy
- R. Displacement of residential units and businesses
- S. Community Disruption (Short term and Long term)

Table III-3 Major Evaluation Criteria Used To Select Alternatives (STAGE I)

CRITERIA	ALTERNATIVES																	
	BUS 1	BUS 2	BUS 3	BUS 4	BUS 5	BUS 6	BUS 7	BUS 8	RAIL 1	RAIL 2	RAIL 3	RAIL 4	RAIL 5	RAIL 6	RAIL 7	RAIL 8	TSM	WIDEN
A Service	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
B Minimizes R/W	+	0	-	+	+	-	0	+	+	0	-	+	-	-	0	0	+	-
C Congestion Relief	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	+	0	+
D Other Needs	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	0	-
E Freeway Design	+	-	-	+	+	-	+	0	+	-	-	+	0	0	+	0	0	-
F Profile	0	0	0	+	-	-	0	+	0	0	0	+	+	+	0	+	0	0
G Construction Time	-	-	0	0	-	0	-	0	-	-	0	0	0	-	-	-	+	0
H Construction Safety	-	0	0	-	-	0	-	-	-	0	0	-	-	-	-	-	0	0
I Detour Flexibility	0	-	-	0	-	-	-	0	0	-	-	0	-	-	-	0	0	-
J Cost (Double Weighted)	--	-	-	-	-	-	--	-	--	-	-	-	+	--	--	--	++	-
K Station Access	-	0	-	-	-	-	-	+	+	+	+	+	+	+	+	+	0	-
L Operations	+	+	+	+	-	+	+	-	+	+	+	+	0	+	+	0	0	0
M Maintenance	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	+	+
N Sec. & Emerg Veh. Access	0	-	-	+	0	-	+	0	0	-	+	+	0	+	+	-	0	0
O Air & Noise	0	-	-	0	-	-	0	0	0	-	-	0	-	0	0	0	0	-
P Energy Conservation	0	0	-	+	0	-	+	+	0	0	-	+	0	+	+	+	0	0
Q Aesthetics Privacy	0	-	-	0	-	-	0	0	0	-	-	0	-	-	0	0	0	0
R Displacement	-	-	-	-	-	-	-	0	0	-	0	0	-	-	-	-	0	-
S Community Disruption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
TOTAL	-1	-5	-7	+4	-6	-8	-1	+2	+2	-4	-4	+7	-3	-4	+1	-2	+6	-5
Selected for Stage II Analysis	Y	N	N	Y	N	N	Y	Y	Y	N	N	Y	N	Y	Y	N	Y	N
+= Beneficial Y = Yes 0 = No Impact N = No -- = Negative																		

3. Recommended Alternative Selection Process (Stage II)

A wide range of concerns were raised during the Draft EIS review period (see Chapter XI). These concerns, including input from elected officials, federal, state, local agencies and private individuals, were considered in the final selection of the recommended alternative, BUS/HOV 4.

The evaluation criteria used in ranking the alternatives, including TSM, were based on the following measures of effectiveness (MOE's).

- A. Financial Feasibility
- B. Cost Effectiveness
- C. Improved Transportation
- D. Community/Institutional Acceptance
- E. Socio-Economic Impacts
- F. Environmental Impacts
- G. Energy Conservation

These measures were identified early in Stage I of the study, as quantifiable in defining the key differences which support the proposed transit project's goal and objectives. The items for each MOE are defined in terms of costs, patronage, transportation service benefits, social, economic and environmental impacts. Although numerous items were identified, it was important to limit the number to those which were considered significant with respect to the project (see Table III-4). Factors which exhibited no significant differences between alternatives were also not included since they couldn't contribute to the alternative selection process.

STAGE II
EVALUATION CRITERIA USED
FOR THE RECOMMENDED ALTERNATIVE
Measures of Effectiveness

Financial Feasibility

1. Capital Cost
2. Federal Share of Capital Costs (Max.)
3. Annual Maintenance and Operations Costs

Cost Effectiveness (Year 2005)

1. Annual Transitway Passengers (incl. HOV's)
2. Operating Cost per Passenger
3. Cost per Passenger (Capital and Operations)
4. Cost per Passenger Mile

Improved Transportation

1. Reduced Transit Travel Time
2. Reduced Traffic Congestion
3. Improved Transit Service

Community and Institutional Acceptance

1. Relative Levels of Community and Agency Support (public hearing and written comments)
2. Subjective and Qualitative Measures (i.e. LACBD Distribution, ease of implementation, etc.)

Socio-Economic

1. Number of Business and Residential Units Displaced
2. Extent of Anticipated Joint Development

Environmental

1. Wetlands and Species Impacted
2. Impacted Cultural Resources
3. Aesthetics (Visual Impacts)

Energy

1. Equivalent Barrels of Oil Saved Compared to the No Project Alternative

The final ranking of all the project alternatives is shown on Table III-5. The recommended alternative was rated superior in terms of financial feasibility, cost effectiveness, improved transportation and community/institutional acceptance. Specifics on the ranking process of the alternatives are located in Appendix K.

C. RECOMMENDED ALTERNATIVE

1. Description of Project-Bus/HOV 4

The recommended alternative is the construction of a two-way Bus/HOV facility located in the median of the Harbor Freeway. This alternative provides 10.3 miles of exclusive guideway facilities for buses and high occupancy vehicles between the Route 91 Freeway (Artesia Boulevard) and 23rd and Figueroa Streets, with intermediate access at nine locations. South of the Route 91 Freeway, all Bus/HOV transitway vehicles would travel 9.3 miles in mixed flow freeway traffic to San Pedro. Ingress and egress to and from the Bus/HOV transitway would be limited as shown in Table III-6. A vertical transfer station would be provided at the Century (I-105) light rail transitway. Transit patrons would transfer from the Harbor busway to the Century (I-105) LRT facility (and vice-versa). For details on the alignment and profile of the recommended alternative see Appendix A.

2. Patronage (Year 2005)

Bus/HOV 4 within the limits of this study (San Pedro to Route 10 Freeway), is projected to carry 65,200 weekday transit person trips plus an additional 38,800 weekday HOV person trips (see Table III-7). The more heavily used stations are expected to be 37th Street, Manchester and Slauson (see Table III-8).

TABLE III-5

Final Ranking of I-110 Project Alternatives
between Route 47 and Los Angeles Convention Center

RANK	ALTERNATIVE	GENERAL DESCRIPTION
1	Bus 4*	At-grade and elevated in I-110 median
2	Bus 1	Elevated in I-110 median
3	Bus 7	At-grade in I-110 median
4	Bus 8b	Peak directional (one way) operation at-grade and elevated
5	Bus 8a	Peak directional (one way) operation elevated in median
6	TSM	Low cost transit improvements for buses in mixed flow
7	ICTS Rail 4	Same profile as Bus 4
8	ICTS Rail 1	Same profile as Bus 4
9	LRT Rail 4	Same profile as Bus 1
10	LRT Rail 1	Same profile as Bus 1
11	LRT Rail 7	Same profile as Bus 7
12	ICTS Rail 7	Same profile as Bus 7
13	HRT Rail 6	Elevated and subway in Vermont Avenue median

*Recommended Alternative

Abbreviations: ICTS - Intermediate Capacity Transit System
LRT - Light Rail Transit
HRT - Heavy Rail Transit

TABLE III -6

LOCATION OF BUS/HOV ACCESS POINTS TO TRANSITWAY

This table depicts the location and total of the ingress and egress points for each of the Bus/HOV alternatives.

		NORTHBOUND					SOUTHBOUND				
		1	4	7	8a	8b	1	4	7	8a	8b
North of Route 91	On	X	X	X	X	X					
	Off						X	X	X	X	X
Rosecrans Avenue	On		X	X							
	Off						X	X			
135th Street	On				X*	X*					
	Off								X*	X*	
I-105	On	X	X	X	X	X	X	X	X	X	X
	Off	X	X	X	X	X	X	X	X	X	X
Century Boulevard	On							X	X		
	Off		X	X							
Manchester Avenue	On										
	Off		X	X			X	X			
67th Street	On	X			X*	X*				X*	X*
	Off				X*	X*	X			X*	X*
Slauson Avenue	On							X	X		
	Off		X	X							
Exposition Boulevard	On						X		X	X	
	Off	X		X	X						
Jefferson Boulevard	On										X*
	Off					X*					
Figueroa Street	On						X*	X*			
	Off	X*	X*								
South of I-10	On	X	X	X	X	X	X	X	X	X	X
	Off	X	X	X	X	X					
TOTALS	On	3	4	4	4	4	4	5	5	4	4
	Off	4	5	5	4	4	3	4	4	4	4

*From city street.

TABLE III-7

2005 DAILY TRANSIT RIDERSHIP
(BETWEEN SAN PEDRO AND L.A. CONVENTION CENTER ONLY)

ALTERNATIVE	TRANSIT*	HOV*	TOTAL*
No Project	16,200	Base	16,200
TSM	28,500	0	28,500
Bus** 1, 4†, 7	65,200	38,800	104,000
Bus*** 8a, 8b	53,900	20,400	74,300
ICTS			
Rail 1, 4, 7	81,000	0	81,000
LRT			
Rail 1, 4, 7	73,800	0	73,800
HRT			
Rail 6	83,700	0	83,700

*Transit and HOV includes transitway users only.

**Two-way transitway operations.

***One-way transitway operations.

Abbreviations: ICTS - Intermediate Capacity Transit System

LRT - Light Rail Transit

HRT - Heavy Rail Transit

HOV - High Occupancy Vehicle

† Recommended Alternative

Updated: September, 1984

TABLE-III-8
2005 DAILY STATION VOLUMES

	ALTERNATIVES						
	NO PROJECT	TSM	B, -1, 4†, 7	B-8A, 8B	R-1, 4, 7		R-6
			TWO-WAY	PEAK DIREC-TIONAL	ICTS	LRT	HRT
JEFFERSON	-	-	-	-	-	-	4,960
37th STREET (EXPOSITION)	-	-	11,650	9,930	14,540	13,440	-
M. L. KING JR. BLVD.	300	1000	-	-	-	-	8,000
SLAUSON	400	800	4,350	3,710	5,430	5,000	6,200
MANCHESTER*	400	800	8,690	7,400	11,190	10,210	12,890
I-105/I-110 VERTICAL TRANSFER	-	-	27,750 (7,550)	22,200 (4,600)	33,700 (10,900)	31,100 (9,900)	34,800 (8,200)
ROSECRANS	-	700	10,570	9,010	12,290	11,290	13,910
ARTESIA	-	2600	7,700	7,010	7,370	7,040	7,280
190TH	-	-	-	-	-	-	410
CARSON	-	500	9,370	7,550	9,960	8,920	9,810
SEPULVEDA	-	-	-	-	-	-	1,600
PCH	-	500	3,090	2,640	2,320	2,140	2,410
CHANNEL	790	790	6,250	5,320	3,830	3,700	4,740
PORTS OF CALL	-	-	-	-	3,340	3,080	3,290

†Recommended Alternative
Updated: September, 1984

(Daily
(I-110 Transfers)

3. Project Costs

The estimated right-of-way costs are \$10.6 million for alignment, \$9.1 million for Park N' Ride facilities and \$1.3 million for utility relocation (see Tables III-9 and 19). The total capital cost for the Bus/HOV 4 alternative including vehicles (new buses), is \$578.0 million (see Table III-10) and the annual operating cost is \$30.4 million.

4. Project Financing

The financing for the recommended project will come from the funding programs that are generated at three levels: local, state and federal (see Table III-11). The Federal government will fund 92% of the project, the state and locals would be required to fund the balance.

There are several funding issues to be resolved which are outside the scope of this EIS. Capital costs which may be funded through existing formula allocations (i.e., UMTA Section 9 and the State Transportation Development Act) would have to be weighed against other project priorities by the appropriate local agencies.

There is some local concern that fully funding the Harbor (I-110) Transitway might cause the Century (I-105) Freeway LRT project to be delayed. However, programming the Harbor (I-110) within the same time period will cause relatively small funding impacts. There appears to be no other competition for funds from any other transit project in the Los Angeles area.

TABLE III-9

RIGHT OF WAY COSTS
(Millions of 1984 Dollars)

ALTERNATIVE	ALIGNMENT			PARK N' RIDE		
	ACQUISITION	RAP**	TOTAL	ACQUISITION	RAP**	TOTAL
No Project	---	---	0	---	---	0
T.S.M.	---	---	0	---	---	0
Bus 1	---	---	0	8.9	0.2	9.1
4*	9.6	1.0	10.6	8.9	0.2	9.1
7	12.4	1.0	13.4	8.9	0.2	9.1
8a	---	---	0	8.9	0.2	9.1
8b	9.6	1.0	10.6	8.9	0.2	9.1
ICTS/LRT 1	---	---	0	9.6	0.2	9.8
4	2.7	0.5	3.2	9.6	0.2	9.8
7	2.7	0.5	3.2	9.6	0.2	9.8
HRT 6	5.2	0.2	5.4	13.3	0.3	13.6

*Recommended Alternative

**Relocation Assistance Program (RAP) Costs

Updated: September, 1984

TABLE III-10
I-110 SYSTEM LIMITS CAPITAL COSTS
(Millions of 1984 Dollars)

LIMITS ALTERNATIVE	UNION STATION TO CONVENTION CENTER*	PROJECT LIMITS CONVENTION CENTER TO PORTS O'CALL	TOTAL UNION STATION TO PORTS O'CALL
No Project	---	---	---
TSM	---	63.2	63.2
Bus 1**	---	633.3	633.3
4†**	--	578.0	578.0
7**	---	700.4	700.4
8a***	---	482.6	482.6
8b***	---	484.0	484.0
ICTS 1	225	855.7	1080.7
4	(LACBD Guideway)	770.2	995.2
7	Cost)	991.1	1216.1
LRT 1	60	832.7	892.7
4	(7th Street to	747.2	807.2
7	Convention Center)	968.1	1028.1
HRT 6	250	1063.0	1313.0

*This does not include the cost for the Wilshire Metro Rail which is assumed for operational feasibility.

**Two-way transitway operations.

***One-way transitway operations

† Recommended Alternative

Updated: December, 1984

TABLE III-11
CAPITAL FUNDING (1984 \$ Millions)

Bus/HOV Project	FHWA	State	Local	Other*	Project Totals
Roadway & Structures	297.5	25.9	---	---	323.4
Transit Stations	79.7	6.9	---	---	86.6
Direct Connectors (HOV)	27.6	2.4	---	---	30.0
Subtotal	404.8	35.2	---	---	440.0
Station Amenities	---	---	1.0	3.2	4.2
Maintenance Facilities	---	---	6.2	18.8	25.0
Engineering (10%)	44.0	---	---	---	44.0
Total Construction Cost	448.8	35.2	7.2	22.0	513.2
Right-of-Way Vehicles (buses)	19.3 ---	1.7 ---	--- 8.8	--- 35.0	21.0 43.8
Recommended Project Total Capital Cost	468.1	36.9	16.0	57.0	578.0

*Other: Applications for other available funds
(i.e. UMTA, TDA, etc.)

Updated: December, 1984

5. Construction Details

The construction of the transitway will require the following:

- a. Widen the existing freeway and bridge structures to accommodate the transitway when at freeway grade (6.0 miles).
- b. Construction of aerial transitway (4.3 miles)
- c. Construction of retaining and soundwalls as required.
- d. Construction of freeway auxiliary lanes at the following locations:

Twenty-Second Street to Washington Boulevard, Slauson Avenue to 55th Street, Manchester Boulevard to 76th Street, Century Boulevard to 88th Street, I-105/110 Interchange to 104th Street, El Segundo Boulevard to 120th Street, Alondra Boulevard to Redondo Beach Boulevard, Anaheim Street to Pacific Coast Highway and from "C" Street to Anaheim Street.

- e. Construction of four on-line transit stations, two mixed flow transit stations, one vertical transfer station and two transit center facilities at the following locations:

On-Line Stations: 37th Street (at-grade), Slauson Avenue (at-grade), Manchester Boulevard (at-grade), Rosecrans Avenue (aerial).

Mixed Flow Stations: Carson Street (in-cut) and Pacific Coast Highway (fill).

Vertical Transfer: Century (I-105)/Harbor (I-110) Interchange.

Transit Centers: Artesia Boulevard (State Route 91)/Vermont Avenue and Channel/Gaffey Streets. The Artesia Transit Center will be constructed in two stages. The first stage will be to construct a 500 to 600 space park-and-ride lot, which will be upgraded to a full transit center.

- f. Construction of direct HOV connectors from the Harbor (I-110) Transitway to the Century (I-105) Transitway, provided that HOV operating with initial LRT is approved for the Century Freeway project.

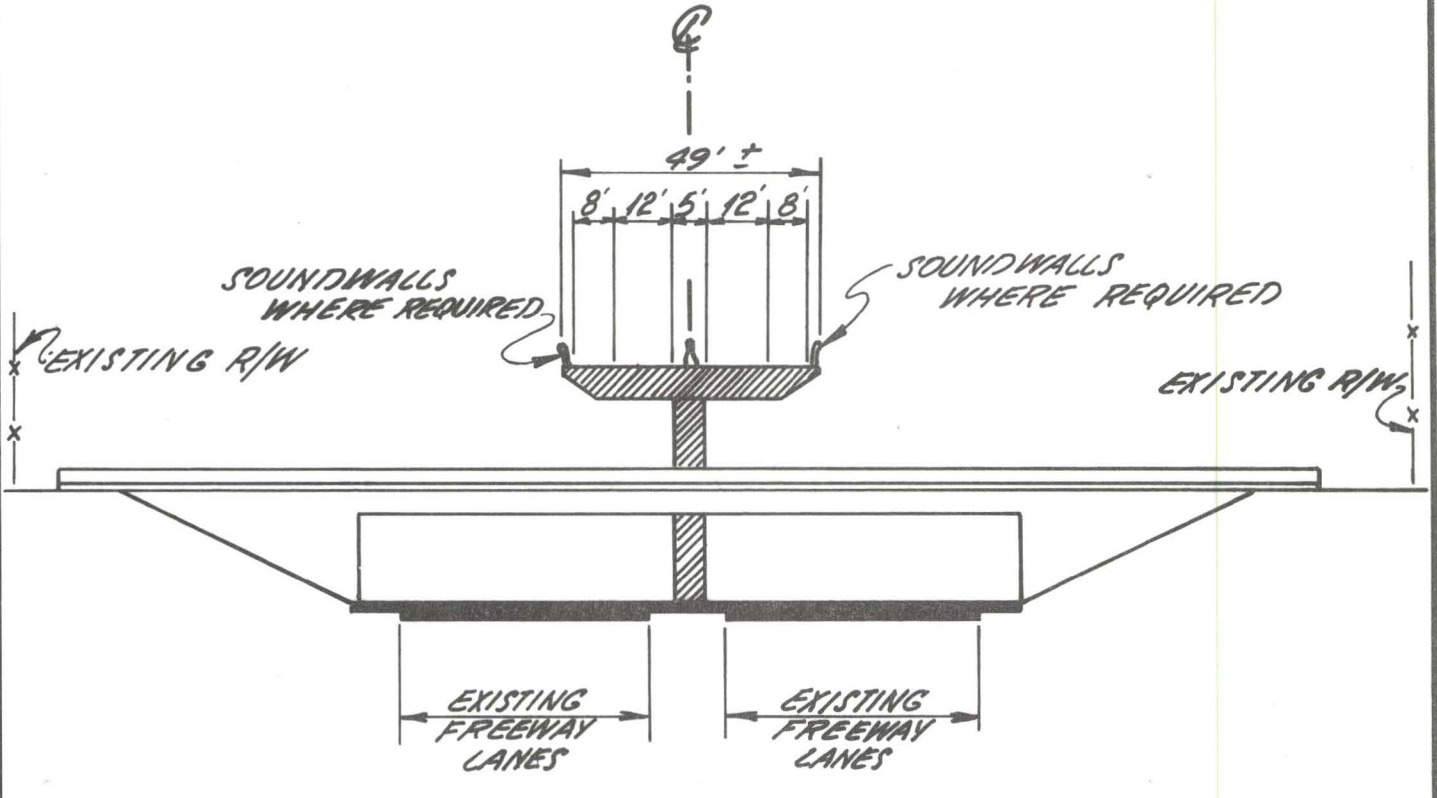
- g. Provide three surface parking facilities at Manchester Boulevard, Pacific Coast Highway and Channel Street. Provide five parking structures at 37th Street (Exposition Blvd.), Slauson Avenue, Rosecrans Avenue, Artesia Boulevard and Carson Street.
- h. Construction of one additional lane in each direction between Pacific Coast Highway and Route 47 Freeway.
- i. Rehabilitate and upgrade the existing highway, as required to maintain or improve traffic safety and operations.
- j. Local street improvements, as required to maintain or improve local traffic conditions and improve local bus service.

The typical cross section of the elevated two-way structure would be a minimum of 49 feet wide consisting of a 12-foot lane, and an 8-foot right shoulder in each direction separated by a median barrier. (The actual width of the transitway will be determined during final design.) In the median at-grade sections, there would be a 12-foot lane, a 12-foot common shoulder shared with the freeway lanes in each direction separated by a median barrier. Figure III-1 shows the typical sections for the two-way Bus/HOV transitway.

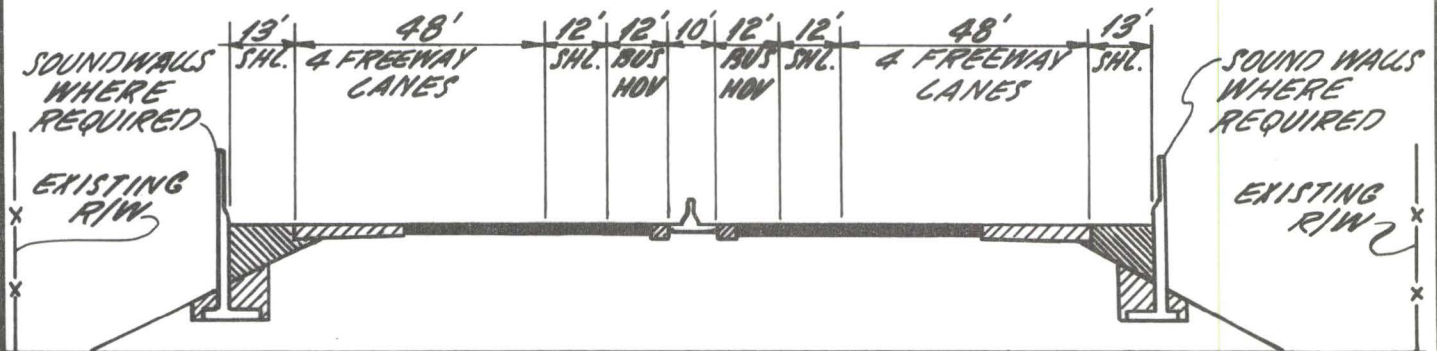
6. Los Angeles Central Business District (LACBD) Access

The buses and HOV's will self-distribute into the LACBD. Buses destined for LACBD locations would exit the transitway at Figueroa Street near 23rd Street, and proceed along Figueroa, Eleventh/-Twelfth, Olive, First, and Los Angeles Streets enroute to the Union Station terminus. The return trip would be in reverse except that the buses would turn onto 11th Street and proceed to Figueroa Street and back onto the freeway at 23rd Street (see Figure III-2).





ELEVATED SECTION



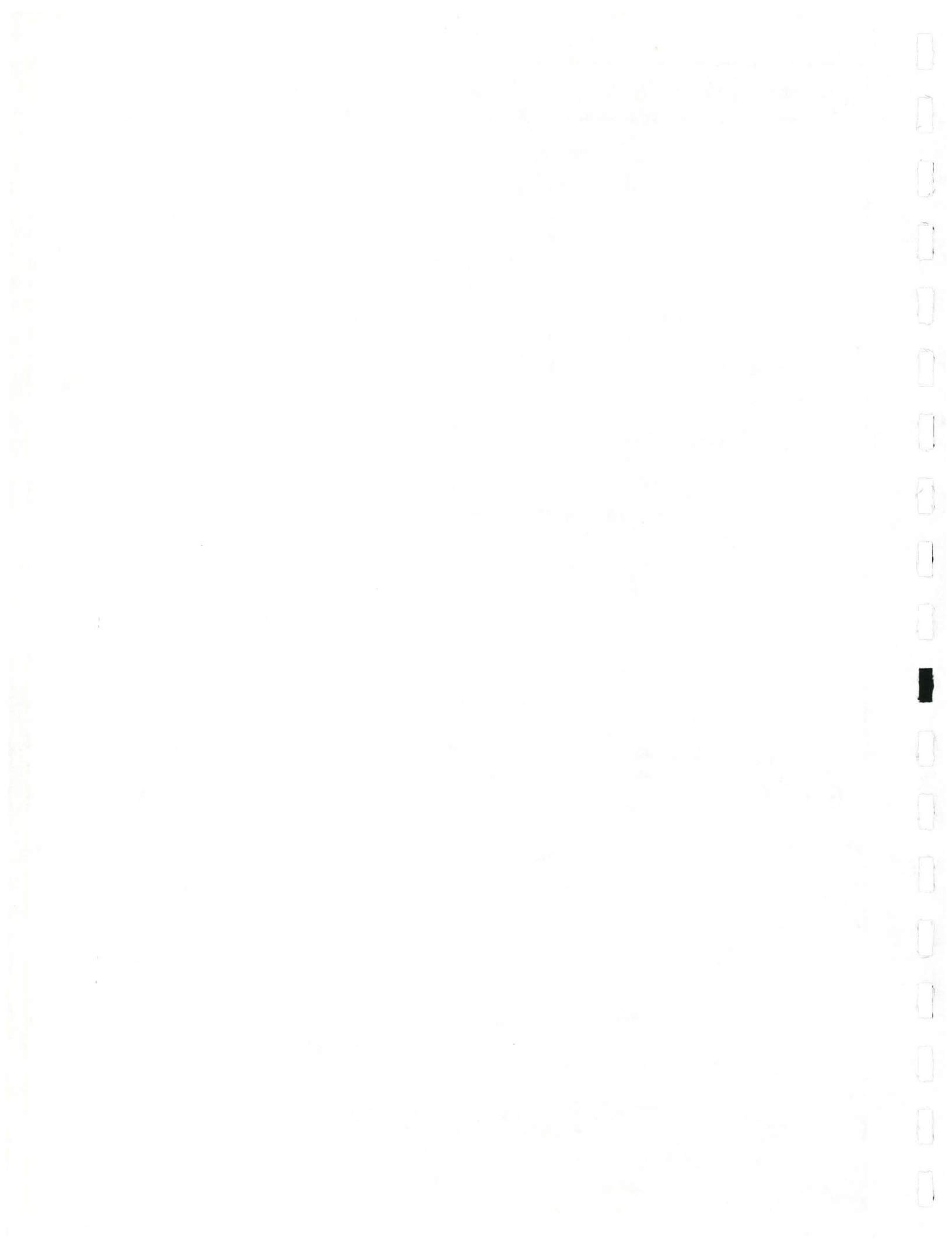
AT GRADE SECTION

NOTE: THE ACTUAL WIDTH OF THE TRANSITWAY WILL BE DETERMINED DURING FINAL DESIGN.

TWO WAY BUS/HOV LANE

- LEGEND**
- NEW CONSTRUCTION
 - EXISTING PAVEMENT

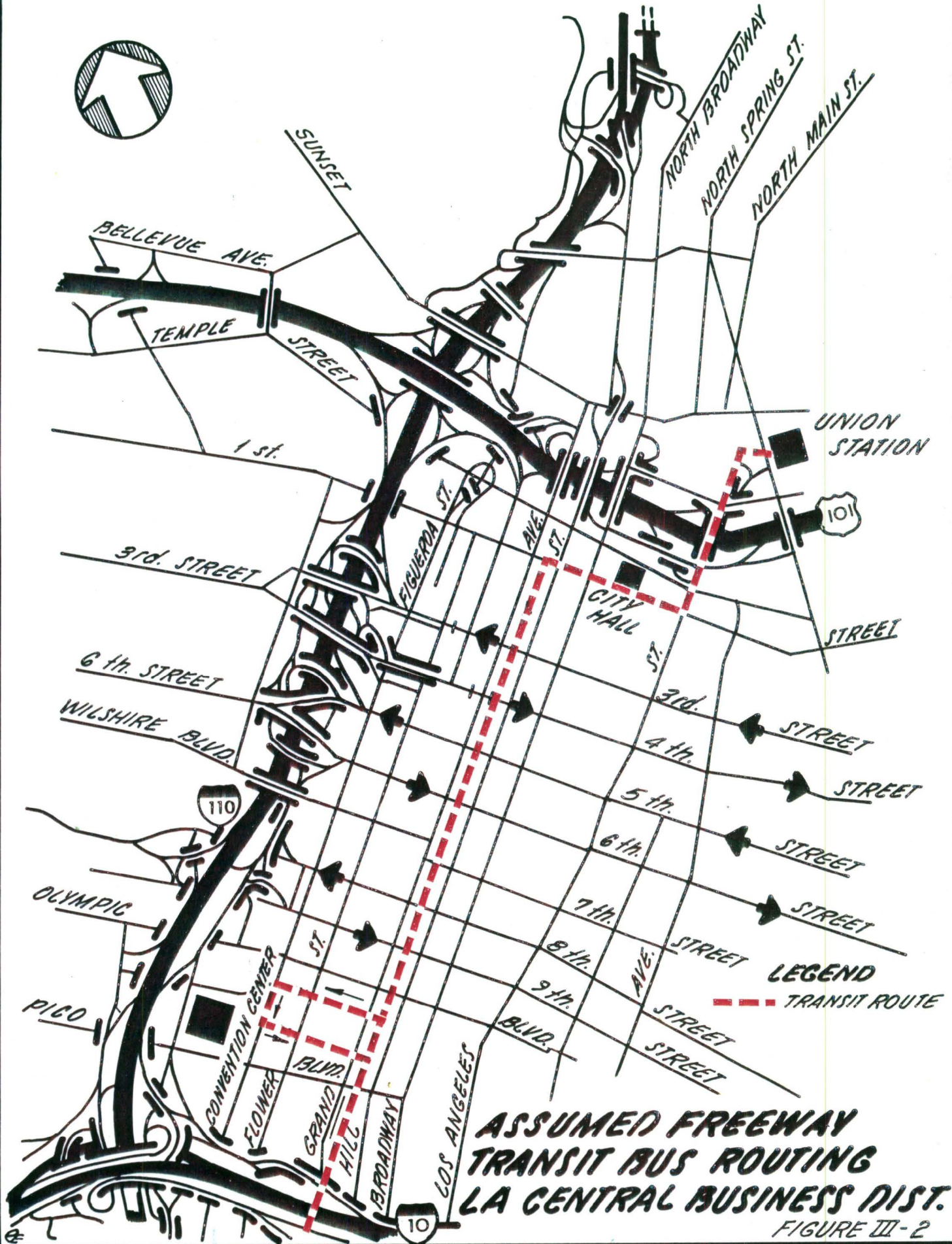
FIGURE III-1

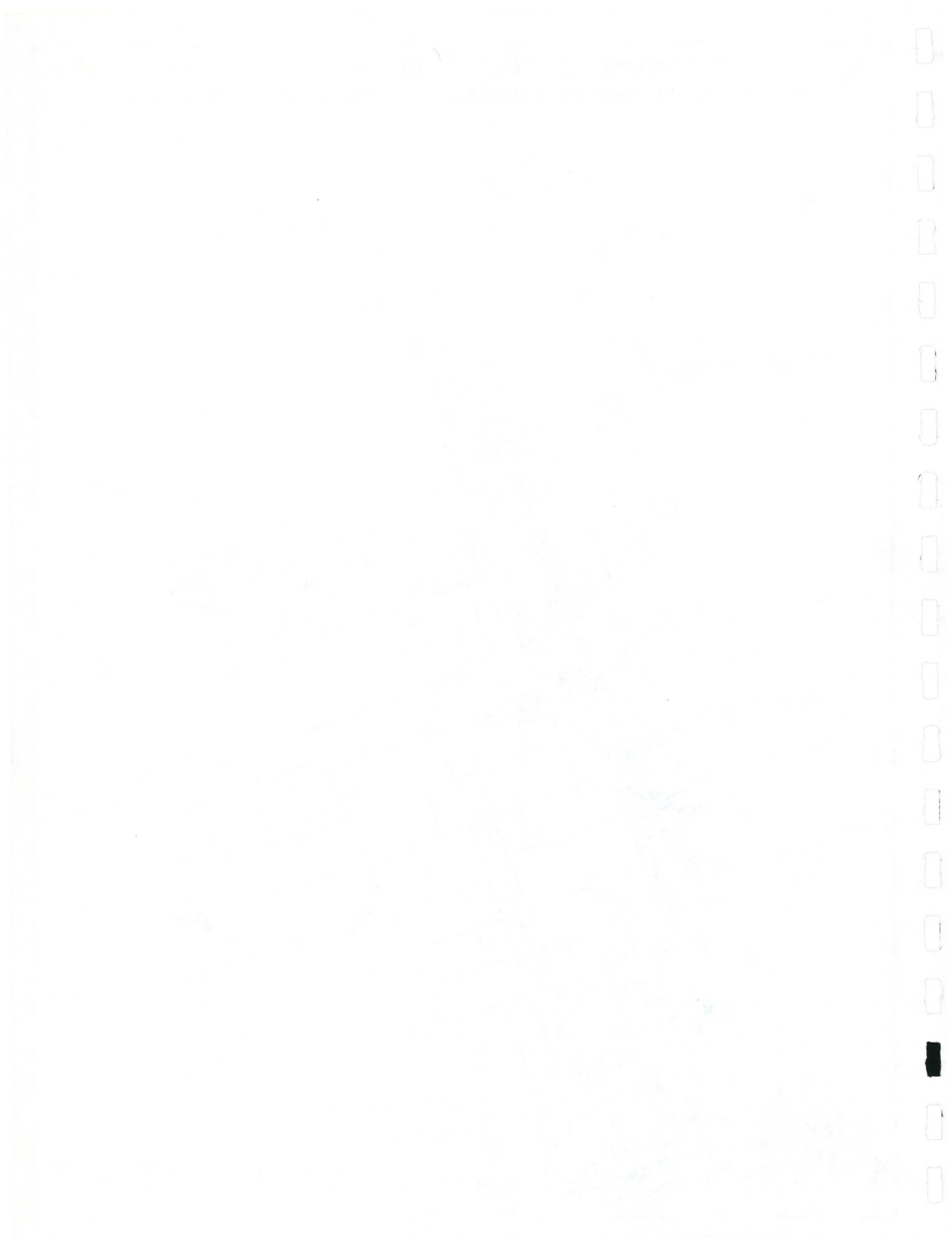




Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR





Additional LACBD access is provided via the existing I-110 Freeway by the median connectors near Jefferson Boulevard to and from the exclusive transitway.

7. Consistency

The proposed project is a part of and supports the other elements in the Los Angeles Area Regional Transit Development Program. The Harbor Freeway Transitway project is included in the Southern California Association of Government's (SCAG) Regional Transportation Improvement Program, and the Los Angeles County Transportation Commission's (LACTC) Interim Rail Transit System. (See Appendix B)

8. Rail Conversion

Conversion of the I-110 Bus/HOV Transitway to a rail guideway would occur when patronage increases justified such a change. This justification would occur when the bus facility had reached its capacity and could no longer carry the patronage at an acceptable level of service. However, prior to reaching its capacity, the HOV component of the transitway would have been restricted by access metering and/or increasing the ridership requirements. Several other factors concerning bus capacity will influence the decision to convert to a rail system. The additional impact on the city streets of the buses needed to carry the increased patronage will be a deciding factor on the level of service available with the bus mode. Minimum dwell times of 20 seconds will constrain the operational plan with a full service system. However, this may be adjusted by modifying the operational plan to include skip stop, designated stop or express service.

To convert the 10.3 mile Bus/HOV transitway and stations between I-10 and Route 91 to a rail system would cost approximately \$100 million (1984 dollars).

D. Alternatives Considered and Not Recommended

Tables III-12, III-13, and III-14 summarize the general features, projected patronage, and operational characteristics of the alternatives considered in the Draft EIR/EIS within the Harbor Freeway Transitway corridor. It is important to note that none of the alternatives would result in a decrease in the existing number of freeway traffic lanes. Figure III-3 illustrates the alternative alignments and proposed station sites. A discussion of termini treatment can be found in subsection E-2 of this chapter.

1. No Project Alternative

This no-build alternative involves no improvement to the existing highways and present transit system, beyond those already programmed or under construction. It provides a benchmark for comparative analysis.

The primary change to the highway system would be the completion of the proposed Century (I-105) Freeway Transitway (LRT), the Route 91/110 Freeway Interchange project (which is already under construction); and the addition of a southbound auxiliary lane between Manchester and Century Blvd. Caltrans is designing an improvement to the I-110/I-10 Interchange and the Adams Blvd. off-ramp which will improve the traffic flow for motorists going from the I-110 to Adams Blvd. This project entails the construction of a slip ramp from the southbound Harbor Freeway collector

TABLE III-12 I-110 ALTERNATIVE OPERATIONAL CHARACTERISTICS (2005)

Alternatives	Routing Plan (1)	Service Levels (minutes) (2)		Total Required Vehicles (3)**				
		Trip Time (Convention Center to San Pedro)	Peak Headways (Convention Center to San Pedro)	Bus		Rail		
				ADB	ARTIC	ICTSV	LRV	HRV
No Project	Existing routing plus I-105 Transitway routes	54	15	669	111	-	-	-
TSM	Same as above plus 1980 SCHR0's sector improvement program	56	15	762	173	-	-	-
Bus/HOV-1 -4 † -7	Provides additional three limited service-trunk lines operating exclu- sively on transitway plus one short service line extending to Artesia Vermont Transit Center. Local sur- face routings through LACBD. HOV's share transitway use.	43	50 Seconds	830	169	-	-	-
-8a -8b	Reversible lane transitway plan same as above except reverse peak period in operating in mixed flow on freeway. Limits HOV use.	43		827	177	-	-	-
Rail-LRT-1 -4 -7	Exclusive rail transitway operating between San Pedro's Port O'Call & 7th St. (LACBD) primary within Harbor Fwy. Vertical transfers available for Wilshire Metro Rail & I-105 transitway connection. Re- quires LACBD distribution system.	33	5.5	891	-	-	64	-
ICTS-1 -4 -7	Exclusive transitway operating between Port O'Call & Union Station (LACBD) primary along Harbor Fwy. & DPM alignments. Direct connection available for I-105 transitway transfer.	33	2	815	-	116	-	-
HRT-6 (Vermont Ave.)	Exclusive rail transitway operating between Port O'Call & Union Station. Primary route follows Geffey, Vermont, Exposition, Figueroa, Pico & Broadway. Direct connection to I-105 transitway.	33	8.5	841	-	-	-	60

111-24

*(1) All project alternatives require an expansion of Bus Feeder Service.

(2) Service Levels refer to line haul routing from LACBD to San Pedro or LACBD to Route 91, as noted.

(3) Total required vehicles includes existing background fleet sizes (i.e. No Project background fleet size = 665 vehicles)

**These are the totals listed on Table III-16.

Abbreviations: ADB - Advance Design Bus
 ARTIC - Articulated Bus
 ICTSV - Intermediate Capacity Transit System Vehicle (rotary powered)
 LRV - Light Rail Vehicle
 HRV - Heavy Rail Vehicle

† Recommended Alternative

TABLE III-13
TOTAL WEEKDAY BOARDINGS (2005)
(In Thousands)

STATIONS	BUS/HOV (TWO-WAY)	LRT	ICTS	HRT
Jefferson	-	-	-	2.5
37th Street (Exposition)	5.8	6.7	7.3	4.0
Slauson	2.2	2.5	2.7	3.1
Manchester	4.4	5.1	5.6	6.5
Rosecrans	5.3	5.6	6.1	6.9
Artesia	3.8	3.5	3.7	3.6
Carson	4.7	4.5	5.0	4.9
Pacific Coast Highway	1.5	1.1	1.1	1.2
Channel St.	3.1	1.9	1.9	2.4
Port O'Call (San Pedro)	-	1.5	1.7	1.6

Updated: October, 1984

TABLE III-14

ALTERNATIVE TRAVEL CHARACTERISTICS (2005)
(IN THOUSANDS)

	LINEHAUL			CORRIDOR	
	Daily Transit Patronage (1)	Daily HOV Trips* (2)	Total Trips (1+2)	Daily Transit Trips	Daily VMT Reduction
No Project	16.2	0*	16.2	514	0
TSM	28.5	0*	28.5	592	643.3
Bus/HOV-1	65.2	38.8	104.0	615	988.1
-4 [†]	65.2	38.8	104.0	615	988.1
-7	"	"	"	"	"
-8A	53.9	20.4	74.3	609	861.6
-8B	"	"	"	"	"
Rail-1 (LRT)	73.8	Not Applicable	73.8	615	839.2
-4 "	"	"	"	"	"
-7 "	"	"	"	"	"
Rail-1 (ICTS)	81.0	"	81.0	618	862.0
-4 "	"	"	"	"	"
-7 "	"	"	"	"	"
Rail-6 (HRT) (Vermont Ave.)	83.7	"	83.7	619	872.5

*HOV Trips on proposed transitway guideways.

- . Bus/HOV 8A & 8B requires a larger fleet during off peak than Bus/HOV 1, 4 & 7.
- . LRT has shorter line-haul and requires small fleet in comparison with ICTS.
- . HRT has longer line-haul and more frequent headways in comparison with LRT.

† Recommended Alternative

Updated: December, 1984







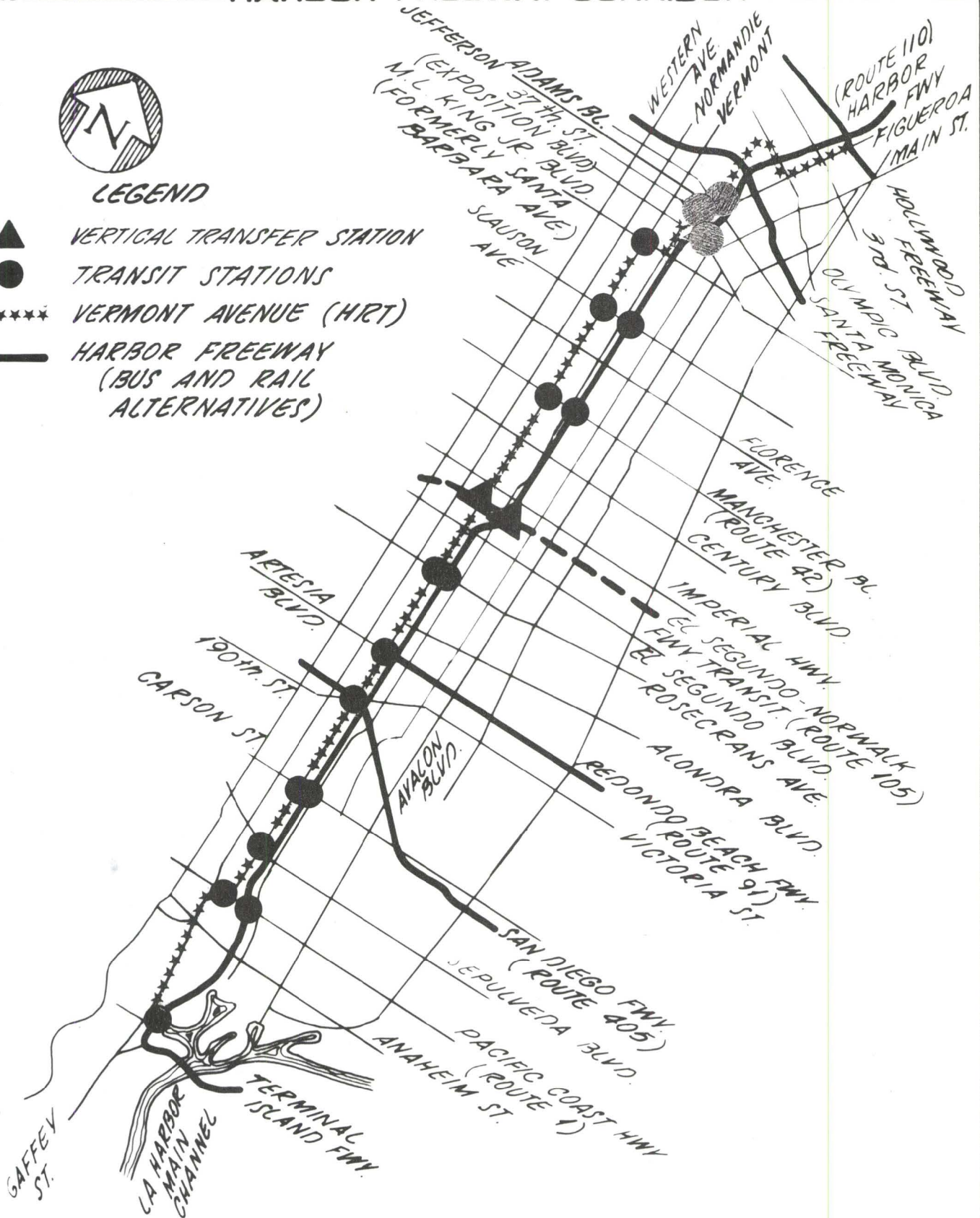
Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



LEGEND

-  VERTICAL TRANSFER STATION
-  TRANSIT STATIONS
-  VERMONT AVENUE (HRT)
-  HARBOR FREEWAY (BUS AND RAIL ALTERNATIVES)



ALTERNATIVE ALIGNMENTS

FIGURE III-3

road from the I-10 to the southbound I-110. Construction of the I-110 transitway may require the modification of these improvements.

Table III-15 shows this auxiliary lane, and the auxiliary lanes needed for the major construction alternatives. Completion of the planned improvements will not reduce the need to improve transit in the I-110 Corridor.

Currently, there are sixteen (16) bus lines run by three bus operators (SCRTD, Torrance Transit District (TTD), and Gardena Bus Lines). These sixteen lines provide approximately sixty (60) buses per peak hour whose destination is the LACBD and which service the Harbor Freeway (I-110) study corridor.

For the purposes of comparison, the 1981 transit operating system will be used. For a comparison of the vehicle requirements for this and all other alternatives, refer to Table III-16.

2. Transportation System Management (TSM)

The year 2005 TSM transit system alternative consists of SCRTD's stage of the sector plan defined in the 424 report (dated June 21, 1981), an upgrading of three existing bus stops on the Harbor Freeway, and an expansion of two existing off-line park and ride facilities in this corridor.

The TSM alternative would have passenger connections to all major transit lines proposed in the Regional Transportation Development Plan. Bus operations on the Harbor Freeway would be in mixed

TABLE III-15

HARBOR FREEWAY CORRIDOR
 FREEWAY AUXILIARY LANE LOCATIONS*

ALTERNATIVE LOCATION	TSM	Bus/HOV					RAIL		
		1	4	7	8a	8b	1	4	7
I-110/I-10 Inter. S/B Connectors Exposition to I-10				X					X
22nd St. to Washington Blvd.		X	X	X	X	X			
39th St. to Exposition (Northbound only)		X							
41st St. to M. L. King Jr. Blvd. (Southbound only)		X							
Slauson Ave. to 55th St.			X	X					
Florence Ave. to 74th St.		X							
Manchester Blvd. to 76th St.			X	X				X	X
88th St. to Century Blvd.	X		X	X					
I-105/I-110 Inter. I-105 Fwy. to 104th St.		X	X	X	X	X			
El Segundo Blvd. to 120th St.			X	X					
Redondo Beach Blvd. to Alondra Blvd.		X	X	X	X	X			
Anaheim St. to Pacific Coast Highway		X	X	X	X	X	X	X	X
"C" St. to Anaheim St.		X	X	X	X	X	X	X	X

*Applies to both (N & S) roadways unless indicated otherwise.

TABLE III-16

HARBOR FREEWAY (I-110) TRANSIT STUDY

2005 VEHICLE REQUIREMENTS

ALTERNATIVE	BUS										RAIL				
	ADVANCE DESIGN BUS					ARTICULATED BUS					ICTSV	LRV	HRV	SPARES	TOTAL RAIL
	Line Haul	Feeder	Back Ground	Spares*	Total	Line Haul	Feeder	Back Ground	Spares*	Total					
No Project	27	---	551	87	665	97	---	---	14	111	---	---	---	---	---
TSM	29	---	634	99	762	150	---	---	23	173	---	---	---	---	---
B 1, 4†, 7	---	101	621	108	830	174	---	---	26	200	---	---	---	---	---
B 8a, 8b	---	93	626	108	827	185	---	---	28	213	---	---	---	---	---
ICTS 1, 4, 7	---	102	607	106	815	---	---	---	---	---	104	---	---	12	116
LRT 1, 4, 7	---	129	611	111	851	---	---	---	---	---	---	53	---	11	64
HRT	---	133	598	110	841	---	---	---	---	---	---	---	50	10	60

ABBREVIATIONS: A.D.B. - Advance design bus
 ARTIC - Articulated bus
 ICTSV - Intermediate capacity transit system vehicle (rotary powered)
 LRV - Light rail vehicle
 HRV - Heavy rail vehicle

*Spares are 15% of Line Haul, and Background.

†Recommended Alternative

III-30

traffic. The primary TSM support facilities and line-haul route plan are represented on Figure III-4. The combined service levels of the nine TSM Freeway Transit Routes plus the proposed parallel arterial and feeder lines represents an approximate fifteen percent increase over current corridor levels.

Total capital costs are estimated to be \$63.2 million dollars (1984) and total annual transit maintenance and operational costs are estimated to be \$26.6 million dollars.

3. Bus/High Occupancy Vehicle (Bus/HOV) Alternatives

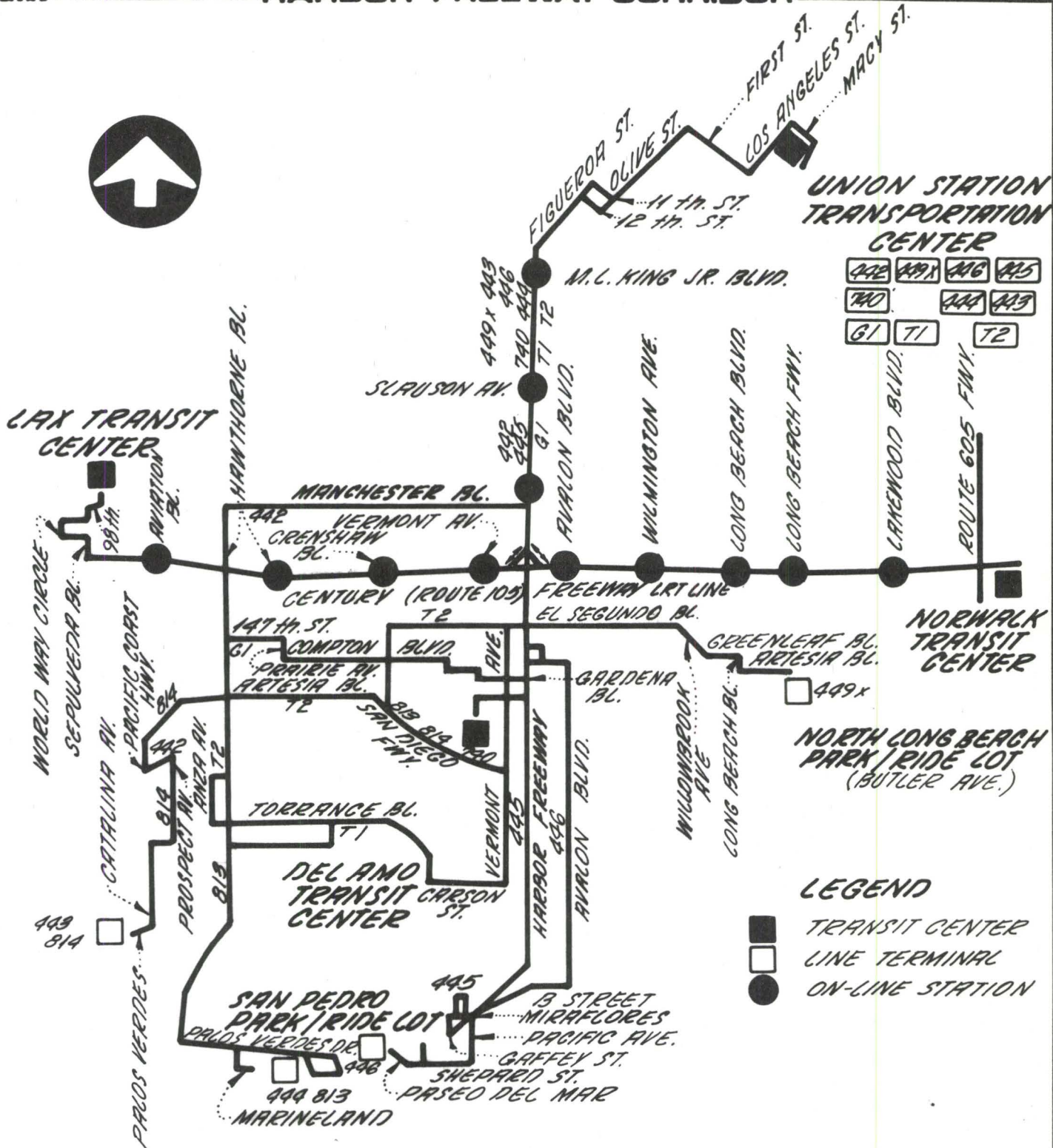
All bus/HOV alternatives require the construction of a transitway within the Harbor Freeway alignment. The transitway, to be used exclusively by buses and high occupancy vehicles (with 3 or more passengers), would be constructed so that it could be converted to rail for future increased transit patronage. The bus/HOV alternatives would all function as a limited service-trunk line with a bus feeder system serving transit stations in the I-110 corridor (see Figure III-5 for proposed bus routes and stations locations). The limits of the exclusive transitway are between Artesia Boulevard (Route 91) and the Santa Monica Freeway (Route 10), refer to Figure III-3. South of Route 91, in all bus/HOV alternatives, transit vehicles would travel 9.3 miles in mixed flow freeway traffic to San Pedro.

Ingress and egress to and from the bus/HOV transitway would be limited as shown in Table III-6. A vertical transfer station would be provided to the I-105 (LRT). Buses destined for LACBD locations would exit the transitway at Figueroa Street near 23rd Street, and proceed along Figueroa, Olive, First, and Los Angeles Streets enroute to the Union Station terminus.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

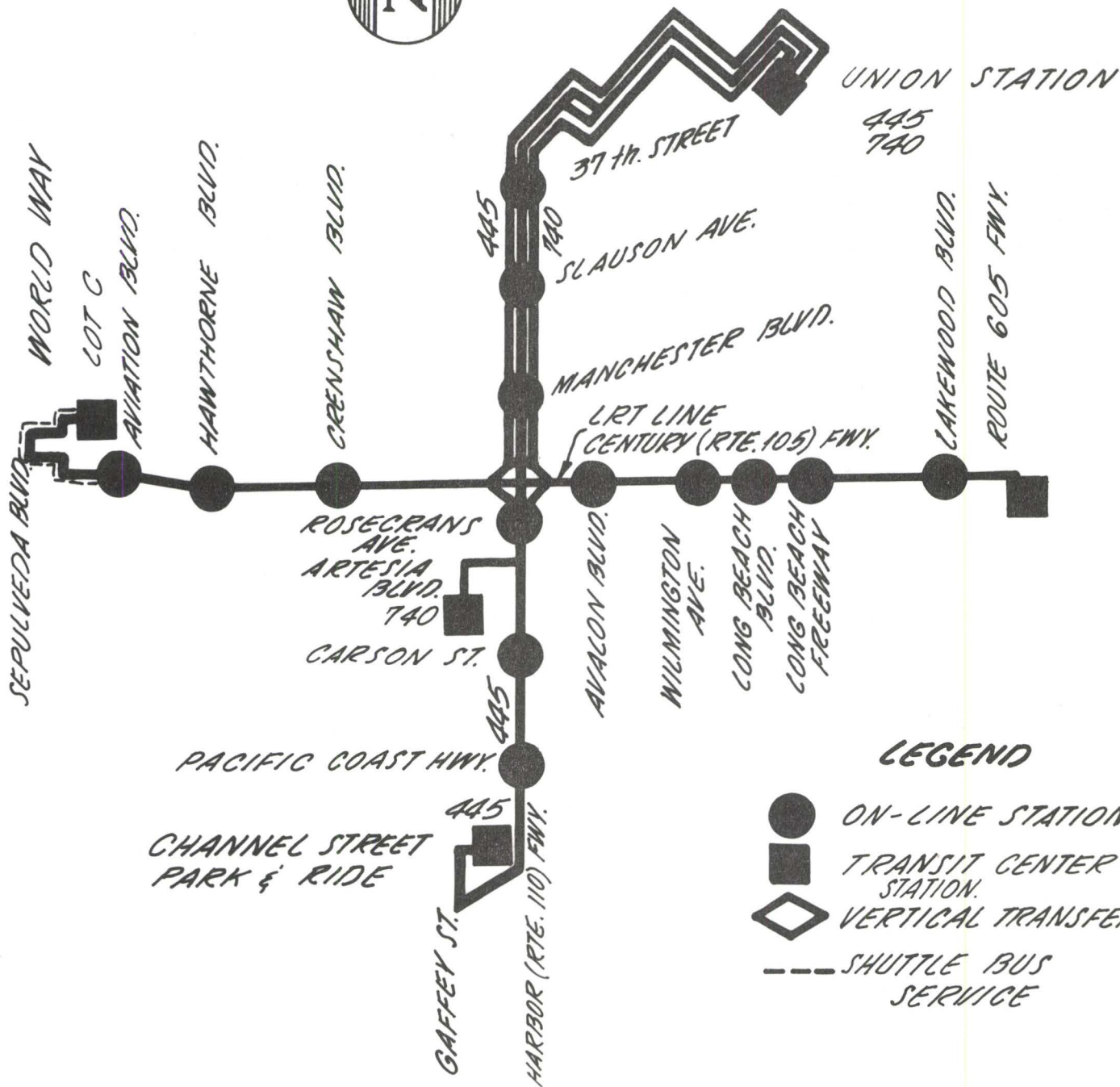


HARBOR FREEWAY CORRIDOR TSM ALTERNATIVE LINE - HAUL ROUTES



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



LEGEND

-  ON-LINE STATION
-  TRANSIT CENTER STATION.
-  VERTICAL TRANSFER
-  SHUTTLE BUS SERVICE

BUSWAY ROUTE PLAN
HARBOR FREEWAY CORRIDOR
 LIMITED SERVICE-TRUNK LINE WITH FEEDERS

Maximum headways would be 15 minutes during peak periods and will be increased during off-peak periods. Bus service would operate 19 hours per day, between 5:00 a.m. and 12:00 midnight. Various levels of parking are being considered for all proposed transit station locations. Section III-E provides more detailed information on parking.

A general description of the bus/HOV alternatives follows. Figure III-1 depicts typical bus/HOV aerial and at-grade sections. For a more extensive discussion of the operational aspects of all of the major bus/HOV and rail alternatives, see Appendix B.

a) Bus/HOV-1 Alternative

Bus/HOV-1 is a two-lane transitway structure (49'+) elevated (8.2 miles) over the freeway median. A 2.1-mile transitway section at the proposed I-105 interchange is at freeway grade and would require minor freeway widening. The transitway would function as a limited service-trunk line with a bus feeder system servicing stations from the surrounding areas. This plan consists of two limited service-trunk lines operating exclusively on the transitway and one short service line extending to the proposed Artesia Transit Station Center. This operational plan requires a fleet increase of 89 vehicles and represents an 80 percent increase in express bus service.

Total capital costs are estimated to be \$633.3 million dollars (1984) including right-of-way, construction, and vehicle costs.

Total annual transit maintenance and operational costs are estimated to be \$30.4 million dollars.

b) Bus/HOV-7 Alternative

Bus/HOV-7 is a similar two-lane transitway (50'+) except it is at grade (9.3 miles) within the freeway median and is elevated (1.0 mile) at the northerly end. Transitway access is provided at nine locations. The bus routing plan is the same as described in bus/HOV-1. This at-grade alternative requires 10.3 miles of freeway widening and requires the reconstruction of 22 freeway undercrossings.

Total capital costs are estimated to be \$700.4 million dollars (1984) including right-of-way, construction, and vehicle costs.

Total annual transit maintenance and operational costs are estimated to be \$30.4 million dollars.

c) Bus/HOV-8A and 8B Alternatives

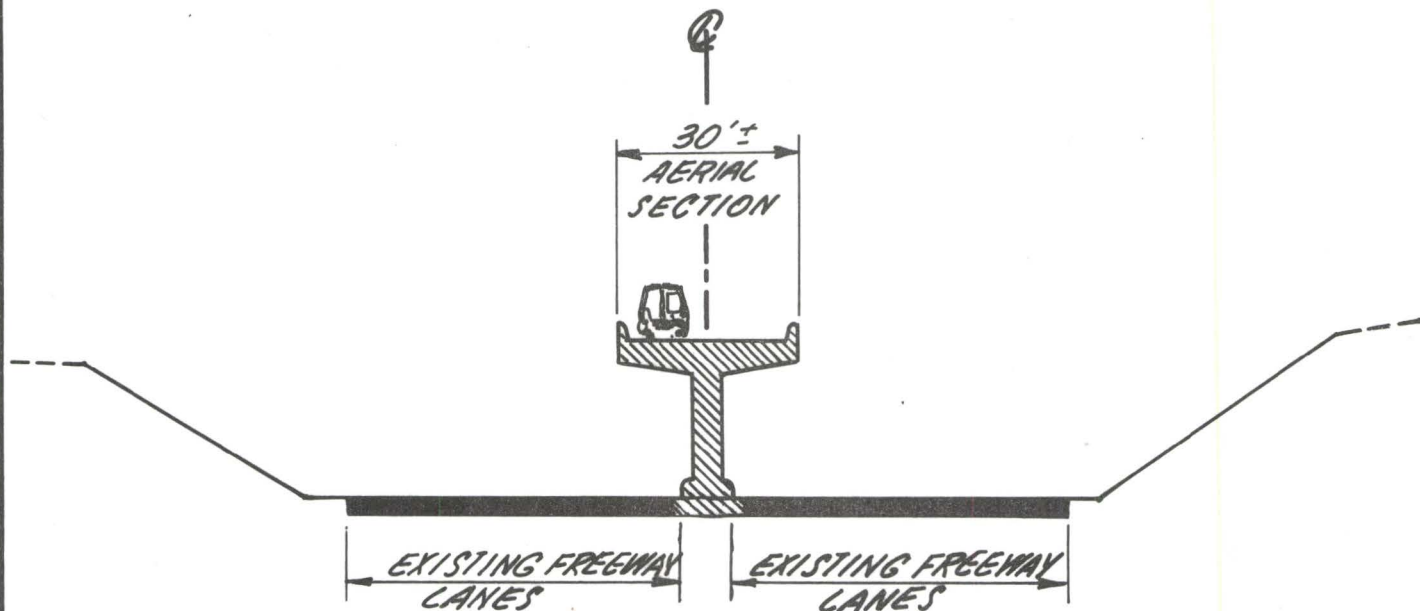
The primary difference of these bus/HOV alternatives is that the transitway would be a reversible, one-lane facility (30' wide), serving the northbound trips during the A.M. peak hours and southbound trip during the P.M. peak hours (Figure III-6 depicts typical aerial and at-grade sections). Bus/HOV-8A has the same profile as bus/HOV-1 which is elevated (8.2 miles) over the freeway median and at freeway grade (2.1 miles) at the proposed I-105 Interchange. Bus/HOV 8b has the same profile as bus/HOV-4, which is at grade (6.0 miles) when in freeway fill sections and



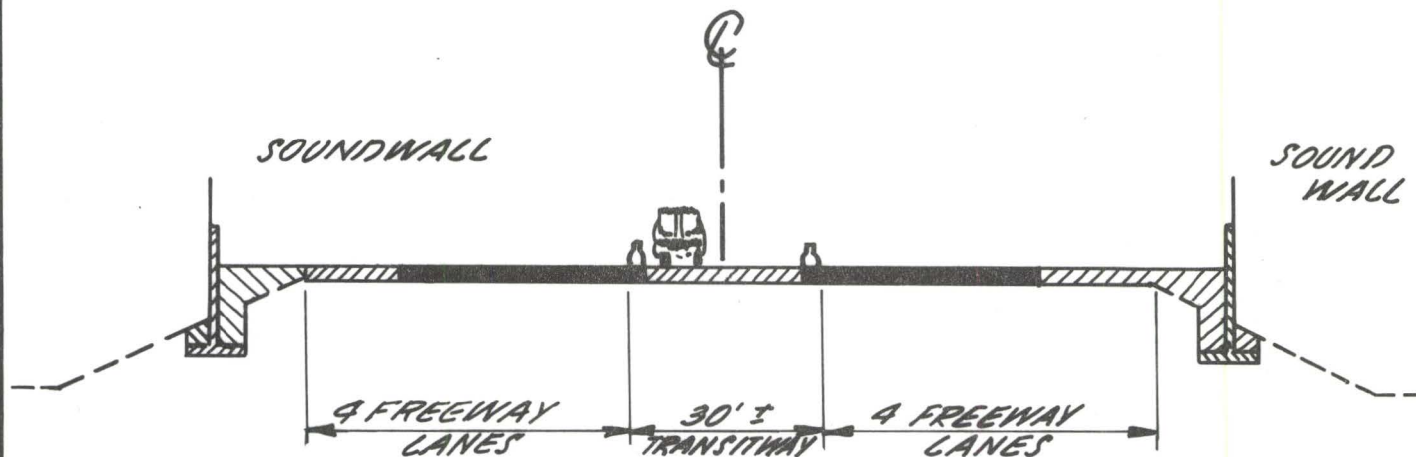
Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

6



ELEVATED SECTION
BUS ALTERNATIVE 8 A AND BUS ALTERNATIVE 8 B



AT GRADE SECTION
BUS ALTERNATIVE 8 B

- LEGEND**
-  NEW CONSTRUCTION
 -  EXISTING PAVEMENT

PEAK DIRECTIONAL BUS/HOV LANES

elevated (4.3 miles) when in freeway cut sections. Transitway access is provided at eight locations. The bus routing plans and feeder characteristics would be similar to the other bus/HOV alternatives. Operating speeds on the busway (peak commute direction) would also be comparable, however the operating speeds in the reverse commute direction would be similar to those of the TSM alternative. Thus, due to slower reverse-commute operations in mixed traffic, more buses are required to provide comparable transit service. For those transitway segments constructed at grade, freeway widening is required.

Total capital costs are estimated to be \$482.6 million dollars for alternative 8A and \$484.0 million dollars (1984) for alternative 8B.

Total annual transit maintenance and operational costs are estimated to be \$29.8 million dollars.

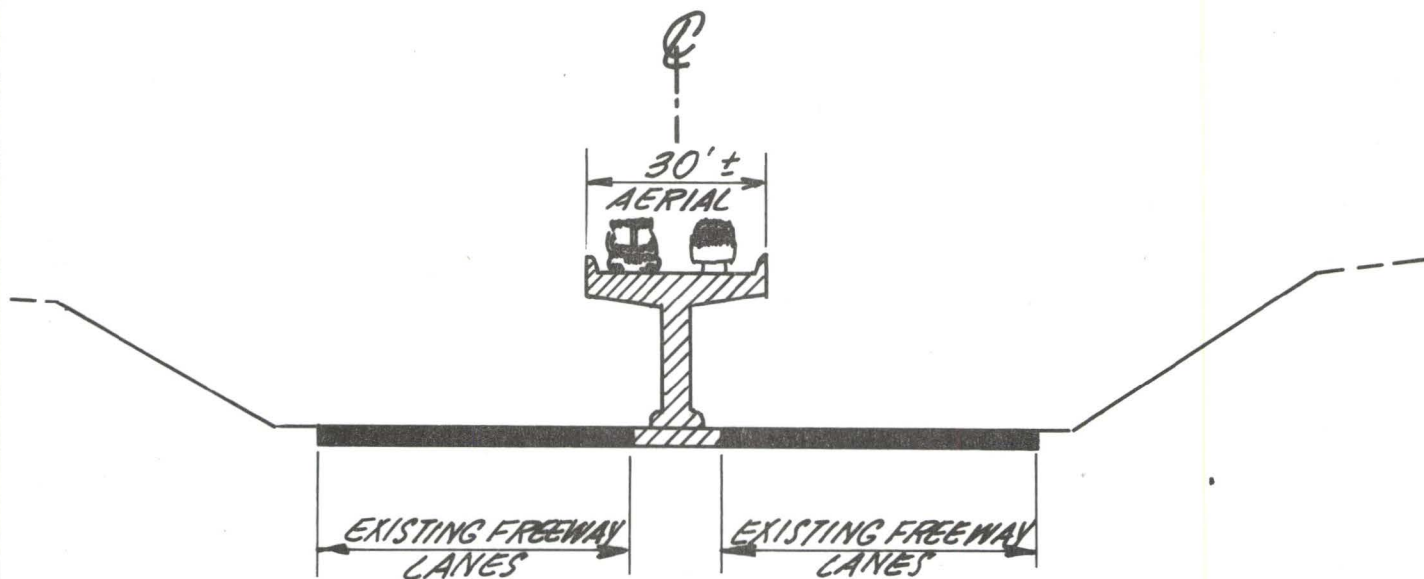
4. Rail Alternatives

The rail alternatives were developed through consultation with SCRTD's staff, their consultants, and Los Angeles City's staff. The Harbor Freeway Rail Alternatives (1, 4, and 7) follow similar alignments and profiles to the bus/HOV alternatives (1, 4, and 7) within the freeway's right-of-way (Figure III-7 depicts typical rail aerial and at-grade sections). The Vermont Avenue Rail Alternative (Rail 6) has an exclusive subway-aerial facility. See Figure III-3 for alignments.

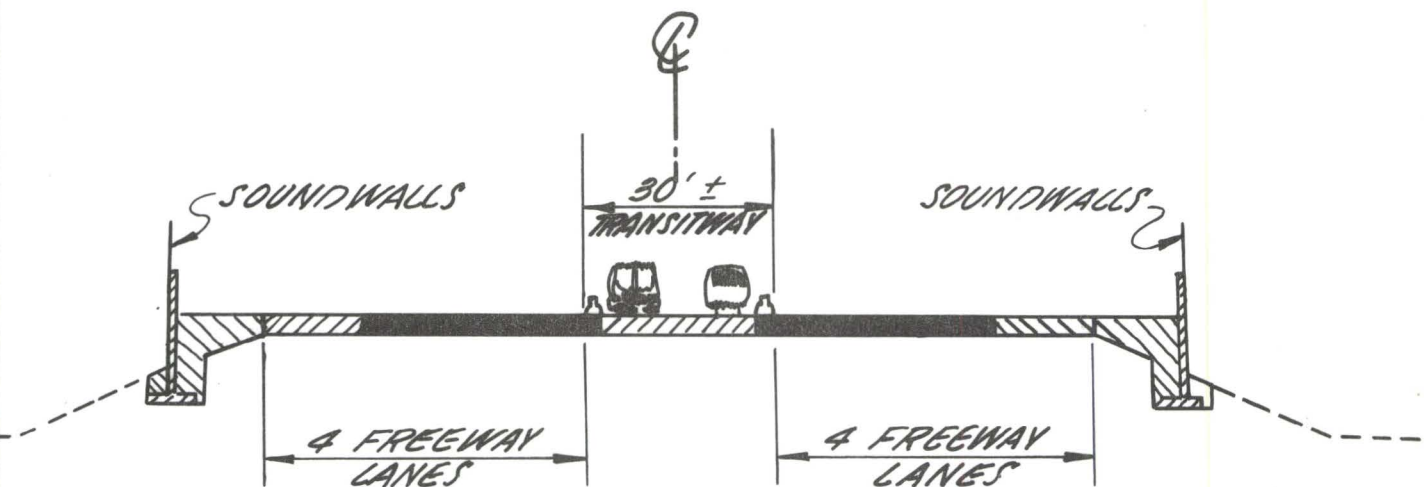


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



**ELEVATED SECTION
RAIL ALTERNATIVES 1 AND 4**



**AT GRADE
RAIL ALTERNATIVES 7 AND 4**

LEGEND



NEW CONSTRUCTION



EXISTING PAVEMENT

**TWO WAY RAIL
(ICTS & LRT)**

The Harbor Freeway Rail Alternatives were developed to conform with Light Rail Transit (LRT) and the Intermediate Capacity Transit System (ICTS) standards. The Vermont Avenue Alternative (Rail 6) was developed to meet the Heavy Rail Transit (HRT) standards. The ICTS and LRT rail options for the Harbor Freeway alignments would both terminate at the Ports O' Call (San Pedro) station in the south. In the downtown area, the ICTS options would terminate at Union Station (LACBD) in the north, while the LRT alternatives would terminate at 7th and Figueroa Streets (LACBD). As an option, the LRT alternatives have a vertical transfer to the Century (I-105) LRT and the proposed Wilshire Metro Rail line downtown distribution. All LRT options would also require buses to provide local downtown distribution between 7th Street and Union Station in addition to the Wilshire Metro Rail line. The HRT (Vermont Avenue) option would originate at Ports O' Call and terminate at Union Station but would utilize different alignments and profiles than the freeway alignments.

The rail types (LRT, ICTS and HRT) have differing transit characteristics and operational aspects. Appendix I describes the primary differences among these technologies. In the following text, different levels of service are assumed for the various transit technologies. These differences are due primarily to the capacities of the different vehicles and the ridership demands.

a) Rail-1 Alternative (LRT and ICTS)

Rail-1 is a two-way rail transitway structure (30'+ wide) elevated in the Harbor Freeway median (same profile as bus/HOV-1). The

northerly end treatment would require an elevated transitway structure through the LACBD area for both the LRT or ICTS systems. The primary difference between the LRT and ICTS options is that ICTS provides continuous service through the LACBD to Union Station with an increase of an additional eight on-line transit stations. The southerly end treatment from the present Harbor Freeway terminus at Channel Street also would have an elevated transitway structure to the Ports O' Call station. The median alignment swings to the west side of the freeway to service the Artesia Boulevard and Channel Street transit stations.

The year 2005 operational plan developed for the LRT and ICTS options indicates the following:

	<u>LRT</u>	<u>ICTS</u>	
Rail Fleet Size	64	116	Vehicles
Rail Vehicle Capacity (seated)	101	36	Persons
Feeder Bus (ADB) Requirements	129	102	Vehicles
Trip Time (One-Way)			
Convention Center to San Pedro	33	33	Minutes
Peak Period Headways	5 1/2	2	Minutes
Est. 2005 Corridor Patronage	189.8	190.4	Million

The primary reason for the difference in feeder bus requirements between LRT and ICTS is due to the increased downtown distribution needed to provide comparable transit service from 7th Street and Figueroa Street to Union Station for the LRT alternatives.

The rail alternatives would operate the same daily operating hours as the bus/HOV alternatives. The level of service would be adjusted to meet ridership demands. The off-peak hour headways would be 15 minutes during the day and 30 minutes in the evening.

Total capital costs are estimated to be \$832.7 million dollars for the LRT alternative and \$855.7 million dollars for the ICTS alternative. Total annual transit maintenance and operational costs are estimated to be \$35.0 and \$43.5 million dollars for the LRT and ICTS alternatives, respectively.

b) Rail-4 Alternative (LRT and ICTS)

Rail-4 is a two-way rail transitway structure (30'+ wide) elevated and at freeway grade in the Harbor Freeway corridor (same profile as bus/HOV-4). The end treatments for alignment and profile are the same as Rail-1. The alignment shift at the Artesia Boulevard and Channel Street Transit stations is also the same. The operational requirements and characteristics are the same as those identified for Rail-1. This alternative would require freeway widening but less than that required for the bus/HOV 4 alternative.

Total capital costs are estimated to be \$747.2 million dollars for the LRT alternative and \$770.2 million dollars for the ICTS alternative. Total annual transit maintenance and operational costs are the same for this alternative as for Rail-1.

c) Rail-7 Alternative (LRT and ICTS)

Rail-7 is a two-way rail transitway (30'+ wide) built primarily at grade within the Harbor Freeway corridor. The aerial end treatments for the alignment and the profile are generally the same as Rail-1 and Rail-4. The operational requirements and characteristics are the same as those identified for Rail-1. Also, this alternative requires about the same amount of freeway widening and bridge reconstruction as the bus/HOV-7 alternative.

