REPORT TO:

LOS ANGELES CITY COUNCIL AD HOC COMMITTEE ON RAPID TRANSIT

TECHNICAL ADVISORY COMMITTEE ON RAPID TRANSIT FEBRUARY 1972

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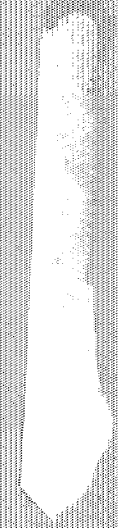

TECHNICAL ADVISORY COMMITTEE ON RAPID TRANSIT

FEBRUARY 1972

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LOS ANGELES CITY COUNCIL
AD HOC COMMITTEE ON
RAPID TRANSIT

FEBRUARY 1972

TECHNICAL ADVISORY
COMMITTEE ON RAPID
TRANSIT

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REPORT TO: LOS ANGELES CITY COUNCIL
AD HOC COMMITTEE ON RAPID TRANSIT

Analyzing and reporting on the Southern California Rapid Transit District's action to build a central line of a rapid transit system and the financing thereof.

FROM: TECHNICAL ADVISORY COMMITTEE ON RAPID TRANSIT

Calvin S. Hamilton, Chairman,
Director of Planning
Alfred Purvis, Chief Legislative Analyst
Dr. C. Erwin Piper, City Administrative Officer
Lyall A. Pardee, City Engineer
Sam S. Taylor, City Traffic Engineer
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February 1972

CITY OF LOS ANGELES
TECHNICAL ADVISORY COMMITTEE
ON RAPID TRANSIT

February 15, 1972

Honorable Members
Ad Hoc Rapid Transit Committee
Los Angeles City Council
Room 395, City Hall
Los Angeles, California

Gentlemen:

TECHNICAL ADVISORY COMMITTEE REPORT ON RAPID TRANSIT

The Advisory Committee hereby transmits its report and recommendations analyzing the SCRTD proposal to build the first leg of a rapid transit system from Union Station to the El Segundo-Norwalk Freeway. This report is a joint effort among the many Departments that you have asked to participate. Staff in the Departments have worked with admirable cooperation and spent many hours to accomplish this analysis. The Committee is well aware of the effect of the limitations of time and the absence of data to develop the details of this analysis, but is of the opinion that further time and data would only contribute to specifics and not change the direction of the findings.

We regret that we had not received answers from SCRTD on the most important questions of finance at the time of the final preparation of this report.

Very truly yours,

CALVIN S. HAMILTON
Chairman
Technical Advisory Committee

CSH:cy

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INTRODUCTION

This report attempts to give to the City Council Ad Hoc Committee on Rapid Transit a brief overview of the issues concerned with the SCRTD's proposal to build the first leg of a rapid transit system from Union Station to the El Segundo-Norwalk Freeway.

SCRTD's presentation to your Committee stressed four main points:

1. The Central Line was the one they recommend for an action program because of financial limitations;
2. The Central Line is a common denominator in all past RTD and City plan transit studies;
3. The Central Line would meet a special community transportation need in the South Central Area; and
4. The Central Line provides access to the Coliseum and Exposition Park.

In the hearings on SCRTD's proposal, Council Committee members asked a number of questions. The most pertinent ones seemed to be the following:

1. What would be the impact of a Central Line or an alternative line such as the Wilshire Corridor concerning:

a. The City's tax base.

b. Relief of congestion.

c. Fostering desirable City development.

d. Providing increased service to those citizens that need it the most.

e. Maximizing the benefits gained versus the public investment required.

2. After a seven-year period, additional 325 funds will revert to renewal of the existing bus system. Would this mean that the City would have only one leg of a rapid transit system running southeasterly for an indefinite number of years?

3. What will be the relative ridership in terms of cost benefit between the proposed RTD route and other routes?

4. How effective an example will the first line built be toward the development of a regional rapid transit system?

5. What other political jurisdictions or agencies should participate in the financial commitments?

6. Should the funds now available be used for a single rapid transit line or should they be used for improvements in several of the basic bus lines (such as the San Bernardino Corridor)?

7. What are the total costs to the City for construction of collateral facilities and staff assistance?

In attempting to assist the City Council Committee in answering these and many other questions which arose during the course of the study, a work program was developed and various task forces were organized among the Departments to deal with specific concepts. These task force groups requested and received assistance from the staff of the SCRTD, and the Technical Committee as a whole met with the SCRTD staff on two occasions as well as with staff from the County.

At the outset of this study the Technical Committee looked at and considered all of the transit corridors which have been considered in the past, including those in the 1968 SCRTD study. Additionally, other corridors or combinations of corridors were noted. However, because of the time limitation for the study, it became immediately apparent that the most that could be done was a comparison of two corridors. This study therefore analyzes the Central Corridor because it is the one proposed by the SCRTD, and the Wilshire Corridor because of past recommendations, present congestion and potential growth in this corridor.

It is the Committee's opinion that through a comparison of the Wilshire Line with the Central Line, the Council and others will have the best basis for judging the current proposal of the SCRTD.

The Committee recognizes that there are many concepts and proposals for rapid transit, many of which may justify some analysis. If this is to be done, it will require considerably more time and effort on the part of some group. It was felt, however, that some consideration might be given to the question of what might be done, on a short term basis, to improve the present bus system and develop transit riding in this area. With this basic question in mind, this report contains a very brief analysis of augmenting the existing bus system.

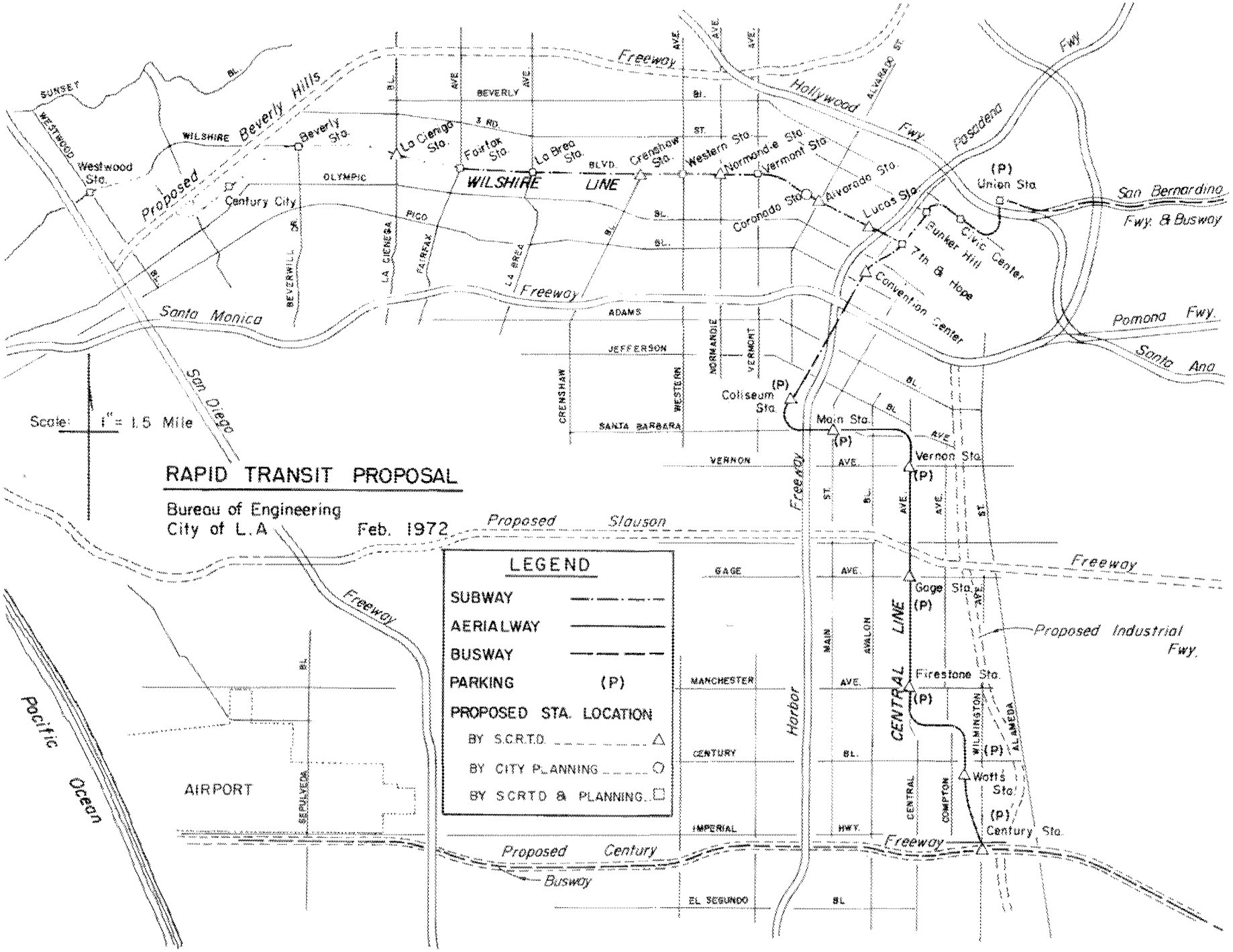
The Committee completed its work in one month. It was apparent all during the study that we had to rely upon existing materials and data. The time constraint was severe but we make no apology for inadequacies in our report. We would point out that almost every facet would merit considerably more research and analysis. The Committee hopes that this can be done through a Technical Grant of federal money permitting a study of: (1) detail route considerations, (2) refine station and route design, (3) evaluate new hardware technology,

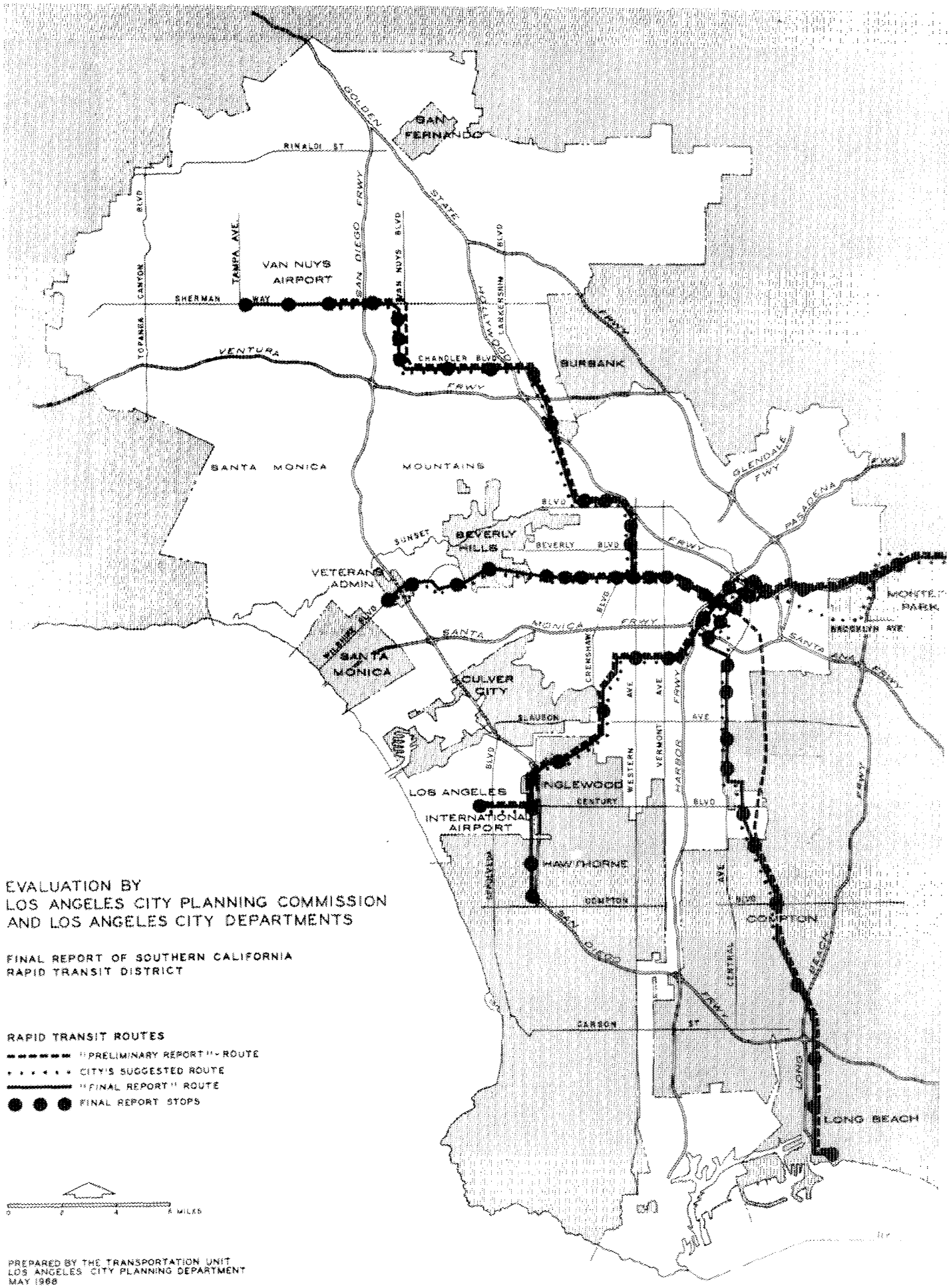
(4) prepare final estimates of patronage and revenues, (5) analyze environmental considerations, and (6) evaluate social and economic benefits that would be produced by the line.

The SCRTD has indicated that a Technical Grant would be applied for by the end of March and that a Capital Grant Application would be made some time in late summer or early fall. Mr. George McDonald of SCRTD stated that the Capital Grant funds requested of the federal government would not be earmarked until the Capital Grant Application was approved by the federal government some time in late 1972. He stated that RTD was of the opinion that they must have a commitment of the local funds before applying for the Technical Grant which would give the federal government assurance of the necessary local funding for subsequent Capital Grant funding.

The City's Washington legislative representative has discussed the questions of transit now before the City Council with representatives of the U. S. Department of Transportation. He reports that DOT has received an expression of intent by SCRTD to apply for interim funding to finance the writing of a proposal seeking a large grant with which to begin to build a transit

line. DOT has agreed to consider the initial grant, and intends to do so whenever it is submitted. Neither approval nor disapproval nor earmarking nor deadline, such as March 1, 1972 is in any way implied. The larger grant to be sought with the proposal funded by the initial grant is, of course, not yet possible to consider even in principle.


