Study of Alternative Transit Corridors and Systems Prepared for Southern California Rapid Transit District

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August 1973

Prepared by

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TASK II B 5

DRAFT ENVIRONMENTAL APPRAISAL

FOR THE

RECOMMENDED PROGRAM OF LOW CAPITAL INTENSIVE

TRANSPORTATION IMPROVEMENTS

July, 1973

Prepared by:

Wallace, McHarg, Roberts and Todd / Kennard and Silvers

Prepared for:

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INTRODUCTION

This report is an appraisal of the environmental effects of the proposed short range plans for implementing special, low-capital intensive projects to improve public transportation in the Los Angeles Region. For a complete description, see "A Special Program of Low Capital Cost Transit Improvements for Los Angeles," by Alan M. Voorhees and Associates, May, 1973.

These short range plans are intended to alleviate congestion and improve public transit service until such time as the more long range transportation planning efforts can be implemented.

They include such recommendations as: bus priority streets, park and ride lots, surface express buses, and freeway preferential treatment for express buses.

SCOPE OF THE APPRAISAL

Consistent with the California Environmental Quality Act, the National Environmental Policy Act, and the Department of Transportation Environmental Impact Guidelines, this Appraisal will follow the following outline:

- 1). A description of the proposed action and its purpose.
- 2). The probable potential impacts of the proposed action on the environment.
- 3). Adverse environmental effects which cannot be avoided should the recommendations be implemented.
- 4). Any irreversible and irretrievable changes that would result from the proposed actions.
- 5). Mitigation measures that would minimize any adverse environmental impacts.
- 6). Alternatives to the proposed action that were considered.
- 7). The long term effect of the proposed action.
- 8). The "growth inducing" impacts of the proposed action.

IMPACT FACTORS

In responding to the above eight statements, the impact factors discussed will be classified into three groups:

- Natural and Ecological: Those factors relating to nature or natural processes, the atmosphere (air quality), soils, geology, water quality and hydrology (floodplains, surface and subsurface water), wildlife, vegetation, noise, and other physiographic factors.
- 2). Socio-Economic and Cultural Factors: Those factors relating to people or human processes, their artifacts such as historical or archeological sites, land uses or facilities, their functional relationships either existing or planned-including movement and traffic, and their social characteristics such as population and employment distribution and community structure.
- 3). Visual and Physical Impacts: Those factors which relate to the individual or society's perceptions and interpretations of the man made and natural environment; those elements of line, slope, space, and form that comprise a visual experience including scenic resources, the design of structures, and physical features.

PURPOSE OF THE APPRAISAL

The National Environmental Policy Act (NEPA) of 1969 established a broad national policy to promote efforts to improve the relationship between man and his environment.

Section 102(2) of NEPA requires, "to the fullest extent possible a detailed environmental statement" on "...major Federal actions significantly affecting the quality of the human environment." Because the low capital intensive transportation improvements may require Federal funds, they qualify as a 'major Federal action'.

In addition, the California Environmental Quality Act of 1970 CEQA) requires that an environmental impact report (the State's environmental report is the equivalent of the Federal environmental statement) be prepared by public agencies for projects they intend to implement.

The purpose of this environmental Appraisal is to provide the necessary preliminary outline of environmental impacts to be used as the basis for the more detailed Environmental Appraisal and Statement to be prepared at a later date as more detailed information becomes available.

Although this Appraisal follows the probable format of a full Report or Statement, it is not intended to satisfy either the State or Federal Environmental Impact Statement guidelines, but is meant rather to inform the public, the Consultant Team and the Southern California Rapid Transit District staff as to the general environmental effects of the proposed actions. It is also intended to clarify issues and identify data gaps to be addressed in a more detailed analysis as part of a complete Environmental Impact Statement and Report.

SECTION 1

DESCRIPTION OF THE PROPOSED ACTIONS

Introduction:

This Environmental Appraisal is based on a Preliminary Report by Alan M. Voorhees and Associates, Inc., (AMV) entitled "A Special Program of Low Capital Cost Transit Improvements for Los Angeles." It was prepared for the Southern California Rapid Transit District as part of a Technical Study of Alternative Transit Corridors and Modes, and outlines specific short range recommendations for implementing low capital intensive projects to improve public transportation service in Los Angeles.

PURPOSE OF THE PROPOSED ACTIONS

The purpose of these recommendations is twofold:

- To present the first steps in a total new transportation program that will begin to provide a transit service which can match the automobile for convenience.
 These short range improvements will begin to establish "transit usage" habits."
- 2). To provide a short range public transportation program that will maintain or improve the level of service of public transportation in dense, highly traveled corridors until a more comprehensive regional public transit system can be implemented.

PROPOSED ACTIONS

The following Table summarizes the recommended program of low capital intensive improvements.

	Surface Operations Projects	Freeway-Related		
Group I	Priority Street Pilot Projects: 1). Pico Blvd. Bus Priority System 2). Flower St. " " "	Pilot Park/Ride Projects: 3). L.A. Zoo Park/ Ride 4). Paxton Avenue Park/Ride		
Group II	Pilot Surface Express Lines: 5). Hollywood Park Express Bus 6). Sixth Street Express Bus	Park/Ride Projects: 7). Santa Monica Park/Ride 8). Westwood Park/ Ride 9). Ascot Raceway Park/Ride 10). Artesia Blvd. Park/Ride		
Group III	Comprehensive Surface Improvements: 11). 40 miles of priority bus streets 12). Expanded surface express buses	Park/Ride Projects: 13). Sepulveda Basin Park/Ride 14). Pasadena Park/ Ride 15). Norwalk P/R 16). North Hollywood Park/Ride		
	19). Improved Downtown distri-	Freeway Preferential Treatment: 17). Hollywood Fwy. 18). Pasadena Fwy.		

bution

PHASING

Group I projects are the pilot projects which can be implemented quickly (during Fiscal 1973-74) to demonstrate the implementability and value of the short range improvement concepts.

Group II projects involve slightly greater technical or administrative complexity and, therefore, require a longer implementation time period. These projects should be made operational during Fiscal 1974-75.

Group III projects comprise an expanded short term improvement prograp which will be developed in refined form, dependent in part on the success of the Group I and II projects.

CONCEPT DESCRIPTION

The recommended program consists of both surface operations projects and freeway related projects. The principal improvement concepts proposed for implementation are highlighted briefly below:

*A.I, 2 and 11 Bus Priority Streets:

Two special traffic control treatments are recommended to speed up bus service on major arterials radiating from the Central Business District: (1) the bus priority reversible lane scheme, which gives buses first-in-line treatment at intersections; and (2) bus priority signal operation, which provides longer effective green signal intervals for buses. These two techniques can be used effectively in combination on streets with heavy bus passenger volumes within a four or five-mile radius of Downtown. Pilot bus priority projects are recommended for Pico Boulevard and Flower Street. The expanded bus priority project would encompass some 40 miles of major arterial streets, and would be controlled by a central computer system.

B. 5, 6 and 12 Intermediate Distance Surface Express:

The surface express concept is designed to provide faster, more direct service to the Central district and other high activity centers from six to ten miles away. Existing bus services from the intermediate distance range compete poorly with the automobile mode of travel. Well designed new bus routes operating on smooth flowing arterial streets and providing limited stop or nonstop service from intermediate distance locations should be applied more iwdely to capture additional transit patronage. Two pilot surface express projects are proposed: the Sixth Street Express, serving the West Hollywood area; and the Hollywood Park Express, serving Inglewood and nearby suburbs with express buses from a special park/ride facility. If the pilot projects are successful, the surface express concept would be expanded to other service areas.

C. 3, 4, 7-10, 13-16 Park/Ride Lots:

The success in several U.S. locations of suburban park/ride lots, situated near freeways and served by express buses into the Central district, has been impressive. The concept is recommended for widespread application in Los Angeles to provide a transit alternative which is competitive with the automobile for longer distance commuter trips.

^{*} Numbers refer to the chart on the preceeding page.

Fifteen general locations for park/ride lots are identified, including two lots already under construction in Buena Park and El Monte, which appear to have substantial potential transit demand characteristics. Frequent express bus service into Downtown and back would be operated during commuting periods; peak hour headways should be ten minutes or less. The initial projects recommended for immediate implementation are the Los Angeles Zoo lot and the Paxton Avenue lot to be constructed adjacent to the Golden State Freeway. Buses from these two lots would operate into Downtown via the Golden State and Pasadena Freeways and would benefit, along with other vehicular traffic, from a program of aggressive ramp metering which the California Division of Highways plans to implement along the Golden State Freeway. The entire set of park/ride facilities should be systematically implemented if the pilot project operations are successful.

D. 17, 18 Freeway Preferential Treatments:

Experience has shown that dramatic increases in transit patronage can occur if freeway preferential treatments are given to buses which provide them with a travel time advantage over cars. The most dramatic examples are on the Shirley Highway in Northern Virginia and I-495 in New Jersey, the approach to the Lincoln Tunnel. Techniques such as contraflow operation, priority ramps on metered freeways, exclusive busways, and reserved bus lanes with flow should be pursued jointly with the California Division of Highways. Joint planning and design efforts have been ongoing for some time and should be pursued even more vigorously so that appropriate preferential treatment measures will be expedited to benefit bus transit. The initial projects recommended for immediate implementation arc: (1) some form of preferential treatment for buses on the Hollywood Freeway; and (2) contraflow operation on the Pasedena Freeway.

E. 19 Improved Downtown Distribution:

Major modifications in the distribution of bus passengers in the Los Angeles CBD are needed in order to retain existing patrons and capture new riders. The dynamic growth of Downtown, concentrated in the new west side financial core, makes essential the immediate planning and implementation of new services and changes in existing services.