Total capital costs are estimated to be \$968.1 million dollars for the LRT alternative and \$991.1 million dollars for the ICTS alternative. Total annual transit maintenance and operational costs are estimated to be the same as for Rail-1.

d) Rail-6 Alternative (HRT) Vermont Avenue

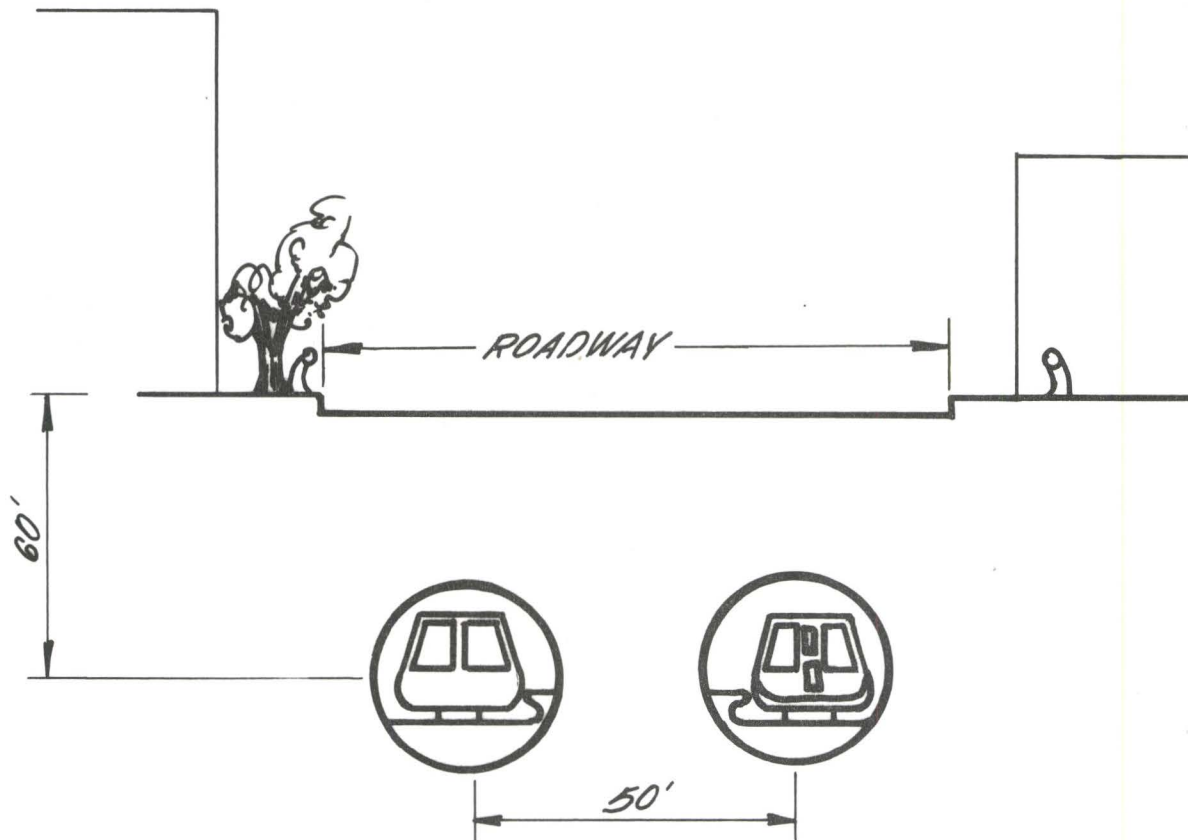
Rail-6 is a two-way heavy rail transitway between Union Station (LACBD) and Ports O' Call (San Pedro). Figure III-8 depicts typical subway and elevated sections. The major part of the alignment follows Vermont Avenue (between Martin Luther King Jr. Boulevard and the Pacific Coast Highway). North of Gage Avenue to Union Station in the LACBD, the transitway is in subway for approximately 7 miles. South of Gage Avenue to the Ports O' Call station the transitway is elevated for approximately 18 miles over the existing surface streets.

The alignment and profile southerly from the Channel Street station to the Ports O' Call station is generally the same as rail alternatives 1, 4 and 7. The northerly subway section follows

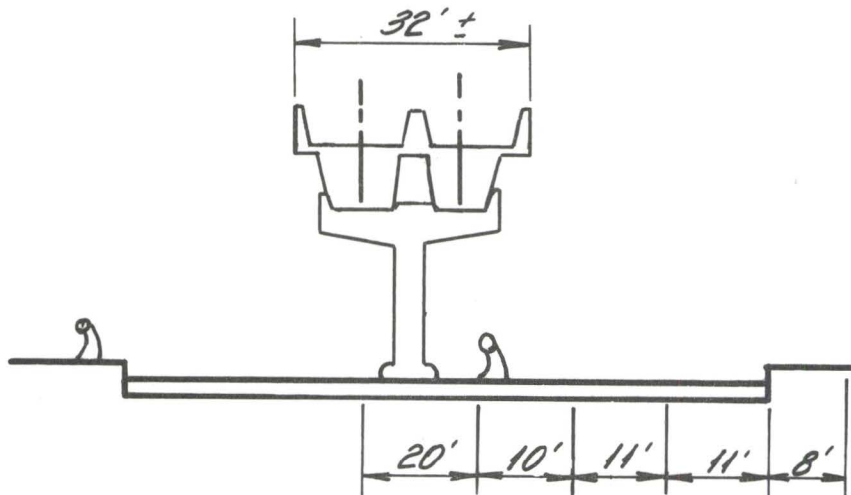


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



**TYPICAL SUBWAY SECTION
VERMONT AVENUE**



**TYPICAL AERIAL SECTION
VERMONT AVENUE**

TYPICAL SECTIONS FOR RAIL ALTERNATIVE 6

FIGURE III-8

Exposition Boulevard, Broadway and Arcadia Street through the LACBD to Union Station.

The year 2005 operational plan for the Vermont Avenue HRT would require a 60 rail vehicles plus an additional 176 feeder buses to meet the estimated yearly ridership demand in the corridor of 190.7 million passengers. The trains would operate on 8.5-minute peak hour headways and have a system cycle time (50-mile round trip) of 84 minutes.

Total capital costs are estimated to be \$1063.0 million dollars and the total annual transit maintenance and operational costs are estimated to be \$39.8 million dollars.

E. Collateral Facilities Considered

The proposed transit alignment alternatives require various ancillary improvements to function. These improvements include station sites, parking locations, termini, maintenance facilities, and localized access modifications. These elements of the total project have alternatives as well as impacts.

1. Station/Parking Sites

a) Station Locations

The proposed station locations and their characteristics are presented in Table III-17. These locations were selected after an evaluation process done by Caltrans, the City of Los Angeles, SCRTD and others. Some of the criteria used during this evaluation were local land use and planning consistency, historical and

TABLE III-17
PROPOSED TRANSIT STATIONS

STATION LOCATION	TYPE	TSM	BUS/HOV	ALTERNATIVES		
				RAIL OPTIONS		
				I-110 LRT	I-110 ICTS	VERMONT HRT
Union Station	terminus	varies per bus routing			X	X
LABCD area*	on line	"	"	Not Applicable	6	3
7th Street & Figueroa	terminus	"	"	X		
Convention Center	on line	"	"	X	X	X
Adams Boulevard	"					X
Jefferson Boulevard	"					X
37th Street	"	X	X	X	X	
M. L. King Jr. Boulevard	"					X
Slauson	"	X	X	X	X	X
Manchester	"	X	X	X	X	X
I-105 Transitway-Freeway	"					X
Rosecrans	"		X	X	X	X
Artesia	transit center	X	X	X	X	X
190th Street	on-line					X
Carson	"		X	X	X	X
Sepulveda	"					X
Pacific Coast Highway	"		X	X	X	X
Channel Street	"		X	X	X	X
Port O'Call (San Pedro)	terminus			X	X	X

* In LACBD for all bus alternatives bus stops dependent upon selected routing plan, ICTS transit stations same as LADPM proposal, LRT transit stations as suggested by SCRTD consultants.

cultural impacts, natural resources impacts, design feasibility, local traffic impacts, and joint development. The selected locations conform with the existing and future bus routing in the corridor and provide convenient access for a feeder bus-line haul transit system and the projected ridership.

Typical stations, bus and rail, at-grade and aerial, are depicted in Figures III-9A, III-9B and III-9C. Table III-13 summarizes the anticipated 2005 weekday total boardings at each proposed station. Freeway transitway bus stations south of Artesia Boulevard (Route 91 Freeway) would be constructed adjacent to the right shoulder of the freeway. The proposed station locations for the Harbor Freeway and Vermont Avenue alignments are as follows:

Vermont Avenue Alignment

Harbor Freeway Alignment

Subway Stations

LACBD Stations - varies

- o 1st St. & Broadway
- o 5th St. & Broadway
- o Olympic & Broadway
- o L.A. Convention Center
- o Adams & Figueroa
- o Jefferson & Figueroa
- o Exposition & Vermont
- o M. L. King Jr. Blvd. & Vermont Ave.
- o Slauson & Vermont

depending upon bus or rail routing between L.A. Convention Center and Union Station.

Elevated or at grade

- o 37th Street (Exposition) & Harbor Freeway
- o Slauson & Harbor Freeway
- o Manchester & Harbor Freeway
- o I-105/I-110 (Vertical Transfer)
- o Rosecrans & Harbor Freeway
- o Artesia & Harbor Freeway
- o Carson & Harbor Freeway

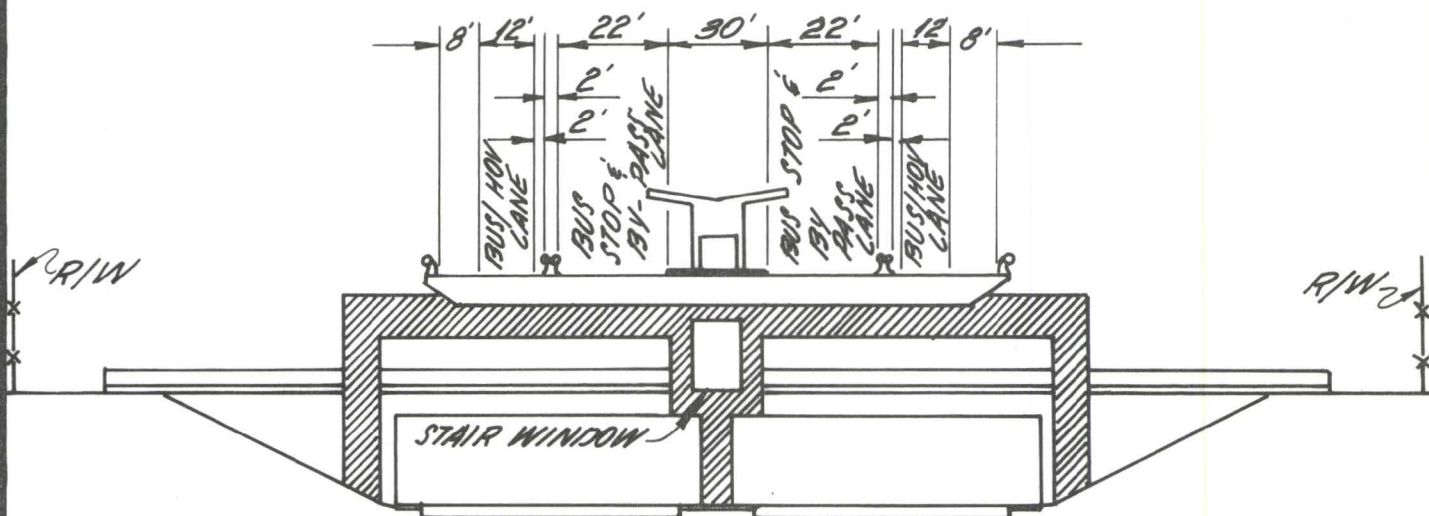
Elevated Stations

- o Manchester & Vermont
- o I-105 Freeway-LRT-facility
- o Rosecrans and Vermont

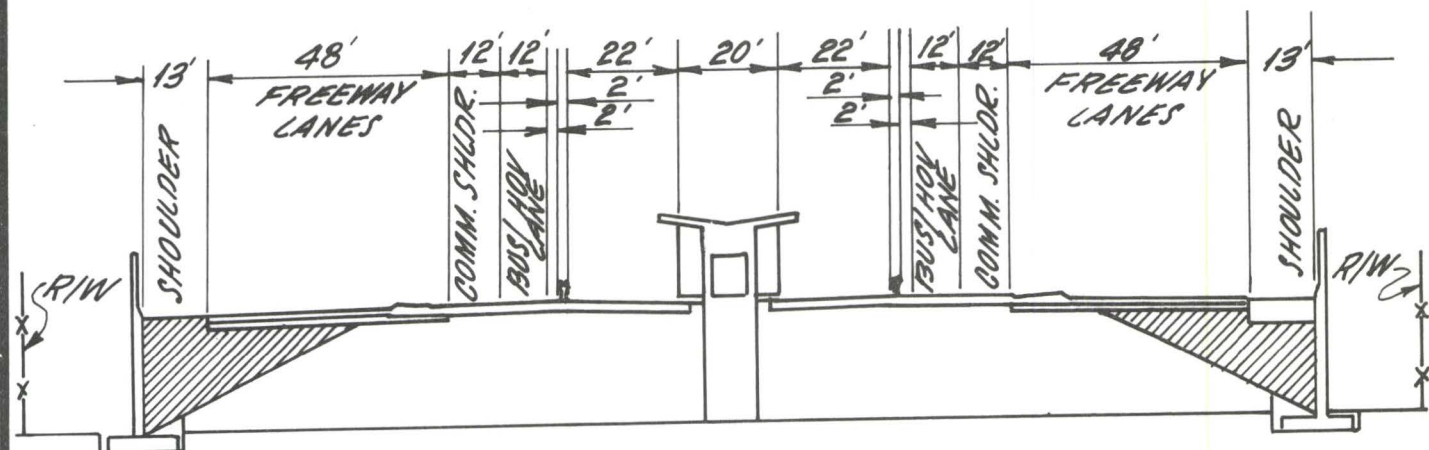


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



ELEVATED STATION



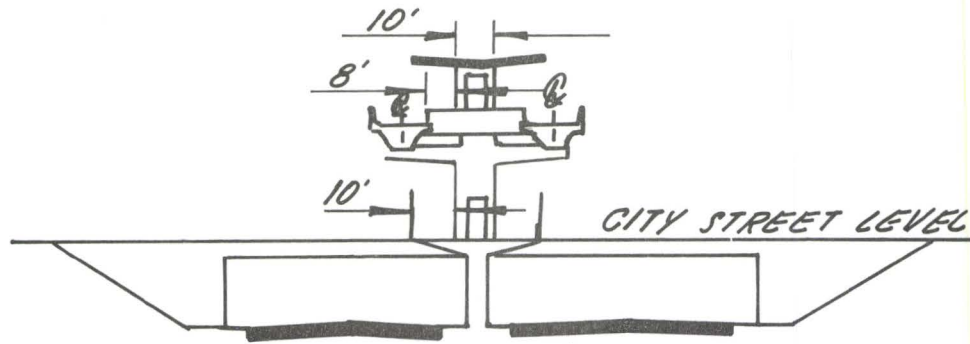
AT GRADE STATION

**TWO WAY BUS/HOV LANES
TYPICAL STATIONS**

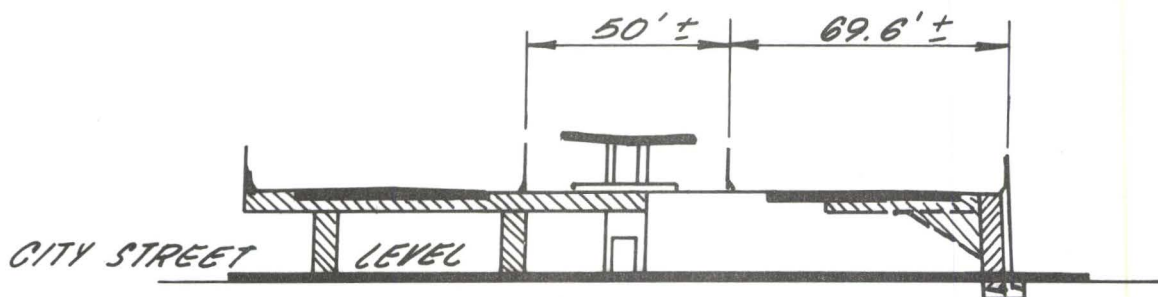


Interstate 110 Freeway Transit

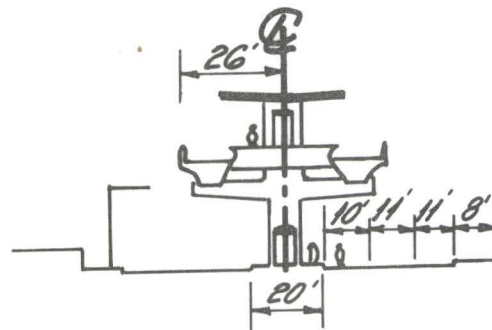
HARBOR FREEWAY CORRIDOR



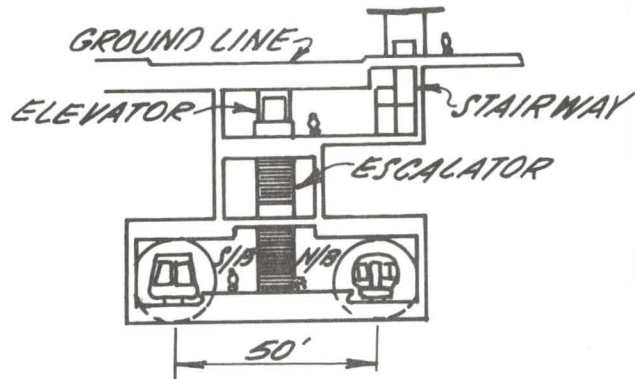
ELEVATED STATION WITH CENTER PLATFORM



AT GRADE WITH CENTER PLATFORM



VERMONT AVENUE HRT AERIAL STATION



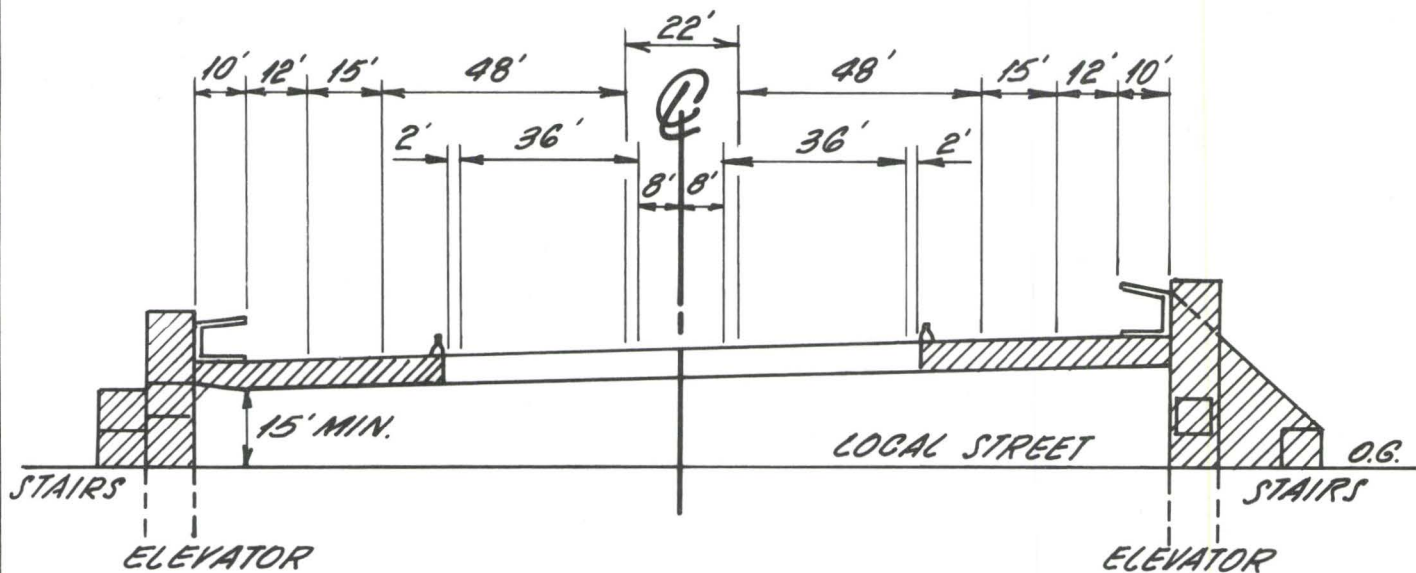
VERMONT AVENUE HRT SUBWAY STATION

TYPICAL RAIL STATIONS

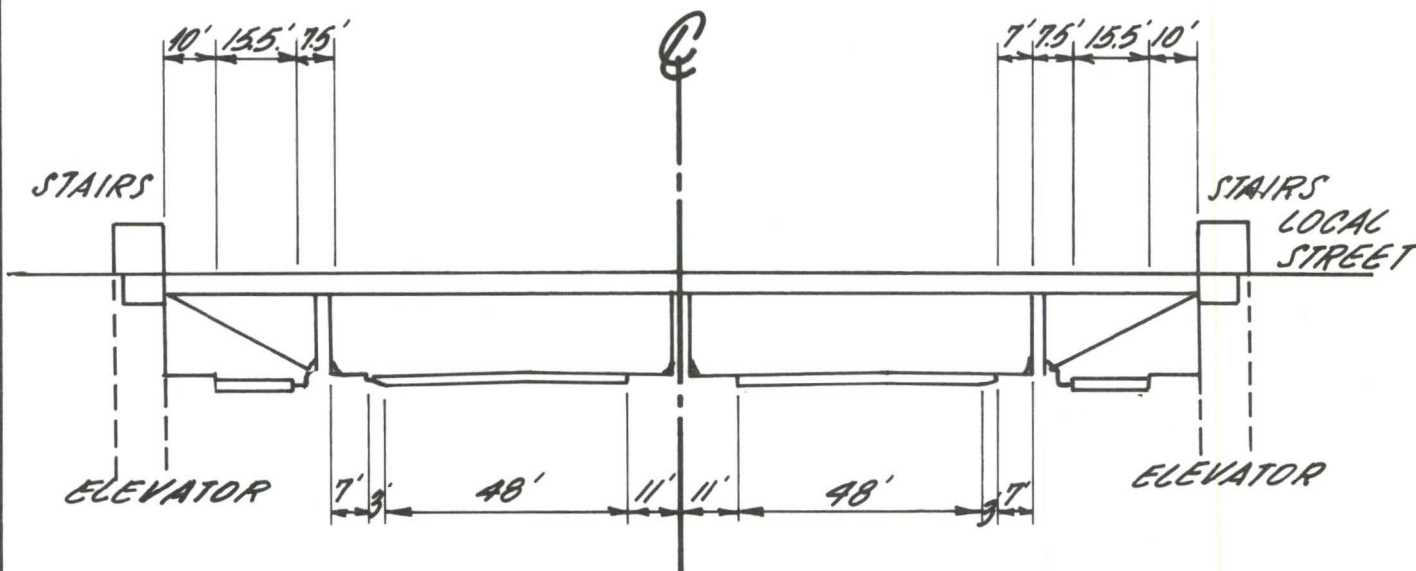


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



ELEVATED STATION



AT GRADE STATION

**TWO WAY BUS MIXED FLOW
TYPICAL STATIONS**

Vermont Avenue Alignment

Harbor Freeway Alignment

Elevated Stations

Elevated or at-grade

- o Artesia & Vermont
- o San Diego Freeway & Vermont
- o Carson & Vermont
- o Sepulveda & Vermont
- o Pacific Coast Hwy. & Vermont
- o Channel & Gaffey
- o San Pedro's Ports O' Call

- o Pacific Coast Highway & Harbor Freeway
- o Channel St. & Harbor Freeway
- o San Pedro's Ports O' Call

The general station requirements used in the station design process were as follows:

- o All bus stations will be convertible to rail.
- o All rail stations will have center platforms.
- o Selection of center or side platforms for the bus stations will depend upon site-specific conditions at each station.
- o A barrier free fare collection system would exist with patrons paying their fares prior to boarding the transit vehicles.
- o Each station would be fully handicapped accessible. Elevators, escalators, stairways and pedestrian walkways would enable all potential patrons to access the system.
- o Station platforms would be planned to accommodate all projected patronage demand.
- o An improved corridor bus system would be implemented to provide adequate feeder service to the station areas.
- o Bus turnout facilities on local streets will be provided at station locations in order to enhance bus feeder operations.

b) Recommended Station Sites

The location of the stations for the recommended alternative were selected by the project's interdisciplinary team using data from the several technical studies and after consideration of all the comments received from local citizens, organizations and public agencies. Final location for the stations along the Harbor (I-110) Freeway were Channel Street, Pacific Coast Highway, Carson Street, Artesia Boulevard, Rosecrans Avenue, Manchester Boulevard, Slauson Avenue and 37th Street (Exposition). The latter location was selected as a result of support from several local institutions which expressed the desire for more convenient transit service to activities at USC, the museums and the Department of Motor Vehicles.

Station sites selected were those which minimize community, environmental, land use and traffic impacts while maximizing the benefits of potential joint development, cross-corridor service, local access, community acceptance/support, safety, security, and design feasibility.

c. Station Sites Considered and Rejected

Along the Harbor (I-110) alignment, potential station sites located at 39th, 59th, 88th and 92nd Streets were eliminated for the following reasons:

- o Incompatibility with existing land use
- o Increased community impacts
- o Poor local accessibility to the station site, thereby, increasing feeder bus operating costs.
- o Low joint development potential

Also, station sites considered at Jefferson, M. L. King Jr. and Century Boulevards were not selected for one or more of the following reasons:

- o Lack of design feasibility
- o Increased right-of-way requirements
- o Site proximity to other major transit operations (i.e. LACBD service, LA/LB LRT, Century (I-105) Transit way) which would result in reduced utility.
- o Poor local access and traffic impacts
- o Lack of community acceptance/support (M. L. King Jr. only)

d) Parking Locations

Station parking locations were selected after the proposed station locations were determined. An evaluation process which looked at such items as available spaces, right-of-way costs, need for parking structures, type and quantity of displacements, local traffic impacts, access and environmental impacts were used to select appropriate sites. The parking requirements for each station location are noted in Table III-18. The proposed station parking locations considered and selected are illustrated in Figure III-10.

2. Termini

The ultimate logical termini for the I-110 corridor transitway were Ports O' Call in the harbor and business district of San Pedro and Union Station in Los Angeles CBD. By terminating in these locations the transitway and its feeder lines would provide efficient transit service within the south central part of the Los Angeles basin and direct access to the major employment and

TABLE III-18 Transit Station Parking Requirements*

STATION LOCATION	REQ'D SPACES	ALIGNMENTS					
		VERMONT AVENUE			HARBOR FREEWAY		
		SURFACE PKG.	STRUC. REQ'D	LAND/LEASE REQ'D	SURFACE PKG.	STRUC. REQ'D	LAND/LEASE REQ'D
Jefferson	100	X		X			
37th Street	200					X	X
M. L. King Jr. Boulevard	200	X		X			
Slauson	200	X		X	X	X	
Manchester	200		X	X	X		X
I-105 Transitway	200		X				
Rosecrans	600	X		X		X	
Artesia	1000	X		X	X	X	
190th Street (I-405)	30	X					
Carson	600		X	X		X	X
Sepulveda	100	X		X			
Pacific Coast Highway	700	X		X	X		X
Channel Street	900	X		X	X		X
Port O'Call	200	X		X	X		X
	TOTALS	10	3	10	7	3	6

* Line Haul Stations

Est. Parking Required: Vermont Ave. (13 Stations) = 4400 spaces
 Harbor Fwy (9 Stations) = 4600 spaces

III-53



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

TRANSIT PARKING SITES

LOCATION

SELECTED TRANSIT PARKING SITES

EXPOSITION	--	1H
SLAUSON	--	4H & 5H
MANCHESTER	--	6H
ROSECRANS	--	8H
ARTESIA	--	9H
CARSON	--	10H
PCH	--	12H
CHANNEL	--	13H

REJECTED TRANSIT PARKING SITES

JEFFERSON/FIGUEROA	1V	--
M. L. KING JR.	2V	2H & 3H
SLAUSON	3V & 4V	--
MANCHESTER	5V	7H
I-105	6V	--
ROSECRANS	7V	--
I-405/190th	9V	--
SEPULVEDA	11V	--
CARSON	--	11H
PCH	12V	--
PORTS O'CALL	14V	14H

HARBOR FREEWAY (H)

VERMONT AVENUE (V)

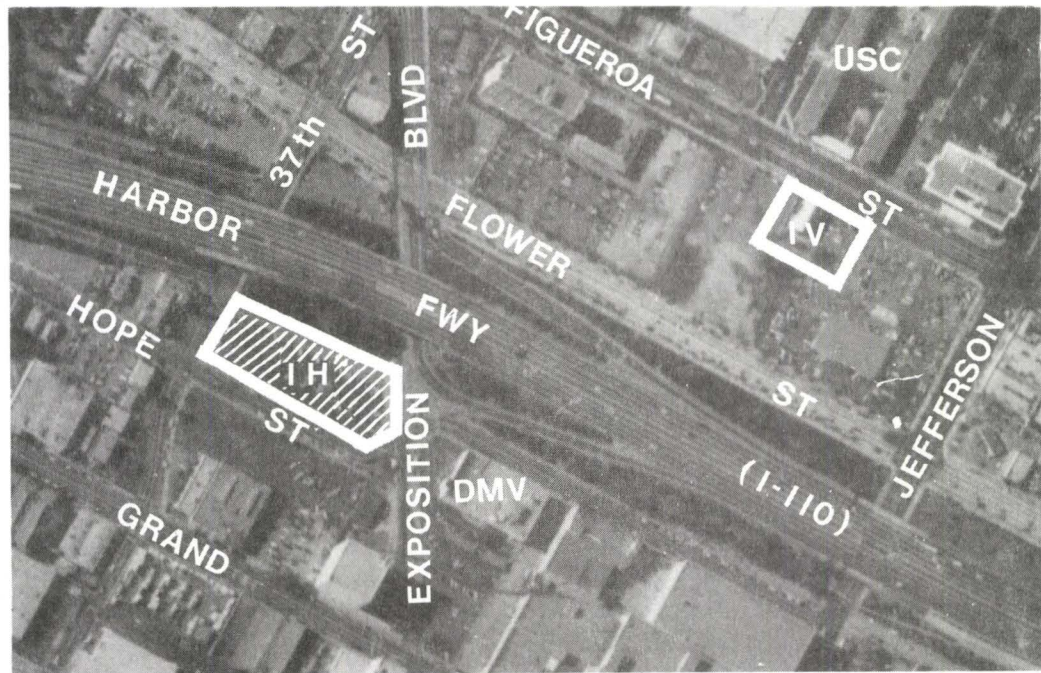


FIG. 10A - SITE IV-JEFFERSON/FIGUEROA -(VERMONT ALTERNATIVE)
 SITE 1H-I-110/EXPOSITION BLVD.

Proposed parking near Jefferson/Figueroa Transit Station (Vermont) requires land acquisition. Proposed parking for Exposition Transit Station (I-110) can be accommodated by building a parking structure on State-owned land.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

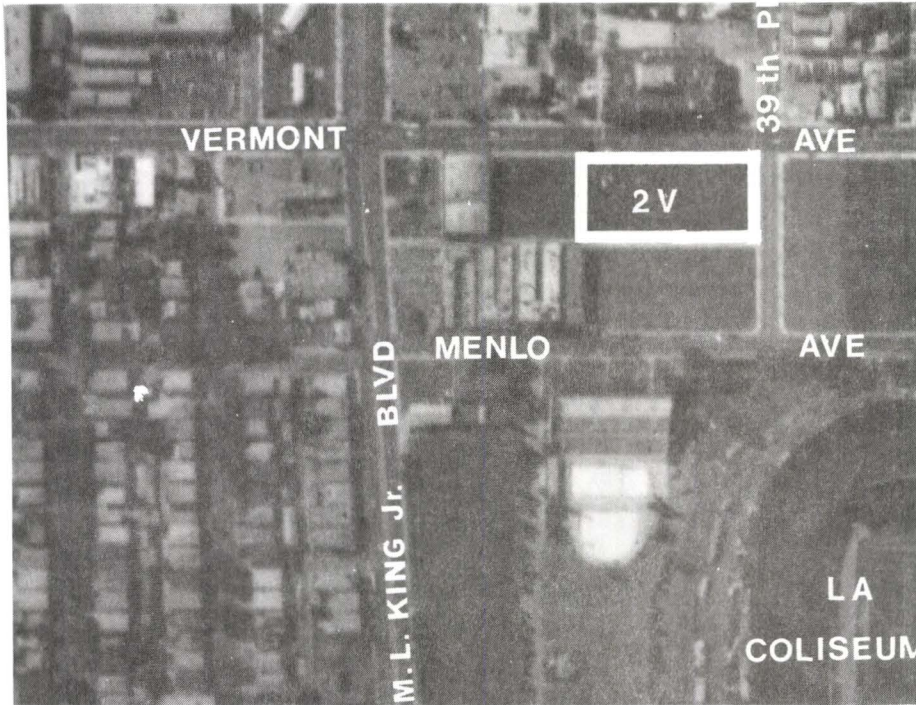


FIG. 10B - SITE 2V-VERMONT/M. L. KING, JR. BLVD.
Utilizes existing LA Coliseum surface parking spaces.



FIG. 10C - SITES 2H & 3H-I-110/M. L. KING, JR. BLVD.
Utilizes existing surface parking areas on State-owned land and requires land acquisition for a parking structure respectively.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



FIG. 10D - SITES 3&4V-VERMONT/SLAUSON AVE
Site 3V utilizes LA City/Commercial Parking lot (Parking structure required). Site 4V requires joint use agreement from shopping center.

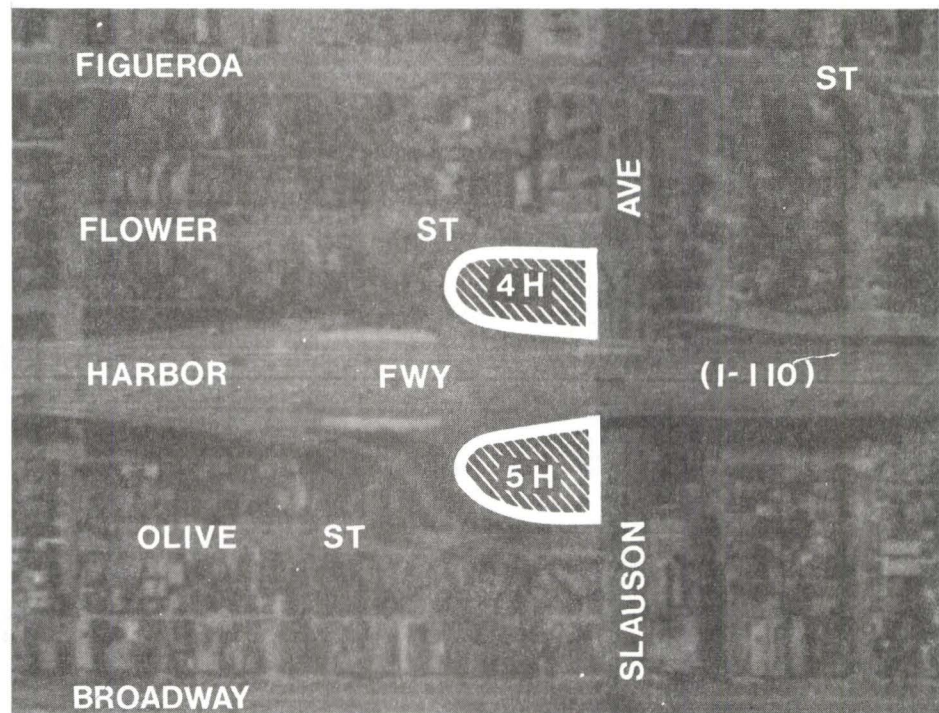


FIG. 10E - SITES 4&5H-I-110/SLAUSON AVE
Utilizes existing vacant State-owned land. Parking structure required on the site chosen for implementation.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

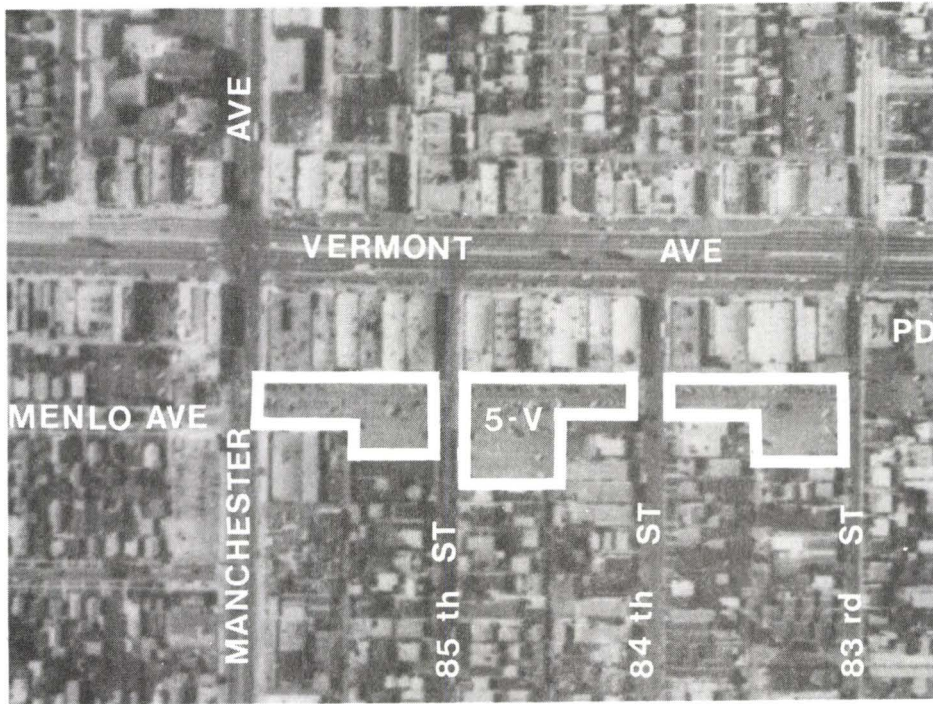


FIG. 10F - SITE 5V-VERMONT/MANCHESTER

Joint use of LA City owned off-street parking lots Nos. 604, 605 & 606 (pkg. structure may be required).

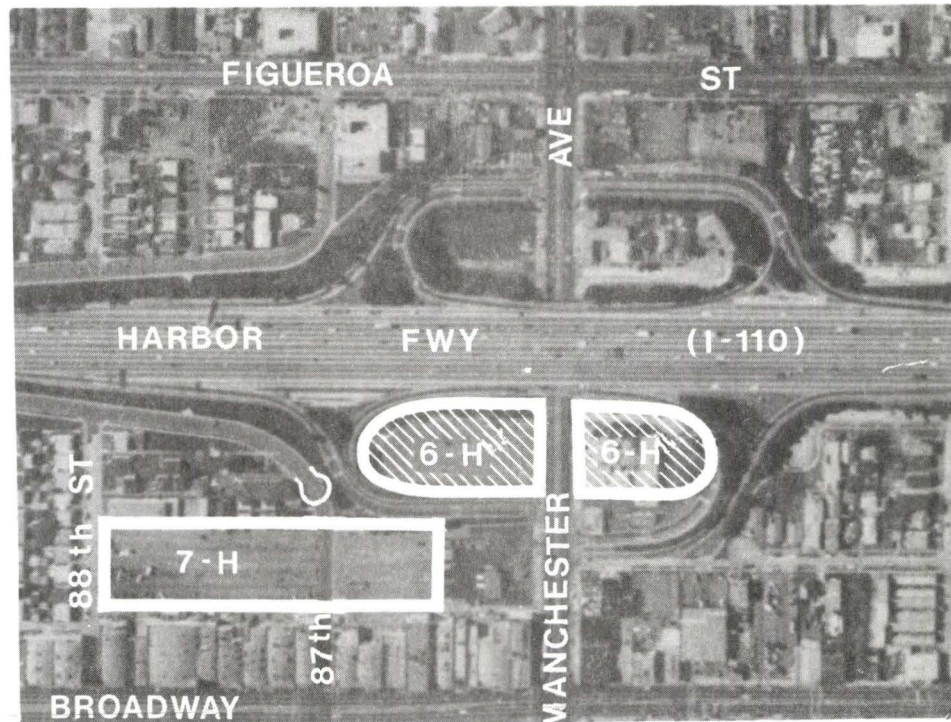


FIG. 10G - SITES 6&H-I-110/MANCHESTER AVE

Joint use of existing public (LA City & State) and private parking lots.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



FIG. 10H - SITE 6V-VERMONT/PROP. I-105 TRANSITWAY
Joint use of proposed I-105 Park and Ride Facility
(parking structure required)

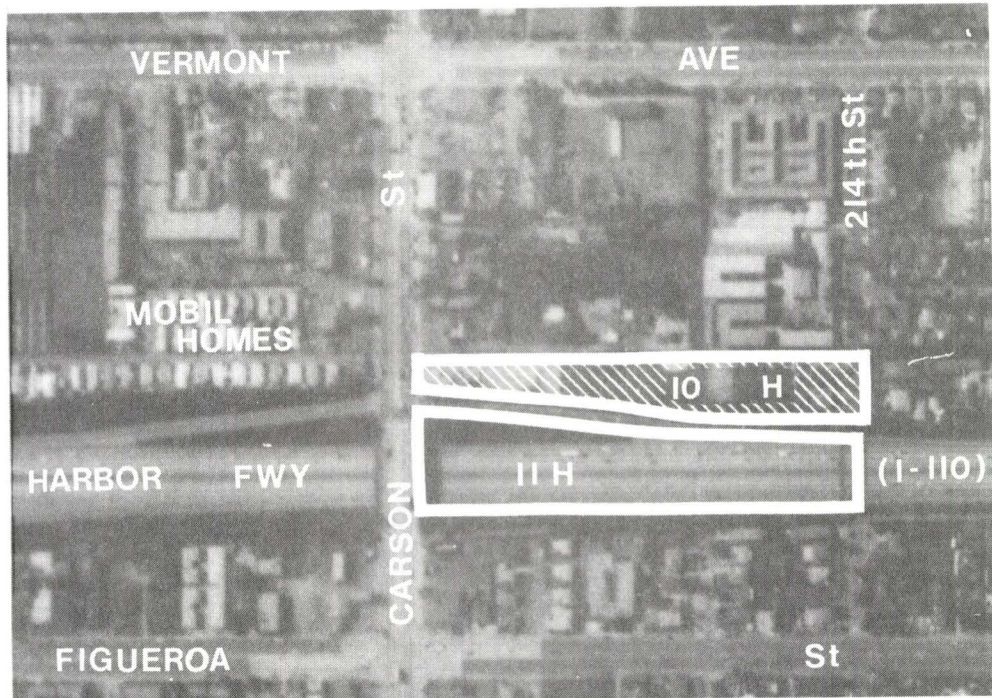


FIG. 10I - SITES 10V/H & 11H-VERMONT & I-110/CARSON ST.
Requires land acquisition and extension of 214th St.
to provide vehicular access to Site 10V&H. Parking
structures required at both sites.



Interstate 110 Freeway Transit

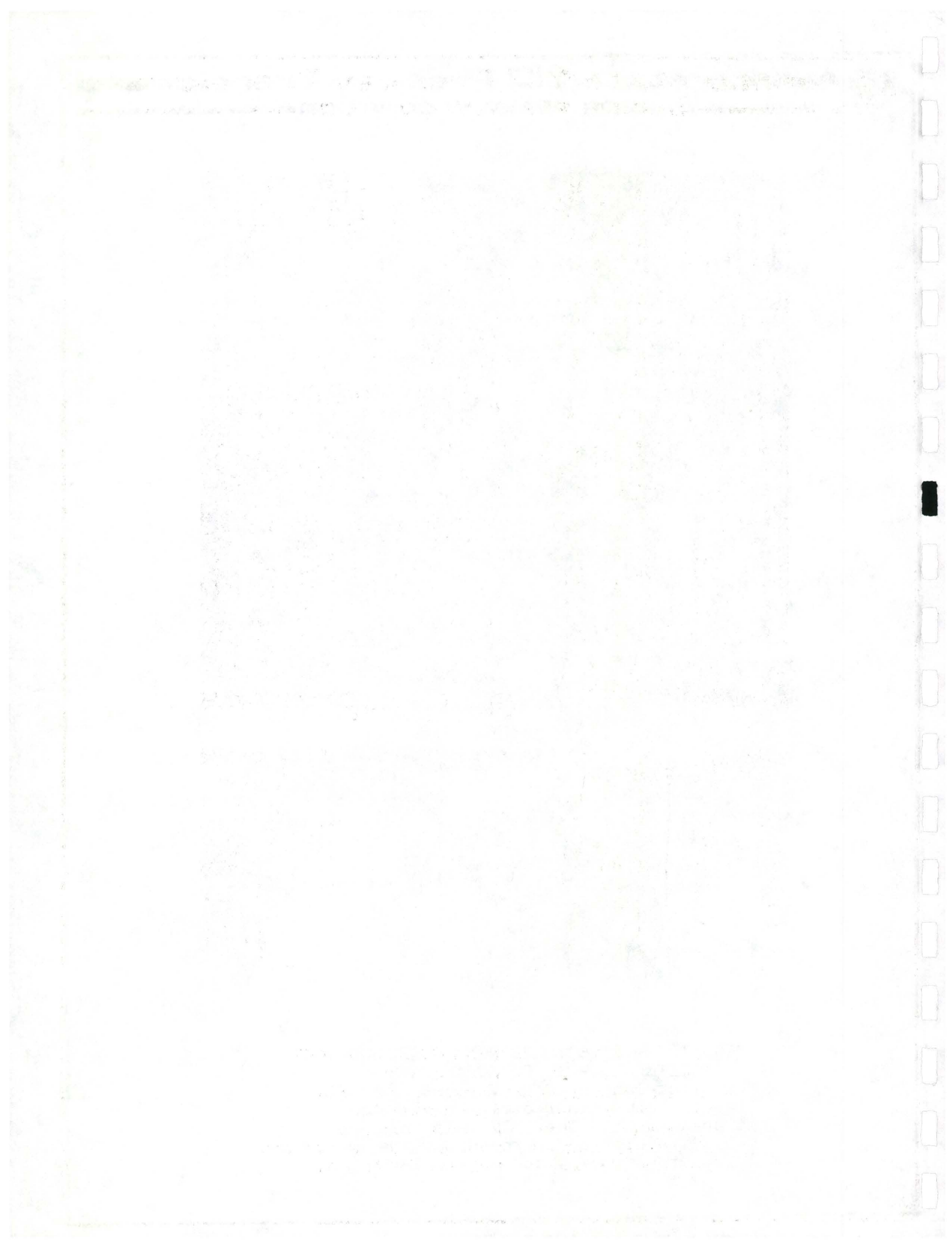
HARBOR FREEWAY CORRIDOR



FIG. 10J - SITE 7V VERMONT/ROSECRANS AVE

SITE 8H I-110/ROSECRANS AVE

Existing land uses on Vermont Ave will require some minor strip-commercial displacement. The I-110 alternative would require an overhead parking structure above the freeway access via 147th St.





Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

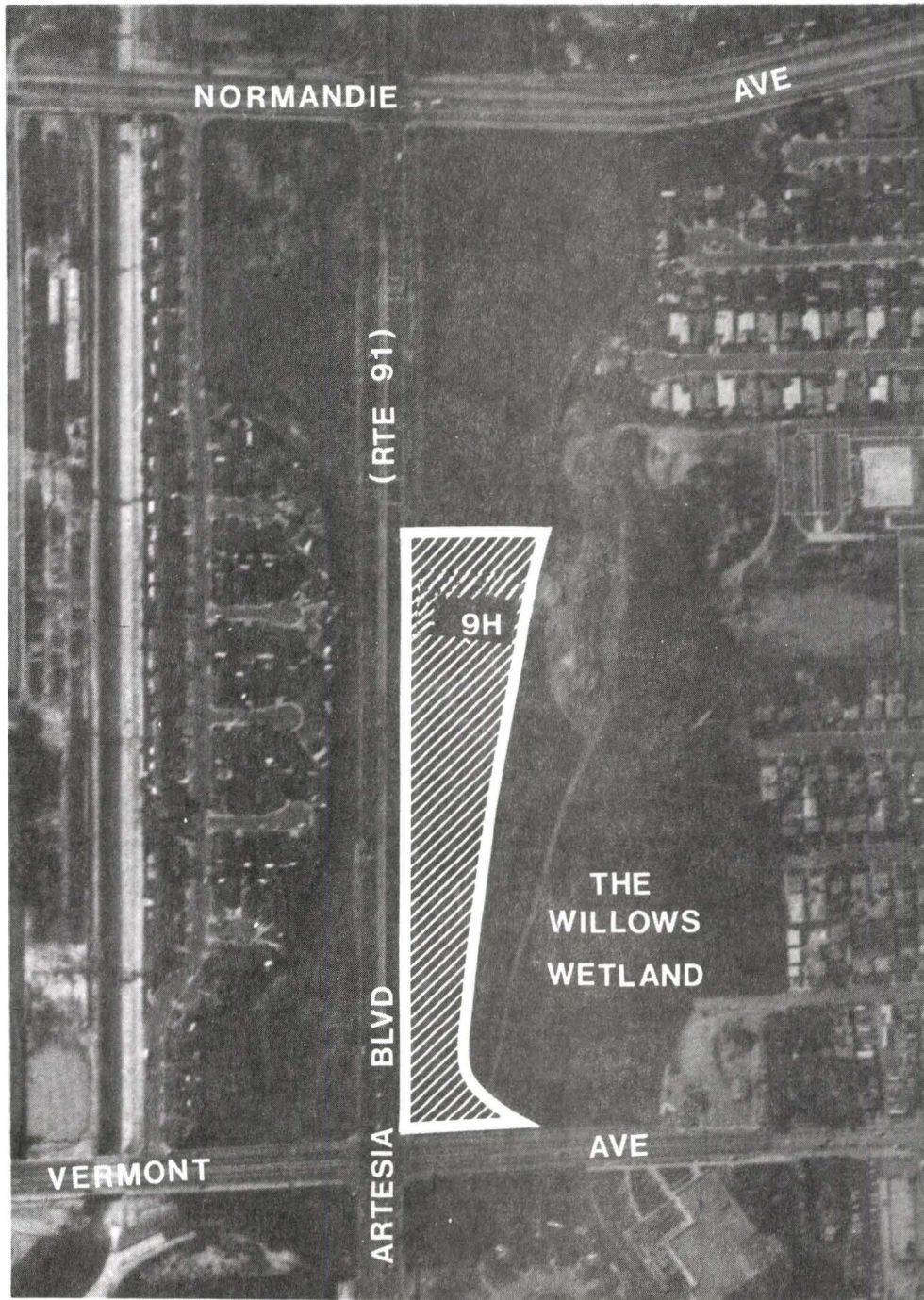


FIG. 10K - SITE 8V/9V-VERMONT/ARTESIA BLVD.
Proposed Regional Transportation Center
with parking facilities located at N/W
corner of Artesia Blvd. (Rte 91) and
Vermont Ave. Site would be an on-line transit
station for the Vermont alternative, an off-line
transit station for the I-110 Alternatives,
both interface with other local transit operations.

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Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

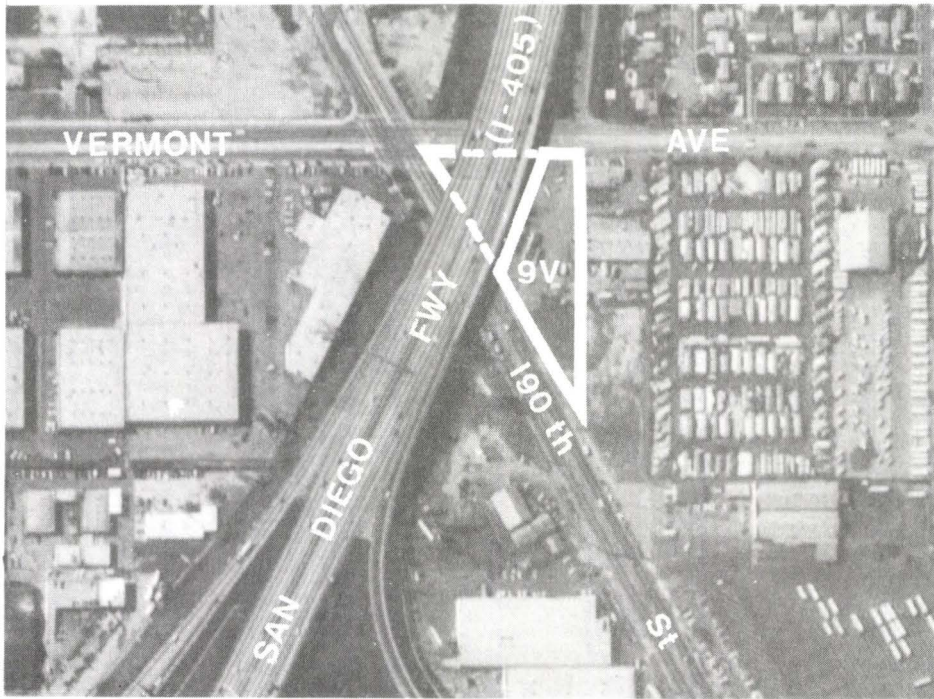


FIG. 10L - SITE 9V-VERMONT/SAN DIEGO Fwy (I-405)
Utilizes State-owned land under I-405 Fwy.



FIG. 10M - SITES 11V-VERMONT/SEPULVEDA BLVD.
Requires joint use agreements with major retailers
to use some private commercial parking spaces.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



FIG. 10N - SITE 12V-VERMONT/PACIFIC COAST HWY
Requires acquisition of vacant privately owned land.

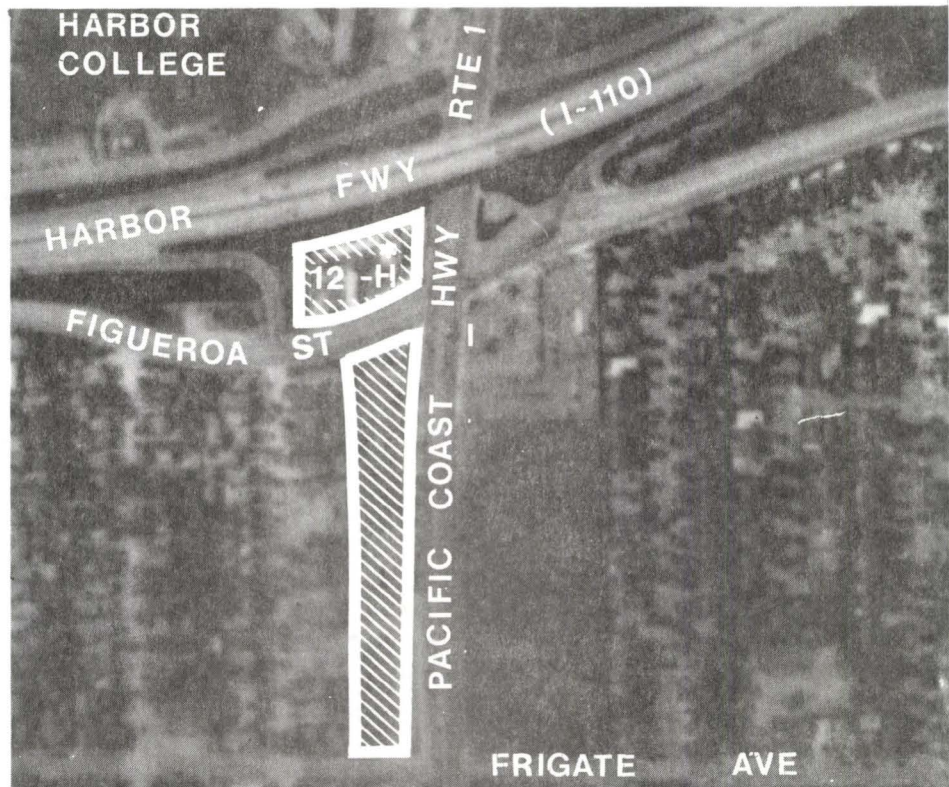


FIG. 10O - SITES 12H-I-110/PACIFIC COAST HWY
Requires acquisition of partially developed strip commercial land uses.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



FIG. 10P - SITE 13V/H-I-110/CHANNEL STREET
Proposed regional parking facility near southerly terminus of I-110. Expands existing Park and Ride lot at this location.



FIG. 10Q - SITE 14V/H-SAN PEDRO PORTS OF CALL VILLAGE
Utilizes existing parking lot at Ports of Call

dc

business centers of the LACBD, as well as to other major routes in the proposed regional transportation system.

a) Bus/HOV LACBD Terminus

Because they can operate on surface streets, buses and HOV's can exit the exclusive guideway and self-distribute on surface streets. The northern end of the exclusive transitway for all bus/HOV alternatives would be in the vicinity of 23rd and Figueroa Streets. Buses would be routed through the LACBD to Union Station on the routes depicted in Figure III-11 and Figure III-2.

b) Bus/HOV Ports O'Call Terminus

Buses and HOV's operate efficiently in general traffic lanes in free-flow conditions. Free-flow conditions are projected to exist on the Harbor Freeway south of Route 91. Therefore, the exclusive guideway will terminate near Route 91 in all bus/HOV alternatives, and the buses will use freeway traffic lanes and surface streets to reach Ports O' Call in San Pedro.

3. Maintenance Facilities











a) Bus Maintenance Requirements

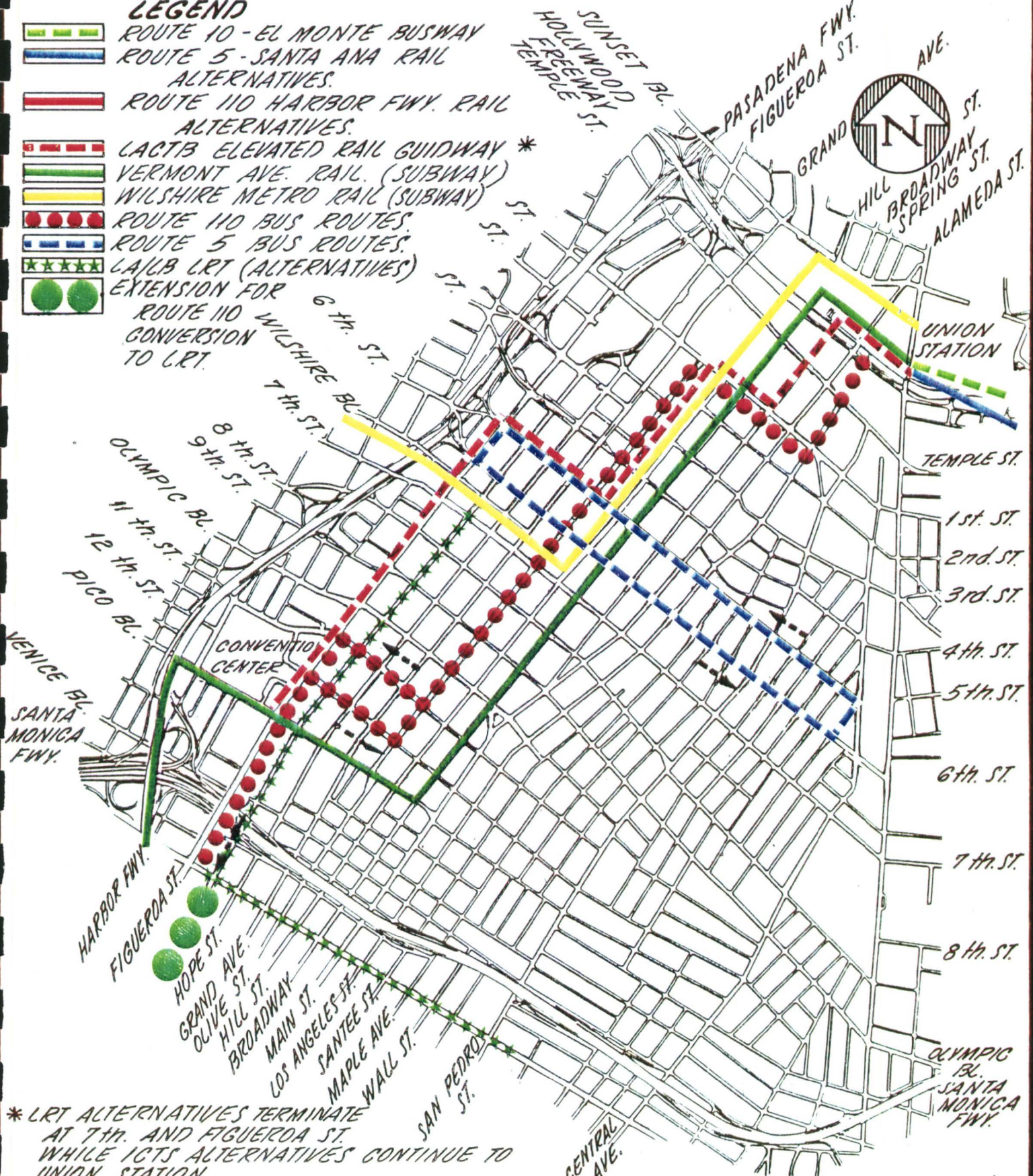
Locating a bus maintenance facility is less difficult than locating a rail since the bus facility does not need to be near the guideway, nor does it require a direct connector, although provisions for either feature are advantageous.

Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

LEGEND

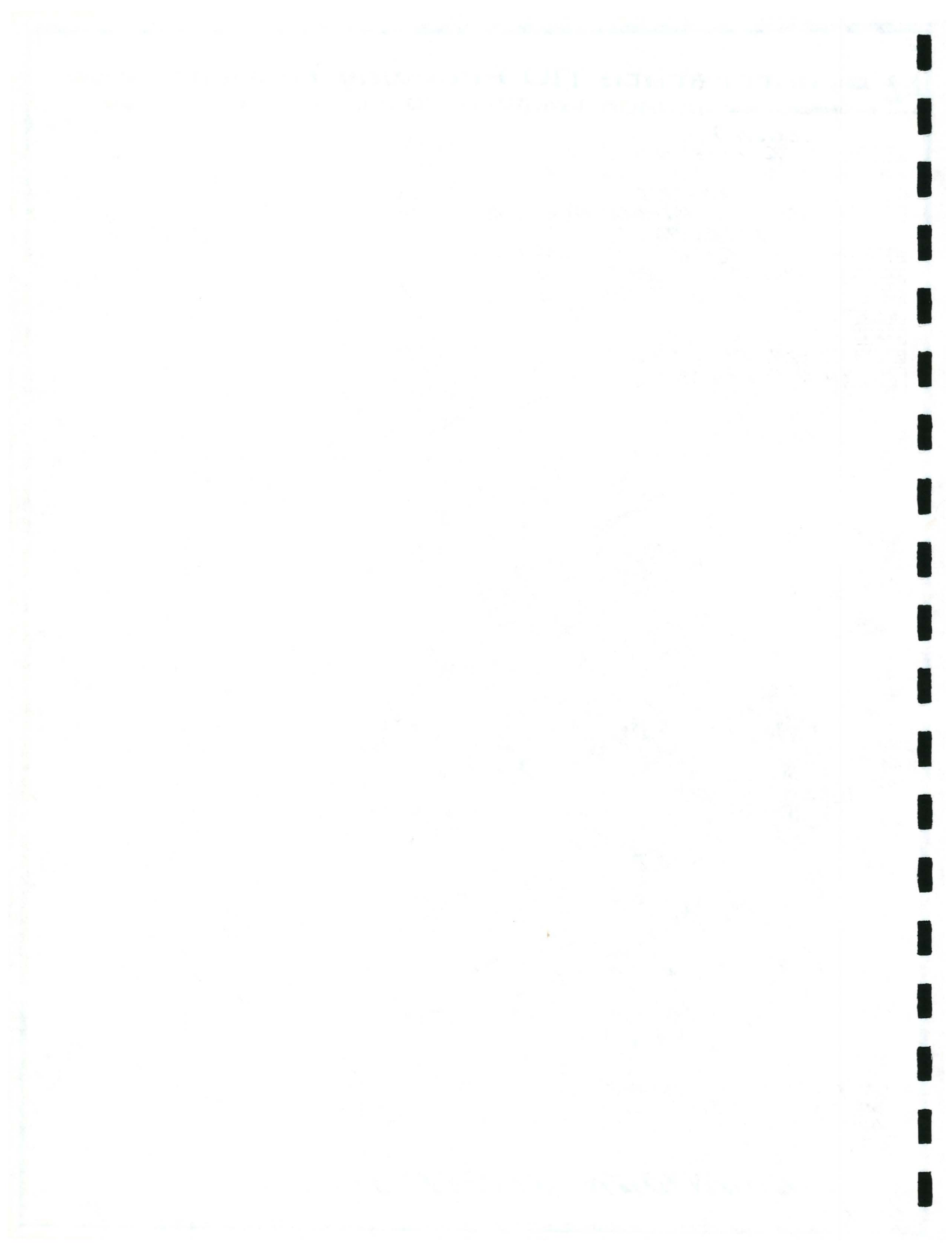
-  ROUTE 10 - EL MONTE BUSWAY
-  ROUTE 5 - SANTA ANA RAIL ALTERNATIVES.
-  ROUTE 110 HARBOR FWY. RAIL ALTERNATIVES.
-  LACTB ELEVATED RAIL GUIDWAY *
-  VERMONT AVE. RAIL. (SUBWAY)
-  WILSHIRE METRO RAIL (SUBWAY)
-  ROUTE 110 BUS ROUTES.
-  ROUTE 5 BUS ROUTES.
-  LA/LIB LRT (ALTERNATIVES)
-  EXTENSION FOR ROUTE 110 WILSHIRE BL. CONVERSION TO LRT.



* LRT ALTERNATIVES TERMINATE AT 7TH. AND FIGUEROA ST. WHILE ICTS ALTERNATIVES CONTINUE TO UNION STATION.

REGIONAL TRANSPORTATION DEVELOPMENT PLAN - LACTB RAIL ALTERNATIVES (UNDER STUDY)

DOWNTOWN STREET SYSTEM



A bus maintenance facility can also serve other bus routes and need not be reserved exclusively for transitway bus operations. Therefore, specific identification of a site is not essential for this study. SCRTD would have the flexibility of either enlarging an existing site or selecting a new site that is the most beneficial to their bus operational needs.

Using the No Project alternative (baseline) as the existing bus fleet size, the estimated right-of-way required for each additional bus is .06 acre and the estimated annual cost per bus for a maintenance and storage facility is \$60,000. The additional buses, for the recommended alternative, will vary with the operational plan. The facility cost involved will also vary accordingly and are included in the capital costs without any attempts to identify a specific location.

4. Localized Access Improvements

a) Local Street Improvement

The recommended alternative would require local street improvements, particularly around the proposed transit stations to mitigate for the increased traffic flow. These improvements have been included as part of the project and are in the construction cost estimates. These improvements are such items as: street widening, left turn channelization, improved signalization, bus bays, bus turnouts, etc. These improvements are described in Section IV-M.

b) Freeway TSM Improvements

A TSM program designed to promote increased auto occupancy will be implemented with the recommended alternative. This program would include ramp meters, bypass lanes, and other marketing techniques designed to promote car/vanpooling in the corridor.

F. Relationship with Other Transit Projects

All project alternatives connect with or support major transit-related projects or proposals considered within this metropolitan area. The TSM alternative would provide a moderate capital improvement program that is consistent with SCRTD's adopted 1980 Sector Plan and the adopted SCAG 1982 Regional Transportation Plan which includes upgrading the Harbor Freeway bus stops and expanding the park-and-ride facilities.

1. Century (I-105) Freeway Transitway

The amended final Consent Decree for the I-105 transitway stipulated "that the design provide for direct linkage" to the proposed I-110 transitway.

On June 13, 1984, the LACTC made the decision to fund a Light Rail Transit (LRT) facility on the I-105 freeway through utilization of proposition "A" funds.

In order to have an efficient transit and HOV operation between the Harbor (I-110) and the Century (I-105) transitways, a vertical transfer station and direct HOV connectors are required at the I-105/I-110 Interchange. The operational effects of these two facilities on the transit ridership and HOV movement are as follows:

a) Vertical Transfer Station

With a bus/HOV mode being selected for the I-110 transitway, a vertical transfer station will be necessary to provide direct

linkage between the two facilities for transit patrons. Patrons using the I-110 transitway will transfer to the I-105 LRT facility, and vice-versa, through this station. Patrons using the vertical transfer facility will experience an approximate daily five (5) minutes travel time delay.

Approximately 20,200 (74%) of the total 27,750 daily two-way transit ridership transferring at the I-105/I-110 Interchange can be attributed as originating from the I-105 LRT facility. (See Figure III-12) for the recommended alternative (Bus/HOV 4), this can be broken down as 5,600 daily two-way riders coming from east of the I-110 Freeway with 14,600 coming from the west. Some 17,400 of the daily transfers are LACBD oriented.

b) HOV Connectors

Direct HOV connectors between the I-105 and I-110 Transitways are essential to provide efficient operation of the HOV lanes and mixed flow traffic lanes.

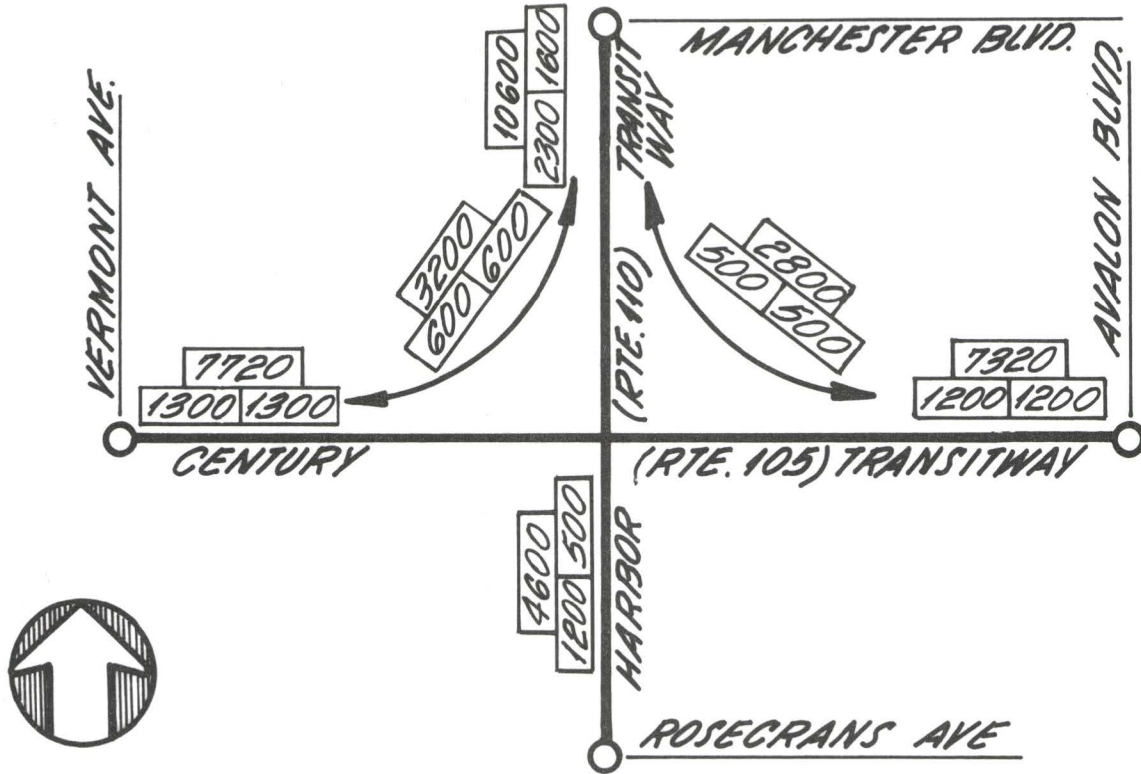
Without direct HOV connectors from I-105 to I-110 toward the LACBD and vice-versa, the HOV's would be required to egress the HOV lanes, weave across 3 lanes of mixed flow traffic to access the freeway interchange connectors, then again weave across 3 lanes of mixed flow traffic prior to accessing the HOV lane. These excessive movements add to the typical time delays at interchanges,



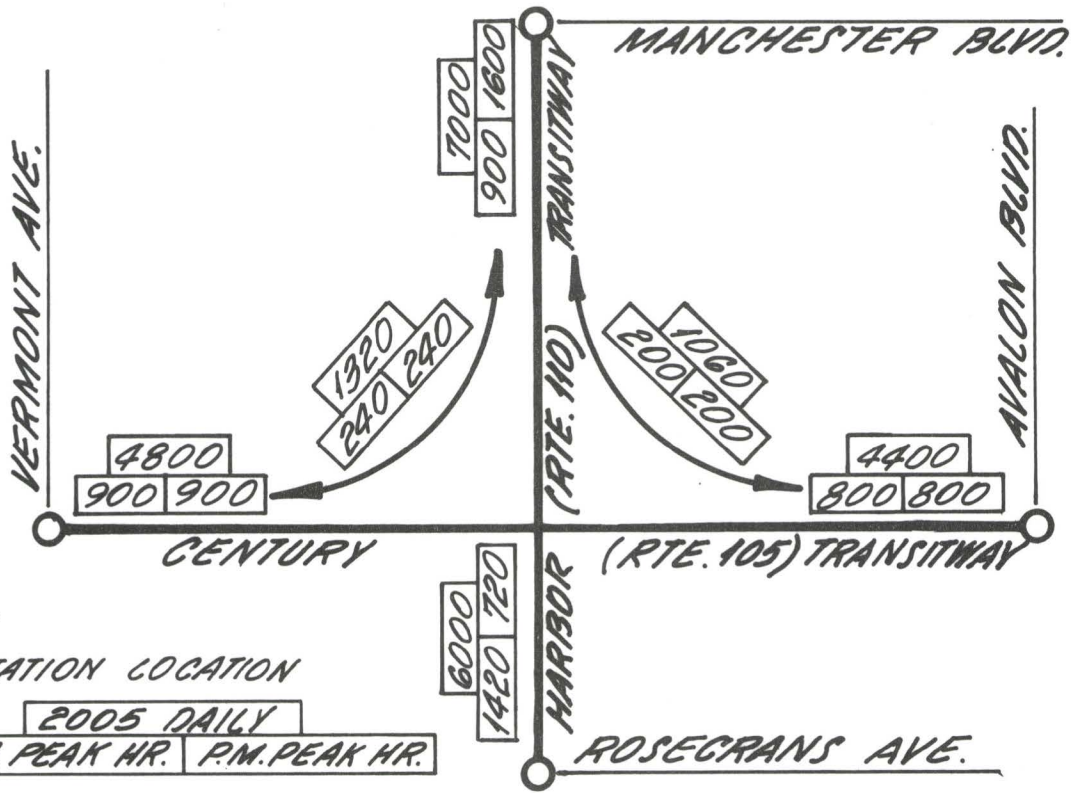


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



WITH DIRECT CONNECTORS



NOTE:

○ STATION LOCATION

2005 DAILY	
A.M. PEAK HR.	P.M. PEAK HR.
900	900

WITHOUT DIRECT CONNECTORS

HOV MOVEMENTS

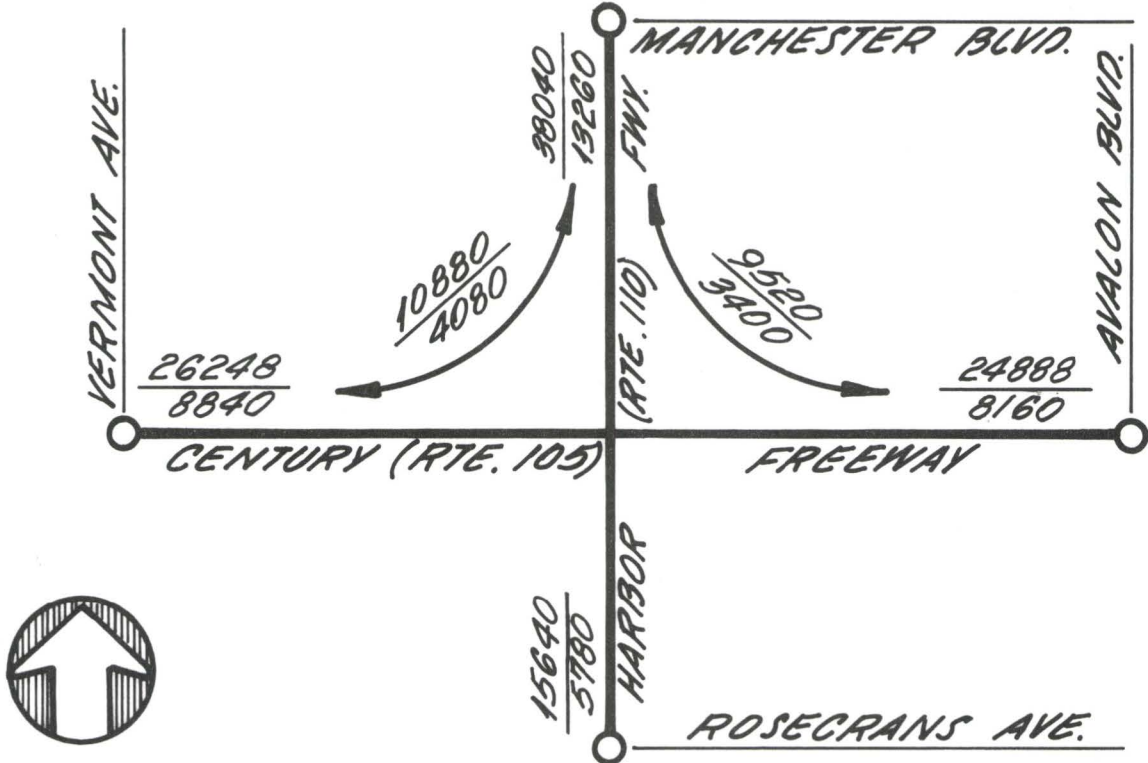
HARBOR (RTE. 110) FREEWAY CORRIDOR TRANSIT

FIGURE III-13

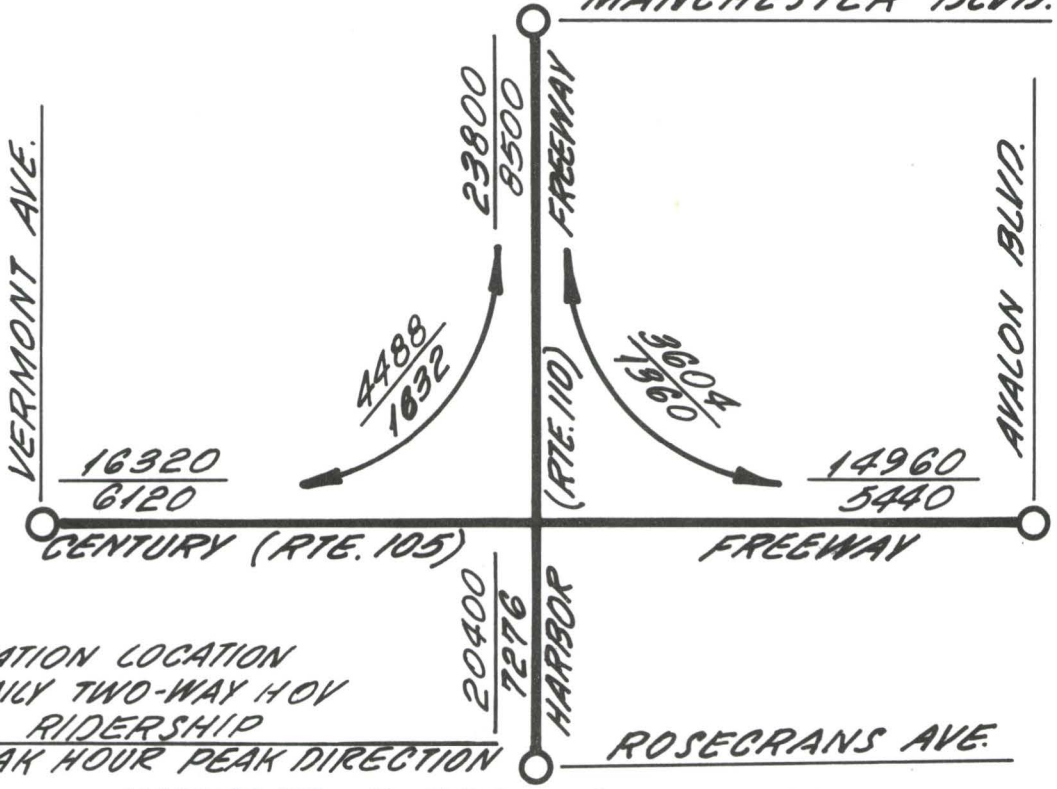


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



WITH DIRECT CONNECTORS MANCHESTER BLVD.