RAPID TRANSIT PROPOSAL
Bureau of Engineering
City of L.A
Feb. 1972
Scale: 1" = 1.5 Mile
LEGEND
SUBWAY
AERIALWAY
BUSWAY
PARKING (P)
PROPOSED STA. LOCATION
BY S.C.R.T.D.
BY CITY PLANNING
BY SCRTD & PLANNING
WILSHIRE LINE
CENTRAL LINE
Proposed Busway
Proposed Slauson Freeway
Proposed Industrial Fwy.
Proposed Century Busway
Santa Monica Freeway
Hollywood Fwy.
Pasadena Fwy.
San Bernardino Fwy. & Busway
Pomona Fwy.
Santa Ana Freeway
San Diego Freeway
Harbor Freeway
Pacific Ocean
AIRPORT
Westwood Sta.
Beverly Sta.
La Cienega Sta.
Fairfax Sta.
La Brea Sta.
Crenshaw Sta.
Western Sta.
Normandie Sta.
Vermont Sta.
Alvarado Sta.
Coronado Sta.
Lucas Sta.
Union Sta.
Bunker Hill
Civic Center
7th & Hope
Convention Center
Coliseum Sta.
Main Sta.
Vernon Sta.
Gage Sta.
Firestone Sta.
Watts Sta.
Century Sta.



EVALUATION BY
LOS ANGELES CITY PLANNING COMMISSION
AND LOS ANGELES CITY DEPARTMENTS

FINAL REPORT OF SOUTHERN CALIFORNIA
RAPID TRANSIT DISTRICT

RAPID TRANSIT ROUTES

- "PRELIMINARY REPORT" - ROUTE
- CITY'S SUGGESTED ROUTE
- "FINAL REPORT" ROUTE
- FINAL REPORT STOPS

PREPARED BY THE TRANSPORTATION UNIT
LOS ANGELES CITY PLANNING DEPARTMENT
MAY 1968

SUMMARY AND RECOMMENDATIONS

All areas served by the Southern California Rapid Transit District need additional transportation facilities, some areas to a greater degree than other. The type, location, financing and timing of these facilities has long been the subject of study and debate. The Southern California Rapid Transit District recently announced its plans to construct the first leg of a regional transit system through the south central portion of the City. This line would be financed through revenues derived from Senate Bill 325 and a two-thirds matching federal grant.

This report discusses the benefits of that line and the problems it endeavors to solve. It also addresses itself to a rapid transit line along the Wilshire Corridor which, because it has been generally accepted as a prime area to be served by a public transit system, was used for comparative purposes. An expanded bus system has also been considered as a possible alternative to provide increased public transportation service.

As a result of our analysis, we have found:

1. There is a need for improved public transportation to complement automobile travel in the Central and Wilshire Corridors. It appears that the Central Corridor would be better served by a broad, flexible transportation system such as buses. The Wilshire Corridor would be better served by a fixed line rapid transit system.
2. From the standpoint of social needs (such as age composition, mobility, low income, employment), the Central Corridor should be considered a high priority for improved transportation. This is because the residents of the Central Corridor exhibit a combination of low-income, low-automobile ownership, and non-drivership to a greater degree than the residents of the Wilshire Corridor.
3. Analysis of the two routes studied indicates that a Wilshire rapid transit line would provide the better base for subsequent route extensions leading to the development of a regional rapid transit system.
4. Weighing the many factors considered, a rapid transit line along the Wilshire Corridor would maximize the benefits gained from the substantial public investment.

5. The job location patterns indicate that employment is fairly evenly distributed in all directions from the Central Corridor, and not concentrated in any one direction. Because of low-automobile ownership, access to potential jobs is more restricted for persons living along the Central Corridor. Since a rapid transit line constructed along the Central Corridor would increase job access to only a portion of the persons residing within the Corridor, buses would appear to better serve this need.

6. Our preliminary ridership estimates indicate that the Central Line would attract approximately 75,000 daily trips. The Wilshire Line would attract approximately 168,000 daily trips.

7. Preliminary engineering cost estimates indicate that the Central Line can be constructed at a lower cost than the Wilshire Line. It is estimated that a line from Union Station to the Norwalk-El Segundo (Century) Freeway as proposed by SCRTD would cost $422 million. A Wilshire Line from Union Station to Westwood, based on the number and location of stations as proposed by the City Planning Department, is estimated to cost $735 million.

8. From the standpoint of relieving traffic congestion, the Wilshire Corridor should have a higher priority. It is the area of highest population and employment density and greatest traffic congestion in the region.

9. Utilizing only the financial package proposed by SCRTD to build a Central Corridor rapid transit line will require that new fund sources be created before any additional routes of a regional rapid transit system would be built.

10. All available projections indicate that the Wilshire Corridor would be most likely to experience the benefits of private development as a result of a public rapid transit line. Forecasts for the Central Corridor do not indicate a similar growth potential. A means of capturing and applying increased property tax returns to the cost of the transit system should be found.

11. There are other ways to use Senate Bill 325 money for financing rapid transit which could result in more than the $420 million indicated by SCRTD. For example, Senate Bill 325 money could finance a bond issue to be used as the local one-third share for a matching Federal grant.

12. There are additional potential fund sources beyond Senate Bill 325 which merit immediate detailed consideration.

13. The construction of a rapid transit line in either corridor will not provide any significant improvement in transportation in the rest of the City unless it is used as a first component of a continuing program of transit development. Meanwhile, it may be desirable to augment and expand the existing public transportation capabilities throughout the entire area as an immediate measure.

14. No definitive estimate of costs to the City for construction of collateral facilities and staff assistance is available at this time.

Recommendations

1. That the City support the construction of a rapid transit line to serve the Wilshire Corridor as the backbone of a rapid transit system for the Los Angeles Area. Full development of a line in this corridor will require more financing than that stated as available by SCRTD. As indicated in the above findings, there are alternate means of using the funds available in order to

generate more funds, and there are also additonal potential sources of funds.

2. Recognizing that there is a need to significantly improve the transportation facilities serving the Central Corridor, that the City urge the SCRTD to implement feasible methods of improving such services. Serious consideration should be given to an expanded and augmented bus system including possible preferential or separated bus rights-of-way.
3. That SCRTD be requested to plan and to implement a program leading to a citywide and area wide improvement in integrated public transportation.
4. That SCRTD be requested to correlate all their transit planning in the City of Los Angeles with the City's General Plan.
5. That the City join with SCRTD in requesting study grant funds from the appropriate federal and state agencies to make the necessary analyses and findings to implement the above programs.
6. That the City sponsor legislation that provides a means of capturing the increased property tax base resulting from the development of the transit system, and applies this increased tax increment to the cost of the transit system and related facilities.

LEGISLATIVE FINDINGS

In 1964, the Legislature made findings and declarations, which briefly summarized, stated that there is an imperative need for a comprehensive mass rapid transit system in Los Angeles County to reduce congestion on streets and highways so as to facilitate passage of motorists. It found necessary the establishment of the Southern California Rapid Transit District (as the successor to the Metropolitan Transit Authority) governed by representatives of local governmental agencies, to solve the area's transportation problems and provide the needed comprehensive mass rapid transit system.

In 1971 the Legislature broadened its findings and declarations by stating in Senate Bill 325 that public transportation is an essential component of the balanced transportation system which must be maintained and developed so as to permit the efficient and orderly movement of people and goods in the urban areas of the State.

It found that public transportation systems must be available at a charge to the user which will not deprive the elderly, the handicapped, the youth, and the citizens of limited means of the ability to freely utilize the services.

It went on to find that excessive reliance on the private automobile for transportation has caused air pollution and traffic congestion which is not confined to single incorporated areas but affects entire regions.

Administrative Regulations

While Senate Bill 325 establishes a new source of financing public transportation to be essentially under the control of local officials, rules and regulations for the apportionment of these funds will be promulgated by the Secretary of the State Transportation Agency, with the advice and consent of the State Transportation Board.

These rules and regulations shall by statute provide for the orderly and periodic distribution of funds so that the areas served will be provided public transportation services on a continuing basis and so that there will be an orderly improvement and maintenance of the system by the use of the monies disbursed. The rules and regulations may require the transportation planning agency to give due consideration of:

* the level of the passenger fares and charges,
* the efficiency of the operations and operating policies and practices,
* the extent to which the applicant is meeting the transportation needs of the area served, and
* the extent to which the applicant is making full use of other available revenues and funds.

SATISFACTION OF COMMUNITY AND GENERAL PLAN OBJECTIVES

From a planning standpoint, both at the Citywide and community level, there are many aspects of any proposed public transit system or route which should be carefully evaluated for their effect upon the quality of life in Los Angeles. This section focuses upon the most important of these considerations.

Social Needs

The Wilshire and Central Corridors both contain a substantial population with varying needs for increased mobility. The needs in each corridor and even within the corridors are different.

The type and degree of need may be measured in several ways. Unfortunately, all data from the 1970 U. S. Census are not yet available. However, as a consequence of the 1965 Watts Riot, many useful studies have been completed for the Central Corridor.

Automobile Ownership

In an auto-oriented city such as Los Angeles, access to an automobile is a necessary item for personal mobility. It directly affects access to jobs, shopping areas, social

services, educational and recreational facilities. The map at the end of this section entitled "Automobile Ownership" indicates lack of automobile ownership within the City.*

The following chart compares lack of 1960 automobile ownership in both corridors to the City and County as a whole:

AREA	Percent of occupied dwelling units having no automobiles
Los Angeles County	16%
City of Los Angeles	22%
Wilshire Corridor	31%
Central Corridor	35%

However, in the Central Corridor several neighborhoods approach 50%.

Age Composition

Auto ownership alone does not accurately measure mobility. Age is another factor which should be considered. Both the young and the old rely more upon public transportation than middle-age groups since automobiles are generally not available to them.

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* All referenced maps may be found at the end of this section.

Both corridors are characterized by an unusual age profile which indicates a greater need for public transportation than most other areas in the City.

Along the Wilshire Corridor the percentage of persons 65 years and older is much greater than that for the Central Corridor or the City as a whole. In the Central Corridor the reverse is true. Only 6 percent of the corridor's population is 65 years or older, while approximately 50 percent is 19 years or younger.

	Median Age	Percent of Persons 65 years and older	Percent of Persons 19 years and younger
City	33	9	28
Wilshire	48	21	18
Central	28	6	50

Income

Family income is another necessary measure of need for increased mobility. Generally, the lesser the family income, the greater the need for public transit. The map entitled "Median Income" at the end of this section generally indicates median-family income levels within the City.

In 1960, median-family incomes along the Wilshire Corridor were substantially higher than for the City as a whole. In comparison, communities along the Central Corridor exhibit some of the lowest median-family incomes in the City. A summary comparison of median-family income levels for communities within both corridors is contained in Table No. 1 at the end of this section.

Family Composition

Family size, number of parents working, number of families with female head, all give some indication of the need for public transit. Large family size combined with low income, and low automobile ownership indicate a need for increased public transit service.

Along the Wilshire Corridor, only one community, Westlake, exhibits the combination of low income, low automobile ownership and non-driving age composition which is prevalent along the entire Central Corridor. From the standpoint of social needs for an alternative choice to automobile travel, the Central Corridor should be considered the first priority.

Economic Development Potential

Improved access to a central location usually results in increased private economic development. The experience of other cities indicates that the development of

a major public transit system leads to a strong intensification of land use, particularly around stations. The experiences of Toronto and San Francisco are the most recent examples. For example, in 1954 the City of Toronto began operation of a 5-mile transit line at a total cost of $67-million. This comparatively-small initial investment has triggered $10-billion in private development along the route.

In San Francisco, the commitment to build the BART system has generated a building boom exceeding all expectations. Over 400 stories of new office space have been developed within walking distance of the Market Street subway since the BART system was announced.

Along the Wilshire Corridor, the need for increased circulation is becoming critical. At some point in time, the advantages of locating on Wilshire will be negated by intolerable peak-hour traffic congestion. Along the Central Corridor, the situation is different. Traffic congestion problems are generally not critical. However, private development has lagged behind most other portions of the City.

The possibility of large increases in the rate of private redevelopment in the Central Corridor is difficult to assess. This corridor definitely cannot generate as much new development as the Wilshire Corridor might. Most likely, several public redevelopment projects would be necessary to accomplish any substantial change.

Tables Nos. 2, 3, 4 and 5 present current and projected population and employment densities as well as current estimated retail sales along both corridors.

These projections by the City Planning Department indicate that despite its traffic problems, the Wilshire Corridor will continue to develop with one of the highest growth rates in the City. Forecasts for the Central Corridor do not indicate any significant growth potential.

In reviewing past experiences in other cities, it is evident that the development of a major circulation improvement such as a rapid transit line can generate substantial private redevelopment. However, such redevelopment is also dependent upon several other factors which are ultimately reflected in a competitive market. All projections available for this analysis indicate that the Wilshire Corridor would be the more likely to experience a surge in private development as a result of a rapid transit system.

Relief of Congestion

One of the primary purposes of a rapid transit system is to relieve peak-hour traffic congestion. Time has not permitted more than a general analysis of traffic congestion along both corridors. However, experience in developing community plans along both corridors indicates that the Wilshire Corridor is by far the more congested area. The Wilshire Corridor land area is more fully developed, and therefore, peak period traffic volumes are correspondingly higher. In fact, the Wilshire Corridor is the most congested area in the City or region.

The Central Corridor also has traffic congestion problems through downtown and, to a lesser degree, southerly to about Slauson Avenue. Its greatest problem is incomplete development of the planned street and highway system.

With regard to the freeway system, the map entitled "Freeway Traffic Congestion" indicates generally where congestion is experienced in the morning and afternoon peak periods on Los Angeles area freeways.

The Los Angeles CBD General Development Study includes a circulation analysis of the Central Core. The study indicates that access to and from the CBD during peak periods is most restricted to the west along the Wilshire Corridor and is least restricted to the south along the Central Corridor.

Both corridors are served by freeways along one side, the Santa Monica Freeway on the southerly edge of the Wilshire Corridor and the Harbor Freeway along the westerly edge of the Central Corridor. Both freeways are now operating above theoretical capacity. The possibility of improving traffic flow on the Harbor Freeway is much less than on the Santa Monica Freeway, since such devices as ramp metering and additional lane striping have already been implemented. North-south surface street commuter traffic in the Central Corridor is discouraged by the lack of continuous highways through the district.

The question of what percentage of passengers attracted to a transit line would normally be bus riders has been raised quite often. The answer to this question requires a very complex analysis beyond the scope of this report.

The Wilshire Corridor, because of its high population and employment densities, its present relatively-high bus ridership and its linear circulation pattern would probably experience a greater loss of ridership from its existing bus lines. With the development of any transit corridor, the bus routes should be re-evaluated and redistributed to complement the transit line.

Freeway intercepts have also been suggested as a means of relieving freeway congestion by offering the alternative to park and ride in from an outlying station. No data could be found to indicate the potential for such a scheme. Three opportunities exist along the Central Corridor, the proposed Slauson Freeway, the Harbor Freeway and the proposed Century Freeway. Along the Wilshire Corridor the only apparent possibility would be the San Diego Freeway.