In particular, a fast Downtown distribution route with adequate available curb space for loading and discharging should be developed for use by all the express buses. Special traffic control techniques designed to give preferential treatment to heavily loaded buses should be worked out with the City Department of Traffic to speed bus flow through the Downtown area. The best solutions for now and for the short and long range future require the continuing technical efforts of all involved organizations, working together in a spirit of cooperation.

SECTION 2

PROBABLE IMPACTS OF THE PROPOSED ACTIONS

Introduction:

As discussed in the Introduction of this Appraisal, there are three major classifications of impact: Natural and Ecological, Socio-Economic and Cultural, and Visual and Physical. The individual elements of these factors that were specifically considered for this analysis are indicated below:

Natural and Ecological:

- o Air quality.
- o Noise and vibration.
- o Spoils disposal.
- o Sediment control.
- o Hydrological.
- o Water quality.
- o Vegetation and wildlife.

Socio-Economic and Cultural:

- o Population.
- o Employment.
- o Accessibility.
- o Traffic and parking.
- o Community residential (dislocation).
- o Land use and future development.

Visual and Physical:

- o Visual disruption.
- o Urban design potential.

PROBABLE IMPACTS - GENERAL

The following chart indicates in a general way which of the suggested improvements will have an impact (either positive or negative) on any of the three factors. Those actions that are marked with a circle indicate that there will be significant impact. Those actions with no mark indicate that there will be no major effect of those steps in the program on the environment of existing communities. Each of those steps with an "impact" is discussed in more detail in the following paragraphs.

PROBABLE IMPACTS OF LOW CAPITAL INTENSIVE TRANSPORTATION PROGRAMS

O Inc	licates impact	Natural/ Ecological	IMPACT FACTORS Socio-Economic Cultural	Visual/ Physical
	PROPOSED ACTIONS			
Group I	 Pico Boulevard Bus Priority Flower Street Bus Priority L.A. Zoo Park/Ride Paxton Avenue Park/Ride 		0 0 0	0
Group II	5. Hollywood Park Express 6. Sixth Street Express 7. Santa Monica Park/Ride 8. Westwood Park/Ride 9. Ascot Park/Ride 10. Artesia Park/Ride		000000	
Group III	11. 40 miles of Bus Priority 12. Expanded surface express buslines 13. Sepulveda Basin Park/Ride 14. Pasadena Park/Ride 15. Norwalk Park/Ride 16. North Hollywood Park/Ride 17. Hollywood Freeway Preferential Bus 18. Pasadena Preferential Bus 19. Improved Downtown Distribution			•

For the sake of clarity, each of the improvements will be grouped into five generic improvement classifications:

- (A) Bus Priority Streets.
- (B) Surface express bus service.
- (C) Park and ride lots.
- (D) Preferential bus on freeways.
- (E) Improved Downtown distribution.

This document is intended to be a summary of the recommendations of the program as well as an environmental appraisal of the Program. For this reason, the proposed improvements are described verbatim from the Voorhees Report wherever possible. Quotation marks are used to distinguish the Voorhees text from the observations and analysis of this Appraisal.

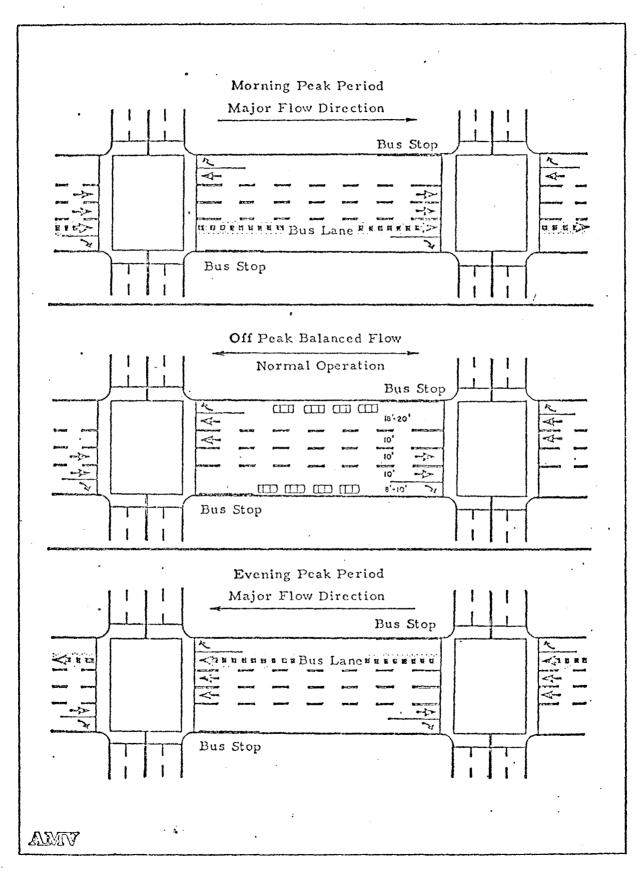
A. BUS PRIORITY REVERSIBLE LANE CONCEPT -Detailed Description

"The major bus priority technique recommended for application in Los Angeles is the bus priority reversible lane concept. The fundamental premise of this concept is to allocate available space on arterial streets during peak periods in accordance with existing passenger demand by reversing the flow direction of selected lanes and allocating space for preferential bus usage. The preferential lane assigned to buses in the major flow direction provides them with first-in-line treatment at signalized intersections.

"Proposed Lane Use. The figure on the following page is a schematic plan of the proposed concept for application on a 56- to 60-foot wide street. Such streets normally operate with directionally balanced lane use all day. Usually parking is prohibited in the major flow direction during peak periods, thereby providing room for vehicles to line up three abreast at the stop line. In actual operation, however, the curb lane is not utilized to a significant degree by through traffic, especially on heavy bus flow streets. Instead, the curb lane is used primarily by right-turn vehicles, buses, occasionally illegally parked vehicles, stopping and loading operations, and vehicles turning into and out of driveways. Thus, the right lane's productivity for providing through traffic capacity is severely limited.

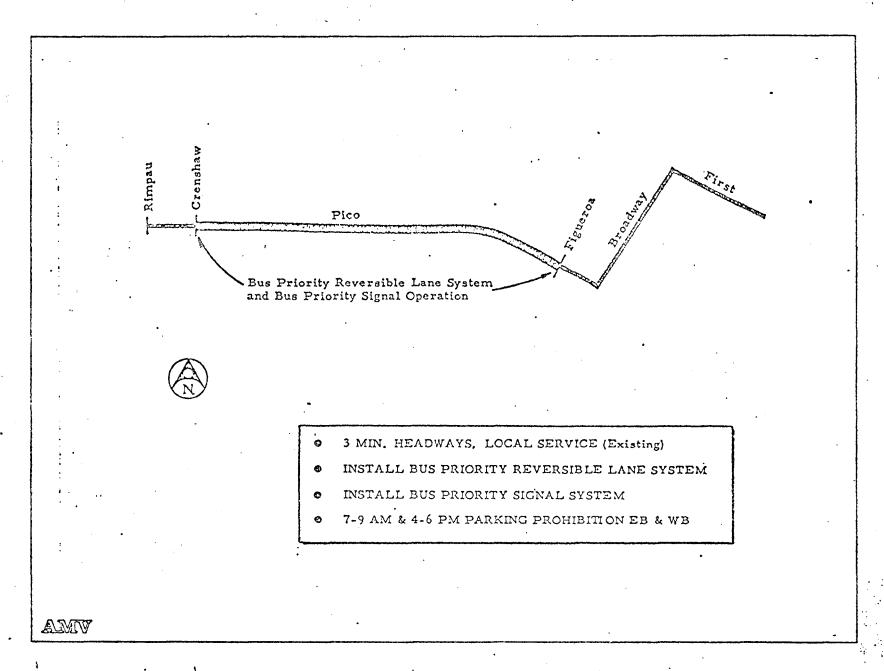
"In the proposed concept, the two center lanes are reversible to provide greater street width for the major flow direction during peak periods. As shown in the top sketch in the figure, the two center lanes are used by through auto traffic, and the remaining 19 to 20 feet are shared by buses and vehicles turning right. If the right-turners use the marked lane on the intersection approach properly, there is room for the bus to pass through the intersection unimpeded. All bus stops would be moved to the far side of intersections to enable the bus to pass by a waiting right-turner on the near side intersection approach and then maneuver into the curb lane for a far side stop. The right turners would be permitted to weave into the right lane as much as one block in advance of their turning point.

"In the minor flow direction, peak period prohibition of parking would be essential to provide 18 to 20 feet of clear width for traffic flow. Depending on the exact width and minor flow volumes, the curb lane could be used for right turns only plus far side bus stops; or, alternatively, through traffic could also be permitted in the curb lane. In either case, however, the right lane productivity will be low due to the presence of right turns and buses. Consequently, the effective capacity in the minor flow direction would be limited to one full through traffic lane plus a right turn lane.



BUS PRIORITY REVERSIBLE SYSTEM FOR 56' TO 60' STREETS

AS VIEWED FROM MAJOR FLOW DIRECTION Right Through Through Through Bus Right Major Direction Minor Direction AS VIEWED FROM MINOR FLOW DIRECTION Through Through Right Through Major Direction Minor Direction **NIMUS**



"The existing minor flow volumes, therefore, are the key factor in determining feasibility of the bus priority reversible lane concept on a given street section. On streets 56 to 60 feet wide with significant bus flows, and minor flow volumes below 700 through vehicles per hour plus right turns, the concept should definitely be considered. Application of the concept may even be desirable on certain heavy bus streets where minor direction flows exceed 700 vehicles per hour, as there would normally be surplus capacity in the minor flow direction on adjacent parallel streets.

