Report to the

LEGISLATURE OF THE STATE OF CALIFORNIA

DECEMBER, 1957
CHAPTER II
CONCLUSIONS AND RECOMMENDATIONS

On the basis of its studies and investigations and the extensive reports prepared by its consultants, the commission has arrived at certain conclusions. They were arrived at after thorough consideration of the many factors that bear on the problems of interurban transportation within such a large and complex area as the nine counties bordering on San Francisco Bay.

In its preliminary report of January, 1953, this commission stated the following conclusions:

1. That a satisfactory solution to the transit problem in the Bay area cannot be reached by building highways and facilities for automobile transportation alone; that the solution can be reached only through evolving a satisfactory system of mass rapid transit developed on the premise of moving people—not moving cars.

2. That there is an urgent need in certain portions of the Bay area at present for a co-ordinated system of mass rapid transit, operating on its own rights-of-way, removed from conflict with vehicular traffic.

3. That the system should be so planned that it would be capable of being expanded to include other areas not included in the original system as the population growth in those areas reaches the point which will result in a travel volume sufficient to support the expansion.

4. That to receive sufficient patronage, a rapid transit system must have inherent features that will permit it to compete on favorable terms with automobile transportation. Some of these features are:
   a. Short elapsed travel time between departure point and destination;
   b. Modern, safe, comfortable equipment;
   c. Convenient transfer facilities;
   d. Frequent and convenient schedules;
   e. Adequate, convenient and low-cost (preferably free) parking facilities at suburban stations.

Those conclusions were valid in 1953 and are just as important today. Their validity has been confirmed by the recently completed investigations by the commission's consultants. Those investigations have also led the commission to the following additional conclusions:

5. That the least-cost solution to the transportation requirements of the Bay area regional organization of living and working areas is a unified system of interurban rapid transit to supplement and complement the regional network of freeways and highways.

6. That a rapid transit system, adequate for the needs of the Bay area during the next 35 years or longer, should be planned as a comprehensive, unified network under one management and be constructed in stages as the need develops through the population and economic growth of the area.

7. That the studies and investigations conducted by the commission's engineering consultant, Parsons, Brinckerhoff, Hall and Macdonald, were carried out in a capable and thorough manner, and that the conclusions and recommendations of the consultant as outlined in his report "Regional Rapid Transit" are sound and are hereby endorsed by the commission.

8. That the investigation conducted for the commission by Stanford Research Institute on organizational and financial aspects of the rapid transit proposal was carried out in a capable and thorough manner, and that the indicated type of organization and the methods of financing capital expenditures are logical and equitable.

9. That the construction of a rapid transit system conforming generally to the recommendations of the commission's engineering consultant does not present any obstacles that are insurmountable or that involve costs that are prohibitive.

10. That construction of a rapid transit system conforming generally to the recommendations of the commission's engineering consultant is within the practical financial capacity of the Bay area.

11. That the rapid transit district created by Chapter 1056, California Statutes of 1957, is a suitable organization for initiating and carrying out a program of providing rapid mass transit service in the San Francisco Bay area.

12. That because of the increasing traffic congestion and its serious detrimental effects there is an urgent need to proceed without delay on a program directed at providing in the Bay area an adequate unified system of interurban rapid mass transit.

The commission therefore recommends:

1. That a unified long-range program of mass rapid transit construction and operation be undertaken in the Bay area and that the facilities provided conform
generally to those recommended in the report “Regional Rapid Transit” prepared for the commission by its engineering consultant.

2. That the rapid transit facilities be constructed in stages as recommended in the report “Regional Rapid Transit,” except that when final detailed planning of construction is undertaken serious consideration be given to including in the initial construction phase those portions of the facilities designated as the second construction phase in the engineer’s report.

3. With reference to Santa Clara County, that the board of supervisors give prompt and serious consideration to providing for the annexation of that county to the rapid transit district at an early date in order that the county may have full participation, through membership on the board of directors, in the decisions to be reached.

4. That the rapid transit district created by Chapter 1056, Statutes of 1957, proceed forthwith on a program for providing an adequate system of rapid mass transit for the San Francisco Bay area.