From the standpoint of relieving traffic congestion, the Wilshire Corridor should have the highest priority. It is the area of highest population and employment densities. It is projected to have the greatest potential for future growth and its existing street and freeway system is already the most congested in the City.

Job Access

Unemployment rates along the Central Corridor are much higher than along the Wilshire Corridor. The map entitled "Unemployment" illustrates the pattern of unemployment in the City. Because of low automobile ownership and poor bus service, access to potential jobs is restricted for persons living along the Central Corridor. For

example, a worker traveling from 103rd Street and Wilmington Avenue to the Bethlehem Steel Plant at 190th Street and Western Avenue to meet a 7:00 a.m. work shift must allow 42 minutes bus time, transfer twice and pay a fare of 51 cents to travel only 4.1 miles.

There are a very large number of jobs located within and around both corridors. There is little data available to determine where persons living within either corridor go to work. The 1970 U. S. Census, when tabulations are completed, will give this information. Without this specific data, it is difficult to determine the value of any transit system in creating job access.

The jobs along the Wilshire Corridor are primarily office and retail while in the Central Corridor industrial jobs predominate. One study found 270,000 jobs within a five-mile radius of Watts. The job location pattern indicates that employment is fairly evenly distributed in all directions around the Central Corridor, and is not concentrated to the north. A rapid transit line constructed along the Central Corridor would increase job access to some persons along the corridor. However, it is not possible to estimate the number of additional jobs created by such a facility.

Additional access by itself will not assure additional jobs. Many other factors are directly involved. This has been shown by transportation studies, including one in the Central area. However, overall the Central area does not have good public transportation and without improved service, job opportunities are restricted to a significant portion of the labor force. The same cannot be said of the Wilshire Corridor. From the standpoint of need for additional mobility to obtain employment, the Central Corridor appears to warrant the higher priority.

System Expansion

If the Central Line is selected first, and additional money becomes available, it is generally agreed that a Wilshire Line would be the obvious next phase. In fact, the SCRTD Central Line proposal includes a stub-out connection to a Wilshire Line which would reduce the eventual cost of that line by $100-million.

Paradoxically, if Wilshire is selected first, it does not appear as easy to select the next leg without additional information on ridership and finance, as well as on the political and social variables involved. Competition for other legs in particular corridors will be sharper once a first leg is completed. It may even be beneficial to build more than one leg in the second phase.

It becomes obvious that a second choice cannot be made without making the first choice, since selection of one over another involves making essentially the same findings as a full report. Despite our working assumption of isolating the lines for comparison, all choices are interdependent with varying options.

The real issue of system expansion is phasing and financing, regardless of which line is chosen. Phasing mainly entails economic questions which have not been satisfactorily resolved. SCRTD has already said that after the seventh year, it will have to switch emphasis quickly back to bus operations so that new buses and equipment can be purchased to replace those allowed to "run down" during the construction of the first line. If this is the case and no new monies are obtained, there is little chance that a second line will be built by SCRTD without considerable delay, if at all.

Impact on Population Distribution

The most recent population projections by the City Planning Department indicate that the Wilshire Corridor will grow both in population and employment at a greater rate than the City as a whole. The Central Corridor will grow at a lower rate than the City as a whole.

The Centers Concept which has been approved by the General Plan Advisory Board, the City Planning Commission and the Mayor proposes to concentrate new development into appropriately located centers. (See map entitled "Concept-Los Angeles.") Locations for these centers have been carefully studied and are based primarily upon existing development and the potential for future development.

The Preliminary Rapid Transit Plan, released by the City Planning Department in October, 1971, proposes that both corridors be served by rapid transit. However, because of the existing higher densities and resulting circulation problems the Wilshire Corridor was given first priority. (See map entitled "Preliminary Rapid Transit Routes.")

Impact of Subway vs. Elevated Construction

Whether the lines are elevated or subway will decidedly influence a number of issues, including engineering, cost, visual impact, noise and social or economic effects on adjacent uses.

Because of earlier experiences with elevated transit, elevated lines are not popular. However, slim-line construction and adequate landscaping plus well-designed

stations can offset most criticism of visual impact. The BARTS aerial lines appear to be a fairly-good example of compatible visual design, even when the lines pass through low- to medium-density residential communities.

Parking areas for stations, regardless of line type, will probably cause the most critical visual problems. The City should be assured continuous design input into any proposed plans and will have to use its own forces to evaluate such impact.

Visual impact may, however, be only a minor consideration if other potentially-harmful aspects of elevated lines are not overcome - particularly noise. Subways solve these problems, but at high cost and, in turn, raise other problems.

Topography or geology does not appear to offer any comparable advantages or disadvantages for either a Wilshire or Central Line -- in the absence of hard technical and geological surveys. Existing underground utilities will be a crucial factor.

The issue of earthquake protection can be "solved," but not completely secured without incurring high costs.

It is anticipated that water table problems in the downtown area and even archeological finds might slow subway progress. Difficulties as between tunnel and "cut and cover" methods are different and cannot be determined until a choice is made and/or extensive engineering studies are undertaken.

Environmental Impact

There are a number of reports and articles on new and advanced transportation technologies, the installation of which would have widely varying environmental impact. The 1968 SCRTD report included a discussion of alternate but fairly conventional technologies and presumably further study would be made by SCRTD if federal money is forthcoming. All comments on environmental impact presume a BART system and must necessarily be general.

Noise

There will be at least three types of noise problems associated with any rapid transit line:

- construction noise temporarily affecting adjacent communities,
- operating noise which affects the surrounding communities,

- operating noise which affects the transit passenger.

The last will probably be kept within tolerable and comfortable limits, unless the proposed highly-curving alignment of the Central Line eventually produces screeching turns with steel-wheeled cars.

Construction noise will be a major problem if the subways are built by "cut and cover" methods rather than by tunneling. Aerial construction as contemplated along the Central Line will also create considerable noise impact. It is likely that some construction regardless of method will take place at night thus aggravating the problems.

Operating noise impact on adjacent communities cannot be readily determined. At present, buses and trucks are among the highest noise generators adversely affecting the communities they pass through. A "quiet" transit line could conceivably alleviate bus noises if bus service is reduced, but, more likely, feeder buses serving residential areas will be increased.

Operation through residential areas over an aerial line would present considerable problems, even with a relatively-quiet operation, because of contrast with the much-lower ambient noise levels predominating at night.

Widespread insulation of aerial lines would not be economically feasible. (In Toronto, a limited portion of aerial line was almost completely enclosed, except for openings for ventilation. The line walls, as well as other areas, were sprayed with acoustically-insulating material.)

Vibration

Present technology appears capable of reducing the vibration problem but all proposals should be certain to take this problem into account. Corrective measures may have to be taken on adjacent uses to dampen effects of vibration.

Air Pollution

It is virtually impossible to compare the Wilshire Line and the Central Line with respect to air pollution. In fact, it would be difficult to say conclusively what effect even a complete rapid transit system might have on the air pollution problem.

Transit might initially remove cars from the road, but the freeway traffic could eventually grow in response to the development expected to be generated by the transit lines. This new growth, now made possible by transit,

will also create higher energy demands for the line itself, and for office air conditioning, new homes, high elevator use, etc., thus taxing the air basin from stationary sources. (It can be shown, however, that a concentration of high intensity development will produce less pollution than dispersed development.)

If air pollution is the prime consideration, it has been suggested that monies might better be spent on converting buses and cars to low-polluting vehicles. Other experts have also pointed out the considerable benefits to be obtained from non-technical measures such as staggered working hours, shorter work weeks, car pools, gasoline rationing, etc.

The reduction in pollution by any one line could be relatively small, considering the tremendous inter-dependency of all environmental problems. For example, if we use our preliminary ridership figures, the Wilshire Line would appear to have the most ridership. Most of this ridership, however, would probably come from buses which are already taking automobiles off the road.

Even if more autos were removed along the Wilshire Corridor than the Central, the high-income Wilshire area would presumably have newer, lower-emitting vehicles,

while the lower-income Central area would have older, higher-polluting ones.

Therefore, any comparison on a line basis would not be convincing and even on a system-wide basis would be difficult because of future responses to the system. In the very long run, however, some form of rapid transit system is expected to offer the best solution to the transportation pollution problem, provided growth and energy requirements are rationally contained.

TABLE NO. 1

MEDIAN FAMILY INCOME

Central Corridor Communities	1960 Dollars	Wilshire Corridor Communities	1960 Dollars
Avalon	4,078	Wilshire	6,737
Central	4,009	Wilshire-W. Pico	7,254
Exposition	5,157	West Wilshire	8,094
Florence	4,796	Westlake	4,710
Green Meadows	5,156	W.L.A.	8,520
Watts	3,584	Westwood	12,900

City of Los Angeles, 1960 Dollars = 6,896

TABLE NO. 2

CURRENT AND PROJECTED POPULATION

Wilshire Corridor Communities	1970	1990
Downtown	11,572	16,400
Westlake	67,473	83,400
Wilshire	108,683	141,500
West Wilshire	87,325	104,400
Westwood	32,074	40,400
West Los Angeles	28,790	35,800
	335,917	421,900

Central Corridor Communities	1970	1990
Downtown	11,572	16,400
Avalon	57,853	59,200
Central	22,817	21,500
Exposition	58,180	62,100
Green Meadows	80,259	82,400
Watts	29,661	26,400
	260,342	268,000

TABLE NO. 3

CURRENT AND PROJECTED POPULATION DENSITIES

	Current Population Density per square mile	Anticipated Density - 1990
Wilshire Corridor Centers		
Civic Center Downtown	5,729	7,800
Wilshire	22,839	29,200
Miracle Mile	14,175	20,400
Century City	4,739	38,000
Westwood	12,229	17,100
Central Corridor Centers		
Civic Center Downtown	5,729	7,800
Exposition Park	12,496	14,000
Vernon-Central	15,673	17,900
Avalon-Manchester	18,547	21,200
Watts	10,824	12,600

TABLE NO. 4

CURRENT AND PROJECTED EMPLOYMENT DENSITIES

	Current Employment per Net Acre - 1970	Anticipated Employment per Net Acre - 1990
Wilshire Corridor Centers		
Civic Center Downtown	304	405
Wilshire	61	75
Miracle Mile	39	180
Century City	52	164
Westwood	26	37
Central Corridor Centers		
Civic Center Downtown	304	405
Exposition Park	15	23
Vernon-Central	5	6
Avalon-Manchester	7	9
Watts	2	6

TABLE NO. 5

CURRENT ANNUAL RETAIL SALES PER GROSS ACRE FOR CENTERS

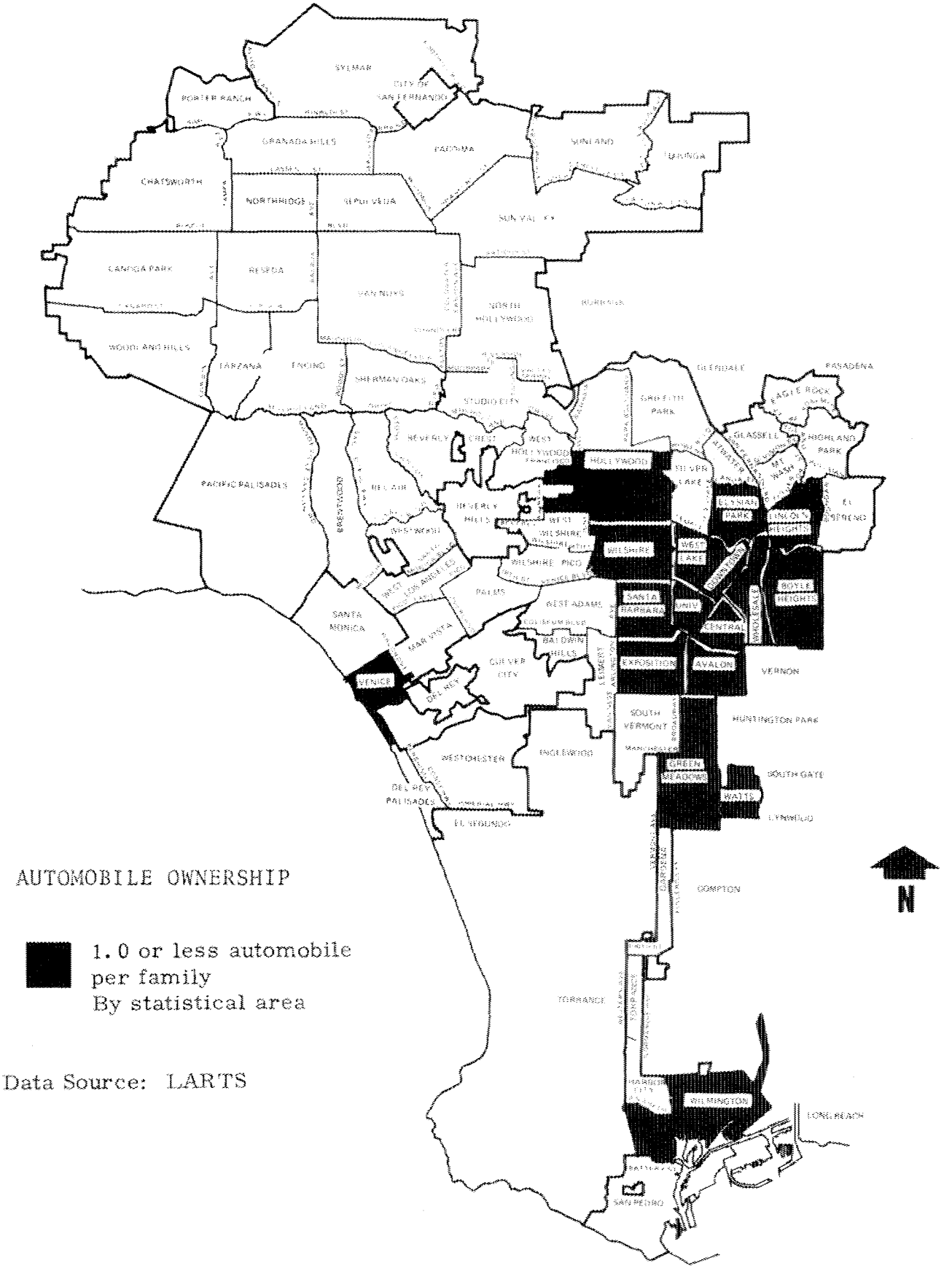
Wilshire Corridor Centers

Civic Center Downtown	$206,600
Wilshire	69,200
Miracle Mile	75,900
Century City	47,000
Westwood	16,000