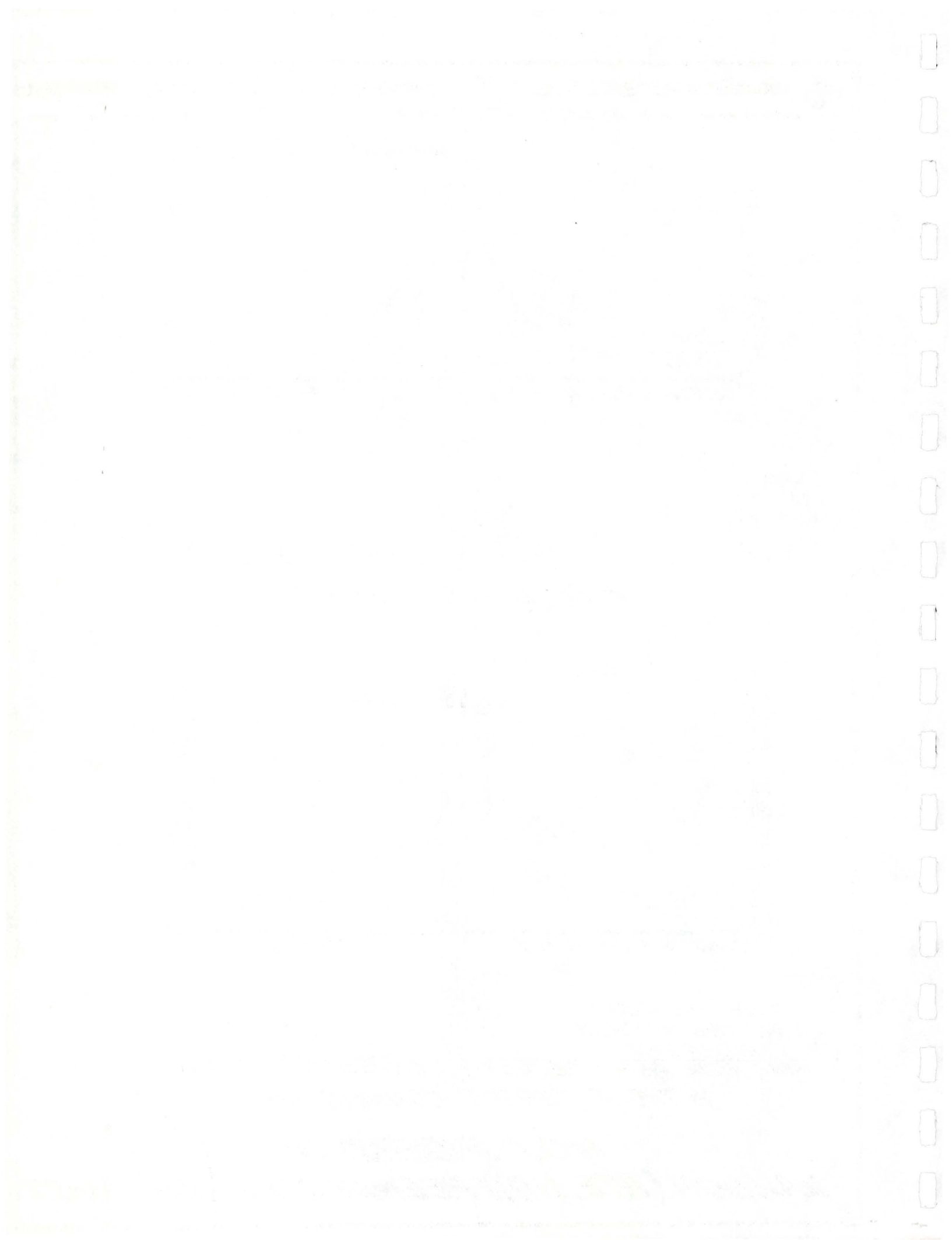
NOTE:

- STATION LOCATION
- DAILY TWO-WAY HOV RIDERSHIP
- PEAK HOUR PEAK DIRECTION

WITHOUT DIRECT CONNECTORS

HOV RIDERSHIP

HARBOR (RTE. 110) FREEWAY CORRIDOR TRANSIT



As stated previously, buses exiting the proposed I-110 transitway at 23rd and Figueroa Street will self-distribute using city streets. In the LACBD the I-110 bus route, as shown on figure III-11, crosses the Metro rail line at Olive Street/Wilshire Boulevard and runs parallel to and one block west of Metro's alignment on Hill Street. However, it will only interface with the Broadway and 1st Street Metro Station in the LACBD.

The Metro Rail will provide an effective downtown distribution system. Efficient operation of these two facilities will significantly reduce existing congestion in the LACBD.

Without the proposed Wilshire Metro Rail, buses leaving the I-110 transitway enroute to the downtown area will continue to self distribute utilizing city streets alone. These additional buses will somewhat increase downtown traffic congestion. Minor impacts associated with this added congestion can be easily mitigated through TSM improvements such as exclusive bus lanes and elimination of on-street parking. However, an effective downtown rail distribution system would be preferable to these TSM improvements.

3. Ports Study

The U.S. Army Corps of Engineers, SCAG and LA and Long Beach Harbor Departments are studying the future of the Harbor Area. The additional employment projected to occur in the Los Angeles and Long Beach ports, while increasing the truck traffic 100 percent, is projected to have no effect on the I-110 south of the I-405. This is due primarily to the proposed widening of the

I-110 Freeway south of Pacific Coast Highway (Route 1) which will facilitate continued free flow traffic conditions.

4. Long Beach to Los Angeles (LA/LB) Light Rail
Transit (LRT) Study

As shown in Figure III-15, the LA/LB LRT is a north/south facility paralleling the I-110 transitway. The I-110 patronage shown in this report assumed the existence of this LRT line in its baseline form. The proposed baseline alternative would be a double tracked, at-grade alignment. This facility would be about 23 miles in length with an end to end travel time of approximately 68 minutes, which results in an average operating speed of 20 mph and 15-minute headways.

Figure III-16 is an estimate of potential market areas for ridership of the LA/LB LRT and the I-110 transitway (using the LA/LB baseline alternative).

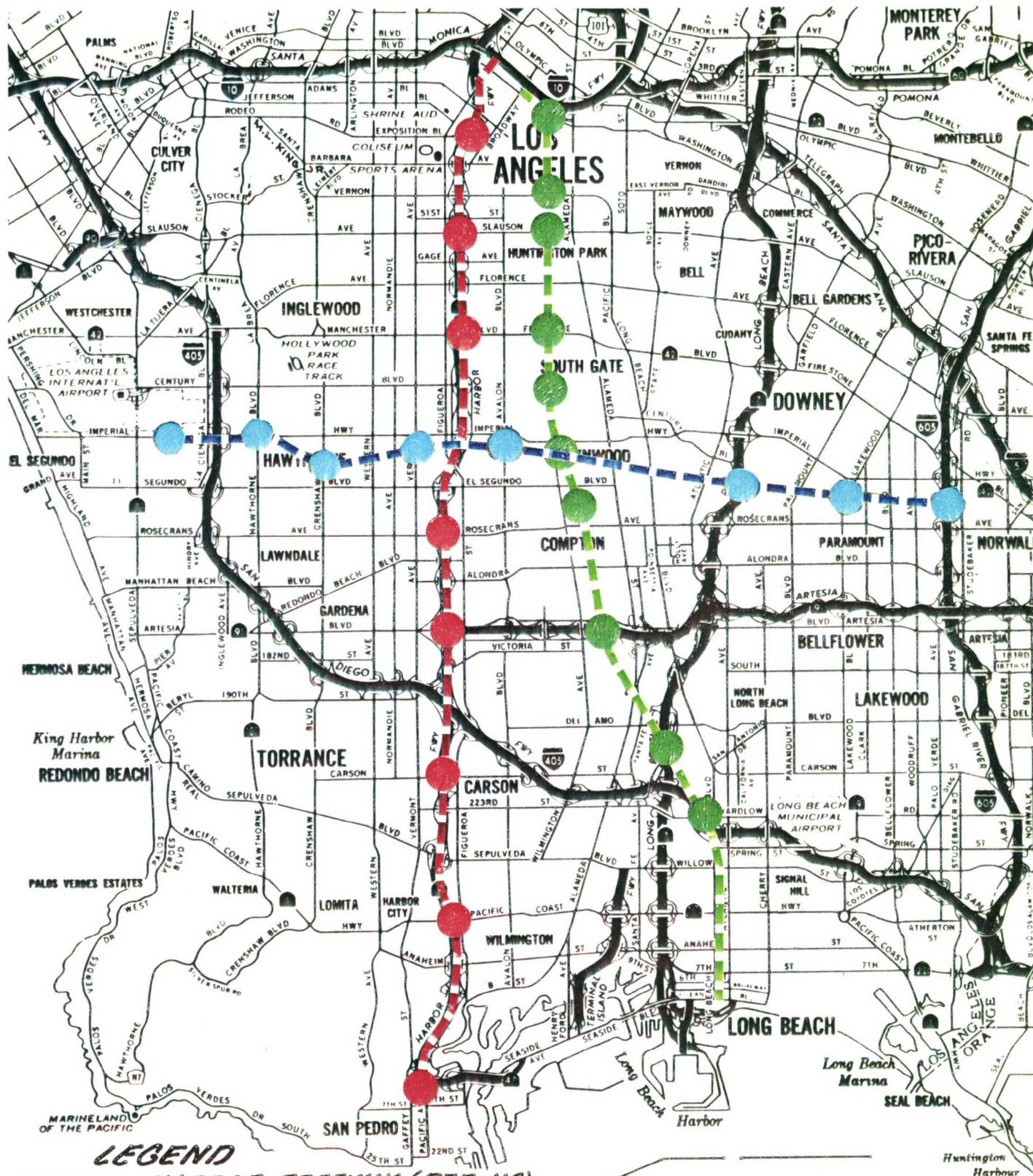
Funding for the LA/LB LRT line would be solely state and local monies (Proposition A and Article XIX Funds). Funding for the Harbor Corridor projects would be from primarily Federal and State sources requiring only minor local matching funds (see Table III-11).

Until the LA/LB LRT has a preferred alternative, a full assessment of the impact of the LRT line on the I-110 transitway is unavailable. The final EIR for the LA/LB LRT is scheduled for early 1985.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



LEGEND

- HARBOR FREEWAY (RTE. 110)
- LONG BEACH LRT ALIGNMENT
- CENTURY FREEWAY (RTE. 105)
- HARBOR TRANSIT STATIONS
- LONG BEACH LRT STATIONS
- CENTURY FREEWAY TRANSIT STATIONS.

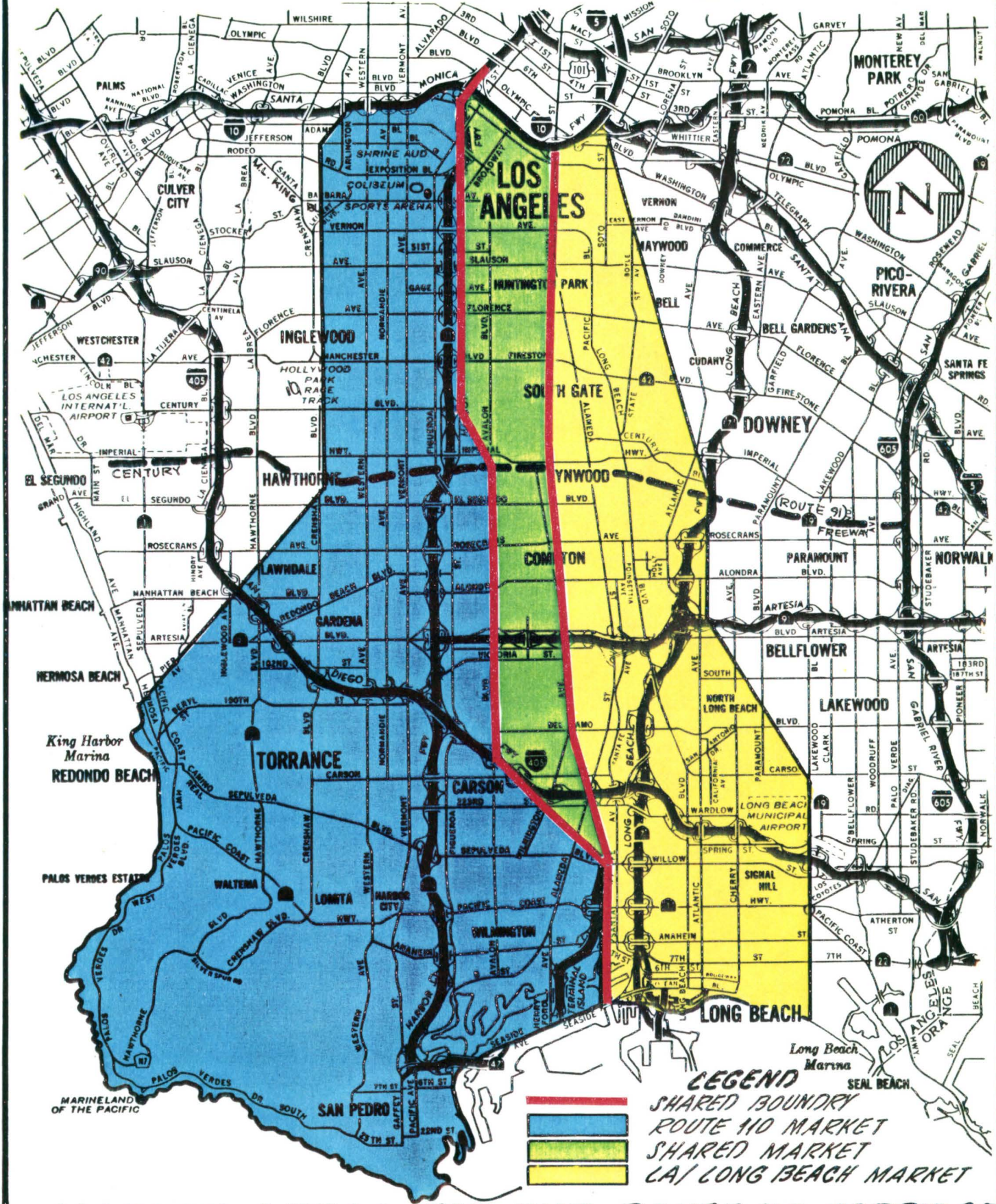
LOS ANGELES TO LONG BEACH LRT ALIGNMENT

FIGURE III-15



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



MARKET AREAS FOR THE ROUTE 110 CORRIDOR AND THE LOS ANGELES TO LONG BEACH LRT CORRIDOR

FIGURE III-16

5. LACBD Transportation Study

An UMTA funded City of Los Angeles Transportation Study for the LACBD should be completed by the Fall of 1984. The purpose of the study was to develop a coordinated and comprehensive transportation program compatible with the longer range transportation projects that are planned for the LACBD. The study focused on short-term strategies that provide a base for the longer range transportation projects, such as, the Harbor Transitway project, Metro Rail and the Los Angeles to Long Beach light rail line. This transportation program is important in establishing an effective LACBD treatment for the future public transportation system in the Los Angeles region.

The Los Angeles County Transportation Commission (LACTC) is analyzing the issues concerning the LACBD Transit Interface during their study for rail implementation in the Los Angeles area. This is being done to establish an effective CBD treatment for the Regional Transit System.

G. Patronage (2005)

Patronage estimates based upon Los Angeles Regional Transportation Study (LARTS) computer simulations were updated to the year 2005 for the following alternatives.

1. No Project
2. TSM
3. Bus/HOV (two-way)
4. Bus/HOV (peak directional)
5. Intermediate Capacity Transit System (ICTS)
6. Light Rail Transit (LRT)
7. Heavy Rail Transit (HRT)

Details of the assumptions used in the LARTS model and the resulting estimates of transit patronage and HOV usage are presented in Appendices D & E. The two-way bus/HOV transitway on the Harbor Freeway within the limits of this study (San Pedro to Route 10 Freeway) is projected to carry 65,200 weekday transit person trips plus as additional 38,800 weekday HOV person trips (see Table III-7). The highest daily patronage is expected to occur at the 37th Street (Exposition) Station (see Table III-8). The peak directional bus/HOV transitway on the Harbor Freeway is projected to carry 53,900 weekday transit trips plus an additional 20,400 weekday HOV person trips, with the heaviest stations the same as the two-way bus/HOV alternative.

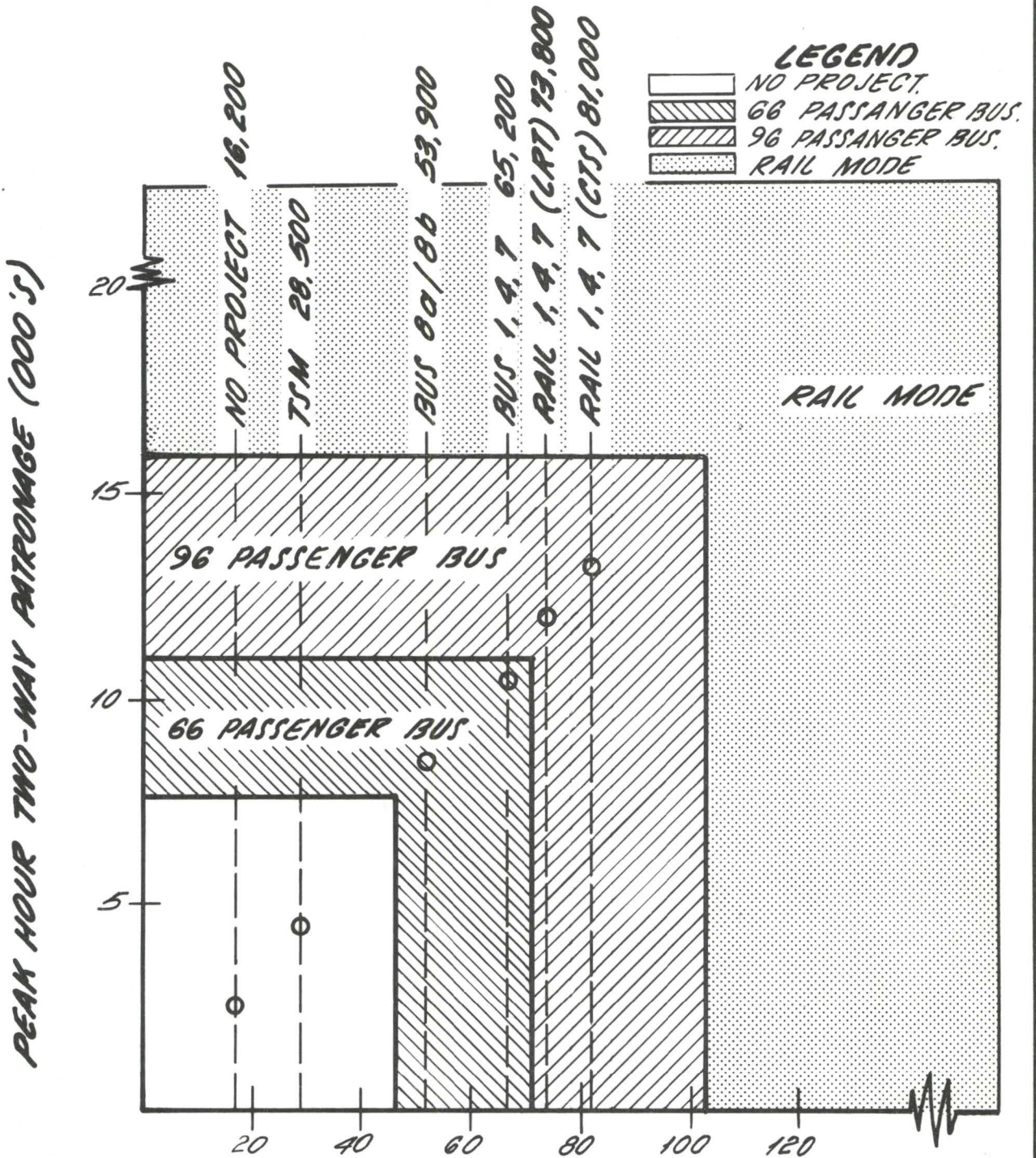
An ICTS transitway on the Harbor Freeway was projected to carry 81,000 weekday transit person trips within the same limits. The same stations were expected to have the highest use. An LRT transitway was projected to carry 73,800 weekday transit person trips. This difference in patronage between the ICTS and LRT alternatives reflects the benefit of having a through move in the LACBD. The HRT transitway on Vermont Avenue was projected to carry 83,700 transit person trips within the limits of the study. Heaviest stations were expected to be Martin Luther King Jr., Slauson and Manchester. Each alternative produced a varying amount of LACBD boarding with ICTS alternative having the highest (Refer to the Appendix B).

The maximum theoretical capacities for the bus mode are represented in Figure III-17. The chart illustrates the



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



NOTE:

DAILY TWO-WAY PATRONAGE (000'S)

○ = PEAK HOUR (TWO WAY) PATRONAGE PROJECTIONS (16% OF DAILY).

CARPools WERE NOT INCLUDED IN CALCULATION OF THRESHOLD LIMITS SINCE THE LOCATION, NUMBER AND LOADING CAPABILITY OF STATIONS DETERMINES THE SYSTEM'S RESULTING LINE-HAUL THRESHOLD.

FREEWAY TRANSIT CONVERSION THRESHOLD

theoretical operating ranges for the bus modes. As shown on the chart, the two-way bus patronage forecast of 65,200 persons per day in the year 2005 is well within the bus mode operational range. Patronage ranges above 100,000 persons per day are clearly beyond a bus mode operation.

H. Project Cost

1. Project Costs

Table III-9 summarizes the right-of-way cost for the project limits segmented to show the property acquisition and relocation costs for the alternative alignments and Park-N-Ride facilities.

Tables III-19 through III-25 summarize project limits capital and operating cost, potential benefits of the project, economic feasibility, cost/effectiveness measures, system revenues and subsidies. For the bus/HOV alternatives, the capital costs range from \$482 million dollars for the peak directional bus alternative to \$700 million dollars for the two-way bus alternatives. The rail alternatives are within the range of \$747 million to \$1,063 million dollars. The annual operating costs ranged from \$29.8 million for the peak directional bus alternative to \$39.8 million for the Vermont Avenue rail (R-6) alternative.

It is estimated that system costs (construction, right-of-way, utilities relocation, stations) for the ICTS alternative from the Convention Center to Union Station would require an additional \$225 million (1984 dollars). Estimated system costs for the LRT alternative from the Convention Center to 7th Street would be

TABLE III-19

HARBOR FREEWAY (I-110) PROJECT LIMITS
SUMMARY OF CAPITAL COSTS
(Millions of 1984 Dollars)

ALTERNATIVE	RIGHT OF WAY COSTS			CONSTRUCTION COST	VEHICLE COSTS	TOTAL CAPITAL
	ALIGNMENT	PARK N' RIDE	UTILITY RELOCATION			
No Project	0	0	0	0	0	0
TSM	0	2.6	0.9	26.2	34.1	63.2
Bus* 1	0	9.1	1.6	578.8	43.8	633.3
4†	10.6	9.1	1.3	513.2	43.8	578.0
7	13.4	9.1	2.0	632.1	43.8	700.4
8a	0	9.1	1.6	426.2	43.7	482.6
8b	10.6	9.1	1.0	417.6	43.7	484.0
ICTS** 1	0	9.8	3.3	731.4	111.0	855.7
4	3.2	9.8	2.9	643.3	111.0	770.2
7	3.2	9.8	3.7	853.4	111.0	991.1
LRT 1	0	9.8	3.3	731.4	88.0	832.7
4	3.2	9.8	2.9	643.3	88.0	747.2
7	3.2	9.8	3.7	853.4	88.0	963.1
HRT 6	3.4	13.6	10.7	946.6	86.7	1063.0

*Limits: Artesia Freeway (N/O Route 91) north to 23rd and Figueroa Streets with mixed flow stations S/O Route 91.

**Limits: Route 47 to Convention Center.

† Recommended Alternative

Note: The construction cost for all alternatives include \$30 million for direct connectors and \$5.0 million for a vertical transfer station at the I-105/I-110 Interchange.

Updated: December, 1984

TABLE III-20

HARBOR (I-110)

2005 ANNUAL OPERATING COSTS
 (Shown in Millions of 1984 \$)

ALTERNATIVES	BACKGROUND	FEEDER	LINE-HAUL	TOTAL SYSTEM
No Project (Baseline)	76.9	--	13.4	90.3
T.S.M.	88.4	--	26.7	115.1
Two-Way Busway (B-1, 4*, 7)	86.6	11.8	18.6	117.0
Peak Direction Busway (B-8a and 8b)	87.2	11.3	18.5	117.0
I.C.T.S. Harbor Freeway (R-1, 4, 7)	84.6	12.0	31.5	128.1
L.R.T. Harbor Freeway (R-1, 4, 7)	85.2	14.2	20.8	120.2
H.R.T. Vermont Avenue R-6	83.4	14.6	25.1	123.1

*Recommended Alternative

Updated: December, 1984

TABLE III-21

I-110 2005 ANNUAL BENEFITS
(MILLIONS 1984 DOLLARS)

ALTERNATIVE							
	NO PROJECT	T.S.M.	B-1,4*,7	B-8A,B	R-1,4,7	R-1,4,7	R-6
Constant Transit User Time Saving	Base	-	16.3	15.4	22.0	22.0	25.7
Diverted Auto User O&M Saving	Base	20.9	27.4	25.5	28.0	27.2	28.4
Diverted Auto User Parking Saving	Base	46.2	60.5	56.3	61.9	60.2	62.7
Constant Auto User Time Saving	Base	0.8	4.6	4.1	3.0	3.0	3.2
Commercial Vehicle Time Saving	Base	0.1	0.7	0.6	0.4	0.4	0.5
Reduced Highway Accident Saving	Base	2.1	3.0	2.7	2.8	2.7	2.8
Carpoolers Time Savings	Base	-	11.9	8.7	-	-	-
Carpoolers O&M Savings & Downtown Parking Fee Savings	Base	-	15.9	8.4	-	-	-
TOTALS	Base	70.1	140.3	121.8	118.1	115.6	123.3

* Recommended Alternative
Updated: December, 1984

TABLE III-22

I-110 ECONOMIC FEASIBILITY*
 2005 "SNAPSHOT" BENEFIT-COST RATIO
 (Cost In Millions 1984 Dollars)

	NO PROJECT	TSM	TWO-WAY BUS			PK. DIR. BUS		I.C.T.S			LRT			HRT
			B 1	B 4†	B 7	B 8a	B 8b	R 1	R 4	R 7	R 1	R 4	R 7	R 6
Capital Costs	Base	63.2	633.3	578.0	700.4	482.6	484.0	855.7	770.2	991.1	832.7	747.2	968.1	1063.0
Annual Capital Costs	10% Base	8.2	69.2	63.4	76.3	53.3	53.6	91.8	82.8	106.2	89.6	80.6	103.9	114.0
Incremental Operating Subsidy	Base	17.7	5.9	6.9	6.9	11.2	11.2	16.3	16.3	16.3	9.7	9.7	9.7	10.8
Total Annual System Cost	10% Base	25.9	76.1	70.3	83.2	64.5	64.8	108.1	99.3	122.5	99.3	90.3	113.6	124.8
2005 System Benefit	Base	70.1	140.3	140.3	140.3	121.8	121.8	118.1	118.1	118.1	115.6	115.6	115.6	123.3
2005 Benefit/Cost Ratio	10% Base	2.7	1.8	2.0	1.7	1.9	1.9	1.1	1.2	1.0	1.2	1.2	1.0	1.0

*Bus alternatives exclusive guideway end N/O Artesia (Route 91) while the rail alternative transitways end at Route 47 Freeway. Both modes provide line haul service between common limits.

† Recommended Alternative

Updated: December, 1984

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TABLE III-23

I-110 SUMMARY OF BUS COST/EFFECTIVENESS MEASURES
(All cost are in Millions of 1984 \$ Except as Noted)

	NO PROJECT	TSM	B 1	B 4†	B 7	B 8a	B 8b
1. Capital	0.0	53.2	633.3	578.0	700.4	482.6	484.0
2. Annualized Capital Cost 10%	0.0	8.2	69.2	63.4	76.3	53.3	53.6
3.* Operating Cost	13.4	26.6	30.4	30.4	30.4	29.8	29.8
4. Total Annual Cost (Cap. & Op.) 10%	N.A.	34.8	99.6	93.8	106.7	83.1	83.4
5.** Total Annual Transit Patrons (Millions)	5.0	8.8	20.1	20.1	20.1	16.6	16.6
6.** Total Annual HOV Users (Millions)	0.0	0.0	9.9	9.9	9.9	5.2	5.2
7.** Total Patronage (Millions)	5.0	8.8	30.0	30.0	30.0	21.8	21.8
8.* Total Annualized 10% Cost/Patron (Transit & HOV) \$	N.A.	3.95	3.32	3.13	3.55	5.01	3.82
9. Total Annualized 10% Cost/Patron \$ (Transit)	N.A.	3.95	4.96	4.67	5.31	5.01	5.02
10.*** Total Annual Transit Patron Miles (Millions)	49.9	88.0	201.0	201.0	201.0	166.0	166.0
11.*** Total Annual HOV Passenger Miles (Millions)	0.0	0.0	137.8	137.8	137.8	72.5	72.5
12. Total Annual Passenger Miles (Millions)	49.9	88.0	338.8	338.8	338.8	238.5	238.5
13.* Annualized Transit/ 10% HOV Cost/Passenger Mile \$	N.A.	0.40	0.29	0.28	0.32	0.35	0.35

*Linehaul operating costs contain intra-CBD trips; capital costs do not contain CBD trips.

**Patronage does not include intra-CBD trips; HOV trips are person trips.

***Average trip length for transit = 10.0 miles; average trip length for HOV's = 13.9 miles.

Updated: December, 1984
† Recommended Alternative

TABLE III-24

1-110 SUMMARY OF RAIL COST/EFFECTIVENESS MEASURES
(All cost are in Millions of 1984 \$ Except as Noted)

	ICTS			LRT			HRT
	R 1	R 4	R 7	R 1	R 4	R 7	R 6
1. Capital	855.7	770.2	991.3	832.7	747.2	958.1	1053.0
2. Annualized Capital Cost 10%	91.8	82.8	106.2	89.6	80.6	103.9	114.0
3.* Operating Cost	43.9	43.5	43.5	35.0	35.0	35.0	39.8
4. Total Annual Cost (Cap. & Op.) 10%	135.3	126.3	149.7	124.6	115.6	138.9	153.8
5.** Total Annual Transit Patrons (Millions)	25.0	25.0	25.0	22.7	22.7	22.7	25.8
6.** Total Annual HOV Users (Millions)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.** Total Patronage (Millions)	25.0	25.0	25.0	22.7	22.7	22.7	25.8
8.* Total Annualized 10% Cost/Patron (Transit & HOV) \$	5.41	5.05	5.99	5.49	5.09	6.12	5.96
9. Total Annualized 10% Cost/Patron \$ (Transit)	5.41	5.05	5.99	5.49	5.09	6.12	5.96
10.*** Total Annual Transit Patron Miles (Millions)	250.0	250.0	250.0	227.0	227.0	227.0	258.0
11.*** Total Annual HOV Passenger Miles (Millions)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. Total Annual Passenger Miles (Millions)	250.0	250.0	250.0	227.0	227.0	227.0	258.0
13.* Annualized Transit/ 10% HOV Cost/Passenger Mile \$	0.54	0.50	0.60	0.55	0.51	0.61	0.60

*Linehaul operating costs contain Intra-CBD trips; capital costs do not contain CBD trips.

**Patronage does not include Intra-CBD trips; HOV trips are person trips.

***Average trip length for transit = 10.0 miles; average trip length for HOV's = 13.9 miles.

Updated: December, 1984

TABLE III-25

I-110 SUMMARY OF 2005 ANNUAL OPERATING* SUBSIDY
(Millions of 1984 Dollars)

CRITERIA ALTERNATIVE	OPERATING COST***	(1) REVENUE	SUBSIDY	FAREBOX RECOVERY (%)	SUBSIDY PER RIDER (¢)
1981 Existing	90.3	36.1	54.2	40.0	47.0
2005 No Project**	90.3	44.1	46.2	48.8	32.7
TSM	115.1	51.2	63.9	44.5	39.1
Bus-1, 4†, 7	117.0	63.9	53.1	54.6	31.1
Bus-8A, 8B	117.0	59.6	57.4	50.9	34.1
ICTS 1, 4, 7	128.1	65.6	62.5	51.2	36.5
LRT 1, 4, 7	120.2	64.3	55.9	53.5	32.8
HRT-6	123.2	66.2	57.0	53.7	33.3

* Assumes Rail turnback operation at Artesia Boulevard

** Assumes existing Bus fleet can accommodate the projected increase in ridership.

(1) Revenue based on April, 1980 S.C.R.T.D. fare structure expressed in 1984 dollars.

† Recommended Alternative

Updated: December, 1984

approximately \$60 million (1984 dollars). For the ICTS alternative, UMTA would most likely be the major source of funding due to the high estimated cost. For the LRT alternative, UMTA could be the main source of funding.

Because the bus service self-distributes, the bus alternatives do not require additional funding to provide LACBD bus service. Minimal costs for additional bus stops may be incurred, but this should not be an important funding issue.

A number of benefits (Table III-21) resulting from the project have been examined to determine the benefit/cost comparisons of each alternative. The annual benefits range from \$122 million for the peak directional bus alternative to \$140 million for the two-way busway. For the rail alternatives the benefits range from \$116 million (LRT) to \$123 million (Vermont Avenue). The bus/HOV alternatives include benefits to carpoolers.

In terms of cost effectiveness (see Tables III-23 and 24), the annualized transit cost per passenger mile (annualized at 10%) ranges from a low of \$0.28 for the two-way recommended bus/HOV alternative (B-4) to a high of \$0.61 for the rail alternative (R-7).

Annualized cost is used to show capital recovery factors spanning the economic life expectancy of the system elements. This is in accordance with federal requirements of the OMB Circular A-94.

2. Project Financing

Potential funding for the alternatives would come from Federal, State, and local sources. The use of Federal Aid Interstate (FAI) funds for the Harbor Freeway was approved on November 1, 1978 when the freeway was designated as Interstate Route I-110. This action allows FAI funding to be used for all non-rail alternatives located within the freeway right-of-way. Should Urban Mass Transportation Administration (UMTA) funds be sought, all UMTA requirements will be met. However, current UMTA policy is to defer UMTA participation in the construction of major new systems and extensions at least until the national economy improves. UMTA funding and local source program funds would also be needed for the construction and right-of-way needs related to off-freeway station or terminal facilities. A further discussion of potential funding sources is located in Appendix C.

3. Comparative Costs

To provide a comparison between the bus and rail alternatives, it is necessary to evaluate the alternatives between common limits. The common limits selected to compare all the alternatives were between the Convention Center and Route 91 Freeway. While transit service for the bus/HOV alternatives remains the same, continuous rail service to the San Pedro area has been eliminated and supplemented with an expanded feeder bus system operating in mixed flow freeway traffic. This would result in a reduction of about 750 daily patrons for the rail alternatives.

The capital costs (Table III-26) for the I-110 rail alternative are now comparable with the bus/HOV alternatives. The highest capital cost is still associated with the Vermont Avenue (HRT 6) of alternative ranging from 19 to 59 percent more in cost than any of the other rail alternatives.

Operating costs (Table III-27) and subsidies (Table III-28) for the rail alternative are lowered as the patronage is slightly reduced resulting in lower daily demand. This reduction in demand also results in fewer rail vehicles being needed for rail transit implementation. Table III-28 is a summary of the annual operating cost and subsidy required for all the alternatives. On the average, the annual rail subsidy per rider has decreased by three cents (3¢) while the bus subsidy for each rider remains the same.

Table III-29 is the comparison of the 2005 annual benefit-cost ratios for all the alternatives.

Cost/effectiveness measures for the rail alternatives (Table III-30) can be compared with those for the bus alternatives (Table III-23). These costs for rail now reflect a drop of approximately twelve cents (12¢) in the annualized transit cost per passenger mile when compared with those shown on Table III-24 for the project limits (Convention Center to Ports O' Call).

I. Construction Phasing and Staging for the Bus and Rail Alternatives

In the A.M. peak hour, the majority of transit trips are directed to the Los Angeles Central Business District (LACBD). The logical sequencing of construction should therefore begin with the LACBD

TABLE III-26

COMPARISON OF CAPITAL COSTS IN MILLIONS (1984 \$)
CONVENTION CENTER TO ROUTE 91 FREEWAY

	RIGHT OF WAY COSTS			CONSTRUCTION COST	VEHICLE COSTS	TOTAL CAPITAL
	ALIGNMENT	PARK N' RIDE	UTILITY RELOCATION			
No Project	0	0	0	0	0	0
TSM	0	2.6	0.3	26.2	34.1	63.2
Bus 1	0	9.1	1.6	578.8	43.8	633.3
4†	10.6	9.1	1.3	513.2	43.8	578.0
7	13.4	9.1	2.0	632.1	43.8	700.4
8a	0	9.1	1.6	426.2	49.7	482.6
8b	10.6	9.1	1.0	417.6	49.7	484.0
ICTS 1	0	2.5	1.9	468.8	95.9	569.1
4	3.2	2.5	1.3	455.2	95.9	558.1
7	3.2	2.5	2.3	622.6	95.9	726.5
LRT 1	0	2.5	1.9	468.8	65.6	538.8
4	3.2	2.5	1.3	455.2	65.6	527.8
7	3.2	2.5	2.3	622.6	65.6	695.2
HRT 6	1.8	4.2	8.8	685.0	77.1	776.9

Updated: December, 1984

† Recommended Alternative

TABLE III-27

COMPARISON OF 2005 ANNUAL OPERATING COSTS
 CONVENTION CENTER TO ROUTE 91 FREEWAY
 (Shown in Millions of 1984 \$)

ALTERNATIVES	BACKGROUND	FEEDER	LINE-HAUL	TOTAL SYSTEM
No Project (Baseline)	76.9	--	13.4	90.3
T.S.M.	88.4	--	26.7	115.1
Two-Way Busway (B-1, 4*, 7)	86.6	11.8	18.6	117.0
Peak Direction Busway (B-8a and 8b)	87.2	11.3	18.5	117.0
L.R.T. Harbor Freeway (R-1, 4, 7)	85.2	14.2	14.2	113.6
I.C.T.S. Harbor Freeway (R-1, 4, 7)	84.6	12.0	25.0	122.6
H.R.T. Vermont Avenue R-6	83.4	14.6	22.6	120.6

*Recommended Alternative

Updated: December, 1984

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TABLE III-28

COMPARISON OF ANNUAL OPERATING SUBSIDIES
 CONVENTION CENTER TO ROUTE 91 FREEWAY
 (Millions of 1984 Dollars)

	OPERATING COST*	REVENUE **	SUBSIDY	FARE BOX RECOVERY (%)	ANNUAL SUBSIDY PER RIDER (¢)
No Project	90.3	44.1	46.2	48.8	32.7
TSM	115.1	51.2	63.9	44.5	39.1
Bus 1, 4†, 7	117.0	63.9	53.1	54.6	31.1
Bus 8a, 8b	117.0	99.5	17.4	50.9	34.1
ICTS 1, 4, 7	122.6	65.3	57.3	53.3	33.5
LRT 1, 4, 7	113.5	64.3	49.6	56.3	29.0
HRT 6	120.6	65.9	54.7	54.6	32.0

*Total Corridor: Linehaul and feeder

**Revenue based on April, 1980 fare structure expressed in 1984 dollars

† Recommended Alternative

Updated: December, 1984

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TABLE III-29

COMPARISON OF 2005 ANNUAL BENEFIT-COST RATIO
 CONVENTION CENTER TO ROUTE 91
 (Cost in Millions 1984 Dollars)

	NO PROJECT	TSM	TWO-WAY BUS			PK. DIR. BUS		I.C.T.S			LRT			HRT
			B 1	B 4*	B 7	B 8a	B 8b	R 1	R 4	R 7	R 1	R 4	R 7	R 6
Capital Costs	Base	63.2	633.3	578.0	700.4	482.6	484.0	569.1	558.1	726.5	538.8	527.8	696.2	776.9
Annual Capital Costs 10%	Base	8.2	69.2	63.4	76.3	53.3	53.6	61.5	60.3	78.2	58.5	57.4	75.2	83.7
Incremental Operating Subsidy	Base	17.7	6.9	6.9	6.9	11.2	11.2	11.2	11.1	11.1	3.4	3.4	3.4	8.5
Total Annual System Cost 10%	Base	25.9	76.1	70.3	83.2	64.5	64.8	72.7	71.4	89.3	61.9	60.8	78.6	92.2
2005 System Benefit	Base	70.1	140.3	140.3	140.3	121.8	121.8	116.5	117.8	117.8	116.0	116.0	116.0	122.6
2005 Benefit/Cost Ratio 10%	--	2.7	1.8	2.0	1.7	1.9	1.9	1.6	1.7	1.3	1.9	1.9	1.5	1.3

*Recommended Alternative.

Updated: December, 1984

TABLE III-30

COMPARISON OF ANNUAL RAIL COST/EFFECTIVENESS MEASURES
CONVENTION CENTER TO ROUTE 91
(Millions of 1984 Dollars except as noted)

MEASURE OF EFFECTIVENESS	ICTS			LRT			HRT
	R 1	R 4	R 7	R 1	R 4	R 7	R 6
1. Capital	569.1	538.1	728.5	538.8	327.8	696.2	776.9
2. Annualized Capital Cost 10%	51.5	60.3	78.2	58.5	57.4	79.2	83.7
3.* Operating Cost	38.0	38.0	38.0	28.4	28.4	28.4	37.2
4. Total Annual Cost (Cap. & Op.) 10%	89.5	98.3	116.2	86.9	85.8	107.6	120.9
5.** Total Annual Transit Patrons (Millions)	24.8	24.8	24.8	22.6	22.6	22.6	25.8
6.** Total Annual HOV Users (Millions)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.** Total Patronage (Millions)	24.8	24.8	24.8	22.6	22.6	22.6	25.8
8.* Total Annualized 10% Cost/Patron (Transit & HOV) \$	4.01	3.96	4.68	3.83	3.46	4.58	4.69
9. Total Annualized 10% Cost/Patron \$ (Transit)	4.01	3.96	4.68	3.49	3.46	4.58	4.69
10.*** Total Annual Transit Patron Miles (Millions)	248.0	248.0	248.0	226.0	226.0	226.0	255.0
11.*** Total Annual HOV Passenger Miles (Millions)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. Total Annual Passenger Miles (Millions)	248.0	248.0	248.0	226.0	226.0	226.0	255.0
13.* Annualized Transit/ 10% HOV Cost/Passenger Mile \$	0.40	0.40	0.47	0.38	0.38	0.46	0.47

*Linehaul operating costs contain intra-CBD trips; capital costs do not contain CBD trips.

**Patronage does not include intra-CBD trips; HOV trips are person trips.

***Average trip length for transit = 10.0 miles; average trip length for HOV's 13.9 miles.

Updated: September, 1984

section and incrementally continue southward as financing permits. The rail transitway construction must occur from station to station to allow for accessibility and the development of a feeder bus network. The bus/HOV transitway construction must occur to the nearest access/egress ramp to allow buses and HOVs the ability to utilize completed sections of transitway.

To justify a bus or rail transitway on the Harbor Freeway, projected patronage figures indicate that a financial commitment has to be made to ultimately build the portion of the alignment from the LACBD to the I-105. If funding should become available, construction, as mandated by the I-105 Final Consent Decree, must be coordinated with the construction of the light rail line on the I-105. A requisite of using the limits from the LACBD to the I-105 is that the Harbor Freeway rail transit vehicles have mutual use of maintenance and storage facilities provided for the I-105 transitway.

Until such time that the rail transitway could be extended south of I-105, if the project is built incrementally, feeder bus service from the San Pedro area to the I-105 stations at Avalon Boulevard and Vermont Avenue would be provided and is operationally feasible.

The next logical segment would be a transitway constructed from the I-105 to the Route 91 Freeway. This would allow the use of state-owned property along the north side of Artesia Boulevard between Normandie and Vermont Avenue as a regional transit center.

If the transitway extends from the LACBD to Route 91, a maintenance facility for the rail alternatives would most likely be located at a site just south of 182nd Street on the east side of the Dominguez Channel. While the bus alternatives would possibly be maintained at a site proposed by SCRTD south of 190th Street between Figueroa and Broadway.

Completion of the total alignment would take place in the next sequence of construction as the transitway would extend from Route 91 to Ports O' Call in San Pedro. This applies only to the rail alternative since the Harbor Freeway buses operate in mixed flow south of Route 91. The maintenance facility for the rail alternatives would remain situated at the 182nd Street location, while bus storage would be provided at sites designated by SCRTD.

Incremental construction costs, excluding right-of-way and vehicle costs, for each operationally feasible segment of transitway are shown on Table III-31. Physical construction will involve the method that is most suitable for each increment of the project. A typical sequence of construction is illustrated in Figure III-18.

TABLE III-31

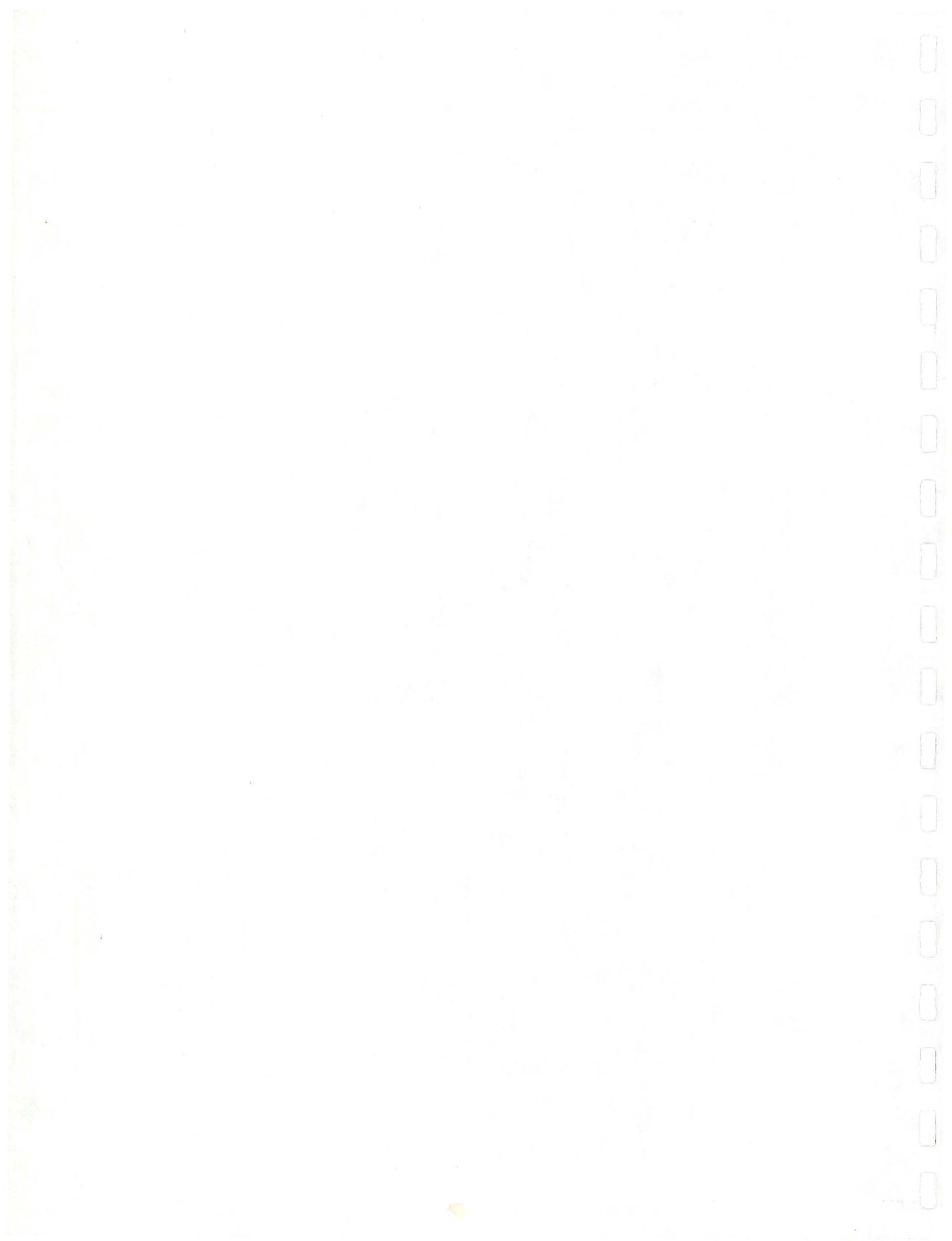
HARBOR (I-110) TRANSIT
SUMMARY OF INCREMENTAL CONSTRUCTION COSTS
(Millions of 1984 Dollars)

ALTERNATIVE	SEGMENT 1	SEGMENT 2	SEGMENT 3	TOTAL CONSTRUCTION COST
LIMIT LENGTH IN MILES	Convention Center to Rte. 105 Freeway Len: 8.1 Miles	Rte. 105 Freeway to Rte. 91 Fwy. Len: 3.2 Miles	Rte. 91 Freeway to San Pedro Len: 10.7 Miles	Convention Center to San Pedro Len: 22.0 Miles
No Project	—	—	—	—
TSM	1.2	9.2	15.8	26.2
Bus 1	363.4	141.2	74.2	578.8
4*	297.8	141.2	74.2	513.2
7	410.1	147.8	74.2	632.1
Bus 8a	215.9	136.1	74.2	426.2
8b	207.3	136.1	74.2	417.6
ICTS 1	249.1	187.7	294.6	731.4
4	223.0	187.7	232.6	643.3
7	385.2	192.9	285.3	863.4
LRT 1	249.1	187.7	294.6	731.4
4	223.0	187.7	232.6	643.3
7	385.2	192.9	285.3	863.4
HRT 6	443.2	211.2	292.2	946.6

*Recommended Alternative

Updated: December, 1984

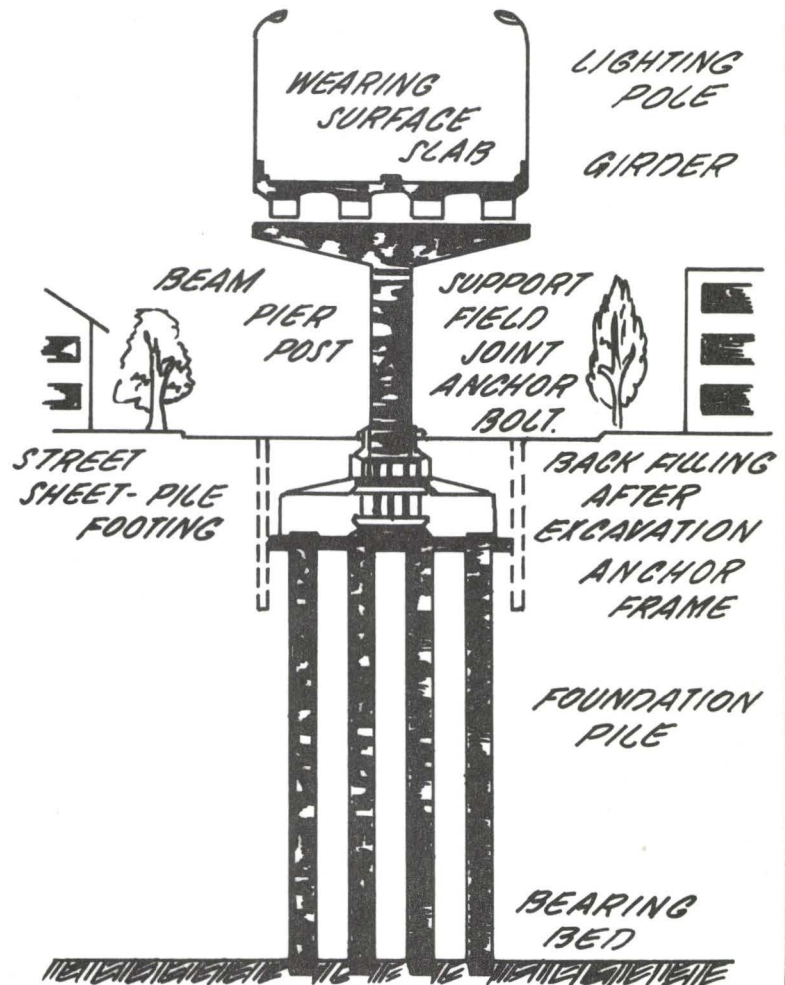
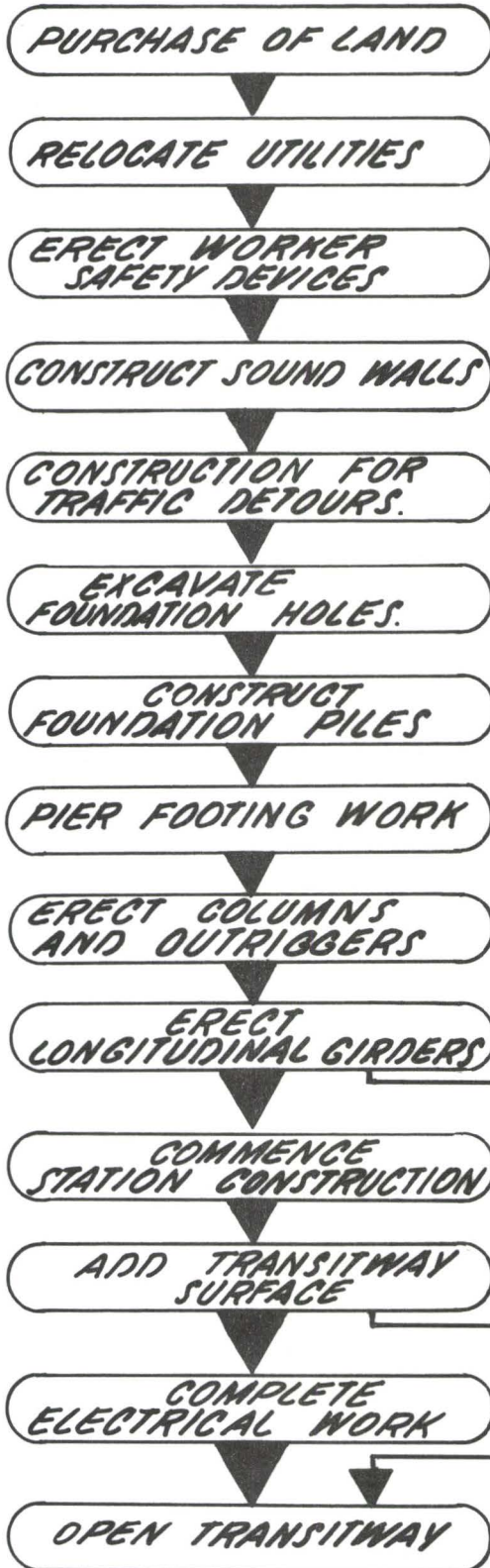
Note: The segment 1 construction cost for all alternatives include \$30 million for direct connectors and \$5.0 million for a vertical transfer station at the I-105/I-110 Interchange.





Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



TYPICAL CONSTRUCTION SEQUENCE FOR ELEVATED GUIDEWAY

CHAPTER IV

Environmental Consequences



IV. ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

Determining whether or not a project will have a significant effect on the environment calls for careful judgement based on scientific and factual data. To assist in making this determination the interdisciplinary team for the project used a comprehensive environmental checklist to focus this study on the physical, biological, social and economic factors which might be impacted by the proposed transitway.

Several technical studies were developed to provide background data and to assist in evaluating the environmental consequences of the proposed project. The following studies are incorporated by reference into this Final EIS:

1. Geotechnical Report Route 110 Proposed Transitway, Caltrans Materials Section, November, 1980.
2. Conceptual Stage Housing Availability Study Caltrans Relocations Assistance Branch, March, 1984.
3. Physical Environmental Report on the Impact of the Proposed Harbor Freeway, Caltrans Environmental Investigations Branch, August 1982 (includes studies on air quality, noise, energy, water quality, and solid wastes). Addendum to Physical Environmental Report, May, 1984.
4. Harbor Freeway Corridor Joint Development and Value Capture Project, Blaney-Dyett, Urban and Regional Planners. The Planning Group, Richard Greffe Associates, Barton-Aschman and Associates, prepared for SCRTD. Final Report and Draft Reports. March 1980 - May 1981.

5. Historic Property Survey Harbor Freeway Corridor Transitway, Caltrans Environmental Planning Branch, December 1981.
6. Archaeological Survey Report Harbor Freeway Corridor Transitway, Caltrans Environmental Planning Branch, December 1981.
7. Technical Memoranda, Wilbur Smith & Associates, George Beetle Co., Jordan/Avent & Associates, May 1981 - January 1982.
8. Revised Biological Assessment, Caltrans Environmental Planning Branch, May 1982.
9. Socio-economic Impact Report Harbor Freeway Corridor Transitway, Environmental Planning Branch, December 1981.
10. Transit Station Traffic Impacts and Mitigation Measures, Los Angeles Department of Transportation, Transportation Study Section, September 1981.
11. I-110 (Harbor) Freeway Transit Station Location Analysis, City of Los Angeles Planning Department, September 1980.

The above mentioned studies are available for public review at Caltrans Environmental Planning Branch, 120 South Spring Street, Los Angeles, California. These studies may be purchased collectively or individually from Caltrans. (Postage is extra).

The following environmental documents are referred to in this Final EIS/EIR, they are also incorporated by reference:

1. San Bernardino Freeway Busway Extension Final EIS.
2. The Los Angeles Downtown People Mover Project Final EIS/EIR.
3. Final Alternatives Analysis/Environmental Impact Statement/Report on Transit System Improvements in the Los Angeles Regional Core.
4. Century Freeway (I-105) Final EIS.
5. Todd Pacific Shipyards Corporation Land Level Lift Platform and Repair Facility Draft EIR.

An environmental checklist was used to focus this study on significant environmental issues (Table IV-1). In many cases the background studies performed in connection with this EIS clearly indicate that the project will have no significant impact in a particular area. A "no" answer on the checklist documents this determination. A discussion of the potential impacts and the proposed mitigation measures may be found following the checklist.

Certain actions are necessary to mitigate adverse project impacts. The mitigation measures are presented as commitments and are part of the proposed project unless otherwise noted. The mitigation measures have been assessed and do not create any significant impacts.

TABLE IV-1

ENVIRONMENTAL SIGNIFICANCE CHECKLIST

	YES OR NO	See* Section(s)
PHYSICAL. Will the proposal either directly or indirectly:		
1. Change the topography or ground surface relief features?	No	
2. Destroy, cover, or modify any unique geologic or physical features?	No	
3. Result in unstable earth surfaces or exposure of people or property to geologic or seismic hazards?	Yes	A
4. Result in or be affected by soil erosion or siltation (whether by water or wind)?	Yes	B
5. Result in the increased use of fuel or energy in large amounts or in a wasteful manner?	No	
6. Result in an increase in the rate of use of any natural resource?	No	
7. Result in the substantial depletion of any nonrenewable natural resource?	No	
8. Violate any published Federal, State, or local standards pertaining to solid waste or litter control?	No	
9. Modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	Yes	B
10. Encroach upon a floodplain or result in or be affected by floodwaters or tidal waves?	Yes	C
11. Adversely affect the quantity or quality of surface water, groundwater, or public water supply?	No	
12. Result in the use of water in large amounts or in a wasteful manner?	No	
13. Affect wetlands or riparian vegetation?	Yes	D
14. Violate or be inconsistent with Federal, State, or local water quality standards?	No	
15. Result in changes in air movement, moisture, or temperature, or any climatic conditions?	No	
16. Result in an increase in air pollutant emissions, adverse effects on or deterioration of ambient air quality?	No	
17. Result in the creation of objectionable odors?	Yes	T
18. Violate or be inconsistent with Federal, State, or local air standards or control plans?	Yes	E
19. Result in an increase in noise levels or vibration for adjoining areas?	Yes	F, T
20. Violate or be inconsistent with Federal design noise levels or State or local noise standards?	No	
21. Produces new light, glare, or shadows?	Yes	G
BIOLOGICAL. Will the proposal result in (either directly or indirectly):		
22. Change in the diversity of species or number of any species of plants (including trees, shrubs, grass, microflora, and aquatic plants)?	Yes	D
23. Reduction of the numbers of or encroachment upon the critical habitat of any unique, rare or endangered species of plants?	No	
24. Introduction of new species of plants into an area, or result in a barrier to the normal replenishment of existing species?	No	
25. Reduction in acreage of any agricultural crop or commercial timber stand?	No	
26. Removal or deterioration of existing fish or wildlife habitat?	Yes	H
27. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects or microfauna)?	No	
28. Reduction of the numbers of or encroachment upon the critical habitat of any unique, rare or endangered species of animals?	No	
29. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	No	

*Impacts are generally significant.

TABLE IV-1
ENVIRONMENTAL SIGNIFICANCE CHECKLIST (cont'd.)

SOCIAL AND ECONOMIC. Will the proposal directly or indirectly?	YES OR NO	See * Section(s)
30. Cause disruption of orderly planned development?	No	
31. Be inconsistent with any elements of adopted community plans, policies or goals, the Governor's Urban Strategy, or the President's National Urban Policy (if NEPA project)?	Yes	I
32. Affect the location, distribution, density, or growth rate of the human population of an area?	Yes	J
33. Affect life-styles, or neighborhood character or stability?	Yes	J
34. Affect minority or other specific interest groups?	Yes	J
35. Divide or disrupt an established community?	Yes	J
36. Affect existing housing, require the acquisition of residential improvements or the displacement of people or create a demand for additional housing?	Yes	K
37. Affect employment, industry or commerce, or require the displacement of business or farms?	Yes	K
38. Affect property values or the local tax base?	Yes	T
39. Affect any community facilities (including medical, educational, scientific, recreational, or religious institutions, ceremonial sites or sacred shrines)?	Yes	L
40. Affect public utilities, or police, fire, emergency or other public services?	Yes	L
41. Have substantial impact on existing transportation systems or alter present patterns of circulation or movement of people and/or goods?	Yes	M, N, O, P
42. Affect vehicular movements or generate additional traffic?	Yes	M
43. Affect or be affected by existing parking facilities or result in demand for new parking?	Yes	N
44. Involve a substantial risk of an explosion or the release of hazardous substances in the event of an accident or upset conditions?	No	
45. Result in alterations to waterborne, rail or air traffic?	No	
46. Affect public health, expose people to potential health hazards, or create a real or potential health hazard?	No	
47. Affect a significant archaeological or historic site, structure, object, or building?	Yes	Q
48. Affect natural landmarks or man-made resources?	No	
49. Affect any scenic resources or result in the obstruction of any scenic vista or view open to the public, or creation of an aesthetically offensive site open to public view?	Yes	S
50. Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours and temporary access, etc.)?	Yes	T
<u>MANDATORY FINDINGS OF SIGNIFICANCE.</u>		<u>YES OR NO</u>
51. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		No
52. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)		No
53. Does the project have environmental effects which are individually limited, but cumulatively considerable? Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. It includes the effects of other projects which interact with this project and, together, are considerable.		Yes
54. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		No

*Impacts are generally significant.

Impacts Associated with Bus/HOV 4, the Recommended Alternative

The impacts of Bus/HOV 4, the recommended alternative, are contained in the following sections. The Bus/HOV impacts are not differentiated between Alternatives 1, 4 or 7 as the impacts are, on the whole, indistinguishable from each other. Where distinct differences exist, they have been so noted. Some of the impacts that are distinct are as follows: business and residential displacement, economic impacts and circulation impacts. Table IV-8, station site impacts, has been totally revised to reflect 2005 patronage and Bus/HOV 4 impacts and mitigation measures only.

A. Geological Hazards

The proposed transitway would lie in a seismically active area. Soil liquefaction, ground shaking and rupture and ground settlement are potentially significant damaging phenomena requiring consideration. All alternatives are equally prone to seismic hazards. (See Appendix M Geotechnical Report)

Ground shaking and rupture are the primary causes of structural damage during an earthquake, and they are the most likely damage producing earthquake phenomena for the proposed project. Ground shaking magnitude, duration, and vibration frequency characteristics will vary greatly depending on the distance from the study area to the epicenter, the depth of the shock, and its magnitude.

Historical records of past earthquakes indicate that ground surface disruption is likely to occur in the study area in future

earthquakes of magnitude 5 or higher on the Richter Scale. While it is possible to predict that surface ruptures will occur, it is impossible to anticipate where the damage will occur. Some consolidation of foundation soils can be expected because of ground shaking. The amount of consolidation would vary with the type of soil, distance to the epicenter and the earthquake's magnitude.

The Newport-Inglewood Fault, which crosses the study area, possesses a maximum credible magnitude of 7.5 on the Richter Scale. Estimates of horizontal acceleration during the first few seconds of the 1933 Long Beach earthquake, caused by this fault, range as high as 1.0 gravity. The magnitude of this earthquake was 6.3 and the epicenter was off Newport Beach. The probable maximum magnitude earthquake produced by movement on the San Andreas Fault would produce moderate ground accelerations in the study area with a relatively long duration of 40 seconds or more. Thus, ground shaking could pose a significant hazard to transitway users. Liquefaction of cohesionless soils, which occurs when unconsolidated water saturated sediments behave as a fluid, can produce severe damage. The ground failure at the lower San Fernando (Sylmar) Dam is an example. The highest potential for liquefaction occurs where saturated, clay poor, granular sediments with relative densities less than 65% are within 50 feet of the ground surface. Over most of the study area, the liquefaction potential is minimal. However, it is reasonable to assume that conditions conducive to liquefaction damage exist in areas where the water table is shallow, particularly in the vicinity of Dominguez Channel, Bixby

Slough and San Pedro. Thus, sediment liquefaction could pose a significant hazard to transitway users.

The proposed project will cause no general subsidence. Settlement will be insignificant, except where the proposed project will cross estuarine deposits. In these areas considerable settlement and foundation instability will occur without mitigation.

The following mitigation measures will aid in reducing seismically induced damage:

1. Embankments that consolidate and constrain foundation soil to reduce the potential of liquefaction damage will be constructed.
2. All structures will be designed to survive the maximum credible earthquake without collapsing. The seismicity and soil response of the site, as well as the dynamic characteristics of the structure, will be considered in all designs.
3. Improved structural features including the following will be used:
 - a. Hinge restrainers to hold together superstructure elements during extreme motion.
 - b. Heavy keys that limit movement between the superstructure and the abutments.
 - c. Increased column tie reinforcement.
4. During preliminary engineering a study of the estuarine deposits in the project area will be conducted

to determine the extent of these deposits and their potential to produce foundation instability. In those areas where foundation instability is determined to be a problem, construction techniques that minimize the instability problem will be used. The actual techniques to be used will be selected when the potential for instability is established.

B. Stream Channel Modification and Erosion

The Harbor Freeway alignment would cross two major urban flood control channels, the Dominguez Channel and the Wilmington Drain. The recommended alternative does not affect these two control channels since construction of the exclusive transitway facility is between the Artesia Freeway (Route 91) and the Santa Monica Freeway (Route 10).

As in all construction which strips the cover from the lands surface, the proposed project creates some potential for erosion. However, in the context of the densely urbanized study area, the erosion potential is not significant, except at wetlands. Section IV-D addresses the erosion situation in wetland locations.

C. Flooding Hazards

The recommended project does not encroach on any floodplain (see Appendix N). The recommended alternative would not be affected

by a 100-year return frequency flood (figure IV-1).

The only natural flood plain features in the study area are the wetlands discussed in detail in Section IV-D and Appendix F.

D. Wetlands and Riparian Vegetation

The recommended alternative (Bus 4) is not within the Willows Wetland. The recommended alternative would have an 8-acre transit and parking facility which would be constructed immediately south of the wetland. Without mitigation, construction of this facility could:

1. Cause silting of the wetland due to construction site erosion.
2. Bring large numbers of transit patrons into The Willows vicinity and improve access to the wetland. Also, wastes generated by transit patrons could accumulate in The Willows and degrade it.

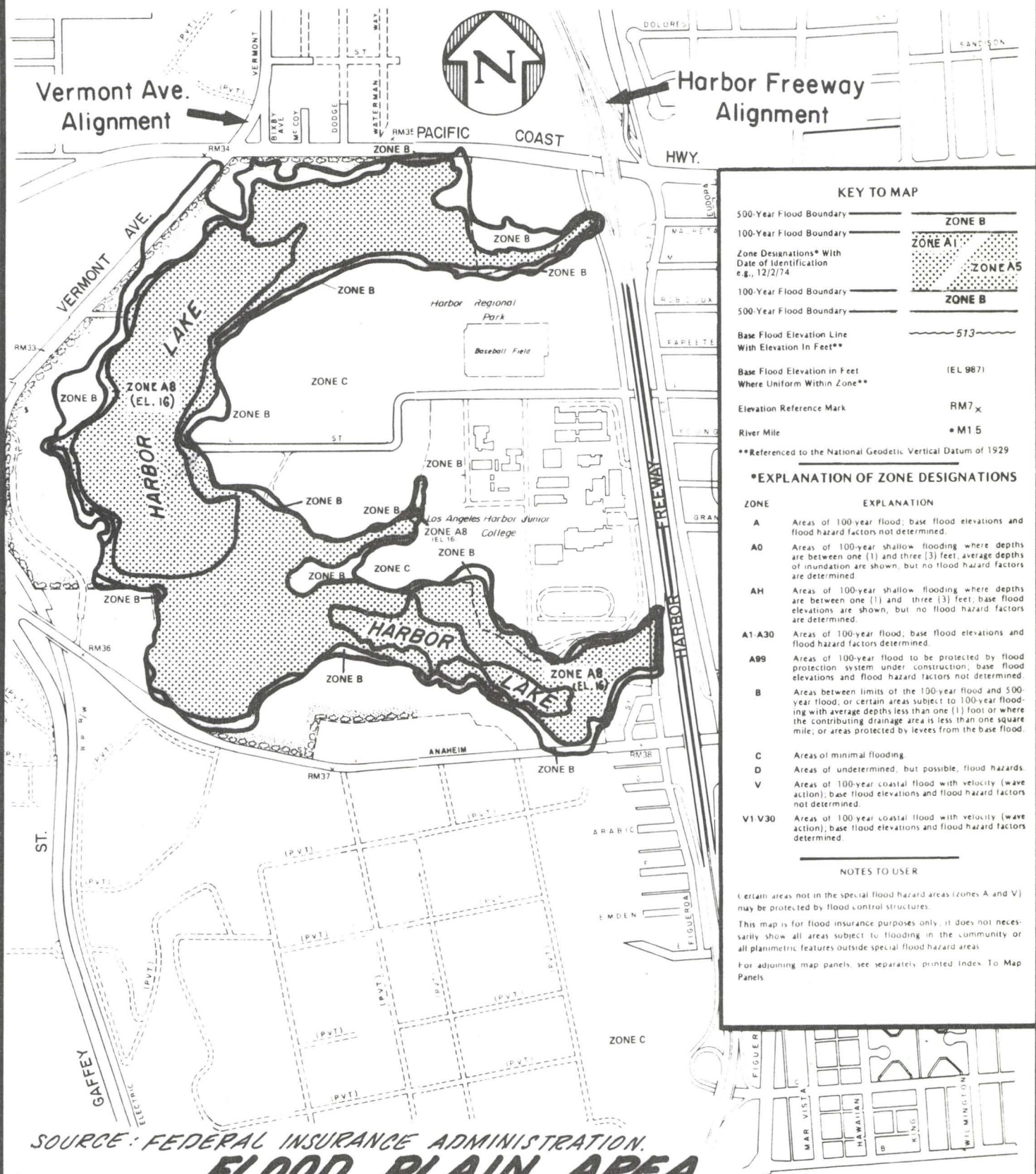
Caltrans will implement the following mitigation as part of the project:

1. During construction around the wetlands, erosion from exposed surfaces will be prevented by seeding, mulching and planting the embankment slopes.