5. That at an early date the district embark upon a comprehensive program of public information directed at insuring a widespread understanding of its rapid transit program and of the importance of the program to the present and future well-being of the Bay area. That the aid of civic organizations and of citizens of recognized standing in their communities be enlisted in furtherance of the public information program.

6. That at an early date the district establish and maintain close liaison with the Division of Highways and, as appropriate, with other agencies engaged in providing transportation facilities with the objective of achieving the maximum of co-ordination between facilities serving the Bay area, and specifically to insure that in the design of future freeways careful consideration is given to including therein provision for rights-of-way for rapid transit facilities.

7. That, to the extent that they are now required by the State, office records and files of the commission be made available to the district.
SECTION I

GENERAL SUMMARY

The objective of this Stanford Research Institute study is to explore various types of organization and feasible means of financing for a rapid transit program, which has been proposed for the San Francisco Bay Area. The engineering plan is set forth in a study recently completed for the San Francisco Bay Area Rapid Transit Commission by the firm of Parsons, Brinckerhoff, Hall and Macdonald.

THE RESEARCH APPROACH

The present investigation is correlated with the engineering study but has been conducted independently for the commission by Stanford Research Institute. Its purpose is to furnish facts and methods of analysis as a basis for decisions by the commission regarding the financial and organizational aspects of the system. It is not intended to judge the physical and economic merits of the system recommended by the engineers. Neither does it presume to recommend the adoption of any particular plan, form of organization, or policy. Decisions on these matters rest with the commission, the governmental bodies concerned with local or regional transportation, and with the general public.

The information upon which the study depends was obtained from the engineering study, transit organizations throughout the United States and in Canada, regional authorities and districts of many kinds, governmental officials at all levels of government, investment bankers, and from independent specialists in transportation, public finance, and public service.

DESCRIPTION OF SYSTEM PROPOSED BY THE ENGINEERS

The engineering report recommends adoption of a unified system of regional interurban mass rapid transit, correlated with the street and highway program and other mass transit. The system would provide a grade-separated rail system for electric-powered conventional-type trains capable of average speeds of 45 miles per hour including station stops. Modern comfortable cars would operate on elevated structures of acceptable architecture over most of the 123 miles of routes of the first stage of construction, but would run underground to subway stations in San Francisco and Oakland. These stations are planned to be within walking distance of most passenger destinations. The Bay crossing would be by underwater transit tube. Service would be as frequent as every 90 seconds during rush hours on the densest routes and no less often than every 15 minutes on most routes during the daytime of weekdays. The accompanying map. (Fig. 1) shows the proposed initial and subsequent lines. The first-stage system, as proposed, would cost about 875 million dollars, including cars and interest during construction. The expanded system would bring total capital costs to about 1.89 billion dollars by the year 1990 (based on 1955 costs).

THE TRANSIT ORGANIZATION

To carry out the purposes of the transit program it is necessary to decide whether to use a private organization or some form of public setup such as a regional authority or district, or the established municipal or county government, or the federal government. The type of organization chosen should depend largely upon the transit policy to be pursued and upon the problem of financing the system.

The law seemingly permits a wide range of organization types for a transit system and considerable flexibility with respect to many structural and policy features. However, since substantial public support is needed, as indicated in the engineering study, private ownership might not be feasible. This would narrow the choice to public agencies.

Regional Transit Authority or District

Some form of regional organization for transit ownership and operation could manage area-wide problems with more dispatch than could separate local units. In the view of the engineers, a unified approach is essential to a regional transit system. This suggests that the choice of organization is further-narrowed to regional types.