Central Corridor Centers

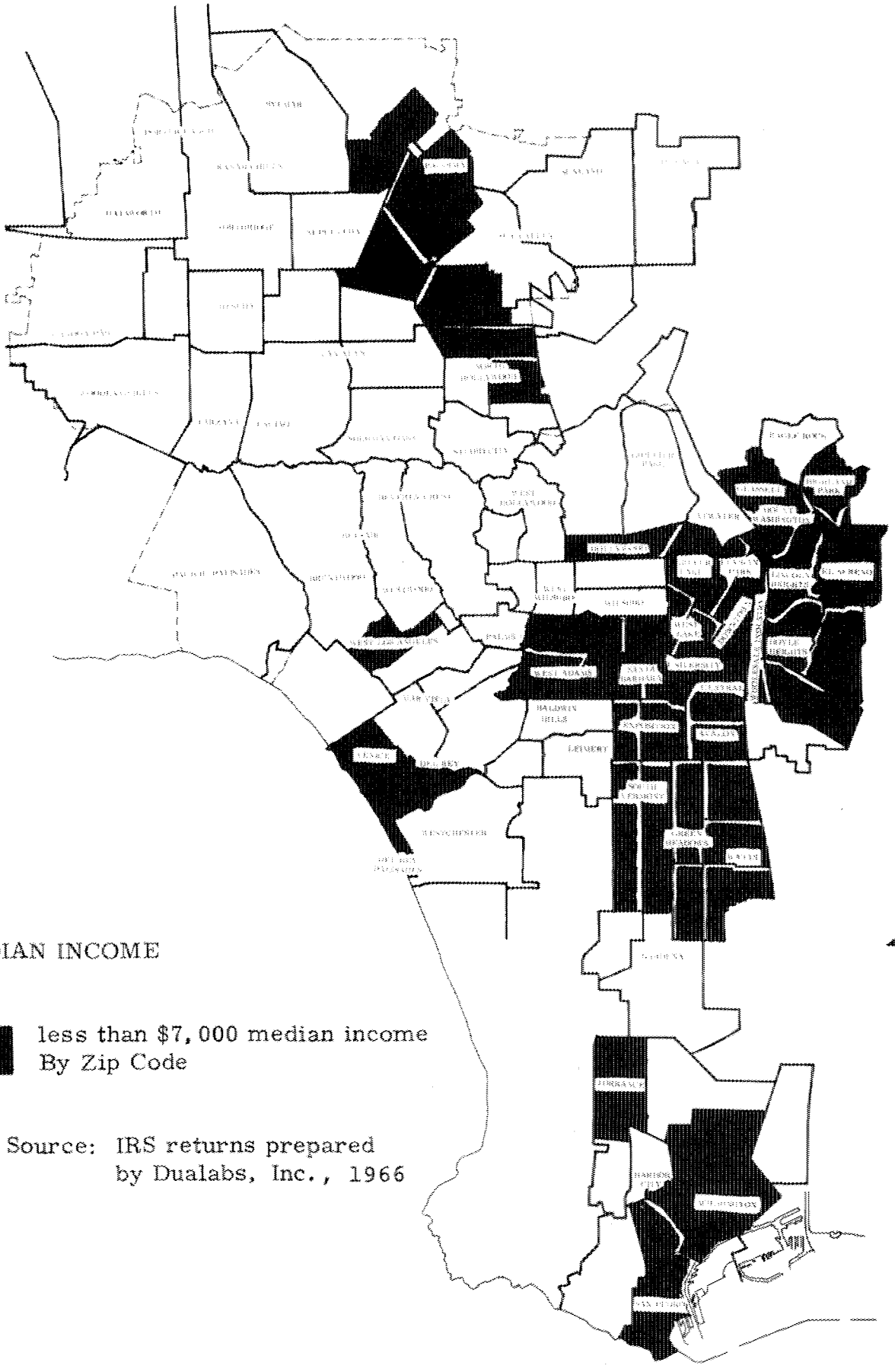
Civic Center Downtown	$206,600
Exposition Park	36,700
Vernon-Central	15,300
Avalon-Manchester	14,100
Watts	21,000

State of the City - Los Angeles 1970



Data Source: LARTS

State of the City - Los Angeles 1970



MEDIAN INCOME

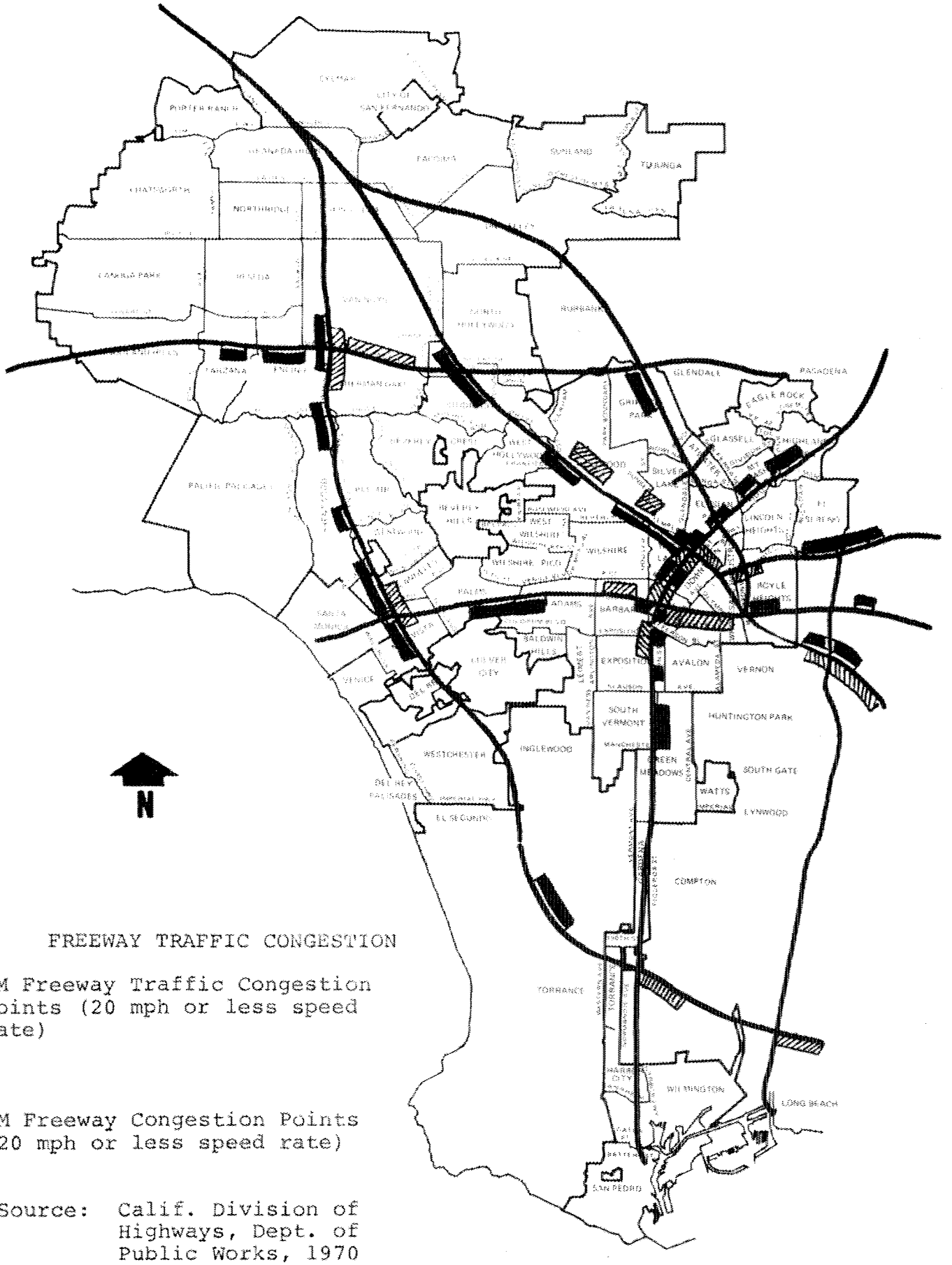
less than $7,000 median income
By Zip Code

Data Source: IRS returns prepared
by Dualabs, Inc., 1966

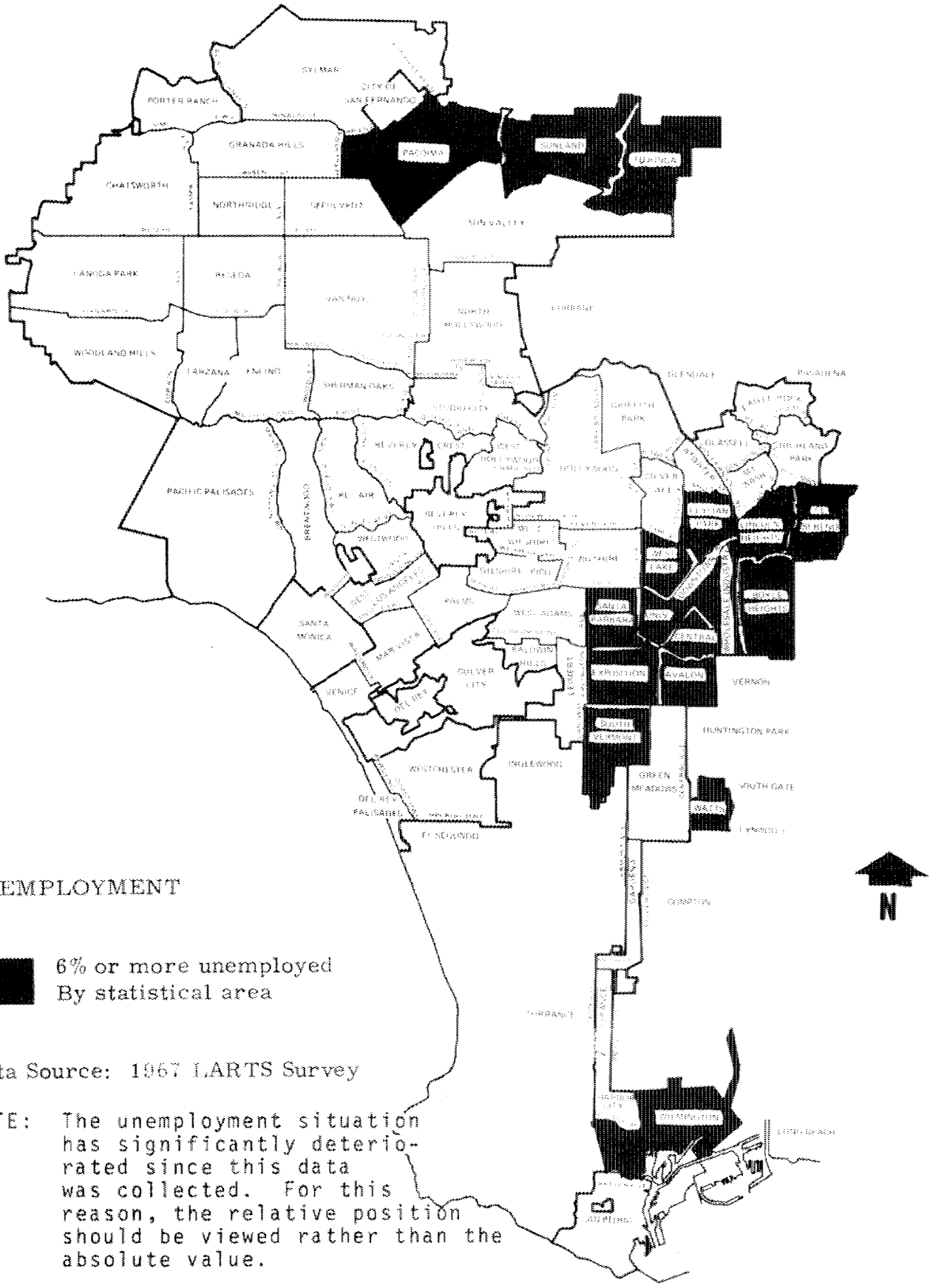
N

COMMUNITY ANALYSIS BUREAU • CITY OF LOS ANGELES 1970

State of the City - Los Angeles 1970



State of the City - Los Angeles 1970

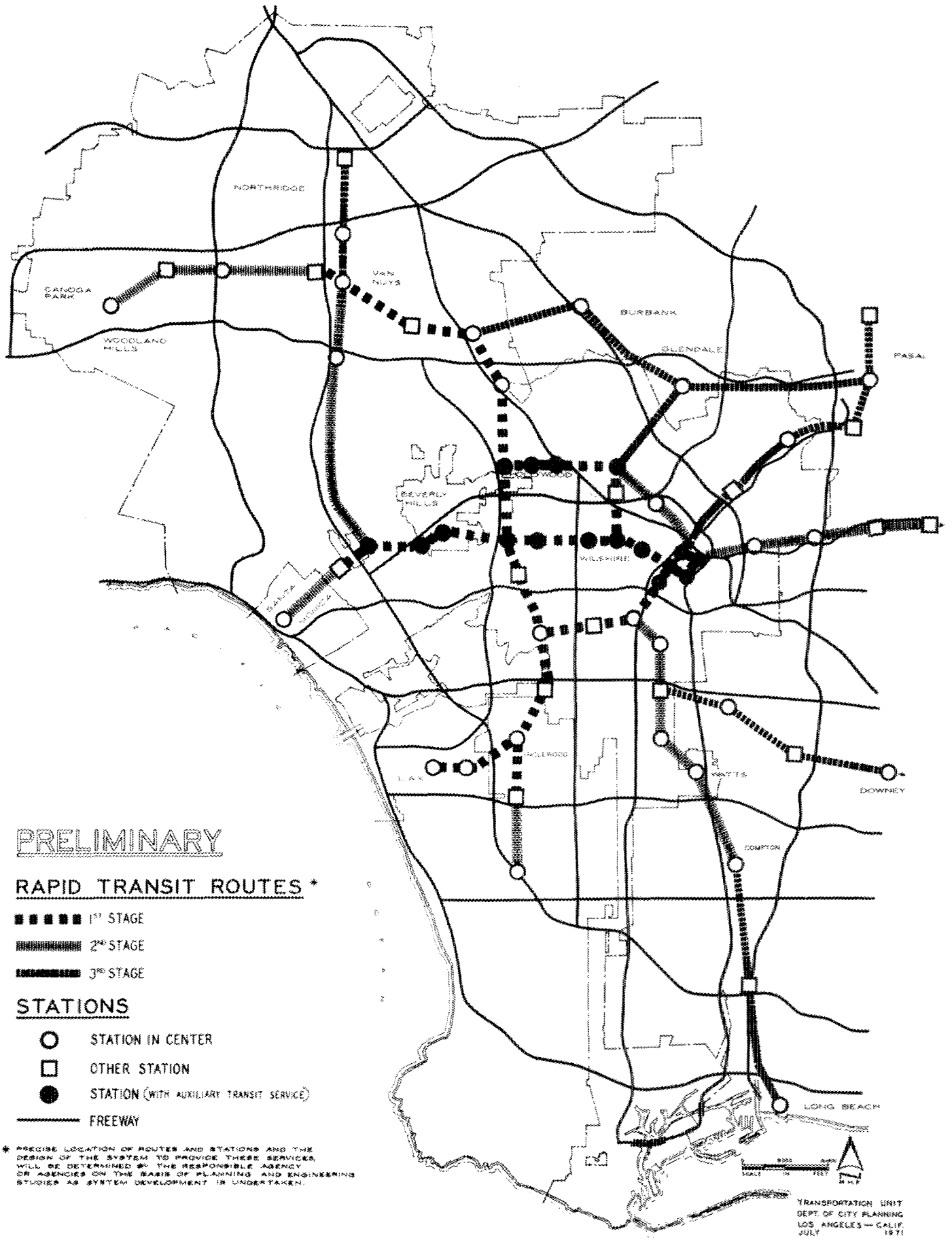


UNEMPLOYMENT

6% or more unemployed
By statistical area

Data Source: 1967 LARTS Survey

NOTE: The unemployment situation has significantly deteriorated since this data was collected. For this reason, the relative position should be viewed rather than the absolute value.