Interstate 110 Freeway Transitway

HARBOR FREEWAY CORRIDOR



Vermont Ave. Alignment

Harbor Freeway Alignment

KEY TO MAP

500-Year Flood Boundary	—————	ZONE B
100-Year Flood Boundary	—————	ZONE A1
Zone Designations* With Date of Identification e.g., 12/2/74	—————	ZONE AS
100-Year Flood Boundary	—————	ZONE B
500-Year Flood Boundary	—————	ZONE B
Base Flood Elevation Line With Elevation In Feet**	~~~~~ 513	
Base Flood Elevation in Feet Where Uniform Within Zone**		(EL 987)
Elevation Reference Mark		RM7 x
River Mile		* M15

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet, average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet, base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.
C	Areas of minimal flooding.
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only. It does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

SOURCE: FEDERAL INSURANCE ADMINISTRATION.

FLOOD PLAIN AREA AFFECTING THE ROUTE 110 TRANSITWAY

FIGURE IV-1

2. Restoration and revegetation of areas around wetlands disturbed by construction will take place immediately upon completing construction.
3. Water flow through the wetland will be maintained.
4. The transit station adjacent to the wetland will have a concrete block wall between the station grounds and the wetlands. The wall will prevent direct access by people and prevent any station-related refuse from entering the wetland area.

The first three mitigation measures will prevent or reduce siltation into the wetlands. Under present conditions some silt is deposited into the marsh. The net effect will be to reduce silt flows into the area from the before condition. By maintaining water flow thru the wetland the viability of the Willows will be maintained. Construction of block walls above the perimeter of the wetland will prevent deposition of transit patron generated trash into the marsh and will reduce adverse human impacts, i.e. noise, soil compaction and disturbance of nesting birds resulting from people walking thru the area.

Applying these mitigation measures would reduce the impacts at the Willows to insignificance, because the present size and quality of the vegetative and wildlife habitat will be maintained. These actions will help to maintain the long-term viability of the wetland. The biological value of the wetland would not be reduced.

Approximately one half the available excess property owned by Caltrans will be used for the transit station which borders the wetlands. The remaining portion of the parcel does not border the wetlands.

The recommended alternative does not impact the Bixby Slough area. There are no impacts on the regional park, recreation area including the nature trails which are associated with the area.

All planning and constructing of transitway facilities adjacent to wetlands will be coordinated with the U.S. Army Corps of Engineers, the California Department of Fish and Game and the U.S. Fish and Wildlife Service. A qualified biologist will provide input for, and review the final design of all structures adjacent to the wetlands, and will monitor construction of all structures.

There are no significant impacts on the wetlands due to noise, air quality and lighting from the transit station.

E. Air Quality Impacts

This summary information was taken from the Route I-110 Transitway Physical Environmental Report.

The construction of any of the proposed alternatives will have no significant impact on air quality. The assessment of the Carbon Monoxide (CO) impact on air quality was made for the microscale and mesoscale areas.

For purposes of assessing the air quality in the corridor, the project has been divided into three zones. Beginning at Ports O' Call, Zone 1 extends to Compton Boulevard, Zone 2 extends to Colden Avenue, and Zone 3 extends to Route 10. These zones are representative of changes in ambient air quality and traffic volumes throughout the corridor. The microscale analysis for 2005 was made for the no-project, TSM, bus/HOV, and rail alternatives. Forty-nine locations were selected to represent typical sensitive

receptors adjacent to the freeway. The results of the microscale and mesoscale analysis are shown in Figures IV-2 and IV-2A respectively. There were no significant differences between the alternatives in the microscale analysis.

The National and California CO Standards will not be exceeded in Zone 1 or 2. In Zone 3 the national 1-hour CO Standard will not be exceeded. However, the California 12-hour and National 8-hour CO Standards will be exceeded more than once at the closest receptors in Zone 3. This would occur even with the no project alternative.

The closest receptors in Zone 3 will experience a reduction of 1 ppm, under "worst" conditions, for all alternatives when compared to no project. However, this slight reduction will not result in compliance with the one and eight hour standards.

The mesoscale analysis for the year 2005 was made for all alternatives. The analysis shows a decrease for the three primary pollutants, carbon monoxide (CO), reactive hydrocarbons (RHC), and nitrogen oxides (NO_x), for all build alternatives. (See Table IV-2.) The bus alternative achieves a reduction that is approximately double the TSM reduction.

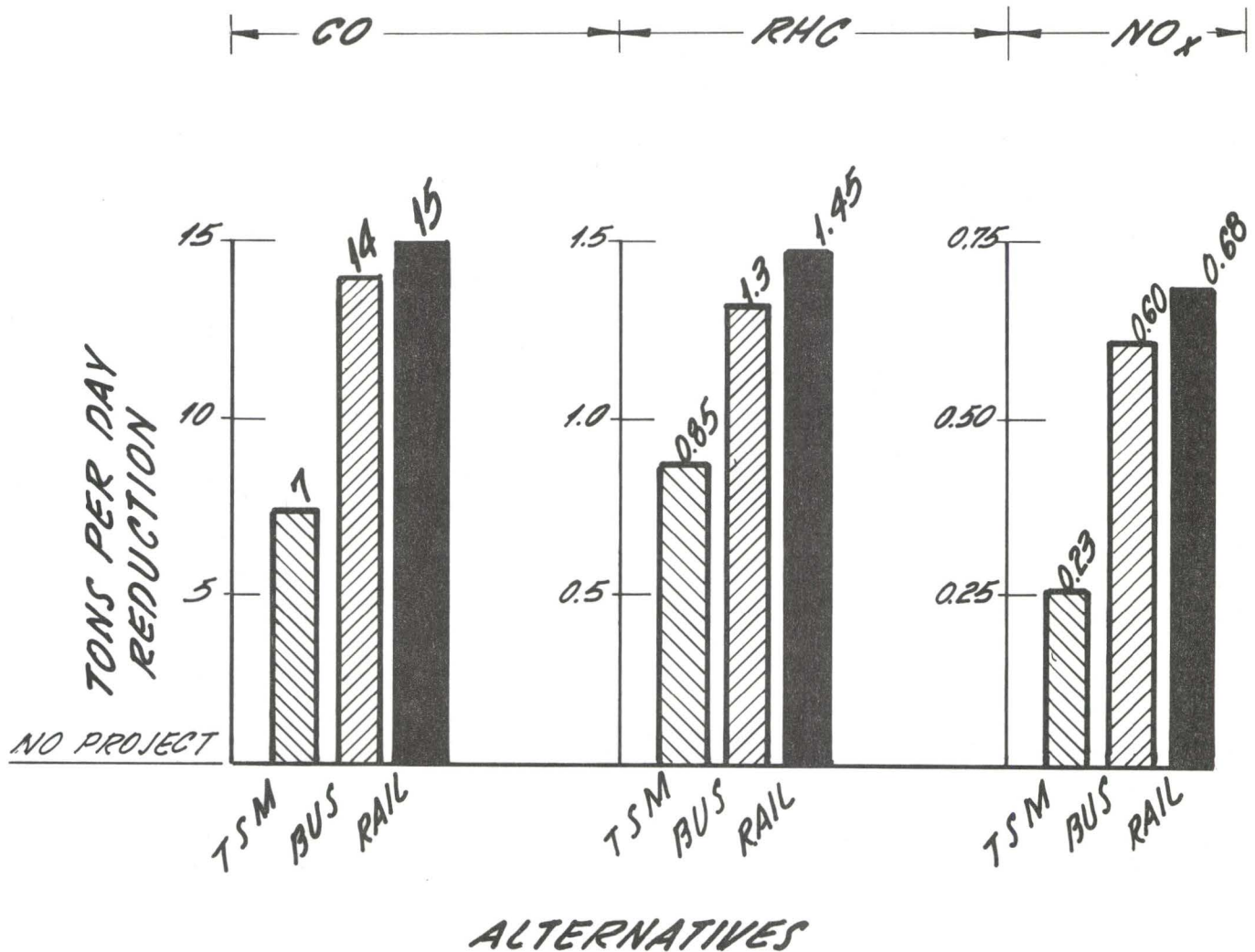
An analysis was made for CO emissions at the park-and-ride lots. The results show the nearest receptors will receive less than 1 ppm from vehicles using the parking lot. This was based on a park-and-ride lot with 1000 parking spaces.

Lead, one of the more deleterious substances emitted by motor vehicle exhaust, was not quantified in the report. The primary



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



NOTE: ESTIMATED 2005 CORRIDOR POLLUTION BURDEN (NO PROJECT.)

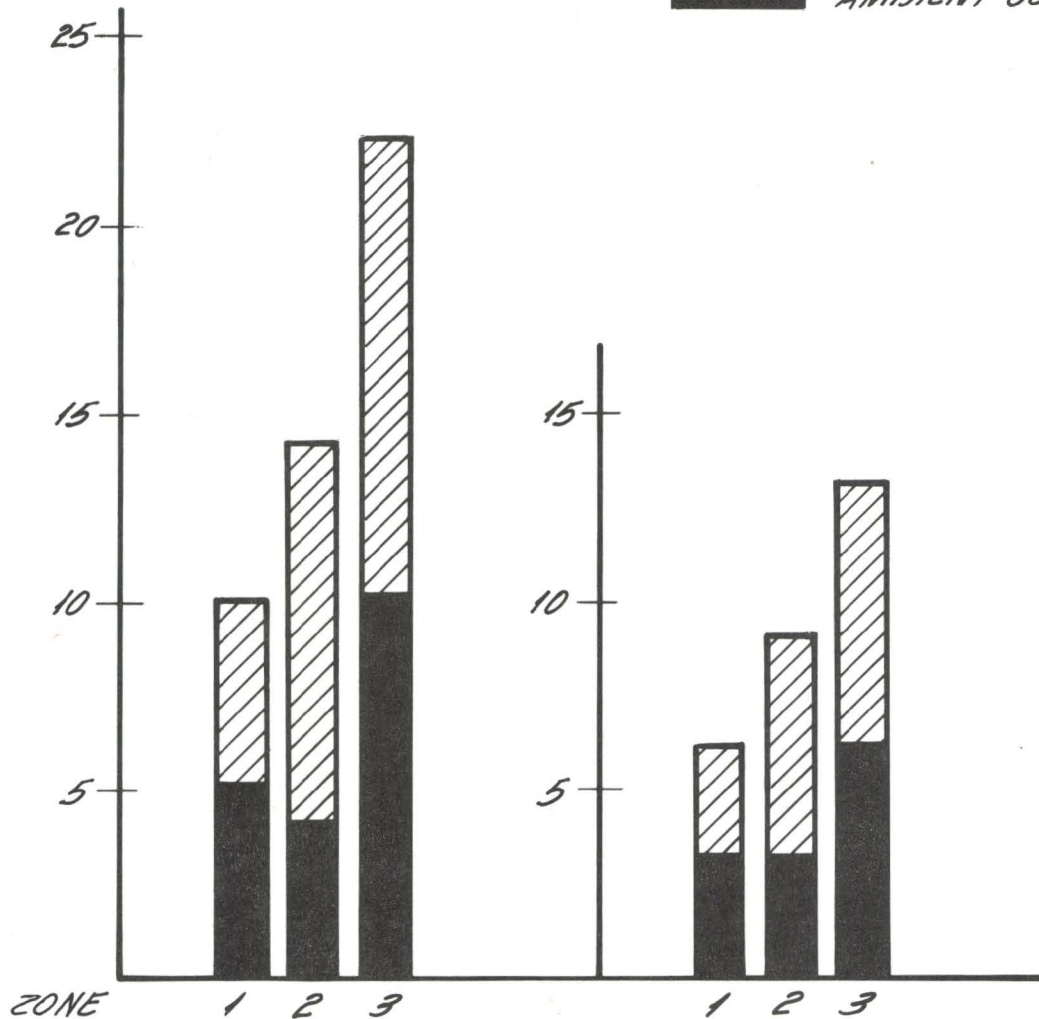
ESTIMATED 2005 POLLUTION REDUCTION IN TONS PER DAY HARBOR (ROUTE 110) FREEWAY CORRIDOR

Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

LEGEND

 ROADWAY CONTRIBUTION
 AMBIENT CONTRIBUTION



1 HOUR AVERAGING TIME
 FEDERAL STANDARD = 35 PPM
 STATE STANDARD = 20 PPM

8 HOUR AVERAGING TIME
 FEDERAL STANDARD = 9 PPM

ZONE 1 = PORTS OF CALL TO COMPTON BOULEVARD
 ZONE 2 = COMPTON BOULEVARD TO GOLDEN AVENUE
 ZONE 3 = GOLDEN AVENUE TO ROUTE 10

2005 MAXIMUM CO CONCENTRATION
AT NEAREST SENSITIVE RECEPTOR
FOR ALL ALTERNATIVES

MESOSCALE
 FIGURE II-2a

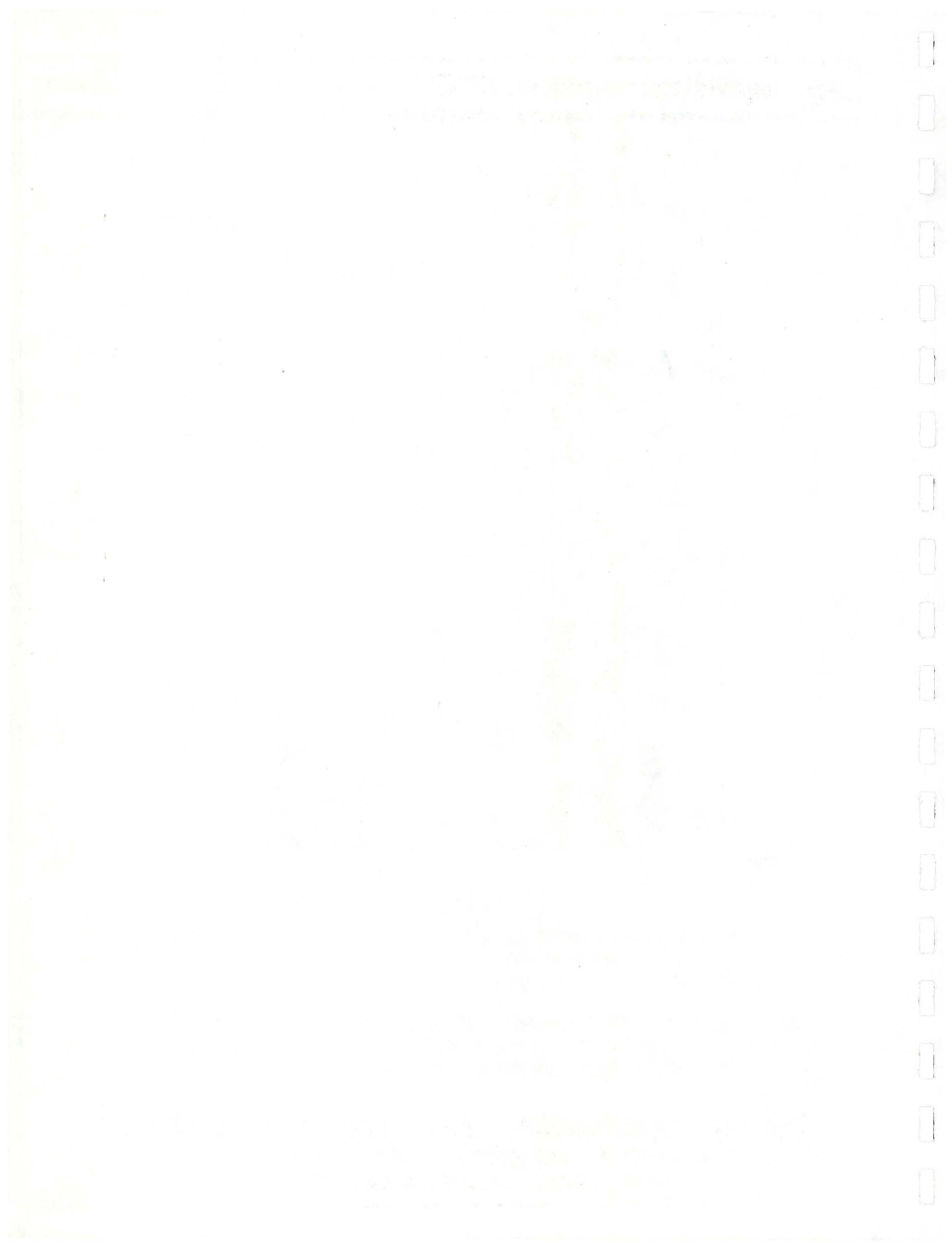


TABLE IV-2

Percentage Reduction of Air Pollutants for the Alternatives in 2005.

Alternatives	% Reduction
Carbon Monoxide (CO)	
No Project (base)	0%
TSM	1.4%
All Bus	2.6%
All Rail	2.7%
Reactive Hydrocarbons (RHC)	
No Project (base)	0%
TSM	1.6%
All Bus	2.5%
All Rail	2.8%
Nitrogen Oxides (NO _x)	
No Project(base)	0%
TSM	0.6%
All Bus	1.6%
All Rail	1.8%

source of airborne lead is the lead additive in gasoline. No significant change in lead concentrations is expected to occur as a result of this project. Lead concentrations will be less of a problem in the future because of a program to gradually phase out lead additives in gasoline. Reduction in lead emissions can also be expected as older model vehicles are phased out in favor of newer models which utilize lead-free gasoline.

A copy of the Physical Environmental Report including the portion on air quality has been submitted to the State Air Resources Board. A copy of the report has also been sent to the South Coast Air Quality Maintenance District and the Federal Environmental Protection Agency.

An Addendum to the Physical Environmental Report states that with the year 2005 traffic projections there are no significant impacts on air quality.

F. Noise Impacts

This summary information was taken from the Route I-110 Transitway Physical Environmental Report and the May, 1984 Addendum.

Figure IV-3 shows the location of the 49 measurements at sensitive sites along the Harbor Freeway. Table IV-3 indicates the ambient levels at those sites and the predicted 2005 noise levels for the B-4/HOV recommended alternative. The Tables identify the noise sensitive areas and their adjacent land uses together with the estimated noise wall limits, heights and locations. The impacts

Table IV-3

Sheet 1 of 5

2005 ESTIMATED NOISE LEVELS									
SITE	LOCATION	MEAS.	NO PROJ.	BUS/ HOV	NOISE BARRIER DATA				LAND (2) USE
					LOCATION (1)	AVERAGE WALL HEIGHT	WALL LIMITS	SIDE	
1	Figueroa Place at Arabic Street	66	67	67	Shoulder	8'	E Street to I Street	West	R,C
2	Figueroa Street at Arabic Street	65	66	66	Shoulder	8'	Emden to Anaheim	East	R,C,S
3	Figueroa Street at Denni Street	70	71	71	Shoulder	10' min.	Anaheim to M Street	East	R,C
4	Mobile Home Park south of Lomita	71	72	73	Shoulder	10' min.	PCH to Lomita	West	R,C
5	Menlo Avenue south of Belson Street	68	69	69	R/W	10'	235th to 228th	West	R
6	Orchard Street north of 228th Street	65	66	66	R/W	10'	235th to 220th	East	R,C
7	South of 223rd Street west of Freeway	67	68	68	R/W	10'	228th to 223rd	West	R
8	Figueroa Street north of 223rd Street	64	65	65	R/W	10'	220th to Carson	East	R,C
9	220th Street west of Freeway	67	68	68	R/W	10'	220th to Torrance	West	R,C
10	215th Street east of Freeway	70	71	71	R/W	10'	Carson to 212th	East	R,C

(1) See Figure F-1 for Typical Location of Noise Walls.

(2) Residential - R Commercial - C Industrial - I School - S Park - P

Table IV-3(continued)

SITE	LOCATION	MEAS.	NO PROJ.	BUS/ HOV	2005 ESTIMATED NOISE LEVELS				LAND USE ⁽²⁾
					NOISE BARRIER DATA				
					LOCATION ⁽¹⁾	AVERAGE WALL HEIGHT	WALL LIMITS	SIDE	
11	Eastbound Artesia/northbound 110 Connector	75	76	76	Shoulder	No Wall	---	East	I
12	Westbound Artesia/southbound 110 Connector	(3) 74	67	67	Shoulder	Existing Wall	173rd to 168th	West	R
13	168th Street near Figueroa Street	(3) 67	63	63	Shoulder	Existing Wall	173rd to Alondra	East	R,C
14	Estrella Avenue/south of Gardena Boulevard	(3) 65	60	61	Shoulder	Existing Wall	168th to Alondra	West	R,S,C
15	Alondra Boulevard east of Freeway	72	73	73	Shoulder	10' min.	Alondra to 154th	East	R,C
16	Alondra Boulevard west of Freeway	(3) 73	67	67	Shoulder	Existing Wall	Alondra to 159th	West	R
17	157th Street near Bonsallo Avenue	(3) 72	66	66	Shoulder	Existing Wall	159th to 155th	West	R
18	154th Street near Bonsallo Avenue	(3) 68	62	62	Shoulder	Existing Wall	155th to Redondo Bch. Bl.	West	R,C
19	Hoover Street north of 149th Drive	67	68	68	Shoulder	10' min.	149th to Rosecrans	West	R
20	Rosecrans Avenue at Estrella Avenue	73	74	74	R/W	10'	149th to Rosecrans	East	R

(1) See Figure F-1 for Typical Location of Noise Walls.

(2) Residential - R Commercial - C Industrial - I School - S Park - P

(3) Noise Readings Taken Prior to Construction of Walls.

2005 ESTIMATED NOISE LEVELS									
SITE	LOCATION	MEAS.	NO PROJ.	BUS/HOV	NOISE BARRIER DATA				LAND USE ⁽²⁾
					LOCATION ⁽¹⁾	AVERAGE WALL HEIGHT	WALL LIMITS	SIDE	
21	Rosecrans Avenue at Hoover Street	72	73	73	R/W	10'	Rosecrans to 141st	West	R
21-A	Hoover Street near 140th Street	63	64	66	R/W	10'	141st to El Segundo	West	R,S,C
22	127th Street west of Freeway	65	66	67	--	--	Future Route 105 Interchange Area	West	R
23	Grand Avenue north of 109th Place	70	71	71	--	--	Future Route 105 Interchange Area	West	R
24	Grand Avenue near 103rd Street	69	70	70	--	--	Future Route 105 Interchange Area	West	R
25	Southbound Freeway Off Ramp @ Century Boulevard	72	73	73	--	--	Future Route 105 Interchange Area	West	R,S
26	Northbound Freeway On Ramp @ Century Boulevard	71	72	72	--	--	Future Route 105 Interchange Area	East	R,C,I
27	Grand Avenue near 94th Street	69	70	70	Shoulder	10' min.	Colden to 92nd	West	R
28	Grand Avenue near 88th Street	69	70	70	Shoulder	10' min.	92nd to 89th	West	R
29	Southbound Off Ramp @ Manchester	70	71	71	Shoulder	10' min.	89th to Manchester	West	R,C

(1) See Figure F-1 for Typical Location of Noise Walls.

(2) Residential - R Commercial - C Industrial - I School - S Park - P

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2005 ESTIMATED NOISE LEVELS									
SITE	LOCATION	MEAS.	NO PROJ.	BUS/ HOV	NOISE BARRIER DATA				LAND (2) USE
					LOCATION (1)	AVERAGE WALL HEIGHT	WALL LIMITS	SIDE	
30	Northbound On Ramp @ Manchester	70	71	71	Shoulder	10' min.	Colden to 87th	East	R,S
31	Flower Street @ 59th Street	69	70	70	Shoulder	10' min.	Manchester to 59th	West	R,C,S
32	Grand Avenue @ 60th Street	70	71	71	Shoulder	10' min.	Manchester to 59th	East	R,C
33	Southbound On Loop @ Slauson Avenue	70	71	71	Shoulder	10' min.	59th to Slauson	West	R,C
34	Northbound Off Ramp @ Slauson Avenue	70	71	71	Shoulder	10' min.	59th to Slauson	East	R,C
35	Flower Street @ 56th Street	72	73	73	Shoulder	14'	Slauson to 54th	West	R,C
36	Grand Avenue @ 56th Street	70	71	72	Shoulder	14'	Slauson to 54th	East	R,C
37	Flower Street near 42nd Street	68	69	70	R/W	10'	54th to 42nd	West	R
38	At West Vernon School	64	65	67	R/W	10'	54th to 42nd	East	R,S
39	Grand Avenue @ 41st Place	66	67	68	R/W	10'	42nd to 40th	East	R,C

(1) See Figure F-1 for Typical Location of Noise Walls.

(2) Residential - R Commercial - C Industrial - I School - S Park - P

2005 ESTIMATED NOISE LEVELS									
SITE	LOCATION	MEAS.	NO PROJ.	BUS/ HOV	NOISE BARRIER DATA				LAND USE ⁽²⁾
					LOCATION ⁽¹⁾	AVERAGE WALL HEIGHT	WALL LIMITS	SIDE	
40	Flower Street and 41st Street	70	71	71	R/W	10'	42nd to 40th	West	R,C
41	Northbound Off Ramp @ M. L. King Jr. Blvd.	69	70	70	Shoulder	10' min.	40th to M. L. King Jr.	East	R
42	Southbound Off Ramp @ M. L. King Jr. Blvd.	69	70	70	Shoulder	10' min.	M. L. King Jr. to 39th	West	R,C
43	Flower Street near 38th Street	63	64	66	Shoulder	10' min.	39th to 37th	West	R,C
44	Hope Street near 37th Street	69	70	70	Shoulder	10' min.	M. L. King Jr. to 38th	East	R,C
45	Southbound Off Ramp @ 37th Street	69	70	71	Shoulder	10' min.	38th to 37th	East	R,C
46	Southbound Off Ramp @ Exposition Boulevard	67	68	69	Shoulder	No Wall	--	West	C
47	Hope Street @ 33rd Street	65	66	67	Shoulder	10' min.	Jefferson to 33rd	East	R
48	Flower Street @ 33rd Street	72	73	73	Shoulder	No Wall	--	West	C

(1) See Figure F-1 for Typical Location of Noise Walls.

(2) Residential - R Commercial - C Industrial - I School - S Park - P

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to the sites are not significant, with anticipated increases from 1 to 3 dBA. However, most sites have predicted levels approaching or in excess of the FHWA abatement criteria of 67 dBA for residential locations.

The following noise abatement measures would be incorporated with the recommended project.

1. Noise walls or berms or a combination of both at sufficient height to reduce the predicted 2005 noise level to the FHWA abatement criteria of 67 dBA or below at residential sites along the Harbor Freeway where highway transitway noise is the dominate source. These barriers will be of sufficient height to reduce noise levels a minimum of 5 dBA, and when feasible to intercept the intrusive noise emitted from exhausts of trucks.

The location of proposed noise walls for freeway cross-sections on embankment or in cut is shown on Figure IV-4.

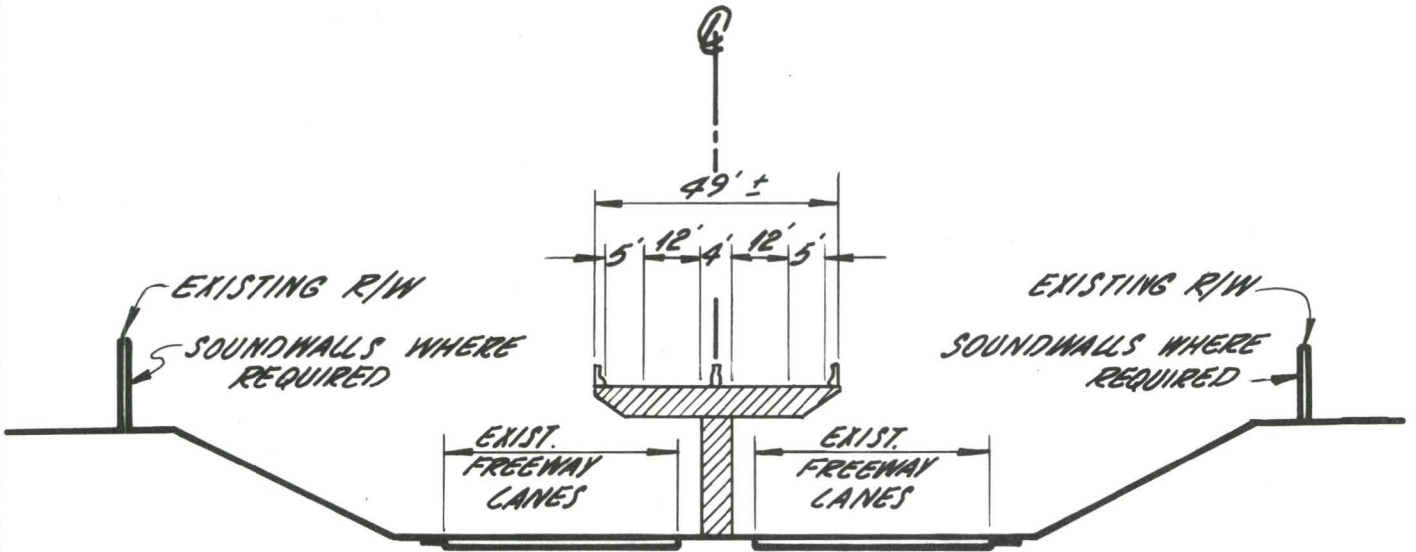
Currently, the noise study has not identified any length of highway or individual land use where no apparent solution is available to reduce noise impacts. However, no mitigations are proposed for the following general locations.

1. Where no major physical work is proposed within the right-of-way which includes the freeway north at 23rd Street.

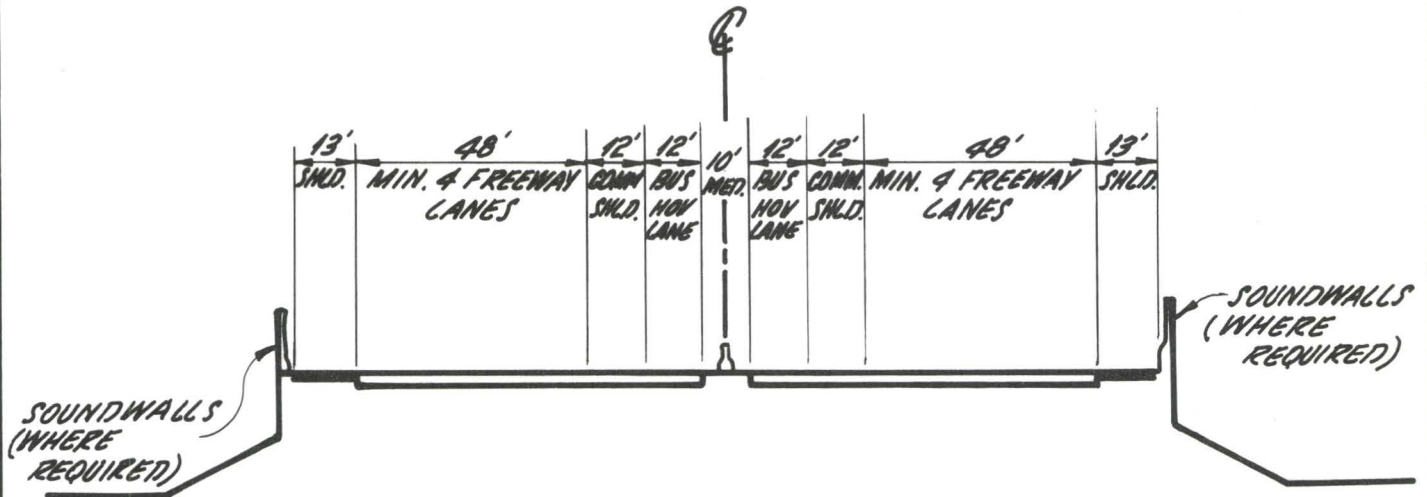


Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



ELEVATED SECTION



AT-GRADE SECTION

TWO-WAY BUS HOV LANES TYPICAL SOUNDWALL LOCATIONS

2. The second story and above of dwelling units where no outside activity is occurring.
3. Isolated residential units in commercial or industrial zoned areas. Where noise levels are not approaching or in excess of 72 dBA.
4. Locations where local opposition is sufficient to be considered general.
5. Any locations where noise abatement benefits are determined to not outweigh the overall adverse social, economic and environmental effects and the cost of the noise abatement measures.

Noise impacts at the future Route 110/105 Interchange will be mitigated by the 8 to 10 foot high soundwalls at the locations shown on Figure IV-3. This construction will be included with the route 105 freeway contract.

The Carson Street Park-and-Ride lot is the largest capacity lot affecting a residential area. The only ingress to the Park-and-Ride lot is by way of 214th Street, a residential street. Noise contributed by Park-and-Ride traffic in the morning peak hour is estimated to be 55 dBA (L_{eq}). Since this is well below the 67 dBA (L_{eq}) FHWA noise abatement criteria, it is concluded that no significant impact will occur by virtue of the construction of this or any other Park-and-Ride facility.

G. New Shadows and Light

The recommended alternative and the other Harbor Freeway alignment alternatives that have centerline columns will cast new shadows on

the Freeway. While column shadows will create alternating patches of light and dark, the impacts from this condition would not be significant. Any aerial structures required for buses and HOV's to exit the guideway will cast shadows in that location. The impact of these shadows would not be significant.

If parking facilities are built in residential areas, the amount of light present during evening and night hours would be increased by parking lot lighting and automobile headlights. Residents adjacent to the parking lots may be affected by automobile headlights shining directly into home windows. This nuisance would be reduced by using low shrubbery or low walls so that automobile headlights do not shine on windows of buildings adjacent to or across the street from parking facilities. The visibility of the lot from the outside would not be impaired by low shrubs or walls.

H. Biological Impacts

For the recommended alternative, small amounts of landscape vegetation would be removed due to freeway widening, redesign of on-off ramps and construction of transit facilities. Small amounts of vegetation would be impacted and new landscaping, done wherever feasible, would mitigate the biological impacts.

In bus/HOV 4, 13 acres (6 linear miles) of freeway landscaping would be permanently removed. This is about 1/4 of the total of the freeway's landscaping. The landscaping currently provides nesting sites for passerine birds and roosting sites for raptors. Removal of this much landscaping would reduce the bird population

along the Harbor Freeway. As the study area is highly urbanized, this loss might be significant. Because the landscaping would be replaced by vertical retaining walls and pavement, no complete mitigation for this loss is possible. However, planting trees in the remaining landscaped area will partially compensate for the loss; such tree planting will be done as partial mitigation.

I. Relationship to Local Plans, the California Urban Strategy and the Coastal Zone

1. Local and Regional Plans

A transitway located in the Harbor Freeway corridor is an integral part of, and therefore would comply with the Los Angeles Regional Transportation Development Plan (RTDP). The goals of the freeway transit element of this plan are:

- a. To increase transit use by making it attractive to the public.
- b. To improve air quality by reducing the number of vehicle miles traveled.
- c. To reduce gasoline consumption by promoting more fuel efficient ways to travel.
- d. To utilize existing freeway rights of way for transit use.

The recommended alternative utilizing the Harbor Freeway alignment would help meet all of the goals of the RTDP.

The Los Angeles County General Plan proposes a transitway in the Harbor Freeway corridor between the Santa Monica Freeway (I-10) and the proposed Century Freeway (I-105). County policy is to support bus/HOV transitway until patronage justifies conversion to rail. Between the Santa Monica and the Century Freeways the proposed transitway is in accordance with this county policy.

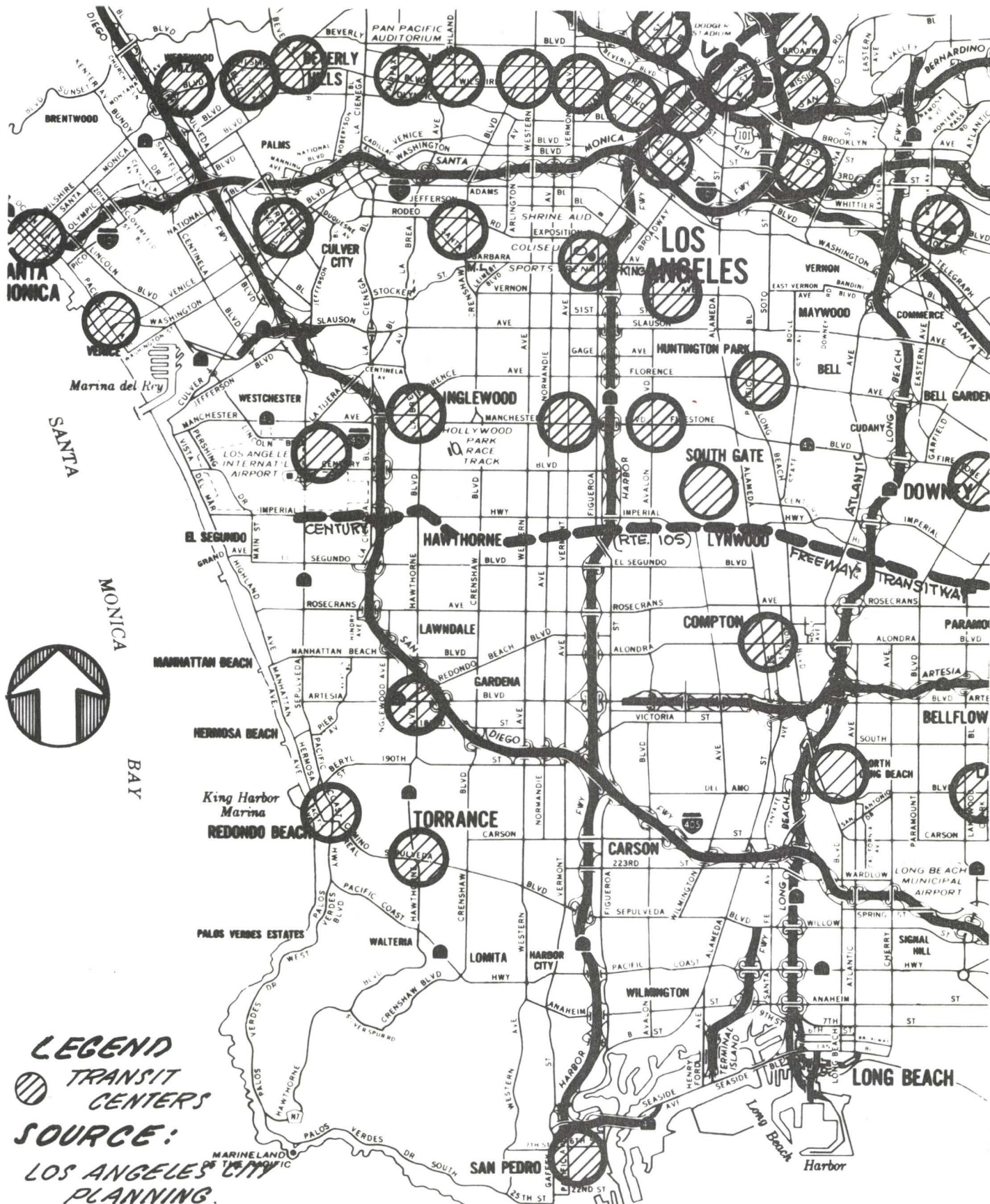
The City of Los Angeles General Plan theorizes that a rapid transit system should be developed to form a network connecting designated "centers". These "centers" are areas of high transit demand. Rapid transit stations would only be located in the core of these "centers". The location of the transitway on the Harbor Freeway will not permit the location of transit stations within the core of these "centers". Only an entirely new alignment would provide for this type of station location, the cost of which would dramatically increase as would social, economic and environmental impacts. However, a number of centers would be served by proposed stations although not located in the core of these "centers".

The 1974 City of Los Angeles Concept Plan identified "centers" along the Harbor Freeway Corridor at several locations within the CBD, and to the south at Exposition Park/U.S.C., Vernon/Central, Vermont/Manchester Streets, Avalon/Manchester, Watts and in Downtown San Pedro. The City Centers Concept Plan calls for rapid transit services to connect these and other "centers" (see Figure IV-5).



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HARBOR FREEWAY CORRIDOR



CITY CENTERS CONCEPT PLAN

FIGURE II-5

The TSM alternative would generally improve circulation along the existing bus routes within the corridor. This improvement would be in mixed conformance with the Concept Plan insofar as some existing bus routes connect these "centers".

The recommended alternative would improve transit service between the Downtown "centers", the Exposition Park/U.S.C. "centers" and the San Pedro "center". The Avalon/Manchester, Watts, and Vernon/Central "centers" are not supported by any of the proposed transit alternative except by the use of feeder bus lines.

The adopted Southeast Los Angeles and South Central Los Angeles Community Plans identify the Harbor Freeway corridor as a "rapid transit corridor". The adopted San Pedro Community Plan identifies a rapid transit line and station which is essentially the same as proposed in this EIS. There are alternative configurations in the San Pedro Community Plan which conform to the Harbor Freeway alternative. In summary, the recommended alternative is consistent with the adopted City of Los Angeles Community Plans within the affected corridor.

The City of Gardena and City of Carson General Plans make no mention of transit improvements. It appears from an examination of the land uses affected, that the transit alternative is compatible with these two local general plans.

2. California Urban Strategy

A transitway located in the Harbor Freeway Corridor would be in compliance with the main goals of the California Urban Strategy. According to the Urban Strategy, priority should be given to constructing transportation facilities that serve the long term needs of existing urban and suburban areas. The major construction and TSM alternatives would provide one part of a transit system that would serve California's largest and most densely populated urban area. Additionally, these alternatives would reduce dependence on individual automobile use by creating an efficient public transit alternative in the Harbor Freeway Corridor. Reduction of dependence on automobile use is also a goal of the Urban Strategy. Another goal of the Urban Strategy is to provide access to recreational and cultural activities. A transitway would allow the transit dependent easier access to these activities.

Implementing the recommended alternative might encourage some people to live a longer distance from their work places because commuting to and from work would be easier. While this appears inconsistent with one of the goals of the Urban Strategy, it, in reality, is not. Transportation is only one factor determining where people choose to live. Other factors such as social class and economic status often outweigh transportation as factors influencing housing decisions. It should be noted that all of the areas serviced by the proposed alternative is already heavily urbanized.

3. California Coastal Zone

None of the transit facility improvements proposed as a part of the recommended alternative are within the Coastal Zone. The closest major transit facility will be the transit center and park-and-ride lot proposed at Channel Street (see Figure IV-6 and Exhibit 10 of 10 in Appendix A).

A portion of the freeway reconstruction and restriping for an additional lane on the I-110 Freeway is within the Coastal Zone boundary. This traffic mitigation work on the freeway will not impact any coastal resources.

The California Coastal Commission has been consulted and have indicated that the project will require a permit for the improvements between B Street to Channel Street which are in the Coastal Zone. The city of Los Angeles is responsible for issuing this permit. See Chapter XI Page 56. In summary the recommended project will not negatively impact any coastal resources including public access, recreational facilities, the marine environment, land resources, or future developments.

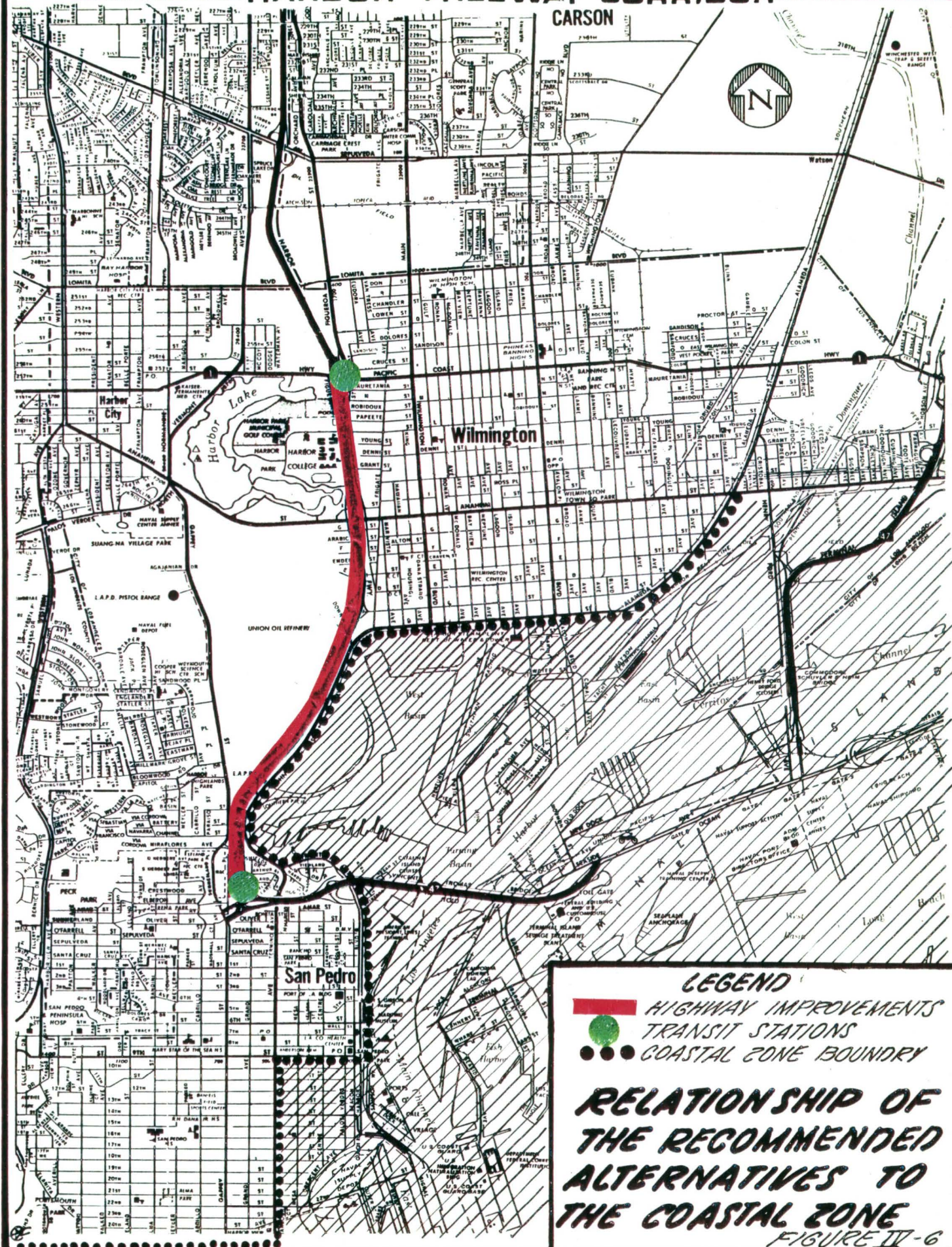
J. Effects on Minorities, Special Interest Groups, and Communities

Much of the study area's population is made up of members of the Black and Hispanic minority groups. Therefore, many transit patrons would be members of these groups. The consequences of the project, both positive and negative, would mainly affect them. No significant long term adverse impacts on minorities, special interest groups or communities are expected. In order to assist






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HARBOR FREEWAY CORRIDOR

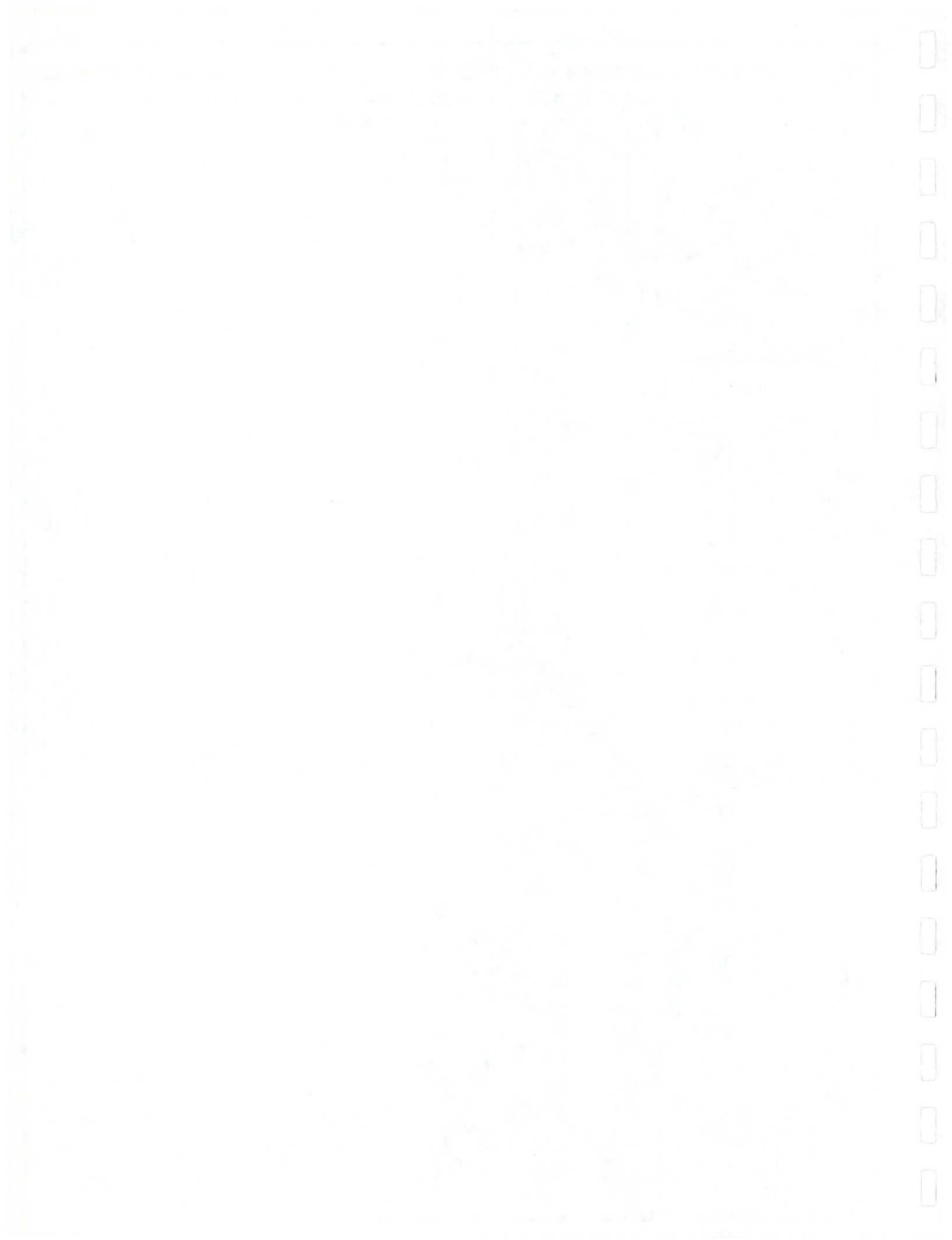


LEGEND

-  HIGHWAY IMPROVEMENTS
-  TRANSIT STATIONS
-  COASTAL ZONE BOUNDARY

RELATIONSHIP OF THE RECOMMENDED ALTERNATIVES TO THE COASTAL ZONE

FIGURE II-6



minority patrons, all informational signing in transit facilities would be in both English and Spanish. Standard international symbols would be used on signs whenever possible.

Policies and concepts have been developed that would ensure that all transit facilities and vehicles would either be fully accessible to handicapped and elderly patrons or equivalent service would be provided. Parking lots would provide preferential parking for the handicapped. When necessary, elevators allowing easy access to station sites for elderly and handicapped would be provided. Public service facilities such as restrooms, drinking fountains, and telephones, would be accessible to the handicapped.

Buses would be equipped with lifts. Vehicles would have specific areas reserved for patrons in wheelchairs, and would be equipped with intercoms. If it is determined that it is more cost effective to provide separate specialized service for the handicapped, this service would be provided in lieu of more expensive design features.

Shorter transit times between the southern portion of the study area and the LACBD could make already attractive and expanding neighborhoods even more attractive. Consequently, population growth and higher density residential development in the southern part of the study area could be accelerated. Any such development would be viewed by some people in the community as beneficial,

while others would see it as detrimental to the community.

If the full joint development potential for the study area is reached, high density development would be constructed in the vicinity of station sites leading to an increase in the population density. However, increased development is not guaranteed by construction of the transitway. In many cases, studies indicate that government monies would be required for development to occur.

Improved access will help to draw the corridor communities closer together and enhance corridor community ties to the Los Angeles CBD. On a smaller community scale, the transitway alternatives generally would not divide any neighborhoods. The Harbor Freeway already acts as a barrier between neighborhoods. Use of the Harbor Freeway right-of-way would not have any additional divisive impact. There will be possible traffic intrusion into the residential areas near the Carson, Rosecrans and Slauson stations.

There would not be enough business or residential displacement to alter the character of any neighborhood. For a specific discussion about business and residential dislocation see the following section.

Construction related impacts would disrupt neighborhoods because of the traffic congestion, traffic rerouting, dust, noise, fumes and the other inconveniences associated with major construction sites. For further discussion of construction related impacts see Section IV-T.

K. Effects on Businesses and Residences

1. Business and Residential Displacement

The displacement of businesses and residences vary, depending upon the alternative. The no project and TSM alternatives would have no impact. The estimated residential and business displacements for the major construction alternatives are shown in Table IV-4. Wherever feasible, transitway related facilities will be confined to currently owned right-of-way to minimize displacement impacts.

The recommended projects' impact on business is minimal given the length of the corridor. Twenty-four businesses, two non-profit organizations and one abandoned non-profit organization would be full takes resulting in the displacement of 112 employees.

Most of the businesses under consideration are local serving and since their clientele are not impacted they are expected to relocate within the area. From observation and discussion with several real estate brokers specializing in commercial property, it appears there is sufficient space available to relocate all affected businesses within the local community. (See Appendix L).

The project would also displace two active churches, the Seventh Day Adventist Church at 650 W. 21st Street and the United Church of Christ at 37th and Hope Street. The project also would displace the abandoned Holy Faith Apostolic Church located at 469 West Manchester.

Table IV-4

Estimated Residential and Business Displacements

Alternative	Residential Units/Families	Business
No Project	0	0
TSM	0	0
Bus/HOV 1	10	6
Bus/HOV 4**	114	27***
Bus/HOV 7	51	14
Bus/HOV 8a & 8b	6	6
Rail 1*	6	8
Rail 4*	6	8
Rail 6*	43	26
Rail 7*	14	8

*In addition to the displacements listed above an at grade rail guideway between Channel Street and Ports O'Call would require a partial take from Todd Pacific Shipyards. Proposed industrial and parking facilities would be impacted.

**Recommended Alternative

In March, 1984, Right-of-Way updated the takes for the recommended alternative. The new business takes are the result of previously vacant land sites that were developed since the DEIS. The additional dwelling unit takes are the result of design refinement. The other alternatives would also have comparable increases.

***Includes two non-profit organizations and one abandoned non-profit organization.

Our investigation of the two active churches to be displaced by the project indicates that neither of the two churches exclusively serve the immediate neighborhoods in which they are located.

The United Church of Christ, also known as the Dae Kwang Church serves an English, a German and a Korean-speaking congregation.

The Church on 21st Street is one of the oldest established Seventh Day Adventist Churches. Church services draw worshipers from all areas of the Los Angeles basin.

The recommended project would necessitate the displacement of 34 single family residences and 80 multiple family residences. Taking the length of the project into consideration, impact on housing is minimal. Residential displacements are concentrated mainly in the Central Los Angeles area between 35th and 85th Streets.

A block by block examination of the 1980 census data shows that in some blocks Spanish surname residents comprise 77%-91.2% of the population, in other affected blocks, Blacks represent 49%-100% of the population. Only a small group are elderly (65+). For age and ethnic distribution, please see Appendix L, Tables I and II. There is no available census information regarding disability.

In order to determine the availability of single-family residences, an analysis of the real estate market was made. Information from the multiple listing services serving the displacement area, newspaper ads and for sale signs, indicated a

steady supply of single-family residences for sale. As we expect all the displacees to be fully Relocation Assistance Program (RAP) eligible, relocation for those families owning single-family residences does not seem to present a problem. A study of available low rent residential properties shows that the vacancy rate in the displacement area is low; therefore, there might be a problem in locating comparable low rent apartments.

Further studies indicate that most of the single-family residences are renter occupied. The multiple family residences (mainly duplexes and fourplexes) usually have one of the units occupied by the owner.

Those displacees from multi-family residential units will also be fully eligible for Relocation Assistance Placement. They would receive rental supplement payments including, when applicable, "last resort" payments to meet displacees' needs in order to make existing higher price private sector rental housing affordable. For a detailed description of Relocation Benefits, please see Appendix L.

The Federal-Aid Highway Program Manual 7-5-6 contains the policy and procedure for implementing the Last Resort Housing Program on Federal-Aid highway projects, effective on March 1, 1977.

The State Department of Transportation, with full knowledge of the hardships created by the consequential displacement of individuals and families because of highway construction, and in a humane and

fair effort to ameliorate the direct impact on a few for the public betterment of the rest, has adopted these Federal guidelines on non-Federal-Aid highway projects as well. This effort and adoption of Federal guidelines constitute a real concern for displaced persons and a needed step to unify the provisions of the Federal and State Relocation Assistance Acts.

As mitigation for any displacements, business and residences would receive relocation assistance according to State and Federal regulations in force at the time of relocation. These resources are available to all relocatees regardless of race, color, religion, sex, or national origin as accorded under the 1964 Civil Rights Act.

2. Joint Development and Value Capture

As part of the evaluation of the Harbor Freeway corridor, consultants were retained by SCRTD to study the joint development and value capture potential of the Vermont Avenue and Harbor Freeway alignments. The following is a summary of the findings of the consultant study. Harbor Freeway Corridor Joint Development and Value Capture Project, Blaney-Dyett, Urban and Regional Planners, May, 1981.

Most of the land close enough to proposed station sites to be considered for joint development is already committed to urban uses. Only 12% of the land within walking distance of the proposed stations is available for joint development.

If all the potential joint development along the Harbor Freeway alignment is realized, 6,500-9,500 additional jobs, and 475-500 additional housing units would be located within walking distance of the transit stations. This would significantly increase the employment base of the area, although, some of this increased employment may occur without construction of the transit way. Public assistance would be necessary to build most of the additional housing.

Again, some of the increase in employment may be achieved without the transitway and public assistance would be required for most of the housing construction.

In order to achieve the maximum joint development potential, some amendments to general plans and rezoning would be required.

A transit system alone would not give business a significant incentive to encourage location or expansion within the study area. A number of other factors such as economic trends, public policies and plans, location image, land availability, and financing practices influence business decisions.

The consultants recommend a cooperative strategy among government agencies and private business to implement joint development in the study area. Both alignments of the proposed transitway would pass through or near several redevelopment areas. Figure IV-7 shows the relationships between the proposed alignments and redevelopment areas in the study area.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



PICO UNION 1 & 2
NORMANDIE 4321

BUNKER HILL
LITTLE
TOKYO

M.L. KING JR. BLVD.
(FORMERLY SANTA
BARBARA AVE.)
SCLAUSON
AVE.

HOOVER

VERMONT-SCLAUSON
REVITALIZATION
PROJECT

HOLLYWOOD BLVD.
SANTA MONICA
BLVD.
OLYMPIC
SANTA MONICA
FREEWAY

CBD

HARBOR FWY.
(RTE. 10)

FLORENCE
AVE.

MANGHESTER BL.
(ROUTE 42)
CENTURY BLVD.

ARTESIA
BLVD.

AVE.
NORMANDIE
VERMONT

MAIN ST.

IMPERIAL HWY.
EL SEGUNDO-NORWALK
FINY. TRANSIT. (ROUTE 105)
EL SEGUNDO BLVD.
ROSECRANS AVE.

190TH ST.
CARSON ST.

FIGUEROA

AVALON BLVD.

ALONDRA BLVD.
REDONDO BEACH FWY.
(ROUTE 91)
VICTORIA ST.

BEACON
STREET

SAN DIEGO FWY.
(ROUTE 405)
SEPULVEDA BLVD.

GAFFEY
ST.

LA HARBOR
MAIN
CHANNEL

TERMINAL
ISLAND FWY.

ANAHEIM ST.

PACIFIC COAST HWY.
(ROUTE 1)

REDEVELOPMENT AREAS

FIGURE IV-7

Value capture would not be a significant source of funds for either capital or operating costs for any alternative. Use of value capture to obtain revenues for constructing the proposed transitway or operating the proposed transit line would constrain joint development opportunities.

L. Effects on Community Facilities and Public Services

1. Public Safety

The recommended alternative would involve potentially significant public safety impacts.

a. Crime

The recommended alternative would expose transit riders to crime. In transit stations and parking facilities, there is a high potential for crime due to the large volume of people and autos which would be in and around them, and the high crime rates in the neighborhoods where some transit stations would be located. The following mitigation measures to reduce the crime potential on the proposed transit system would be instituted:

1. Stations would be designed to deter criminal activity. They would have open interiors and be well lit. The main portion of the station would be accessible only after fares are paid, and security devices such as closed circuit television would be installed.

2. Parking facilities would have open interiors and be well lit. Open and illuminated access would be provided between parking lots and transit stations.

3. Transit security personnel would patrol stations, parking facilities, and transit vehicles.

The number of sworn security officers necessary to police the transitway is estimated to be about 69. This number is based on having 3 officers per mile of transitway. This number of officers per mile is somewhat higher than the average of typical rail rapid transit systems listed in Table IV-5 because much of the study area is high in crime.

Table IV-5
Summary of Typical Rail Rapid Transit Systems
Sworn Security Officers

<u>System</u>	<u>Officers</u>	<u>Route Miles</u>	<u>Stations</u>	<u>Daily Passengers</u>	<u>Officers Per Mile</u>	<u>Per Station</u>
Bart	106	75	34	150,000	1.4	3.1
Wash D.C. (1979)	163	37	41	180,000	4.4	4.0
Chicago	250	90	142	500,000	2.8	1.8
PATCO	21	14.5	13	48,000	1.4	1.6
SCRTD*	45	18	17	265,000	2.5	2.6

*SCRTD proposal for the Wilshire rail line security force.

Source: SCRTD

In addition to sworn security officers, security can be provided by other personnel in stations, parking lots, and on vehicles. Generally, the number of sworn security officers may be reduced by increasing the number of transit personnel and properly designing transit facilities.

4. Rapid reliable communications between transit vehicles and the police would be installed.

5. An aggressive public awareness campaign to alert transit riders to crime prevention techniques would be instituted. Of course there is a potential that the higher the awareness, the lower the motivation to use transit, e.g., "Using this product may be hazardous to your health."

a. Fire and Evacuation

The recommended alternative would subject passengers to evacuation and fire hazards. The fire hazard level is linked to the evacuation hazard level because dispersal of transit users from a fire location removes them from danger. Evacuation hazards would be reduced by designing stations and guideways to facilitate the movements of evacuees and emergency vehicles in emergency situations using emergency lighting, evacuation walkways, improved access to guideways, and trained personnel. Vehicles would be designed to facilitate rapid evacuation. Fire hazards would be reduced by using fire retardant materials in constructing stations, guideways, and vehicles. Wet fire lines and automatic fire suppression devices in stations, and fire extinguishers on vehicles, would also reduce fire hazards. Rapid effective communications between stations and vehicles, and emergency services would speed emergency response. Despite mitigation, aerial and subway facilities would be more hazardous than at-grade facilities.

b. Emergency Vehicle Routes

The recommended alternative would provide a relatively congestion free route for emergency vehicles that could be routed on them.

2. Public Utilities

The relocation of existing utilities, overhead and subsurface, will be required for the recommended alternatives.

Bus/HOV 4 would require the relocation of existing overhead facilities at a cost of \$1.0 million (1981 dollars). Some of the utilities which would be affected are gas, water, petroleum products, sewage, electrical, telephone, and storm drains.

3. NOAA Monuments

The National Oceanic and Atmospheric Administration (NOAA) will be notified in advance of any construction that would disturb any geodetic control survey monuments. The cost of relocating any NOAA monuments will be included as mitigation for this project.

4. Community Facilities

No community facilities will be adversely impacted by the recommended alternative of the proposed transitway. Access to community facilities within walking distance of station sites will be greatly improved. Facilities with the greatest increase in access are shown in Table IV-6.

M. Circulation Impacts

1. Transitway Impacts

Permanent changes in traffic circulation are discussed in this section while temporary impacts due to construction are discussed in Section T of this chapter.

Bus/HOV 4 would require the relocation of existing overhead facilities at a cost of \$1.0 million (1981 dollars). Some of the utilities which would be affected are gas, water, petroleum products, sewage, electrical, telephone, and storm drains.

TABLE IV-6

Community Facilities With the Greatest
Increase In Access

ALIGNMENT	STATION	FACILITY
Both	Convention Center	Convention Center
Both	Exposition-Martin Luther King Jr. Boulevard	USC Shrine Auditorium Natural History Museum Science & Industry Museum Exposition Park L. A. Coliseum
Harbor Freeway	Slauson	Hubert Humphrey Medical Center
Vermont Avenue	Slauson	Vermont Slauson Shopping Center
Both	Carson	Harbor Medical Center
Vermont Avenue	Sepulveda	Vermont-Sepulveda Commercial District
Harbor Freeway	Pacific Coast Highway	Harbor College Harbor Regional Golf Course
Vermont Avenue	Pacific Coast Highway	Harbor Park Kaiser Medical Center
Both	Channel Street	Leland Park Los Angeles Harbor Employment
Both	Ports O' Call	Ports O' Call Village Los Angeles Harbor Employment

Long term impacts of the transitway on the I-110 Freeway would be beneficial when compared to the no project alternative. While the transitway will remove a substantial number of commuters from the freeway, the freeway lanes will operate at or very near capacity during most of the peak periods of use. This continued congestion has two causes:

- growth in population and employment opportunities within the study corridor
- latent demand by travelers using other routes, travel times or destinations, transferring to the "unloaded" freeway.

Between 300 and 700 cars per hour would be removed from the freeway during peak hours. This reduction would occur because the occupants of these autos would switch to transit. The decrease in traffic would be short term because traffic currently using parallel surface streets would be drawn to the freeway. The net result would be a slight decline in traffic on parallel streets, unless strict ramp metering policies discourage this transfer.

2. Station Site Traffic Impacts

The construction of transit system stations in the Harbor Freeway corridor will impact traffic movement on surface streets. The impacts will range from minor, with no mitigation measures required except for facilities to remove feeder buses from the traffic stream; to severe, with such mitigation efforts as street widening, right-of-way acquisition and traffic signal installation or modification.

Review of the patronage projections at stations along the Harbor Freeway alignment reveal no significant difference between bus and rail modes in the number of private autos attracted to each station; the higher volume of the rail alternative results from the number of patrons walking or riding local transit to the station. Therefore, in the interest of brevity, the impacts for the Harbor Freeway alignment are analyzed only for the "worst-case" rail alignment. Since the actual difference between the numbers of patrons either utilizing local transit or walking to each station for the two modes is rather small, averaging 11% more via local transit and 7% more via walking for rail transit over bus transit, the reduction in impacts or needed mitigation efforts if a bus transit system were chosen would be minimal, and, for the purpose of this report, can be discounted.

The following tables provide descriptions of the traffic impacts and improvement measures and impacts for each of the Bus/HOV 4 station sites. Table IV-7 describe the service levels which are used to describe various intersection conditions at the station sites. Table IV-8 describes each of these stations' sites and have been updated to reflect conditions and patronage for the year 2005. There is no appreciable difference between the level of service for the year 1995 and 2005. The growth rate in this ten year period is projected as insignificant. The patronage increase for this time period is also insignificant and would not change the level of service on the local streets. All the stations will have bus bays or off-street bus loading to minimize the effects of increased bus operations. In all cases, the mitigation measures will have no significant environmental impact.

Table IV-7

LEVEL OF SERVICE DESCRIPTIONS

Level of Service	TRAFFIC QUALITY	Nominal Range of ICU (a)
A	Low volumes; high speeds; speeds not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.	0.00 - 0.60
B	Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.61 - 0.70
C	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard.	0.71 - 0.80
D	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as design standard in urban areas.	0.81 - 0.90
E	Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.91 - 1.00
F	Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume which occurs at level of service E.	Not Meaningful

(a) ICU (Intersection Capacity Utilization) at various level of service versus level of service E for urban arterial streets.

Source: Highway Capacity Manual. Highway Research Board Special Report 87. National Academy of Sciences, Washington D.C., 1965 page 320.

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites

STATION SITE: CONVENTION CENTER INTERFACE

Impacted Streets & Intersections	2005 Condition (Peak Hour Only)		2005 Condition + Project		2005 Condition + Project + Improvements*	
	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies
Blaine Street	F	None	F	None	D	None
11th Street	F	None	F	Left turn into center	D	None
Pico Boulevard	C	None	C	None	C	None
Figueroa	C	None	C	None	C	None
Figueroa and Pico Intersection	C	None	C	None	C	None

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- IMPROVEMENTS:
- a. Widen Blaine Street between Olympic Boulevard and 11th Street to provide additional southbound lane.
 - b. Widen 11th Street between Blaine Street and Sentous Street to provide two lanes in each direction plus left-turn channelization.
 - c. Provide direct access between the eastbound Santa Monica Freeway and the Convention Center, preferably at the existing northbound Harbor Freeway/westbound Santa Monica Freeway off ramp at Cherry Street and Pico Boulevard; if not at this location, then at one where a traffic signal exists or can be installed with minimal impact on traffic.

PATRONAGE: (Peak Hour Only) N/A

Auto	_____	Person
Bus	_____	Trips
Walk	_____	Trips
Other	_____	Trips
Total	_____	Trips

*The above improvements are not necessary for the operation of Bus 4. These improvements would be needed to implement a rail alternative.

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: 37TH STREET (EXPOSITION BOULEVARD)

Impacted Streets & Intersections	2005 Condition (Peak Hour Only)		2005 Condition + Project		2005 Condition + Project + Improvement*	
	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies
(110 Alternatives)						
37th Street	C	None	D	Left turn into station	C	None
Hope Street	C	None	D	None	D	None
Flower Street	D	None	D	None	D	None
Grand Avenue	D	None	D	None	D	None
37th and Hope Intersection	D	None	D	None		
(Vermont Alternative)						
Figueroa	D	None	F	Station access	F	Station access
Jefferson	D		F	None	F	None
Figueroa and Jefferson Int.	D	None	F	All turns	F	All turns

*IMPROVEMENT: Widen 37th Street between Flower & Grand Avenue to provide left turn channelization.

IMPROVEMENT IMPACTS:
There are two partial business parking area takes.

PATRONAGE: (Peak Hour Only) N/A

	Person
Auto	360 Trips
Bus	1,290 Trips
Walk	650 Trips
Other	20 Trips
Total	2,230 Trips

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TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: SLAUSON

Impacted Streets & Intersections	2005 Condition (Peak Hour Only)		2005 Condition + Project		2005 Condition + Project + Improvements*	
	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies
Slauson	F	None	F	None	D	None
Slauson and Figueroa	F	Left turn	F	Left turn	F	Left turn
Slauson and Broadway	D	Left turn	F	Left turn	D	None
110 on/off ramps on Slauson	D	None	F	Station access	F	Station access

*IMPROVEMENTS: (110)

Westbound bus/kiss and ride bays on Slauson. Widen Slauson to 6 lanes plus left turn signalization at Figueroa and Broadway intersections.

IMPROVEMENT IMPACTS:

There would be 2 partial business takes for the widening of Slauson. These partial takes are frontage areas only and would not affect local business operations.

PATRONAGE: (Peak Hour Only) N/A

	Person
Auto	150 Trips
Bus	670 Trips
Walk	320 Trips
Other	10 Trips
Total	1,150 Trips

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: MANCHESTER

Impacted Streets & Intersections	2005 Condition (Peak Hour Only)		2005 Condition + Project		2005 Condition + Project + Improvement*	
	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies
Manchester	F	None	F	None	F	None
Broadway	C	None	D	None	D	None
Manchester and Broadway Intersection	D	None	F	None	F	None
Manchester and Figueroa Intersection	C	None	C	None	C	None

*IMPROVEMENT: (110)

Close 87th Street west of parking site.

IMPROVEMENT IMPACTS:

There are no right-of-way takes for the improvement.
The closure of this street is not crucial to local circulation.

PATRONAGE: (Peak Hour Only) N/A

	Person
Auto	210 Trips
Bus	1,160 Trips
Walk	530 Trips
Other	20 Trips
Total	1,920 Trips

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: ROSECRANS

<u>Impacted Streets & Intersections</u>	<u>2005 Condition (Peak Hour Only)</u>		<u>2005 Condition + Project</u>		<u>2005 Condition + Project + Improvement*</u>	
	<u>Level of Service</u>	<u>Movement Deficiencies</u>	<u>Level of Service</u>	<u>Movement Deficiencies</u>	<u>Level of Service</u>	<u>Movement Deficiencies</u>
Rosecrans	F	None	F	None	F	None
Rosecrans and 110 on-off ramps	F	All Turns	F	Station access All turns	F	Station access Most turns

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*IMPROVEMENT: (110)
Widen Rosecrans/110 overcrossing.

IMPROVEMENT IMPACT:
There are no right-of-way takes for the improvement.

PATRONAGE: (Peak Hour Only) N/A

	Person
Auto	180 Trips
Bus	30 Trips
Walk	80 Trips
Other	10 Trips
Total	300 Trips

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: ARTESIA

<u>Impacted Streets & Intersections</u>	<u>2005 Condition (Peak Hour Only)</u>		<u>2005 Condition + Project</u>		<u>2005 Condition + Project + Improvement*</u>	
	<u>Level of Service</u>	<u>Movement Deficiencies</u>	<u>Level of Service</u>	<u>Movement Deficiencies</u>	<u>Level of Service</u>	<u>Movement Deficiencies</u>
Artesia	C	None	D	Station Access	C	None
Artesia and Normandie	C	None	C	None	C	None
Artesia and Vermont	D	None	E	Left and right turn movements	D	None

NOTE: Traffic analysis assumes completion of 91/110 improvement project now under construction.

*IMPROVEMENT: Signal at station access driveway on Artesia.

IMPROVEMENT IMPACT:

No right-of-way takes for the improvement.

This might impede traffic flow for the end of Freeway (State Route 91) condition.

PATRONAGE: (Peak Hour Only) N/A

	Person
Auto	570 Trips
Bus	380 Trips
Walk	160 Trips
Other	10 Trips
Total	1,120 Trips

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: CARSON

<u>Impacted Streets & Intersections</u>	<u>2005 Condition (Peak Hour Only)</u>		<u>2005 Condition + Project</u>		<u>2005 Condition + Project + Improvements*</u>	
	<u>Level of Service</u>	<u>Movement Deficiencies</u>	<u>Level of Service</u>	<u>Movement Deficiencies</u>	<u>Level of Service</u>	<u>Movement Deficiencies</u>
Carson	D	None	E	Left turn to parking	D	None
Carson and Vermont	D	None	E	Left turn from Carson eastbound	D	None

*IMPROVEMENTS: Possible traffic signals at parking area driveway on Vermont. Widen Carson Street at parking area driveway. Left hand turn signal phasing, eastbound Carson to northbound Vermont. Additional access from east side of Vermont to parking area. Provide station access to east side of Vermont, north of Carson. Limit ingress-egress at driveway to north side of Carson to right turn only.

PATRONAGE: (Peak Hour Only) N/A

IMPROVEMENT IMPACTS:

No right-of-way takes for these improvements.
Possible traffic intrusion into residential area, using 214th Street in order to gain access to the Park-and-Ride lot.

	Person
Auto	350 Trips
Bus	30 Trips
Walk	160 Trips
Other	10 Trips
Total	550 Trips

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: PACIFIC COAST HIGHWAY

Impacted Streets & Intersections	2005 Condition (Peak Hour Only)		2005 Condition + Project		2005 Condition + Project + Improvements*	
	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies
Pacific Coast Highway	D	None	D	None	D	None
Figueroa	D	None	E	Left turn from southbound fig. to parking area	D	
P.C.H and Figueroa	D	None	D	None	D	None
P.C.H. and 110 on-off ramps	C	None	C	None	C	None

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*IMPROVEMENTS: (110)

Use both parking sites, one for buses, one for autos.
Prohibit left turns from southbound Figueroa at driveway.
Locate parking access driveway as far east from Figueroa as possible.

IMPROVEMENT IMPACTS:

There are no right-of-way takes for these improvements.