The area-wide transit program can be carried out either by a regional authority or a regional district. The authority form is noted for relative freedom of action in controlling the transit program, especially with respect to routes, standards of service, rates, and financing. For capital funds it often relies upon revenue bonds which it can issue without voter approval. Members of the governing board of transit authorities are usually appointed by the State Governor. The fact that the authority type of organization is usually beyond the direct reach of local voters gives it administrative freedom; but this has also been a source of criticism. Perhaps the greatest deficiency of an authority form for rapid transit in the Bay Area would be that it could not issue bonds based on the faith and credit of the area, and it would not have the power to raise money by taxation.
FIGURE 1. RECOMMENDED RAPID TRANSIT CONSTRUCTION STAGES

SOURCE: Parsons, Brinckerhoff, Hall and Macdonald, Engineers, New York

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A district form of organization would have the two important abilities that the authority lacks: power of taxation and power to sell bonds based upon the general credit of the district. In other respects, the authority and the district could be similarly constituted to accomplish about the same purposes.

Both the authority and the district are creations of the State Legislature. The authority usually becomes effective upon the passage of the legislation, whereas the district requires (pursuant to a legislative enabling act) the vote of the citizens in the area to be embraced by the district.

Under a regional type of organization the transit program could benefit from a broad grant of discretionary powers over the physical and financial phases of the transit system. By this means problems could be met with the best solution as the objectives of the program are carried out. Adequate overriding public controls should be provided to safeguard the public interest.

**Municipal or County Ownership**

Municipal or county ownership of the system would face the difficulties of uneconomic small-scale operation and lack of coordination with an area-wide program, plus the problem of raising large sums of money within local bonding limits and practical taxing methods. From the standpoint of the area-wide system, any lack of success within a single local unit of government might impair the effectiveness of the transit program. However, in any transit organization that is established, the first-hand appreciation of local needs characteristic of local ownership should be preserved.

**State or Federal Ownership**

State ownership of a regional transit system, according to opinion of the Attorney General, would be legally possible under the State Constitution; but the constitutionality of federal entry into the transit business may not be so easily established. Neither state nor federal ownership is in accord with customary practice. Barring major financial aid for the project from the State or the Federal Government, regional or local ownership seems to be indicated by the regional and local character of the transit function.

**Capital Requirements and Bonded Indebtedness**

A fundamental conclusion of the engineering study is that the solution to the Bay Area transit problem requires a standard of service that cannot be covered entirely out of operating revenues. Gross operating revenues in a year of seasoned operation are expected to exceed operating expenses by about 10 million dollars, which would be sufficient to finance the debt incurred for rolling stock (cars) and allow a small reserve for miscellaneous transit purposes. However, total debt service after completion of construction would be about 39 million dollars annually.

Because operating income is not expected to be sufficient to service the construction debt, public support is requisite to a transit system. The amount of this support depends mainly on cost of construction and financing terms, assuming, of course, no operating deficits. Based on the proposed construction program, the necessary debt would reach its maximum of about 700 million dollars in the sixth year after construction begins. This estimate includes interest during construction and debt incurred to purchase rolling stock, as required.

Financing is assumed to be by means of 5- to 30-year serial bonds, bearing an annual average interest cost of 2.5 percent. Public support amounting to about 31 million dollars annually would be supplemented by 8 million dollars a year derived from gross operating revenue and applied to the debt incurred for rolling stock. These combined payments would extinguish the entire debt on the first stage of the system by the end of the thirtieth year.

If the interest rate were taken as 2 percent and the bonds to have maturities of from 5 to 40 years, the yearly public support could be reduced to about 22 million dollars; this would result in a total saving in financing cost of about 50 million dollars as compared with the first set of financing assumptions. The interest should be as low on bonds of a transit district with taxing power as is attainable by any class of borrowers.

Subsequent extensions of the system would likely be made at a more gradual pace than the initial construction. This would permit the reduction of the debt on the first stage to a point where debt additions for later system extensions would not bring total debt outstanding above the high point reached in the first stage. Growth of the area, making extensions desirable, should bring additional sources of public support. The per capita burden may actually decline since population is expected to more than double by about 1990. At no time is it expected that the total debt outstanding for the transit system would exceed the amount of total public debt of over 700 million dollars now outstanding in the Bay Area. However, excluding rolling stock, the annual debt service of the nine counties of the Bay Area would be about $10 per capita in the first financing example given above and about $7 in the second. These amounts represent the full measure of public support needed each year for the first-stage system.