NORTHRIDGE
CANOGA PARK
WOODLAND HILLS
VAN NUYS
BURBANK
GLENDALE
PASA
BEVERLY HILLS
WILSHIRE
SANTA MONICA
DOWNEY
COMPTON
LONG BEACH
PRELIMINARY
RAPID TRANSIT ROUTES *
1ST STAGE
2ND STAGE
3RD STAGE
STATIONS
STATION IN CENTER
OTHER STATION
STATION (WITH AUXILIARY TRANSIT SERVICE)
FREEWAY
* PRECISE LOCATION OF ROUTES AND STATIONS AND THE DESIGN OF THE SYSTEM TO PROVIDE THESE SERVICES, WILL BE DETERMINED BY THE RESPONSIBLE AGENCY OR AGENCIES ON THE BASIS OF PLANNING AND ENGINEERING STUDIES AS SYSTEM DEVELOPMENT IS UNDERTAKEN.
TRANSPORTATION UNIT
DEPT. OF CITY PLANNING
LOS ANGELES — CALIF.
JULY 1971

CONCEPT • LOS ANGELES

The Concept for the Los Angeles General Plan consists of this map and accompanying text

Approved by City Planning Commission – May 1970

Prepared by the Department of City Planning

CAPITAL COST ESTIMATES & ENGINEERING

Capital Cost

The cost estimates tabulated on the following pages were developed primarily with information supplied by the Engineering Department of SCRTD. Their close cooperation in furnishing their knowledge and expertise has been most welcome and appreciated. The unit costs used in these estimates compare quite closely with those obtained from actual construction cost for BARTS.

There appear to be several possibilities, or combinations of routes and modes (aerial-subway) that could be used. Figures of the estimated costs of what appear to be the most feasible and meaningful have been included for consideration.

COMPARATIVE COST SUMMARY

LINE	LENGTH (MILE)	ESTIMATED COST*	COST PER MILE*	NUMBER OF STATIONS
CENTRAL - SCRTD - Aerial, Subway (Union Station to Norwalk - El Segundo (Century) Freeway)	13.8	422	30.6	12
CENTRAL - Subway (Union Station to Norwalk - El Segundo (Century) Freeway)	13.8	645	46.8	12
WILSHIRE - SCRTD - Subway (Union Station to Fairfax Ave.)	8.6	540	62.8	12
WILSHIRE - SCRTD - Subway (Union Station to Westwood)	13.1	813	62.1	16
WILSHIRE - City Planning - Subway (Union Station to Westwood)	13.1	735	50.6	12

*All costs are in millions of 1971 dollars escalated for 7 years at 7%

COMPARATIVE ANALYSIS

CENTRAL LINE

SCRTD PROPOSAL - SUBWAY-AERIAL - 13.8 MI

DESCRIPTION	COST	COMMENTS
Structures and Roadbeds	74,000,000	78% Aerial 22% Subway
Stations (Including Parking)*	106,000,000	7 Aerial 1 at Grade (Union Sta.) 4 Subway
Engineering Contengencies Escalation	181,000,000	17% of above items 15% of above items 7% for 7 years
Vehicles	20,000,000	60 @ $330,000 ea.
Right of Way	41,000,000	
Total Estimated Cost	422,000,000	30.6 million per mile

*Parking facilities are not proposed in CBD except at Union Station. Existing Facilities at Convention Center and Coliseum could be used. 2000 spaces are proposed in conjunction with stations south of Coliseum

COMPARATIVE ANALYSIS

CENTRAL LINE

UNION STATION TO CENTURY FREEWAY

Subway - 13.8 Mi.

DESCRIPTION	COST	COMMENTS
Structures and Roadbeds	140,000,000	5% Aerial 95% Subway
Stations (Including Parking)*	165,000,000	1 Aerial (Century Frwy.) 1 at Grade (Union Sta.) 10 Subway
Engineering Contengencies Escalation	311,000,000	17% of above items 15% of above items 7% for 7 years
Vehicles	20,000,000	60 @ $330,000 ea.
Right of Way	9,000,000	
Total Estimated Cost	645,000,000	46.8 million per mile

*Parking facilities are not proposed in CBD except at Union Station. Existing Facilities at Conventer Center and Coliseum could be used. 2000 spaces are proposed in conjunction with stations south of Coliseum

COMPARATIVE ANALYSIS

WILSHIRE LINE

UNION STATION TO FAIRFAX STATION

SCRTD Proposal - Subway - 8.6 Mi.

DESCRIPTION	COST	COMMENTS
Structures and Roadbeds	96,000,000	6% Aerial 94% Subway
Stations (Including Parking)*	164,000,000	0 Aerial 1 at Grade (Union Sta.) 11 Subway
Engineering Contengencies Escalation	262,000,000	17% of above items 15% of above items 7% for 7 years
Vehicles	13,000,000	38 @ $330,000 ea.
Right of Way	5,000,000	
Total Estimated Cost	540,000,000	62.8 million per mile

*Parking facilities are not proposed along this line except at Union Station

COMPARATIVE ANALYSIS

WILSHIRE LINE

UNION STATION TO WESTWOOD STATION

SCRTD Proposal - Subway - 13.1 Mi.

DESCRIPTION	COST	COMMENTS
Structures and Roadbeds	165,000,000	4% Aerial 96% Subway
Stations (Including Parking)*	220,000,000	0 Aerial 1 at Grade (Union Sta.) 15 Subway
Engineering Contengencies Escalation	393,000,000	17% of above items 15% of above items 7% for 7 years
Vehicles	20,000,000	60 @ $330,000 ea.
Right of Way	15,000,000	
Total Estimated Cost	813,000,000	62.1 million per mile

*Parking facilities are not proposed along this line except at Union Station

COMPARATIVE ANALYSIS

WILSHIRE LINE

UNION STATION TO WESTWOOD STATION

City Planning Proposal - Subway - 13.1 Mi.

DESCRIPTION	COST	COMMENTS
Structures and Roadbeds	165,000,000	4% Aerial 96% Subway
Stations (Including Parking)*	180,000,000	0 Aerial 1 at Grade (Union Sta.) 11 Subway
Engineering Contengencies Escalation	355,000,000	17% of above items 15% of above items 7% for 7 years
Vehicles	20,000,000	60 @ $330,000 ea.
Right of Way	15,000,000	
Total Estimated Cost	735,000,000	50.6 million per mile

*Parking facilities are not proposed along this line except at Union Station

ENGINEERING CONSIDERATIONS

Comparisons of the Central Line with the Wilshire Line with regard to engineering considerations revolves much more upon concept (viz: aerial vs. subway) than upon the corridor to be served.

Subways

The construction of the stations will undoubtedly cause the streets under which the line lies to be closed to traffic during construction. With proper planning it appears that these streets could be reopened, at least to partial traffic, in approximately one year. Also, there may be some restriction of traffic movement during construction of the main line, however, it should be minimal.

Little can be said at this time about route selection with respect to geology until an extensive geological survey has been undertaken. One possible problem readily apparent in the Wilshire Corridor at this time is in the La Brea Tar Pit area.

Advantages

1. Minimal environmental noise
2. Minimal visual impact
3. No interference with traffic after construction
4. Minimal relocation along R/W
5. Bomb shelter

Disadvantages

1. Higher construction cost
2. Street closures during station construction
3. Possible interference with substructures
4. Disposal of excavated materials
5. Disposal of ventilation air

Aerial

The extent that streets can be utilized for aerial R/W will depend upon many factors, such as width, vertical and horizontal alignment, existing structures along R/W, etc.

There are many considerations to be made in selecting the aerial structure. The size and type of structure would depend upon the R/W chosen. Utilizing streets, the structure may become large and massive as long spans would be required to minimize interference with normal street uses, such as left turn pockets.

Foundations could require the relocations of many utilities and could require the complete closing of two full lanes during construction.

The use of double-column bents spanning the street width as opposed to single column bents in the median or along the streets could be visually unattractive and generally unacceptable in residential or commercial areas from the aesthetic viewpoint.

Advantages

1. Lower construction cost
2. Minimal interference with traffic during construction
3. May be utilized as a buffer zone and landscaped linear parks beneath structure
4. More pleasing to passengers

Disadvantages

1. Noise
2. Street closures within transition between aerial and subway
3. Fixed objects (Columns) in median of or adjacent to roadways
4. Generally more acquisition of private property and resulting relocation problems
5. Possible infringement of light and air rights

RIGHT-OF-WAY - DISLOCATION & RELOCATION

Subway

Except for curves and transitions between streets, the subway can generally underlie streets. Where R/W is required, it appears that only subsurface easements will be required, therefore, little, if any, dislocation or relocation of businesses and/or residents, is anticipated.

Aerial

Utilization of private R/W can result in extensive dislocation and relocation of business and/or residents and must conform to the criteria established for other public projects using federal and state funds.

Transition

The length in which transition between subway and aerial occurs (approximately 1/4 mile) will most likely be located in private R/W.

RELATION TO PUBLIC FACILITIES & ACTIVITY CENTERS

South Central Line

Connects the San Bernardino Freeway Express Busway, the CBD, the Convention Center, USC, the Coliseum and Sports Arena, and the Century Freeway Express Busway to the Los Angeles International Airport.

Wilshire Line

Connects the San Bernardino Freeway Express Busway, the CBD, the East Wilshire and Westlake areas, the Wilshire Center and the Miracle Mile.

RELATION TO FREEWAYS

The Wilshire alignment lies approximately half way between the Santa Monica Freeway and the proposed Beverly Hills Freeway.

Portions of the Central Line, between Washington Street and Santa Barbara Avenue are generally adjacent to the Harbor Freeway. The Central Line southerly from Santa Barbara Avenue generally parallels the study band for the proposed Slauson and Industrial Freeways.

There may be certain advantages to rerouting the Central Line to follow the Harbor Freeway southerly to the proposed Slauson Freeway; then easterly along the proposed Slauson Freeway, or the existing railroad right-of-way, to the proposed Industrial Freeway or existing north-south railroad right-of-way; then southerly to the proposed Century Freeway.

Freeway Route Adoption:

Slauson Freeway Route 90 - Mid-73

Industrial Freeway Route 47 - Mid-75

HARDWARE

The SCRTD advises that the type of hardware to be used has not been determined, but it is probable that the hardware for either line will be similar to that used in BARTS.

These BARTS type cars, which have been used for estimating purposes, are two types of ultra modern, lightweight, electrically-propelled cars with steel wheels on steel rails capable of speeds up to 75 mph. Trains are initially formed by the use of two end cars (A car) and if greater length is required, middle cars (B cars) are added. The number of cars needed is based on peak hours requirements. In operation, trains up to 600 feet long carrying 1000 passengers can be employed.

Both type of cars have seating capacities of 80 people and automatic control equipment is on the "A" cars only.

FEEDER SYSTEM TO STATIONS

The SCRTD proposes the establishment of feeder bus routes to each station. The routing of these lines has not as yet been determined, but would tend to run perpendicular to the proposed corridors resulting in an interconnecting grid pattern serving the outlying communities.

People movers would be very desirable in the high density areas.

Peripheral parking along the main line would help to relieve congestion in the downtown core area. Automobiles destined for downtown could park at main line station or other parking facilities provided.

The stations along the Wilshire Line do not provide for parking, whereas those on the Central Line propose more than 2000 spaces south of the Coliseum - USC complex. Parking spaces (approximately 14,000) could be made available at the Convention Center and Coliseum.

The impact on the existing street system and traffic cannot be assessed at this time. However, street widening and traffic conflicts could result.

DESIGN AND ENGINEERING

SCRTD plans to contract design to private engineering firms. The City will be required to check various phases of the design. A Design Team including this City should be organized to coordinate the design and engineering efforts of the proposed transit system, in order that the City's needs and desires can be considered.

Additional Alternatives

Wilshire Corridor

Aerial Alternates: The portion of the corridor being considered for aerial type structure is located between Hoover Street and Beverly Glen Boulevard. The system will be subway in the CBD until it passes under the Harbor Freeway where it will become aerial at Hoover Street. It will continue as aerial until west of Beverly Glen Boulevard where, due to topography, subway is the only feasible configuration.

Aerial Line Down Wilshire Boulevard

- Will essentially provide the same service to centers of commercial activity except at Century City.
- The location of columns supporting the aerial structure will reduce the length or eliminate left-turn pockets and will adversely effect traffic flow and capacity.
- At stations, the street will be nearly covered to its full width by the structure (100 ft. wide).
- The massive structure required to meet the long span requirements (single-column bents in median or double-column bents in sidewalks) when placed

on a street of only 100 ft. width with mutli-story buildings at property line on either side would not meet with community acceptance.

. The cost of construction and right-of-way is estimated to be 11% less[1] than an all subway system. The difference is not considered sufficient to offset the potential detrimental impact to existing and future developments along Wilshire Boulevard.

Aerial Line North or South of Wilshire Boulevard (6th & 7th Streets)

. Existing public right-of-way (60'-80') too narrow to facilitate use of median and construction of stations and 7th St. to the south has poor continuity of alignment.

. Column spacing can be maintained within practical design limits.

. Acquisition of private properties results in dislocation and relocation of residents and removal of properties from the tax roll.

. The cost of construction and right-of-way is estimated to be 14% less[2] than an all subway system. The difference is not considered sufficient to offset the less desirable location of this route

---

1 Small difference due to high cost of structures.

2 Small difference due to nigh cost of private R/W.

from the service standpoint (approximately 1/4 mile from the center of activity along Wilshire Boulevard) and the acquisition of substantial amounts of private property.