"The recommended project for implementation of bus priority traffic control of Pico Boulevard consists of the following elements:

- o The project limits on Pico are Crenshaw and Figueroa, for a project length of 3.65 miles.
- o Bus priority reversible lane system traffic control devices should be installed in the vicinity of signalized intersections and/or at spacing of approximately 1,000 feet from Crenshaw to Figueroa.
- o Parking prohibitions should be instituted in the minor flow direction, during the morning and afternoon peak periods.
- o A special traffic control computer system should be implemented which will monitor and control the operation of both the bus priority reversible lane system and the bus priority signal operation. (The same computer system would control the operation of the bus priority system on Pico).
- o A public information program concerning the bus priority system operation should be pursued to ensure that the driving public understands and properly utilizes the special lane use regulations. This program should also stress the benefits derived from the bus priority operation.
- The capital cost to implement the system is estimated to be \$100,000 per mile, or a total cost in the \$350,000 to \$400,000 range. Estimated annual cost of operation and maintenance of the system is \$40,000.

"Flower Street Bus Priority System. The second pilot bus priority project recommended for immediate implementation is Flower Street from its southern terminus at Exposition Boulevard to Seventh Street in the Central Business District. Several existing bus lines use portions of Flower Street and during the morning and afternoon peak hours, approximately 20 heavily loaded buses use the street.

"Peak hour passenger flow rates in the major flow directions approximate 800 pph. Proposed new express services, such as the Hollywood Park Express discussed subsequently, will also use Flower enroute to the west side of Downtown. In fact, Flower is considered to be a prime candidate street to serve as the backbone of a new Downtown circulation loop for express buses. As these projects are implemented, bus flows and bus passenger volume rates will increase significantly. Flower also is consistent geometrically, being 56 to 60 feet wide throughout the proposed section and is marked for two lanes plus parking in both directions. North of the Santa Monica Freeway overcrossing, peak period parking is prohibited in the major flow direction. South of the freeway, parking is permitted all day on both sides of Flower.

"The proposed project is very similar to the proposed Pico Bus Priority System.

- o The total length of the priority section is 2.7 miles.
- o Overhead reversible lane use control signing would be installed near major intersections.
- o Bus priority signal operation equipment should be installed at all signalized intersections, with transmitters on all buses using Flower.
- o The same computer control system can operate both the Pico and Flower systems.
- o North of the freeway, where flows are more balanced, parking should be prohibited in both major and minor flow directions during peak periods.
- o South of the freeway, a detailed study of lane use, capacity, and parking should be made to determine necessary prohibitions. It may be possible, due to low flow rates, to get by with partial prohibition near major intersections to open up adequate space for right turn storage and parking. It may be difficult to find alternative parking in the southern portion of Flower Street if on street parking is prohibited.

"First, concerning the application of the bus priority street concept, a preliminary screening of all the major bus routes was made to identify those streets sections on which the priority reversible lane scheme combined with bus priority signalization appear applicable. The 14 street sections listed on the following table of "Candidate Bus Priority Routes" are considered the principal candidate bus priority routes. These streets are loaded with heavy bus passenger flows and have geometrics and directional peak hour traffic volumes suitable for reversible lane operation. The candidate street section lengths total up to nearly 40 miles.

"The candidate bus priority routes also are marked on the map next following. All of the routes radiate from the Central Business District and a typical section length is approximately three miles."

IMPACTS

Bus Priority Streets (1, 2 and 11): As indicated on the preceeding table, the proposed bus priority programs will have an effect on the socio-economic and cultural, and visual and physical aspects of the environment. More specifically, they will have an impact on:

- o Visual image of the existing streets.
- o Accessibility to goods and services on the street.
- o The areas' traffic and parking systems.
- Visual image of the existing streets: The proposed traffic control system for the bus priority program, as indicated on the circle map below, will have a disruptive effect on the visual organization of the streets on which the bus will run, although the magnitude of that effect will depend on the final design of the system. The signing system may visually conflict with existing store graphics, street signs, and traffic lights, although this disruptive effect can be minimized by a high quality design effort.
- Accessibility to goods and services on the street. If the pilot programs are a success, and if the total proposed bus priority system can be implemented on the other proposed routes, it can have a positive impact on the accessibility in those travel corridors. Total travel times should be reduced, conflicts with bus and curb lane traffic should be minimized, and the channelization of traffic should improve the level of service for the automobile traffic using the other lanes.

The areas' traffic and parking systems. The effect of the bus priority system on the existing traffic flows and parking inventory will vary, depending on the location. Generally, regarding traffic flows, it is assumed that the impact will be minor because the traffic lane transfers will occur only in the minor flow direction of the street. The impact on the parking supply in each location along the street probably will be insignificant where there are off-street parking facilities available.

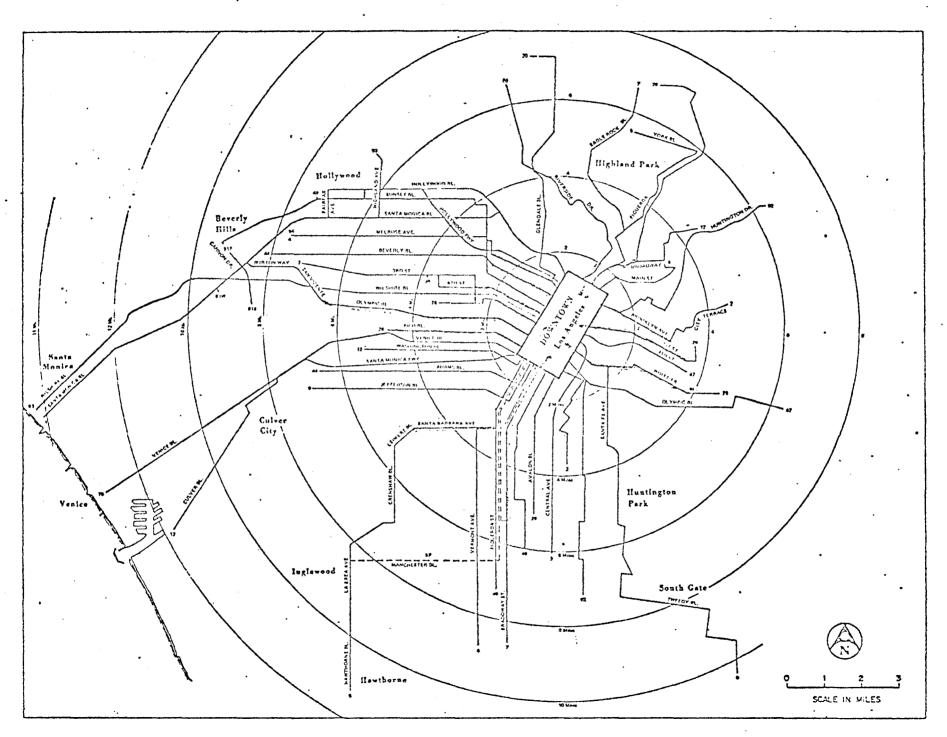
In those locations where only curb parking is available, the impact will only be minor, because the parking restriction would occur only during the peak periods (8 am to 10 am or 4 pm to 6 pm) depending on the direction of peak period flow and street location. (In most cases, the prohibitions already are in force.)

. CANDIDATE BUS PRIORITY ROUTES

•		Length	Peak-I Bus F		Peak- Bus Occ		Peak-He Passeng	our Bus er Flow
	Street Segment	(miles)	A.M.	P.M.	A.M.	P.M.	A,M.	P.M.
1.	Temple, Figueroa to Hoover	2.45	13	17	44	46	570	780
2.	Beverly, Figueroa to Hoover	2.20	22	14	35	45	770	630
3.	Sixth, Figueroa to Vermont .	2.22.	27	26	40	48	1,080	1,250
4.	Seventh, Figueroa to Vermont	2.05	19	22	49	47	930	1,030
5.	Olympic, Figueroa to San Vicente	5.95	19	29	48	49	910	1,430
6.	Pico, Figueroa to Crenshaw	3.65	18	24	. 47	44	850	1,060
7.	Santa Barbara, Figueroa to Leimert	2.37	30	30	38	45	1,140	1,350
8.	Flower, 2 Figueroa to Seventh	2.70	20	19	40	40	800	760
9.	Broadway, Pico to Florence	4.60	30 .	28	48	38	1,440	1,060
10.	Sixth-Whittier, Alameda to Indiana	3.00	22	23	46	50 ·	1,010	1,150
11.	East First, Alameda to Indiana	2.94	16	16	40	40	640	. 640
12.	Macy-Brooklyn, Alameda to Evergreen	2.45	57	64	43	40	2,450	2,560
13.	North Broadway, Temple to Pasadena	1.85	31	34	50	57	1,550	1,940
14.	Hill-Castellar, 2 Sunset to Freeway Ramp	0.70	15	15	49	42	740	630
	Total	39.13	3 39	361			14,880	16,270

Bus occupancy based on SCRTD load point checks.

²Routes marked have proposed new bus services which will increase bus flow beyond existing levels.