**Sources of Financial Support**

The sources of money to pay for the transit system, and to which a reasonable though varying degree of feasibility attaches, will probably be confined to passenger fares, bridge tolls, property taxes, retail sales taxes, gasoline taxes, and possibly federal or state
An Analysis of the Vote on Rapid Transit Bonds in the San Francisco Bay Area

Wolfgang S. Homburger
INTRODUCTION

On November 6, 1962, the voters of the three central counties of the San Francisco Bay Area approved a $792-million bond issue to finance, in part, a $1-billion rapid transit network.

In recent years there has been much debate on the merits of rapid transit systems, on whether urban populations would like to, or should be provided with them, and on the degree of their acceptance. There have, however, been few opportunities for the urban population to express itself on these issues. The Bay Area vote is of particular interest in several respects: the bond issue is probably the largest one for rapid transit purposes ever submitted to the voters; the vote took place 2,000 miles from the nearest existing rapid transit system, in a metropolitan area whose freeway network is being rapidly developed; almost 700,000 persons expressed themselves on a rapid transit project at the polls.

The decision of the voters was not an easy one to make. On the one hand, they were promised a new jet-age transportation system with a streamlined, futuristic appearance which only artists can convey and which engineers never seem to be able to live up to afterwards. They were promised travel times comparable to those possible by private automobile, the comfort of a seat for every passenger even during rush hours, and the convenience of service at 90-second headways in peak periods and not less than every 15 minutes at other times of the day. Those not intending to use the new rapid transit trains were promised relief from congestion on the freeways, bridges, and city streets. On the other hand, voters were warned of higher real property taxes to come — even the proponents forecast that the tax rate would eventually have to be raised 67¢ per $100 assessed valuation — of disruption of communities by elevated lines, of a waste of $1 billion because no one was going to use the system, and even of a dark, watery grave if an earthquake should rupture the subaqueous tube under San Francisco Bay.

Of course, the outcome of any ballot depends to a great degree on the persuasiveness of the proponents and opponents of the issue, rather than on the hard, indisputable facts of the matter. The effects of electioneering cannot be described in statistical or other mathematical forms, and the voting pattern must be analyzed mathematically without taking this most important element into account. One can only make some qualitative judgments based on an impression of the election campaign and of the degree of activities of the two sides of the issue.

This study therefore concentrates on a general description of the voting patterns on the rapid transit bond issue, and on an attempt to relate variations in the degree of support of the bond issue to certain factors which may hypothetically be assumed to have influenced the voters.

HISTORICAL BACKGROUND

In 1949 the California Legislature passed legislation enabling the creation of a rapid transit district in the San Francisco Bay Area. While no district was ever formed, a San Francisco Bay Area Rapid Transit Commission was established under a 1951 amendment to this act. This Commission's objective was to investigate rapid transit problems, which it did during the period of 1951-1956 by means of a $750,000 study.

As a result of the recommendations arising from this study, the 1957 California Legislature enacted completely new enabling legislation under which the present San Francisco Bay Area Rapid Transit District was formed. Creation of the District was not subject to a vote by the people.

Initially, the District comprised the counties of San Francisco, Alameda, Contra Costa, San Mateo, and Marin, with a total population at the 1960 census of 2,650,000. The enabling legislation provides that additional counties, or portions thereof, can be annexed if a majority of the voters in the to-be-annexed areas approve, and that any of the original counties can withdraw from the District merely by vote of its Board of Supervisors.

1. Superscript numbers are keyed to the list of references at the end of this report.
Fig. 1 — San Francisco Bay Area Rapid Transit System.
The enabling act requires the Board of Directors of the District to prepare a plan for a rapid transit system and to present it to each of the county boards of supervisors for approval prior to calling an election on the question of incurring bonded indebtedness. If a board of supervisors refuses such approval, the District may attempt to meet the county's objections by amending the plans. If agreement is not reached the disapproving board must withdraw its county from the District. Failure to withdraw would have the same effect as approval by that county of the proposed plans.