Subway Alternates:
Subway North or South of Wilshire Boulevard
(6th and 7th Streets)

- Tunneling is more feasible than cut and cover except at stations. Cut and cover is as expensive as tunneling due to major utility interferences causing exceptionally deep excavations and substantial amount of property acquisition and extensive underpinning.
- 6th Street north of Wilshire appears to be more desirable than 7th Street to the south because of its continuity of alignment.
- Both alignments would require acquisition of private right-of-way for station design.
- The cost of construction and right-of-way is approximately the same as Wilshire Boulevard. The difference is not considered sufficient to offset the less desirable location of this route from the service standpoint.
- Construction in either of these alternates would create less disruption to east-west traffic than construction in Wilshire Boulevard.

- Entrance along Wilshire Boulevard to a subway system in 6th or 7th Street may provide a solution that is acceptable to all along this corridor.
- Problems associated with subway design are presently being researched, such as heat generation and ventilation.

COMPARATIVE RIDERSHIP

The Wilshire Line and the Central Line were analyzed separately to determine approximate ridership in 1990. Due to time constraints, only one trial estimate was made for each line, and under a broad set of assumptions, not all of which could be fully substantiated. To obtain a more accurate figure, it would be necessary to run a number of trials, refining the assumptions and checking the sensitivity of the equations used. The procedures, assumptions and equations are too technical, although not mathematically difficult, to be included in this report. When and if further runs are made, the procedures can be included in a subsequent report.

The 1967 Home Interview Triangular Trip Tables prepared by the Los Angeles Regional Transportation Study (LARTS) provided information on the regional automobile trips by origin and destination. The trip tables were adjusted and corrected to conform to the study corridors as of 1967. Demographic data for 1967 were entered into a multiple regression table to obtain a growth factor for determining 1990 trips.

The Alan M. Voorhees modal split model was then applied to determine diversion of automobile trips (not bus trips) to the proposed rapid transit lines. The percentage of total auto trips diverted to transit were:

	Wilshire	Central
Peak 4 hours	37%	26%
Total Daily Trips	27%	20%

The first very-preliminary results for both lines were:

1. Wilshire Line Transit Trips (diverted from autos)

Peak 4 hours	65,000
Total Daily	100,000

2. Central Line Transit Trips (diverted from autos)

Peak 4 hours	25,000
Total Daily	43,000

These ridership figures for the two corridors do not completely reflect the tie-in of the San Bernardino Busway nor the diversion of bus riders in the corridors. It is estimated that the Wilshire Corridor bus system now carries 113,000 daily riders and the Central Corridor 81,000 daily riders. If it is assumed that 60% of bus riders in the Wilshire Corridor are diverted to transit and 40% in the Central Corridor, then

67,800 riders will be diverted in the Wilshire Corridor and 32,400 riders in the Central Corridor. If these are added to the auto-diverted trips, the total transit riders in the Wilshire Corridor will be 167,800 and in the Central Corridor 75,400. As a basis of evaluation of these estimates, they can be compared to estimates made by SCRTD in 1968 which indicated 130,000 daily riders in the Wilshire Corridor and 75,000 in the Central Corridor.

Again it should be emphasized that the results of this ridership analysis are not precise in any manner. The totals indicated herein should be used for comparative purposes between the two corridors under consideration and should not be relied upon for other purposes until further work has been done.

CONSIDERATION OF OPERATIONAL COSTS AND REVENUES

The SCRTD is not in a position to estimate anticipated annual operations and maintenance expense or expected revenues on the Central Line. Apparently, these figures are to be developed at a later date as part of the proposed Federally financed planning grant.

All recent major studies of mass rapid transit in the greater Los Angeles area indicate that a Wilshire Corridor line would fare better than any other proposed transit line in relation to meeting operational costs from operational revenues. There is no indication that a Central Line would be self-sustaining, nor is there any indication from SCRTD as to how operational deficits would be subsidized.

Currently the U. S. Senate is considering the establishment of a transit stabilization fund to provide operating subsidies to urban mass transit systems. The Department of Transportation recently recommended against such support.

The projected financial condition of SCRTD is such that should significant operational deficits develop from transit the District would be unable to

subsidize continued operations without resorting to new revenues from other sources at the Federal, State, or local level.

EXPANDED BUS SYSTEM ALTERNATE

It has been suggested that federal and local monies might be better used to substantially increase bus service instead of building rapid transit lines, at least as an initial step. We can present here only a general analysis of such an expanded bus system.

Mass transit service in Los Angeles and other cities has been continually criticized for inconveniences caused by heavily-loaded vehicles, infrequent scheduling, long access times, transfer times, and slow speed.

To overcome these deficiencies, we might consider an augmented bus system:

- To provide seats for practically all passengers even during peak periods.
- To increase service, reduce headways and lower waiting times during off-peak times.
- To provide service where lines do not now exist.
- To reduce the number of transfers by increased service or redesign of system.
- To increase speeds by greater use of freeway fliers and exclusive bus lanes.

If a Citywide augmented and expanded bus system requires, for example, a doubling of present service, 1,500 buses might be added. At $50,000 per bus, a capital investment of $75-million would be needed. If this service drew a 20 percent increase in patronage, the result would be about $10-million in revenue and $40-million in operating costs. The resulting $30-million annual operating deficit would require direct subsidies. However, the reduction in automobiles to the CBD might reduce the need for additional parking spaces as well as reduce the many hidden costs of congestion, thus perhaps justifying a subsidy. At this time, however, any cost figures would be highly speculative.

It has also been suggested that bus service be radically improved through "saturation."

Saturated bus service would be based on an attempt to have around-the-clock service on most of the major and secondary highways in the City of Los Angeles together with local streets wherever appropriate so as to approximate the level of service that is now obtained by driving automobiles.

Any such proposal, however, would be even more conjectural at this time.

BENEFIT-COST DISCUSSION

Transit benefit-cost studies cover a broad range of approaches including an analysis of the following:

Continuing Savings

- Time savings to:
  - Present peak-hour transit commuters
  - Off-peak-hour transit commuters
  - Peak-hour commuters diverted to transit
  - Motorists during peak hours
  - Trucking firms
- Cost savings from reductions in:
  - Automobile trips diverted to transit -
    - Operating expenses (direct)
    - Insurance
    - Accidents
    - Capital costs of present and replacement vehicles
    - Parking costs
  - Bus trips divered to transit -
    - (all of above except parking)
  - Traffic control facilities

One-time Savings

Employee parking facilities otherwise required of commercial and industrial operators served by transit.

Community benefits and costs are considered under categories such as:

Employment increase.

Construction employment benefits.

Real estate effects.

Business productivity increases.

Government productivity increases.

Civil defense benefits.

Environmental effects (air pollution)

Highway construction impacts.

Improvements in life style.

Retail sales effects.

Housing efficiencies.

Increased property tax from development around stations.

Such analysis requires specific routes and stations as a base and substantially more time and data than available at present. It is expected that such an analysis will necessarily be made in design and evaluation of any line under a federal planning grant.

SCRTD Proposed Sources of Funding During Construction of the Central Corridor

General

The SCRTD has planned the funding of the Central Line in such a way as to avoid long-term debt commitments which would hamper the completion of the system. In the SCRTD's opinion, the funds for the completion must be sought from new sources, and that with the Central Line under construction, the SCRTD and the community will be in a strategic position to take advantage of opportunities that will undoubtedly appear through the opening of new financing resources at the State and Federal levels for a continuing program of rapid transit construction.

The SCRTD states that a strong local financing partnership will result in a starter line and prove that Los Angeles is desirous of providing the local share for such rapid transit construction.

Federal Transportation Grants

The SCRTD has recently become eligible for Federal financing of transportation projects on a two-third - one-third basis. The SCRTD proposes to request a Technical Grant for planning purposes and a $280 million grant for the acquisition and construction costs of the Central Line.

The allocation of Federal monies to the State of California is under normal circumstances limited to 12½% of the amount available nationally, which is proposed to go to $5.1 billion this next year from the present $3.1 billion. Under the new proposal the State would be eligible for approximately $600 million, as contrasted to $375 million now.

In addition, it is reasonable to assume that California could qualify for additional funds because the 1970 amendments authorized the Secretary of Transportation to use up to 15% of the amount authorized on a discretionary basis without regard to state limitation. Under the new proposal this would provide $770 million in comparison to the $465 million now.

District Operating Revenues

Passenger revenue, which is 98.5% of the SCRTD's operating revenue, approximates $4 million monthly, and the total operating revenue for 1971 should be about $48,500,000. The SCRTD proposes two modifications in passenger revenues.

(1) First, an increase is proposed through two changes in the basic fare, the first in 1973 from 30¢ to 35¢ and the second in 1975 to 40¢.

In contrast, the U. S. Department of Transportation is proposing the use of its grant funds in Atlanta to help support a 25¢ cut in fares - from 40¢

to 15¢. In addition, California legislators Alquist and Petris introduced SCR 7 in 1972, requesting a study of the feasibility of a free public transportation system in the San Francisco Bay area, with findings and recommendations to be reported to the Legislature by June 30, 1973.

(2) The second change in passenger revenue is the elimination of marginal services which will reduce passenger revenues by $1 million per year, and should reduce operating expenses by a substantially greater amount. This should reduce the present SCRTD cost of $1.04 per conveyance mile.

No other substantial changes in SCRTD operating revenues were noted.

Sales Tax for Transportation Purposes (See Appendix)

SB 325 authorizes counties to levy an additional 1/4% countywide sales tax applicable to sales including gasoline, with the net proceeds being deposited in a Local Transportation Fund.

The Watson Amendment, if adopted, will limit local sales taxes to 1%, and due to the wording of Senate Bill 325 will have the effect of eliminating the 1/4% authorized by Senate Bill 325. An increase above the 1% limit would be

permitted by a two-thirds vote of the Legislature; however, a favorable vote is thought improbable at this time.

The 1/4% sales tax net revenue coming to the Los Angeles County Local Transportation Fund is estimated at $53.9 million for 1972-73 and is allocated between the SCRTD area and the balance of the County on the basis of population. The maximum allocation to other municipal transit operators from the amount due to the SCRTD area is proportionate to overall service miles traveled. The increase in sales tax is expected to bring an estimated $16 million to the SCRTD in 1972 and approximately $37 million a year in the first full calendar year, increasing 4% per year to an expected $44 million in 1978.

While the SCRTD operated out of the fare box until late 1969, recent financial reports of the District indicate an operating deficit of approximately $1 million a month. While this is currently being offset by revenue from a one-time-only sales tax levy which has now run out, it must be assumed that even though the overall deficit would be somewhat reduced by the elimination of the marginal services, a continuing deficit of $12 million a year or more would need to be offset by allocations from the Local Transportation Fund.

The SCRTD investment in the Central Corridor from funds from the Local Transportation Fund is planned to total $70 million over a period of 7 years. The use of Federal grant funds on the Central Line would meet the legislative requirements for the level of capital expenditures. The balance of the proceeds from the Local Transportation Fund could be used for other capital needs and operations. The allocation by the SCRTD in millions of dollars varies as follows:

	Anticipated SCRTD SB 325 Revenue	Central Line Investment	Other Capital & Operating Requirements
1972	$ 16.13	$ 5.0	$ 11.13
1973	36.55	15.0	21.55
1974	38.00	15.0	23.00
1975	39.50	15.0	24.50
1976	40.96	10.0	30.96
1977	42.60	5.0	37.60
1978	44.30	5.0	39.30
	$258.04	$ 70.0	$ 188.04

As discussed in detail later, the $70 million combined contribution of the City and County is programmed over a period of 11 years.

No further transit construction using funds from Senate Bill 325 is anticipated by the SCRTD, as the funds will be applied to other SCRTD needs.

Bus Replacement and Maintenance

Bus replacement is to be cut back substantially until 1979, at which point a major shift in emphasis in the use of the Local Transportation Fund into bus replacement will be needed to strengthen bus operations. It is assumed that operating costs due to added maintenance will increase through 1979.

Other Sales Taxes

The SCRTD financing plan calls for a contribution by the County of Los Angeles of $1.6 million and the City of Los Angeles of $4.5 million, for each of 11 years, to match the SCRTD allocation of $70 million. This total amount of $140 million is expected to be matched by an anticipated $280 million Federal grant.

The annual City and County amount is equal to the added sales tax revenue to these agencies from the statewide application of sales tax to gasoline.

During the 1971 State legislative session, the City of Los Angeles was actively involved in the support of Senate Bill 325. The City's support was in part aimed at providing a financial basis for the improvement of transit systems in California and particularly in Los Angeles County, where the SCRTD would receive an estimated $35 million beginning in 1972.

However, of equal importance to the City in its support of this bill was the fact that the expanded sales tax base would provide much needed additional revenues for the general fund of the City of Los Angeles. Throughout legislative consideration of this matter, it was always maintained that the City's and County's portion due to the expanded tax base would be an unearmarked allocation usable in any way that general funds are now used.

In the City's request to Governor Reagan to sign the measure, it was pointed out that in addition to providing assistance for needed public transportation, Senate Bill 325 would generate additional revenues badly needed by local government. After signing this measure, the Governor in a letter to the Council President thanked the City for expressing its views on the matter and indicated that the views of the City were used by him in reaching a decision to sign this measure.

Other Sources of Funds for Transportation Purposes

Other Sales Tax Revenue

The 74 cities within the SCRTD other than Los Angeles, will receive increased sales tax revenue from the statewide application of the sales tax to gasoline, which is expected to total $4,991,300 in the first year.

The plan for the Central Line calls for rapid transit construction in two jurisdictions: the City of Los Angeles and Los Angeles County. The Mayor of the City of Los Angeles has suggested to the other cities in the County that they share in local cost of construction of the line. This approach has also been suggested by members of several City Council committees. In keeping with these suggestions, the SCRTD Board has requested meetings with elected governmental bodies of all the cities to discuss their role in public transportation funding, generally, and in the Central Line proposal, specifically.

Gasoline Taxes

In 1972, State Assemblyman Foran re-introduced ACA 16 which would permit the use of motor vehicle fuel taxes for the costs of public transit systems, except for their operating expenses. Legislative action sub-

sequent to adoption of the constitutional amendment would be required for implementation.

It is unlikely that all the issues could be resolved this year. While a financing resource of this nature may become available for further development of the rapid transit system, the uncertainties and delays make it unavailable for an action program at this time.

Fare Box Revenues

While the long-standing tradition in Los Angeles is that public transportation pay for at least its operational costs out of the fare box, the SCRTD has not been self-sustaining since 1969, and is now operating with a deficit of $1 million per month. The public service concept of public fares being less than enough to cover transit costs has been accepted in other areas. Fare box revenue that is less than operating costs does not constitute a base for the acquisition of capital.