PATRONAGE: (Peak Hour Only) N/A

	Person
Auto	280 Trips
Bus	130 Trips
Walk	170 Trips
Other	10 Trips
Total	590 Trips

TABLE IV-8 Traffic Impacts at Bus/HOV Station Sites (continued)

STATION SITE: CHANNEL STREET (SAN PEDRO)

Impacted Streets & Intersections	2005 Condition (Peak Hour Only)		2005 Condition + Project		2005 Condition + Project + Improvements*	
	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies	Level of Service	Movement Deficiencies
Channel Street	F	None	F	Access to station	F	None
Gaffey Street	D	None	D	None	D	None
Channel and Gaffey Intersection	F	Right turn from N/B Gaffey to E/B Channel	F	Right turn from N/B Gaffey to E/B Channel	F	Right turn from N/B Gaffey to E/B Channel
Channel and Pacific Intersection	D	None	F	Left turn from N/B Pacific to N/B Channel	F	Left turn from N/B Pacific to N/B Channel

*IMPROVEMENTS: Locate parking lot driveway on east side of Gaffey Street as far north of Channel Street as possible. Widen Gaffey Street to 6 lanes plus left turn channelization between Capitol Drive and Channel Street.

PATRONAGE: (Peak Hour Only) N/A

IMPROVEMENT IMPACTS:

There are no right-of-way takes for these improvements.

	Person
Auto	400 Trips
Bus	480 Trips
Walk	90 Trips
Other	20 Trips
Total	990 Trips

37th Street (Exposition Boulevard) Station

A station at this location would utilize parking in an existing Department of Motor Vehicles lot located at 37th Street and Hope Street. Because of the configuration of the street system, which is interrupted by the Harbor Freeway and a Southern Pacific Transportation Company rail line, the major access to the site would be via 37th Street, with the parking lot entrance expected to be on Hope Street. Because Exposition Boulevard becomes an on-ramp to the northbound Harbor Freeway east of Flower Street, it is not considered to be a viable access route to the parking area.

Analysis of the patronage data indicates 316 autos and 44 buses would turn left from 37th Street to enter the parking area in the peak hour, an average of 5.3 autos and 0.7 buses per minute.

Impacts:

37th Street between Flower Street and Grand Avenue:

37th Street is 60 feet wide at the parking access location and is not striped with a left-turn lane. Left-turn movements to the parking area will block one lane needed for through traffic.

Slauson Station

The two proposed parking sites are within the circular freeway ramps along the south side of Slauson Avenue. The patronage data indicate 108 autos and 15 buses eastbound and 32 autos and 6 buses westbound on Slauson Avenue in the peak hour. Although relatively small, these volumes indicate the need for facilities to accommodate transit patrons.

The park-and-ride lot will have right-turn -only for ingress-egress. There would be egress turning movements conflicting with heavy traffic on Slauson Avenue.

Impact: Additional congestion on Slauson Avenue in the vicinity of the transit station. Possible traffic intrusion into the nearby residential area.

Manchester Station

The proposed parking sites would be on the south and north sides of Manchester Avenue immediately east of the Harbor Freeway. If these two sites become infeasible during final design then additional right-of-way would be obtained for the park-and-ride lot.

The patronage data analysis indicates 163 autos and 23 buses would turn right from southbound Broadway to Manchester, and 27 autos and 7 buses would turn left from northbound Broadway.

Impacts:

Minimal

Rosecrans Station

A parking structure is proposed over the Harbor Freeway south of Rosecrans.

The analysis of patronage data indicates approximately 115 autos and 7 buses eastbound, and 45 autos and 5 buses westbound, on Rosecrans Avenue at the freeway overcrossing. While these numbers are quite small compared with the existing traffic on Rosecrans Avenue, they could be significant.

Impacts: Additional congestion on Rosecrans Avenue in the vicinity of the transit station.

There will be intrusion into the residential area by traffic to and from the connector ramps to 147th Street.

Artesia Station

The parking site proposed for this station is located on State-owned property extending along the north side of Artesia Boulevard between Normandie and Vermont Avenues. Due to the relatively isolated location of this station, and its intended use as a "Regional Transit Center," the number of patrons arriving by vehicle, both bus and auto, is expected to be relatively large, as reflected by the higher number of autos projected to be attracted to this station.

The operation of the parking lot is complicated by the proximity of the terminus of the Artesia Freeway at the Harbor Freeway, with the resulting volume of traffic on Artesia Boulevard, and by the tentative joint use of the parking site by the City of Gardena.

For the purposes of this study, one driveway to the station parking area was assumed to exist on the north side of Artesia Boulevard midway between Normandie Avenue and Vermont Avenue. The Bus/Kiss-and-Ride facilities were assumed to be located within the parking area and to utilize the same driveway. The use of one driveway location for all autos and buses results in a "worst-case" condition.

With these assumptions, analysis of the projected patronage data indicates 214 autos and 5 buses would turn left from eastbound Artesia Boulevard to the driveway, and 306 autos and 11 buses would turn right from westbound Artesia Boulevard. Additionally,

130 autos and 3 buses are projected to turn left from northbound Vermont Avenue to westbound Artesia Boulevard. Left turn phasing is currently planned for Vermont Avenue motorists at Artesia Boulevard.

Because of the width and channelization of Artesia Boulevard, no serious impacts are anticipated at the assumed driveway location. The distance between Normandie and Vermont Avenues provides adequate storage for vehicles awaiting ingress to the parking area. However, if because of station design, the driveway must be located nearer either of the cross streets, or on Normandie or Vermont Avenue, then serious impacts may result due to lesser storage area for the turning movements. A traffic signal will be required at the driveway location.

Impacts:

- a. Concentration of vehicles at Artesia Boulevard and Vermont Avenue.
- b. High turning movements at Artesia Boulevard and station parking driveway.

Carson Station

The parking site for this station is proposed to be located at the northwest corner of Carson Street and the southbound Harbor Freeway off-ramp.

It is recommended that the driveway on the north side of Carson Street be limited to right-turn-only ingress and egress and that

additional parking access be provided from the east side of Vermont Avenue north of Carson Street. With this configuration, the right turns from Carson Street to the driveway would remain the same, 111 autos and 7 buses, and the turning movements from Vermont Avenue to the second access location would be 32 southbound autos and 2 buses turning left, and 177 northbound autos and 8 buses turning right. This configuration also results in 113 autos and 5 buses turning left from eastbound Carson Street to northbound Vermont Avenue, which may require left-turn signal phasing if it does not exist now. The number of vehicles exiting the proposed driveway and turning left to southbound Vermont Avenue may be sufficient to require the installation of a traffic signal at 214th Street.

Impacts:

Congestion on Carson Street between Vermont Avenue and the Harbor Freeway due to the turning movements at the station parking driveway. There would be traffic intrusion into the residential area of 214th Street.

Pacific Coast Highway

Two parking sites are proposed for this station and it is recommended that both be used. The site at the southwest corner of Figueroa Street and Pacific Coast Highway should be an off-street bus loading area; the site on the southeast corner of the same intersection should be utilized as a parking lot.

Access to the bus area should be via a right-turn-in-only driveway on the south side of Pacific Coast Highway west of Figueroa Street

and two-way driveways on the west side of Figueroa Street south of Pacific Coast Highway. The parking lot should be served by a driveway on the east side of Figueroa Street south of Pacific Coast Highway and another on the south side of Pacific Coast Highway east of Figueroa Street. Left-turns from southbound Figueroa Street to the parking lot driveway should be prohibited.

With this configuration, projected volumes are 102 autos turning right from eastbound Pacific Coast Highway, 109 westbound autos turning left, and 49 autos turning right from northbound Figueroa Street. Bus volumes into the bus area are minimal.

Impacts:

If the site at southwest corner of Figueroa Street and Pacific Coast Highway is used as the only parking lot, serious traffic congestion and potential conflicts may occur because of the left-turn movements of transit patrons exiting the driveway on the west side of Figueroa Street south of Pacific Coast Highway.

San Pedro Station

This station is envisioned as the major station in the San Pedro area and is expected to serve a portion of the City of Long Beach via the Vincent Thomas Bridge (Route 47). The proposed parking site is an expansion of an existing Park-and-Ride lot on the north side of Channel Street east of Gaffey Street.

Because of the limited number of east-west streets in this area, serious congestion occurs on Channel Street between Gaffey Street

and Pacific Avenue during peak traffic hours. It is recommended that the driveway for this lot be located on the east side of Gaffey Street as far north of Channel Street as possible, preferably opposite an existing street. This driveway location will reduce conflicts resulting from turning movements to and from the parking site.

Projected volumes yield 74 autos and 1 bus turning left from southbound Gaffey Street to the driveway and 296 autos and 5 buses turning right during the peak hour.

Impacts:

Minimal

3. Los Angeles CBD Stations (Harbor and Vermont rail alignments) and Adams and Figueroa Station (Vermont rail alignment)

The focus of this impact analysis is the on-line station sites located between the Los Angeles Convention Center and the Ports O' Call in San Pedro. Within the Los Angeles CBD, there are no guideway or stations required for the bus/HOV alternatives. Buses, carpools and vanpools would self distribute throughout the CBD with minimal relative impacts.

4. LACBD Impacts and Mitigations (Bus/HOV 4)

Bus turning volumes at the intersections of 11th, 12th and Figueroa Streets; 1st, 11th, 12th and Olive Streets; Los Angeles and 1st Streets in the LACBD will be in excess of the recommended 20 buses per hour during the peak periods due to the expanded bus service for the Harbor (I-110) transitway project. Also, north-south bus traffic will be greater than 45 buses per hour on Olive Street. These buses will add to the CBD traffic congestion.

Several low-capital costs transit improvements will be required to mitigate these impacts. They include minor street modifications to make it easier for buses to turn, improved parking enforcement during peak commute periods, additional curb area for far side bus stops on Olive Street, and left-turn traffic signals for buses at key locations to minimize delays and improve transit operations.

Some rerouting of bus lines from Olive Street to other less congested parallel streets may be required to accommodate the additional buses from the transitway in the LACBD. Some of these improvements will be programmed by the City of Los Angeles for implementation before the year 1990 (see LACBD Transportation Study).

No major local street construction will be required to accommodate the expanded bus service in the CBD. However, other long range improvements will be required when other transit operations (i.e. Metro Rail, Los Angeles to Long Beach LRT etc.) are appropriately identified in the downtown area.

N. Transit Station and Parking Site Right-of-Way Impacts

Twelve businesses and one abandoned non-profit organization would be full takes (see Table IV-9). Most of these businesses under consideration are local serving and since their clientele are not impacted they are expected to relocate within their respective areas.

The Manchester station would displace one abandoned church, the Holy Faith Apostolic Church at 469 West Manchester.

There are two residential units that would be displaced for the Carson Station Park-and-Ride lot.

These impacts are minimal when taking the length of the project into consideration. There are no significant environmental impacts associated with the stations.

TABLE IV-9

TRANSIT STATION AND PARKING SITE IMPACTS

Transit Station & Parking Site Locations	Business Takes	Residential Takes
37th Street(Exposition Boulevard)	0	0
Slauson Avenue	Station 1	0
Manchester Boulevard	3*	0
Rosecrans Avenue	0	0
Artesia Boulevard	0	0
Carson Street	2	2
Pacific Coast	2	0
Channel Street	<u>4</u>	<u>0</u>
Total Takes	12	2

*Includes abandoned church.

O. Parking Impacts

In order to meet the parking needs of transitway users, a series of parking sites outside the Los Angeles CBD were identified. These sites are discussed in Chapter III. Each of these parking sites has environmental impacts (circulation, noise, public safety, etc.) which are common to any parking facility. These impacts are covered in their respective sections in this chapter. If the parking capacity at individual sites is exceeded, autos may park on local streets and reduce local parking availability. In general, the proposed transitway project would increase parking availability throughout the corridor.

P. Non-Motorized Transportation

Because all park and ride lots would be equipped with bicycle lockers, and because there would be a limited bicycle transport capacity on transit vehicles, bicycle use would slightly increase in all alternatives, except for the no-project alternative. Bicycle travel on Route 213 (Western Avenue) and on the non-free-way portion of Route 11 (Gaffey Street) would not be affected. While there are not bicycle lanes on these state highways, bicycles are permitted to use them. Because of the increased traffic around park-and-ride lots on Route 1 (Pacific Coast Highway) and the non-freeway portion of Route 91, bicycle traffic would be impeded and the risk of accidents would be increased in all alternatives except for the no-project alternative. These impacts would be corrected by the traffic flow mitigation measures for these sites detailed in Section IV-M.

Bicycle lanes on transit guideways would be unsafe. In all alternatives with guideways cyclists would be forced to ride in close proximity to high speed transit vehicles, thus increasing the risk of accidents. Additionally, in bus/HOV alternatives cyclists would be forced to cross high speed on-off ramps. Because of these safety problems bicycle lanes would not be constructed on the transit guideways.

Q. Impacts on Historical and Archaeological Resources

1. Based upon the criteria set forth by the Advisory Council on Historic Preservation and coordination with the State Historic Preservation Officer, it has been determined that the project alternatives will not physically impact:

- a. properties currently in the National Register of Historic Places;
- b. properties in nomination to the National Register;
- c. properties potentially eligible for inclusion in the National Register;
- d. locally designated landmarks which do not appear to be eligible for inclusion in the National Register.

The recommended project will have no effect on National Register properties. The Federal Highway Administration in consultation with the State Historic Preservation Officer has determined that the project as proposed will have no effect on National Register properties. (Appendix O).

Bridge reconstruction and increase in bus usage in the vicinity of West Adams Boulevard and Figueroa Street as required by the recommended alternative could alter the view of the following National Register properties:

St. Vincent De Paul Catholic Church	Part of the Chester Place
Stella Maris Convent	Historical District
Stimpson House	
St. John Episcopal Church	

2. Archaeological Resources

The recommended alternative does not disturb any archaeological sites.

R. Impacts on Paleontological Resources

Construction of the southern portion of the alignment could uncover significant fossil material. In order to protect any scientific data uncovered, the following mitigation measures will be followed.

- a. Caltrans District 07 Environmental Planning Branch will initially examine any fossil material uncovered.
- b. The Los Angeles County Museum of Natural History will be contacted to determine the significance of the finding.
- c. Should the finding be significant, steps will be taken to properly protect, retrieve, and record data from the finding.

d. For a complete discussion of the Federal requirements pertaining to documenting potential impacts to historic, archaeological, and paleontological resources, turn to Chapter IX.

S. Visual Resources

1. Introduction

The visual impacts of the proposed recommended range from none to major, depending on the location of the viewer in relation to the project.

2. Aerial Guideways

Aerial guideways would be built as part of the recommended alternative. The aerial structures would become permanent landmarks significantly changing the character of the landscape.

On the Harbor Freeway alignment, the visual impact of aerial structures would form a linear feature dominating the view of motorists and nearby residences and businesses. Aerial structures built where the freeway is in fill would have greater impact because of their height. Transit riders would see freeway traffic, landscaping, nearby neighborhoods, and industries from above.

3. At-Grade Guideways

For the Harbor Freeway alignment, Table IV-10 shows the amount of at-grade guideways for each alternative. At-grade guideways would have minimal visual impact on the nearby neighborhoods. Transit riders and motorists would view traffic, rail traffic, landscaping, and the urban landscape.

TABLE IV-10

LENGTHS OF GEOMETRIC CONFIGURATIONS OF
EACH ALTERNATIVE (IN MILES)

Alternative	General Description	Profile From Convention Center To Route 47 (20.6 Miles)				
		Elevated	At-Grade	At-Grade* Mixed Flow	At-Grade** City Streets	Subway
No Project	Existing approved transportation system	--	--	--	--	--
T.S.M.	Low cost improvements to the existing transit and highway system	--	--	18.0	2.6	--
Bus 1	Elevated in I-110 median	8.2	2.1	9.3	1.0	--
Bus 4	At-grade and elevated in I-110 median	4.3	6.0	9.3	1.0	--
Bus 7	At-grade in I-110 median	1.0	9.3	9.3	1.0	--
Bus 8a	Peak-directional elevated in I-110 median	8.2	2.1	9.3	1.0	--
Bus 8b	Peak-directional at-grade and elevated in I-110 median	4.3	6.0	9.3	1.0	--
Rail 1	Elevated in I-110 median	19.0	1.6	--	--	--
Rail 4	At-grade and elevated in I-110 median	10.3	10.3	--	--	--
Rail 7	At-grade in I-110 median	5.1	15.5	--	--	--
Rail 6	Elevated and subway in Vermont Avenue median	15.6	--	--	--	5.0

*Bus alternatives are in mixed flow from Artesia Boulevard to Route 47.

**T.S.M buses operate from Martin Luther King Jr. Boulevard to the Convention Center on city streets, the bus alternatives operate from 23rd Street to the Convention Center on city streets.

4. Station Structures and Parking Facilities

Station structures and parking facilities would modify the view by transit patrons and residents. Elevated stations would have more visual impact on surrounding areas than at-grade stations because of their height. Proper station design, landscaping and art work can mitigate the negative visual aspects of stations. Landscaping could also reduce the negative visual aspects of parking facilities. Signs and lighting for both types of facilities can be made less obtrusive by proper design.

37th Street (Exposition Boulevard) Station-same as Manchester Avenue.

Slauson Avenue Station - Same as Manchester Avenue Station.

Manchester Avenue Station - There would be no visual impacts from this station. The station will be at-grade with the freeway and located in the median of the freeway. The area surrounding this area is commercial.

I-110/I-105 Vertical Station - No visual impacts associated with this station.

Rosecrans Avenue Station - There would be visual impacts from this station. The surrounding area is residential. The view of the residences will be that of the Rosecrans Station and the Park-and-Ride facility. They will no longer be able to see across the freeway as before.

Artesia Boulevard Station - There would be minimal visual impacts from this station. The block wall protecting the wetlands will also block the view of the wetlands from the station. The height of the station will be in conformity with local buildings. The land near the station site is zoned for commercial.

Carson Street Station - There would be no visual impacts from this station. The station is located at-grade with the freeway. The freeway is in-cut at this location.

Pacific Coast Highway Station - There would be no visual impacts from this station. The station is located at-grade in the median of the freeway. The area surrounding the area is commercial with a few residential units.

Channel Street Station - There would be no visual impacts from this station. The area surrounding the station is commercial and the canopy structure height would be comparable to other structures in the area.

5. Adverse Impacts Remaining After Mitigation

Despite mitigation some people may react negatively to the modified view offered by the project.

6. Scenic Highways Impacts

No alternative in the Harbor Freeway alignment would adversely affect the scenic highway designation of some segments of the Harbor Freeway.

T. Construction Impacts

1. Introduction

There is a wide variety of short term construction impacts for the recommended alternative.

The recommended alternative would require major construction and would have significant construction related impacts.

2. Types of Construction Impacts

The major construction alternative for the proposed I-110 Transitway would have significant short term construction impacts. The following types of construction impacts could occur:

- a. Material disposal problems
- b. Transportation congestion and rerouting
- c. Additional noise
- d. Additional air pollution
- e. Disruption and/or relocation of utility services
- f. Interference with commercial and residential activities
- g. Rerouting of emergency services
- h. Natural gas and oil seeps

These impacts would occur for the recommended alternative as discussed in detail below.

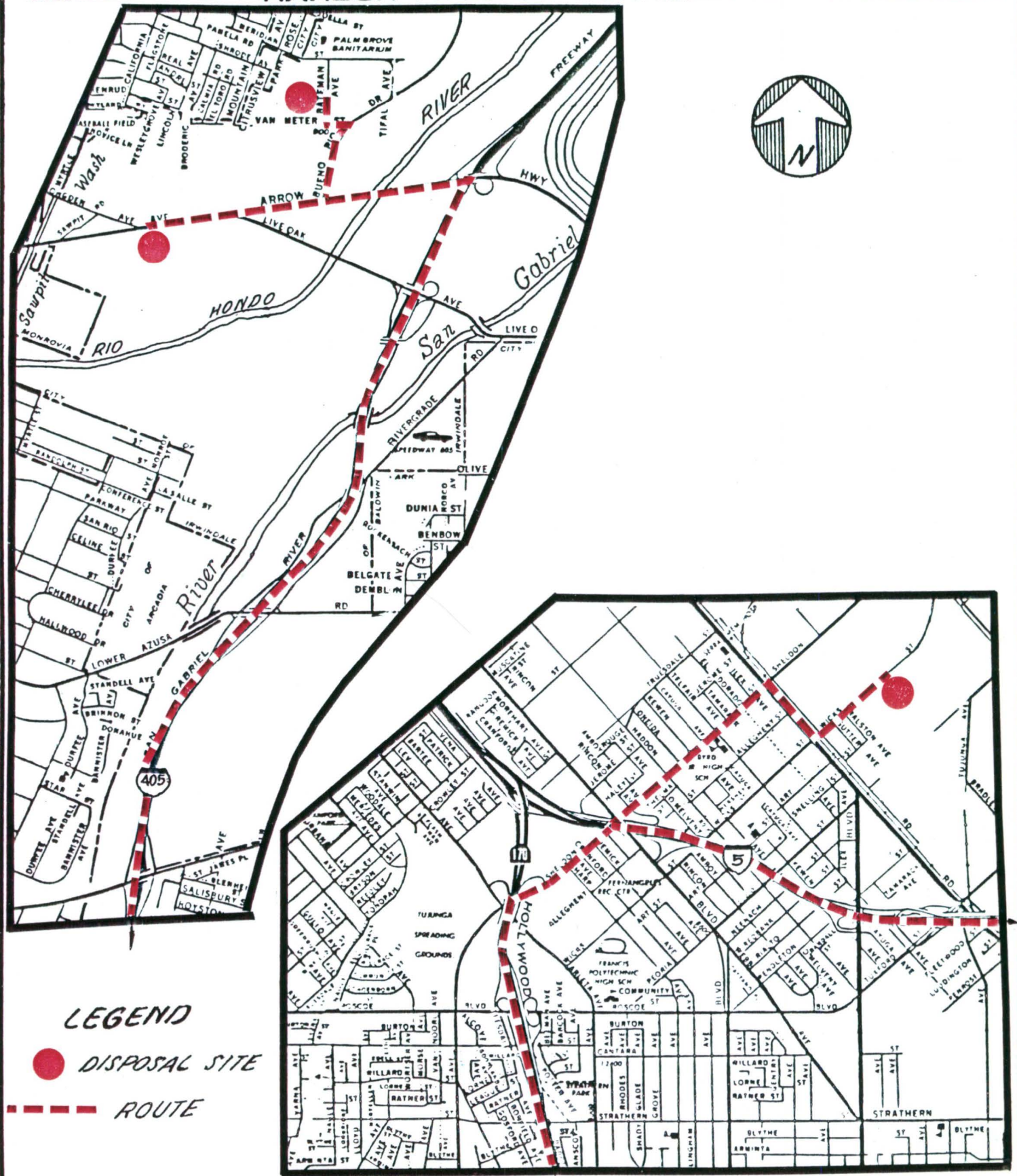
3. Disposal of Material

The recommended alternative would require no disposal of material. The amounts of material which requires disposal in each alternative is shown in Table IV-11. Figure IV-8a and 8b lists environmentally cleared sites available for the disposal of excess material. The traffic impacts of hauling material to disposal sites is discussed in section 4 below.



Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR

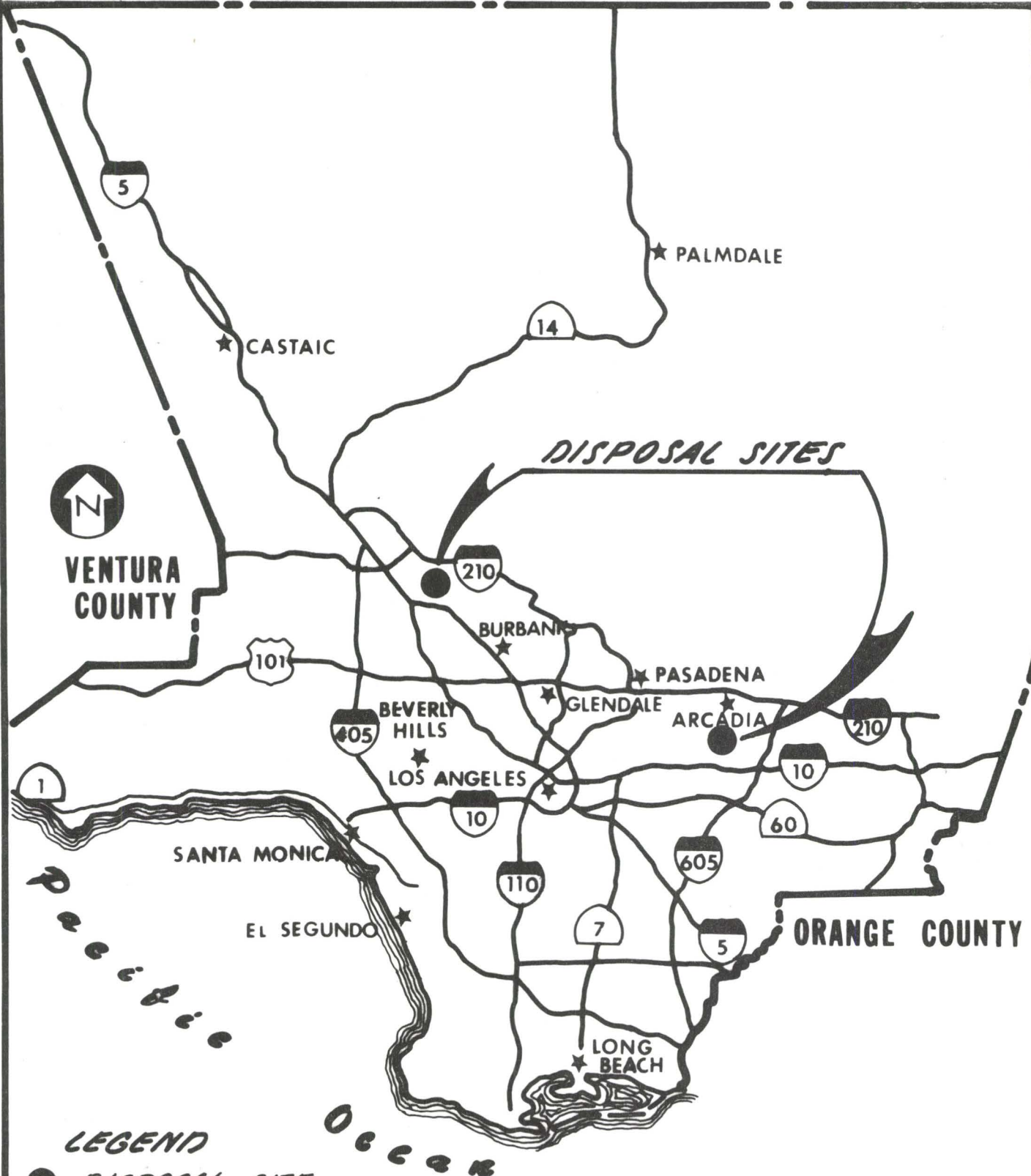


DISPOSAL SITE AND ROUTE LOCATIONS



Interstate 110 Freeway Transit

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LEGEND

- DISPOSAL SITE LOCATIONS

PROPOSED DISPOSAL SITES

FIGURE II-8B

Table IV-11

Material Requiring Disposal

<u>Alternative</u>	<u>Cubic Yards of Material Requiring Disposal</u>
Bus/HOV 1	0
Bus/HOV 4	0
Bus/HOV 7	172,088
Bus/HOV 8a	0
Bus/HOV 8b	0
Rail 1	0
Rail 4	0
Rail 6	875,521
Rail 7	47,751

Should the contractor elect to dispose material at another site, he shall furnish to the Caltrans resident engineer for the project evidence to show that he has entered into agreement with the owners of the disposal site, and that he has obtained all necessary permits, licenses, and clearances.

4. Transportation Impacts

The recommended construction alternative produce a short term increase in traffic congestion, require some traffic rerouting, and freeway lane closures.

a. Bus/HOV Alternatives 4.

During column construction, and cap and girder installation, the inside lane in one direction and the two inside lanes in the other

direction would be closed. Portions of the entire freeway would be closed at night when station outriggers were installed. Between 32nd Street and Washington Boulevard, approximately 36 outriggers are required because of the narrow median.

Ramp closures are required for installing outriggers at bus/HOV station sites. Additional closures would also be required when outriggers are installed on access ramps to the guideway. Since the bus/HOV guideway would not extend to Dominguez Channel, no construction related problems would occur there. Table IV-12 shows the detour routes which will be used when segments of the Harbor Freeway are closed.

Table IV-12

Nighttime Detours for Harbor Freeway Alignment Station and Outrigger Construction

Construction Location	Detour Route
PCH	N/B OFF Anaheim N on Figueroa on at Sepulveda S/B reverse
Carson	N/B OFF at Carson N on Figueroa on at Torrance S/B OFF at Torrance N on Figueroa on at 223rd Street
Rosecrans	N/B OFF at Alondra N on Figueroa on at El Segundo S/B reverse

Manchester	N/B OFF at Century on Broadway Boulevard on at Florence S on Figueroa on at Century
37th Street (Exposition Blvd.)	N/B OFF at Martin Luther King Jr. Boulevard on at Washington Boulevard - S/B OFF at 23rd Street on at Martin Luther King Jr. Boulevard
32nd St. To Washington Blvd.	N/B OFF at Martin Luther King Jr. Boulevard on at Washington Boulevard S/B OFF at 23rd Street on at 37th St.

Mitigation for these effects would be the following:

1. Construction would be staged so that only short segments of the freeway would be closed at any one time. Thus, the traffic changes would be spatially contained, causing smaller impacts.
2. Wherever practical, temporary freeway lanes will be provided. Where they are used, the temporary freeway lanes will be congested during the peak travel times throughout the construction period. The traffic impact on surface arterial streets will be minimal because the traffic will, for the most part, remain on the freeway.
3. Where it is not practical to provide temporary detour lanes on the freeway, traffic will be rerouted to surface arterials. If construction and rerouting occur during the day, the detour route

will be severely congested particularly during peak periods. This congestion is not mitigable. If construction which closes freeway lanes is restricted to night time when the traffic on the freeway is low, the traffic on the detours will be less and the impacts will be minimal.

Where the freeway is on fill, which is 43% of the length of the project, the freeway would be widened, and the transitway constructed in the middle. Where the freeway would be widened, fewer lane closures would be necessary than where aerial construction occurred because new lanes could be constructed first and then traffic could be rerouted during transitway construction.

5. Noise, Air Pollution, and Dust Impacts

The recommended alternative on the Harbor Freeway alignment would have significant noise, air pollution, and dust impacts. On site activity would be of relatively short duration and residential and commercial sites would be buffered by their distance from the freeway median. At station locations, where the freeway would be widened, or where other improvements would occur, the impacts would last longer and be greater. Night construction noise would adversely impact nearby neighborhoods.

These impacts would be mitigated by having contractors follow standard Caltrans noise procedures (adequate equipment mufflers, work hour restrictions), dust particle reduction (watering, dust palliatives), air pollution reduction (appropriate smog control devices), and all applicable local statutes.

6. Construction Impacts on Business and Residential Property

Along the Harbor Freeway alignment, the impacts of construction on businesses and residences would be moderate. The recommended alternative would require extensive street closures and bridge reconstruction and would have the greatest business and residential impact. The distance from the business or residence to the actual site of construction would also determine the severity of the construction impact since distance acts as a buffer to construction generated problems. Except for locations near where street crossings would be reconstructed, there would be little construction impact on businesses and residences. Night construction would significantly increase the nighttime noise levels. (See Section 5 above.) The relative severity of the impacts for each alternative is shown in Table IV-13.

Table IV-13

Relative Business and Residential Impacts for Harbor Freeway Corridor Major Construction Alternatives

<u>Alternative</u>	<u>Relative Degree of Impact</u>
Rail Alternative 7	severe
Bus/HOV alternative 7	severe
Rail alternative 4	moderate
<u>Bus/HOV alternative 4</u>	<u>moderate</u>
Bus/HOV alternative 8b	moderate
Rail alternative 6	moderate
Rail alternative 1	low
Bus/HOV alternative 1	low
Bus/HOV alternative 8a	low

At those locations close to where street crossings would be reconstructed, the construction impacts on businesses and residences would be severe. The street closures and traffic reroutings required to move traffic around the construction sites would reduce access to businesses and residences near construction sites. Additionally, the noise, dust, congestion, and fumes generated by construction would create a nuisance. Residents would be significantly inconvenienced. There would be a significant loss of patronage to nearby business and some marginal businesses may fail(16).

7. Impact on Utilities and Emergency Services

No significant construction impact on utilities would result from the implementation of the recommended alternative.

Local emergency services would be notified when construction occurs so alternative response patterns can be devised.

U. Economic Impacts

1. Introduction

The development of the I-110 Transitway will precipitate the following investments in the Los Angeles region and/or study area.

- o short term construction employment for the development of the transitway.
- o long term employment for the maintenance of the transit operations.
- o development of service-type employment to attend to the needs of the operators and patrons.
- o employment generated by industries that shift closer to the transitway.
- o employment from possible joint development activity, primarily in the service trades (e.g. retail clerks, etc.).

The first, second and third economic consequences will be the focus of this section. As for the other impacts, they are too vague to be accurately discussed in terms of job development. Joint development is discussed in section IV-K.

2. Capital Outlays of Construction Costs

A number of important economic studies have pointed out that massive public works projects often create both direct and indirect jobs and other economic investment activities not originally part of the project. However, with inflation and escalating labor costs in urban California, the anticipated economic benefits from such projects have been reduced, and indeed, may not actualize due to the high costs of money and administrative procedures prior to breaking ground for construction. Therefore, many economists feel that predicting actual jobs, from public works activity, should be couched in very cautious and careful wording. Therefore, any of the numbers linked to direct and secondary jobs generated by this project as found in this section should be viewed only as possible, indeed, even theoretical figures, conditioned and dependent on many economic forces that are as of yet, unknown.

The current estimate of jobs created by public works construction was provided by a private construction research center in Southern California (14). Their estimate largely reflects highway building and therefore would be most applicable to highway and freeway type development, as in the busway, but not necessarily appropriate to the rail construction. The estimate, which incorporates both material and labor, stands at roughly 10-13 jobs directly created from each million dollars of capital outlay. Since each job in

turn creates other jobs, it is also expected that every direct job will indirectly create 2 service jobs. It is important to remember that these are very general estimates. It should be noted that the estimates of jobs created were based on highway construction and not busway and rail construction. Finally, it can be assumed that all of the direct jobs, as well as one third of the service jobs, will be of a short-term nature, that is, during the period of construction, while 2/3 of the indirectly created, service type jobs will be of a permanent nature.

Figures IV-9 and IV-10 show the estimated jobs created per each alternative.

3. User and Non-User Benefits

The economic benefit analysis for Freeway Transitway is comprised of eight categories which can be measured and quantified in dollar terms. Each of these benefits are obtained when the implementation of a particular alternative improvement is made over and above the baseline system (No Project). In this manner, the incremental benefits of a particular transit alternative can be compared with each other as well as the marginal gain to society over the baseline system.

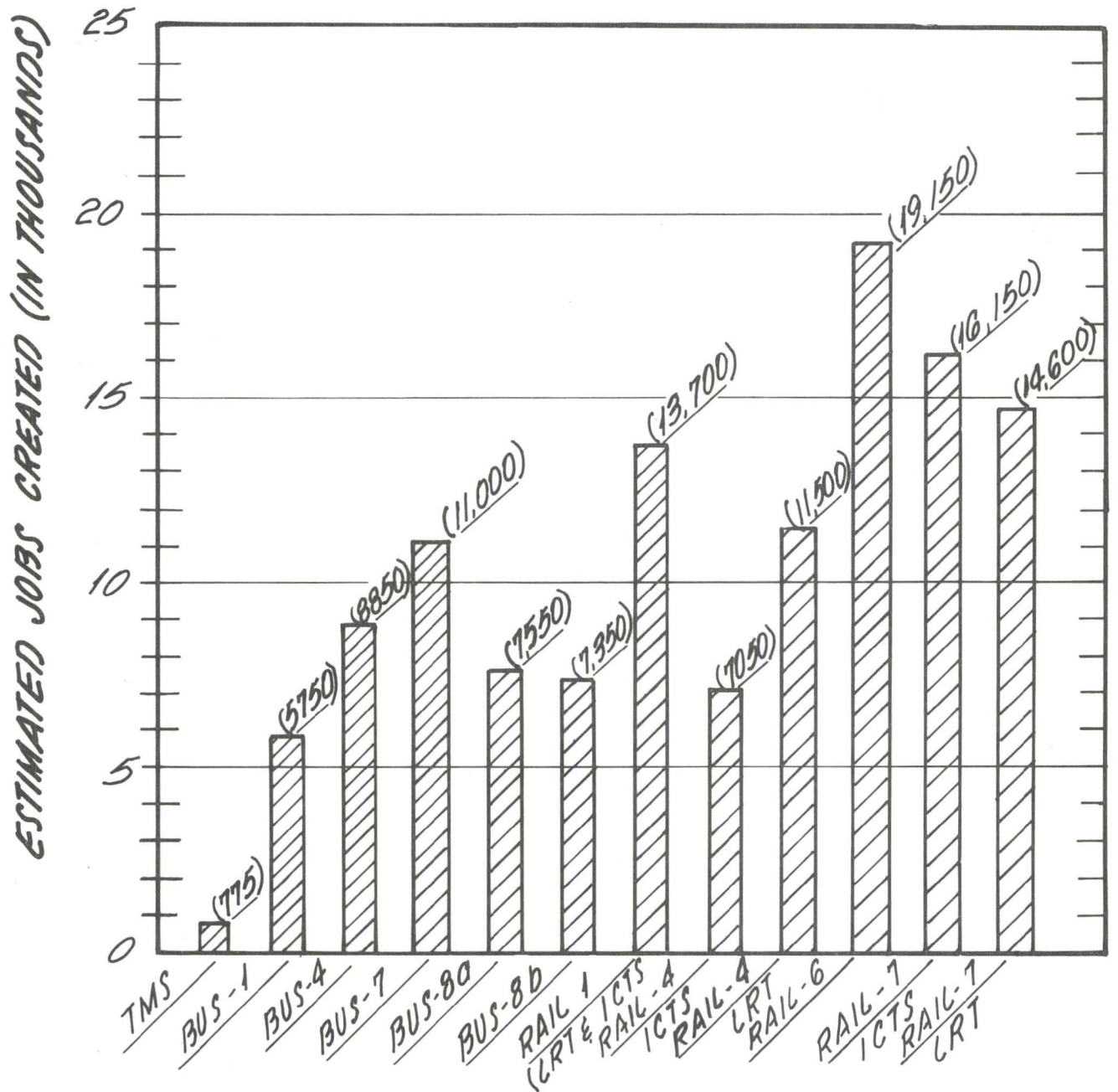
Determination of monetary benefits to transit, carpool and non-users were approached by using the following criteria: In vehicle time savings, reduced auto travel, parking fee savings and accident reduction.

The benefits noted under each category are expected to occur in the year 2005 (analysis year), and are expressed in 1984 dollars. These benefits represent the net savings which accumulate primarily during the peak periods.

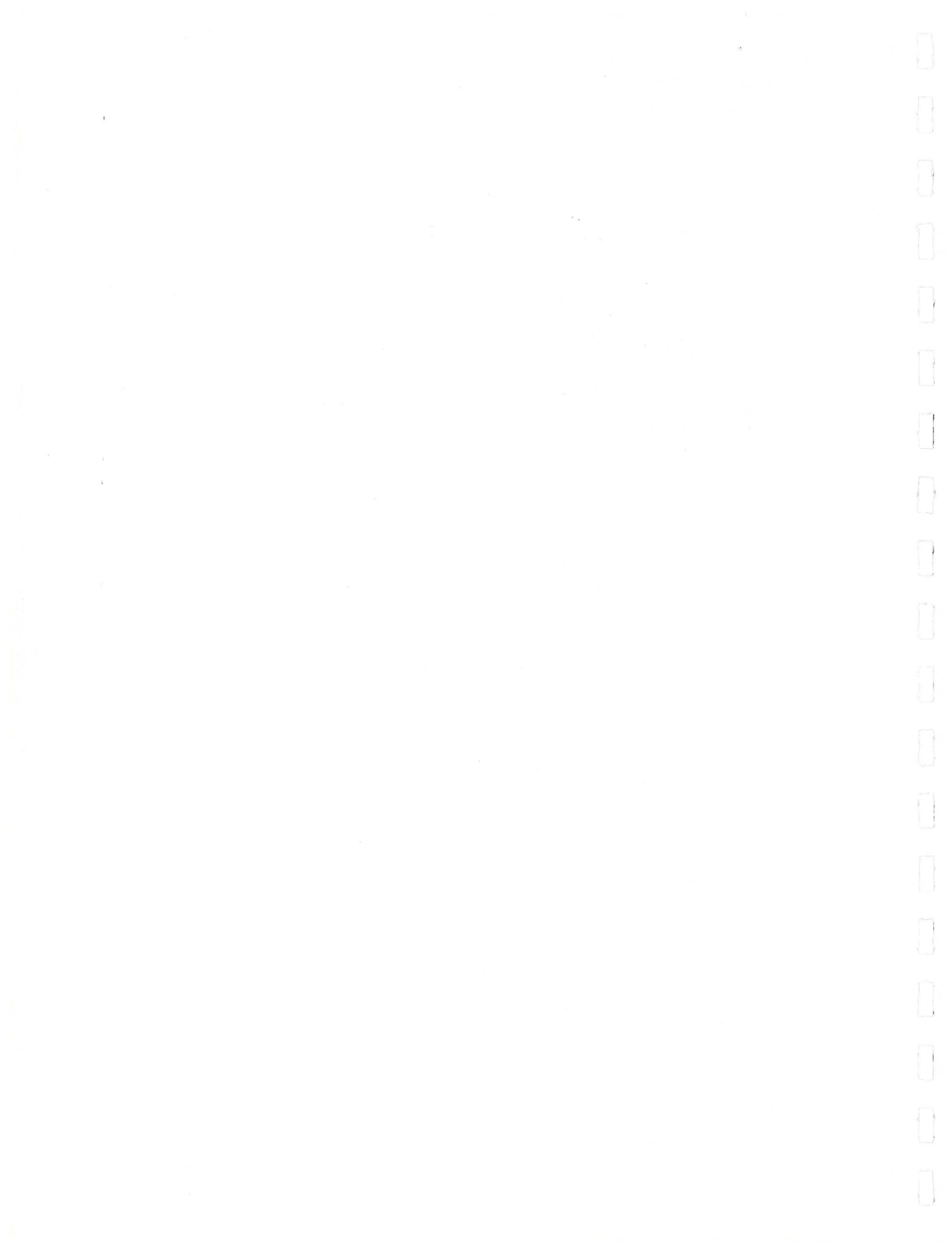


Interstate 110 Freeway Transit

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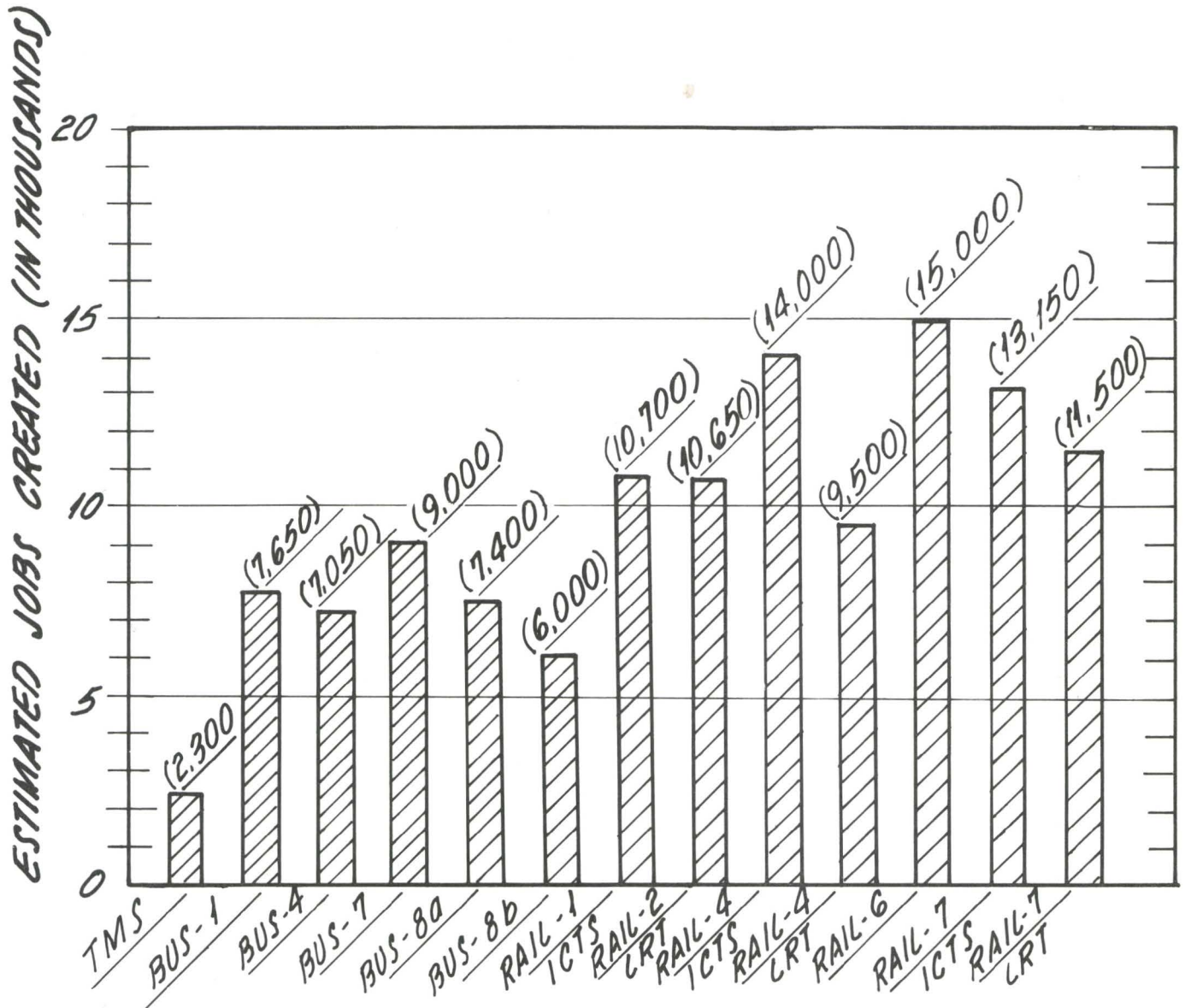
**ESTIMATES OF SHORT TERM EMPLOYMENT
GENERATED BY HARBOR FREEWAY
TRANSITWAY CONSTRUCTION** *FIGURE IV-9*





Interstate 110 Freeway Transit

HARBOR FREEWAY CORRIDOR



**ESTIMATES OF LONG TERM EMPLOYMENT
GENERATED BY HARBOR FREEWAY
TRANSITWAY CONSTRUCTION**

FIGURE IV-10

The following section addresses the eight basic categories producing benefits resulting from Freeway Transit implementation.

Constant Transit User Time Savings

The transit user who rode the system previously, would realize a time savings due to a faster trip time.

The value of time varies with the type of trip, (generally the work trip has the higher value) the income of the transit user and the amount of time saved. Based on Caltrans assumptions, the average value per vehicle minute is 7¢ for passenger cars. The 7¢ per vehicle minute can be equated to a person value by dividing by a 1.2 auto occupancy which is peak period occupancy rate on the Harbor Freeway which gives 5.83¢ per person minute.

To determine the benefits in this category, the benefits were calculated against the TSM Alternative which consists of the expected transit ridership and level of service that will exist in the corridor by 2005.

Diverted Auto User Operating and Maintenance (O&M) Savings

This benefit represents the savings in operating and maintenance (O&M) costs to the auto user who has diverted to transit. A cost of 15¢ per mile is used to determine the auto users O. & M. cost. This cost is intended to reflect current year variable automobile operating costs for a compact automobile (exclusive of vehicle depreciation, parking, and partial insurance costs). This figure is based on a publication by the U.S. Department of Transportation (FHWA), Cost of Owning and Operating an Automobile 1979, modified to current price levels.

This savings was determined by using an average auto work trip length of 10 miles for trips diverted to transit. The diverted auto user savings is off-set by the average express transit fare of 6.2¢ per mile.

Diverted Auto User Parking Cost Savings

This benefit reflects the savings to the diverted auto user who avoids paying parking fees because he switched to transit. This savings can be viewed as a surrogate measure for the resource savings to society in terms of decreased parking facilities since the parking fee theoretically reflects the open market value for land, improvement and labor used.

The savings were determined by identifying the decreased daily auto trips occurring in the corridor's model analysis zones currently reflecting a parking fee. These parking fees are projected to increase significantly due to inflation and will vary in price from \$7.50 to \$11.50 per day within in the LABCD area. Parking costs savings have been understated (by 46%) to reflect the widespread practice of employers providing free or subsidized parking. These savings are somewhat offset by parking fees of 35¢ per day to be charged at the proposed Park/Ride lots.

Center Auto User Time Savings

This benefit measures the dollar value of user time saved by auto drivers remaining on the highway system. The reduced congestion, due to fewer motor vehicles on the road (because they have formed carpools or diverted to transit), results in potentially higher average freeway speeds.

Auto user savings were determined by measuring the savings in vehicular minutes of those autos remaining on freeway system during the peak congestion period and applying a current value of time of 7¢ per vehicle minute.

Commercial Vehicle Time Savings

Commercial vehicles also realize a benefit from implementation of an improved transit/carpool system. This benefit results from a faster trip due to reduced highway congestion.

Because commercial vehicles are paid for their full time on the road, the value of time saved is considerably higher than that of the auto. Based on CALTRANS studies the value of commercial vehicles is $13 + 0.35x$, where x equals the truck traffic as a % of total traffic. The maximum value which can be used for a commercial vehicle is 20¢ per minute.

Reduced Highway Accident Benefits

This benefit measures the value to society of reduced highway accidents as a result of reduced highway miles driven. The accident rates used are 5 year averages for statewide urban freeways. The costs associated with each type of accident are taken from Caltrans Policy and Procedure Memorandum No. 78.5, modified to current price levels.

The rates used to determine the dollar value savings to society are as follows:

	<u>Accident Rates Per 100 Million VMT</u>	<u>\$ 1984 Cost Per Item</u>
Property Damage Only	140	2,500
Injury	91	10,300
Fatalities	1.86	534,000

Transitway Carpoolers Time Savings

This benefit represents the savings in time to the existing and anticipated carpoolers which will realize a faster trip time as a result of using the planned exclusive transitway. A value of person time equal to that used for Benefit 1 time savings was used.

Transitway Carpoolers Operating and Maintenance Savings

An additional benefit for the converted carpool user is the savings in operating and maintenance costs. The net cost of 15¢ per mile as used in Benefit 2 was used to determine the savings.

4. System Benefit-Cost Ratio

Economic feasibility measures, including 2005 "snapshot" benefit-cost ratios (see Table IV-14) have been calculated using a 10 percent capital recovery factor and the service life assumptions for system elements shown on Table IV-15.

TABLE IV-14

I-110 2005 ANNUAL BENEFITS
(MILLIONS 1984 DOLLARS)

CRITERIA	ALTERNATIVE	Two-Way Bus		Pk. Dir. Bus	I.C.T.S.	L.R.T	H.R.T
	NO PROJECT	T.S.M.	B-1,4†,7	B-8A,B	R-1,4,7	R-1,4,7	R-6
Constant Transit User Time Saving	Base	-	16.3	15.4	22.0	22.0	25.7
Diverted Auto User O&M Saving	Base	20.9	27.4	25.5	27.2	27.6	28.4
Diverted Auto User Parking Saving	Base	46.2	60.5	56.4	60.2	60.9	62.7
Constant Auto User Time Saving	Base	0.8	4.6	4.1	3.0	3.0	3.2
Commercial Vehicle Time Saving	Base	0.1	0.7	0.6	0.4	0.4	0.5
Reduced Highway Accident Saving	Base	2.1	3.0	2.7	2.7	2.8	2.8
Carpoolers Time Savings	Base	-	11.9	8.7	-	-	-
Carpoolers O&M Savings	Base	-	15.9	8.4	-	-	-
TOTALS	Base	70.1	140.3	121.8	118.1	115.6	123.3

*Recommended Alternative
Updated: December, 1984

Table IV-15
Service Life Assumptions
for
System Elements

Transitway	30 yrs.
Stations	30 yrs.
Parking Facilities	30 yrs.
Maintenance Facilities	30 yrs.
Highway Construction	30 yrs.

Vehicles

- Bus (Both Standard & Articulated) - 12 yrs.
- Rail Cars (ICTS, LRT & HRT) - - - - 30 yrs.

CHAPTER V

Probable Unavoidable Adverse Environmental Effects

CHAPTER VI

The Relationship Between Local Short Term Uses of
Man's Environment and Enhancement of Long Term Productivity

CHAPTER VII

Irreversible and Irretrievable Commitments of Resources

CHAPTER VIII

Growth Inducement and Cumulative Impacts

CHAPTER IX

Impacts on Properties of Historical and Cultural Significance

CHAPTER X

Energy Conservation



V. PROBABLE UNAVOIDABLE ADVERSE IMPACTS

In Chapter IV the environmental impacts of the recommended alternative were presented in detail, as were mitigation measures to reduce or eliminate adverse environmental impacts. Not all of the adverse impacts identified can be mitigated to the insignificant level. These impacts are listed below. For a more detailed discussion of these impacts refer to the proper section of Chapter IV.

A. Geological Hazards

Despite construction of the transitway to the highest possible seismic safety standards, there would still remain some risk of injury to transit patrons who would be utilizing the transitway during a major earthquake. This hazard would occur in all alternatives.

B. Business and Residential Displacement

Business and residential displacement would occur in bus/HOV alternative 4. These displacements are detailed in Table IV-3.

C. Negative Visual Impacts

Aerial guideways are present in the recommended alternative, and would visually dominate the locales they were constructed in.

D. Increase Traffic Near Park and Ride Lots and Station Sites

There will be an increase in the amount of traffic on surface streets around station sites and park and ride lots. Due to the

increased traffic there will be congestion during peak periods around some parking locations.

E. Construction Impacts

Construction of the recommended alternative of the proposed transitway would create significant short-term environmental impacts that could not be mitigated to the insignificant level. Around construction sites there would be some increase in noise levels, noxious fumes, and dust due to the operation of construction machinery. Some traffic congestion would occur because of construction. During the construction period the length of time required to traverse the transportation corridor would increase. Construction activities would cause inconvenience to nearby residents. Nearby businesses would suffer a decline in patronage and some business failures may result.

The recommended alternative would require relocation of overhead electrical transmission lines.

VI. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Implementation of any of the alternatives will have short-term impacts on the region's land use, population or natural environment. These impacts or uses of the environment should be considered in the context of the long-term impact, that improved transportation service will have on the region's productivity.

The primary short-term uses which are adversely impacted are the following:

1. Construction activities would temporarily reduce business opportunities in the vicinity of construction sites.
Reduced business patronage would and possible business failure could occur.
2. Construction would impede mobility and change circulation patterns in the vicinity of construction. There would also be noise, dust, unpleasant odors and other construction nuisances.
3. Some businesses and residents would be relocated by the proposed project.
4. Air quality will be temporarily degraded due to exhaust emissions and dust generated by equipment.
5. Visual blighting will occur from the temporary storage of construction materials and equipment on sites.

The proposed transportation improvements within the Harbor Freeway Corridor would provide the opportunity to integrate more effectively the human activities of the region. This integration will improve the productivity of the region in terms of the quality of life (the activities to which residents have access and the extent of their productive leisure time) and in terms of economic productivity by increasing the work force within commuting distance of industry, and by improving the ability of industry to conduct business dependent upon transport of people and goods.

Efficient use of limited natural resources can be enhanced, particularly energy resources. By causing future travel to occur in a more energy-efficient manner in the future, it is possible to develop a transportation system for the future when petroleum is expected to be scarcer than it is today. Further, the quality of the natural environment can be enhanced by reducing future noise and air pollution through a current investment in future transit capacity.

Thus, in addition to the benefits which will be derived by the user of any of the proposed alternatives, the region as a whole, transit riders and non-riders, will experience benefits. Specifically, the different alternatives, to varying degrees, will:

1. Improve the accessibility of the labor force to employment opportunities;
2. Expand the size of the labor force within commuting distance by transit of major industrial locations;

3. Improve business efficiency by improving accessibility within the region;
4. Link the dispersed employment centers with the central city;
5. Expand opportunities for employment through creation of jobs and new facilities.
6. Increase the transportation capacity of the corridor;
7. Decrease the time of travel for the individual;
8. Improve accessibility to services and recreation;
9. Provide improved mobility for those dependent upon transit.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

A. Introduction

This chapter summarizes the primary and secondary impacts of the use of non-renewable and irretrievable resources, and discusses any irreversible damage that could result from the environmental impacts associated with the project.

B. Land

Because the project is located in an urbanized area, the land in the project vicinity is generally committed to public or private urban uses. Land used for transit facilities would be used for that purpose into the foreseeable future. The project may (in concert with other factors) engender associated commercial, residential or industrial development that would not have otherwise occurred.

C. Construction Materials

The use of steel, concrete, lumber, plastics and other materials and equipment would differ among the various alternatives.

No construction materials would be used in the No-Project alternative. Because of the minor nature of construction in the TSM alternative, no significant irretrievable use of construction material would occur.

All the rest of the alternatives would require significant use of building materials such as concrete, lumber, copper, and steel.

The irretrievable use of these resources could have some slight impact on supply for the time period required for construction. Ample supplies of all these materials exist.

The materials needed to manufacture buses for the recommended alternative would be small compared to the amount used to manufacture the vehicles annually produced in the United States or Canada. Some of the metals used in vehicle construction could be recycled through the scrap process but most materials would be used irretrievably. Because transitway related structures would be utilized for, at least, several decades, materials used in their construction can be considered irretrievably used.

D. Manpower

The recommended alternative has major manpower requirements which are roughly estimated in Table VII-1.

E. Public Funds

The recommended alternative would have some financial impact. Capital expenditures, if financed by bond sales would require tax funding for the length of time required to retire the bonds. The majority of the subsidies to operate or maintain the transitway would be raised by taxation. Most of this money would be recycled back into the local economy by transit workers and contractors.

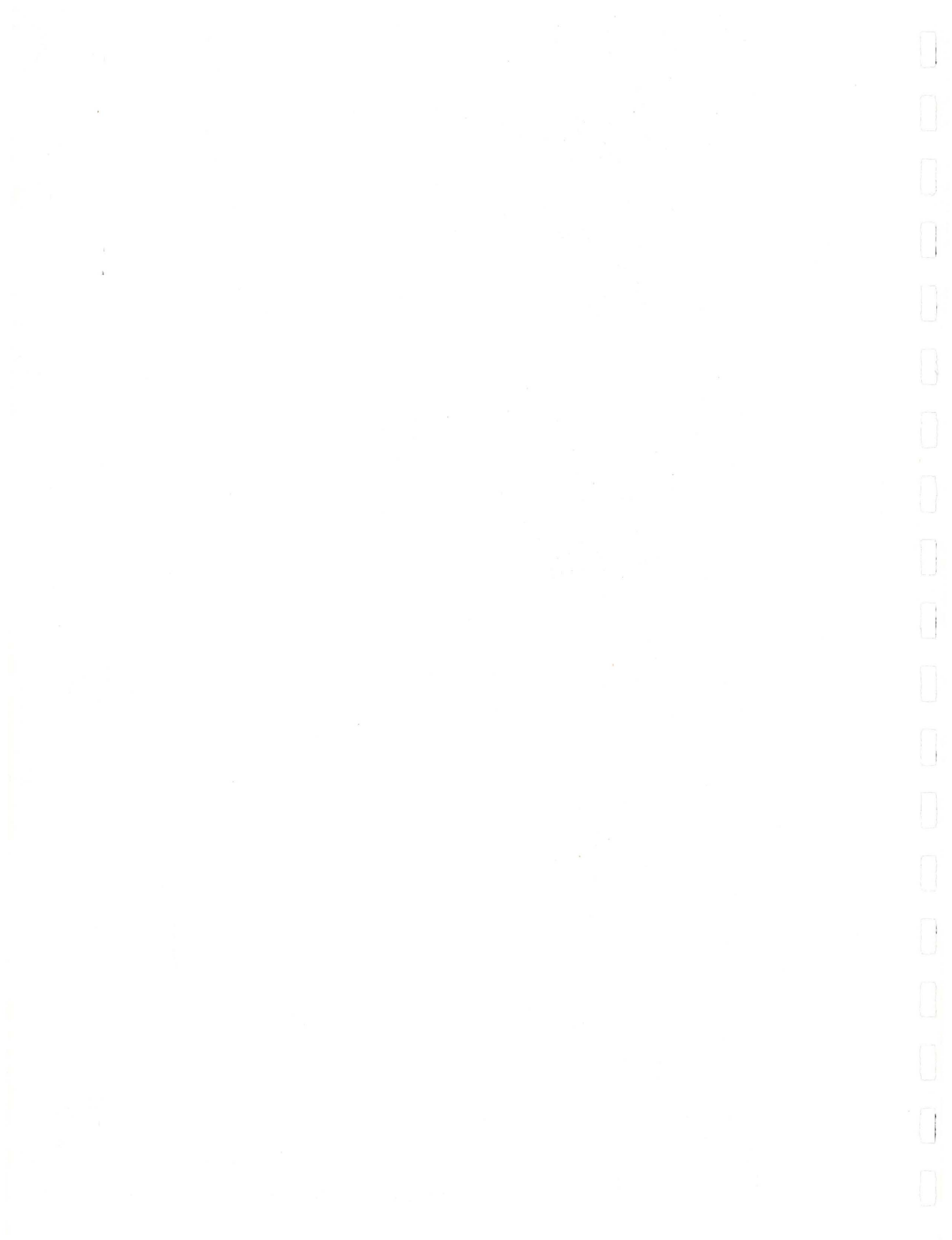
TABLE VII-1

Estimated Contract Days and Manpower Requirements
for Construction of Transitways

<u>Alternative</u>	<u>Contract Days</u>	<u>Manpower Requirements</u>
Bus/HOV 1	3200	337
Bus/HOV 4	2550	352
Bus/HOV 7	3600	352
Bus/HOV 8a	3100	248
Bus/HOV 8b	2500	298
Rail 1	5950	277
Rail 4	3750	385
Rail 6	3000	1004
Rail 7	4880	423

F. Environmental Accidents

No accidents which would result in irreversibly damage to the environment are likely as a result of the implementation of the recommended alternative of this project.



VIII. GROWTH INDUCEMENT AND CUMULATIVE IMPACTS

Historically, new transportation facilities, along with other infrastructure improvements, have been known to influence urban growth. The level of this influence is difficult to quantify, however, in already urbanized areas such as the Harbor Freeway corridor. Complicating any empirical analysis of transportation's growth-inducing abilities are other variables such as economic trends, public policies, local plans, location image, land availability and development financing practices.

A research effort was undertaken to identify any measurable land use changes which may be influenced by the various Harbor Freeway corridor transit alternatives. This effort involved an evaluation of environmental documents on similar medium capacity transit proposals.

Separate analyses of all of the resources evaluated leads to only the conclusion that development of a new transit system located on the Harbor Freeway will not in itself stimulate any significant growth in the corridor. Other major incentives to growth would be required, but none are predicted to occur.

In the major transitway construction alternative, collective factors may stimulate minor intensifications of development in some individual locations.

The LA CBD is already a major center of growth. The policy of the City of Los Angeles is to encourage both economic and population growth in the area. In order to help accomplish this expansion, the Bunker Hill, Little Tokyo, and Central Business District

Redevelopment Areas were created. A Harbor Freeway corridor transitway would be an additional factor favoring economic growth in the LA CBD by providing better access to and from the south. The higher capacity Metro Rail transit system would have more potential for fostering growth in the LA CBD (see the discussion on cumulative impacts at the end of this section).

Because the Harbor Freeway corridor transitway is planned to connect with the proposed Century (I-105) Freeway Transitway, access between the Century Freeway corridor communities and the LA CBD would also be enhanced.

Residential growth is perceived by some as desirable within vacant portions of the urbanized corridor. Growth in currently growing areas in the southern part of of the study area would be enhanced because the proposed transitway would provide a faster, more comfortable route for commuters traveling to the LA CBD. The influence of the transitway would, however, be minor.

In the economically depressed central part of the study area, the growth inducing impacts of the transitway would be very small. This area is perceived as unattractive for business or residential growth for a variety of reasons, and providing better access would not of itself create significant growth. See the discussion on joint development (Chapter IV Section J) for more information.

If, for the sake of discussion, a combination of a new transitway and economic/land use stimuli did foster new growth in the study area, this growth would lead to a reduction in vehicle miles traveled when compared to the existing patterns of growth in the

region. Trips generated closer to the inner city tend to be short when compared to fringe development. In addition, land use intensification and higher densities promote transit use over auto use. Cumulative impacts of improved access is primarily an issue involving the Los Angeles CBD. Cumulative impacts upon Union Station were discussed in the final EIR/EIS on the San Bernardino Freeway Busway Extension. Impacts of proposed transit improvements upon Union Station rail operations, possible commercial development and rail versus bus transit issues were discussed.

The Draft EIR on the Los Angeles Downtown People Mover (DPM) discussed cumulative impacts on the LA CBD in a comprehensive manner. No significant increases in DPM patronage were identified as a result of the possible implementation of the freeway transit plan.

The Busway Extension and DPM EIR/EIS documents are incorporated by reference into this Harbor Freeway Transitway EIR/EIS. The high capacity SCRTD Metro Rail Line EIS will provide more definitive information on cumulative impacts.

The I-105 Freeway and Transitway, combined with the proposed I-110/Harbor Freeway Transitway will have relatively minor cumulative impact in the areas serviced by these new facilities. The impacts of the I-105 project have been identified in the FEIS for that project.

IX. IMPACTS ON PROPERTIES OF HISTORICAL AND CULTURAL
SIGNIFICANCE SECTION 4(f) AND SECTION 106 PROPERTIES

Federal legislation requires that special efforts be made to preserve historic and cultural properties that have been found to be eligible for the National Register of Historic Places. Procedures for compliance with 16 U.S.C. 470(f) of the National Historic Preservation Act of 1966 and Executive Order 11593 as required by, 36 C.F.R. 800 are being followed. Procedures requiring the identification of significant historic properties, and the selection of mitigation measures and coordination with the State Historic Preservation Officer are being followed.

The properties within the projects Area of Potential Environmental Impact which are eligible for the National Register of Historical Places are listed in Section II. The impacts of the various alternatives of the proposed project are discussed in Chapter IV section Q.

The proposed project would require no land from a public park, recreation area, wildlife refuge, or land from an historic property, therefore Section 4(f) requirements do not apply.

X. ENERGY

This summary information was taken from the Route I-110 Transit Physical Environmental Report.

Table X-1 shows a comparison of the energy consumption for the various alternatives. For purposes of comparison, all energy used, no matter what the source, is converted into equivalent barrels of oil per day (EBO). The results include direct and indirect energy consumption. Direct energy is the energy consumed to propel the vehicle while the indirect energy is the remaining energy consumed. Indirect energy includes constructing the vehicles and facilities, maintaining and replacing the vehicles and facilities, exploring for energy resources, power generation, mining or refining the fuel and transporting it to the user.

The energy consumption analysis of the rail and bus alternatives are based on operational plans furnished by Wilbur Smith and Associates and the Southern California Rapid Transit District. The transit portion of the analysis includes all of the transit energy consumption including feeder bus systems in the transportation corridor. The energy analysis for the vehicle miles traveled (VMT) reduction was performed using Energy 3 (corrected for 1984 dollars), a computerized model developed by the Transportation Laboratory of Caltrans for all rubber tired vehicles. VMT reduction was based on modeling performed by the Transportation Analysis and LARTS Branch of Caltrans.

In all of the alternatives there is a reduction in energy consumption over the no project alternative. Daily savings of energy ranges between 482 EBO's for rail alternative 6 (Vermont Avenue) and 805 EBO's for bus/HOV alternative-4. Although the

energy consumption of the electric powered rail alternatives are indicated in barrels of oil, a number of other fuels could be used to generate the required electric energy.

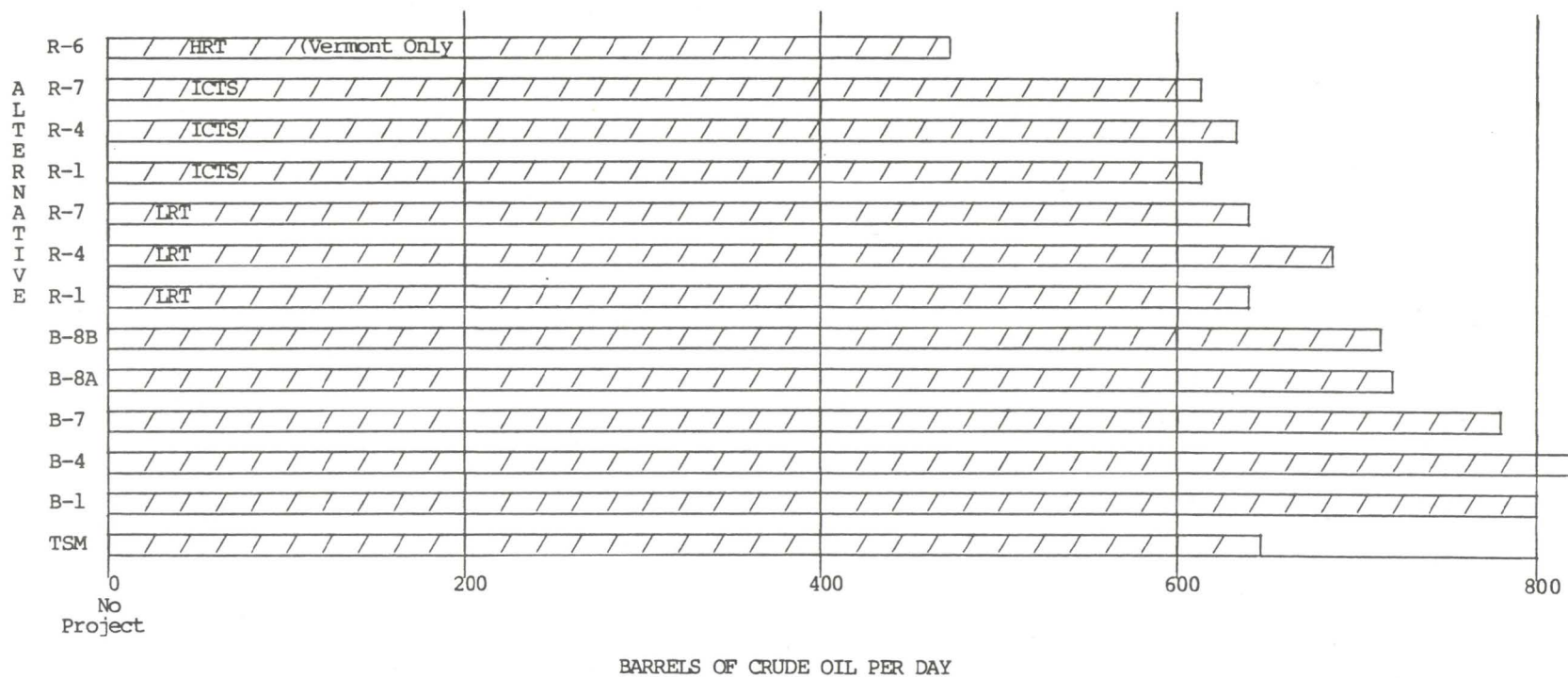
The Los Angeles Department of Water and Power along with the Southern California Edison Company are the two chief suppliers of electrical energy for the region. Energy sources include hydroelectric and steam generating stations. The principle fuel for the steam generating plants are natural gas (when available) and low sulfur oil. The energy used for the electric rail alternates constitutes less than 0.3% of the current 18 billion kilowatt-hours of electricity generated annually by the Los Angeles Department of Water and Power. In terms of peak-hour consumption, the rail lines would have a somewhat greater impact on the generating capacity because peak energy consumption for the household consumer occurs in the late afternoon corresponding closely with the evening rush hour traffic on the rail line. The Los Angeles Department of Water and Power forecasts future use of electricity will grow at a 2% annual rate and future capacity will be provided by two major coal fired projects located in eastern Nevada and southern Utah.

The amount of fuel required annually to provide enough power to operate a rail system would range between 16,000 and 28,000 tons of coal, between 60,000 and 100,000 barrels of oil, or between 350 million and 590 million cubic feet of natural gas.

X-3

FIGURE X-1

ENERGY SAVINGS IN BARRELS OF CRUDE OIL PER DAY

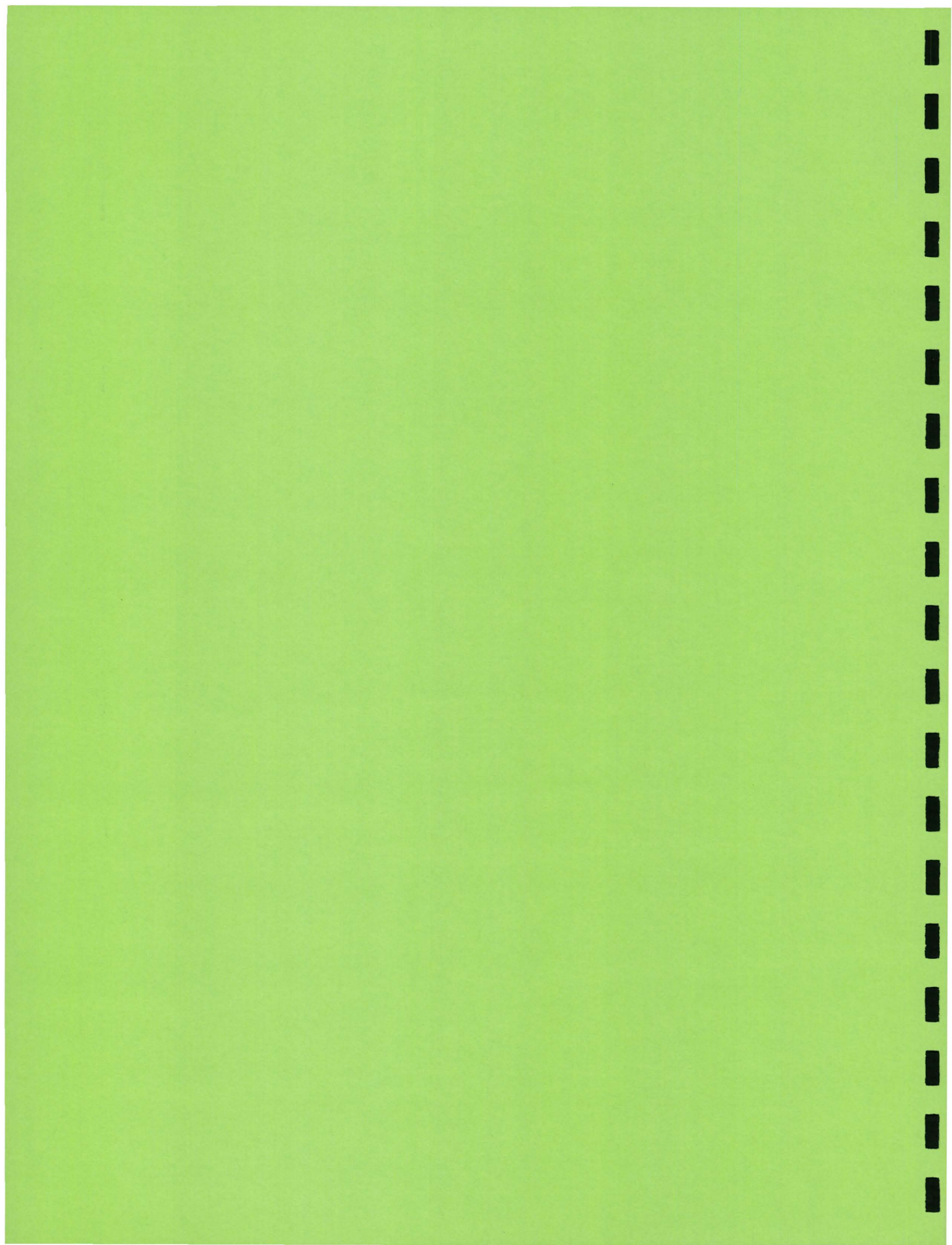




Interstate 110 Freeway Transit
HARBOR FREEWAY CORRIDOR

CHAPTER XI

Consultation and Public Participation



XI. CONSULTATION AND PUBLIC PARTICIPATION

A. Introduction

An interdisciplinary approach involving governmental agency coordination and public participation in transportation planning is an important State and Federal requirement. This agency and public input has been solicited since the early stages of the Harbor Freeway Transitway Study. During the coordination process the permits required to construct the various alternatives of the project were identified. Additionally, the DEIS was circulated to a wide variety of individuals, government agencies, and private organizations to insure that all interested parties could provide input about the project. The following letters indicate the support of the recommended alternative by the Metropolitan Planning Organization and local agencies. Also, included are the letters of support for the 37th Street Transit Station from the local agencies.