A five-county plan for a rapid transit system was submitted to the boards of supervisors in October 1961. San Mateo County found this plan unacceptable, made it clear that it was not interested in any alternative plan, and withdrew from the District. Indirectly, San Mateo's withdrawal eliminated Marin County from the system, since the Marin route had been the marginal one from the economic viewpoint, and could not be afforded once the relatively more self-sustaining San Mateo route had been deleted. Marin's departure from the District was hastened by an unfavorable ruling of a board of consulting engineers on the proposal to build a lower deck under the existing Golden Gate Bridge, by which Marin County would have been linked to the rest of the system.

Finally, a three-county network was submitted to the remaining counties and approved by their boards of supervisors in the summer of 1962. A bond election, consolidated with the general election of November 1962, was called. Under the original legislation, a two-thirds affirmative vote would have been required for passage of the measure, but the 1961 State Legislature had reduced this requirement to 60% affirmative votes of those voting on the issue. The measure passed with just over 61% affirmative votes.

DESCRIPTION OF THE PROJECT

The measure submitted to the voters of San Francisco, Alameda, and Contra Costa Counties provided for incurring indebtedness in the amount of $792 million toward financing the construction of a rapid transit network. The network was described in some detail in a "Composite Report" submitted to the directors of the Rapid Transit District in May 1962, which report was the basis on which the county boards of supervisors gave their necessary approval in July 1962. As of election day, this report represented the physical and financial plans of the District, and it was the basis on which informed voters could make their decision.

The rapid transit network is shown in Fig. 1. It consists of: a west-east route from a point in the southwestern section of San Francisco (actually just outside the city limits) through the downtown area, under the Bay, through downtown and north Oakland, through the Berkeley Hills, and into the suburbs of central Contra Costa County; a south-north route from southern Alameda County (at present still largely agricultural) through the urban developments along the east side of the Bay, through east, downtown, and north Oakland, Berkeley, to El Cerrito and Richmond; and a streetcar tunnel from downtown San Francisco southwestwards (including the existing Twin Peaks Tunnel) to accelerate service on the five existing streetcar routes which serve portions in the west and southwest of San Francisco.

Access to the system will be at stations spaced considerably farther apart than has been the practice in past rail rapid transit systems. The two rapid transit routes are about 73 miles long and have 33 stations. The streetcar subway parallels the west-east route in downtown San Francisco, and shares three stations with the rapid transit line. West of downtown, the route is about 4 miles long with five stations (of which 2 miles and one station already exist); in the outer areas, the streetcars will continue to operate on the surface with frequent stops.

Of the total of 77 miles of routes, about 22 miles will be underground, 31 miles will be elevated above city streets or existing railroad rights of way, and 24 miles will be at surface.

*In actual fact, there may eventually be some changes. Minor alterations in station locations and, perhaps, route locations may be made during final engineering planning. However, major changes would doubtless be impossible since the approval of the boards of supervisors was based on the network layout shown in the "Composite Report". Changes in financing may also take place if state or Federal funds for rapid transit become available; however, such an eventuality could not be foreseen on election day and played no role in the campaigning.
generally in the median of or immediately adjacent to freeways, or parallel to railroads. Right of way will have to be acquired for most of the surface and elevated sections of the route, as well as at the 23 outlying stations where large parking areas are to be provided.

One particular section of the route involved right-of-way problems which generated local controversies not unlike those often faced by freeway planners. This was the portion of the south-north route through north Berkeley, Albany and El Cerrito, where it follows the little-used tracks of the Santa Fe Railroad. Not only will the route be elevated in this area, but the inadequate width of the present right of way will require purchase of a considerable number of homes. Elsewhere in Berkeley and north Oakland, properties will have to be acquired along one side to permit construction of the elevated line above the median of a new, widened street, but few objections were raised by the residents of these areas. On the remainder of the system, there were no major disputes concerning routing, types of structures, or right-of-way requirements as of election day, although a number of disagreements had arisen and had been resolved during the planning stages.

In addition to the $792 million to be raised from the sale of general obligation bonds for construction of the system generally, the sum of $132,720,000 is to be provided from toll revenue of the San Francisco-Oakland Bay Bridge for construction of the tube under the Bay, and $72,875,000 by revenue bonds to finance the acquisition of rolling stock. The total estimated cost for the entire system is therefore $997,595,000.