Station Concessions

Space for station concessions must be included in the construction of the system and unless prepaid rent arrangements are possible, concession revenues

must be considered a long-term return on investment, and not a source for capital for other parts of the system.

The 1968 transit study by the SCRTD estimated approximately $500,000 revenue for the five corridors. The Planning Department staff now estimates that a return of $2 million per year would not be unreasonable for the Wilshire Line. An analysis of the circumstances for each station would be necessary for more than a rough estimate.

Air Rights and Special Facilities

Air rights can provide a capital source in the form of prepaid rent or purchase consideration. In view of the linear nature of the proposed lines, and the probability of their construction in street right-of-way, only limited air rights use is foreseen.

Stations or lines built outside of street rights-of-way would require individual analysis. As a general rule, the return should offset a part of the cost of acquisition of the site. However, in some cases the return could exceed the cost of acquisition.

Where special facilities accessory to the rapid transit system such as direct station access from nearby buildings and other features benefiting specific properties

are desired, it is assumed that the owner of the benefited properties will provide financial assistance for such design and construction.

The construction of stations, which may be in the order of 10% of the cost of a line might be transferred from the District to the city in which it is located or to private entrepreneurs who can write off the costs of station public service facilities against the benefits of the other uses of the station site and adjacent property.

Peripheral Parking Grants

Federal Grant programs provide assistance for parking garages located adjacent to federally financed freeways. Separate capital funding from the Highway Trust Fund (up to 50 percent) is expected for provision of freeway-intercept terminals in the rapid transit system.

The provision of parking at the southern terminus of the Central Line adjacent to Interstate Highway 105, which could be developed under the Federal Highway Act, would make it possible for the longer-trip commuter to avoid the necessity of using the inner portions of the freeway system.

In addition to their park-and-ride transport functions, the freeway-intercept station/terminal could be a base for low-order commuter services such as food marts, cleaners, quick-food franchises, medical/legal offices, savings and loan offices, specialty shops, and automobile repair/service facilities.

Lease of air rights and concessions for these purposes could make some minor revenue contribution to the rapid transit system. It is possible for the system to net a considerable revenue from freeway-intercept air rights and station concessionaire revenues.

Urban Beautification Funds

These funds can be used to finance linear parks that may result from elevated segments of a corridor.

Post Office Transport Subsidy and Freight Distribution

The main post office downtown adjoins the proposed Union Station rapid transit stop. Mail distribution to centers and freeway-intercept terminal could justify use of the rapid transit system as a postal carrier and qualify it for mail subsidy. The postal service would save on use of trucks and manpower and have swift mail distribution to suburban points. Some European transit lines attach mail boxes to

buses and trains directly as part of a postal collection/distribution system.

If the rapid transit system has convenient access points to the freight systems, it is possible that additional revenues could be gained from off-hour use of its facilities for freight distribution.

Should new technology allow vehicle interchange between the primary rapid transit line and the secondary feeder system, additional opportunities for the distribution of goods within centers may be available. No estimate can be made of the potential revenue such a system might generate.

Under present legislation, rapid transit means the transportation of passengers and their incidental baggage, thus a change in basic law would be required.

Transit District Public Transportation Improvement Fund

1. Legislative action in 1969 authorized the SCRTD to levy a one-time only 1/2% sales tax not to extend beyond a six-month period to finance transit improvement by operators in the District area. The District revenue of approximately $36,250,000 has been used to offset the deficit

from operations. The six-month period ended December 1970.

The statement of legislative intent clearly stated that this was a one-time authorization and was not a precedent.

2. The SCRTD may upon approval of 60% of the electors levy a 1/4% or 1/2% sales tax for transit purposes of the SCRTD or an (existing) city operated public transportation system distributed on the basis of claims but not disproportionate to miles traveled by conveyances of the systems.

Revenues from Borrowing Available to the SCRTD

Indebtedness of the SCRTD, without limitation as to form, may not exceed in the aggregate, 15% of the assessed valuation of all real and personal property in the District.

Districtwide Bonds may be sold upon approval of two-thirds of the Directors and 60% of the electors, payable from either revenues, general or special, property taxes, or District authorized sales taxes.

The 1968 SCRTD five corridor proposal relied on districtwide bonds backed by property taxes to obtain transit construction financing. The large increase in property tax rates that would have resulted probably was the one most important factor instrumental in the defeat of the proposal by the electorate. The reduced amount of locally provided transit construction financing now required as a result of potential Federal grants implies a significantly smaller impact on the property tax rate than was envisioned in 1968.

A schedule of basic property tax levies is shown at the end of this section.

Revenue Bonds may be sold upon approval of two-thirds of the Directors.

Temporary Borrowing may be authorized for very limited short term needs, and Equipment Trust Certificates may be issued for acquisition of rolling equipment.

Improvement Districts may be utilized when the District desires to utilize bonded indebtedness to be paid from taxes levied upon less than all of the District, subject to a two-thirds vote of the Directors, and 60% of the electors in the improvement district as shown in the schedule of basic property tax levies.

The SCRTD is of the opinion that benefit district levies could not provide sufficient funds to generate a substantial portion of rapid transit trunk-line system financing. Further, benefits districts offer the most logical basis for developing secondary transit circulation systems which will be necessary in the activity centers where significant tax bases exist.

General

If the revenues of the SCRTD are expected to be inadequate to make payments on SCRTD bonds, the SCRTD shall fix a general property tax levy suffi-

cient to meet its needs for that purpose, subject to the maximums stated in the ordinance calling the individual bond elections.

Revenues From Borrowing Available to the City

General Obligation Bonds may be sold upon approval of the Council and two-thirds of the electors, payable from property taxes. (See schedule of basic property tax levies.)

Special Assessments against property in the City may not be levied for the purpose of paying the cost or expense of acquisition, construction, maintenance or operation of any subway or elevated railway. (Charter Amendment added in 1935.) The City Attorney advises this limitation pertains to the Council and not the SCRTD. A Charter amendment to remove Section 37 1/2 requires a majority vote of the electors.

Tax Increment Bonds may be sold to be repaid from added property tax revenues from redevelopment areas.

Revenues From Other Sources

Parking Authority bonds may be used to finance parking facilities, payable from revenues which may include leasing of the facility by the City or a private operator.

Highway Funds may be used to provide exclusive or preferential use of freeway lanes, which may in part be financed by Federal grants.

This use of Federal Highway Trust Funds for various modes of transit has been suggested to the President and Congress in SJR 4 (1972) introduced by Alquist.

Transit Impact Tax-Increment Districts using transit improvement as the trigger might be authorized by the Legislature paralleling similar authorization in relation to Community Redevelopment Agency activities.

Schedule of Property Tax Levy for Bond Issues

The following table shows the increase in the property tax rate per $100 of assessed valuation, for each $10-million dollars of a bond issue. The table assumes a 5 1/2% interest rate, a 40-year maturity period, an annual equal bond service of about $623,000, and an annual growth rate of 4% in assessed valuation. Assessed valuation is given in millions of dollars. The tax rate is for each $100 of assessed valuation.

	SCRTD		CITY OF L.A.		CENTRAL CORRIDOR		WILSHIRE CORRIDOR	
	Assessed Valuation	Tax Rate	Assessed Valuation	Tax Rate	Assessed Valuation	Tax Rate	Assessed Valuation	Tax Rate
1971-72	18,795	.0033	7,805	.0080	435	.1432	875	.0712
1980-81	26,746	.0023	11,104	.0056	618	.1008	1,244	.0500
1990-91	39,584	.0016	16,430	.0038	915	.0680	1,841	.0338
2000-01	58,589	.0011	24,315	.0026	1,355	.0459	2,726	.0228
2010-11	86,721	.0007	35,985	.0017	2,005	.0310	4,033	.0154

For example, if $300 million of financing were provided by bonds payable from property tax, the 1980-81 tax rate would approximate $.069 per $100 assessed value on a SCRTD wide levy. By comparison, the 1968 SCRTD five corridor proposal envisioned a 1980-81 tax rate of $.597 per $100 assessed valuation.

FINANCING OPPORTUNITIES

There are a number of alternative uses of Local Transportation Funds available to SCRTD varying from (1) the limited use presently proposed by SCRTD of from 5 to 15-million dollars for transit capital during each of the next seven years, coupled with the application of the balance to other capital needs of a very limited scale and for transit subsidy, to (2) the use of all of the Local Transportation Funds for capital to be applied to transit construction purposes.

Financial statements reflecting the operations of SCRTD indicate an operating deficit since 1969 which is expected to reach approximately $12-million for the full year 1971 and that may increase to such an extent that most of the estimated 1980 revenue from the Local Transportation Fund would be needed for operational subsidy.

While recognizing that public transportation must be subsidized, it is questionable whether the SCRTD should covertly finance this need through the use of what appears to have been designed to be capital funds. It might be more candid, and more prudent,

either under present or potential legislative authorization for the SCRTD to take the extent of this required subsidy to the taxpayer on an annual basis, to be financed through a source other than Local Transportation Funds.

If an alternate approach to the financing of the subsidy for transit is pursued, the bulk of the proceeds of the Local Transportation Fund coming to SCRTD could be used as transportation capital.

To clarify the impact of the use of the district-wide Local Transportation Funds as a direct capital source, medium-term borrowing would permit the accumulation of say $500-million, which combined with potential federal grants, would provide approximately $1.5-billion in capital. This is approximately the same amount approved in November 1971 for the City of Atlanta, Georgia. This type of borrowing would tie up SCRTD's Local Transportation Fund revenues for up to 20 years.

Longer-term district-wide borrowing over a period of 40 years could provide an initial local share of over $700-million, thereby providing a total of $2.1-billion for transit development when combined with matching federal funds at the 1/3-2/3 ratio.

Looking only to the area of the City of Los Angeles, general obligation bonds (40 years at 5-1/2 percent interest) could produce $500-million in local funds which, with federal grants, will produce $1.5-billion in construction funds (which was noted above as comparable to Atlanta) at a property tax obligation of approximately 40 cents per $100 of the current assessed valuation, which based on the recent level of tax base increase would drop to 28 cents per $100 of assessed valuation by 1980-81.

This property tax obligation could be offset by payments from the Local Transportation Fund and the tax increments from the Transit Impact Districts discussed earlier in this text. For example, the property tax rate could be reduced to 6.9 cents per $100 of 1980-81 assessed value with the remaining $12.5-million annually coming from the Local Transportation Fund. The proceeds of Transit Impact Districts would depend on the private development in each station area. Development estimated at $10-billion over about a six-year period is reported to have occurred in Toronto following completion of the transit system. Such development would result in about an additional $2.5-million in annual revenues for each 10 cents (per $100 assessed valuation) tax rate increment.

The potential use of motor vehicle fund taxes for transit purposes is indefinite at the present; however, such funds could be used in the same manner as the Local Transportation Fund as local matching funds.

Funds available for peripheral parking and urban beautification provide an excellent source for some portions of the cost of the transportation program, but will require a local share. Where parking facilities are to be self-supporting at least to the extent of the local contribution, Parking Authority financing may be an advantageous source for local share.

Highway funds can be used for operating bus lanes on freeways. The use of such funds should be explored in connection with the development of future freeways. This is of particular interest in the near future in connection with the Industrial Freeway which is planned for the area near the South Corridor.

Careful consideration of the development of concessions, the use of air rights, and the development of stations through the use of private capital should be encouraged.

It should be re-emphasized that the above discussion is intended to provide a general approach to financial constraints and opportunities. All figures quoted are

intended to give a general understanding of the magnitudes of factors being discussed and should not be taken as precise forecasts of financial developments.

APPENDIX

DIRECTOR HERBERT KRAUCH'S STATEMENT ON WILSHIRE-CENTRAL CORE TRANSIT LINE

Proposal on How Wilshire-Central Core line can be Financed NOW

As one member of the 11-member board of directors of the Southern California Rapid Transit District I have a different view on what is the best way to proceed to start building a rapid transit system in Los Angeles

And I believe there are other members of the board who feel the same way but went along with the planning committee's recommendation for the Watts line because they were given no other choice and we all realize the necessity of getting started on a first stage line.

The adoption of the Central City Line was based primarily on the general manager and staff's claim that it was the only line we would have money enough to build out of the gasoline sales tax funds.

I disagree with this statement and will point out how the start of both the Wilshire Corridor and the Central City Lines can be built with the fund that will become available.

And it is my belief that such a project would be more in line with the actual transportation needs of the community and the views of the Central City Planning Survey, the Chamber of Commerce and City Planning department. It would also carry more passengers, be more profitable and make a better demonstration project of what rapid transit can do for the area.

Every city in the world where rapid transit exists started by building the central system first and adding extensions.

The proposed Central City Line to the Century Freeway with an ultimate connection west to the airport is an admirable project for many reasons but not necessarily suited for a demonstration line on what rapid transit can do to alleviate transportation problems in Los Angeles.

It has the advantage of being the lowest cost line we can build, it serves the minority community within the lowest income range and probably the most people on welfare. But you have been presented a picture of its advantages which in my opinion are self serving and in some instances a distortion of the facts.

As an example, in the answers to city ad hoc committee questions you are told the line will have a patronage of 75,000 per day. As a matter of fact our engineering department when asked by John Pastier of the Times stated it would have a patronage of 45,000 to 75,000 per day. These figure appeared in a Times article.

Another example: The answers cite the McCone report telling the great need for transportation from the Watts area so persons living there can get to job areas. But it fails to state that the RTD has put into operation excellent bus service from this area to downtown and west to the airport since 1968. Also the RTD runs a special bus service directly from the area across town to the Wilshire, Beverly Hills-Brentwood area.

The answers also state the Central Line will give the people of this area greater access to medical facilities which in the McCone report meant the Los Angeles County hospital. But it fails to state there will be no need to go to L.A. County hospital anymore because the county has just completed the Martin Luther King hospital which will take care of the people in this area who need public medical care.

My disagreement with the claim that the Central Line to Compton at a cost of $420 million is the only line that can possibly be financed out of SB 325 gas sales tax funds hinges on how you juggle the money and devise the financing plan.

For the sum of $550 million, $130 million more, the complete central core of the entire rapid transit system can be built as the first stage line. It would include the Central Line from the Union Station to the Coliseum and the Wilshire line from 7th & broadway to Fairfax.

These central core lines would connect with the San Bernardino express busway at Union Station, taking these buses off the downtown streets to Western Ave. and making through travel available from the San Gabriel Valley to Fairfax on the West and the Coliseum on the South. Later extensions could be made to other areas as funds became available either through gasoline highway taxes or bond issues.

All it requires to do this is a change in the districts financing plans for the first stage project.

The Union Station to Wilshire and Fairfax line according to our 1968 plan would be 8 miles long with 12 stations and the Central line from 7th and Broadway to the Coliseum would be three miles with four stations making a total of 11 miles and 16 stations.