B. Interagency Coordination and Consultation

In order to carry on the day to day activities of developing and studying project alternatives, which reflected concern for the human and natural environment as well as for engineering details, an interdisciplinary team consisting of people with a variety of backgrounds in the natural sciences, humanities, planning and engineering was developed. This team was principally responsible for preparing this document. The list of preparers appears on page XII-1. In addition to the interdisciplinary team, an inter-agency project development team was established to provide management direction for the project, and to bring the expertise and public concerns at the various agencies to bear on this study. The members of the project development team are listed on Table XI-1.

ecf



LOS ANGELES COUNTY TRANSPORTATION COMMISSION • 354 SOUTH SPRING STREET—SUITE 500, LOS ANGELES, CALIFORNIA 90013 • (213) 626-0370

RICK RICHMOND
EXECUTIVE DIRECTOR

August 12, 1983

RECEIVED
AUG 19 1983
Office of Plan. and
Pub. Trans.

Mr. Heinz Heckeroth
District Director
Caltrans, District 7
120 South Spring Street
Los Angeles, CA 90012

Dear Heinz:

On August 10, 1983, the Los Angeles County Transportation Commission considered your request of July 21 for support of Caltrans' selection of a bus/HOV facility as the preferred alternative for the Harbor Freeway transit project. The Commission concurred in your decision to complete the Final Environmental Impact Statement with bus/HOV as the preferred alternative.

Sincerely,

RICK RICHMOND
Executive Director

PCT:esk

AUG 17 1983

8/18

DISTRICT DIRECTOR	
DDD—ADMINISTRATION	
DDC—CONSTRUCTION	
DDC—MAINTENANCE	
DDO—OPERATIONS	
DDO—PLANNING	
DDO—PROJECT DEV.	
DDO—RIGHT OF WAY	
DDO—ROUTE NOS	
ASST. DIST. DIR.	
EXECUTIVE ASST.	
ADMINISTRATION	
CONSTRUCTION	
ENGINEERING SVCS.	
ENV. PLNG. & CP	
LEGIS. AFFAIRS	
LOCAL ASSISTANCE	
MAINTENANCE	
PROGRAM MGMT.	
PUBLIC AFFAIRS	
PROJ. DEV. & R.C.D.	
PROJECT MGMT.	
PUBLIC TRANSPORTATION	
RESOURCE MGMT.	
RIGHT OF WAY	
TRAFFIC OPERATIONS	
TRAFFIC OPS-SYSTEMS	
TRANSP. ANA. & LARIS	
TRANSP. PLNG.	



WHEN MAKING INQUIRIES
RELATIVE TO THIS MATTER,
REFER TO FILE NO.

83-1527
CD

TOM BRADLEY
MAYOR

September 6, 1983

City Attorney
General Manager, Department of Transportation
City Administrative Officer
Councilwoman Russell

Caltrans
120 So. Spring Street
Los Angeles, CA 90012

RE: TRANSITWAY IN THE HARBOR FREEWAY CORRIDOR

At the meeting of the Council held August 30, 1983, the following action was taken:

- Attached report adopted..... X
- " motion " ().....
- " resolution " ().....
- Ordinance adopted.....
- Motion adopted to approve attached report.....
- " " " " " communication.....
- To the Mayor for concurrence.....
- To the Mayor FORTHWITH.....
- Mayor concurred..... X 9/1/83
- Appointment confirmed.....
- Appointee has/has not taken the Oath of Office.....
- Findings adopted.....
- Negative Declaration adopted.....
- Categorically exempt.....
- Generally exempt.....
- EIR certified.....
- Tract map approved for filing with the County Recorder.....
- Parcel " " " " " " " ".....
- Bond approved.....
- Bond is No. _____ of Contract.....
- Resolution of acceptance of future street to be known as _____ adopted.....
- Agreement mentioned therein is/are No. _____ of Contracts.....

Elias Martinez
City Clerk

pd

TO THE COUNCIL OF THE
CITY OF LOS ANGELES

Your TRANSPORTATION AND TRAFFIC Committee

reports as follows:

RECOMMENDATION

In order to provide for a proposed TRANSITWAY in the HARBOR FREEWAY Corridor (I-110) between San Pedro and the Los Angeles Convention Center as proposed by Caltrans, IT BE RESOLVED, by the adoption of this report that the City Council, SUBJECT TO THE APPROVAL OF THE MAYOR, ENDORSES the proposed project to construct a two directional BUS/HOV Transit facility in the median of the Harbor Freeway, and that Caltrans be requested to investigate the possibilities for joint development adjacent to proposed transit stations and that the guideway be designed to accommodate a peak direction HOV lane upon conversion to rail.

FURTHER, that the City Clerk be instructed to immediately notify Caltrans of the action taken hereon.

SUBJECT FILE BE TRANSMITTED TO THE MAYOR FORTHWITH.

STATEMENT OF FINDINGS

Your Committee at its meeting of August 10, 1983 at the request of Caltrans consider the above proposed project.

Caltrans presented some thirteen (13) alternatives which were considered, including rail or bus on the Harbor Freeway alignment and rail in Vermont Avenue. The PROPOSED PROJECT which Caltrans proposes to select is the construction of a TWO DIRECTIONAL BUS/HOV in the HARBOR FREEWAY MEDIAN. The proposed project is estimated to cost in excess of \$500 million dollars, would have a daily ridership of 95,000 (BUS and HOV), increase the capacity of the freeway by an equivalent of five peak hour lanes, and provide connection with the Century Freeway transitway. Construction funds would be provided from Federal-Aid Interstate and State Highway funds.

Councilman Farrell during your Committee discussions requested that in the development of the Transitway Caltrans investigate JOINT DEVELOPMENT OPPORTUNITIES in the vicinity of proposed transit stations. The General Manager of the Department of Transportation explained that the proposed design for BUS/HOV would potentially allow for a peak directional HOV lane if the transit use was converted to rail. He requested that the facility be designed to guarantee this provision.

- 1 -

TO THE COUNCIL OF THE
CITY OF LOS ANGELES

Your

- 2 -

Committee

reports as follows:

It is the position of your Committee that the proposed project selection is appropriate, given the potential availability of Interstate funds and the ability to convert to rail in the future.

Caltrans has requested that the City's position be known not later than August 30, 1983, in order that the project may proceed according to schedule.

Your Committee submits the above recommendation for Council consideration.

Respectfully submitted,

TRANSPORTATION AND TRAFFIC COMMITTEE

RHB
8-26-83

SEP 22 1983



600 South Commonwealth Avenue • Suite 1000 • Los Angeles • California • 90005 • 213 385-1000

September 19, 1983

COPY
ORIG SENT 9/19/83

Mr. Heinz Heckerott
District Director
Caltrans District 07
120 So. Spring Street
Los Angeles, CA 90012

SUBJECT: HARBOR TRANSITWAY LOCALLY PREFERRED ALTERNATIVE

Dear Mr. Heckerott:

This letter is to inform you that the SCAG Executive Committee, acting at their September 8 meeting approved the staff and Caltrans recommendation for a locally preferred transitway alternative on the Harbor Freeway. Specifically, their action was to support Alternative B-4, a two way bus/hov guideway to be constructed in the median of the Harbor Freeway (I-110) using at-grade and elevated-vertical alignments, as the locally preferred alternative.

We hope that this action by SCAG will assist you in your preparation of the final EIS for the project. We also look forward to working closely with you as this project moves toward implementation.

Sincerely,

A handwritten signature in cursive script that reads "James R. Gusnell" with "(for)" written below it.

JAMES R. GUSNELL
Department Director
Transportation Planning Department

JG:Ww:wp7

cc: Mr. Rick Richmond

bee: W. Wells

Norm Roy

M E M O R A N D U M

August 22, 1983

TO: Executive Committee
FROM: Bill Wells, Transit Program Manager
SUBJECT: HARBOR FREEWAY TRANSITWAY DEIR/DEIS

The review period for the draft environmental document on the Harbor Freeway Transitway is nearing completion. Caltrans has proposed a locally preferred alternative and is asking local agency endorsement of that alternative.

The alternative selected by Caltrans, Alternative B-4, is a two-way bus/HOV facility located in the median of the Harbor Freeway. Following both aerial and at-grade profiles, the facility extends from the Artesia Freeway to the Los Angeles Convention Center.

SCAG sent a letter to Caltrans commenting on the DEIR/DEIS in February which was approved by both the TCC and the Executive Committee. That letter pointed out that Alternative B-4 was the most cost effective alternative which met the projected needs of the corridor. The letter also stated that transportation problems exist in the corridor and that the expected capacity deficiency could be eliminated by the transitway.

The capital cost of the project is estimated at \$500 million. This project is eligible for 92% Federal Aid Interstate funding if the time constraints for Interstate funding are met.

The SCAG Transportation and Communications Committee took an action at their August 18th meeting approving selection of Alternative B-4.

One final note: SCAG has recommended on several occasions that both the Harbor Freeway and the Century Freeway Transitways should be the same mode. If the Harbor Freeway Transitway is a bus/HOV facility, we will, at the appropriate time, also recommend bus/HOV on the Century Freeway.

Recommended Action: Approve the selection of Alternative B-4, two-way bus/HOV Guideway, as the locally preferred alternative.

BW:dbg



John A. Dyer
General Manager

X

OCT 24 1983

DISTRICT DIRECTOR
DDD-ADMINISTRATION
DDD-CONSTRUCTION
DDD-MAINTENANCE
DDD-OPERATIONS
DDD-PLANNING
DDD-PROJECT DEV.
DDD-RIGHT OF WAY
DDD-ROUTE 105
ASST. DIST. DIR.
EXECUTIVE ASST.
ADMINISTRATION
CONSTRUCTION
ENGINEERING SVCS
ENV. PLNG. & CP
LEGAL AFFAIRS
LOCAL ASSISTANCE
MAINTENANCE
PROGRAM MGMT.
PUBLIC AFFAIRS
PROJ. DEV. A. S. C. D.
PROJECT MGMT.
PUBLIC TRANSPORTATION
RESOURCE MGMT.
RIGHT OF WAY
TRAFFIC OPERATIONS
TRAFFIC OPS-SYSTEMS
TRANSP. ANA & LARIS
TRANSP. PLNG. & R/S

OCT 20 1983

OCT 26 1983

Mr. Heinz Heckeroth
District Director
Caltrans
120 South Spring Street
Los Angeles, California 90012

RECEIVED
OCT 26 1983
Office of Plan. and
Pub. Trans.

Dear Mr. Heckeroth:

On September 19, 1983, the SCRITD Board of Directors considered the Caltrans final EIS recommendation to build a Bus/HOV transitway facility within the Harbor Freeway corridor. The Board of Directors voted to support this Caltrans decision and a certified copy of the resolution is attached. A number of issues concerning downtown bus distribution, project integration with other proposed transitway and rail projects within Los Angeles County, and required operational and capital subsidies for the transit operator were raised at this meeting. As indicated in the resolution, along with the motion to support the Caltrans mode selection, the Board also requested that a detailed operating and financial feasibility study be undertaken to resolve the above issues prior to construction and District operations of the transitway facility.

One of our primary concerns has always been the issue of required operating and capital subsidy requirements. The Caltrans plan on the Harbor Freeway corridor calls for an additional 174 articulated buses and 57 regular sized buses. Further it is stated that an operating cost of 33.9 million dollars in 1981 dollars will be required. As the eventual operator of this facility, we have serious concerns regarding our financial ability to provide the type of service projected.

These financial issues have been reiterated in the past. Caltrans has been formally notified of our concerns as far back as December 18, 1979 in a letter to Director Adriana Gianturco and as recently as March 14, 1983 in my letter to you regarding the draft Environmental Impact Statement on this project. I know these are hard issues, however, it is our Board's intent that these issues be resolved prior to commencing construction of the facility.

Mr. Heinz Heckeroth
Page Two

The District stands ready to assist Caltrans in any way possible in resolution of these issues. Please call me if you have any further questions on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "John A. Dyer", with a long horizontal flourish extending to the right.

John A. Dyer

Attachment

cc: SCRFD Board of Directors

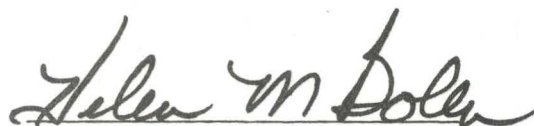
RESOLUTION

RESOLVED, that the Southern California Rapid Transit District does hereby support CalTrans' decision to build a bus transitway facility within the Harbor Freeway Corridor;

RESOLVED FURTHER, that the District hereby requests a more detailed operating and financial study to resolve the issues of Downtown Los Angeles bus distribution, project integration with other planned transitway and rail projects within Los Angeles County, and required operational and capital subsidies for the transit operator prior to construction and District operation on the facility.

CERTIFICATION

The undersigned, duly qualified and acting as District Secretary of the Southern California Rapid Transit District, certifies that the foregoing is a true and correct copy of a Resolution adopted at a legally convened meeting of the Board of Directors of the Southern California Rapid Transit District held on September 29, 1983.



DATED: October 5, 1983

(SEAL)



Automobile Club of Southern California

HEADQUARTERS 2601 SOUTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90007
MAILING P O BOX 2890 TERMINAL ANNEX • LOS ANGELES, CALIFORNIA 90051

HIGHWAY ENGINEERING DEPARTMENT
A KEITH GILBERT, MANAGER
(213) 741-4490

See file

May 7, 1984

Mr. Don M. Muchmore
Executive Museum Director
California Museum of Science and Industry
700 State Drive
Los Angeles, CA 90037

Dear Mr. Muchmore:

Your letter to Kirk West concerning the siting of a busway station at Exposition Boulevard (copy to Mr. Harry Cheshire) has been referred to me. Thank you for letting us know about the Museum Board's interest in the station location issue.

We have strongly supported the proposed Harbor Freeway improvements. The Bus/HOV lane has the potential to enhance mobility significantly in this corridor. The Museum Board's resolution that this new transportation facility should directly serve the Exposition Park/USC area is a good suggestion. We have spoken with LACTC staff about the issue and received their support for a station at Exposition Boulevard. At a forthcoming meeting with Caltrans staff, we will discuss the station siting situation and seek their support as well.

Sincerely,

A. Keith Gilbert
Manager

JDO/bk

pc: Heinz Heckeroth
Paul Taylor



John A. Dyer
General Manager

JUN 12 1984

Mr. Rick Richmond
Los Angeles County
Transportation Commission
354 South Spring Street
Suite 500
Los Angeles, CA 90013

RECEIVED

JUN 10 1984

Office of Plan. and
Transp.

Dear Mr. Richmond:

It has been brought to my attention that the Commission is considering recommending the relocation of the proposed King Boulevard station, on the Harbor Freeway, to Exposition Boulevard. I am writing to express the District's position regarding this proposal.

As an operating agency, the District has two main concerns. One is the ease of providing the requisite local feeder bus service to the station. Currently, there is better east-west local bus service on King Boulevard than at Exposition Boulevard, where the bus line turns north on Figueroa before it continues east. However, as has been suggested, the bus line that operates on Exposition Boulevard could serve the Exposition station by continuing under the Harbor Freeway on 37th Street. Therefore, either station could provide the necessary local feeder bus service.

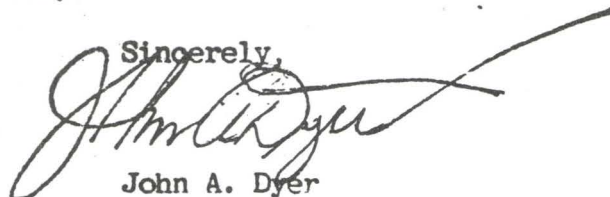
The District's second concern is to best serve the transit trip needs of the community. The King Boulevard site is expected to remain primarily residential, with some low density commercial development possible. For this reason, the King station would be unlikely to attract many transit trips from the Harbor Freeway line haul services. Also, since the King Station is so close to the CBD, it would be unlikely to attract many line haul patrons from the community. This latter statement would also apply to the Exposition station site, as well. However, the Exposition site, which is convenient to the University, museums, and several major businesses, would be a stronger attraction for the line haul transit patrons than King Boulevard. For this reason, the District would have a slight preference for the Exposition Boulevard station site.

I realize that there is a broader range of concerns involved in selecting the station location than the District, as an operator, has addressed.

Mr. Rick Richmond
Page 2

So, although the District has a small preference for the Exposition site, whichever site is selected by Caltrans and the Commission, when their review is complete, will be satisfactory.

Sincerely,

A handwritten signature in black ink, appearing to read "John A. Dyer", with a long, sweeping horizontal line extending to the right.

John A. Dyer

✓ cc: Heinz Heckeroth



A. H. H. H.
RS

Los Angeles County
Transportation
Commission
354 South Spring Street
Suite 500
Los Angeles
California 90013
(213) 626-0370

June 21, 1984

Mr. Don Muchmore
Executive Museum Director
California Museum of Science
& Industry
700 State Drive
Los Angeles, CA 90037

Dear Mr. Muchmore:

I am writing to inform you that on June 13, the Los Angeles County Transportation Commission approved its staff's recommendation regarding your request to relocate a station on the Harbor Freeway transitway project. This recommendation calls upon Caltrans to hold a public meeting in the affected area to ascertain the position of the community and then considering relocating the proposed station from Martin Luther King, Jr. Blvd. to Exposition Blvd.

Sincerely,

A handwritten signature in dark ink, appearing to read "Rick Richmond", written in a cursive style.

RICK RICHMOND
Executive Director

RR:bn

cc: Mr. Heinz Heckerth, Caltrans ✓

JUN 14 1984

UNIVERSITY OF SOUTHERN CALIFORNIA
UNIVERSITY PARK
LOS ANGELES 90089-0012

OFFICE OF THE PRESIDENT

	DISTRICT DIRECTOR
	DDD-ADMINISTRATION
	DDD-CONSTRUCTION
	DDD-MAINTENANCE
	DDD-OPERATIONS
	DDD-PLANNING
	DDD-PROJECT DEV
	DDD-RIGHT OF WAY
	DDD-ROUTE 104
	ASST DIST DIR
	EXECUTIVE ASST
	ADMN STRATION
	CONSTRUCTION
	ENGINEERING SVCS
	ENVIRONMENTAL
	LEGAL AFFAIRS
	LOCAL ASSISTANCE
	MAINTENANCE
	PROGRAM MGMT
	PUBLIC AFFAIRS
	PROJ DEV & M.D
	PROJECT MGMT
	PUBLIC TRANSPORTATION
	RESOURCE MGMT
	RIGHT OF WAY
	TRAFFIC OPERATIONS
	TRAFFIC OPS-SYSTEMS
	TRANSP ANA & LARIS
	TRANSP PLNG & RIS

June 8, 1984

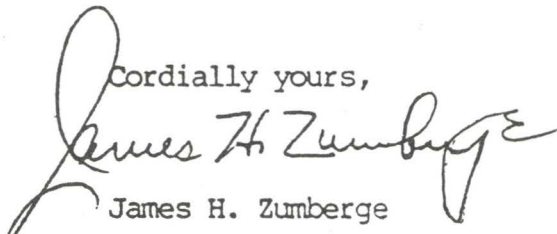
Mr. Heinz Heckeroth
California Department of Transportation
District 7
Post Office Box 2304
Los Angeles, California 90051

Dear Mr. Heckeroth:

Re: Station Location for Freeway Transit Way Project

Don Muchmore shared with me your thoughtful letter of April 27 to Jacki Bacharach on this topic.

While I understand your argument for locating the proposed station at Martin Luther King Jr. Boulevard rather than Exposition, it sounds to me as though it has aspects of a "self-fulfilling prophecy." In large measure, the regular commuting traffic is going to go where the station is. If it is located at Exposition, traffic patterns will adjust to accommodate. What won't adjust, if the station is located at Martin Luther King Jr. Boulevard, are the thousands of potential users of the Freeway Transit Way project who would find it convenient to use the Transit Way to travel to and from the University and the Museum complex. I urge you to reconsider the location of this station with this viewpoint in mind.

Cordially yours,

James H. Zumberge

cc: Jacki Bacharach
Don M. Muchmore

RECEIVED

DEPARTMENT OF TRANSPORTATION

15 7, P.O. BOX 2304, LOS ANGELES 90051



(213) 620-3874

June 29, 1984

Mr. James H. Zumberge
University of Southern California
University Park
Los Angeles, CA 90089-0012

Dear Mr. Zumberge:

Caltrans is actively considering the relocation of the Martin Luther King Jr. Boulevard Station on the proposed I-110 Transitway to the Exposition Boulevard area.

One of our main concerns has been local feeder bus service and line haul bus service to and from either station site. SCRTD recently reevaluated this issue and indicated a slight preference for the Exposition Boulevard site. Taking this preference into consideration and working with the local agencies, difficulties with the Exposition site may be overcome. Before making a final determination on the station site, Caltrans will conduct a community meeting to hear from all interested parties, as requested by the Los Angeles County Transportation Commission.

We will keep you informed of developments relating to the transit station. Thank you for your interest.

Sincerely,



HEINZ HECKEROTH
District Director

cc: Jacki Bacharach
Don M. Muchmore

TABLE XI-1

Project Development Team Representatives

Caltrans

Norm Roy	Public Transportation
Bill Leonard	" "
Dale Ratzlaff	" "
Sam Oyama	" "
Emery C. Fawcett	" "
Harlan Weatherhold	Project Development A
Ross Keeling	" " "
Ron Kosinski	Environmental Planning
Tom Sudeck	" "
Dick Kermode	Environmental Investigations
Howard Bolten	" "
Dick Sommerhauser	LARTS
Joe Gilly	"
Bjorn Brodahl	Traffic Operations West
Bob Goodell	Citizen Participation
John Higgins	" "

Headquarters Office (Sacramento)

Dean Larson	Project Development
Don Parker	" "
Ted Berg	Ridesharing
Chuck Pearson	Structures Design
Jack Boda	" "

L.A. City

Tom Jones	Department of Transportation
Tim Crowder	" " "
Sam Furuta	" " "
Jim Yoshinaga	Planning
Artis Rhodes	"

FHWA

Al Gallardo	Sacramento
Steve Guhin	"

UMTA

Dee Jacobs	Sacramento
------------	------------

SCAG

Brad Williams	
Bill Wells	

SCRTD

Nadeem Tahir	Metro Rail Department
Mario Oropeza	Bus Planning Department

LACTC

Rick Richmond	
Don Camph	

C. Major Coordination Benchmarks

1. Environmental Scoping Meeting - The October 2, 1980 I-110 Environmental Scoping Meeting was attended by 20 persons, primarily from various Federal, State, and local agencies (Table XI-2 - Scoping Meeting Attendance List). During the open discussion period of this meeting several issues were raised by three attendees (S. Hart - Sierra Club, J. Seal - Organization for Mass Transit Los Angeles (OMTLA), and B. Allen - an individual interested in regional transit planning). These issues and comments on them are listed in Appendix H.

2. Preliminary Environmental Assessment - As part of the overall process, a draft Environmental Assessment was informally circulated in September and October 1980 to members of the Project Development Team. Issues raised in written comments to that document and responses to those concerns are discussed in Appendix H.

3. Corridor Planning Committee Meetings - The Corridor Planning Committee is a quasi political-technical multi-agency team whose function is to provide a forum for external planning among other agencies or entities at the corridor level. Two meetings of the Corridor Planning Committee were held, one on December 18, 1979, and June 18, 1981. Table XI-3 lists those who attended these meetings. The issues raised at these meetings are listed in Appendix H.

TABLE XI-2

Environmental Scoping Meeting Attendance List

J. Amerson	- FHWA
J. Novak	- CHP
J. Seal	- OMTLA
W. A. Goodfellow	- L. A. County Road Department
Bob Roddick	- OMTLA
Artis F. Rhodes	- L.A. City Planning Department
A. J. Gallardo	- FHWA
H. Weatherhold	- Caltrans
R. Larson	- L.A. County Road Department
Tim Crowder	- L.A. City DOT
Sam Furuta	- L.A. City DDT
Stan Hart	- Sierra Club
Bob Giess	- Caltrans
Al Holman	- SCRTD
David Grayson	- Auto Club of Southern California
John Bate	- FHWA
Bupindeo S. Nijjar	- Caltrans
Mitch Tanner	- FHWA
Raymond K. Maekawa	- LATC
Bryan Allen	- self

TABLE XI-3

Corridor Planning Committee Attendees

Senator Bob Beverly
 Continental Trailways
 My. Bryan Allen
 Gardena Bus Lines
 Sierra Club
 DMJM Consultants
 Federal Highway Administration
 Los Angeles City Councilman Robert Farrell
 California Highway Patrol
 National Association for the Advancement of Colored People
 Los Angeles County Road Department
 League of Women Voters
 Congressman Glenn Anderson
 Assemblyman Gerald Felando
 Mayor, City of Los Angeles
 Mayor, City of Carson
 Mayor, City of Lomita
 Los Angeles County Supervisor Yvonne Burke
 City of Long Beach
 Altadena Town Council
 Los Angeles Area Chamber of Commerce
 Automobile Club of Southern California
 Southern California Rapid Transit District
 Airport Services, Incorporated
 City of Gardena
 Southern California Association of Governments
 Los Angeles Department of Transportation

Since the proposed project would affect both residences and businesses in the project area, the affected communities have been involved in the current study and will be consulted about major developments. The methods used to contact and receive input from the various communities are detailed in this chapter. An extensive information program will be developed to assure that, if the project is approved, motorists will be aware of traffic detours and delays during construction.

The following people and agencies were consulted about various aspects of the proposed project.

James P. Burgess - Chief, Transit Police, SCRTD

Robert Thorne - Rancho Santa Ana Botanical Garden

Robert J. Gustafson - Los Angeles County Museum of
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Harvey Beverly - U.S. Army Corps of Engineers

Marti Pletcher - California Department of Fish and Game

Ileana Liel - Los Angeles Community Redevelopment Agency

May Doi - City of Gardena

Marie Patterson - Juaneno Indians

Charlie Cook - Gabrielino Indians

State Office of Historic Preservation

City of Los Angeles Cultural Heritage Board

Los Angeles County Museum of Natural History Historic
Site Survey

UCLA Archaeological Archives

U.S. Fish & Wildlife Service

4. Public Meetings and Information Van Displays - The public meetings and information van displays listed in Table XI-4 were held to provide people in the Harbor Freeway corridor a chance to provide information about the project and to comment on it.

TABLE XI-4

Public Meetings and Information Van Displays

	<u>Date</u>	<u>Location</u>	<u>Attendance</u>
Meetings	July 30, 1981	Peck Park, San Pedro	12
	August 12, 1981	Locke High School Watts	5
	August 13, 1981	Hubert Humphrey Medi- cal Center S. E. Los Angeles	35
	August 15, 1981	University of So. Calif. S. Central Los Angeles	4
Informa- tion Van Displays	September 22, 1981	Gardena City Hall	
	September 24, 1981	Alpha Beta Shopping Center Rosecrans & Normandie Gardena	

At the public meetings displays and other information about the project were available to the public. Caltrans staff was available to answer questions and record comments. A slide and tape presentation about freeway transit was shown and a formal information and comment period followed. Information van displays consisted of a display about the project staffed by Caltrans personnel to answer questions and take comments.

In addition to the public meetings, described above, Caltrans contacted private organizations and citizens groups on two different occasions offering to make presentations and take comments about the Harbor Freeway Corridor Transitway Project. As part of the Stage I work program letters were sent on January 14, 1980 to over 300 community, transportation and private organizations. Three organizations requested meetings. They were the Los Angeles Kiwanis Club, Gardena Valley Kiwanis Club, and the Sierra Club Transportation Committee. The total attendance at these meetings was 76.

Because of changes in the project, letters were sent to 289 organizations and community groups on May 12, 1981. Four groups requested meetings. They were the Gardena Valley Committee on Aging, Anderson's Senior Citizens, San Pedro Chamber of Commerce Transportation Committee, and Coalition for Clean Air. The total attendance at these meetings was 217.

The meetings consisted of a tape and slide presentation depicting how a transit facility might appear, possible construction techniques that might be used, and a question and comment session. A brochure about the Harbor Freeway Corridor Transitway project was distributed at each meeting to help define alternatives and furnish overall information about the proposed transportation network for Southern California.

During the public meetings and informational van displays a number of issues were raised by citizens. These issues are listed in Appendix H.

5. Questionnaire - In order to expand the Citizen Participation effort, the Public Transportation, Environmental Planning and Citizen Participation Branches devised a questionnaire with English and Spanish editions (Tables XI-5, XI-6) which was approved for public circulation by the P.D.T. members on August 26, 1981.

The questionnaire was distributed on selected northbound on-ramps of I-110 and at bus stops at major surface street intersections on the dates and at the locations listed in Table XI-7. All the freeway on-ramps selected have more than 1000 vehicles entering the freeway during the peak period.

The number of copies of the questionnaire sent to be distributed at individual freeway on-ramps was determined by traffic counts at that ramp. The number of copies sent to bus stops was determined by boarding projections for those stops. The distribution occurred during the A.M. peak period, 6:45 to 9:45 at the on-ramp locations and 6:00 to 9:00 at the bus stops or until all copies allocated for that particular site were exhausted, whichever came first.

Listed below is the distribution of the questionnaire and the number of returns:

	<u>Total</u>	<u>Number Returned</u>	<u>% Responding</u>
I-110 On-ramps	28,500	3,827	13.4
Bus Stops	<u>2,750</u>	<u>114</u>	<u>9.1</u>
Total	31,250	3,941	12.6
Additions to mailing list		2,133	6.8

The top three responses for questions 1-3 and 5 are as follows:

Question 1.	Construct a rail system	40.4%
	Construct additional Bus/HOV lanes	18.0%
	Provide additional Park and Ride facilities	14.0%
Question 2.	Rail in the center of I-110	57.3%
	Additional Bus/HOV lanes	23.9%
	Rail on Vermont	18.8%
Question 3.	Work Trips	80.8%
	Shopping/recreational trips	13.0%
	School trips	6.1%
Question 5.	Reduce freeway congestion	36.7%
	Energy conservation	21.6%
	Safety and security	17.7%

Question 4 was essentially an origin and destination survey. The primary origin was Pacific Coast Highway with 17.6% while the primary destination was downtown Los Angeles with 30.2%.

The only difference between the bus and on-ramp handout responses was that the bus responses wanted additional buses more often than on the on-ramp responses, 23.8% vs. 13.2%, respectively. The other responses were essentially the same.

TABLE XI-5

Replica of Questionnaire with Final Tally and Percentages

1. What kind of public transportation improvements do you feel are necessary in the Harbor Freeway area? (Check those options that you support)

	<u>#</u>	<u>%</u>
Additional bus service	889	13.3
Improved bus shelters	481	7.2
Additional Park & Ride facilities	938	14.0
Additional transit services for the disabled	372	5.6
Construct additional lanes for buses and car/van pools	1209	18.0
Construct a rail system	2709	40.4
No improvement needed	103	1.5
Other (specify) _____		

2. If one of the following improvements were available, which would you favor?

a. Additional lanes in the center of the Harbor Freeway for buses and car/van pools	1002	23.9
b. Rail on Vermont Avenue	786	18.8
c. Rail in the center of the Harbor Freeway	2401	57.3

3. Given your answer to question #2, what would the majority of your trips be for?

Work trips	3440	80.9
School trips	261	6.1
Shopping/recreational trips	553	13.0
Other (specify) _____		

4. Given your answer to question #2, which of the following transit stations would you use? (B - begin--E - end)

Downtown L.A.	2099	30.2	Artesia	547	7.9
Santa Barbara	428	6.2	Carson	688	9.9
Slauson	312	4.5	Pacific Coast Highway	1227	17.6
Manchester	432	6.2	Channel Street	349	5.0
Rosecrans	646	9.3	Ports O'Call	232	3.3

5. In improving transportation in the Harbor Freeway area, which of the following environmental problems are important?

Air and noise impacts	1309	15.3
Energy savings	1852	21.6
Reduce traffic congestion	3153	36.7
Increased traffic near stations	349	4.1
Safety and security	1517	17.7
Increased noise, traffic, etc. during construction	402	4.7
Other (specify) _____		

COMMENTS: _____

Replica of the Spanish Version of the Questionnaire

CALTRANS esta conduciendo una encuesta para conocer las necesidades de la transportation publica. Por favor complete este cuestionario y depositelo en cualquier buzón de correos--porte franco.

1. ¿Que mejoras cree usted son necesarias en el area de la autopista Harbor?
(Marque las opciones que usted prefiera)

Servicio adicional de buses
Mejoras en las paradas de los buses
Mas facilidades de Park & Ride
Servicios de transito adicionales para los lisiados
Construccion adicional de carriles para buses y carros/van pools
Construccion de un sistema de rieles
No se necesita ningun mejoramiento
Otro (especifique) _____

2. ¿Si alguno de los siguientes mejoramientos estuviese al alcance, cual preferiria?

a. Carriles adicionales en el centro de la autopista Harbor para buses y carros/van pools
b. Rieles sobre la Avenida Vermont
c. Rieles en el centro de la autopista Harbor

3. Respondida la pregunta #2, ¿cul seria la causa de la mayoria de sus viajes?

Viajes al trabajo
Viajes a la escuela
Viajes de compras/recreacion
Otro (especifique) _____

4. Repondida la pregunta #2, cual de las siguientes estaciones de transito usaria usted? (E - al empezar--T - al terminar)

Downton L.A.	Artesia
Santa Barbara	Carson
Slauson	Pacific Coast Highway
Manchester	Channel Street
Rosecrans	Ports O'Call

5. ¿Si se quiere mejorar el servicio de transporte en el area de la autopista Harbor, cual de los siguientes problems ambientales serian importantes?

Impacto del ruido y del aire
Ahorros en energia
Reduccion en el congestionamiento del trafico
Aumento del trafico cerca de las estaciones
Seguridad
Aumento de ruido, trafico, etc. durante la construction
Otro (especifique) _____

COMENTARIOS: _____

Si a usted le gustaria formar parte de nuestra lista de correos relacionado con el area de estudio de la autopista Harbor, por favor llene la siguiente informacion.

Nombre _____

Direccion _____

Ciudad y codigo de area _____

GRACIAS POR EL TIEMP EMPLEADO PARA RESPONDER ESTE CUESTIONARIO.

TABLE XI-7

Dates and Locations of I-110 Questionnaire Distribution
 Harbor Freeway (I-110) Northbound On-Ramps Selected
 for Distribution

<u>Date</u>	<u>Site</u>
September 29, 1981	Channel Street Anaheim Street Pacific Coast Highway E/B Sepulveda Boulevard
September 30, 1981	220th Street Torrance Boulevard Alondra Boulevard Rosecrans Avenue
October 2, 1981	El Segundo Boulevard Imperial Highway Century Boulevard Florence Avenue
October 6, 1981	Slauson Avenue Vernon Avenue Martin Luther King, Jr. Boulevard Exposition Boulevard
October 7, 1981	W/B Artesia Boulevard

Surface Street Intersection Bus Stops Selected
 for Distribution

October 14, 1981	Slauson Avenue & Vermont Avenue Slauson Avenue & Figueroa Street Slauson Avenue & Broadway Slauson Avenue & Main Street
October 15, 1981	Manchester Avenue & Vermont Avenue Manchester Avenue & Figueroa St. Manchester Avenue & Broadway Manchester Avenue & Main Street
October 16, 1981	Martin Luther King, Jr. Blvd. & Vermont Avenue Martin Luther King, Jr. Blvd. & Figueroa Street Martin Luther King, Jr. Blvd. & Broadway

Table XI-5 is the complete tally sheet showing the total for each question.

In conclusion, the majority, 76.1%, of respondents chose rail as the mode; 57.3% want rail on the Harbor Freeway (I-110) vs. 18.8% for rail on Vermont Avenue; 80.9% would utilize the system for home to work trips with the most, 30.2%, working in downtown Los Angeles and 17.6% using the Pacific Coast Highway station. 37% of the responses were most concerned with reducing traffic congestion on the freeway, 22% with energy conservation, and 18% with the safety and security of the transit station.

In a random sample of 358 respondents located south of the Century Freeway alignment (I-105), a total of 57.4% preferred rail on I-110, while 21.5% chose rail on Vermont Avenue.

D. Required Permits

The following permits may be necessary to implement the proposed Harbor Freeway Transitway Project:

Coastal Permit. This permit would be required for the highway improvement between Route 47 and Pacific Coast Highway since a portion (Route 47 to B Street) is located in the Los Angeles Harbor Coastal Zone area (see Section IV-I).

California Department of Fish and Game Section 1601 Streambed Alteration Permit. This permit will not be required in the recommended alternative because no major modifications would be made in the Dominguez Channel, Bixby Slough, or the Willows Wetland.

U.S. Army Corps of Engineers Section 404 Permit. This permit would not be required. Since a pedestrian overcrossing is not being constructed over the portion of the Willows Wetland located in the northeastern quadrant of Vermont Avenue and Artesia Boulevard for the recommended alternative. This overcrossing was being considered for all rail alternatives except rail alternative 6.

Los Angeles County Flood Control District Permit. This permit would not be required because no modifications would be made in the Dominguez Channel, and Bixby Slough flood drainage channels.

Local Agency permits. Various construction methods or procedures will necessitate temporary local street closures and public utility service relocations. Also, some change to land use designations may result from proposed transportation facility improvements. Borrow and disposal sites will be cleared with the appropriate local agencies and all necessary permits will be obtained.

E. Public Review

This DEIS was available for public review at the following locations:

California Department of Transportation District 07 District Office	120 South Spring Street Los Angeles, California
Los Angeles Central Library	630 W. 5th Street
Junipero Serra Branch Library	4255 South Olive
John Miur Branch Library	1005 West 64th
Exposition Park-Bethune Branch Library	3665 South Vermont
Ascot Branch Library	256 West 70th
A. C. Bilbrew Library	150 East El Segundo
Gardena Library	1731 West Gardena
Carson Library	151 East Carson
Victoria Park Library	17906 South Avalon
San Pedro Regional Branch Library	931 South Gaffey

F. Distribution List

The following is the list of agencies, organizations and individuals to which this Final Environmental Impact Statement/ Environmental Impact Report was distributed.

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Los Angeles, CA 90076

Mr. Bryan Allen
3242 Drew Street
Los Angeles, CA 90065

Mr. David Noble
304 South Broadway, Suite 506
Los Angeles, CA 90013

Mr. William A. Barbeau
Tood Pacific Shipyards Corp.
P. O. Box 231
San Pedro, CA 90733

Environmental Defense
Funds, Inc.
2606 Dwight Way
Berkeley, CA 94702

Friends of the Earth Sacramento
State Capitol Office
717 K Street, Suite 209
Sacramento, CA 95814

Sierra Club
Los Angeles Chapter
Transportation Committee
2410 Beverly Boulevard
Suite 2
Los Angeles, CA 90057

Mr. David C. Maxwell
5031 N. Golden West Avenue
Temple City, CA 91780

San Pedro Chamber of Community
Development and Commerce
390 West Seventh Street
San Pedro, CA 90731

Ms. Rita Barschak
694 Tigertail Road
Los Angeles, CA 90054

Mr. Abe Falick
Coalition for Rapid Transit
1636 West Eighth Street
Suite 111
Los Angeles, CA 90017

Mr. Dana W. Reed
Citizens Advisory Committee
on Transportation Quality
723 Radcliffe Avenue
Pacific Palisades, CA 90272

Private Organizations and Individuals - Contd.

Sister Diane Donoghue
Director
Stella Maris Center
Sisters of Social Service
2303 South Figueroa
Los Angeles, CA 90007

Mr. Martin Wachs
University of California
School of Architecture and
Urban Planning
Los Angeles, CA 90024

Mr. Robert A. Kilpatrick
Assistant Engineer
Creer and Co.
Engineers and Planners
4095 East Palma Avenue
Suite L
Anaheim, CA 92807

Alexander Haagen Development
3500 Sepulveda Boulevard
Manhattan Beach, CA 90266

Century Freeway Corridor
Development Corp.
11222 So. La Cienega Blvd.
Suite 480
Inglewood, CA 90304

English Enterprises, Inc.
8520 So. Broadway
Los Angeles, CA 90003

Gardener and Holman
Consultant Planning
4218 McClung Drive
Los Angeles, CA 90008
Attn: Mr. Al Holman

Mr. Ron Scholnick
419 Madison Avenue
Culver City, CA 90230

Mr. Clifford L. Ratkovich
Ratkovich, Bowers, & Perez, Inc.
811 West Seventh Street
Suite 310
Los Angeles, CA 90017

Ms. Betty Hinds
Cassidy Tract
Citizens Committee
17519 Brendo Avenue
Gardena, CA 90248

G. Public Hearings

Public Hearings were held at two different sites within the corridor on different dates. The first public hearing was held March 9, 1983 at the Gardena High School Auditorium in Gardena, and the second hearing was held March 10, 1983 at the Masonic Lodge on South Menlo Avenue in Los Angeles. Notice of these hearings were published in eight local newspapers on two different dates as shown below.

Newspaper	First Insertion	Second Insertion
Herald Examiner	February 11	February 25
Gardena Valley News	February 12	February 26
Torrance Daily Breeze	February 11	February 25
San Pedro News Pilot	February 11	February 25
Inglewood News	February 12	February 26
Santa Monica News	February 10	February 24
L.A. Times (Main Classified Section)	February 9	February 23
Long Beach Press Telegram	February 9	February 23

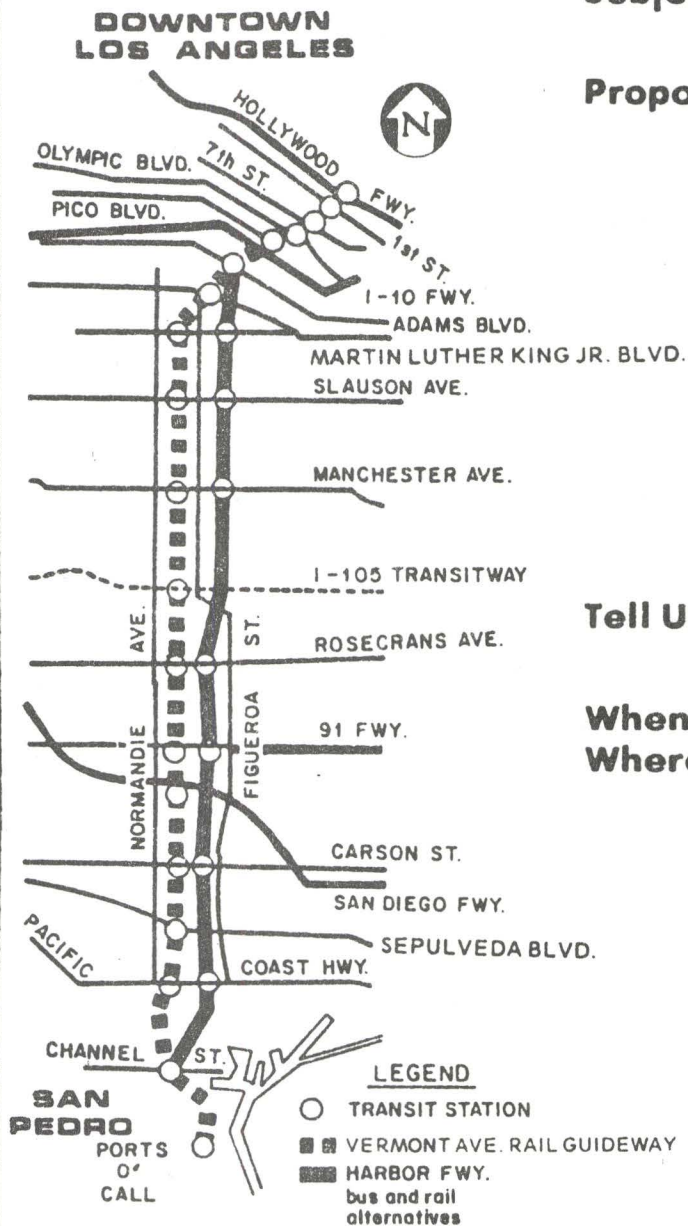
A copy of the Notice follows this page.

Attendance was light with 70 citizens attending the March 9th hearing and 25 citizen attending the March 10th hearing. Of the 70 citizens attending the March 9th hearing, 14 of them either spoke or had comments and questions regarding the project Proposal On March 10th, there were 4 citizens who either spoke or had comments and questions. The primary concerns raised by the speakers are as follows: The Vermont HRT Alignment No Project Alternative, Funding (Capital and operating), Safety, and



PUBLIC HEARINGS

Concerning Interstate 110 Harbor Freeway Corridor Transit Facilities



Subject:

What do you think about the proposals to construct transitway facilities in the Harbor Freeway (Interstate 110) Corridor?

Proposals:

CALTRANS (California Department of Transportation) is studying proposals to construct transitway facilities in the Harbor Freeway (Interstate 110) Corridor, between San Pedro and the Los Angeles Central Business District (approximately 22 miles in length).

Alternatives being considered include:

- A. An exclusive Bus/High Occupancy Vehicle (HOV) transitway on Harbor Freeway
- B. Rail guideway on Harbor Freeway or Vermont Ave.
- C. Low cost traffic operations improvements
- D. No project option

The proposed transitway alternatives would increase transit use, reduce transit time, serve a large transit dependent population and increase the capacity of the Harbor Freeway Corridor.

Tell Us:

The hearings will give you an opportunity to talk about features of the various alternatives with Caltrans staff before the final decision is made.

When & Where:

The hearings will be held as follows:

Date: March 9, 1983

Time: 5:00 - 7:00 p.m. Open House
7:00 p.m. Public Hearing

Place: Gardena High School Auditorium
1301 West 182nd Street
Gardena, CA

Date: March 10, 1983

Time: 2:00 - 4:00 p.m. Open House
4:00 p.m. Public Hearing

Place: Masonic Lodge
7101 So. Menlo Ave.
Los Angeles, CA

If you can't attend one of the hearings, you can send your written comments until April 10, 1983 to Caltrans, Environmental Planning Branch,

Attention: K. D. Steele
120 South Spring Street
Los Angeles, CA 90012

Contact:

For more information about this study, call Ronald Kosinski at (213) 620-3755.

Wetlands impacts. For more details on The Public Hearings, complete transcripts of the proceedings are available for review at Caltrans, District 7 Public Information Office, 120 South Spring Street, Los Angeles.

H. Draft EIR/EIS Comments List

The following Agencies/Individuals commented on the DEIS. Those Agencies/Individuals preceded with an asterisk* made comments requiring a Caltrans response. All comments requiring a response are numbered with the responses beginning on page XI-140.

<u>ELECTED OFFICIALS</u>	<u>COMMENT PAGE</u>	<u>RESPONSE PAGE</u>
Councilwoman Joan Milke Flores, 15th District	XI-45	
*Assemblyman Gerald N. Felando, 51st District	XI-46	XI-157
<u>FEDERAL AGENCIES</u>		
United States Environmental Protection Agency	XI-47	
*United States Department of Housing and Urban Development	XI-49	XI-157
United States Department of Army, Corps of Engineers	XI-50	
*United States Department of Interior	XI-51	XI-157
United States Department of Agriculture, Soil Conservation Service	XI-53	
<u>STATE AGENCIES</u>		
*California Regional Water Quality Control Board Los Angeles Region	XI-54	XI-158
State of California, Governor's Office, Office of Planning and Research	XI-57	
*Department of California Highway Patrol	XI-59	XI-159
California Coastal Commission	XI-62	

<u>LOCAL AND REGIONAL AGENCIES</u>	<u>COMMENT PAGE</u>	<u>RESPONSE PAGE</u>
*Los Angeles County Flood Control District	XI-63	XI-159
Los Angeles County Fire Department	XI-64	
*City of Los Angeles, Department of Public Works Bureau of Engineering	XI-68	XI-159
San Pedro Chamber of Commerce	XI-71	
*City of Gardena	XI-72	XI-161
*City of Long Beach	XI-76	XI-162
*City of Los Angeles, Department of Transportation	XI-77	XI-162
*City of Los Angeles, Department of City Planning	XI-81	XI-163
*Port of Los Angeles	XI-84	XI-165
*City of Compton	XI-87	XI-166
*City of Carson	XI-89	XI-166
*Southern California Association of Governments	XI-91	XI-166
*Los Angeles County Transportation Commission	XI-94	XI-167
*Southern California Rapid Transit District	XI-99	XI-169
*City of Torrance	XI-102	XI-170
*Los Angeles Unified School District	XI-104	XI-170
 <u>ORGANIZATIONS</u>		
*Friends of Willows	XI-106	XI-171
*Sierra Club - Angeles Chapter	XI-115	XI-171
*Friends of the Earth, Inc.	XI-117	XI-172
Bali Management, Inc.	XI-122	
Mariners Park	XI-123	
Southern California Transportation Action Committee	XI-125	

COMMENT RESPONSE
PAGE PAGE

Cassidy Tract Citizens Committee,

Gardena Betterment Association

Parkview Estate Townhouse Association, Inc. XI-126

*Automobile Club of Southern California XI-127 XI-174

PRIVATE CITIZENS

Robert Perez XI-130

Dennis Ferguson XI-132

Dal Creighton XI-133

Sondra Johnson XI-134

Joseph Henriksen XI-136

Robert Kanters XI-137

Pat Hubley XI-138

Stan Teliczan XI-139

Shirlee A. Wolf XI-141

*T. A. Nelson XI-142 XI-177

Peter Wittenberg XI-144

*Rudolph F. Whitcomb XI-145 XI-178

*Todd Pacific Shipyards Corporation XI-146 XI-178

*Samuel Schiffer XI-149 XI-179

Ben Rodriguez Quijada XI-151

Donald A. Way XI-154

Regina Grainger XI-156



JOAN MILKE FLORES
Councilwoman, 15th District
City Council of the City of Los Angeles
City Hall, Room 237, Los Angeles, California 90012
(213) 485-3347

MAR 29 1983

Committees:

Chairwoman
Energy and
Natural Resources

Vice Chairwoman
Industry and
Economic Development

Member
Public Works

March 24, 1983

Mr. K. D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

Thank you for the opportunity to submit comments on the proposed 110 Freeway Transit Project.

We have indicated to the San Pedro Chamber of Commerce as well as the Port of Los Angeles that we would support a transit center to be developed at the southern terminus of the proposed 110 transit corridor, Channel Street and Harbor Freeway.

We agree with the concept of providing a transit corridor within the Harbor Freeway right of way between downtown Los Angeles and San Pedro.

Please keep us informed on the progress of this project.

Yours very truly,

Joan Milke Flores
JOAN MILKE FLORES
Councilwoman, 15th District
JMF/bw/dt

SACRAMENTO ADDRESS
STATE CAPITOL
SACRAMENTO, CA 95814
(916) 445-7906

DISTRICT OFFICE
1514 CABRILLO AVENUE
TORRANCE, CA 90501
(213) 320-6262



EPB
APR 1 1983

Assembly California Legislature

COMMITTEES
HEALTH

GOVERNMENTAL ORGANIZATION
LABOR AND EMPLOYMENT
ELECTIONS, REAPPORTIONMENT
AND CONSTITUTIONAL
AMENDMENTS
SELECT COMMITTEE ON
CHILD ABUSE
JOINT COMMITTEE ON FISHERIES
AND AQUACULTURE
COMMISSION OF THE CALIFORNIAS

GERALD N. FELANDO
ASSEMBLYMAN, 51ST DISTRICT

HERMOSA BEACH, LOMITA, MANHATTAN BEACH, PALOS VERDES ESTATES,
RANCHO PALOS VERDES, REDONDO BEACH, ROLLING HILLS,
ROLLING HILLS ESTATES, SAN PEDRO, TORRANCE

REPLY TO:

- DISTRICT OFFICE
 SACRAMENTO OFFICE

March 31, 1983

Mr. K.D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

We are writing to endorse the objections & recommendations outlined to you in a letter dated March 9, 1983 from Mr. L.M. Thorell, Vice President & General Manager of Todd Pacific Shipyards.

In its letter, the Corporation specifically refers to proposed transitway construction in the San Pedro area; there are several points on which they are requesting reconsideration. We have read their suggestions with care and feel that they merit your serious consideration, especially as they seem to be made with the best interest of the community in mind.

Sincerely,

Gerald N. Felando

GERALD N. FELANDO

GNF:sdc

cc: L.M. Thorell





498
MAR 15 1983

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX
215 Fremont Street
San Francisco, Ca. 94105

MAR 14 1983

Mr. K.D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (EIS) titled HARBOR FREEWAY CORRIDOR (I-110) BETWEEN SAN PEDRO AND THE CONVENTION CENTER, CITY OF LOS ANGELES. We have no comments on this Draft EIS.

We have classified this Draft EIS as category LO-1. Definitions of the categories are provided by the enclosure. The classification and date of EPA's comments will be published in the Federal Register in accordance with our public disclosure responsibilities under Section 309 of the Clean Air Act.

We appreciate the opportunity to review this Draft EIS. Please send three copies of the Final EIS to this office at the same time it is officially filed with our Washington, D.C. office. If you have any questions, please contact Mr. Rick Hoffmann, Acting Chief, EIS Review Section, at (415) 974-8191 or FTS 454-8191.

Sincerely yours,

Charles W. Murray, Jr.
Assistant Regional Administrator
for Policy, Technical and
Resources Management

Enclosure (1)

cc: Mr. Willis Kisselburg, Jr.
FHWA, San Francisco Office

EIS CATEGORY CODES

Environmental Impact of the Action

IO--Lack of Objections

EPA has no objection to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.



U.S. Department of Housing and Urban Development
Los Angeles Area Office, Region IX
2500 Wilshire Boulevard
Los Angeles, California 90057

RECEIVED

FEB 15 1983

February 11, 1983

Mr. K. D. Steele, Chief
Environmental Planning
CAL TRANS
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

SUBJECT: Draft Environmental Impact Statement
Harbor Freeway I-110 Transit Way
Los Angeles, California

This is in response to your invitation to comment on the subject transitway project received by this office on January 5, 1983.

Our review is limited to an inquiry as to whether or not studies have been completed examining potential impacts on residential areas in the vicinity of the various transit station locations, from motor vehicles seeking relief from arterials and setting up short cuts on residential streets? This was not observed in the Draft EIS. Also, has analysis been completed as to potential impacts from long-term parking on nearby residential streets?

It would seem this may be a concern at the following stations, Vermont/Manchester, Vermont/Imperial and at Vermont/214 Street.

Thank your for the opportunity to comment.

Sincerely,

Ceferino Ahuero
Environmental Clearance Officer, 9.2SS

CA;mv

2



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2711
LOS ANGELES, CALIFORNIA 90053

CpB
MAR 9 1983

March 4, 1983

IN REPLY REFER TO

SPLPD-R

Mr. K.D. Steele
CALTRANS
Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Steele:

This is in response to a letter from your office which requested review and comments on the Draft Environmental Impact Statement (DEIS) for the Proposed Interstate 110 Freeway Transit, Harbor Freeway Corridor.

The proposed plan does not conflict with existing or authorized plans of the Corps of Engineers. We have no comments on the DEIS.

Thank you for the opportunity to review and comment on this document.

Sincerely,


Carl F. Enson
Chief, Planning Division



UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

PACIFIC SOUTHWEST REGION
BOX 36098 • 450 GOLDEN GATE AVENUE
SAN FRANCISCO, CALIFORNIA 94102
(415) 556-8200

In Reply Refer To:
ER-83/83

February 18, 1983

REC'D ENV. PL/

EEB 2 5 1983

Mr. K. D. Steele, Chief
Caltrans
Environmental Planning and Citizen
Participation Branch
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Steele:

The Department of the Interior has reviewed the draft Environmental Impact Statement for the Transitway Construction in the Harbor Freeway Corridor (I-110 Between San Pedro and Los Angeles), Los Angeles County, California.

We find this document well written and cognizant of the concerns of the Department of the Interior.

The Department appreciates this opportunity to comment.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPR (w/copy of incoming)



MAR 11 1983

UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

PACIFIC SOUTHWEST REGION

BOX 36098 • 450 GOLDEN GATE AVENUE

SAN FRANCISCO, CALIFORNIA 94102

(415) 556-8200

In Reply Refer To:
ER 83/83

March 2, 1983

Mr. K. D. Steele, Chief
Environmental Planning and Citizen
Participation
Caltrans
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Steele:

The Department of the Interior would like to provide additional comments to our letter of February 18, 1983.

The Willows, Bixby Slough, and Harbor Lake are biologically significant fresh-water wetlands. This document provides a good description of wetland values but we are concerned with the environmental consequences which are only partially described. This may make the mitigating proposals inadequate.

The document should address impacts associated with the loss of upland habitats immediately adjacent to a wetland. Impacts associated with the possible increased intrusion into the wetlands should also be discussed. An example of this would be the pedestrian bridge in the Willows proposed in Alternatives 1,4 and 7. This bridge may significantly lower habitat values provided resident and migratory birds. Mitigating proposals should be provided to offset these impacts.

3

The Department appreciates the opportunity to provide these additional comments.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPR
Field Supervisor, Ecological Services
Laguna Niguel, California



United States
Department of
Agriculture

Soil
Conservation
Service

2828 Chiles Road
Davis CA 95616
(916) 449-2801

Y
MAR 17 1983

March 11, 1983

K. D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

We acknowledge receipt of the draft environmental impact statement for the Harbor Freeway Corridor of Interstate 110 Freeway Transit. We have reviewed the document and find that all issues concerning the Soil Conservation Service have been adequately addressed.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

Eugene E. Andreuccetti
EUGENE E. ANDREUC CETTI
State Conservationist

Telephone conversation on September 5, 1984 between Caltrans representative and Darwyn Briggs. Mr. Briggs, Chairman of the USDA Land Use Committee, confirmed that this project is categorically exempt. The provisions of the Soil Conservation Service Farmland Protection Policy (7CFR Part 658), published in the July 5, 1984 Federal Register does not affect this project.



The Soil Conservation Service
is an agency of the
Department of Agriculture

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD--
LOS ANGELES REGION107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213) 620-4460

REC'D ENV. PLAN FEB 10 1983

February 7, 1983

Resources Agency
Resources Building, 13th Floor
1416 Ninth Street
Sacramento, CA 95814

ATTN: Assistant Secretary for Resources

SUBJECT: Draft EIR for Interstate 110 Freeway Transit - Harbor
Freeway Corridor (SCH #79032658)

Gentlemen:

We have reviewed the subject document regarding a proposal by the State of California, Department of Transportation for the Harbor Freeway Transit Corridor along Interstate 110, between San Pedro and the Los Angeles Convention Center.

In general, it does not appear that most of the proposed transitway construction will have any significant adverse impacts to water quality, provided that all mitigation measures cited in the Draft EIR to control impacts from construction activities and erosion from surface runoff are fully implemented.

However, we are concerned about possible impacts to the Willow Wetlands and Bixby Slough, sensitive wetland areas, where proposed parking and/or rail maintenance facilities are proposed. Development of property adjacent to these wetlands should not be permitted to disturb the functional capacity of these areas, and protection of all beneficial uses must be assured, as well as maintenance of all relevant water quality objectives. In this connection, we are enclosing a document detailing the Resources Agency Basic Wetlands Protection Policy for your information. Plans for construction and operation must be responsive to the items specified in this document. In addition, the placement of storm drain outlets where the outfall may cause adverse impacts to waters of the State is subject to review by this Board.

If you have any questions, please contact Dr. Lewis Schinazi or David Bacharowski of my staff at the above number.

Very truly yours,

RAYMOND M. HERTEL
Executive Officercc: State Clearinghouse, ATTN; Debora Fudge
City of Los Angeles, Department of Transportation,
ATTN: K. D. Steele

Memorandum

To : Department Directors, Executive
Officers of Boards & Commissions

Date: September 19, 1977

File :

From : Resources Agency
Office of the Secretary

Subject: Wetlands Policy for Proposed Construction Project

POLICY FOR PERSERVATION OF WETLANDS IN PERPETUITY

The need to raise thinking, policy, and action to the ecosystem level is especially evident as it relates to proposed construction projects on Wetlands of the state.

The value of marshlands and other wetlands to the economy and to the overall long-term quality of life, has been described by many, including Gossalink, Odum, and Pope (1973) in "The Value of the Tidal Marsh"; the Bay Conservation and Development Commission, (BCDC) in, "The San Francisco Bay Plan"; and the Department of Fish and Game in, "The Fish and Wildlife Plan". In spite of these and other efforts, filling and other destruction of the State's wetlands has continued as an alarming rate. Most of San Francisco Bay's wetlands are now protected by BCDC. But before the commission came into existance over 225 square miles of Bay wetlands had been filled or destroyed. Still not all of the Bay's wetlands are protected. Over 40,000 acres are not in the commission's jurisdiction.

Portion of other important wetlands still exist along the coast, its estuaries, the Sacramento-San Joaquin Delta and along several natural bodies of water including Clear Lake, the Colorado River and others. Many of these wetlands are not under permit authority from a specific State agency. However, local authority and sometimes federal authority (Corps of Engineers) exists over specific projects and areas.

It is the purpose of this memorandum to establish a basic wetlands policy to be observed by all Department, Boards, and Commissions of the Resources Agency when developing projects or when authorizing or influencing private or public projects and permit actions taken by other authorities including federal, state and local agencies.

Department Directors, Executive
Officers of Boards & Commissions

BASIC WETLANDS PROTECTION POLICY

It is the basic policy of the Resources Agency that this Agency and its Departments, Boards and Commissions will not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands.

Exceptions to this policy may be granted provided that the following conditions are met.

1. The proposed project must be water dependent or an essential transportation, water conveyance or utility project.
2. There must be no feasible, less environmentally, damaging alternative location for the type of project being considered.
3. The public trust must not be adversely affected.
4. Adequate compensation for project-caused losses shall be a part of the project. Compensation, to be considered adequate, must meet the following criteria.
 - a. The compensation measures must be in writing in the form of either conditions on a permit or an agreement signed by the applicant and the Department of Fish and Game or the Resources Agency.
 - b. The combined long-term "wetlands habitat value" of the lands involved (including project and mitigation lands) must not be less after project completion than the combined "wetlands habitat value" that exists under pre-project conditions.

ORIGINAL SIGNED BY

HUEY D. JOHNSON

Secretary for Resources



State of California

GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

RPB
MAR 17 1983

GEORGE DEUKMEJIAN
GOVERNOR

March 11, 1983

K.D. Steele
Department of Transportation #7
120 S. Spring Street
Los Angeles, CA 90012

Subject: SCH# 79032658 Interstate 110 Freeway Transit- Harbor Fwy Corridor

Dear Mr. Steele:

The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) attached. If you would like to discuss their concerns and recommendations, please contact the staff from the appropriate agency(ies).

When preparing the final EIR, you must include all comments and responses (CEQA Guidelines, Section 15146). The certified EIR must be considered in the decision-making process for the project. In addition, we urge you to respond directly to the commenting agency(ies) by writing to them, including the State Clearinghouse number on all correspondence.

A 1981 Appellate Court decision in Cleary v. County of Stanislaus (118 Cal. App. 3d 348) clarified requirements for responding to review comments. Specifically, the court indicated that comments must be addressed in detail, giving reasons why the specific comments and suggestions were not accepted. The responses must show factors of overriding significance which required the suggestion or comment to be rejected. Responses to comments must not be conclusory statements but must be supported by empirical or experimental data, scientific authority or explanatory information of any kind. The court further said that the responses must be a good faith, reasoned analysis.

In the event that the project is approved without adequate mitigation of significant effects, the lead agency must make written findings for each significant effect and it must support its actions with a written statement of overriding considerations for each unmitigated significant effect (CEQA Guidelines Section 15088 and 15089).

If the project requires discretionary approval from any state agency, the Notice of Determination must be filed with the Secretary for Resources, as well as with the County Clerk. Please contact Debora Fudge at (916) 445-0613 if you have any questions about the environmental review process.

Sincerely,

for *Jerry Roberts*
Ron Bass, Director
State Clearinghouse

cc: Resources Agency
attachment

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION



LJJ
2-CKF

107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213) 620-4460

February 7, 1983

Resources Agency
Resources Building, 13th Floor
1416 Ninth Street
Sacramento, CA 95814

ATTN: Assistant Secretary for Resources

SUBJECT: Draft EIR for Interstate 110 Freeway Transit - Harbor
Freeway Corridor (SCH #79032658)

Gentlemen:

We have reviewed the subject document regarding a proposal by the State of California, Department of Transportation for the Harbor Freeway Transit Corridor along Interstate 110, between San Pedro and the Los Angeles Convention Center.

In general, it does not appear that most of the proposed transitway construction will have any significant adverse impacts to water quality, provided that all mitigation measures cited in the Draft EIR to control impacts from construction activities and erosion from surface runoff are fully implemented.

However, we are concerned about possible impacts to the Willow Wetlands and Bixby Slough, sensitive wetland areas, where proposed parking and/or rail maintenance facilities are proposed. Development of property adjacent to these wetlands should not be permitted to disturb the functional capacity of these areas, and protection of all beneficial uses must be assured, as well as maintenance of all relevant water quality objectives. In this connection, we are enclosing a document detailing the Resources Agency Basic Wetlands Protection Policy for your information. Plans for construction and operation must be responsive to the items specified in this document. In addition, the placement of storm drain outlets where the outfall may cause adverse impacts to waters of the State is subject to review by this Board.

If you have any questions, please contact Dr. Lewis Schinazi or David Bacharowski of my staff at the above number.

Very truly yours,

RAYMOND M. HERTEL
Executive Officer

RECEIVED
MAR 08 1983

cc: State Clearinghouse, ATTN; Debora Fudge
City of Los Angeles, Department of Transportation,
ATTN: K. D. Steele

State Clearinghouse

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

P.O. BOX 898

SACRAMENTO, CALIFORNIA 95804

(916) 445-6181



MAR 15 1982

March 16, 1982

File No.: 40.A0431.A3805

Mr. K. D. Steele, Chief
Caltrans District 07
Environmental Planning Branch
120 S. Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

Attached are our comments on the DEIS for construction of a transitway in the Harbor Freeway corridor. As you will note, our interests are primarily focused on the highway solutions. However, we are also concerned about those areas which would be impacted by any of the alternatives affecting traffic safety or the traffic law enforcement environment on the existing facility.

Because of the scope of our concerns, we have proposed that our Southern Division Commander H. D. Fargo initiate a meeting with your District Director to arrange further discussion on the project. Thank you for your thoughtful consideration in granting a one week extension for our reply.

H. T. Adair

H. T. ADAIR, Chief
Planning and Analysis Division

Attachment

Memorandum

To : State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

Date : March 15, 1983

File No. : 1.A0431.A3579

Subject : DEIS--HARBOR FREEWAY
(I-110) CORRIDOR
TRANSITWAY, LOS
ANGELES COUNTY
SCH #79032658

From : Department of California Highway Patrol
Office of the Commissioner

The California Highway Patrol (CHP) has reviewed the Draft Environmental Impact Statement (DEIS) for a proposed transitway in the Harbor Freeway (I-110) corridor between San Pedro and the Convention Center in Los Angeles, a distance of 22 miles.

Alternatives for the proposed transitway include options for both rail transportation and High Occupancy Vehicle (HOV) lanes for buses and car pools. However, our interest is limited to the options which directly impact highway transportation. In reviewing the document, the following issues were identified as needing further clarification and/or discussion:

- A comparison is needed between overhead transitways and at-grade configurations as they impact highway user safety, enforcement, maintenance and emergency activities.
- The installation of barriers and sound walls will impact the environment of shoulder refuge areas. Design criteria should be discussed in the light of traffic law enforcement and maintenance service needs along with user safety, economics and other considerations.
- Traffic management (accident investigation, enforcement and traffic control) demands will be affected significantly during the construction of this project. A discussion of the construction phase alternatives and anticipated CHP traffic management involvement should be included in the final EIS.

Because of the scope of our concerns and their importance to the public safety and enforcement and maintenance service operations, we believe it would be beneficial to meet with Caltrans to review these elements of the various alternatives. Chief H. D. Fargo, Southern Division Commander, will initiate this contact with the District 07 Director in the near future.

State Clearinghouse

Page 2

March 15, 1983

We appreciate the opportunity to comment on this project and the one-week time extension granted by Mr. K. D. Steele, Caltrans contact person, to allow us to complete our review. We are looking forward to meeting with Caltrans to discuss our concerns and their treatment in the final EIS. Meanwhile, for additional information on this matter, Chief Fargo can be reached at 437 N. Vermont Avenue, Los Angeles 90004 or by telephone at (213) 736-2981.



L. E. SELLERS
Acting Commissioner

APPROVED:


Deputy Secretary for Transportation

California Coastal Commission
631 Howard Street, 4th Floor
San Francisco, California 94105
(415) 543-8555

July 13, 1984

Mr. Ronald Kosinski
California Department of Transportation
District 7
P. O. Box 2304
Los Angeles, CA 90051

Re: 07-LA-110 Transitway, LA CBD to San Pedro

Dear Mr. Kosinski:

The Commission staff has reviewed the material submitted on April 18, 1984 and May 14, 1984 concerning the above-referenced project. Based on our review we have confirmed that portions of the project including additional lane construction and highway improvements from B Street to Channel Street are within the coastal zone. Those portions of the project will require a coastal development permit.

In this area the City of Los Angeles is issuing the coastal permits.

Based on our review, we believe the effects of the project on coastal resources can adequately be addressed in the coastal permit process. Therefore, the Commission will not require consistency review but will defer to later permit review.

Very truly yours,



Robert Lagle
Assistant Deputy Director
for Land Use

cc: Tom Crandall
Liz Fuchs

RL/FAF:eds





LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

- FLOOD PLAIN REPORT
FLOOD HAZARD REPORT

File No. 2-15-311 2-15-313 1.21

Review of INTERSTATE 110 FHWY TRANSIT - DRAFT EIS

TO: K.D. STEELE, CHIEF CALTRANS ENVIRONMENTAL PLANNING & CITIZEN 120 S. SPRING ST LOS ANGELES, CA 90012

Map or Transmittal Letter Date 1-11-83

- 1. This area is outside the boundaries of the Flood Control District and not under its jurisdiction.
2. The Flood Control District has no requirements for this subdivision/application.
3. The subdivision/site is reasonably free of flood hazard from major channels and streams, but may be subject to local flood hazard.
4. Portions of the subdivision/site lying in and adjacent to steep hillsides, natural watercourses, overflow, erosion, mudflow and/or deposition of debris.
5. This project will not significantly affect the environment as far as the District's interests are concerned.
6. Place a note of flood hazard on the final map/grant of waiver and submit engineering documentation to support those limits.
7. Prior to recordation of the final map/grant of waiver, adequate engineering documentation must be submitted showing that building sites are available and are free of flood hazard.
8. Provide a drainage concept prior to approval of the tentative map.
9. Provide improvements to eliminate the flood hazard. Improvements may include storm drains and/or channels, debris control facilities, vehicular access to structures, BRIDGES.
10. Dedicate fee title/an easement/future easement to the District/County of L.A./City of providing adequate right of way for.
11. Show on the final map the Flood Control District's right of way for A permit will be required for any construction affecting the District's right of way OR FACILITIES.
12. Approval of the is recommended subject to any conditions noted herein or shown on returned map.
13. The recordation of this map will not unreasonably interfere with the free and complete exercise of the easement held by the District.
14. The is unsatisfactory. Note the reasons stated herein or shown on returned map.

Comments: IT IS RECOMMENDED THAT DESIGN PLANS FOR THE PROPOSED PROJECT BE COORDINATED WITH THE DISTRICT'S PROJECT MANAGEMENT SECTION TO INSURE THAT IT IS COMPATIBLE WITH EXISTING AND PROPOSED DRAINAGE FACILITIES. (6)

Information relative to the above comments may be obtained by contacting:

Engineering Investigator Rod Kubonick RIE 29363 Telephone (213) 226-4324

Approved by WZ Smith C13818 XI-63 ce of Report 1-12-83



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

POST OFFICE BOX 3009, TERMINAL ANNEX
LOS ANGELES, CALIFORNIA 90051

267-2431

FEB 25 1983
ECF ECF

CLYDE A. BRAGDON, JR.
FIRE CHIEF
FORESTER & FIRE WARDEN

February 23, 1983

K. D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
120 S. Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT ON 07-LA-110
TRANSITWAY LA CBD TO SAN PEDRO

This subject has been reviewed by our Department, and the enclosed reports from the Forestry Division, Fire Protection Engineering Section, and the Fire Protection Planning Section respond to those areas which affect Fire Department responsibility and operation.

Very truly yours,

CLYDE A. BRAGDON, JR.
FORESTER AND FIRE WARDEN

John T. Haggemiller
By

JOHN T. HAGGENMILLER
SENIOR DEPUTY FORESTER

JTH:grj

Enclosures

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

ARTESIA	CERRITOS	HIDDEN HILLS	LANCASTER	PARAMOUNT	SIGNAL HILL
BALDWIN PARK	CLAREMONT	HUNTINGTON PARK	LA PUENTE	PICO RIVERA	SOUTH EL MONTE
BELL	COMMERCE	INDUSTRY	LAWDALE	RANCHO PALOS VERDES	SOUTH GATE
BELLFLOWER	CUDAHY	IRWINDALE	LOMITA	ROLLING HILLS	TEMPLE CITY
BELL GARDENS	DUARTE	LA CAÑADA FLINTRIDGE	MAYWOOD	ROLLING HILLS ESTATES	WALNUT
BRADBURY	GLENDORA	LAKESWOOD	NORWALK	ROSEMEAD	WESTLAKE VILLAGE
CARSON	HAWAIIAN GARDENS	LA MIRADA	PALMDALE	SAN DIMAS	WHITTIER

EPI

FEB 20 1983

January 20, 1983

SUBJECT: E.I.R. FOR I-110 TRANSITWAY PROJECT-
HARBOR FREEWAY CORRIDOR

Our review of the subject indicates no adverse effect to fire protection if standard fire department requirements for fire hydrants, water mains, fire flow, access, and design are met.

Should any questions arise regarding this matter, please feel free to contact Captain Frank Brown at 267-2467.

By Robert P. Blackburn
Robert P. Blackburn
Battalion Fire Chief
Fire Protection Engineering
Prevention and Conservation

January 21, 11983

FEB 25 1983

SUBJECT: I-110 TRANSITWAY PROJECT

Our consideration of the impact on fire protection of the proposed development is based on the current level of service available within the general area.

The subject development will receive fire protection from the County of Los Angeles Fire Department. The size and length of the proposed project will affect two separate fire stations. The area of 223rd Street and the Harbor Freeway receives fire protection from Station 36, located at 127 W. 223rd Street, Carson. Station 95 located at 137 West Redondo Beach Boulevard, Carson, will provide fire protection for the Harbor Freeway and Redondo Beach Boulevard area.

Any impact on fire protection is based on the current level of service. Additional manpower and equipment may be required as the need arises.

The subject development is totally within the boundaries of the Consolidated Fire Protection District.

BY 
JOHN M. BILLINGS, JR.
DIVISION CHIEF

E P D
FEB 25 1983

February 22, 1983

SUBJECT: REVIEW OF E.I.R. FOR I-110 TRANSITWAY PROJECT -
HARBOR FREEWAY CORRIDOR

Our review of the Environmental Consequences in Chapter IV, Section D, Wetlands and Riparian Vegetation, indicates no adverse effect if all the mitigating elements are met.

Should any questions arise regarding this matter, please feel free to contact Deputy Forester Clyde Sims at (213) - 347 - 1904.