**STUDY PROCEDURE**

**General**

The results of the bond election have been used to determine the variation in the degree of support for the rapid transit project in various geographical sectors. The degree of support has been expressed as the percent of the voters in the sector voting "Yes" of all votes cast on the issue. The geographical sectors used are the census tracts of the three counties.

**Geographic Description**

A general geographic description of the voting patterns was made by using voting results in sample precincts to represent the total vote of each census tract. This description appears in Figs. 2, 3, and 4, and is discussed starting on page 7.

**Variation of Degree of Support**

A statistical analysis was made of the variation of the degree of support of the rapid transit project in relation to certain factors which were hypothetically assumed to affect the outcome of the vote. These factors relate to each census tract in which the votes were cast and, hence, to the areas of residence of the voters. The following factors were considered:

1. Accessibility to the rapid transit system and, hence, its usefulness to the census tract; quantified as miles from centroid of tract to the nearest rapid transit station or streetcar stop.

2. Negative impact of the system on the tract; based on a scale ranging from "No Impact" (system does not touch the tract) to "Maximum Impact" (system passes through tract on or above surface and will occupy yards and shops in the tract).

3. Median income of families living in tract.

4. Proportion of workers commuting to work by mass transit.

5. Proportion of housing units occupied by the owner; a measure of the proportion of the population which might be expected to be most concerned with the effect of the proposal on real estate taxes.

6. Proportion of housing units in structures containing 5 or more units (large apartment houses, institutions); a measure — though not a very precise one — of population density.
7. Proportion of housing units having no automobiles available; a measure of the dependence of
the occupants in the tract on transit service.

A Discussion of this analysis begins on page 15.

Census Tracts

The three-county area under study has been divided into tracts by the U.S. Bureau of the
Census. Of a total of 429 tracts, 127 are in San Francisco County, 210 in Alameda County, and
92 in Contra Costa County. Four of these tracts (three in San Francisco and one in Alameda)
have little or no resident population and no voting precinct representative of the tract; these
were therefore omitted from the study.

Census Data

The census tract tabulations\textsuperscript{11} include certain statistics which were extracted for this study.
These are:

- Median family income (from Table P-1).
- Proportion of workers going to work by railroad, bus, or streetcar (from Table P-3).
- Proportion of housing units occupied by owner (from Table H-1).
- Proportion of housing units in structures containing five or more units each (from
  Table H-1).
- Proportion of housing units having no automobiles available (from Table H-2, supple-
  mented by data obtained directly from the Bureau of Census for smaller cities which
  were not tabulated in Ref. 11).

Voting Data

Final, official vote totals were obtained from the offices of the three county registrars of
voters, including the following:

- Total vote for county, assembly districts within county, incorporated cities within county.
- Absentee votes for county and assembly districts.
- Election day votes for sample precincts (selection described below)
  In Alameda County only, selected other vote counts for absentee and election day ballots,
  by assembly districts, to make comparison of absentee voters to election day voters.

Sample Selection

It was decided that a sample of about 20\% of the precincts should be selected. The average
number of persons per precinct was calculated (560 in San Francisco, 444 in Alameda, 378 in
Contra Costa). The following schedule was drawn up, based on these ratios:

<table>
<thead>
<tr>
<th>No. of Precincts To Be Selected Per Tract</th>
<th>Population Per Census Tract</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>San Francisco</td>
</tr>
<tr>
<td>One</td>
<td>Under 3,500</td>
</tr>
<tr>
<td>One additional per</td>
<td>2,750</td>
</tr>
</tbody>
</table>

Within each tract, the precinct or precincts were selected to be representative of the entire
tract. If only one precinct was to be selected, it was chosen from near the center of the tract;
if two, then from opposite sides of the tract, and so forth. Precincts lying in two or more
census tracts were not used, except in a few instances where not enough precincts located enti-
early within the tract were available. In this exceptional case, the precincts used were sub-
stantially in the tract of interest, and only a minor portion were in an adjacent tract.*