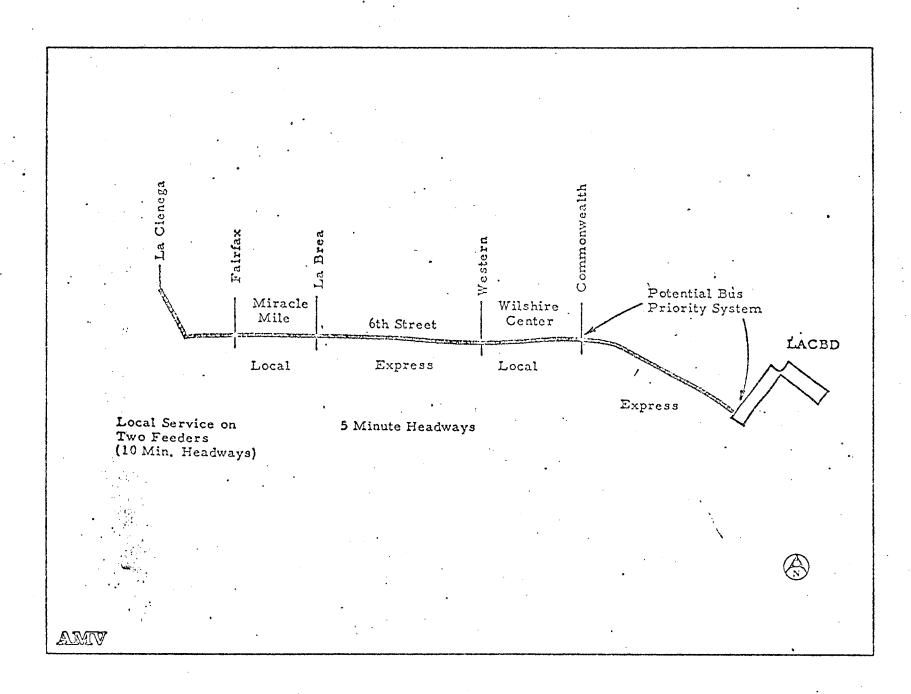
CANDIDATE BUS PRIORITY STREET LOCATIONS

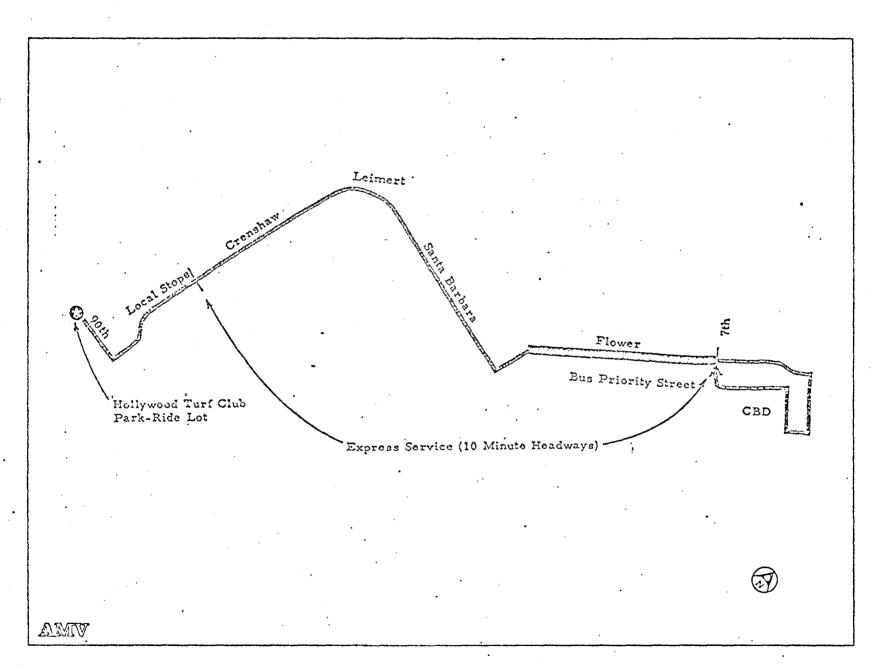
B. INTERMEDIATE DISTANCE SURFACE EXPRESS RECOMMENDATIONS (Detailed Description)

"Sixth Street Express. One of the intermediate distance surface express services proposed as a pilot project is the Sixth Street Express. This line is designed to serve portions of West Hollywood and commuters living in the West Hollywood area who work either Downtown or along the Wilshire Corridor (i.e. Miracle Mile or the Wilshire Center). The figure on the following page is a schematic diagram of the route showing two feeder lines on LaCienega and Fairfax. The buses are then routed in Sixth Street all the way to Downtown and will operate express through the residential portions of this route and will make local stops through the Miracle Mile and Wilshire Center. Sixth Street is just one block from Wilshire Boulevard, so the bus stops made along Sixth will be within comfortable walking distance of the major Wilshire office buildings.

"The West Hollywood residential area has a strong white collar work trip orientation to the Wilshire Corridor and the CBD. Currently, bus travel to the Wilshire Corridor is difficult, because transfers are necessary. Downtown trips by bus are made along slow routes through Hollywood, such as Sunset, and then into the CBD. For example, a trip from La Cienega and Sunset to the center of Downtown takes nearly one hour. The proposed Sixth Street express will beat that time by 15 minutes, while at the same time, providing direct service to jobs along the Wilshire Corridor.

"Hollywood Park Express. The second intermediate distance surface express line, the Hollywood Park Express, is a unique example of the use of a surface arterial oriented park/ride facility. As shown in the figure on the following page, the line begins at a proposed park/ride lot located on surplus parking area in the northeast corner of Hollywood Turf Club property on 90th Street in Inglewood. The line operates with local stops on Crenshaw to Florence and then continues on an express basis on Crenshaw, Leimert, Santa Barbara, Figueroa, and Flower into Downtown.





HOLLYWOOD PARK SURFACE EXPRESS

"This service is designed to capture trips from a fairly large area covering portions of Inglewood, Lennox, and Hawthorne. Small portions of this area already are served by the existing RTD line 5 freeway flyer which travels north along Hawthorne and LaBrea to Manchester, and then to the Harbor Freeway and into Downtown. However, travel time on this line from Market and Manchester in Inglewood to the center of Downtown is 49 minutes during the morning peak. Travel time from the proposed park/ride lot into the center of Downtown is estimated at 41 minutes and should be more consistent from day to day. Furthermore, existing line 5 does not serve the new financial core on the west side of Downtown, a shortcoming the proposed route would correct."

The major difference between the proposed express service and existing lines serving the area is the utilization of a park/ride facility at the Hollywood Turf Club. It is recommended that a convenient portion of the lot abutting 90th Street could be cordoned off for park/ride use in such a manner that no interference with racetrack traffic would result.

Expanded Surface Bus Express. The expanded program for applying the intermediate distance surface express program is not specified locationally because of the uncertainty about whether the concept will prove successful, and if so, what are the necessary ingredients for success. Hopefully, the two pilot projects will come through with merit and perhaps five additional surface express routes can be implemented in the expanded short term program."

IMPACTS

Surface Express Bus. The table describing probable impacts of low capital intensive transportation programs indicates that the only major impact of the proposed surface express system is in the category of socio-economic and cultural effects. Specifically, it will affect:

- Accessibility: Clearly, the surface express system may have effectiveness in improving the accessibility (mainly travel times) for the residents within the corridors, particularly if improvement #12 (expanded surface express) can be fully implemented.
- o Traffic and Parking: Although not all the operational details of the surface express system have been worked out, there clearly will be an impact on the traffic and parking systems of the proposed streets in the commuting periods:

- On some arterials (particularly Sixth Street), traffic may be at such a level that any time savings theoretically gained by express service will be lost to delays on the overly crowded streets, on those portions of the system that are not in a bes priority lane.
- If "signalization priorities" are instituted on the express bus routes, it will affect the green time balance on the cross streets. This will probably cause minor delays on those cross streets at those intersections where the signals can be controlled in favor of the express buses.

C. PARK AND RIDE LOTS - Detailed Description

Park and ride lots are a freeway-related improvement aimed at the commuter who travels at least eight miles to the CBD. They are large parking a eas, served by some form of express public transportation to the CBD, which are intended to intercept the commuter before he gets to more congested parts of the freeway on which he is traveling. The table on the following page indicates the tentative park/ride lots based on a thorough analysis by Alan M. Voorhees & Associates, Inc., (see their "Preliminary Report: A Special Program of Low Capital Cost Transit Improvements, May, 1973). The map following this table shows location of these lots.

IMPACTS

Park/Ride Sites. Generally, the park/ride programs (3, 4, 7-10, 13-16) will have an impact in the socio-economic and cultural, and visual and physical categories. The following are specific areas of impact:

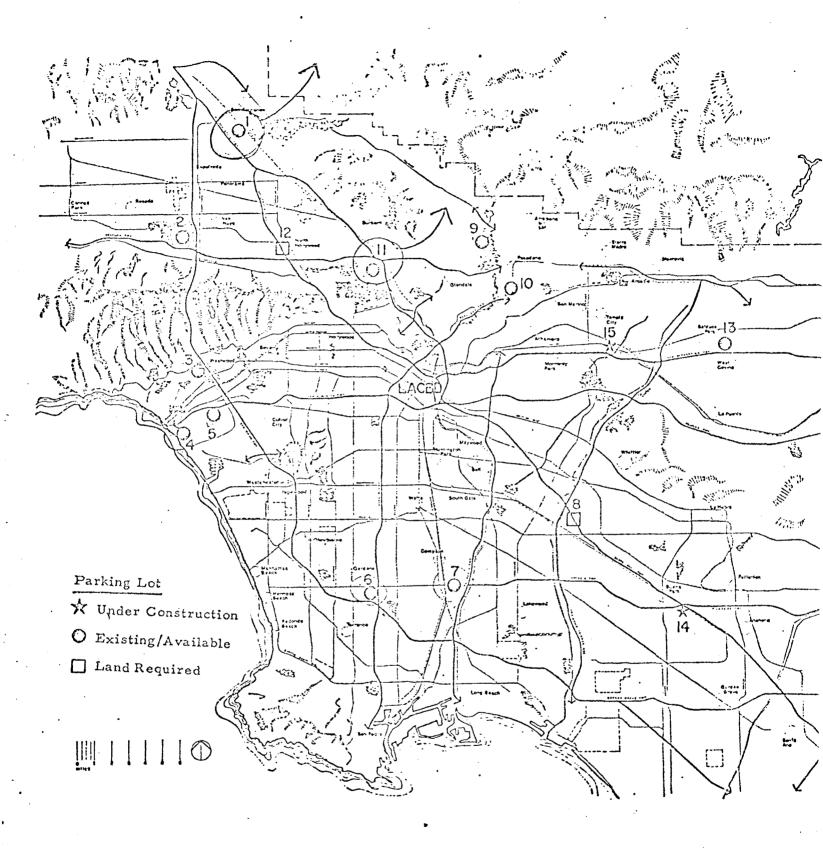
Traffic and Parking: Although the specific details of each park/ride site are not worked out, it is clear that the existing traffic patterns in the area will be affected. The traffic induced into each location may cause redistribution of the existing movement patterns which may, in turn, cause additional traffic and congestion in adjacent areas. Furthermore, because the locations are primarily near freeways, new ramps and/or additional access roads may be necessary to use each site efficiently. This may in turn have an effect on existing land use patterns adjacent to the proposed park/ride locations.