At $50 million per mile this would tatal $550 million.

How would you make up the extra $130 million?

The proposed Central Line calls for an appropriation of $70 million from the RTD over a period of 8 years and $70 million from the city and county over a period of 12 years for a total of $140 million, making a total of $420 million with federal matching funds.

If the RTD contributes $10 million per year for 12 years to match the $6 million per year it is asking the city and county to contribute for 12 years in the Central Line plan it would raise $192 million and with the two-thirds federal matching funds this would make a total of $576 million.

This is more than sufficient to build the Wilshire-Central Core system, the two most profitable lines in entire proposed rapid transit system. These two lines would not only carry peak loads morning and evening but heavy traffic all during the midday hours.

To me this is the only logical way to go in starting a rapid transit system in Los Angeles and it can be started before the March 1972 deadline with funds available if all three government entities involved will make the necessary commitments.

Director of Planning Comments

The proposed routes for the Central Line and Wilshire Line analyzed in this report were taken from SCRTD's 1968 report titled Southern California Rapid Transit District-Final Report. Since 1968, the City Planning Department has presented to the General Plan Advisory Board, the Planning Commission, the Mayor and City Council various elements of the General Plan for the City which incorporates rapid transit as an essential transportation facility servicing its citizens, relieving congestion, reducing pollution and as a means to restructure the City. The Concept and Citywide portions of the plan, and the rapid transit technical element and the proposed community plans for the two areas, recommend modification in the routes proposed by SCRTD in 1968. The principal changes or additions include:

1. Twelve stations instead of sixteen stations along the Wilshire Corridor
2. Development of secondary feeder people mover system in the more intense centers to serve concentrated commercial and residential areas and provide easy access to the rapid transit stations. These feeder system could take the place of the

more frequent stations and permit a faster average transit vehicle speed as well as provide improved circulation. The Planning Department has strongly advocated these systems be built concurrently with the rapid transit lines

3. Eight stations instead of twelve stations along the Central Line.
4. Routing of the Central Line along Avalon instead of Central Avenue to maximize development around stations.
5. Implementation of additional private development controls that would require improved development around the stations and the provision for separated pedestrian walkway systems in these core areas to provide maximum benefit to pedestrians.

Analysis of SB 325 and Effect of Proposed (Watson) Constitutional Amendment on Rapid Transit Funding

A detailed analysis of the effect of Senate Bill 325, frequently but erroneously thought of as dealing only with sales tax on gasoline, shows that it is a complex bill and has numerous implications. The bill becomes operative on July 1, 1972. (The Watson Amendment will appear on the November General Election Ballot.)

Sales Tax on Gasoline

The League of California Cities summary of the basic provisions discloses the following changes ir sales tax applications relative to gasoline:

State of California - Net Revenue Change: None. The statewide sales tax rate will be reduced from 4 to 3 3/4%. The State should not experience a revenue loss, as this new rate will apply to the sale of gasoline in addition to present applications.

The Watson Amendment will establish State sales taxes at 6%, an increase of 2.25% above the Senate Bill 325 level. It permits an increase above the 6% rate by a two-thirds vote of the Legislature.

Any revenue in excess of that required to make up the difference is deposited in a new State Transportation Fund*, the uses of which are analyzed in Exhibit B.

Los Angeles County - Net Revenue Change: Estimated at an Additional $1.5 Million Annually. The 1% local sales tax presently established by County action will in the same manner apply to the sale of gasoline in the Los Angeles City limits. This applies to other cities with a similar local sales tax, for which the combined increase in revenue is estimated at about 45-million annually.

Local Transportation Funds

In addition to the new application of the sales tax to gasoline, SB 325 enables counties to levy an additional 1/4 percent countywide sales tax applicable to sales including gasoline inside cities as well as the unincorporated areas. The net revenue change for Los Angeles County is estimated at an additional $53.9-million annually. This 1/4 percent offsets the reduction of the statewide rate to 3-3/4 percent, resulting in no changes in the overall sales tax levy.

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* The 1972 SB #9 (Mills) proposes a new name - "Transportation Planning and Research Account in the State Transportation Fund".

For practical purposes the levy of the 1/4 percent is mandatory as the countywide area will lose the state collection services on local sales taxes if the new 1/4 percent levy is not adopted. This action will make the local sales tax levy 1-1/4 percent.

The Watson Amendment will limit local sales taxes to 1 percent, and would void the added 1/4 percent levy for transportation purposes. It permits an increase above that rate by a two-thirds vote of the Legislature.

Procedures for Counties Generally

Boards of Supervisors, under contract with the State Board of Equalization, shall establish a local transportation fund in the County Treasury and deposit in that fund the revenues transmitted by the State Board of Equalization from county sales taxes in excess of 1 percent, i.e., the new 1/4 percent, less an allocation of the costs of the state's services in administering the excess levy.*

Boards of Supervisors shall continuously appropriate money in the fund to public transportation entities for the purposes outlined in Exhibit A. Applicants

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*(Govt. Code, § 29530, et seq.)

may first file claims for funds between July 1, 1972 and 90 days before July 1, 1973, a period of approximately 9 months.

Payments shall be made out of these appropriated funds in the amounts allocated by a transportation planning agency which may be (1) a statutorily-created regional transportation planning agency (SF Bay area), or (2) a council of governments* or (3) if neither is established for the county, a local transportation commission which the county, with the concurrence of a majority of the cities which include at least 50 percent of the incorporated population in the county, may elect to form. A combination structure with the action of the local transportation commission as the allocating agency being subject to review by the council of governments, is also provided.

The membership of a local transportation commission is three members appointed by the Board of Supervisors, three appointed by the Mayor's Select Committee of the County, and where applicable, three appointed by a transit district and one representing collectively the other transit operators in the county.

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* The bill appears to presume a council of governments (such as SCAG) for Los Angeles County.

In the event an applicant is not satisfied with actions taken by the Transportation Planning Agency, the Secretary of the State Business and Transportation Agency shall, upon notification, evaluate the disagreement and notify the parties of his findings, which are a final settlement. An alternate procedure, described later, is established for counties with over 6-million population using the combination structure of the local transportation commission and a council of governments.

The following provision does not apply to a county where the transit district has been provided bonding authority by statute, such as SCRTD, and is included for information only. In the event an approved application would cause the county to incur an indebtedness or liability in excess of the money in the Local Transportation Fund for such year, the Board of Supervisors shall call an election, the cost of which, upon approval of the local transportation commission, be paid from the Local Transportation Fund. Only Local Transportation Funds may be used to pay off these limited obligation bonds.

No funds received by a public transportation entity under Article 4*(see Exhibit A for analysis of Article 4) shall be used in substitution for or to reduce

* References to "articles" are references to portions of a Chapter of the Public Utilities Code Commencing with § 99200

other funds committed for services, commencing July 1, 1972. This may permit Long Beach and Santa Monica, for instance, to terminate their transit subsidies prior to July 1, 1972 - possibly reducing SCRTD's share. It also may have financing implications for the Los Angeles Minibus.

Any city or county may enter into a contract with any municipal (transit operator) applicant or regional (transit operator) applicant to provide public transportation service in its area. The applicant providing the service may include the claim by the city or county with its claim.

For Counties Over 6-Million Population

The gross amount available in Los Angeles County for the SCRTD area is the proportion of the total county transportation fund revenues that the population of the area served by SCRTD bears to the total county. The amount available to SCRTD is reduced by the approved claims of all included municipal (transit operator) applicants. The maximum amount of an approved annual claim for an included municipal (transit operator) applicant is determined by the application of the ratio of total service miles traveled by all applicants

and SCRTD itself to the gross amount available for SCRTD area.

A local transportation commission may be formed, notwithstanding the existence of a council of governments, and in that event, the commission is empowered to review and approve applications for funds, while the council of governments shall review and comment on conformity of the application with an adopted and published regional plan, with any objections by the council of governments as to lack of conformity to be filed with the commission and the county auditor within 60 days after receipt of the application. (Govt. Code § 29536)

When the council of governments files an objection but the local transportation commission nevertheless approves an application, a procedure is established for appeal within 30 days by that council of governments to the Secretary of the State Business and Transportation Agency. The Secretary of the Agency shall render a decision in 30 days on the conformance of the application with the regional plan. (Govt. Code § 29536)

a. For counties of 500,000 population or more, excluding those with more than 4,500 miles of maintained county roads (Orange County - 1,420,000), the proportion of total county transportation fund revenues that the population of all applicants bears to the total county population, shall be available only for public transportation systems, and may be held to subsequent years.

The proportion of total revenues that the population outside the boundaries of all applicants bears to the total county population, shall be available for claims under Article 8 for expenditure in the area for which transit service is not provided. (See Exhibit A for analysis of Article 8.) The members appointed by the Mayor's Select Committee from a city for which transit service is provided, and members appointed by a transit district and the member representing other transit operators shall have no vote on claims under Article 8.

b. In counties of 500,000 population or more and with more than 4,500 miles of maintained county roads (San Bernardino County - 684,000) or with less than 500,000 population (Riverside County - 459,000), the proportion of total county transportation fund revenues that the population of all applicants bears to the total county population, that is not necessary to satisfy approved claims in any year, may be available for other priorities in Article 4 in subsequent years.

The entire membership of a local transportation commission shall be convened by the Board of Supervisors to review claims under Article 4. (See Exhibit A for analysis of Article 4.) It is provided in Govt. Code, Sec. 29567, that the local transportation commission members appointed by the Mayor's Select Committee representing a city for which transit service is provided, the members appointed by a transit district, and the member representing other transit operators, shall have no vote in the approval of claims filed under Article 8 (see Exhibit A for analysis of Article 8).

Other Counties in SCAG Area

In counties with a population of six-million or less, a local transportation commission may be established nothwithstanding the existence of a council of governments. Applications are approved if the council of governments has not objected within sixty days after receipt of the application. Applications to which a council of governments has objected shall not be paid by the county auditor until the objection has been removed.

The members appointed by the Mayor's Select Committee from a city for which all funds in proportion to population are used to pay approved claims under Article 4, and members appointed by a transit district and the member representing other transit operators shall have no vote on claims under Article 8. (See Exhibit A for analysis of Articles 3, 4 and 8.)

Exhibit A

Local Transportation Funds

Article 3 - (Sec. 99240 et al)

Local transportation funds shall be approtioned in accordance with the following priorities:

a. Necessary county administrative costs under this chapter.

b. Necessary transportation planning agency costs under this chapter (SCAG or a local transportation commission).

c. Up to 3% of revenues, unless more is approved by the Secretary of Business and Transportation Agency, for regional transportation planning agencies or interstate agencies (not applicable in this area).

d. Approved claims under Article 4 (see below).

e. Approved claims under Article 8 (see below)

With all actions, other than those under Article 8, item (c), being subject to rules and regulations of the Secretary, Business and Transportation Agency with the advice and consent of the State Transportation Board.

Article 4 - (Sec. 99260 et al)

A regional applicant (a transit district) or a municipal applicant (a transit operator) may submit a claim for an amount sufficient to meet the applicant's estimated financial needs:

a. To meet its capital and operating requirements for the planning; construction; maintenance and operation of a public transportation system, including current acquisition or replacement of transportation vehicles or conveyances; acquisition of real property; construction of facilities; expenses for repairs, operation, maintenance, depreciation; and payment of principal and interest on bonded indebtedness, equipment trust certificats or other indebtedness, including any amount in the accomplishment of a defeasance under any outstanding revenue bond indenture;

b. For public transportation research and demonstration grants;

but for not more than 50% of the amount required to meet operating, maintenance and capital and debt service, after deduction therefrom of estimated federal grants in any one year.

An applicant for grade-separated mass transit system facilities may expend the amount budgeted for capital facilities in any year or on a cumulative basis for five years, notwithstanding the 50% limitation, if the construction has been found consistent with the applicable regional plans for the area by the recognized comprehensive and transportation agency.

At least 75% of funds received by applicant under Article 4 shall be used for capital expenditures, except that federal or state funds for capital expenditures on a matching basis may be used to meet this requirement. A temporary waiver may be granted to permit a larger portion of the funds to be used for more urgent costs, when the financing of such non-capital expenditures by fare increases or curtailment of services will adversely affect public transportation services.

Capital expenditures shall consist of

acquisition of land or other real property;

current acquisition or replacement or transportation vehicles, or conveyances; and

acquisition, construction, enlargement, or repair of property and facilities incidental to or necessary or convenient in connection with the foregoing;

depreciation;

payment of principal and interest on bonded indebtedness, equipment trust certificates or other indebtedness, including any amount in the accomplishment of a defeasance under any outstanding revenue bond indenture.

The annual claim of a municipal or regional applicant, other than those within the SCRTD area, cannot exceed the proportion of the total fund that its population bears to the county total, plus any proportional amount for services rendered outside its boundaries. The total of all claims within a county are limited to a similarly computed proportion of the fund.

Article 8 - (Sec. 99400 et al)

Claims may be filed by applicants (a city, county or transit district) for

a. Balanced transportation planning,
b. Public transportation research and demonstration projects,
c. Right-of-way acquisition and construction of local streets and roads, including facilities provided for the exclusive use by pedestrians and bicycle (these allocations are not subject to rules and regulations

of the Secretary of the Business and Transportation Agency under Article 3),

d. Payments to the National Railroad Passenger Corporation for passenger mail service under Section 403(b) of the Federal Rail Passenger Services Act.

Payment of claims under this article shall not reduce the amounts available for payment of claims under Article 6.

Approved claims may in no year exceed 50% of the amount required to meet the applicant's total proposed expenditures.

Financial assistance to an applicant is limited to the proportion of the total county revenues that the population of the area served by the applicant bears to the total county.

The transportation planning agency shall promulgate rules and regulations for related evaluations and reviews.

Exhibit B

State Transportation Fund*

Article 6 - (Sec. 99305)

Up to 50% of the amount transferred monthly to the State Transportation Fund shall be available, when appropriated by the Legislature, for expenditure by the Secretary to equally match other funds to perform the continuing comprehensive transportation planning process by councils of governments or to obtain federal funds to this end, and the balance shall be available, when appropriated by the Legislature, for the following purposes:

a. State transportation planning.

b. Comprehensive transportation planning by statutorily created regional transportation agencies or by entities created by interstate compacts.

c. Public transportation research or demonstration projects.

d. Securing federal funds on a matching basis, if funds allocated pursuant to Article 4 are insufficient to secure the federal funds.

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* The 1972 SB #9 Mills proposes a new name - "Transportation Planning and Research Account in the State Transportation Fund."

e. Training and research by the Institute of Transportation and Traffic Engineering of the University of California in public transportation systems engineering and management and coordination with other transportation needs.

Report to Los Angeles City Council Ad Hoc Committee