*Exceptions to this procedure were made for Emeryville, whose city area corresponds exactly to one cen-
sus tract, and for Tract AB5 of Albany. In the former case it was as simple to use 100\% of the vote as to
choose a sample; in the latter, it was impossible to select a representative sample, since this tract con-
sists of two sections having widely differing characteristics, and, as it turned out, widely different voting
patterns, so that it was decided to use 100\% of the vote for this tract as well.
The sampling procedure produced data corresponding closely to the total vote count (Table 1). For the three counties as a whole, the percent "Yes" vote of the sample differed from that of the total vote cast by only 0.02; the largest difference between sample "Yes" vote and actual "Yes" vote for the three counties separately was 0.90%; for most of the cities separately, the difference between the sample "Yes" and the actual "Yes" was less than 3%, although there are a few differences up to 6%.

**TABLE 1 — COMPARISON OF VOTE IN SAMPLE PRECINCTS TO TOTAL VOTE**

<table>
<thead>
<tr>
<th>Political Unit</th>
<th>Sample Vote*</th>
<th>Total Vote*</th>
<th>Sample Size %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Votes cast in sample precincts</td>
<td>% Yes vote in sample precincts</td>
<td>Votes cast in all precincts</td>
</tr>
<tr>
<td>3-County District</td>
<td>161,462</td>
<td>61.00</td>
<td>696,149</td>
</tr>
<tr>
<td>Alameda County</td>
<td>70,399</td>
<td>59.85</td>
<td>314,349</td>
</tr>
<tr>
<td>Alameda</td>
<td>3,980</td>
<td>61.2</td>
<td>17,118</td>
</tr>
<tr>
<td>Albany</td>
<td>3,097</td>
<td>41.8</td>
<td>6,918</td>
</tr>
<tr>
<td>Berkeley</td>
<td>8,419</td>
<td>62.8</td>
<td>43,668</td>
</tr>
<tr>
<td>Fremont</td>
<td>3,180</td>
<td>69.7</td>
<td>15,941</td>
</tr>
<tr>
<td>Hayward</td>
<td>5,795</td>
<td>66.1</td>
<td>21,521</td>
</tr>
<tr>
<td>Livermore</td>
<td>1,377</td>
<td>51.1</td>
<td>6,571</td>
</tr>
<tr>
<td>Newark</td>
<td>720</td>
<td>66.4</td>
<td>3,227</td>
</tr>
<tr>
<td>Piedmont</td>
<td>870</td>
<td>58.3</td>
<td>5,936</td>
</tr>
<tr>
<td>Pleasanton</td>
<td>455</td>
<td>43.5</td>
<td>1,417</td>
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<td>San Leandro</td>
<td>5,348</td>
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<td>24,304</td>
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<td>Union City</td>
<td>528</td>
<td>65.7</td>
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<td>San Francisco County</td>
<td>53,561</td>
<td>67.75</td>
<td>235,549</td>
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<tr>
<td>Contra Costa County</td>
<td>37,502</td>
<td>53.53</td>
<td>146,251</td>
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<tr>
<td>Antioch</td>
<td>1,682</td>
<td>26.2</td>
<td>6,459</td>
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<tr>
<td>Brentwood</td>
<td>401</td>
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<td>649</td>
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<tr>
<td>Concord</td>
<td>4,223</td>
<td>63.2</td>
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<tr>
<td>El Cerrito</td>
<td>2,662</td>
<td>47.4</td>
<td>10,488</td>
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<td>Martinez</td>
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<td>Pinole</td>
<td>471</td>
<td>53.3</td>
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<td>Pittsburg</td>
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</tr>
<tr>
<td>Pleasant Hill</td>
<td>2,055</td>
<td>63.9</td>
<td>7,106</td>
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<tr>
<td>Richmond</td>
<td>5,959</td>
<td>57.3</td>
<td>22,821</td>
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<tr>
<td>San Pablo</td>
<td>1,443</td>
<td>52.3</td>
<td>5,162</td>
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<tr>
<td>Walnut Creek</td>
<td>974</td>
<td>60.1</td>
<td>4,413</td>
</tr>
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</table>

*Election Day ballots only. Absentee ballots are not counted by precincts.