A detailed traffic study should be prepared for each park/ ride site, as the locations and number of spaces are finalized.

CAPITAL COST ESTIMATES FOR THE TENTATIVE PARK & RIDE SITES (LAND COST AND CONSTRUCTION COST OF ACCESS ROADS ARE NOT INCLUDED)

Ţ	entative Site	Existing Land Use	Design Capacity (stalls)	Approximate Lot Size (actual size or est. (# 360 s.f./stall)	Improvement Items Considered	Approximate Cost Factor per Square Foot Parking Lot	Approximate Total Capital Cost	
1.	Laurel Canyon Blvd. / Paxton Ave.	CDii excess land	490	175,000 S.F.	Minor grading, paving, drainage, curbs, signing, striping, lighting, wheel stops, fences & bus shelters	\$1,10	\$192,500	
2.	Sepulveda Dam	Vacant	1,000	360,000 S.F.	Minor grading, paving, drainage, curbs, signing, striping, lighting, wheel stops, fences & bus shelters	\$1.10	\$396,000	
3.	V.A. Property	Vacant	400	144,000 S.F.	Same as No. 1	\$1,20	\$172,800	
4.	Santa Monica . Civic Auditorium	Parking	250	90.000 s.f.	No improvement	• • • • • • • • • • • • • • • • • • •	•	
5.	Centinela Ave/ Ocean Park Ave.	McDonnell-Douglas Unused Parking	450	162,000 S. F.	No Improvement	•	•	
6.	New Ascot Raceway	Parking	500	180,000 S. F.	Resurfacing, signing striping, lighting & bus shelters	\$0,45	\$ 81,000	
7.	Artesia/Long Beach Boulevards	CDH excess	280	121,000 S.F.	Same as No. 1	\$1.10	\$133,100 .	
8.	Norwalk .	•	500	180,000 S. F.	Site to be determined	\$1,20	\$216,000	
9.	Rose Bowl	Parking	500	180,000 S.F.	Paving, drainage, curbs, signing, striping, lighting & bus shelters	\$0.15 - 0.70*	27,000 - 5126,000	
10.	Rt. 11 Entrance	Vacant	650	234,000 S.F.	Same as No. 1	\$1,10	\$257,400	
11.	L.A. Zoo	Parking	1,000	360,000 S.F.	Signing, lighting & bus shelters	\$0.10	\$ 36,000	
12.	North Hollywood	•	(2.000	360,000 S.F.	Site to be determined	\$1.20	\$432,000	
13.	Eastland Shopping Center	Parking	450	162,000 S.F.	No improvement	-	-	
	Total	· .	7,470				\$1,943,800	

^{*}NOTE: Low cost figure is for the site improvement without paving and drainage.



TENTATIVE PARK-RIDE LOCATIONS

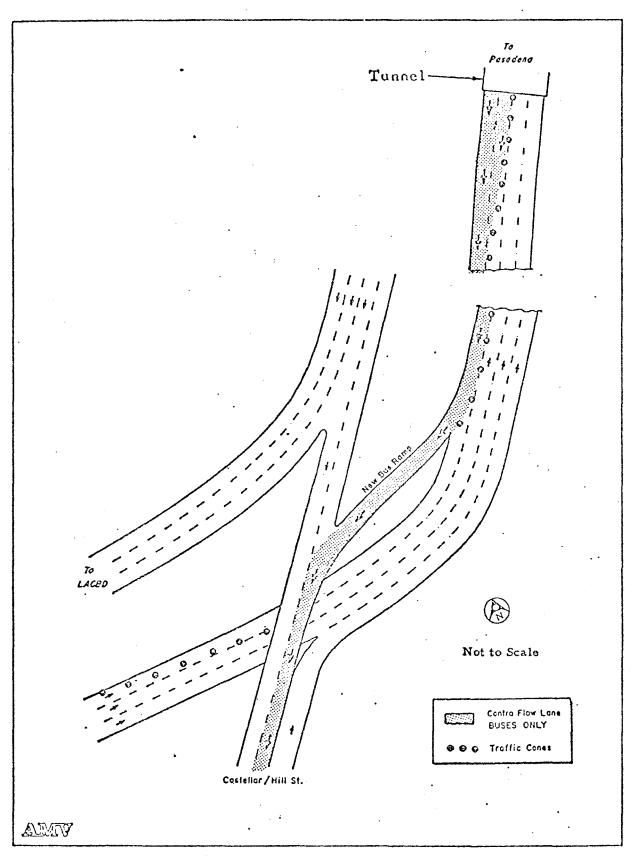
D. FREEWAY PREFERENTIAL TREATMENTS - Detailed Description

The primary new measure recommended for low capital cost <u>freeway</u>-related improvements is the exclusive bus lane, on an existing <u>freeway</u> against the direction of traffic flow (contra-flow lane).

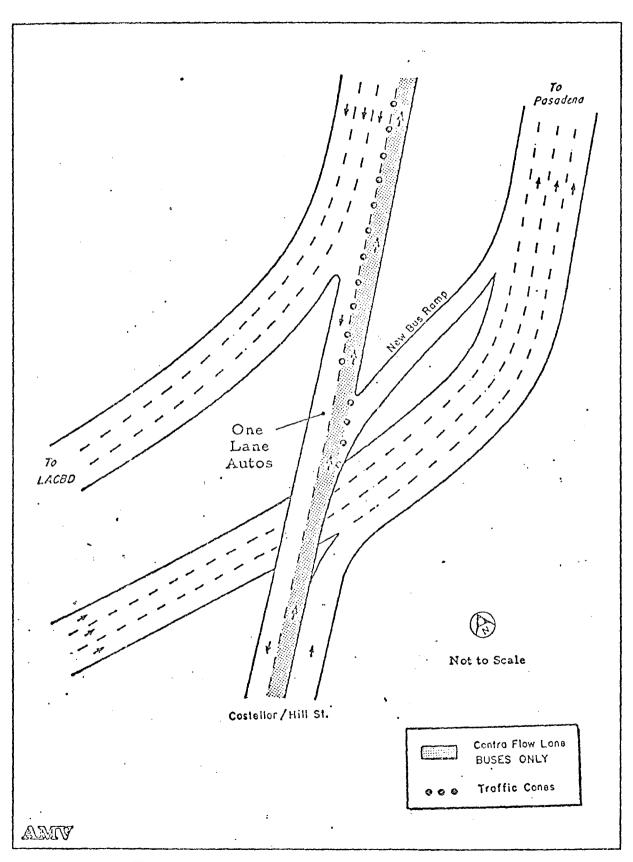
Contra-flow lanes are appropriate where there is an excess capacity in the minor flow direction such that a lane may be taken for bus use without impeding the general flow.

- "The Pasadena Freeway has been recommended for contra-flow operation for the following reasons:
 - o Minor flow could be carried on two lanes.
 - Freeway entry point on Arroyo Parkway would provide an excellent opportunity to cross to the left hand roadway.
 - o Downtown exit and entry may be accomplished by construction of one bus ramp from the left hand inbound lane onto Castellar Street/Hill Street overpass ramp. See the figures following this page for description.
 - o Since the Golden State Freeway (Riverside Drive) and Figueroa Street northbound off ramps exit from the left, they could be used as bus on ramps. They would, however, have to be closed during the morning peak period.
- Two options would be open to the buses. They could either use the Golden State exit ramp in the normal manner (Ramp B), travel on Riverside Drive, then go contra-flow on Ramp C to the Pasadena Freeway, or they could Ramp A to the point at which it meets Ramp C, then cross over. Despite being more circuitous, the former route is probably better as Ramp A normally is backed up with traffic and the bus would lose its time advantage if it had to wait in line.

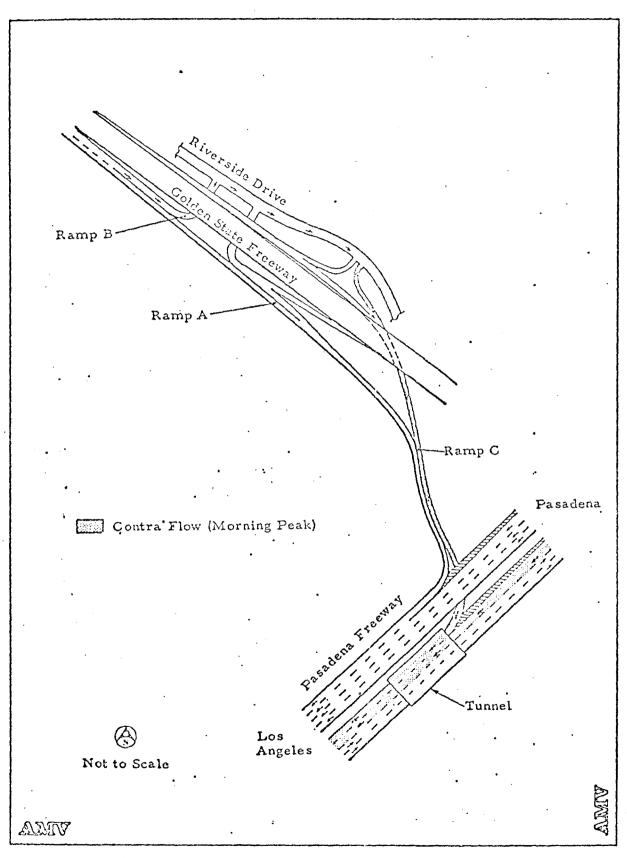
Also recommended for freeway bus application is the Hollywood Freeway between the Ventura Freeway and Highland Avenue. This application is being discussed presently by the SCRTD and the California Division of Highways. Details of this application are not as yet available.