By *Clyde H. Sims*

Clyde H. Sims
Deputy Forester
License No. 248
Forestry Division
Prevention and Conservation

CITY OF LOS ANGELES
CALIFORNIA

MAR 4 1983

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ACTING CITY ENGINEER
ROOM 800, CITY HALL
LOS ANGELES, CA 90012

BERNARD MCKELVEY
ACTING SECRETARY

MAR - 1 1983

Caltrans District 7
Environmental Planning Branch
120 S. Spring Street
Los Angeles, CA 90012

Interstate 110 Free-
way Transit (Harbor
Freeway Corridor) Draft
Environmental Impact
Statement (EIS)

Attn: K. D. Steele, Chief

Dear Mr. Steele:

The Draft EIS has been reviewed by my staff and the following comments are offered to assist you in the preparation of the Final EIS:

- A. My staff is presently conducting a study to determine the feasibility of providing a connecting road and freeway ramps (north-bound on and south-bound off) for Capitol Drive in San Pedro. This scheme also includes a connection to John S. Gibson Boulevard. The intent is to provide better access for western San Pedro and the City of Rancho Palos Verdes, while reducing congestion on Gaffey Street, Channel Street, First Street and Summerland Avenue. We feel that the State and FHWA should address this possibility in the Final EIS and, ultimately, in the design of the project. ⑦
- B. Figure 9N in Section III indicates a vacant site for acquisition. The northerly half of this site it now being developed with condominiums. ⑧
- C. Approximately seventy City of Los Angeles Historic-Cultural Monuments are located within the Area of Potential Environmental Impact (APEI). Although the importance of several of these buildings is cited in the Draft EIS, the majority of the buildings are not. Some of the additional noteworthy monuments threatened by this project are listed as examples of this category:
 - 1. Monument #172 - Automobile Club of Southern California
2601 S. Figueroa Street
 - Designed by architects Hunt and Burns
 - Significant because of its architecture, interior spaces, patio, and its relation to the history of Los Angeles.⑨

ADDRESS ALL COMMUNICATIONS TO THE CITY ENGINEER

2. Monument #139 - Shrine Auditorium
665 W. Jefferson Boulevard
- Designed by the noted architects G. Albert Lansburg, John C. Austin and A. M. Edelman
- Significant because of its architecture, its size (one of the largest theaters in the United States), and its history relative to entertainment in Southern California.
3. Monument #125 - Global Marine House
(Formerly Fine Arts Building)
811 W. 7th Street
- Designed by architects Walker and Eisen
- Significant because of its architecture, its relation to arts of its era, and the history of Southern California.
4. Monument #129 - Residence of C. L. Leslie
#167 - Faulkner House
#179 - Residence
30 - Doheny Mansion
#253 - Residence, San Pedro

It is probable that a number of these buildings are potentially eligible for inclusion into the National Register of Historic Places and have not as yet been nominated for evaluation.

Some other known sites in the APEI to be considered relative to the proposed project include:

1. West Adams Boulevard (between Harbor Freeway and Crenshaw Boulevard) - This area has recently been surveyed, however, results are yet to be determined.
2. Exposition Park
3. Spring Street Financial District
4. Alvarado Terrace
5. The "Danish Castle", 324 W. 10th Street
San Pedro

RECOMMENDATIONS

1. That a survey of structures located in the APEI be conducted in order to evaluate structures as yet undocumented relative to their historic and cultural significance;
2. That structures in the APEI deemed potentially eligible for inclusion into the National Register of Historic Places be nominated for such determination; and
3. That all currently designated City of Los Angeles Historic-Cultural Monuments located in the APEI be evaluated for consideration for nomination to the National Register of Historic Places.

K. D. Steele

-3-

D. The proposed project includes within the APEI the following scenic highways that are a portion of the Scenic Highways Plan, a part of the Circulation Element of the General Plan of the City of Los Angeles:

1. Wilshire Boulevard
2. Adams Boulevard
3. Exposition Boulevard
4. Harbor Freeway (Four level interchange to Santa Barbara Avenue)
5. John S. Gibson Boulevard
6. Harbor Freeway (Slauson Avenue to City Boundary)
7. Harbor Boulevard

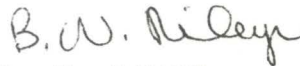
The Draft EIS does not address the effect of the proposed construction on the Scenic Highways Plan. Elevated elements and line stations would result in an impact upon these highways.



Sincerely,

PHIL KING
City Engineer

By



B. W. RILEY
Division Engineer
Project Management Division

BWR/MMR:vg

cc: Lowell H. Jeans, District Engineer
Harbor District

Melvin Newman, District Engineer
Central District

By the Sea — At the Port of Los Angeles — On the Palos Verdes Peninsula



**SAN PEDRO
CHAMBER OF COMMERCE**

P.O. BOX 167 • 390 WEST SEVENTH STREET • SAN PEDRO, CALIFORNIA 90733 • PHONE 832-7272

March 4, 1983

Caltrans
Environmental Planning Branch
Attention: K.D. Steele
120 South Spring Street
Los Angeles, California 90012

Dear Sir:

The San Pedro Chamber of Commerce supports the Harbor Freeway Transitway. It is our recommendation that Bus Alternative Four be selected as the mode for the transitway.

Bus Alternative Four includes a two-way bus lane in the median strip between the Convention Center and the San Diego Freeway with free flow traffic from there to a transit station at Channel Street in San Pedro. We support this alternative for several reasons. It has the highest cost benefit ratio shown in the study. With dollars hard to come by, this is important. Another major consideration is that a busway system will qualify for federal interstate highway funding that is not available to a rail system. This makes it much more likely that the transitway can actually be built. We believe a busway system would have a negligible impact on San Pedro's environment whereas a rail system with its end station in San Pedro may be disruptive to Port operations and have an adverse environmental impact. Finally, the busway alternative would allow for later conversion to rail, if needed.

Considering the above points, we feel the bus alternative is the most logical to pursue and recommend such.

Sincerely,


O. Willard Johnson
President

OWJ:rp



CITY of GARDENA

MAY Y. DOI, *City Clerk*
GEORGE KOBAYASHI, *City Treasurer*
M. H. REAGAN, *Acting Administration Officer*
MICHAEL J. KARGER, *City Attorney*

DONALD L. DEAR, *Mayor*
MAS FUKAI, *Mayor Pro Tem*
JAMES W. CRAGIN, *Councilman*
GWEN DUFFY, *Councilwoman*
PAUL Y. TSUKAHARA, *Councilman*

1700 West 162nd STREET / GARDENA, CALIFORNIA 90247 / (213) 327-0220

March 14, 1983

K.D. Steele, *Chief*
Caltrans District 7
Environmental Planning Branch
120 S. Spring Street
Los Angeles, California 90012

SUBJECT: *Draft Environmental Impact
Statement, Harbor Freeway Corridor*

Dear Mr. Steele:

The City of Gardena is pleased to take this opportunity to comment on the subject Statement. As Gardena is located along the Harbor Freeway Corridor, we take great interest in the transit planning currently taking place. I have attached responses from three of my staff: The Transportation Director, the Community Development Director, and the Grants Administrator.

Should there be any further developments or procedures in which we might participate, please notify us.

Thank you,

Martin H. Reagan
City Manager

MHR/jg
Attachments

MEMORANDUM

TO: M.H. Reagan, City Manager

DATE: March 10, 1983

SUBJ: Draft Environmental Impact Statement,
Harbor Freeway Corridor

The optimum state-of-the-art transit mode (i.e. rail) has the greatest appeal in terms of long-range applicability, however, funding, ridership potential, and environmental considerations will be the determining factors in the immediate future. I am of the general opinion that funds can be made available to implement a rail project. As for ridership, the projections in the Draft EIS also make rail look promising. While I am not qualified to judge the environmental factors, our Community Development Director believes that the type of transit mode is less important environmentally than the ancillary developments such as station/parking sites insofar as the Gardena community is concerned.

This being the case, rail (LRT) would be the principle alternative, busway (HOV) would be a secondary alternative as long as it is convertible to rail. In either case, Gardena's interest is two-fold:

- 1) improved transit service would be a benefit;
- 2) environmental impact, particularly in regards to station/parking sites, would have to be studied carefully to insure against negative impact.

Respectfully submitted,



Gail Doi
Sr. Administrative Assistant

GD/jg

11

M E M O R A N D U M

TO: M. Reagan, Acting City Manager DATE: 26 January 1983
FROM: K. E. Martin, Transportation Director ^{KEM}
SUBJ: Draft Environmental Impact Statement
Harbor Freeway Corridor

After reviewing the attached document, the Bus Lines has the following comments to offer:

(A) Recognizing that the optimum state of the art mode would in all probability be rail, financing at the outset may dictate that convertible HOV lanes may be more prudent. If this were to be the case, the following might be considered:

- (1) The northern terminus of an HOV lane should be extended to the Union Station terminal to provide a truly multi-modal facility in the future. This would provide direct access and express service to the CBD and would eliminate the need for fixed route vehicles to disperse in the CBD along with other vehicles; ⑫
- (2) As congestion exists in the A.M. and P.M. in both directions, only a two-way HOV lane should be considered, with the most economical engineering concept used that allows for convenient passenger stations and transfer points. The least disruptive alignment in this scheme would be the Harbor Freeway right of way; and ⑬
- (3) It is assumed that all HOV considerations include jurisdictional considerations for municipal bus operators with service to Downtown Los Angeles. ⑭

Thank you for the opportunity to comment on this ambitious project. If we can be of any further assistance, please to not hesitate to ask.

MEMORANDUM

TO: Martin H. Reagan, City Manager

DATE: March 1, 1983

SUBJ: Draft EIR - Harbor Freeway Corridor

Our evaluation of the report indicates that the Bus/HOV alternates offer the greatest degree of flexibility with lower initial investment as compared to the various fixed rail alternates. The Bus/HOV alternates are susceptible of conversion to rail when the state of the art and ridership warrant the conversion. Of the Bus/HOV proposals, Alternative 4 appears to be the most advantageous.

All alternatives propose a transit parking site at Rosecrans Avenue and at Artesia Boulevard. The Artesia Boulevard site is at the northwest corner of Vermont and Artesia Boulevard and is the State owned property adjacent to the Willows. The parking lot would not encroach on the Willows; however, under the rail alternatives, a pedestrian walkway on the north side of Artesia Boulevard, east of Vermont Avenue would encroach on the Willows. Parking spaces for 1,000 vehicles are proposed for this location. We have serious concerns regarding the capacity of the existing street system to handle these additional 1,000 vehicles. This is corroborated by the State's evaluation of service level. The concentration of people and automobiles at the above site will result in exposure of higher noise level and increased air pollution for those residents living in close proximity to the facility. Furthermore, the construction of the station, parking and maintenance facilities will encroach into a portion of the Willows which is a natural habitat for birds, flora and fauna. Although the report describes some mitigation measures, the damage to the Willows may be irreversible. Serious consideration should be given to establishment of an alternative site on the east side of Vermont Avenue for the aforementioned facilities. If station site cannot be relocated, specific noise, air pollution, and other mitigation measures should be implemented to reduce the adverse impacts on the residential areas. (15)

The State's evaluation of traffic with a station at Rosecrans Avenue is at the intolerable service level F even with mitigating measures. This is the lowest level and literally means stoppages of long duration. Further consideration should be given to locating the station at Redondo Beach Boulevard. An undesirable effect would be that of attracting possibly an additional 300 commuter vehicles through our business area. However, this was foreseen when we campaigned for the relocation of the Harbor Freeway interchange from Alondra Boulevard to Redondo Beach Boulevard. This would not be a significant addition to planned traffic volumes. (16)


HAYWARD FONG, P.E.
Community Development Director

HF/yt



CITY OF LONG BEACH
DEPARTMENT OF PLANNING & BUILDING

9/15
MAR 14 1983

333 WEST OCEAN BLVD. • LONG BEACH, CALIFORNIA 90802

(213) 590-6651

March 11, 1983

K. D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, CA 90012

Subject: Draft Environmental Impact Statement
Proposed Transitway construction in the Harbor Freeway
Corridor (I-110) between San Pedro and the Convention
Center

Report Number: FHWA-CA-EIS-82-04-D


SCH Number: 79032658
07-LA-110 0.9/23.0
07840-444301

Dear Mr. Steele:

Thank you for the opportunity to review the Draft EIS. Generally, we concur with the environmental evaluation. We are however, concerned that the market analysis, evaluation of Alternatives and the section, "Relationship with other Transit Projects" address the impact of the I-110 project upon the light rail system which is being planned between downtown Los Angeles and the Long Beach Central Business District. Attached is a summary of the Long Beach Route Alternatives.

17

Sincerely


Gerhardt H. Felgemaker
Manager
Community and Environmental Planning Division

GHF:jm
attachment

cc: Robert J. Paternoster, Director of Planning and Building

CITY OF LOS ANGELES

CALIFORNIA

Mar 14 1983

DONALD R. HOWERY
GENERAL MANAGER

DEPARTMENT OF
TRANSPORTATION
ROOM 1200, CITY HALL
LOS ANGELES, CA 90012
485-2265



TOM BRADLEY
MAYOR

March 8, 1983

Mr. Heinz Heckeroth
Director, District 7
Department of Transportation
P.O. Box 2304, Terminal Annex
Los Angeles, CA 90051

Attention K.D. Steele, Chief
Environmental Planning & Citizen Participation Branch

HARBOR FREEWAY CORRIDOR (I-110) TRANSITWAY - DRAFT EIR/EIS

The following comments in response to your request, are based, in part, on this Department's report titled "Harbor Freeway (I-110) Transit Study - Transit Station Traffic Impacts and Mitigation Measures (September, 1981)", transmitted to Mr. Norm Roy of your Department on November 17, 1981.

A. The following words or statements, underlined and in quotes, should be added to the referenced pages of your Draft under Circulation Impacts; for further background on the reasons for these additions, please refer to the indicated "LADOT pages" of this Department's report, e.g., (LADOT, pages 21 & 22):

(1) Under 1. Transitway Impacts (page IV-47):

"Extensive right-of-way acquisition would be required from Gardena Boulevard to Anaheim Street for an aerial transitway along Vermont Avenue." (LADOT, pages 21 & 22)

(2) Under 2. Station Site Impacts (page IV-48, second paragraph):

"Providing bus bays or off-street bus loading as a mitigation measure to minimize the effects of increased bus operations is applicable to all stations." (LADOT, pages 23 & 24)



(3) Under TABLE IV-7, Traffic Impacts at Station Sites:

- (a) STATION SITE: KING BOULEVARD (formerly Santa Barbara Avenue), (page IV-52),

MITIGATION: "(Vermont) Limit ingress-egress of Coliseum parking area to currently-signalized intersections." (LADOT, page 17)

- (b) STATION SITE: SLAUSON (Page IV-53),

MITIGATION: (110) "Only bus/kiss and ride, with right-turn-only ingress-egress, may be feasible in parking sites on south side of Slauson. Acquire suitable off-street parking site." (LADOT, pages 7 & 8) (Note: Asterisks should be added to table in Fig. III-9, page III-38, designating Slauson parking sites for bus-use-only, i.e., 4H* & 5H*).

(Vermont) Widen, to provide three peak-hour lanes in each direction and left-turn channelization, Slauson Avenue between Budlong Avenue and Hoover Street "and Vermont Avenue between 57th and 60th Streets" to facilitate the movement of traffic in the station area. (LADOT, pages 17 & 18)

- (c) STATION SITE: MANCHESTER (Page IV-54),

MITIGATION: (Vermont) Rechannelize "and widen, if necessary," Manchester east of Vermont for left turn storage. Provide bus bays on Manchester "and Vermont" if not provided in parking lot. (LADOT, page 18)

B. Under D. Wetlands and Riparian Vegetation, on the bottom of page IV-10, the Caltrans recommendation opposing the 10-foot Vermont Avenue widening should be deleted for the following reasons:

- (1) This matter is not merely a case of wetland impacts versus no impact; rather, it involves consideration of the trade-offs of traffic circulation impacts without the widening versus wetland impacts with the widening. (See aerial photo, Figure II-12 on page II-28)
- (2) Due to the relatively isolated location of the Artesia Station and its intended use as a Regional Transportation

Mr. Heinz Heckeroth
Page 3
March 8, 1983

Center, the number of patrons arriving by vehicle, both bus and auto, is expected to be relatively large. As indicated on page III-37, the parking requirements for this station (1000 spaces) would be greater than for any other station listed. The operation of the parking lot is complicated by the traffic on Artesia Boulevard resulting from the proximity of the Artesia Freeway terminus at the Harbor Freeway, and by the large refuse truck traffic that would result from a proposed City of Gardena solid-waste recycling center that would share the parking site. Therefore, the 10-foot widening of Vermont Avenue, to provide for a full 100-foot-wide major highway at the approaches to Artesia Boulevard, is needed to facilitate turning movements and expedite traffic flow through the intersection.

- (3) The 3000 sq. ft. of land to be taken from the 10-acre Willows Wetland for the Vermont Avenue widening is less than one percent (1%) of the approximately 435,600 sq. ft. total area. According to material presented in Appendix F, there are no endangered species. Evidently, the potential impacts of the 12-acre transit and parking facility to be located adjacent to the wetland, the pedestrian walkway to be located across the wetland on the north side of the Artesia Boulevard bridge, and transitway support columns crossing the wetland can all be mitigated by the measures listed on pages IV-12 & 13. Similarly, the use of mitigation measure no. 7, page IV-13, should be considered also in the mitigation of the apparently minor impact of losing 3,000 sq. ft. of wetland. Measure no. 7 states that "Wetland habitat lost due to constructing transitway facilities will be replaced by restoring wetland in the vicinity of the Willows."


In view of the above, the wetland impacts resulting from the Vermont Avenue widening appear minor compared with the traffic circulation impacts without the widening. Therefore, as previously stated, the Caltrans recommendation opposing the widening should be deleted.


C. Los Angeles CBD (Page III-69):

- (1) The LACBD Transportation Study is focusing on immediate action (TSM) measures to facilitate traffic circulation in the CBD and will not result in an analysis of alternatives for the LACBD Regional Transit System Interface.

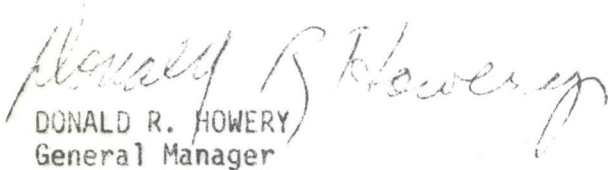
20

Mr. Heinz Heckeroth
Page 4
March 8, 1983

- (2) The Los Angeles County Transportation Commission (LACTC) is analyzing the issues concerning the LACBD Transit Interface during preliminary engineering for the Los Angeles-to-Long Beach Rail Transit Project. This is being done to establish an effective CBD treatment for the Regional Transit System. 

It is assumed that any additional buses operating in the LACBD due to this project would be distributed on a sufficient number of streets to minimize circulation impacts. Any impacts resulting from increased LACBD bus operations should be mitigated, during final design, by appropriate measures. Such measures include bus bays, off-street bus loading, and skip-stop bus operation. These mitigation measures should be applied to the interfaces between any Rail alternative and the surface bus system, as well as the Bus/HOV alternatives. 

Thank you for the opportunity to comment on your Draft EIR/EIS for the Harbor Freeway Corridor (I-110) Transitway. It is hoped that these comments will prove useful.


DONALD R. HOWERY
General Manager

SEF:lc

CITY OF LOS ANGELES
CALIFORNIA

MAR 14 1983

CITY PLANNING
COMMISSION

DANIEL P. GARCIA
PRESIDENT

J. S. KRUEGER
VICE-PRESIDENT

STEVE HARRINGTON
CARL MASTON
SUZETTE NEIMAN

RAYMOND I. NORMAN
SECRETARY



TOM BRADLEY
MAYOR

DEPARTMENT OF
CITY PLANNING
561 CITY HALL
LOS ANGELES, CA 90012

CALVIN S. HAMILTON
DIRECTOR

March 10, 1983

K. D. Steele, Chief
Caltrans
Environmental Planning and Citizen Participation Branch
120 South Spring Street
Los Angeles, CA 90012

REVIEW OF CALTRANS DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) ON INTERSTATE
110 FREEWAY TRANSIT

The following comments on the DEIS are intended to put the proposed project in the perspective of broader overall concerns pertaining to the developing regional transit system.

Summary of Comments

The comments deal with the following issues and suggestions:

- project generally inconsistent with the Centers Concept.
- need to evaluate redevelopment potential on Vermont vs. joint development on the freeway.
- need to consider an Intermediate Capacity Transit System (ICTS) alternative on Vermont.
- need to establish a valid comparison basis between Bus/HOV and rail alternatives.
- subway in CBD should interface (transfer station) with Metro Rail before Union Station.
- consider systems approach and an ICTS alternative on Vermont which would bypass the CBD and continue north to interface with Metro Rail at Wilshire Boulevard and link with the Hollywood ICTS line.
- consider proposed transit line as a part of regional Prop. A network under development by LACTC and therefore provide for future network extension in system design.
- consider the issue of integration of mode with Metro Rail and other proposed transit lines.
- complete inventory of existing technology by including the VAL system in operation in Lille, France.

Land Use

The DEIS accurately evaluates the project if located on the freeway as being generally inconsistent with the Centers Concept of the City of Los Angeles General Plan.

22

In terms of joint development and value capture, the report gives the advantage to the Harbor Freeway alignment. While this may be true, if one considers new joint development, the potential for joint redevelopment on Vermont Avenue has been seriously overlooked. The South Central Los Angeles Community Plan shows land use designations favorable to such redevelopment and strongly emphasizes the need for revitalization and redevelopment. It designates Vermont Avenue as a prime location for such needed renaissance.

23

Ongoing projects to revitalize the Vermont-Manchester and the Manchester-Broadway areas have not been recognized in the document. These projects are coordinated by the Mayor's Office of Economic Development, with the active support of Councilman Farrell.

24

The matter here depends on two criteria. One is to know, from a projected ridership study, who would use the transitway, either on Vermont or on the freeway. Would it be almost totally commuter oriented or would it also provide much needed local service to community centers?

25

The other is a choice between limited new joint development and more widespread redevelopment. A commuter oriented transitway on the freeway would practically ignore the local communities, not directly contributing to their revitalization, while a community oriented transitway located on Vermont Avenue would serve both purposes: commuting and limited local service, with the additional benefit of spurring redevelopment.

26

It should also be indicated that alternatives requiring freeway widening may consume a large amount of land which could be used more efficiently for private industrial and commercial purposes.

27A

Heavy Rail Transit (HRT) on Vermont

It is our strong reaction that the Vermont Avenue alignment has not been dealt with adequately in the sense that no ICTS alternative was identified or considered. No reason for such an omission is given.

27B

We also concur with LACTC's comments regarding the discrepancy of evaluation between Bus/HOV and rail transit alternatives and their recommendation to shorten the length of the rail alternatives. One solution in addition to that proposed by LACTC would be to increase the length of the Bus/HOV alternatives to match those considered for the rail alternatives. It is not clearly brought out in the discussions and tabulations that a Bus/HOV route of (?) miles is being compared with a rail route of (?) miles.

27c

Central Business District (CBD)

In the same perspective as above, the proposed ICTS distribution in the CBD, perhaps generally along the DPM route, should be included in an ICTS alternative on the Vermont Avenue alignment.

Also, a subway system downtown should interface (transfer station) with Metro Rail at a more central CBD location than Union Station, preferably 7th Street and Flower.

Transit Network

It is important that this project be harmoniously integrated into the longer range regional transit system. A suggested alignment could be an ICTS on Vermont bypassing LACBD, continuing north on Vermont, interfacing (transfer station) with Metro Rail at the Vermont and Wilshire Station and extending further north on Vermont to link with a Hollywood Boulevard auxiliary transit line.

Even if a Bus/HOV alternative is selected as the first stage of this project, with future conversion to rail anticipated, future network extensions and interfacing should be taken into consideration as early as possible in preliminary design so as to accommodate future construction.

28

Transit Technology

In view of the above, transit hardware (for light rail or ICTS) should be consistent throughout the Los Angeles transit system. Its selection should prioritize the system's mode integration factor (SMIF). For such purpose it would be necessary to have the most complete information on existing technology. The DEIS is deficient in this field in that for example it does not identify the French ICTS (VAL) presently operating in Lille, France.


Calvin S. Hamilton
Director of Planning

CSH:ADC:ACJ:s11
0606a

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MAR 14 1983

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SENDER'S TELEPHONE NUMBER

CITY OF LOS ANGELES
TOM BRADLEY
MAYOR

March 9, 1983

Mr. K.D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR INTERSTATE 110
FREEWAY TRANSIT, HARBOR FREEWAY CORRIDOR

Thank you for this opportunity to submit comments on the Draft EIS for the proposed 110 Freeway Transit project. The basic concept of providing a bus or rail transit corridor within the Harbor Freeway right-of-way between downtown Los Angeles and San Pedro has substantial regional transportation benefits to San Pedro and the Port.

However, Ports O' Call has been proposed as the terminus for both bus/HOV and rail alternatives. This would create serious problems for the Port and its tenants as discussed below:

1. The Port has immediate plans to upgrade the terminal at Berths 87-93, and the proposed transit project would disrupt parking and access to the terminal.
2. By designating the southerly terminus of the proposed transit system at Ports O' Call and by constructing a station at this location, the parking lot at Ports O' Call would be fully occupied Monday through Friday with commuter vehicles. This would eliminate parking spaces for businesses at Ports O' Call. During peak usage months the parking is not adequate now for the existing commercial stores, restaurants and marine facilities. Any loss of parking area would have a significant adverse impact on Ports O' Call.

The DEIS does not address the impacts on the Ports O' Call businesses from loss of parking areas.

3. The DEIS does not adequately address the potential impacts on surface traffic in the Ports O' Call area. Table IV-7, page IV-60 shows three 1995 scenarios (without project, with project, and with project + mitigation) and the corresponding levels of service. How were these derived and what assumptions were used? Was traffic from proposed projects such as the West Channel Cabrillo Beach Recreational Complex Project (which is under construction) included in the traffic analysis?

The DEIS should also address traffic impacts of the bus/HOV alternatives on the local street system, from the Harbor Freeway near Route 91 to Ports O' Call. As proposed in the DEIS, the exclusive guideways would terminate near Route 91 for all bus/HOV alternatives and buses would use freeway traffic lanes and surface streets to Ports O' Call.

4. The DEIS discusses Ports O' Call as a possible location for a maintenance and rail vehicle storage facility. As expressed in the DEIS, this proposal is not acceptable since there is not enough available acreage, and there would be impacts on adjacent residential, commercial and recreational areas.
5. The proposed alignment for either an elevated or at-grade railway between the Channel Street Park and Ride Lot and Ports O' Call is not acceptable. The report states the alignment would follow Front Street and reduce parking at Todd Shipyard. Parking is not adequate now in this area and any loss would have an adverse effect. More importantly, the proposed alignment would affect Todds' shiplift platform project presently under construction and Todds' steel plate handling yard.

Any at-grade (and to a limited extent an elevated) railway alignment has the potential of severely disrupting the surface street vehicular access to Port property at Todd Shipyard, Regan Street, Swinford Street, 5th Street and 6th Street intersections with the railroad tracks. The unit coal trains to the bulkloader may also be impacted because of conflicts with the scheduled commuter train service.

Additionally, the proposed alignment would cut access to the Knoll Hill area. This would block Harbor Department's planned expansion of Todd Shipyard which requires the realignment of Front Street and utilization of the Knoll Hill area, and for the planned realignment of the railroad tracks leading to the bulkloader.



March 9, 1983

6. The proposed construction of the station and rail line terminus at Ports O' Call could have detrimental impacts on the operation of the existing Southern Pacific's San Pedro railyard on the west side of Ports O' Call. (29)

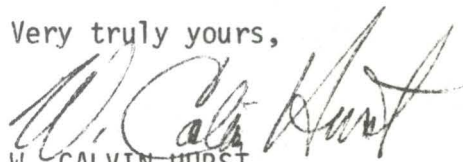
Based on the above mentioned impacts, the Port would have to oppose any alternate that uses Front Street for fixed rail transit or uses Ports O' Call for a terminus station. It is recommended that the southern terminus of the proposed 110 transit corridor be at Channel Street Park and Ride lot.

SPECIFIC COMMENTS:

1. Page II-31: in 1982, the American Ornithologists' Union issued the 34th supplement to the checklist of North American Birds. The West Coast subspecies should now be cited as Sterna antillarum browni. (30)
2. Page IV-6: the potential impact of the Palos Verdes Fault should be included in this section. (31)
3. Page IV-20: the noise profile map does not show a noise measurement site at Ports O' Call. How was the 1995 projected noise profile developed for Ports O' Call? (32)
4. Pages IV-39 to IV-44: the DEIS does not address the potential safety impact resulting from potential vehicle and pedestrian conflicts with the various bus/HOV and rail transit alternatives. (33)
5. Pages IV-39 to IV-44: since the proposed project would result in a need for increased public services (security, fire protection, etc.), will a component of the project provide for these additional services? (34)
6. Page V-2: a negative visual impact of an aerial guideway on San Pedro is acknowledged. Were any mitigations developed to offset this impact? (35)

Please keep us informed us on the progress of the project, and notify us when a preferred alternative is selected. We also request that you send us a copy of the Final Environmental Impact Statement when it is available.

Very truly yours,



W. CALVIN HURST
Harbor Environmental Scientist

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1113 csc



205 SOUTH WILLOWBROOK AVE.
COMPTON, CALIFORNIA 90220

CITY OF COMPTON

ROBERT R. GAVIN
PLANNING DIRECTOR
EXT. 270

March 15, 1983

K.D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, California 90012

Attention: Ronald Kosinski

Re: File ref.: 07-LA-110 Transitway LA CBD to San Diego

All alternatives selected for Stage II/Tier II analysis, with the exception of the no project and T.S.M. alternatives, would improve Compton's linkage to the rest of Southern California. The Bus/HOV and Rail alternatives designed with the transit dependent in mind offer the best possibilities for increased accessibility to the activity centers in the transit corridor. It is understood that the alignment and mode eventually selected are each dependent on an array of design variables, cost factors, and environmental concerns as well as the ability of the alternatives to satisfy the expressed transit dependent needs.

The environmental concerns expressed in the draft EIS should not have any significant impact on the City of Compton because of the distance between all alternative alignments and the City's boundary. This distance should buffer the City from the identified environmental impacts such as construction noise, operation noise, shadows, and business and residential displacement. Distance from the alignments, proving to be positive in shielding the City from negative project impacts, plays a negative role, however, when considering Compton's accessibility to the transit corridor. (Accessibility could even become a more severe problem if implementation of the collateral system; the Los Angeles to Long Beach Light Rail Transportation project, does not see fruition.) For these reasons, of vital importance to the transit dependent of Compton, is the ability of the feeder lines to lessen the effects of distance by providing adequate accessibility to the transit corridor.

Although, dealt with briefly in the draft EIS, greater attention and detail to feeder lines would be helpful. Considering the fact that there are only two station locations in Compton's proximity (Rosecrans Avenue and Artesia



K.D. Steele/R. Kosinski
Page 2
March 15, 1983

Boulevard) it is important that these two stations be able to serve the needs of Compton's transit dependent by having enough feeder lines link these stations with the areas of greatest transportation need within the City.

Yours truly,

CITY OF COMPTON



Robert R. Gavin, Director
Planning, Zoning and Enforcement



CJB
MAR 15 1983

CITY OF CARSON

March 14, 1983

K. D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, California 90012

Subject: Harbor Freeway Corridor, Draft EIS

Dear Mr. Steele:

Analysis of the Draft EIS for the Harbor Freeway Corridor Transit Improvements reveals the following facts:

Table S-3 indicates benefit/cost ratios of less than 1 for all rail alternatives.

Table S-4 indicates air quality improvements of only about 3%.

System benefits include several factors, but 24% of the total is for "time savings" and 38% for "parking savings". It is questionable whether either of these are appropriate measures of comparison between different alternatives.

Tables III-23 through 27 show an analysis in which some of the rail benefits/costs do exceed 1. However, this data is arrived at by limiting rail costs to only the portion between the Convention Center and 91 Freeway but retaining benefits for the entire system.

The Public Works Department offers the following observations:

Discussion of the long-term impact of the proposed Carson Station seems to imply that a severe (LOS-E) congestion condition can be mitigated by addition of left-turn signals. This is in error as such addition almost invariably exacerbates congestion. The addition of 350 auto and 600 bus trips during the peak hour on Carson Street (P.IV-57) to the over 2500 VPH already using Carson Street will require considerably more than the minor measures described. Double left turns at Vermont and addition of another travel lane each way on


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K. D. Steele, Chief

March 14, 1983

Page two

Carson, probably between Figueroa and a substantial distance west of Vermont will be needed to achieve LOS-D (which is not a desirable condition in actuality.)

This discussion of "short term" and "construction period" impacts is a mere gloss-over, totally inadequate for periods of 1 to 2 or more years. Substantial additional detail analysis will be required to quantify impact on Carson Street, etc. For example, the closure of ramps at Carson for a year and a half, or longer, will certainly generate a drastic change in travel patterns. The change could very well create unacceptable impacts on local residential streets. Perhaps the condition could be tolerated for a few weeks, possibly months, but certainly not for a year or two or more. 

In view of the above comments and analyses, it would appear that the most feasible alternative would be the bus/HOV combinations. The other bus and rail alternatives involve too much construction-related disruption and dislocations, are too expensive, and the costs in environmental impacts measured against the value received do not justify their implementation.

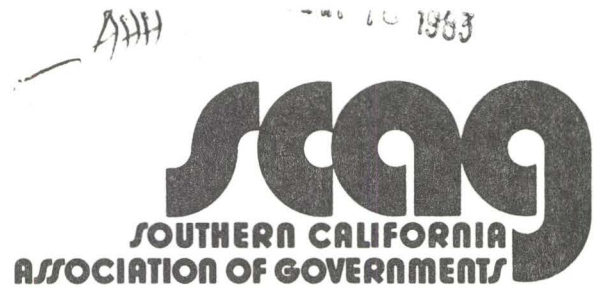
We appreciate the opportunity to comment on this proposal. If you wish clarification of any of our comments, please contact Sal Spitz, Traffic Engineer, in the Public Works Department, or Michael Bouvier, Assistant Planner, in the Community Development Department.

Cordially,



RICHARD K. GUNNARSON
COMMUNITY DEVELOPMENT DIRECTOR

MB:ptb



600 South Commonwealth Avenue • Suite 1000 • Los Angeles • California • 90005 • 213/385-1000

March 14, 1983

Mr. Heinz Heckeroth
Director
Caltrans, District 07
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Heckeroth:

Thank you for the opportunity to review and comment on your Draft Environmental Impact Statement for the Harbor Freeway Transitway. These comments have been approved by both our Transportation and Communication Committee and the SCAG Executive Committee.

The currently adopted Regional Transportation Plan recommends that a bus/HOV facility be constructed along this freeway. A draft of the revised RTP, to be released in April, identifies the primary transportation problems of several corridors in the region including the LA-Long Beach Corridor as originally defined in the Line-Haul Transit Study. The revised RTP states that the LA-Long Beach corridor has a capacity deficiency which could be alleviated by line-haul transit. Light rail, bus/HOV, and rapid transit will all be identified as potential line-haul transit modes for the corridor. Transit modal-split objectives by corridor will be included as well as system criteria which will aid in determining how this project fits into the regional system. The revised RTP will also include the results of demand modeling utilizing enhanced models and more recent population projections (SCAG-82) to further indicate the transportation impacts of this facility.

SCAG has participated throughout the project development process for this facility. We reference, for the record, the attached comments on your preliminary DEIS which were submitted to you on July 2, 1982.

Our Transportation Policy Committee and our Executive Committee have approved a number of comments on the DEIS. These comments are:

1. Existing congestion on I-110 and continuing population growth demonstrate that transportation problems currently exist in the corridor and that they are expected to increase. The capacity deficiency for the corridor was projected in our Line-Haul Study to be over 9000 person trips during the peak hours by the year 2000 and concentrated around the I-110 Freeway.

Mr. Heinz Heckeroth
Page 2
March 14, 1983

2. All of the alternatives examined in the analysis except for the no-project and TSM alternatives are reasonable and would serve to carry sufficient patrons to eliminate the capacity deficiency of the corridor.
3. The data and methods used in the analysis are reasonable and represent the best available at the time the analysis was performed. Population and employment projections for the analysis were taken from SCAG-78.
4. All of the alternatives examined in the analysis except for the no-build alternative are consistent with the currently adopted Air Quality Management Plan.
5. The I-110 bus/HOV guideway is included in the "Cost-to-Complete" the Interstate System making it eligible for 90% federal funding under the Federal-Aid-Interstate (FAI) Program. Eligibility of a rail project for FAI funding, although unlikely, has not yet been determined.
6. The two-way bus/HOV alternatives have the highest combined total of transit and HOV users of all alternatives. Thus two-way bus/HOV provides the greatest relief to the capacity problem of the corridor.
7. Alternative B-4, a two-way bus/HOV alternative, has the lowest capital cost, the lowest annual cost, and the lowest annualized cost per patron of all the two-way guideway alternatives. It also has the highest energy savings of all the alternatives. It is the most cost-effective alternative evaluated which meets the needs of the corridor.
8. The bus/HOV alternatives have benefit/cost ratios which are measurably higher than the rail alternatives.
9. The DEIS recommends that the I-110 and I-105 Transitways should use the same transit mode in order to have a workable system. This recommendation is consistent with the Line-Haul Study and is an important consideration in selecting the preferred alternative.
10. The fact that the I-110 Freeway Transitway is eligible for FAI funding is a major factor influencing the timing on this project. In order for the project to receive 90% FHWA funding through the FAI Program, the Final EIS may need to be completed and the project approved by FHWA no later than September 30, 1983. We urge Caltrans and all other concerned agencies to press for the early completion of the Final EIS and to support the funding of this project through the FAI Program.



Mr. Heinz Heckeroth
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March 14, 1983

Again, thank you for this opportunity to comment on the extensive analysis which you have performed. Once Caltrans selects a preferred alternative, the project should be forwarded to SCAG for a review subject to the provisions of AB 2313 (Lockyer).

Sincerely,



FRANK HOTCHKISS
Director of Comprehensive Planning

FK:PE:djk



epb
MAR 18 1983

LOS ANGELES COUNTY TRANSPORTATION COMMISSION • 354 SOUTH SPRING STREET—SUITE 500, LOS ANGELES, CALIFORNIA 90013 • (213) 626-0370

March 14, 1983

RICK RICHMOND
EXECUTIVE DIRECTOR

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Office of Plan. and
Pub. Trans.

Mr. Heinz Heckeroth
District Director
Caltrans District 07
120 South Spring Street
Los Angeles, CA 90012

Attention: K. D. Steele

Dear Heinz:

Subject: Commission Comments on Draft Environmental
Impact Statement for Harbor Freeway Transitway

Attached are the Commission's comments on the above document. We feel the comments do not require extensive restudy. Rather, most ask for either more emphasis of information which already exists in the document or fairly simple arithmetic changes. They will make the statement a much more comprehensive and usable document and we urge their incorporation.

As you are aware, your progress on the Harbor Transitway now needs to be related to concurrent work on the Los Angeles-Long Beach Rail Line as well as the Century Freeway Transitway. "Preferred project" decisions in all three corridors are interrelated, and cannot be made until preliminary engineering work on the Los Angeles-Long Beach Line has resulted in a draft environmental document. It would be appropriate for us to bring before the Commission recommendations for concurrent decisions on all three projects toward the end of this year.

Sincerely,

Paul Taylor
for RICK RICHMOND
Executive Director

RMS:esk
Attachments



LOS ANGELES COUNTY TRANSPORTATION COMMISSION • 354 SOUTH SPRING STREET—SUITE 500, LOS ANGELES, CALIFORNIA 90013 • (213) 626-0370

February 28, 1983

RICK RICHMOND
EXECUTIVE DIRECTOR

MEMO TO: RAPID TRANSIT COMMITTEE - MARCH 7, 1983 MEETING
FROM: EXECUTIVE DIRECTOR
SUBJECT: REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT ON
PROPOSED TRANSITWAY CONSTRUCTION IN THE HARBOR
FREEWAY CORRIDOR

RECOMMENDATION

The Federal Highway Administration and Caltrans have recently published the above draft document for review and comment. These comments are due by March 14, 1983. I recommended that LACTC transmit the comments discussed in this memorandum.

SUMMARY OF COMMENTS

It is clear from reviewing this DEIS document that a great deal of work has gone into analyzing the chosen alternatives. Considering that the preferred alternative has not yet been selected, the rigorous treatment given all candidates is commendable. The comments which follow suggest that several of the rail alternatives be reworked slightly using information already part of the document. The result will be an analysis with a much more useful range of alternatives. An already good document can become even better and less subject to criticism.

The Need to Shorten Length of Rail Alternatives

The bus/HOV alternatives continue the exclusive roadway only as far south as Route 91. It is assumed--and we agree--that south of that point both the demand for transit and the level of congestion are low enough that buses can operate in mixed traffic. If this logic is correct, then it is equally correct to conclude that rail transit need not be included in all alternatives south of Route 91. Continuing all the rail alternatives the additional 9 miles between Route 91

40

and Ports O'Call adds to these alternatives a severe penalty which could be construed as prejudicial. For example, at least \$208 million in additional cost is added to the rail alternatives; in the case of LRT #1, the extra cost adds 50% to its shorter-length cost. To avoid criticism we suggest at least one of the LRT alternatives stop at Route 91 and that the Vermont Avenue alternative stop there as well. The problem was recognized by the report's authors who stated (page III-85): "To provide a more meaningful comparison between bus and rail alternatives, it is necessary to evaluate the alternatives between common limits." We agree and suggest such an equitable comparison be elevated in importance within the document.

The Need to Modify Surface Bus Assumptions

Another suggestion for improving the integrity of the document is to modify the feeder bus assumptions made for the rail alternatives (and to a certain extent, the bus alternatives). The present bus service exists without a major transitway improvement. When that improvement is made, its performance and operational attractiveness will influence travel demand. Much of the existing bus services will become feeder routes. The net gain in bus-miles will be far less than the total (existing services and new feeder services) assumed in the document. In fact, it can be strongly argued that except for new line-haul services (rail vehicles or articulated buses) the future fleet and vehicle-mile totals should be no greater than the existing fleet size and vehicle-miles. In Atlanta, for instance, conversion of radial corridor service to feeder bus service led to substantial reductions in bus-miles. If the construction of the high-cost transitway results in significantly higher operating costs (as the document states), then the entire project should be questioned.

41

The feeder bus assumptions used to support the rail systems downtown appear excessive. It is more logical to have LRT patrons transfer to Metro Rail for their circulation to Union Station than to bus. In fact, the LRT alternatives will need to be integrated with the Long Beach-to-Los Angeles rail line. Downtown distribution for the entire Prop. A system is presently being studied by LACTC. In the meantime, the LRT alternatives in this document could assume connections with either Metro Rail or the Long Beach line for purposes of analysis. Distribution buses will not be required.

Need for Cross-Section Drawings

The section drawings of each alternative and its stations are helpful visual aids. Even more helpful would be to continue the section to the first row of structures east and west of the freeway, perhaps at a specific area. As a suggestion, such a drawing at 52nd Street

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would clarify much of the confusion about how this transitway would be built and what its affects might be. It is in areas such as this that the construction and visual impacts will be greatest. The reader could understand them better if the cross-sections were more extensive and if some vertical dimensions and scaled automobiles, etc., were included.

Additional Comments

The draft document appears to exhibit an unmentioned bus/HOV bias which compromises the quality of the report. The alternatives developed by changing the project length and feeder bus assumptions will provide the reader with a valid range of realistic options to choose from. We would also like to comment on several other points in the document.

A) The report's authors are perceptive in noting that, "in order to have a workable system, both the I-110 and I-105 transitways would have to use the same transit technology mode." This is an important point, though not as important as: "a bus or rail decision on one of these projects effectively determines the mode for both transitways" (see pages 5-10). The Commission is presently in Stage 1 of developing an implementation strategy for rail transit. The result of that work will be priorities for the corridors in which rail service will be implemented. Both the Century Freeway and the Harbor Freeway corridors are being considered. In parallel, LACTC will be making decisions on the Long Beach-Los Angeles corridor which will take into account needs and opportunities throughout the larger south county area, considering the Century, Harbor and Long Beach corridors from the point-of-view of an efficient system of transitway facilities.

43

The present work on the Harbor Transitway places it ahead of the Long Beach-Los Angeles LRT project. When the latter project reaches a comparable level of completion, in January, 1984, decisions affecting the two projects can be made in concert.

B) The report needs to include a discussion of possible funding sources for the transitway project. While Interstate funds might be available for a busway/HOV project, they will not be for a rail project. Should a rail alternative be selected it is not clear where construction funds will come from or how probable such funds are. This uncertainty may well affect the viability of any rail alternative. Moreover, given the region's commitment to the Century Freeway project, it is also uncertain that a project the size of the busway/HOV transitway could be built concurrently using Interstate funds.

44

- C) The analysis of alternatives assures car pool users will shift to the busway/HOV roadway and credits that facility with these 21,400 trips. The Harbor Freeway will continue to attract car pools, however, even with a rail alternative. Showing no car pool users for any of the rail alternatives and all car pool users on the busway/HOV misrepresents the situation.

45

The use of a benefit-to-cost (B/C) ratio in the analysis is also misleading. Benefit-to-cost ratios have long been discredited in part because not all costs are considered. For this reason, it would be best if the B/C ratio was not used at all.


46

- D) The result of the "energy-saving" analysis is surprising because the rail alternatives save less energy than the bus alternatives. This probably results from the inaccurate feeder bus assumptions discussed earlier. The analysis should be redone with corrected figures and the energy source separated between petroleum and electrical generation. It is important to note which alternatives are more petroleum intensive.

47

In conclusion, a great deal of analysis has gone into this DEIS document. The effort lacks only a full consideration of shorter-length LRT and Vermont Avenue alternatives using more realistic feeder bus assumptions. To overlook these is to shortchange the rest of the document and to subject the overall work to much needless criticism.

47a


RICK RICHMOND
Executive Director


PAUL C. TAYLOR
Deputy Executive Director
Transit Development


RICHARD M. STANGER
Manager, Transit Development

RMS:esk



John A. Dyer
General Manager

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MAR 18 1983

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MAR 14 1983

Mr. Heinz Heckeroth
District Director
Caltrans
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Heckeroth:

District staff has reviewed the draft Environmental Impact Statement for the proposed Harbor Freeway Transitway. The report is well prepared and your staff should be commended for the thoroughness of the analysis. Although the District has no preference for a particular alternative at this time, there are some policy and operational issues associated with the alternatives analyzed that need to be addressed.

The No Build option is not a viable alternative because it does not provide for the inevitable growth in future demand for long haul transit service and it will not help alleviate the congestion problems within the Harbor Freeway corridor. The TSM Alternative, while providing higher service levels than the No Build, will not improve existing conditions and will not accommodate the increase in demand for public transit. Bus service under the TSM operational plan would operate in the same mixed flow traffic that now experiences considerable delay caused by increasing traffic congestion. In addition, the local access points to the line haul service are not as great as with other "build" options.

Current experience indicates that increased transit service along mixed flow freeways, such as the Hollywood Freeway, will result in increased transit usage to a certain point. Recent ridership checks indicate, however, a stabilization in transit usage within the Hollywood Freeway Corridor even with a significant level of transit service. This stabilization can in part be attributed to traffic congestion within this corridor.

The implementation of the One-Way Bus Alternative will, in our opinion, result in severe operational and user orientation problems. Buses in the reverse peak direction will operate in mixed flow conditions and be subject to non-recurrent congestion. Trip travel speeds of 55 mph will probably not be attainable in many of the freeway reaches within this corridor in 1995. Additionally, passenger confusion will result because different stops will have to be utilized from the same location depending on the time of day. Your report also does not address the additional operational costs associated with implementing the reversible operation on a daily basis.

48

In the discussion concerning busway alternatives, the report states that since the busways will be "self-distributing" in downtown Los Angeles, major bus stop or other capital improvement expenditures will not be necessary. However, substantial operational problems in downtown Los Angeles exist already due to traffic congestion and frequent grid lock. The busway alternative will add a high volume of buses entering and leaving the CBD during the peak hour (85 and 43 buses respectively). This large volume of buses, when combined with the expected normal growth in downtown bus service, the unknown impacts of the proposed Santa Ana Freeway Transitway and the routing changes associated with Metro Rail will significantly impact downtown bus stops and routings. In addition, bus travel times will be increased due to growing traffic congestion and this will reduce the attractiveness and use of the transitway. In all probability, substantial TSM improvements and other capital projects will be needed to facilitate existing bus movements in downtown Los Angeles. Implementation of downtown transportation improvements is critical to successful operation of the regional transportation system.

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There appears to be some confusion over the issues of demand for line haul service and the facilities proposed to meet that demand. These are separate issues and should be treated as such. As indicated, the regional travel model forecasts demand for long haul service for the entire length of the study corridor from downtown Los Angeles to San Pedro, not just to Route 91. Hence, the comparison of a bus HOV ending at Route 91 versus the rail line built the entire distance to San Pedro is inappropriate.

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The primary issue should be whether there is a demand for the long haul service and the matter of meeting that demand is a separate issue. The facilities proposed to meet the demand should consider both modal connectivity and traffic congestion on the same basis.

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In regard to the cost analysis, it is not clear if HOV costs are included in the bus alternatives. It appears that HOV ridership is accounted for in the bus alternatives benefit analysis. It is not clear if both capital and operating HOV costs are included. To make the comparison between rail and bus valid, all costs should be included for all the alternatives. The fact that the rail alternatives have higher operating costs than the bus alternatives tends to indicate that not all costs are included in the bus alternatives.

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Finally, one additional issue needs to be addressed in the selection of a final locally preferred alternative. The issue concerns the manner in which the proposed services are going to be paid for. With the exception of the No Build Alternative, all alternatives will result in substantially reduced private sector auto related costs and significant increases in public agency capital investments and operating costs. Caltrans needs to develop funding alternatives and, together with other agencies put the

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Mr. Heinz Heckeroth
Page 3

appropriate funding mechanisms in place to ensure that the improvements which are built can be operated. The District stands ready to assist you in this regard.

In closing, I hope our comments prove useful in the finalization of the Caltrans study.

Sincerely,



John A. Dyer

MAR 23 1983



CITY OF TORRANCE

3031 TORRANCE BOULEVARD, TORRANCE, CALIFORNIA
TELEPHONE (213) ~~928-5918~~ 618-2840 90503

March 21, 1983

Mr. K.D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

We have reviewed the Caltrans' Draft EIR/EIS on the proposed transitway plans for the Harbor Freeway Corridor. In accordance with our goal of ensuring a safe, economical and efficient transportation system for the city of Torrance, we are respectfully submitting the following input.

The Torrance Transit System has provided public mass transportation from its South Bay service area to downtown Los Angeles for over forty years. In the interest of providing the most efficient transit service possible in both quantity and quality per funding dollar spent, the Torrance Department of Transportation enthusiastically supports the implementation of a light rail transit (LRT) system on the Harbor Freeway. While we are admittedly not experts in modern light rail technology, the increased amount of funding needed for its construction seems to be money spent on a substantially more efficient and flexible system than any of the other alternatives proposed.

An LRT system appears to afford a reduction in the Los Angeles Central Business District to San Pedro trip time that the Bus/High Occupancy Vehicle (HOV) alternatives could never equal. Its on-line fleet size (almost half that required by the Intermediate Capacity Transit System alternative) would incur annual operating and maintenance costs that compare favorably with those that would be incurred by the Bus/HOV alternatives. In addition, due to the high cost of converting a Bus/HOV guideway to light rail in the future, it seems most cost-effective to construct an LRT system from the outset.

We believe that the southern terminus of any light rail system should be located in San Pedro in order to best serve the City of Torrance. The commuters and the transit dependent population in the San Pedro, Wilmington, and Long Beach areas would also benefit from easy access in the Los Angeles Harbor area. Further, while acknowledging the necessity of an easy transfer from Route 91 to the Harbor Freeway at Artesia and Vermont, in

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future planning CALTRANS might also consider the construction of an additional off-line terminal at Carson and Vermont. A substantial number of riders currently transfer at this point from Torrance's Line 3 and from SCRTD's Line 849 to Torrance's Line 1 serving downtown Los Angeles. Potentially, these riders would be transferring to the LRT.

A major inadequacy of the EIR/EIS is that it does not discuss the Torrance and Gardena municipal system's service in anything other than status quo operational terms. The arterial and feeder bus lines to the light rail transitway would be essential to its efficiency, and the EIR/EIS fails to cover this aspect. At present, Torrance Transit operates four lines that could become feeder lines to a light rail system on the Harbor Freeway. Lines 1 and 2 provide service to downtown Los Angeles, both accessing the freeway at El Segundo Boulevard. Line 1 parallels the freeway on both Vermont Avenue and Figueroa Street. Line 3 crosses Vermont Avenue east and west bound on Carson Street.

The final EIR/EIS should include a discussion of the future feeder lines, routes, areas to be served, etc., and how these feeder lines would be funded to meet the demands of the new influx of riders.

This discussion might also cover the features of feeder bus lines that promote the following mass transportation objectives in conjunction with implementation of the rail system:

- 1. Relief of traffic congestion
 - *reducing accidents
 - *improving travel time
- 2. Improvement of air quality.
- 3. Accommodation of future travel demands.
- 4. Encouragement of non-automobile travel.

Thank you for the opportunity to be a part of the planning process for improved public transportation in the Harbor Freeway Corridor. We are very interested in any future developments and await the final EIR/EIS. Please call us at 618-2840 if you have any questions regarding our comments.

Yours very truly,

Arthur T. Horkay
Director of Transportation

ATH:RM:daf

Los Angeles Unified School District

APR 4 1983

School Building and Facility Services

BYRON L. KIMBALL
Deputy Director
School Building
& Facility Services
WILLIAM E. McELROY
Deputy Director
Real Estate Branch

HARRY HANDLER
Superintendent of Schools
Gardena Bus Garage
First Addition "B"

April 1, 1983

K. D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Steele:

Re: Draft Environmental Impact Statement
Interstate 110 Freeway Transit - Harbor Freeway Corridor

We have reviewed the above-referenced Draft EIS to assess impacts of the proposed project alternatives on sites owned by the Los Angeles Unified School District. In general, impacts such as noise, pollution, and circulation problems could be suffered by any of a number of schools near Vermont Avenue or the Harbor Freeway throughout the corridor. Because the project to be constructed has not yet been selected from the alternatives, and because the placement of stations within the corridor is not clear, it is impossible to specify which schools will be affected. We request that the School District be kept informed as the specific project alternatives become more clearly focused, in order that we may provide you with detailed information about project impacts and necessary mitigation measures.

One alternative - the rail transitway - poses a very significant adverse impact on the operation of the School District's Gardena Vehicle Maintenance facility, which is located west of Hoover Street south of 182nd Street. As described on page III-93 of the EIS, and especially as shown on the supplemental plan designated as "07LA110 09121.5 Harbor Freeway Transit 182nd Street Maintenance Facility (Feasibility Study)," construction of the rail transit maintenance facility as shown would entail the taking of School District property and relocation of the Gardena Vehicle Maintenance operation to an adjoining site.

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XI-104

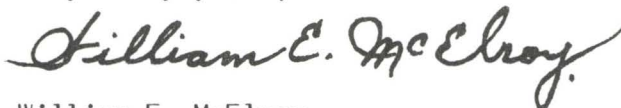
Page 2
K. D. Steele, Chief
April 1, 1983

If this alternative were selected, it would be vital that any replacement facility be completed before the loss of the existing facility, in order to prevent disruption of the essential service provided by this operation. Also, during construction and operation of the rail maintenance facility, significant impacts from noise, pollution, and circulation would impair the operation of the Gardena Vehicle Maintenance facility, unless appropriate mitigation measures were taken.

Nothing in the foregoing should be construed as consent by the School District to a potential taking of its property. Our intent is merely to provide you with information regarding possible impacts to assist in your evaluation of project alternatives.

Again, we ask that the School District be advised as progress is made in selecting from the alternatives, so that a more detailed assessment of project impacts can be made.

Very truly yours,



William E. McElroy
Deputy Director of Real Estate

WEM:ds

cc: Harry Handler
Jerry Halverson
Byron L. Kimball
Max Barney
Vince Battistoni

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APR 14 1983

Office of Plan. and
Pub. Trans.

April 8, 1983

Mr. Allan Hendrix
Deputy Director
Planning and Public
Transportation
CALTRANS DISTRICT 7
120 South Spring Street
Los Angeles, California 90012

RE: HARBOR FREEWAY TRANSIT PROPOSAL E.I.S.

Dear Mr. Hendrix:

I am appreciative of this opportunity to comment on the subject E.I.S..

Having been involved for several years with the preservation of one of the most unique and viable urban wildernesses (i.e.; The Willows), naturally I was quite interested in the emphasis placed on impacts which might be incurred by The Willows under this transit proposal.

I am not sure if Caltrans realizes that there are several more little wetlands that need, also to be considered and did not appear to be in your E.I.S..

My purpose for writing addresses The Willows and a conversation that I had with Mr. Chuck Morton. I told Mr. Morton that I was aware of many species existing at The Willows which were not included in the Appendix F. Mr. Morton then indicated that Caltrans was only interested in species currently existing at The Willows.

Firstly, there are far more species of flora and fauna that ARE currently living there than appeared on the Appendix F; and, secondly, why would you be interested in species who have recently been impacted by activities relating to the joining of the freeways who have left the area because of the human impact? I have quite an extensive list of species who existed at The Willows prior to the Caltrans activities at the site. I personally feel that any inventory taken at this point would be grossly nonrepresentative of the actual numbers and types of species that The Willows can and has supported.

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Page One of Three

XI-106

Mr. Allan Hendrix
Page Two of Three
April 8, 1983

On Wednesday evening, April 6, I made a visit to The Willows after work. Clad with plastic bags, jars and note paper, I tried to gather as many specimens as possible before the light faded.

As I walked into the marsh, two pintail ducks shot out of the water and into the sky. Their name didn't appear in Appendix F.

The next morning I visited Dr. Wishard, botany instructor at El Camino College. He identified the following species which did not appear on Appendix F but do currently grow and live at The Willows:

Fennel	<u>Foeniculum vulgare</u>
Rush	<u>Juncus</u> several species
Wild oats	<u>Avena fatua</u> L.
Goose (or Pig) foot	
Cress	at least one specie
Salt bush	<u>Atroplex</u>

water sample: Daphne
water fleas
many large and small crustaceans

Another point is that Mule Fat was also identified from the specimens but was listed as existing at Bixby Slough and not the Willows.

I have enclosed photocopies of species listing which will illustrate the great diversity that has been identified compared with your Appendix F.

The value of these wetlands, Mr. Hendrix, has to be seriously considered as biomes of this type are rapidly perishing in urban areas such as Los Angeles.

I am sorry that my visit to The Willows didn't produce more specimens but I did not have proper gear to wade into the water and the daylight faded quickly.

I strongly urge that species diversity and wetland values be readdressed not only on the Willows but also Bixby and the adjacent wetlands which have not been considered.

In conclusion, let me repeat that the F.I.S., as it presently exists, is inadequate in its addressing of the wetland issue. These areas must be viewed seriously and with great care as they are very special, fragile places.

Mr. Allan Hendrix
Page Three of Three
April 8, 1983

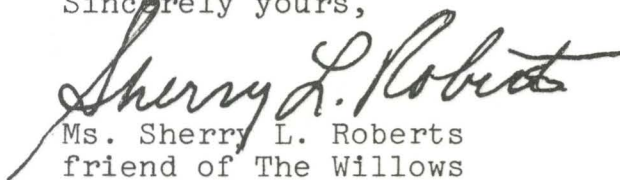
I am hopeful that the E.I.S., as it relates to wildlife values will be readdressed.

I will be absolutely more than happy to assist in whatever way I might to make certain these areas are given complete consideration and are viewed in depth to ascertain their complete and total values.

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Thank you for allowing me to comment on this E.I.S..

Sincerely yours,



Ms. Sherry L. Roberts
friend of The Willows
16333 Wilton Place
Torrance, California 90504

(213) 329-8629 home
(213) 37808483 work

WINTER BIRD-POPULATION STUDY

Willow Woodland - Freshwater Marsh. Location: South Gardena Park Site; NW of intersection of Artesia Blvd. and Vermont Ave., Gardena, Los Angeles Co., California; 33° 53' N, 118° 18' W. Continuity: New. Size: 2.81 ha = 7.03 acres (irregular in shape, acreage determined from map based on paced boundaries and compass readings). Description of area: Remnant parcel of natural riparian habitat historically present throughout drainages on the southern California coastal floodplain; such habitat has been essentially eliminated in the Los Angeles basin as a result of stream channelization and urban sprawl. The possibility of maintaining the study plot as a natural area is under consideration by the City of Gardena. Vegetation: Trees, 3-in. diameter and over, based on five 0.1-acre circular samples, 408/acre; total basal area 58.1 square feet/acre. Willow (Salix Gooddingii) constituted 100% of the woody vegetation, and was encountered in each sample. Trees by diameter size class (figures after each class give number of trees/acre, relative density (%), basal area in square feet/acre, relative dominance (%)):
 A (3-6 in.) 328, 80, 16.4, 28; B (6-9 in.) 38, 9, 5.7, 10; C (9-15 in.) 14, 3, 5.6, 10; D (15-21 in.) 20, 5, 18.0, 31; E (21-27 in.) 8, 3, 12.4, 21. Woody stems/acre, 5000 (entirely young willows or broken willow branches); this figure is undoubtedly higher along the drier boundaries of the plot, where in some areas there are dense tangles of brush. Ground cover 12%; Flooded area 88%; Canopy cover 91%; Average canopy height 20 feet (range 15-35). Tules (Scirpus sp.) were the only additional structurally important plant species present; small patches were encountered in two of the sample circles, and fairly extensive growths occur within the study plot. Topography: Essentially flat; study plot in slight depression relative to surrounding area. Edge: Area surrounded by residential districts and major highways; some buffering

Submitted for publication to National Audubon Society's Journal AMERICAN BIRDS, Jan 1977. Similar studies in other areas will also be published in this journal several months from now.

landfill. A tiny portion of similar habitat occurs on the NE corner of Artesia Blvd. and Vermont Ave. Water: Although the area is mainly dry during the summer months, runoff from winter rains results in flooding of approx. 85% of the plot to a depth of 2.5 feet. Weather: Temperatures during the count period ranged from 40°F to 82°F (avg. maximum temperature, 72°F; avg. minimum temperature 49°F). Total precipitation for the count period was 0.05 in.; this figure is below normal and represents a continuing drought condition in California. Coverage: Jan. 11, 12, 13, 20, 21, 25, 28. Total: 8 trips (2 on Jan. 20); 6 between 9:20 and 10:40 a.m., 1 from 7:00 - 8:00 a.m.; and 1 from 12:30 - 1:15 p.m. Trips averaged 55 minutes each. Count: (average total, followed in parentheses by birds per square kilometer and birds per 100 acres) House Finch, 24 (842, 341); Bushtit, 15 (526, 213); Song Sparrow, 12 (422, 171); Anna's Hummingbird, 8 (282, 114); White-crowned Sparrow, 7 (247, 100); Yellow-rumped (Audubon's) Warbler, 6 (210, 85); Brown Towhee, 4 (141, 57); Cinnamon Teal, 3 (106, 43); House Sparrow, 3 (106, 43); Pintail, 2 (69, 28); Red-winged Blackbird, 2 (69, 28); Lesser Goldfinch, 2 (69, 28); Fox Sparrow, 2 (69, 28); Mourning Dove, 1 (35, 14); Common Flicker, 1 (35, 14); Ash-throated Flycatcher, 1 (35, 14); Black Phoebe, 1 (35, 14); House Wren, 1 (35, 14); Hermit Thrush, 1 (35, 14); Yellow-rumped (Myrtle) Warbler, 1 (35, 14); Lincoln's Sparrow, 1 (35, 14); Green Heron, +; Green-winged Teal, +; White-tailed Kite, +; Red-tailed Hawk, +; Red-shouldered Hawk, +; American Kestrel, +; Ring-necked Pheasant, +; Allen's Hummingbird, +; Loggerhead Shrike, +; Western Meadowlark, +; American Goldfinch, +. Average total: 98 birds (3438 per sq. km., 1394 per 100 acres). Remarks: Total species, 31. Seven species were observed on every trip: Anna's Hummingbird, Bushtit, Yellow-rumped (Audubon's) Warbler, House Finch, Brown Towhee, Fox Sparrow, and Song Sparrow. A single Ash-throated Flycatcher wintered in the area; this species is rare in California during this time of year. The following species were not associated with the

(T) = average total less uncounted
 individuals/trip

study plot habitat, but were observed flying over the area or along its boundaries: Killdeer, California Gull, Ring-billed Gull, Rock Dove, Common Crow, Mockingbird, Water Pipit, and Starling. This project was supported financially by a grant from the El Dorado Audubon Society. -- JONATHAN ATWOOD, Department of Biology, California State University, Long Beach, CA 90840.

	Nov. 19	JAN 11	JAN 12	JAN 13	JAN 20	JAN 25	JAN 28
SONG SPARROW	15	22	14	13			
WHITE-CR. SPARROW	10	6	18	7			
COMMON BUSH TIT	8	16	15	18			
RUBY-CR. KINGLET	5						
AUDUBON'S WARBLER	2	8	9	7			
ORANGE-CR. WARBLER	1						
BROWN TOWHEE	3	6	5	2			
RED-SHOULDERED HAWK	1	1					
RED-TAILED HAWK	①						
LOGGERHEAD SHRIKE	1						
ANNA'S HUMMINGBIRD	2	8	9	8			
RED-SH. FLICKER	1		1				
HOUSE FINCH	25	24	2	3			
LESSER GOLDFINCH	2			4			
BROWN-HEADED COWBIRD		①					
HOUSE WREN		2		1			
BLACK PHOEBE		1		1			
HERMIT THRUSH		2	1				
MYRTLE WARBLER		1					
HOUSE SPARROW		1					
FOX SPARROW		1	2	3			
RED-WINGED BLACKBIRD		3	1	1			
ALLEN'S HUMMINGBIRD		1	1	1			
CALIF. GULL		+	+	+			
ROCK DOVE			①	②			
MOURNING DOVE			③	3			
LINCOLN'S SP.			1				
COMMON CROW			②				
RING-NECKED PHEASANT			1				
44-THR. FLYCATCHER			1	1			

	JAN 13	JAN 20	JAN 25	JAN 28
STARLING	①			
WATER PIPIT	②			
CINNAMON TEAL	2			
AMERICAN GOLDFINCH	1			
WESTERN MEADOWLARK	(2)			
Am. Kestrel		1		
Ring Billed Gull		+		
Pintail Ducks			6	6
Green-winged Teal			3	
Killdeer				+

4/24/77

Sherry —

Just a quick note to catch you up on some of the new species additions I've had at Willows since I saw you last;

Virginia Rail

Sora

Spotted Dove

American Wigeon

Common Snipe

American Bittern

Hooded Oriole

Black-chinned Hummingbird

Yellowthroat

Wilson's Warbler

Townsend's Warbler

Nashville Warbler

Yellow Warbler

Warbling Vireo

Black-chinned warbler

We're still missing some common western migrants which I'm sure will show up in the next few weeks —

Will try to get some of the numbers tabulated soon — right now I'm so swamped that I'm barely getting time to transcribe my field records.

Sorry I've missed the last 2 meetings. The new fence out there is great — should certainly take care of most of the dumping problem. Hope to make the next meeting — could you drop me a note as to when it is? Thanks —

APR 4 1983



SIERRA CLUB — ANGELES CHAPTER

2410 WEST BEVERLY BLVD., LOS ANGELES, CALIFORNIA 90057

(213) 387-4287

March 31, 1983

Mr. K.D. Steele, Chief
Environmental Planning Section
Caltrans
120 South Spring Street
Los Angeles, CA. 90012

Attn: Ron Kosinski

Dear Ron:

Re: Draft Environmental Statement - Interstate 110,
Freeway Transit - Harbor Freeway Corridor

This letter will confirm our telephone conversation this morning in which I stated our objections to this study. We find the report well-written, clear and consistent with present practice in the field of transportation planning. It is the inadequacy of the state-of-the-art with which we must take issue.

We have three critical areas of concern. First, the report relies on ridership projections derived from mathematical model studies. Such studies are commonly used for this purpose simply because there is no other tool. We do not argue that their use is nominally improper. But, we wish to call your attention to their inherent lack of reliability. Their results, like cigarette advertising, should be accompanied by a warning, writ large, that the use of these figures may be hazardous to the health of the community.

All transportation decisions are political decisions - they cannot be otherwise. Political and business leaders are busy men who cannot be expected to understand the frailty of the philosophical basis of logit or gravity modelling. They might be easily persuaded, therefore, that the ridership projections expressed in Table S-3 have some relationship to reality - given lay faith in the magic of computers and expert consultants.

Our second difficulty is with the price placed on 'automobile trips saved' implicit in the figures given in the "Benefit Costs Ratio" column. Automobile trips, bus trips and HOV trips are extremely costly and, if properly priced, would certainly provide substantially different benefit/cost ratios.

The costs of using the automobile have not been properly evaluated, particularly with respect to the use of expensive urban real estate and improvements - nor with respect to public and governmental services rendered at little or no cost to the motoring sector by the overburdened local governments. We believe that such costs are well over a dollar per mile. Clearly automobile trips saved - over the long term - will save the community, as well as the motorist, billions annually.

Finally, we question the figures for bus and HOV travel (column "Transit" and

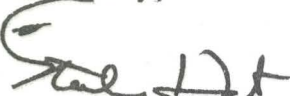
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"HOV") because we believe that the numbers cannot be effectively carried by a reasonable configuration of buses and HOVs. 74,500 bus passengers in the corridor will require almost 2,000 bus trips. If these are evenly spread throughout the period 7:30 AM to 6:00 PM the buses would pass a fixed point every 20 seconds. Peak-hour frequency would be far higher. This is clearly an impossibility. HOVs, for the figures cited, would have, at least, equal difficulties in capacity and frequency.

Such a wealth of buses and HOVs would have an unhappy effect on downtown streets; the CBD would be uninhabitable in rush hour. But we are looking at only one such route. At least six equally voluminous routes must be served by the same CBD streets.

The automobile, the bus, the HOV have enormous appetites for expensive urban space and improvements. If the Los Angeles (read any American city) transportation problem is to be resolved, the cost of space must be incorporated into our studies.

Sincerely,



Stanley Hart, Chairman
Transportation Committee

Kindly respond to:

804 Verano Place
Irvine, CA. 92715

(714) 553-0620

Mr. Allan Hendrix
Page Two of Three
April 9, 1983

values and species diversity accepted at that time in those baseline studies. Specifically, those studies which must be included are the water quality data (enclosed) taken by the Corp showing the effectiveness of The Willows Wetland in scrubbing surface runoff waters of non-point source pollutants. This degree of effectiveness must be maintained after the project. Page 25 by failing to document the existence and effect of the prime wetlands effected by the project and the quantification of their effect as a biological filter in removing non-point source pollutants and preventing their entry in the the water table (see Section 401, Clean Water Act and Basin 4B Plan) and, hence, our drinking water (reference State Water Resources Control Board Decision) into navigable waterways of the United States (San Pedro Harbor Corps of Engineers Discharge Criteria) and hence into the fresh water and marine biota (U.S. Fish and Wildlife), would dismiss the obligation by Caltrans to maintain this barrier to the contamination of the hydrologic cycle after project completion.

The EIS addresses the wetlands adjacent to the project as they currently are, in the midst of the Artesia extension construction, with "nearly all native biota removed" (pg. 27), with nearly all wildlife driven away by dust, noise and intense human activity, (see Appendix F and P. II-27 Para 1) with the wetlands either drained or allowed to be drained by Caltrans, ("Small amounts of permanent water..." P. II-27) all in violation of the Artesia Extension agreements. Species lists and baseline studies taken prior to the current Caltrans activities showing residents requiring permanent water (e.g.; Rana catesbiana) and taken throughout an annual cycle so as to document the usage of the impacted wetlands by migratory birds are available and must be included.⁶ With only a few percent of the original wetlands in the Los Angeles basin (4B) remaining, and those diminishing rapidly, wildlife is crowded into ever smaller space. The vital functions of runoff water impoundment, purification and return to the water table becomes more stressed. The preservation of gene pools of indigenous species in these pocket relics of formerly extensive habitat becomes more important.

Many breeding populations of rare and unique species are found only here, and others are isolated here far removed from the rest of the gene pool (e.g.; Lampropeltis getulus striped phase). Loss of these wetlands and resultant loss of scrubbing capability could threaten endangered species such as the Brown Pelican, by the chlorinated hydrocarbons carried in the runoff waters not removed before discharge into San Pedro Harbor (P. 31). Previous EIS's, such as Todd Shipyard and Berth 232 expansion, documenting impact on marine biota of high BOD, sediments and suspended solids, dissolved solids, heavy metals, inorganic phosphates, nitrates, as well as chlorinated hydrocarbons, all of which are removed by the wetlands directly threatened by this project, must be included, or at least referenced, and the impacts evaluated (P. 31).

We must not miss this opportunity to permanently protect what little we have left.

Mr. Allan Hendrix
Page Three of Three
April 9, 1983

Inasmuch as the southern portion of the Harbor corridor, and all of the wetlands, as shown on the USGS maps are Public Trust Lands, they are subject to Public Trust Doctrine. Any and all land use must be compatible with this. Particularly with the 3½ acre fill and parking lot, this omission must be addressed. This particular site has long been a source of illegal dumping and fill, much of it by Caltrans. Since there have been no permits issued for fill by the Corps of Engineers or California Fish and Game, it must still be considered prime wetland, the loss of 3½ acres assessed and a 404 Permit for its fill obtained.

The wetlands adjacent to the Harbor Freeway, especially those maintained by special projects adjacent to the County Department of Sanitation Harbor Treatment Facility, will be adversely impacted by any increase in usage of the corridor, and their wildlife values lost. This string of wetland connecting Bixby Slough to the Willows must be included in the evaluation.

Finally, Section IV discussed the environmental consequences of the project alternatives.

CEQA and NEPA require that all the areas impacted by the proposed project be inventoried, not as they are today, but as they were prior to the current Caltrans work. By using the wrong baselines, species checklists and environmental conditions, wrong conclusions have been reached. Many wetlands (adjacent to the freeway) were not even considered or evaluated. When you ask the wrong questions, you get the wrong answers. Friends of the Earth believes that the EIR is, and will be, inadequate unless and until a supplement is prepared which fully addresses the wetlands issue, and which fully addresses and evaluates the policies and questions we have raised. (60)

Thank you for your time and consideration.

Sincerely yours,

FRIENDS OF THE EARTH



Donald L. May

FOOTNOTES

1. California Department of Fish and Game requirements for 1601 Permit
2. The California Coastal Act requires a permit for the entire project if any part of it lies within the Coastal Planning Area.
3. Section 404, Clean Water Act requires a permit.
4. Discharge in excess of 5 cubic feet per second for the last 5 months in the Dominguez Drainage at Artesia crossing. (See L.A. Flood Control Records.)
5. Fish and Game field report from
6. Corps of Engineers' water quality report from
7. Prof. David Morafka; Prof. Gregory Smith, C.S.U.D.H..

cc: Center for Law in the Public Interest
Attn.: Carlyle Hall

Sierra Club, Angeles Chapter, Conservation Committee,

Stan Hart



AGRI SCIENCE LABORATORIES INCORPORATED

2122 GRANVILLE AVENUE, LOS ANGELES, CALIFORNIA 90025 • TELEPHONES (213) 879-4592, 478-0943

AOCS REFEREE CHEMISTS, PROTEINS; USDA LICENSED COTTONSEED CHEMISTS; FDA DRUG REGISTRATION;
STATE APPROVED FOR WATER BACTERIOLOGY, CHEMISTRY, FISH BIO-ASSAY; USDA CERTIFIED MEAT CHEMISTS.

CLIENT Department of the Army
Los Angeles District, Corps of
Engineers
P. O. Box 2711
Los Angeles, CA 90053

LABORATORY NO. 4589-4595 Incl.
REPORTED 2/15/77
RECEIVED 2/10/77
SAMPLED -----

SAMPLE MATERIAL Marsh Water
IDENTIFICATION See Below
SAMPLED BY As Submitted

<u>LAB NO.</u>	<u>IDENTIFICATION</u>	<u>SUSPENDED SOLIDS</u>	<u>TOTAL PHOSPHATE</u>	<u>CHEMICAL OXYGEN DEMAND</u>
4589	A, Upper end of marsh, Vermont & Artesia	12.6	1.00	28.2
4590	B, Willows inlet	2.2	0.67	18.1
4591	C, Willows Marsh	3.2	0.53	10.2
4592	D	4.6	0.47	20.5
4593	E, Outlet to Dom. Ch.	2.0	0.40	15.4
4594	F, Upper end Dom. Ch. at Vermont	13.0	0.57	18.6
4595	G	4.0	0.45	57.6

NOTE: All values reported in mg/l.

XI-121

FOR AGRI SCIENCE LABORATORIES



cyf
APR 11 1983

April 7, 1983

Mr. K.D. Steele
Caltrans District 7
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

This correspondence is being directed to you in behalf of the Ponderosa Pines Homeowners Association, a Condominium Community, located on the east of Vermont Avenue between Torrance Boulevard and Del Amo Boulevard.