TERMINATION OF PASADENA CONTRA-FLOW LANE (MORNING PEAK)



START OF PASADENA CONTRA-FLOW LANE (EVENING PEAK PERIOD)



ACCESS FROM GOLDEN STATE FREEWAY TO CONTRA-FLOW LANE ON THE PASADENA FREEWAY (MORNING ONLY)

Pasadena and Hollywood Freeways Contra-Flow Application (17, 18). Although the recommendations for contra-flow operation on the Pasadena Freeway are more specific than those for the Hollywood Freeway, remarks concerning the environmental impact offered below relate to both applications.

IMPACTS

As indicated on "probable impacts" table, the proposed freeway improvements will have an effect on the socio-economic and cultural aspects of the environment. More specifically, they will have an impact due to:

Increased Accessibility: The contra-flow application is a method of increasing the efficiency of the existing freeway system in the peak periods. Accessibility will be increased for persons living in the travel corridor served by the two recommended applications. Because the proposals can be accomplished without removing any existing freeway capacity in the major flow direction, the impact is a positive one.

E. IMPROVED DOWNTOWN DISTRIBUTION - Detailed Description

"A very critical element of the short term bus improvements program is the operation of buses in the Downtown street network. Two significant events make immediate development and application of revised and improved operation in the CBD essential:

- "The location of Downtown jobs is in the process of rapid change as the result of development of high density office construction on the west side of the CBD, centered approximately at the ARCO Towers in the block bounded by Fifth, Sixth, Flower, and Figueroa. Existing bus services are oriented primarily along north/south streets serving the old commercial/financial core and the Civic Center, namely on Hill, Broadway, Spring, and Main. Many of the large new employment centers are separated from bus services by distances greater than reasonable walking range. Consequently, there is little prospect that new employees working on the west side of Downtown will use the existing bus line if they have an alternate choice (i.e. auto). Furthermore, there is a definite risk of losing transit ridership from among those existing employees whose job locations are shifted from the old core to the west side of the CBD. Solutions must be developed which respond to these problems of a dynamic Downtown.
- "New bus services are being planned and implemented for transportation of commuters by bus from intermediate and outlying suburban locations to Downtown. The El Monte express busway is, of course, the prime example of this kind of service. Additional express services are proposed as part of this special short term transit development program using surface arterials from medium range (6 to 10 miles) and freeways with supporting park/ride facilities for longer commutes. These prospective new transit patrons are predominantly white collar workers, located in large numbers in the Civic Center and the new financial core. Thus, a significant opportunity exists for capturing new transit patronage. The potential can be tapped if fast bus service is provided which takes these suburban commuters close to their Downtown job locations.

'It is quite clear that the major portion of new bus services into Down-town should provide convenient service to the presently inadequately served new financial core. New service should be routed along a fast circulation loop in Downtown along which reasonably good speeds can be maintained and adequate curb space is available for conveniently located and uncongested passenger loading and discharging.

"Special traffic control techniques designed to give preferential treatment to heavily loaded buses using the circulation loop should be aggressively developed.

"Within the short term future, if the new express bus lines serving suburban commuters prove successful, it is not improbable that 200 or more new peak hour buses will have to be efficiently handled in Downtown. We think that the bulk of these should be assigned to a single high priority distribution loop. A design team consisting of SCRTD representatives, members of appropriate departments of the City, and State Division of Highway technical staff should be formed at once to proceed with the problem of analyzing all the alternatives and the complex tradeoffs among them to establish the best new Downtown distribution plan.

"The north/south streets with no buses or minimal existing bus traffic are Figueroa, Flower, Hope, Grand, and Olive. The new distribution scheme must use selected streets from these alternatives to conveniently serve the new core area. A preliminary evaluation in this study favors the use of Flower and Grand (when construction is completed) because of their location and the potential feasibility of preferential bus treatments thereon.

"In servicing of the Civic Center area, it is unavoidable that buses travel on First and/or Temple. However, major opportunities exist for high volume bus loading areas on north/south connecting links such as Grand and on contra-flow curb faces on Spring and Main. It is important not to foreclose the future options for contra-flow, at least in the one block sections of Spring and Main between Temple and First. As bus volumes grow, the contra-flow concept may be the most logical and effective way to employ the scarce remaining curb space for loading and unloading near the Civic Center."

IMPACTS

Until the alternatives for a new Downtown bus distribution system are more refined, it is difficult to assess the environmental impact of those alternatives. It is clear, however, that if a new Downtown system is not implemented, much of the advantages accruing from other short term transit improvements will be less than expected, and congestion, time delays, and pedestrian/vehicular conflicts will increase.

ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Other than the minor effects already discussed in Section 2, there are no adverse environmental effects that would be produced by the Program.

Major impacts of the proposed actions will occur in the areas of traffic and parking, but the actions can be accomplished in such a way as to not adversely affect the environmental and community contexts in which the actions are to occur.

MITIGATION MEASURES TO MINIMIZE ANY ADVERSE ENVIRONMENTAL IMPACTS

Although there are no adverse environmental effects caused by the proposed actions, there are measures which can be taken to assure that the proposed improvements actually contribute to the environment and community contexts. Such measures should become part of the refinement planning efforts and should include:

- and urban planners should be included in the study effort to insure that the highest quality of design product is achieved. The signing and graphic systems, landscaping plans, and lighting and public communications programs should be designed early and coordinated with the existing context of each of the planned improvements.
- 2). Coordination with the Land Use Plan. The Land Use Plan for each area in which the improvements are to be placed should be monitored and revised, if necessary, to assure coordination with the program's objectives. This is especially important in respect to the proposed park/ride site locations.
- 3). Coordination with the long range public transportation plan. All improvements as finally adopted by the District should be coordinated with the long range public transit program as finally adopted and approved. This measure will guarantee that all improvements (park and ride lots and priority bus, particularly) become a part of total system design, and that later, expensive, changes to the short term improvements will be minimized.
- 4). Public participation. All improvements as described should be discussed with, and evaluated by, responsible community representatives, to test and perhaps modify these improvements as described herein.

ALTERNATIVES TO THE PROPOSED ACTION

All alternatives to these recommended program steps are included in the Alan M. Voorhees & Associates, Inc., report ("A Special Program of Los Capital Cost Transit Improvements for Los Angeles"). The rationale for eliminating other steps or alternatives is adequately described in that report.

The only alternative to the proposed program objectives not described is the "do nothing" alternative. Clearly, this is an unacceptable course of action. Travel congestion in the Los Angeles Region is increasing, and additional road and freeway facilities are not being constructed; also, land use activity under construction will further aggravate this situation. More importantly, the time required to begin operation of a regional rapid transit system necessitates that these short range programs be implemented as quickly as possible, to accustom the community to public transportation and to offer a wider choice of opportunities to use it.

LONG TERM EFFECTS OF THE PROPOSED ACTIONS WHICH ADVERSELY AFFECT THE ENVIRONMENT

Because of the preliminary nature of the recommendations, it is not possible to precisely catalogue the long term effects of the program, especially those that may affect the environment. However, based on the details of the program as they now exist, there will be no adverse long term effects of the proposed actions on the environment.

ANY IRREVERSIBLE AND IRRETRIEVABLE CHANGES THAT WOULD RESULT FROM THE PROPOSED ACTIONS

Due to the nature and extent of the program, there are no irreversible or irretrievable changes that would occur as a result of actions described in this report.

"GROWTH INDUCING" IMPACTS OF THE PROPOSED ACTIONS

Due to the limited nature of the preliminary program of low cost transit improvements, there will be no "growth inducing" impacts generated. There may, of course, be changes in land use in and around the improvement areas, but these changes will be minor and insignificant.

APPENDIX

Architects Planner:

Nomiala and Shyer

Mr. Donald Brackenbush
WALLACE, MCHARG, RCBERTS and TODD
304 South Broadway - Fifth Floor
Los Angeles, California 90013

Dear Don:

The following is an outline of the work completed by Kennard and Silvers under TASKS II BI and II B5. Our work efforts have been incorporated in AMV's preliminary report entitled "A Special Program of Low Capital Cost Transit Improvements for Los Angeles". Please find enclosed a memorandum from AMV indicating completion of both Tasks.

TASK II BI Work Itemization

- Assisted AMV with the initial identification and screening of potential low cost transit measures. Meetings were held between the K&S staff and Gordon Neilson of AMV in which measures were identified that would best meet the needs of the Transit Dependent (TD) communities. These included: Dial a-Bus, Special Purpose Buses, Bus Pools and Shuttle (Feeder) Buses. Generally, these measures include both long-haul and short-haul community service.
- Refinement of the above measures and identification of low-cost measures for several TD communities in greater Los Angeles. A meeting was conducted by K&S staff and Gordon Neilson and Keith Gilbert of AMV at which time selected measures were finalized and TD communities identified to determine which of the above measures could potentially meet community transit needs.

TASK II B5 Work Itemization

- o Identified specific TD communities for interviews and established liason with community representatives (primarily governmental) of South Central and East/Northeast Los Angeles. This was initiated in response to Gordon Neilson's request to identify current community transit needs and desires.
- Interviews were conducted relative to the transit needs and problems confronted by transit dependent community residents (the young and elderly, handicapped, unemployed and low-income). These interviews primarily focused on the problems that were related to the general mobility and accessibility of these residents to: Employment centers, shopping, health,

5605 West Washington Boulevard Los Angeles, California 90016

Telephone 213-937-0855

1,

continued

Mr. Donald Brackenbush 24 May 1973 Page 2

TASK II B5 Work Itemization (continued)

cultural and educational centers. In light of these interviews, low-cost transit measures were identified with respect to these needs.

Assisted AMV in preparation and review of Task 11 B5 report.

Sincerely,

JEFFREY M. GAULT Director of Planning

/dvb

7277/1/7 A

MEMORANDUM

TO:

Tom Lewis, K & S

DATE:

17 May 1973

FROM:

Gordon Neilson

JOB:

207-006

SUBJECT:

SCRTD Low Capital Cost Improvement Program

I am enclosing a copy of our draft report entitled "A Special Program of Low Capital Cost Transit Improvements for Los Angeles". We have incorporated your comments made at our meetings and also the pertinent sections of your technical Memorandum. We would however appreciate your review of any section of the report.

We consider that you have fulfilled your obligations in Tasks II B1 and II B5.

The ability of existing bus service and other low-cost capital measures, (dial-a-ride, bus pools, etc.) to provide better service to the "transit dependent" (TD)population in terms of accessibility to major employment areas and shopping, cultural, educational or health centers will be analyzed in this study. Interviews have been conducted to find out more about the unique characteristics and needs of these TD communities, specifically the South Central Area and the East/Northeast Area. In addition to the interviews, secondary resources such as the 1970 U.S. Census and other documents relative to these communities were reviewed and analyzed.

This report describes the non-quantifiable analysis from interviews with various persons in public agencies and other private individuals. All interviewees were especially knowledgeable in the South Central and East/Northeast communities. We focused on the special and unique travel characteristics of the TD.

However, the interviews conducted are limited and cannot be considered a total evaluation of community-wice goals or needs. We consider the information revealed in these interviews to be indicative of the types of travel characteristics and the relative magnitude of need for both communities. An extensive and meaningful community analysis is required if the real aspirations and requirements of the citizens are to be included in the planning process.

General Overview

The following section focuses primarily on those areas of greater Los Angeles which have exhibited high degrees of TD: South Central Los Angeles and East/Northeast Los Angeles. In both of these areas, transportation has been identified as one of the more crucial community problems, but the interdependence of all contributing factors cannot be overemphasized. These factors include the greater number of unemployed persons who have relatively low incomes and no skills with which to secure a job; the cultural gap that exists between school and community; the general deterioration of these areas due to lack of maintenance of both public and private property; the decline or non-existence of the shopping and business facilities which generate revenue in the communities, and the lack of health care facilities.

AREA DESCRIPTION

The following are the results of secondary research and personal interviews concerning the existing conditions in the South Central and East/Northeast areas which have a direct bearing on transportation needs and general perceptions of public transit in the area.

For purposes of this analysis, South Central refers to the area north of Imperial Highway, south of the Santa Monica Freeway, west of Alameda and east of the Harbor Freeway. Within these boundaries, a Model Cities Neighborhood has been designated. It is called the Greater Watts Model Neighborhood (GWMN) and is composed of two areas, Green Meadows and Watts which cover approximately 9.8 square miles.

The East/Northeast Los Angeles area comprises the Greater East/Northeast Model Cities Neighborhood (GENEMN) located about three miles northeast of the Los Angeles Civic Center. The GENEMN is 16 square miles in size and contains the communities of Boyle Heights, Lincoln Heights, and El Sereno and includes portions of Atwater, Highland Park, Mount Washington, Echo Park and Silver Lake. The population is primarily Spanishspeaking.

Compared to the city as a whole, the areas exhibit a lower average family income, a high rate of unemployment, a lower level of employment skills among residents, a lack of quality retail merchandise shopping facilities, a higher student drop-out rate, a higher incidence of communicable diseases and a lack of investment in the area.

COMMUNITY PRIORITIES

Below are listed certain problems in the priority ranking determined by GWMN Residents Council and the GENEMN Residents Council designed to reflect the citizens' perceptions of the seriousness of problems confronting their community:

South Central		East/Northeast	
 Manpower and Employment Economic and Business De Housing 		Education Health Social Service	

4. Education 4. Crime and Delinquency 5. Health 5. Economic Development and Employmen **Environmental Protection** 6. 6. Housing

GWMN

- 7. Social Services 7. Transportation 8. Crime and Delinauency 8. Physical Environment 9. Recreation and Culture
- 10. Transportation

GENEMN

It is significant that two areas in Los Angeles who statistically seem very much alike and are rated as "highly" TD perceive their situations and problems differently and how the residents of each see the solutions to their problems according to neighborhood values.

TRANSPORTATION/BOTH AREAS

The East/Northeast area ranking, like that of the South Central area, shows transportation low on the priority scale.

Certain problems have a more direct effect on transportation and conversely are more directly affected by transportation conditions and benefits or the lack of them. Transportation which is a serious problem in the area does not rank as high as would be expected. It appears that, perhaps, residents do not perceive the relationship that exists between transportation needs and their other problems.

Transportation is not perceived as a part of a "cause and effect" process working to determine what one does and does not have.

As this analysis concentrates on the TD characteristics of the population, we will first discuss transporation needs and problems and in the following sections show interrelated problems to transportation directly and indirectly for the populations of these two areas.

The problems of transportation for the East/Northeast and the South Central Areas of Los Angeles are more pressing than for most other areas in Los Angeles. The major barriers are inadequate bus service and lack of automobile ownership. The 1970 U. S. Census shows that approximately 30% of the households do not have cars and for this population owning a car is very difficult. If the car could be purchased, the high insurance rates and maintenance costs would prove to be too much in relation to total wages earned. So these people are dependent on public transportation to get to their job, to do their shopping, and to get around in their neighborhood.

The Southern California Rapid Transit District (SCRTD) is the major source of public transportation in these communities. By looking at the problem areas perceived by the community, we have compiled a community profile with which to assess restrictions on the mobility of these residents. These restrictions have primarily resulted from the existence of barriers between people and destinations. The Transportation-Employment Project for South Central and East Los Angeles has determined seven principal types of barriers between people and destinations. They are listed below with statements relating to our interviews.

It should be kept in mind that the magnitude of the transportation problems of urban residents is determined to a large extent by income, car ownership and the location of residences. As we have seen, the first and second items are lower than the averages for Los Angeles City and County and, consequently, the problems that face this area are more severe than the same problem at the City or County level.

Transportation - Employment Project, State of California Business and Transportation Agency, A Research Project to Determine and Test the Relationship between a Public Transportation System and Job and Other Opportunities of Low Income Groups; Final Report, August, 1971.

1: Lack of Recognition of Need or Incentive to go to the Destinations.

Fear: Many of the residents are afraid to leave their neighborhood and travel, either for work, shopping or pleasure, into parts of the city where there are few members of their minority group (Black or Spanish-speaking).

Lack of Training: In both areas, there are many unskilled and semi-skilled workers. There are only certain areas of employment open to them; their chances of getting into a new job classification are slim. Not being able to speak tluent English is another problem in meeting employment standards.

Lack of Purchasing Power: Many people are forced by economic circumstances to buy within their own neighborhood because of the availability of credit for groceries and other daily essentials. Other markets may or may not be accessible to them, but without cash or credit, it is irrelevant. Families with low or fixed incomes usually live from paycheck to paycheck and are generally uncertain as to what funds will be available for shopping on a specified date in the future. For this reason, organized bus pools for shopping services are not successful.

Also, outings as a recreational activity or trips to entertainment centers has, as a prerequisite, the availability of funds to cover price of admission, etc. Organized bus pools for recreation, however, are successful because they can be scheduled for enough in advance to plan for the event.

Lack of Knowledge: If the residents of an area do not realize what opportunities exist in their own neighborhood, surrounding areas, or the Los Angeles basin, in general, they will not make these trips. Dissemination of information is lacking. Free public services offered to residents of the Los Angeles Area and advertised in newspapers and radio may never reach the Spanish-speaking population in this area, especially the elderly, who, because of low incomes, have a greater need for the free services, unless through advertisement that information is also printed in Spanish. A bus pool service of scheduled trips can be informative with respect to available opportunities, especially recreational opportunities.

2. Non-Availability of Transportation System

In order to make use of the existing transit system, a person must be able to get to and from the bus stops closest to where he is and where he wants to go. If the system does not reach either of those areas, or if on-route changes cannot be easily made, he will not be able to use the system. A demand/response vehicle can solve the problem of getting to and from the local bus stop and within the local service area, but a rider who must go outside the reach of the demand/response vehicle, the same problems of accessibility which existed before faces initiation of demand/response vehicles.

Availability of a Total System: In South Central Los Angeles, residents have complained of the cost and time spent in transferring between lines. There is also a lack of knowledge of the total system which inhibits them from attempting trips to areas they are not familiar with.

Getting to and from Vehicle Stops: This is a problem especially for the very young, the electly and the handicapped — a large portion of the TD. Also, anyone who is sick usually cannot walk several blocks to a bus stop, especially if the stop is not furnished with a place to sit down with some shelter from the elements. Studies have shown that the 75% of the ridership currently in Los Angeles walks only two blocks to a bus stop. Providing transportation, possibly in the form of a demand/response or Dial—a-Bus service, to and from bus stops will increase ridership.