After reviewing the Summary concerning the alternatives for transit improvements along the Harbor Freeway Corridor, we, the Board of Directors of Ponderosa Pines, wish to oppose the Vermont Alternative designated as a Heavy Rail System.

The environmental impact to our community would be drastic and require the sacrifice of property devaluation along with the other physical impacts as summarized.

Your recognition of this "letter of opposition" for our 96 unit condominium community or approximately 250 residents will be greatly appreciated.

Sincerely,

Board of Directors
Ponderosa Pines Homeowners Association

dgp



MARINERS PARK VILLAGE HOMEOWNERS ASSOCIATION
23202 SESAME ST. TORRANCE, CA 90502 (213) 549-8997

9 11 83
APR 11 1983

April 7, 1983

Mr. K.D. Steele
Caltrans District 7
120 So. Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

This correspondence is being directed to you in behalf of the Mariners Park Village Homeowners Association, located off Vermont Avenue at Coriander, Sesame and 232nd Streets.

After reviewing the Summary concerning the alternatives for transit improvements along the Harbor Freeway Corridor, we, the Board of Directors of Mariners Park Village, wish to oppose the Vermont Alternative designated as a Heavy Rail System.

The environmental impact to our community would be drastic and require the sacrifice of property devaluation along with the other physical impacts as summarized.

Also, attached are actual homeowner signatures supporting our opposition.

Your recognition of this 'letter of opposition' for our 393 unit condominium community or approximately 1000 residents will be greatly appreciated.

Sincerely,

Board of Directors
Mariners Park Village
Homeowners Association

encl:

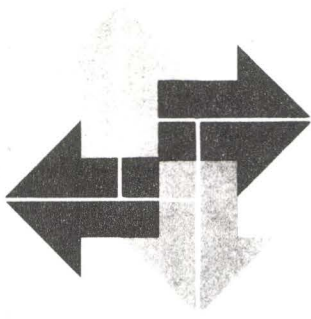
AS PROPERTY OWNERS OF MARINERS PARK VILLAGE CONDOMINIUM ASSOCIATION, A CONDOMINIUM COMMUNITY, LOCATED AT 23202 SESAME STREET, CORIANDER AND 232nd STREETS, OFF VERMONT AVENUE IN TORRANCE, THE SIGNATURES DOCUMENTED IN THIS PETITION REPRESENT OUR STRONG OPPOSITION TO THE PROPOSED HEAVY RAIL TRANSIT (HRT) ALTERNATIVE IN THE VERMONT AVENUE MEDIAN.

NAME

ADDRESS

<u>NAME</u>	<u>ADDRESS</u>
Larry L. Deo	23326 Sesame St. 19-H Torr. Ca 90502
Lesley S. Murray	23212 Sesame St. 6-H Torrance Ca 90502
W. M. H. H. H.	800 Coriander #212 Torrance, Ca 90502
Karen Buttrick	820 Coriander #244 Torrance Ca 90502
Alan Levin	23300 SESAME #36F TORRANCE, CA 90502
KESAE J. MAJIDOU	23320 SESAME ST #E TORRANCE CA 90502
J. P. Wilson	820 Coriander Jr. Ca 90502
Red Francisco	820 Coriander #24 B TOR CA 90502
VER & BENT SISON	23208 SESAME ST #7G TORRANCE, CA 90502
Beda + Mayic Cuenio	28208 Sesame St 7F Torrance CA 90502
Lorell Lee Maldoon	23320 Sesame St #E Torrance, CA 90502
Chick Mangajung	23318 Sesame St. Apt A Torrance CA 90502
Joseph P. P. P.	8201 Coriander Ca
Michael Tessier	23202 SESAME ST #4J TORRANCE CA 90502

APR 8 1983



SOUTHERN CALIFORNIA

TRANSPORTATION ACTION

VENTURA • LOS ANGELES • ORANGE • SAN BERNARDINO • RIVERSIDE • IMPERIAL
610 SO. MAIN STREET, SUITE 459, LOS ANGELES, CALIF. 90014 / (213) 628-3358

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President
El Segundo Employers Association

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Regional Director
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CLAY WARNOCK

Vice President, Marketing
Western Region
Union Oil Company of California

Chairman Emeritus

EDWARD T. TELFORD

Honorary Members

HAROLD A. BAILIN
JAMES A. STANLEY

April 7, 1983

K. D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

We have reviewed the I-110 Freeway - Draft Environmental Impact Statement and have found the document to be an important milestone in improving mobility in Southern California.

In this era of tight transportation revenues, it is essential that every available dollar be spent where it will do the most good. We believe the Bus/HOV alternatives listed in the Draft EIS will meet this method of cost-effective investment in public transportation and efficiently serve the Southland's communities. These lanes capitalize on the grid-like freeway network and allow transit lines to connect with freeway transit services, a system which SCTAC has long considered an economical means of meeting Southland transit needs.

I enclose SCTAC's brochure describing Freeway Express Transit. We believe this concept will be well served by the Bus/HOV alternatives described in the Draft Statement. We appreciate the opportunity to respond to the Draft EIS and look forward to further participation in the planning of the I-110 Transitway Project.

Sincerely,

Lila Cox
Chairman

JDO/LC/bk
encl.

Cy B
APR 11 1983

April 6, 1983

K. D. Steele, Chief
Caltrans District 7
Environmental Planning Branch
Los Angeles, CA 90012

Dear Mr. Steele:

SUBJECT: DRAFT EIS Harbor Freeway Corridor Transitway

The undersigned homeowner groups in the vicinity of Artesia and Vermont oppose Alternative Rail 6 (elevated in Vermont Avenue median) because of tremendous negative impact on residences along and near Vermont Avenue.

Before Transit Center development of any kind begins along the stretch of Caltrans property between the Harbor Freeway and Normandie Avenue, all steps needed to minimize impact on surrounding residential neighborhoods and the Willows wetlands must be taken.

Plans in the EIS for Park and Rides and Transit Stations in the 91/110 Interchange area are too sketchy for detailed public comment. We request notification prior to final plan development and the opportunity for public input at that time.

Sincerely,

CASSIDY TRACT CITIZENS COMMITTEE

Betty A Hinds
Betty Hinds, 17519 So. Berendo Ave., Gardena, 90248
Chairman

GARDENA BETTERMENT ASSOCIATION

Jerry Thomas, 17032 Komori Circle, Gardena, 90247
Chairman

Jerry A Thomas

PARKVIEW ESTATE TOWNHOUSE ASSOCIATION INCORPORATED

Nora Wong
Nora Wong - Board member, 17087 South Vermont Avenue, No. 140, Gardena 90247



APR 12 1983

Automobile Club of Southern California

HEADQUARTERS: 2601 SOUTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90008
MAILING: P. O. BOX 2890 TERMINAL ANNEX • LOS ANGELES, CALIFORNIA 90008

ROADWAY ENGINEERING DEPARTMENT
DAVID D. GRAY, IV, MANAGER
LOS ANGELES, CALIFORNIA

April 5, 1983

Mr. Kenneth D. Steele, Chief
California Department of Transportation
Environmental Planning & Citizen Participation Branch
120 South Spring Street
Los Angeles, California 90012


Dear Mr. Steele:


Thank you for the opportunity to comment on the I-110 Freeway Transitway Draft Environmental Impact Statement. We believe this is an excellent outline of alternatives for the Harbor Freeway Corridor. By providing this document, Caltrans has generated much needed discussion on improving the people-moving capacity of the I-110 facility.

We have reviewed the Draft EIS and suggest the following items be discussed further in the Final EIS:

- o Facility Need (III-15). The Draft EIS does an adequate job of describing the need for a transitway facility. More discussion on the role of north/south arterials in solving corridor problems would be helpful. The document notes these arterials (Broadway, Figueroa, Vermont, etc.) operate below capacity. Short trips should remain on the arterial network. How would improvements on the arterial system, such as improved traffic signal management, help conditions on the Harbor Freeway? 61
- o Traffic Flow Improvements. Even if a transitway facility is built, operational improvements will be required on I-110. Suggestions on possible improvements which could be done simultaneously with transitway construction should be included. 62
- o Mitigation of Construction Impacts. The Draft EIS provides little detail on how freeway flow will be affected by the construction of a transitway facility. We suggest that this item be addressed more fully since it is one of several critical factors for determining which alternative should be selected. 63
- o Freeway Express Transit (III-14). SCRTD has designed a freeway express trunk-line system in Milestone 9 for the Metro Rail Project. Data on a similar system for the I-110 64

corridor should be presented. Since, the SCAG Regional Transportation Plan will be completed shortly, data relevant to the I-110 project should also be included in the Final EIS.

- o Station Impacts (V-2). The station locations will impact surface street patterns. The section in the final report on this topic should detail more fully the costs to local government for street improvements. 

- o Downtown Interface. While the project limits are outside the Los Angeles CBD, more detail on this portion of the project should be provided. In addition to the projects discussed in the Draft EIS, SCRTD has proposed a shuttle bus to connect portions of the Los Angeles CBD with the proposed Metro Rail stations at Union Station and at Seventh and Flower Streets. A report prepared for the Los Angeles Transportation Task Force suggests terminals for freeway transit be located at Union Station and at Eighth and Figueroa. Such options should be considered in the Final I-110 Plan. 

Preferred Alternatives

We believe an HOV lane combined with operational improvements to the existing I-110 facility is the optimal strategy to pursue. Among the alternatives presented in the Draft EIS, Number 7 (III-21) -- at-grade bus/HOV lane in the I-110 median between Los Angeles CBD and Route 91 meets several criteria we judge important:

- o Cost (III-73). The Draft EIS comments that with large capacity buses (96 passengers), none of the alternatives exhibit 1995 patronage high enough to justify investment in rail transit. In addition, capital and annual operating costs as well as cost per passenger mile are lower for the bus alternatives.

- o Funding (III-85). Local transit funding can be stretched further with a bus/HOV facility than with a rail transit facility. The Federal Highway Trust Fund would use 92 percent of project cost for a bus/HOV lane versus 75 percent federal funding for a rail transit project. It would be useful in the Final EIS to have a matrix showing the dollar amount and percentage required from federal, state and local funding sources to build and operate each facility.

- o Flexibility. Alternative 7 was chosen among the bus alternatives because construction at-grade in the median would provide future operational flexibility within the I-110 corridor. A more efficient technology could be developed later which could be incorporated into the freeway without incurring the cost of removing elevated structures. To lower capital cost, we suggest Caltrans consider in the

Mr. Kenneth D. Steele
April 5, 1983
Page 3

Final EIS the merits of a peak directional bus/HOV lane at-grade in the I-110 median. In addition, joint development, rehabilitation, etc. along the corridor could become part of a widening project.

We hope our comments prove helpful in the preparation of a Final EIS and selection of a project. We look forward to working with you on this important issue in the future.

Sincerely,



James D. Ortner, PhD
Principal Scientist

1b

pc: Rick Richmond, Executive Director, LACTC
Mark Pisano, Executive Director, SCAG
Donald Howery, Director, LADOT

Morton

January 10, 1983

K.D. Steele, Chief
CALTRANS District 07
Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

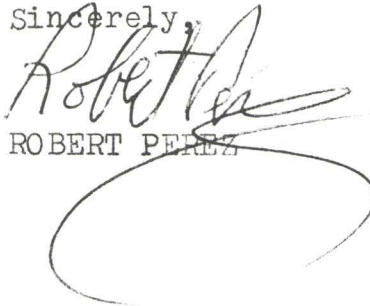
Dear Mr. Steele,

This letter is in response to an article, which appeared in the Los Angeles Herald Examiner on January 7, 1983. The article dealt with a CALTRANS proposal to construct transitway facilities in the Harbor Freeway (Interstate 110) Corridor between San Pedro and the Los Angeles Central Business District.

As a concern citizen for rapid transit in Los Angeles, I would like to say that the Los Angeles area is in dire need of a true rapid transit system. I strongly feel that the construction of transitway facilities in the Harbor Freeway Corridor is a step in the right direction for the city of Los Angeles, as far as rapid transit is concerned. I think that such a project would help to alleviate greatly the traffic burden that presently exists in that corridor. Also, I feel that a light rail line constructed on the median lanes of the Harbor Freeway Corridor

would be the best and most suitable form of transportation for this particular area. In conclusion, I would like to see this proposed transportation project become a reality; for I feel that as the city of Los Angeles enters the decade of the 1980's, it will find itself, more than ever, obligated to provide it's citizens a true rapid transit system.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert Perez", written in black ink. The signature is fluid and somewhat stylized, with a large loop at the end.

ROBERT PEREZ

January 11, 1983

K. J. Steele Chief
CALTRANS District 07
Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

Dear Mr. Steele:

Please read my Examiner news clipping and Resume.

As the news clipping portrays, I don't think you should extend the Harbor Busway beyond the San Diego Freeway, but should use the extra construction monies to extend leads up the Hollywood Freeway, and Santa Monica Freeway corridors.

A rule of thumb is to never extend a transportation corridor to nowhere, especially when it is the Ocean. Feeder buses would gather traffic from the whole harbor region and interchange passengers to a large parking terminal at the Harbor & San Diego Freeways interchange. Never let a trunk system compete with a feeder system is a very important rule in transportation. I think the competitiveness of Metropolitan Transit Authority (NY) surface buses with the subways has proven that it doesn't work, and it never will work.

Later, when the Century and Pasadena Freeways are completed; all that will remain to complete a Busway Rapid Transit System for the Los Angeles Metropolitan Region are the Santa Monica Freeway Busway to the San Diego Freeway interchange, and the Hollywood Freeway Busway to Ventura Freeway interchange.

Due to extreme potential traffic from San Fernando Valley into the Los Angeles Basin, it would be wise to make three (3-5 mile) extensions within the San Fernando Valley from the Hollywood/Ventura Freeways Interchange, east and west along the Ventura Freeway, and north along the continued Hollywood Freeway.

I someday expect to see the Ventura Freeway and Harbor/San Diego Interchanges paralleling the people movements through Grand Central Station in New York City. I have no idea how the Union Station in Downtown Los Angeles will handle the multitudes of people that will be descending upon that single point.

Sincerely, *Dennis Ferguson*
Dennis Ferguson
4782 Academy Street
Los Angeles, California 90032
Telephone (213) 225-0676

DAL CREIGHTON
Alma 7
Long Beach
CA 90805

RECEIVED
JAN 11 1983

12 January 1983

CALTRANS Dist 7
Enviromental Planning
120 S Spring St
Los Angeles, CA 90012

The proposed route and the purpose of the transit spending does not appear to be disguised.

It seems not to be so much forthe benefit of the workers as for the benefit of the industrial complex in San Pedro

It does not appear your buffer, Mr Ronald Kasinski, would be of any purpose in the matter.

when is it likely that CALTRANS will furnish something useful to more people in the L.A. area, rather than to more legal entities and the wealthy?

Sincerely,



JAN 25 1983
REC'D ENV. PLAN '83

127 Roswell Ave
Long Beach, CA 90803
January 23, 1983

Dear Mr Steele:

I am writing in reply to the Impact statement for the 110 Harbor Freeway Corridor. Any transportation system for the Los Angeles Basin would be fantastic. The Harbor Freeway because of the timing signals seems to have a better rush hour flow than the 405. For several years I had to commute to UCLA. It took less time to go to Westwood from Long Beach via the Harbor to Santa Monica than to drive the San Diego 405 parking lot even though it was 12 miles further. Today I have an outside sales job but my office was in Century City. That 33 mile trip via 405 takes 1 to 2 hours commute time during hrs 6-9 AM or 3-7 PM. I have tried a Van Pool but because my hours and work necessitate different times in and out of the office that wasn't convenient. The best route still is the Harbor to Santa Monica with travel time of 1 to 1 1/2 hours at the worst. The problem with 5 seems to be each curve in the freeway slows traffic, where Artesia feeds in, and anywhere the off-ramp for the airport goes to the aerospace firms or Hawthorne and

El Segundo. I could and would use a train system that ran every 15 minutes because that could accommodate any time schedule without long wait. Hopefully the Harbor Corridor will be the start of a system in the Los Angeles Basin.

Sincerely,
Sondra Johnson

3-8-83

CalTrans Environmental Planning Branch,

120 So Spring St.

Los Angeles, Ca 90012

Attn: K. D. Steele

I can not attend the public hearings on a proposal to construct transitway facilities in the Harbor Freeway but want to express my thoughts in favor of such a proposal.

I have traveled the Harbor Freeway from downtown LA to the San Pedro - Balboa Verdes area since the mid 1950's. I believe the use of this right of way using rail type facilities with back and ride lots would be an asset to the region and would have lots of support by the thousands of daily drivers on the freeway.

I'm in favor of the proposed use and feel the communities along the route would be supportive.

Sincerely,

Joseph D. Henriksen

14 Coach Rd. XI-136

Rancho Balboa Verdes, Cal, 90274.

Robert Kanters

256 S. Robertson Blvd; Beverly Hills, Calif, USA — 90211; (213) 659.4210

14 February 1983

REC'D ENV. PLAN FEB 14 1983

Caltrans Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

Gentlemen,

Re: Interstate 710 Corridor Proposals

Since I won't be able to attend either of the public hearings, please accept these comments about the project. I am all in favor of doing something in this corridor, however some points must be kept in mind to assure that the final result is effective.

First, the line whether rail or bus must connect to something. At the north end, would someone be able to board it directly from the train? At the south end, would it be possible to connect to other forms of transportation, such as a boat to Catalina or water taxis around the harbor? I realize that this point may be very simple but at this moment RTD does not offer one bus from the Wilshire corridor to Union Station!

Second, the cost to the passenger must be less than driving. Another simple point but, even with Amtrak's special fare for the winter it is still cheaper for me to drive myself (door to door) in my 9 mile per gallon car to San Diego!

Third, security. The unspeakable must be spoken. You are proposing a rail line through one of the most dangerous areas in California. Even the names of the stops bring memories of unspeakable horrors to anyone who has lived in Los Angeles for any length of time. If you don't include some plan for solid security no one will ride it. My retired neighbors must be assured that when they arrive at Ports o' Call they will have money to buy lunch!

Fourth, I think that you should use Vermont Ave. for the rail guideway. It would give the area a much needed shot in the arm as prospective customers rode by the businesses and got off to buy. Note what the San Diego Trolley has done for its route. The Harbor freeway is a bad choice for any additional use. We need every inch just for the cars.

Thank you very much for considering my opinions. I have been a resident of Los Angeles since 1955 and a resident of Southern California since 1937. The family business was founded in 1905 here. We have watched many projects die because of ill planning and would very much like to see some comprehensive planning go into new transit projects.

Sincerely,


Robert Kanters

337-C Rennie Ave
Venice, Ca. 90291
Feb 13, 1983

Gentlemen:

FEB 15 1983

Concerning I-110 Harbor Freeway
Corridor Transit Facilities.

I have examined the ad in the
newspaper re the above proposed Bus/HOV
Transitway.

After having spent 2 hours on the
bus going to Costa O'Call, I would
welcome a shorter route as I would
like to return there and even continue
on to Long Beach in a shorter time.

All my travel is dependent on
bus transportation and while riding
the freeways I can see the possibilities
of transitways there. It would benefit
commuters and pleasure travellers alike.

Thank you,

Pat Hubley

EPB
FEB 1983

K.O. STEEBE
C/O CALTRANS
120 S. SPRING ST.
LA CA 90012

DEAR MR STEEBE:

I AM RESPONDING TO THE AD CALTRANS PUBLISHED IN A RECENT
HERALD-EXAMINER ISSUE.

I WISH TO MAKE MY VOICE HEARD FOR A RAIL LINK BETWEEN
SAN ANTONIO & L.A. THE ADVANTAGES ARE MANY, AMONGST THEM
ARE: A.) DECREASED AUTO USAGE B.) INCREASED TRANSIT CAPACITY
C.) DECREASED TRAVEL TIME (VS. AUTO COMMUTERS.)
D.) A CHANCE TO TIE INTO THE FORTHCOMING METRO RAIL SYSTEM THAT
SCTD IS IMPLEMENTING.

I AM AGAINST OPTION A. (BUS/HOV TRANSITWAY) ON YOUR
LIST AS IT DOES LITTLE TO DISCOURAGE AUTO DEPENDENCY &
THE AMOUNT OF CAR POOLERS ISN'T VERY MUCH WHEN COMPARED
TO THE OVERALL TRAFFIC VOLUME. I ALSO OBJECT TO
OPTION C OF YOUR LIST AS IT IS THE "USING A BAND-AID
WHERE A TORNIQUET SHOULD BE USED." TYPE OF REPAIR.

I FEEL THAT A PROPERLY ENGINEERED & IMPLEMENTED

(P.2)

RAILWAY SYSTEM WILL DO A GREAT AMOUNT OF GOOD
IN DECREASING THE AREA'S AUTO-DEPENDENCY, INCREASING
THE BASIN'S AIR QUALITY & PROVIDING A SPEEDY, EFFICIENT
TRANSIT SERVICE FOR MILLIONS OF COMMUTERS, SHOPPERS &
OTHER FOLK IN THE LA - SAN PEDRO CORRIDOR.

HOPING TO HEAR FROM YOU SOONEST,



STAN TELCZAN

599 N. MONTOR

PASADENA CA 91106

Caltrans E.P.B.

966f Elrepetto

Feb. 20 198

H.D. Steele
120 S. Spring St.
Los Angeles 90012 CA.

REC'D ENV. P

I cannot attend your hearings, but want to propose an approach to the dilemma of public transportation. Recently I read a speech by a Mr. Vincente. It struck me as a very appropriate and significant statement and it could be applied to our progress as a mobil society. Public transportation is and must be a viable force in the generations to come.

This is an excerpt from that speech; "In our word drenched society we need men of action and vision, rhetoric will not solve societys ills but vision coupled with action will." This prompts the following letter and I hope is a step toward a different and more flexible transportation sevice.

I saw a highway train used by a Village in Wis. that had four units coupled together using a steering undercarriage known as Tru-Trak. They negotiated street corners easily. I dont believe it is to far-fetched to say bus transportation is almost as rigid as train transportation. It is not very flexible so is not efficient. The buses used now are not feasible most of each day as they are adapted to average daily use. Using the concept of a train typ.e system will eliminate the rigid size to a more and flexible use.

Transportation as it is being promoted today is falling behind at a rate which if continued will be impossible to maintain, because of the costs and depreciation factors. A \$100,000.00 bus is obsolete in less than years, and ten years is not to long for amortization of any public project.

I believe and have always believed transportation via bus is the best way to move people using the existing avenues of traffic. Trains are too rigid in their use of tracks. The need for extra land is a real cost and hard to get. But the idea of train-type transportation is a very valid and and can be modernized to such an extent that present day highways would be a part of their use.

Tru=Trak is an under-earriage which makes possible the turning of four wheels in such a fashion that any number of units can negotiate any turn a single unit can. The concept is so simple that any alterations needed are just a matter of choice. The use of such an alternative to costly condemnation and legal implications is ~~not~~ not hard to visualize.

Using a minimum amount of funds for R&D would show the feasibility of this type of people movement. Rigid modes mean more and larger space for car parking, etc. The train type system would place the whole freeway system within the realm of immediate use.

I do hope you feel as I do, that we can no longer spend money to provide services for some part of the public only. Promoting an outdated and costly system with a short term solution is no way of providing bus or train service to the people of Los Angeles whom deserve a means of using the many advantages provided by the city in cultural and recreational programs. Only a visionary and flexible system will do now and in years to come.

cc.
wbw
saw

Sincerely,
Shirlee a. Wolf
866f Elrepto Dr.
Monterey Park 01754
Ca.

T.A. NELSON, P.E.
CONSULTING ENGINEER
TRANSPORTATION CONSULTANT

2563 Dearborn Dr., Los Angeles, CA 90068 (213) 462-5500

February 28, 1983

MAR 3 1983

Mr. K. D. Steele, Chief
Caltrans
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, CA 90012

Dear Mr. Steele:

The following comments are presented based upon a brief review of the Draft Environmental Impact Statement on Transit in the Harbor Freeway Corridor.

The appropriate mode. There are several objectives to attain in selecting a transportation mode. In this instance relief of traffic congestion is of prime importance. One way to accomplish it is by attracting the motorists to a superior system -- greater speed, reliability, safety, and comfort. Rail possesses these attributes more than any other ground transportation system during peak periods. The public recognizes this, as shown by the Caltrans survey taken in August, 1981, where respondents gave the highest percentage vote to rail.

Total capital costs for rail alternatives are obviously going to be higher than for nonrail, but due to rail's greater passenger-carrying capacity and propensity to attract riders, capital cost per passenger-mile would provide a more equitable comparison. Also, because of these factors, higher operating revenues would be expected than from a bus system, even with buses running on a dedicated right-of-way. Thus, the nearly equal operating revenues for bus and rail shown in Table III-22 should be questioned. Other than the TSM alternative, rail has the greatest energy saving, but more importantly, dependency on petroleum fuel is reduced. To serve additional electrical energy requirements, the Los Angeles Department of Water and Power's new generating plants, Intermountain and White Pine, will be coal-fired.

The appropriate operational mode. Ideally, the rail line would be constructed to be compatible with Metro Rail for flexibility in equipment usage and through-routing, as well as expandability in capacity (Appendix I, page 6, omits this advantage of HRT). Realistically, it is doubtful that sufficient funding could be found to permit simultaneous construction of heavy rail along the Harbor Freeway Corridor and the Wilshire starter line.

It is disappointing that the possibility of LRT as an initial system was eliminated from the Vermont Avenue alignment leaving only the most expensive mode (HRT) to compete for selection with LRT and ICTS on the freeway route. I fail to visualize a

67

T.A. NELSON, P.E.
CONSULTING ENGINEER
TRANSPORTATION CONSULTANT
2563 Dearborn Dr., Los Angeles, CA 90068 (213) 462-5500

(K. D. Steele, Harbor Freeway EIS, Feb. 28, 1983, page 2)

significant roller-coaster effect developing from a few undercrossings at the more heavily traveled cross streets. Also, building the line in open cut, either partially or wholly below the adjacent surface, south of Gage Avenue could help to alleviate some environmental objections.

Regardless of the type of rail system and alignment chosen, the supporting structures, clearances, grades, curve radii, etc., should be designed to allow future conversion for compatibility with Metro Rail. Metropolitan Los Angeles should not be permanently subjected to a hodgepodge of technologies and track gauges.

The appropriate location. As shown in Figure III-14, the market areas for the Harbor Freeway Corridor and the proposed Los Angeles - Long Beach light rail line overlap. Since the likelihood of building the latter seems fairly good, locating the Harbor Freeway Corridor route on Vermont Avenue would aid, to some extent, in spreading apart the two service areas. (68)

Table III-13 shows patronage volumes at stations, varying according to the transit mode. HRT produces the highest volumes at all stations except at the Coliseum (why would less patrons use the Vermont Avenue alignment station at the Coliseum than the Harbor Freeway station at the Coliseum?). Since the study was based on corridor projections, no figures compare patronage for parallel routes within the corridor. I would conjecture that the commercial/residential developments, both present and potential, would generate greater transit volumes along Vermont Avenue than along the freeway. (69)

Sincerely,

T. A. Nelson

January 9, 1983

Peter Wittenberg
270 West 282nd Street
Torrance, CA 90503

Caltrans
Citizen Participation Section
120 South Spring Street
Los Angeles, CA 90012

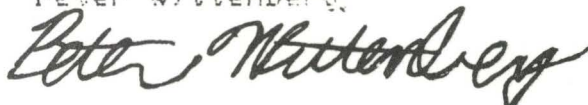
Dear Caltrans:

I am writing this letter on two subjects: (1) Public transportation along the Harbor Freeway and (2) Rush hour traffic control at freeway entrances.

As to public transportation along the Harbor Freeway, I find that most of the people I know near Sepulveda and Vermont do not work downtown, but actually work near the airport, taking 405 to work from the Harbor freeway instead of going all the way downtown. The airport area usually has tougher traffic during rush hour than downtown from my observations, admittedly limited ones. I would like public transportation to the El Segundo-LAX area more than I would transportation downtown. If you take a poll of people in my community, I think you will find this to be true of most people. If there is public transport downtown, I would not use it very often as I don't have much reason to go downtown but I would prefer a rail system on the Harbor Freeway. I would be opposed and vehemently protest rail along Vermont Avenue as that would change the character of my neighborhood and increase noise from Vermont Avenue above tolerable levels. On the Harbor Freeway, the extra noise would not be noticed even though I live only about 75 yards from the freeway.

The second matter I wish to discuss is the timing of the traffic control lights on the Harbor Freeway entrance ramps. I believe the purpose of the lights to be to ensure an even flow of cars entering the freeway during dense traffic conditions to avoid traffic tieups. If this is true, then there is no point in turning the lights on when traffic is moving at 55 mph. In fact, once a car is stopped by the lights, it cannot get up to freeway speeds because the entrance ramps after the lights are too short. This in fact creates a dangerous situation, one which may cause Caltrans liability in an accident. I would suggest that the traffic control lights along the stretch of the Harbor Freeway from Gaffey Street to Carson Street be discontinued in the interests of safety. This would not slow traffic as it always moves at 55 mph in those areas. Following removal of the lights, the hours of operation could be shortened so they only operate between 7:45 and 8:15, the heaviest traffic hours I've seen or they could be controlled by a velocity monitor imbedded in the freeway near the entrance ramp. Please respond telling me why the lights on entrance ramps are timed the way they are.

Thanks,
Peter Wittenberg,



MAR 11 1983

Whitcomb Surplus Lines Brokers, Inc.

3435 Wilshire Boulevard
Los Angeles, California 90010
Telephone (213) 385-5265
Telex 67-3547

March 9, 1983

DEPARTMENT OF TRANSPORTATION
Cal-Trans Environment Planning Branch
120 South Spring Street
Los Angeles, CA 90012

Attn: K. D. Steele

RE: HARBOR FREEWAY TRANSITWAY
17-LA-110 0.9/23.0

Dear K. D. Steele

In response to a letter of February 18, 1983, I am absolutely opposed to any utilization of the Harbor Freeway that would cutback on its use by the general public in automobiles. That is, if your plan is to allocate one freeway lane for the exclusive use of buses, you can kindly forget it. We, citizens, taxpayers, and motorists of this state, paid for that freeway and it belongs to us, not to Caltrans and not the bus company.

We have seen your ideas in action before such as the stop signs on the on-ramps and information signs on the Santa Monica freeway and, if we had the money that you spent on that, we can fix the potholes on the streets rather than increase the gasoline taxes.

Thank you very much,


RUDOLPH F. WHITCOMB

RFW:la

PS

If you proceed with the project that involve allocating one freeway lane for the use of buses at the expense of taxpayers, I will move to enjoin you in court from such a special interest.



TODD

PACIFIC SHIPYARDS CORPORATION

EPB
MAR 1 1983

Los Angeles Division: P. O. Box 231, San Pedro, California 90733-0231 Tel. 832-3361 (Area Code 213)

March 9, 1983

Mr. K. D. Steele, Chief
CALTRANS
Environmental Planning &
Citizen Participation Branch
120 South Spring Street
Los Angeles, California 90012

Subject: Draft EIR/EIS
Interstate 110 Freeway Transit
Harbor Freeway Corridor
Comments on

Reference: (a) POLA FINAL EIR, KNOLL HILL DEVELOPMENT,
LOS ANGELES HARBOR (June 1978)

Enclosures: (1) "Alternate No. 1 Route Map" (marked up)
(2) "Alternate No. 2 Route Map" (marked up)

Dear Mr. Steele:

As an affected business, we, of course, have a serious concern with several aspects of the proposed transitway construction in the San Pedro area. We also feel that our concerns are the same as those of many in the greater area community. Our shipyard provides a direct livelihood for approximately 5,000 families and is an indirect source of income to manyfold that number. Our shipyard is also an important facility in our country's National Defense, providing for the new construction of a significant portion of our Navy's warships, as well as a base for their maintenance. And, last but not least, our shipyard contributes to making the greater Los Angeles-Long Beach Ports a safe harbor in attracting maritime trading to this area by providing the necessary dry docking and repair facilities for merchant ships at these ports on their trading routes. 71

Our real concern is that the study recognizes our shipyard only as it existed in the past - not as it exists today, or as it will exist in the immediately foreseeable future. The impact of a transitway from the Channel Street/John S. Gibson Blvd. station along existing Pacific Avenue and Front Street (highlighted in "yellow" on enclosure (1)) is not merely on employee parking spaces (IV-62) - which we would gladly exchange for employee transit commuting services - but in present as well as proposed (IV-35) industrial facilities. The affected area at the intersection of Pacific Avenue and Front Street would impact the Shiplift Facility presently under construction. The affected area along Front Street at the Vincent Thomas Bridge end is a steel plate handling yard.

XI-146

TODD PACIFIC SHIPYARDS CORPORATION
(LOS ANGELES DIVISION)

CALTRANS

-2-

March 9, 1983

Being a waterfront dependent facility, there is no meaning in our business to "...relocation assistance..." (IV-36). Bounded by the water and the Front and Pacific roadways, in recent years our expansion has been to either side. The limited amount of growth area in these directions has been exhausted. Our planned future facilities expansion - expansion that is necessary to maintain the shipyard as a viable building and repair shipyard at the level demanded by present naval construction and repair and the maritime fleet, is of necessity shoreward. Our continued investment in our facility and future planning has been predicated on the realignment of Front Street (marked on enclosure (1), and described in reference (a)).

The transitway construction shown on enclosure (1) rerouted to follow the proposed realignment of Front Street would mitigate the otherwise unsolvable impacts of that proposed route.

The alternate route further shoreward (highlighted in "yellow" on enclosure (2)) would similarly avoid the impact of the route shown on enclosure (1). Though the costs of this route's overpass to the Vincent Thomas Bridge is initially costlier than the route on enclosure (1), this expense is insignificant to the overall economic impact cost of the route on enclosure (1).

An elevated transitway for the routes following the Pacific and Front roadways is strongly recommended to reduce the safety hazard to crossing traffic, and to the bounded properties (free access for fire and emergency vehicle transit).

We feel that consideration should be given an alternate transitway route following the existing freeway approach to the Vincent Thomas Bridge (marked in "purple" on enclosure (2)). This route would have the least economic impact in the affected area.

While not of immediate concern to us, we cannot help but wonder why, if the transitway route is to continue beyond the Harbor Freeway terminus, it wouldn't be logical to route it out Gaffey Street (subway) to the Point areas. Traffic indicates that's where the commuters come-from and go-to. Having the parking terminus at the Ports O' Call seems inappropriate, and will create a cross-town traffic problem.

We also strongly recommend feeder bus lines. San Pedro has been without a cross city bus line too long.



L. M. Thorell
Vice President and
General Manager

TODD PACIFIC SHIPYARDS CORPORATION
(LOS ANGELES DIVISION)

CALTRANS

-3-

March 9, 1983

cc w/encls: Ernest L. "Roy" Perry
Executive Director, POLA
425 S. Palos Verdes St.
P.O. Box 151
San Pedro, CA 90733

Joan Milke Flores
Councilwoman, 15th District
1052 W. Sixth St., Suite 432
Los Angeles, CA 90017

The Honorable Robert Beverly
27th District, California State Senate
1611 S. Pacific Coast Hwy., Room 102
Redondo Beach, CA 90277

The Honorable Richard E. Floyd
California State Assembly
16921 S. Western Ave., Suite 220
Gardena, CA 90247

The Honorable Gerald N. Felando
California State Assembly
1514 Cabrillo Ave.,
Torrance, CA 90501

729 Onarga Avenue
Los Angeles, Calif. 90042
March 13, 1983

Caltrans Environmental Planning Unit
120 South Spring Street
Los Angeles, Calif. 90012

Attention: Mr. K. D. Steele

Dear Mr. Steele:

I have reviewed the "Draft Environmental Impact Statement, Interstate 110 Freeway Transit, Harbor Freeway Corridor", Report No. FWHA-CA-CA-EIS-82-o4-D.

I find a number of serious omissions that make comparison of the alternative routes difficult. I enumerate several of these below.

1. Number of Stations, Speeds, Costs.

Table III-4, "Alternative Operational Characteristics", page III-7 omits:

- (a) The number of stations in each alternative.
- (b) The distance between each pair of stations.
- (c) The average speed between each pair of stations, including station stop time.
- (d) The estimated cost of each station.
- (e) The estimated cost per mile of right-of-way structure.

2. Harbor Freeway Traffic Load.

1. Page I-9, paragraph D says "A primary way of reducing energy use is to attain a higher average home to work trip vehicle occupancy.." This omits:
 - (a) The effect of staggering work hours in adjacent businesses, thereby reducing peak traffic.
 - (b) The effect of shifting trucks to off-peak hours.
2. Figure II-8 opposite page II-15, shows the "Harbor Freeway Corridor Characteristics", current and as projected for 1995.
 - (a) The chart omits any statement as to whether the loads shown are averages for all days of the year or whether they are for particular days.
 - (b) The "1995 Projected Congestion" does not state the basic assumptions from which these loads were calculated.

3. Effect on Current Residents.

Page I-7 says "...45% of the corridor population is either under 18 years of age or over 65, one third of the population is at poverty level and 32% of the occupied units house a family with no automobile..transportation to jobs, shopping and services becomes an important issue.."

Page II-6 says "The income of the people in the study area is substantially below the county median..The unemployment rate is substantially higher.. Many receive some form of public assistance."

The bottom of page II-10 says "Between 1970 and 1977 the number of housing units in the south central and southeast districts of Los Angeles declined by 28,552."

And, page I-11 paragraph H says "Continued growth in the Los Angeles Central Business District will cause increased congestion and delay.. (See Figure I-2)." Figure I-2, "Major Development Areas in Downtown L.A." shows new office buildings, hotels and luxury condos in Bunker Hill and elsewhere.

In Bunker Hill, the Community Redevelopment Agency destroyed 4000 moderate income residences while subsidizing wealthy hotel-owners, office buildings, banks, and oil companies with tax-money. Similarly, CRA destroyed a Japanese neighborhood in Little Tokyo. CRA has never issued an Annual Report accounting to the public for the many millions it has spent.

Some questions which the Draft Report does not answer:

- (a) How will low-income residents now living in the corridor area benefit from subsidies to costly CBD hotels, office-buildings, condos?
- (b) Would a halt to subsidy to wealthy CBD property-owners, some of whom are foreign nationals, reduce projected 1990 freeway loads?
- (c) Would the corridor residents be better off if a portion of CRA's subsidies to wealthy property-owners were used to rebuild the thousands of dwellings CRA has destroyed?

I would appreciate a copy ^{of} the final published report with these comments together with your reply.

Sincerely yours,

Samuel Schiffer

Samuel Schiffer

cc: U.S. Senator William Proxmire
Senator David Roberti, Sacramento, Calif.
Hon. E. Bernardi, L.A. City Council
Mr. F. Fernandez, Community Development Coalition

Eng 17
MAR 15 1983

March 12, 1983

Ben R. Quijada
3445 Atlantic Street
Los Angeles, California
90023
(213) 262-7950

Mr. Ken Steele
Cal-Trans
Department of Transportation
120 South Spring Street
Los Angeles, California
90012

Re: Mass Transit Hearings

Gentlemen,

I have found it imperative that I, as a citizen of this community inject some of my own personal opinions regarding this issue. While I do not in any way intend to jeopardize the already made plans of this development, I do however feel some important aspects of Mass Transit Development have been overlooked and maybe ignored.

Cal-Trans has achieved the highest regard from the nation as the development and maintenance of this state highway system, I feel that for that it (Cal-Trans) and its staff should be commended, however, Don't you think that duplicating other modes of transportation is getting a little repetitious? Namely, Many of today's main Southern California Freeways already are flanked by major railroad thoroughfares coming into the area. The proposal for the Harbor Corridor is also duplication of already existing bus lines, the Wilshire Corridor, I heard is being considered to be put underground, again repetitious of the East Coast Transit System, a railroad type of application is I'm sure being applied also to the designing of your proposal, which I feel is defeating the very idea of Mass Transportation, Do people really weigh as much as say 'a loaded boxcar' to warrant such an outdated mode of transportation? I'm having a most difficult time thinking that underground is the way to achieve an effective system, as opposed to an above-ground design,

again repeating the East Coast with all its bad weather, horrendous infestation and urban, suburban problems.

Frankly, I don't think California is doomed to the ocean, but I wouldn't want to be underground when the "Big One" hits, it would seem to me and your staff that California is prone to earthquakes, the underground idea is, to me, creating a whole mess of problems for the State of California and should be abandoned. Can't there be some way the State of California can build an aboveground system the way it built the Freeway System? ~~Also with~~

After getting a glimpse of the Harbor Corridor Proposal and the planned stops, why would anyone within a say 'ten mile radius' of the City want to take a ride on the New Transit System? I mean, for me, the bus has always serviced my needs to and from Downtown effectively, better now than before with the busses running more frequently, The Growth of Los Angeles will be attracting to most suburbanites and there is the reason, the nucleus, the heart and soul of an effective, well thought, innovative, ingenious, proposal to Mass Transportation.

Let's build a system that will help this City rather than cripple it like so many have because of poor leadership and insight into population growth and economic development, look at all the other cities of the country, tell me 'that people aren't moving out of the city' into the suburban areas, tell me 'that private industry ~~is~~ is 'nt always looking for new facilities', tell me 'that those people in their cars during rush hour traffic live within a ten or even twenty mile radius of Los Angeles' just who is going to benefit from your proposals?

With all the money that has already gone into your proposals, all the time taken by staff, political leaders, and planning committees, all the money that will be coming in from various State, Local, And Federal Government agencies, with all that, Can't a well defined, realistic, futuristic, accurate, proposal be presented to the people of Southern California? It's time the whole area as

as a whole get together and unanimously approve a system that will set precedent and notify the Country that California has got it's _____ together. With all of the ballot measures, peviculy rejected by the people of California it's time that we , together, develope some kind of concensus or mandate describing that which the people of California need in the way of Transpottation.

I hope that I have given to Cal-trans and the Department of Transportation some kind of idea to go on and become successful in achieving Mass Transpotation in the Southern California area. While I don't consider dreams to be an effective way of achiveing reality, they do prenent some pretty good ideas, maybe if dreams did come true, we, would not be in the position we are in today.

Sincerely,

Ben Rodriguez Quijada

Ben Rodriguez Quijada

CC

President Ronald Reagan
Governor George Deukmejian
Mr. Ken Steele (Cal-Trans)
Councilman Art Snyder

lyps

LAW OFFICES

BREIDENBACH, SWAINSTON, YOKAITIS & CRISPO

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

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ORANGE COUNTY OFFICE:
550 NEWPORT CENTER DRIVE, SUITE 900
NEWPORT BEACH, CALIFORNIA 92660-7066
TELEPHONE (714) 640-1560

PLEASE REPLY TO

LOS ANGELES OFFICE

March 18, 1983

Caltrans
Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

Attention: K.D. Steele

RE: Harbor Freeway Corridor

Caltrans:

I have been a commuter traversing the entire length of the Harbor Freeway on a daily basis for the last eight years. My occupation also calls for me to drive other freeways in this area and I am, therefore, personally knowledgeable regarding the traffic flow and traffic volume on the freeways in the Los Angeles area, particularly the Harbor Freeway.

The Harbor Freeway, both in the morning and in the evening rush hour periods, is far less congested than is the San Diego Freeway in either direction. In the morning rush hour, there is seldom any congestion on the Harbor Freeway northbound until one reaches Century or Manchester Boulevards. At that point, even on a congested morning, the downtown area is reached in 12 - 15 minutes. There is rarely any congestion encountered in the morning hours south of Imperial Highway.

Current construction operations in connection with the Artesia Freeway Interchange have caused congestion which did not previously exist. Prior to such construction, there was seldom any congestion southbound during the evening

Caltrans
Environmental Planning Branch

March 18, 1983

Page 2.

rush hour south of Imperial Highway or El Segundo Boulevard. Rarely, unless there is an accident, is there any congestion, either north or southbound, south of the San Diego Freeway.

For these reasons, I suggest that you follow Alternative "D" and "do nothing" to interfere with the current flow of traffic on the Harbor Freeway. I would particularly object to Alternative "A", as Bus/High Occupancy Vehicle lanes have proven to be failures on other freeways, and certainly are not needed on the Harbor Freeway. If a rail system is contemplated, I strongly suggest it be constructed on Vermont Avenue, rather than on the Harbor Freeway which would create a dangerous hazard and inconvenience for several years and, without doubt, be productive of accidents, injuries and loss of life all of which would be totally unwarranted.

The Harbor Freeway has several alternative north-south routes available, i.e. Figueroa Street, Broadway, etc., to motorists in the event the freeway becomes congested. In my experience, the San Diego Freeway has greater traffic volume and far, far more congestion (whether the direction be north or south, or the time be morning or evening) than the Harbor. The San Diego has no practical alternate routes for the frustrated commuter to use.

In conclusion, compared to other freeways, the Harbor does not present a significant commuting problem. Your efforts would be better directed toward solving the far greater problems which exist in connection with traversing the San Diego Freeway in the area between the Long Beach and Santa Monica Freeways.

Very truly yours,



DONALD A. WAY

DAW:rmt

EPR
March 30, 1983

March 30, 1983

Caltrans Environmental Planning Branch
120 South Spring Street
Los Angeles, California 90012

Attention: K. D. Steele

Gentlemen:

As a life-long resident of Los Angeles who remembers rail transit, I would like to voice my support in favor of a rail guideway on the Harbor Freeway with feeder bus lines to stations along the way. This choice is more expensive, but it is a much faster way to move people around.

I love Los Angeles and would spend more time in the city, but the thought of taking the 810 bus or driving into town stops me from doing so. There are many people like me who feel the same way. It is time that we hit the bullet and really opted for a "rapid" transit system.

Thank you for considering my opinion.

Very truly yours,


Ms. Regina Greinger

3644 S. Parker Street
San Pedro, California 90731

RESPONSE TO GERALD N. FELANDO

1. The comments included in Mr. L. M. Thorell's (Todd Shipyard) letter of March 9, 1983 were evaluated and considered during the selection process.

RESPONSE TO DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

2. Potential impacts related to the transit stations and their accompanying parking facilities, on residential areas in the vicinity of these facilities, are addressed in Chapter IV, Section M (Station and Parking Impacts). These impacts will be associated with changes in traffic and parking patterns in the residential areas.

Demand for parking for the recommended alternative (Bus/HOV 4) will ultimately exceed the number of parking spaces supplied at some stations. Consequently, some parking will spill over into the surrounding areas, creating more traffic in these areas. While the traffic has minimal affect on commercial and industrial activities, residential areas in the vicinity of Carson Street, Rosecrans Avenue, and Slauson Avenue will be sensitive to increased parking demands and would be adversely affected. To alleviate the impact of parking demand, new or expanded parking structures on the existing sites would be required to meet the new demand.

RESPONSE TO DEPARTMENT OF INTERIOR

3. Caltrans is aware that the Willows, Bixby Slough and Harbor Lake are biologically significant fresh water marshes.

The recommended alternative, Bus/HOV 4, would have no effect on Bixby Slough or Harbor Lake. The transit station/parking facility at the Willows (Artesia Boulevard) has the possibility of an indirect impact upon the Willows. These impacts and mitigation measures are outlined in Chapter IV, Section D.

RESPONSE TO REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

4. Bus/HOV 4, the recommended alternative, will not impact Bixby Slough or Harbor Lake. However, it does have the potential to indirectly impact the Willows. The parking facility/transit station will be designed in such a manner as to drain away from the Willows. This may include the construction of new storm drains at the northern edge of the facility which would tie into the existing systems under Normandie Avenue and Vermont Avenue. If these drainage systems are incapable of handling the additional flow, then a new drainage system would be constructed with a direct tie-in to Dominguez Channel. All plans for the proposed system will be reviewed by the Los Angeles County Flood Control District and the Regional Water Quality Control Board as necessary.

RESPONSE TO CALIFORNIA HIGHWAY PATROL

5. The additional enforcement needed for the Bus/HOV 4 alternative should be at a level comparable to that of the El Monte Busway on the San Bernardino Freeway (I-10). Safety, maintenance and emergency activities should also be equivalent. The installation of barriers and sound walls will be designed and constructed as per interstate requirements. Caltrans will inform and consult with the divisional CHP commander as to the manner in which the construction, and its accompanying detours, will be dealt with.

RESPONSE TO LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

6. See Response number 4.

RESPONSES TO CITY OF LOS ANGELES, ENGINEERING

7. The Caltrans staff for the Harbor (I-110) Transitway Study was informed by the City of Los Angeles staff that they were conducting a study to determine the feasibility of providing a new local connecting roadway and freeway ramps (north-bound on and south-bound off for Capitol Drive in San Pedro). However, a formal request was never made for the inclusion of the new connectors as part of the FEIS for the recommended transitway project.

Securing approval of a new public road connection to an existing interstate highway is a lengthy process. Much of the responsibility rests with the requesting local agency and must conform with the current state and federal guidelines.

A formal request must be made by the local agency. This will initiate a project study by Caltrans' staff to determine the feasibility, need, traffic safety, cost-effectiveness, possible cost sharing, priority and submittal to FHWA for approval.

Caltrans stands ready to assist the City of Los Angeles' staff in anyway to complete this study to determine the need for the new connection at Capitol Drive in San Pedro.

8. This right-of-way parcel would only have been needed if Rail 6, the Vermont Avenue alternative, was selected. As Bus/HOV 4 was selected, this parcel is no longer needed.
9. All of the Historic-Cultural Monuments mentioned under this point are outside of the APEI as established for this project with coordination with SHPO and the FHWA.
10. Chapter 4, Section R does describe the visual impacts of the transitway and the transit stations on the Harbor Freeway. There are no impacts on the State and County Scenic Highways. The transitway will not impact Wilshire Boulevard, John S. Gibson Boulevard and Harbor Boulevard. The only impact on the additional designated city's scenic highways will be the elevated transit structure in the cut sections of the Harbor Freeway. The scenic view would not be significantly impacted by the recommended alternative and no other impacts are noted.

RESPONSE TO CITY OF GARDENA

11. Station/parking facility impacts are addressed in the "Transit Station Traffic Impacts and Mitigation Measures" provided by the City of Los Angeles Department of Transportation, September 1981. The information is also included in Chapter IV, Section M of the FEIS.

12. This study limited itself to the Santa Monica Freeway (I-10) as its northern boundary.

Extension of the transitway to Union Station was investigated during the initial stages of the alternative analysis process.

This extension was eliminated for the following reasons:

- a) Unable to achieve acceptable design standards
- b) Increased capital costs
- c) Severe social, economic and environmental impacts in the downtown area.

13. Bus/HOV 4 is a bi-directional transitway which would provide congestion relief in both directions in both the A.M. and P.M. peak periods.

14. All of the municipal operators which utilize the Harbor Freeway would be able to use the transitway.

15. The east side of Vermont Avenue is not feasible as a transit facility for a variety of reasons, including but not limited to traffic circulation and the cost of right-of-way.

The Draft does include information on and mitigation measures for air and noise pollution at the proposed Artesia Station.

16. The Redondo Beach Boulevard site is not feasible for a transit station for the following reasons: right-of-way acquisition costs, relocation of residences, disruption to the community, land use compatibility and its close proximity to the 91/110 Interchange. A feeder bus line on Redondo Beach Boulevard is not as practical in serving other communities, such as Compton, as would be Rosecrans Boulevard.

RESPONSE TO CITY OF LONG BEACH

17. Additional information pertaining to the LA/LB LRT line has been included in Chapter III of the Final under Section F. Relationship to other Transit Projects.

RESPONSE TO CITY OF LOS ANGELES, DEPARTMENT OF TRANSPORTATION

- 18.&18a. The station sites mentioned will require some TSM type improvements such as signalization and bus turnouts. At these sites, necessary improvements are considered as an integral part of the Transitway Project and are not handled as mitigation. All improvements required for the increased traffic flow and circulation at station sites will be made. These improvements are discussed in detail in Chapter IV,
19. CALTRANS has deleted the opposition statement since there is already 100 feet of right-of-way.

- 20.&21.** These two statements regarding the LACBD Distribution Study and the LACBD Rail Implementation Study have been noted and the appropriate revisions incorporated into Chapter III, Section H and are further discussed in Chapter IV, Section M.

RESPONSE TO CITY OF LOS ANGELES, CITY PLANNING

- 22.** According to the City of Los Angeles modified General Plan the freeway alignment appears to be very much consistent with proposed centers located at Manchester and Broadway.
- 23.** Information on joint development and value capture was obtained from a study titled, Harbor Freeway Corridor Joint Development and Value Capture Project, Blaney-Dyett, Urban and Regional Planners. March 1980-May 1981.
- 24.** Contact has been made with the city and coordination continues on these projects.
- 25.** The transitway is designed for line haul commuters to and from LACBD and would provide improved local feeder bus service to the community centers.
- 26.** This is addressed in the Harbor Freeway Corridor Joint Development and Value Capture Project, referenced in response #23.

- 27a.** The majority of the freeway widening is in existing right-of-way. See Chapter IV, Section K.
- 27b.** Due to some local agency and community interest, the Federal Highway Administration (FHWA) agreed to fund the study of an off freeway transit alignment for comparison purposes in the Harbor (I-110) Corridor. However, it was stipulated that the study would be limited to one alignment and mode. Since the Southern California Rapid Transit District (SCRTD) had already considered heavy rail transit on Vermont Avenue in their Wilshire Metro Rail (HRT) Study, it was determined, after considerably staff investigation, that with minor modifications the Vermont Avenue alignment studied by SCRTD would provide a reasonable comparison with all the I-110 study alternatives.
- 27c.** While the exclusive guideway limits are different for the bus and rail alternatives, all capital and operating costs were calculated for the project limits between the Convention Center and State Route 47.

In order to eliminate the perception of any bias for the bus or rail alternatives, updated capital costs have been included for all alternatives between the Convention Center and State Route 91 Freeway. These costs are presented in Chapter III, Section H of the FEIS for comparison with the project alternatives.

28. This would be taken into consideration at the design phase.

RESPONSE TO PORT OF LOS ANGELES

29. The concerns about the Ports O' Call alignment impacts are well founded and were taken into account during the selection process in which Bus/HOV 4 was chosen. This alternative will not impact the Ports O' Call area.
30. The correct name for the California Least Tern is Sterna antillarum browni and has been changed in the Final.
31. The recommended alternative would travel in mixed flow traffic lanes on the Harbor Freeway in the vicinity of the Fault. This would not create any additional seismic hazard than that which already exists.
32. A noise profile will not be performed at the Ports O'Call area as the rail alternatives were not selected.
33. Pedestrian/Vehicle safety impacts are addressed in the "Transit Station Traffic Impacts and Mitigation Measures", which was prepared by the City of Los Angeles, Department of Transportation, September 1981.
34. The increase in emergency service needs will be addressed during the design phase of the project.

35. There will be no elevated structure in the San Pedro area with the recommended Alternative.

RESPONSE TO CITY OF COMPTON

36. SCRTD will coordinate with the local operators to determine the level of service required for the feeder service.

RESPONSE TO CITY OF CARSON

37. These considerations will be investigated at the design stage and be incorporated if necessary.
38. The 1 to 2 year closure period mentioned in the DEIS only refers to Bus 7 or Rail which would have required the reconstruction of the existing ramps and the Carson Street overcrossing. Bus 4, the recommended alternative, would not require the reconstruction of the overcrossing and only minor modification of the Carson ramps. These modifications would be staged so as to reduce the time of closure (if any) to an absolute minimum. The exact amount of closure time will not be known until the final design work has been completed.

RESPONSE TO SCAG

39. A detailed funding plan has been developed and is incorporated in Chapter III, Section H. Assistance from SCRTD and Los Angeles County Transportation Commission was required to determine the capital and operating costs for the selected

alternative. Federal Aid Interstate (FAI) deadlines for funding apply only to "new" construction projects. Since the Harbor Freeway Transitway project concerns major improvements to an existing Interstate route, these deadlines do not apply. Los Angeles is currently a "surplus" county due to the large amount of funds programmed on the Century (I-105) Freeway project. If the Harbor Freeway Transitway is programmed during the same time period as the Century Freeway, then there will be a relatively small impact on Los Angeles County's county minimum. However, if either the Century Freeway or Harbor Freeway Transitway schedules are extended past 1992, then there will be a negative impact on Los Angeles County due to County minimums. The time period in which Los Angeles County would be excluded from competing for non-interstate funds would, therefore, be extended.

RESPONSE TO LACTC

40. The comparison between bus/HOV and rail, each terminating at Route 91, was done in Chapter III of the FEIS. Even with terminating the Rail alternatives at Route 91, they had higher capital, operating and maintenance costs than the Bus/HOV alternatives.
41. Caltrans has reduced the background bus system and adjusted the feeder bus system accordingly.
42. The recommended alternative, Bus/HOV 4, has cross section typicals in Chapter III.

43. Additional information pertaining to the LA/LB LRT line has been included in Chapter III, Section F, under Relationship with other Transit Projects.
44. A section dealing with Funding of the recommended Alternative has been included in Chapter III of the FEIS.
45. The Bus/HOV alternatives provide an exclusive transitway to encourage new carpoolers which the rail alternatives do not.
46. The FHWA requires that there be a benefit-to-cost ratio in the document. The Benefit/Cost Ratio have been updated to reflect new cost and benefit data and is included in Chapter III of the FEIS.
47. If the energy analysis were revised to include only petroleum energy consumption as recommended, the various rail alternates on the Harbor Freeway would show an energy saving comparable to the Bus/HOV alternates. However, the non-petroleum fuels used for electrical generation includes other scarce or non-renewable fuels such as natural gas (39%), coal (15%) and nuclear (7%). Even the renewable hydroelectric (9%) resource has been substantially fully developed. Other possible renewable sources of energy such as wind and solar power are not expected to make a significant contribution for many years.

- 47a.** For the above reasons we feel the energy analysis, as presented in this report which included total energy consumption stated in terms of equivalent barrels of oil (EBO) represents the fairest way to compare the energy efficiency between the various alternates.

RESPONSES TO SCRTD

- 48.** Bus/HOV 4, the selected alternative, is a bi-directional operation. Therefore, the operational costs of the peak directional Bus/HOV operation need not be addressed.
- 49.** The City of Los Angeles CBD transportation study is considering improvements in the LACBD which will benefit future bus service. Input from SCRTD concerning new bus routing will also be considered.
- 50.** There is a demand for the line haul service from downtown Los Angeles to San Pedro. The 2005 traffic projections support this statement. These projections also indicate that an exclusive Bus/HOV facility is not warranted south of Route 91. The Bus/HOV alternative does service the entire study area.
- 51.** There is a demand within the corridor for line-haul service as shown by the operation of SCRTD #445 and the municipal operators CBD bus-lines.

52. Only those costs that would be funded by the public or operating agency have been included for each alternative.
53. Caltran's responsibility is for planning, design, and construction of projects. There are Federal funds available for a transit operator which are mentioned in Appendix C. The operator is responsible for obtaining these funds and Caltrans will assist if requested.

RESPONSES TO CITY OF TORRANCE

54. Bus/HOV 4 is the selected alternative. With regard to the concern about an on-line station at Carson Street, there will be a station at this location. The Carson Street overcrossing will be widened to provide for Bus bays and Kiss and Ride facilities. A parking facility will also be located in the vicinity of the station to the west of the freeway.
55. This information has been noted. The actual operation of the feeder bus lines will be worked out with the major transit operator for the facility. These details would include future feeder lines, routes, areas to be served, etc. Some of the funding opportunities for the major bus operator would be available for the local feeder bus lines.
56. See Response Number 55.

RESPONSE TO LOS ANGELES UNIFIED SCHOOL DISTRICT

57. Bus/HOV 4 is the selected alternative and it will have no impact on the LAUSD facilities at 182nd Street.

RESPONSE TO FRIENDS OF THE WILLOWS - SHERRIE ROBERTS

58. Caltrans appreciates the additional information provided and this information will be added to the Biological Appendix.
59. With the selection of Bus/HOV 4, there will be no direct impacts to the Willows and only minor, insignificant mitigatable indirect impacts. Chapter IV fully explains these mitigation measures.

SIERRA CLUB - ANGELES CHAPTER

- 59A. Mr. Hart raises concerns about the reliability of mathematical models to predict future travel and ridership. The model used to predict travel in the Los Angeles region is the most objective tool available for this purpose. It does a creditable job of simulating existing conditions which is the basis for confidence in its forecasting abilities.

We do not believe the problem to be one of "... inadequacy of the state-of-the-art...", but rather the uncertainty of major assumptions which drive the model(s) but over which "... computers and expert consultatants...." have limited control.

First, with respect to travel in general, there are the "future growth assumptions" (when, where, how much) promulgated by regional planning agencies (e.g. SCAG) for various regional goals and objectives. In this context the reliability of the model rests entirely upon the extent to which projected growth actually occurs.

In the narrower context of transit "ridership" there are the additional uncertainties about future socioeconomic conditions, such as transit fare vs. auto operating costs and the relative affluence of each household (the rich use transit much less than the poor) that affects the "modal" split.

Transit now "captures" about 3% of total regional trips. A "highly" accurate travel forecast might indicate a modal shift of a mere 2-3% of total regional trips to transit. For transit, such a shift, from 3% to 5 of 6%, would be phenominal.

The real question then is not whether the model(s) are reliable, but whether the region can (and will) control its destiny to the extent that the "assumptions" are realized.

RESPONSE TO FRIENDS OF THE EARTH, INC., DONALD L. MAY

60. The issue of this project's impacts is fully and adequately addressed. Not only was the issue of wetlands impacts examined in this project EIS, but also the issue was examined in the project EIS for the reconstruction of Route 91/11 Interchange, an issue raised by Mr. May on page 2 pararaph 2 of his letter.

These studies were made prior to the beginning of the reconstruction of the 91/110 (91/11) Interchange and are contained in the biological survey which is contained in Appendix F of the Appendicies.

The issue of water quality was discussed with Mr. May on site. We are aware of his concerns. However, this project will have no effect on wetlands vegetation. Hence, no impacts on the "scrubbing effect". The Transportation Center will not drain into the wetlands nor have any adverse impacts on the area. Construction of a block wall between the Center and the Willows will prevent trash from being deposited in the sensitive area and reduce any possible human disturbance.

A major effort was expended to determine if any rare or endangered species exists in the Willows area. Caltrans biologists did not find any endangered or rare species of either plants or animals. It is interesting to note that Rana catesbiana - Bullfrog - is not only not a native to California and not a sensitive species, but has contributed to the decline of another rare species, Rana aurora (Red-legged Frog) which it may prey upon. Lampropeltis getulus (the King Snake) is not an obligate wetland species, nor is it endangered or rare. It has been introduced into the Palos Verdes area to reduce large concentrations of rattlesnakes with some success. The preferred alternative will take no land from Bixby Slough and will not reduce any other "vestigial" marsh areas. Caltrans has coordinated with Fish and Game, U. S. Fish and Wildlife Service, and the U. S. Army Corps of Engineers, as Mr. May is well aware, since Friends of the Earth was represented at a meeting at the Willows with Caltrans and those agencies.

Any work Caltrans does that impacts wetland will require permits from the Corps and California Fish and Game. The preferred alternative is such that there will be no impacts on wetlands and no need for permits by either agency as reflected in comments in the Corps' letter, dated March 4, 1983.

Caltrans is in full compliance with the State of California Basic Wetlands Protection Policy as contained in the Regional Water Quality Control Board's letter dated February 7, 1983 (see above).

Caltrans is in agreement with Mr. May's letter that wetlands have an important function in water quality control, but Caltrans can only be held responsible to mitigate the impacts on wetlands arising from Caltrans' projects. Those agencies having responsibility for protection of wetlands have agreed that our studies are adequate, timely, and that the preferred alternate will not impact any wetlands within the corridor.

RESPONSE TO AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA

61. The north/south arterials (i.e. Broadway, Figueroa, Vermont, etc.) provide a superb network for overflow and short trip traffic in the Harbor (I-110) corridor. These arterials also help to alleviate traffic congestions on the Harbor Freeway and serve as alternate routes during major incidents on this freeway. The City of Los Angeles Department of Transportation has implemented several traffic system management improvements on these arterials and will continue to upgrade them in an effort to solve the traffic on the Harbor Freeway.

62. Improvements are planned and have been completed on the Harbor Freeway. These include the recent installation of bus shelters, the construction of the Route 91/I-110 Interchange and the programmed widening from I-10 to Exposition Boulevard.

Also, additional roadway improvements for the existing Harbor (I-110) Freeway are included with the recommended alternative (Bus/HOV 4). These improvements have been addressed in Chapter III, Section 5 (Construction Details).

63. Elevated Section (43%)

For the recommended alternative, Bus/HOV 4, freeway/traffic flow will be affected during the construction period. The elevated section consists of an elevated reinforced concrete structure over the centerline of the freeway. During bridge pile and column construction, one traveled lane in one direction and two lanes in the other direction would be closed to public traffic. Construction is, therefore, planned at night, between 8 p.m. - 6 a.m.

During the final construction of the elevated structure, two traveled lanes in each direction would have to be closed to traffic, construction for this operation is therefore, limited to between midnight and 5 a.m.

Elevated bridge structure work required for bus acceleration and deceleration lanes at each Bus Station would require nighttime detours. These beams span half of the freeway and could not be lifted into place over traffic.

City street traffic would be affected during the construction period. Detours onto city streets will cause delays and congestion during the construction period.

Fill Section (51%)

Retaining walls for widening the freeway can be constructed with fewer lane closures. The freeway in fill can be widened and the transitway constructed during day-light hours. City streets would be delayed while undercrossings are being widened. Falsework would be required and clearances would not permit as many lanes as there are on the city streets.

It must be noted that traffic impacts, as discussed above, will exist only during the construction period. These short term inconveniences are easily overlooked when considering the long term benefits of the Transitway project.

- 64. This data is included in the EIS and also the "Operating Plans and Cost Estimates" prepared by Wilbur Smith and Associates under contract to SCRTD.
- 65. See Response #61
- 66. The LACBD Transportation Study is focusing on immediate action (TSM) measures to facilitate traffic circulation in the CBD which will not result in an analysis of the alternatives for the LACBD Regional Transit System Interface.

The Los Angeles County Transportation Commission (LACTC) is analyzing the issues concerning the LACBD Transit Interface during their study for rail implementation in the Los Angeles area. This is being done to establish an effective CBD treatment for the Regional Transit System.

It is assumed that any additional buses operating in the LACBD due to this project would be distributed on a sufficient number of streets to minimize circulation impacts. Any impacts resulting from increased LACBD bus operations would be mitigated, during final design by appropriate measures. Such measures include bus bays, off-street bus loading, skip-stop bus operation, expanded bus loading zones, preferential bus/lanes, improved signalization, etc.

RESPONSE TO T. A. NELSON

67. When considering operating cost per passenger mile for rail, it will be lower than bus. However, when you include the annualized capital cost and number of persons in HOV's, the costs per passenger mile are less expensive for the Bus/HOV alternatives.

68. There is more competition for ridership where the marketing areas overlap within the corridor. The distance between Vermont Avenue and the Harbor Freeway is only 1/2 mile which does not appear to significantly reduce this competition for ridership.

We agree that the greater the distance between the proposed Los Angeles-Long Beach light rail line and the Harbor (I-110) transitway project the less competition for ridership. This is illustrated in Figure III-15 of Chapter III, which shows the potential market areas for these two proposed transit lines south of Route 405 Freeway, there is less competition for ridership because of the divergence of these two lines. While locating future I-110 transit service on Vermont Avenue would aid to reduce this competition for ridership, the reduction is not significant because the distance between Vermont Avenue and the Harbor Freeway is only 1/2 mile. It should also be noted that there was minimal community acceptance and support for the Vermont Avenue alternative.

69. The Vermont Alignment has two additional stations, at Adams Boulevard and Jefferson Street, which would decrease the passenger demand at the Coliseum station. The above two stations Adams and Jefferson, are not proposed for the Harbor Freeway alignment.

RESPONSE TO WHITCOMB SURPLUS LINES BROKERS, INC.

70. All of the alternatives proposed would add additional capacity to the Freeway without taking any general traffic lanes away from the motorists.

RESPONSE TO TODD PACIFIC SHIPYARDS CORPORATION

71. As Bus/HOV 4 was selected, there will be no impact to Todd Shipyard Properties.

RESPONSE TO SAMUEL SHIFFER

- 72a.** The number of stations is found on Table III-10, page III-45 in the FEIS.
- b&c** This information is contained on page 41 of the "Operating Plans and Cost Estimates" done by Wilbur Smith & Associates, et al, for SCRTD.
- d&e** This item can be found in Appendix C, Table 1.
- 73a&b.** These items, staggered work hours and the shifting of trucks to off-peak hours, would have to be implemented by the local agencies and on a voluntary basis. They are not within the scope of this project.
- 74a.** Figure II-8 has been changed to reflect "weekday" in the Final EIS.
- 74b.** The assumptions used as the basis for this Figure can be found in Appendix D.

CHAPTER XII

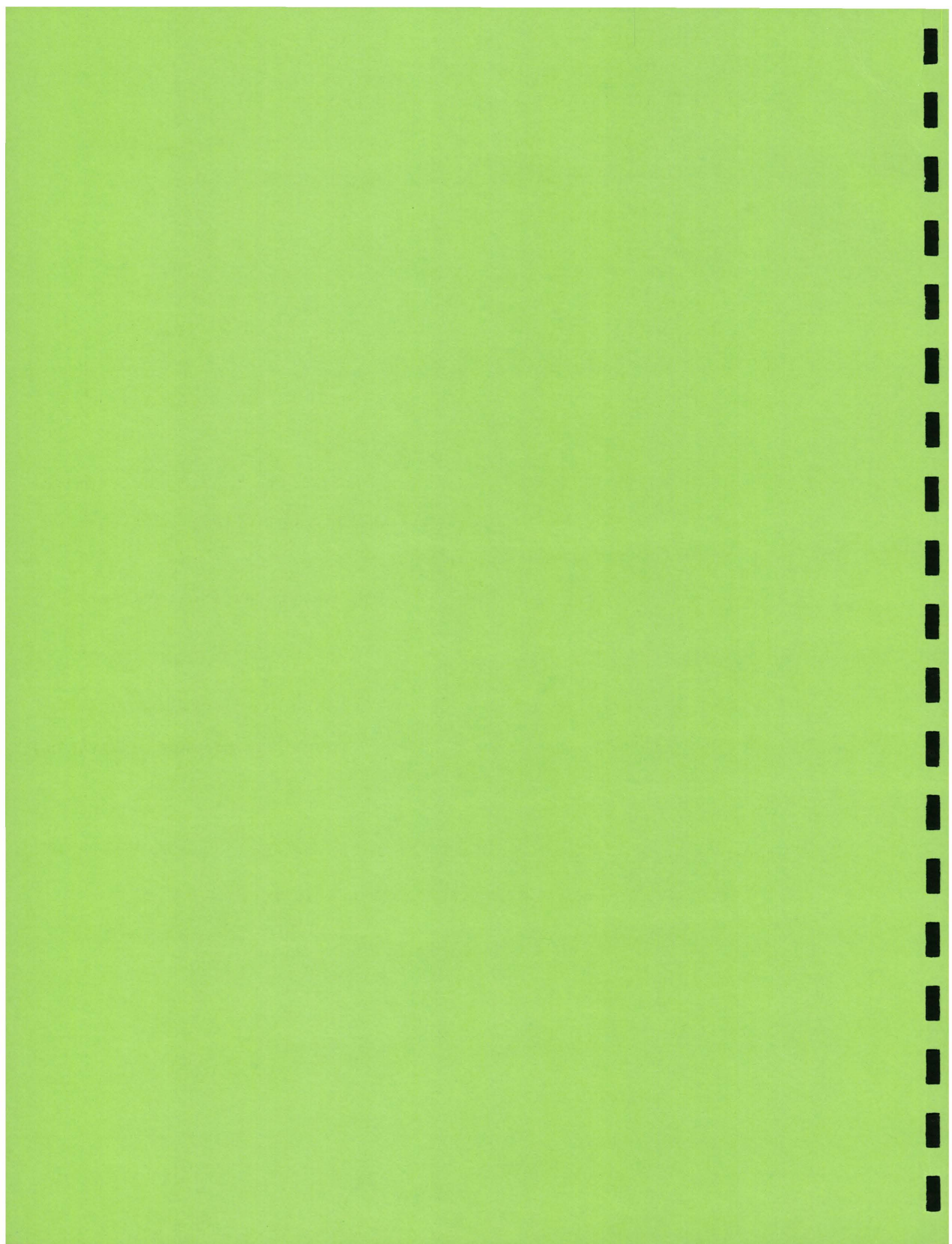
Environmental Evaluation Personnel

CHAPTER XIII

References

Glossary

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GLOSSARY

- APEI - Area of Potential Environmental Impact.
- At Grade - The location of the transitway of other facilities at the same level as the existing Harbor (I-110) Freeway.
- "Background" (Service) - Existing Corridor bus lines unaffected by the various build alternatives. These include trans-corridor lines and cross-corridor lines with incidental feeder characteristics.
- Capital Costs - Nonrecurring costs required for the project. These costs include, cost for right-of-way acquisition, construction of physical facilities, rolling stock and engineering design services.
- CBD - Central Business District
- CHP - California Highway Patrol
- CO - Carbon Monoxide
- dba - Decibel. A numerical expression of the relative loudness of a sound.
- DPM - Downtown People Mover. A now cancelled transit project which would have connected Union Station with the Los Angeles Convention Center.
- EOB - Equivalent Barrels of Oil. A numerical expression of the relative expenditure of energy in a system.
- EIR - Environmental Impact Report. Prepared under California law.
- EIS - Environmental Impact Statement. Prepared under Federal law.
- Evaluation Criteria - Quantifiable transportation related criteria developed to measure the performance of transit alternatives.
- Exclusive Guideway - The newly constructed facility providing separation from vehicles on the Harbor (I-110) Freeway.
- FHWA - Federal Highway Administration
- Feeder Service/Feeder Bus - Local transit service which feeds other faster and higher capacity transit service. Local bus service is the essential provider of connections between higher levels of transit service such as rail and express bus.

GLOSSARY - Contd.

- Harbor Corridor - Area bounded by the Santa Monica (I-10) Freeway, City of San Pedro, Western Avenue and Alameda Street in the City of Los Angeles.
- HOV - High Occupancy Vehicle. Autos used in carpools and vanpools.
- HRT - Heavy Rail Transit
- ICTS - Intermediate Capacity Transit System
- I/C - A freeway interchange.
- Kiss and Ride - A term referring to transit patrons (or the facilities they use) who are dropped off at a transit station by someone driving an auto.
- LACBD - Los Angeles Central Business District. Downtown Los Angeles.
- LACTC - Los Angeles County Transportation Commission
- LRT - Light Rail Transit
- Mode - A particular form of travel, e.g. bus, rail, train or auto.
- NO_x - Nitrogen Oxides
- NRHP - National Register of Historic Places
- Off Peak - Those periods of the day when demand for transit service is not at its maximum.
- On Line Station - A transit station on the main line.
- Operating Costs - Costs incurred in operating transit systems.
- Park and Ride - A transit facility with a parking lot so transit patrons may store their vehicles while they utilize the transit system.
- Peak Hour - The hour of day when the largest number of people travel.
- Peak Period - The time period for which the volume of traffic is greater than that of any other time period. For this analysis, a three-hour morning (6:00 a.m. to 9:00 a.m.) and a three-hour evening (3:30 p.m. to 6:30 p.m.) was used.

GLOSSARY - Contd.

- RHC - Reactive Hydrocarbons
- RTDP - Regional Transportation Development Program
- R/W - Right of Way
- SCRTD - Southern California Rapid Transit District
- SHPO - State Historical Preservation Officer
- Stage I/Tier I Analysis - The rough initial study phase during which alternative solutions are created and roughly evaluated.
- Stage II/Tier Analysis - The second study phase during which alternative solutions are supposed to be defined and studied in detail.
- TSM - Transportation System Management. Low cost techniques to improve the operation of a transportation system.
- Transit/Transportation Center - This facility will be similar to the existing El Monte Station. The Center would include ticket and pass sales, transit information services and passenger amenities, such as, restrooms and waiting areas. The Center will have parking for buses and vehicles and would serve as a terminal for local feeder bus lines, as well as through service for other regions of Los Angeles County.
- Travel Time - The time required to travel between two points, not including terminal waiting time, or access time.
- UMTA - Urban Mass Transit Administration
- VMT - Vehicle Miles Traveled.

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