In the East/Northeast Area, the primary problem in using the SCRTD is the distance between stops and the lack of local surface street transportation. This is due to the broken street patterns and the substandard conditions of the streets. Walking to existing bus stops, especially for the very young, the elderly and the handicapped, is impossible in many parts of the area due to infrequent stops, the topography of the area and the lack of local transportation. The residents complain about the lack of north-south bus routes which exist only on Soto Street, but what they do not realize is that in order to but new service in, certain requirements must be met. SCRID requires two basic criteria to institute new routing: Good street conditions and accessibility and ridership rate support throughfares. Many of the streets are substandard in width, contain broken paving and show an absence of curbs and sidewalks. There is also bad street maintenance and the geography of the land leaves no room for improvement or any way to better the accessibility to many streets. The hills and the broken street patterns make it hard to put in any new service and certainly make the existing service difficult to get to. They feel bitter upon hearing of new service in other parts of the country when no new service has been planned for their area.

The initiation of the demand/response vehicles through the model cities program could, of course, help the TD to travel within the area and to reach departure points (long-haul feeder service) for travel outside the area.

3. Limited Efficiency and Dependability of Means

Transfer Requirements: Most residents in the South Central Area cite this as a factor which not only lowers the efficiency of the total system but presents them with extra expense. Also, there is the problem of incompatible scheduling between different lines, causing inconvenient and sometimes costly waiting.

²A Public Opinion Survey of Attitudes R_egarding Public Transportation and Rapid Transit in Los Angeles County, by Opinion Research of California, Long Beach, California, June 1957.

Frequency: In South Central Area there is limited public transportation to key areas of employment after the normal working hours of 8:00 a.m. to 5:00 p.m. Many of the residents work on swing shifts or night shifts and at the non-peak hours there may be as much as an hour or more between buses.

In the Northeast areas, most of the buses which serve the area are traveling through it to serve the downtown areas and the areas further north and east outside the city. Because many of these routes are express lines, they make infrequent stops in the area and cannot be used for local transportation.

Capacity and Functional Efficiency of Streets: The streets in many areas are narrow and were originally designed for residential use only. The streets jog and dead-end and, therefore, do not meet the standards set by the SCRTD. This means that access to certain areas of the neighborhood is therefore impossible by the public bus system as it is now. Also, poor sidewalks and curbs further hazard the user. The many available modes of transportation would result in different street condition requirements, and would alleviate some of the above problems.

4. Lack of Awareness of Means for Reaching Destination

Scheduling: Sporadic announcements in local papers and small printed schedules available on the bus or mailed upon request from the SCRTD are the only means of informing the riders of the given available bus routes, except calling the SCRTD operator. The SCRTD has stated that a Spanish-speaking operator will be on duty at all times but complaints from the residents indicate that this is not always the case. The schedules are not published in Spanish and for many elderly new residents, this means that they may be unable to travel because they are not aware of the availability of transportation.

There is a need for signs at bus stops of departure times, arrival times and destinations. Also, areas that many Spanish-speaking peoples travel to and from should be provided with bi-lingual signs. Information must also be disseminated concerning availability of more than one mode of transportation.

5. A person's safety may be threatened during the pedestrian trip to and from the bus stops or while waiting for the bus. In the East/Northeast area, the rough terrain makes walking difficult and the low maintenance of sidewalks and curbs increases the danger for those who walk between stops. In South Central, buses run at an average of 15-20 minutes a day during peak traffic and 20-25 minutes during mid-day. For an elderly or sick person, a wait over 15 minutes may prohibit his or her use of the bus.

Placement of stops in both areas should be according to greatest need and highest degree of safety and accessibility. Boarding and exiting should be made as safe and easy as possible for all riders, especially the young, elderly and handicapped.

6. Lack of Access to Transportation System

Transportation Costs: Costs are high in relation to total wages, especially due to the number of zone changes a rider must make.

Bus Stops: The stops must be within reasonable distances at both ends of the trip.

Local Service: The local service within the east/northeast area is sorely lacking and the population should be made aware the direct causes and possible solutions available to correct these public transportation deficiencies.

7. Reluctance to Use Available Means of Transportation

If the preceding barriers between people and places are overcome and the potential rider is reluctant to use available transportation because of fear or lack of confidence, the trips will not be made. The problem of a language barrier is the hardest to overcome because the ability to communicate in English is essential in order to travel outside the Spanish-speaking neighborhood. Other unknown factors may prohibit the person to get where he wants to go even if public transportation is available.

The following sections deal with the problems of South Central and East/Northeast Areas, as identified by the residents. The primary source for this information is the Second Action Year Comprehensive Demonstration Plan by the City Demonstration Agency of Los Angeles, June 1972, along with the interviews, the 1970 U.S. Census, and other studies listed in the bibliography.

EMPLOYMENT

South Central/East/Northeast Area:

Many residents believe that discrimination in hiring is a major factor in deterring the employment and upward mobility of residents. The reasons may be over racial discrimination, or the built-in cultural preference to hire one's own kind. This latter reasonis also a factor in the choice of the job hunter from the ghetto to either go outside the area he or she is most familiar with, or perhaps accept a lower-skilled job to stay in the area where he or she feels the most comfortable. There is definitely an element of fear caused in part by the lack of previous encounters and experiences, social or business-oriented, which keeps many residents working and playing right in their own neighborhood.

The inadequacy of public transportation is a major barrier in getting and holding a job. Employment is regarded as the first step to upward mobility with the second and third steps often being the purchase of an automobile and a consequent move into a "better" neighborhood.

A potential transit system in these areas, in order to satisfy current and future employment needs, should provide short-haul access in both an east-west and north-south direction within the community and the surrounding areas and provide some connection to a long-haul fixed rail.

South Central

Local employment opportunities in the South Central Area are extremely limited and many workers must commute to other outlying areas for work. The South Central communities had, in June 1970, 3.2% of the LA County population and only 1.5% of the jobs. Currently, most of the jobs held by residents are classified as blue collar positions with many workers in the manufacturing and construction sectors. The unemployment rate for the area is 14% to 17% which is far higher than LA county average of 6%. Employment located in the immediate vicinity of these communities, will not necessarily create jobs for residents. Certain interviewees including the Watts Office of the State Department of Human Resources, indicated that the Alameda industrial district did not, in general, employ a substantial number of Black workers, although the job classifications and requirements were well satisfied by local residents in the work force.

East/Norrheast

Most problems of employment are ethnological in nature due to the language barrier.

The combination of unskilled and low-skilled workers and language problems have contributed to the decreasing choices of types of employment and locations. Generally, most of the unskilled and semi-skilled employed male residents work in the surrounding industrial areas to the west and south of Boyle Heights. Because of the tight labor market, wages are forced down and the number of available jobs is reduced.

There are few through streets transversing the entire area so that there is limited travel within the neighborhoods. The bus lines which cut through the area are basically commuter lines from outside these communities to the downtown areas. It is difficult to get to the surrounding industrial areas by bus — and that is why there is a strong pressure on the worker to awn his own automobile. This area has a higher correlation between transportation and employment due to the limited availability of either public or private transportation.

Economic and Business Development

South Central/East Northeast

It is not expected that employment opportunities will increase within either of the Areas. Bussiness are unwilling to come into the area due to both high taxes and high insurance rates. The following conditions contribute to the prohibitively high cost of development and effectively prohibit meaningful planning anticipating commercial and industrial growth:

- Existing businesses in the area are considered to be "high risks"
 by banks, savings and loans, and insurance companies.
- Congested traffic patterns add to the unattractiveness and inofficiency of the area for commercial and industrial development. Accessibility to the freeway is limited and surface streets are designed for residential traffic only.
- Spot zoning has permitted vacant lots, single-family dwellings, apartments, commercial buildings and industrial land uses to occupy the same area.

South Central

In the South Central Area, as in other low-income areas, residents are generally unable to maintain a satisfactory standard of living; therefore, all income is expended for living purposes, making it difficult, if not impossible, to save any money. That leaves no investment capital and in the South Central Area, the money spent is to absentee-land owners and businesses outside the community area. The money leaves the area with the absentee owner and, consequently, no money is reverted back to the community in the form of funds or services. In economically developed communities, money turnover may be as high as thirteen times, enabling business owners to exchange money and services and, at the same time, build a supportive economic base by dealing with each other. This, in turn, expands the services to resident shoppers and supports and perpetuates the economic cycle.

Everyday commodities are not easily accessible to residents. For example, within the GWMN, there are no regional shopping centers, no department stores, no furniture stores, only three chain drug, variety and discount stores and five chain grocery stores. Residents are forced to go outside the neighborhood for certain types of merchandise and for the pleasure of having a variety of goods to choose from.

East/Northeast

The GENEMN area developed as an area of relatively high income and, therefore, high purchasing power. This resulted in a large stock of neighborhood retail establishments. Currently, the neighborhoods have experienced little economic growth due to the high incidence of these small retail businesses, just self-sustaining, which provides service to their immediate areas instead of competing with the denser commercial strips. In summary, the local residents are not forced to go outside their neighborhood for shopping and meeting their daily requirements for food and clothing.

Housing

South Central/East Northeast Areas

Home ownership and general housing conditions continue to decline in the housing stock within the areas. New construction has practically ceased and the existing housing stock is deteriorating with little rehabilitation which contributes to overcrowding.

South Central

Within this area, many housing units are held by absentee owners who are speculating in future increases in value. Therefore, units are not maintained by those absentee owners who consider it economically unwise to invest in any rehabilitation or upgrading of their property. Over 50% of the housing is owned by persons outside the community.