**Transit System Data**

For each census tract, a centroid was selected by inspection, and the distance from this centroid to the nearest rapid transit station by existing highways was measured. The impact of the system on the physical condition of each tract was rated on an alphabetic scale to show if the tract would not be affected by the transit routes, if a transit route would go through the tract above or below ground, whether a station would be located within or at the boundary of the tract, whether yards and shops would be built within the tract, and so forth.
Data Manipulation

The above mentioned data (plus other census tract data which were not further utilized in this project) were punched on cards and tabulated. Inspection of the "impact" factor indicated that no relationship was likely to be found between adverse impact of the system on the physical condition of the tract and the proportion of "Yes" votes for the District as a whole, although as discussed below, impact played an important role in one small city — Albany. "Impact" was therefore not used as a variable in the statistical analysis.

The remaining six independent variables were then related to the dependent variable — percent "Yes" vote — by means of a stepwise multiple regression program. These regressions were performed for the 3-county district as a whole, for each county separately, and for the "inner" and "outer" East Bay area; for each, a straight-line relationship and a logarithmic relationship were tested.

An interesting by-product of the computer program which performs these stepwise multiple regressions is a correlation matrix which gives correlation factors for any pair of the independent variables. These matrices for the three counties and the district as a whole are shown in Table 5.

GEOGRAPHIC DESCRIPTION OF VOTE PATTERN

General

Figs. 2, 3, and 4 are maps of the three counties, showing the location of the rapid transit routes, and the degree of support of the bond issue in each census tract, based on the votes in the sample precincts.

The shading patterns indicate in which areas voters approved the bond proposal by a ratio of better than 2 to 1, by a 60-40 majority (which was the ratio required for passage in the total of all votes cast), by a simple majority, and in which areas the bond issue failed to gather 50% or even 40% of the "Yes" votes.

The general impression gained from this analysis is one of a consistent pattern. In no section of the three counties was there a remarkable fluctuation in the proportion of "Yes" votes among adjacent census tracts.

San Francisco

In every census tract, the "Yes" votes exceeded the "No" votes. Further analysis indicated that the bond issue failed to get a simple majority in only 17 of San Francisco's 1,322 voting precincts. Sixteen of these precincts are in the 19th Assembly District in the southwestern section of the city, which stands to gain most from the transit project. In the northern sections of the city, which will not be served by the proposed system, the vote for the bonds was very high. A statistical description of this — the low correlation between size of "Yes" vote and distance from the nearest station — is mentioned below.

The lower level of support of the rapid transit project in southwest San Francisco (19th Assembly District — see Table 3A), despite the fact that this area will benefit most from the system, is not entirely surprising. This Assembly District has fairly consistently produced fewer affirmative votes on bond issues than any other in San Francisco. The District contains a high proportion of owner-occupied dwellings and relatively few rental units. (The correlation of this variable to the bond vote is discussed on page 18.) Its well established "conservative" attitude and concern for property taxes evidently were stronger factors than the improvement in transportation service offered in the minds of the voters.

Alameda County

The eastern area of the County produced the lowest proportions of "Yes" votes, as might be expected. However, these percentages were generally higher than in eastern Contra Costa County, which has a somewhat corresponding geographic relationship to the transit system. In the vicinity of the routes, "Yes" voting was heaviest at the southern end of the Southern
Legend:

- County Boundary
- Census Tract Line

For precise location of census tract lines, see: U.S. Census of Population and Housing: 1960 Census Tracts: Final Report PHC(I) - 137

Key to "Yes" vote for rapid transit bonds:

- 66.67 or more
- 60.00 - 66.66%
- 50.00 - 59.99%

(No tracts less than 50%)
Alameda line and in north Oakland and parts of Berkeley. Considerable sentiment against the bond issue was centered in southeast Oakland, and extremely strong opposition in Albany. Each of these "centers" of anti-transit feeling appears to have affected some surrounding census tracts. Thus, San Leandro generally showed lower percentages of "Yes" votes than Hayward and points further south, although one might have hypothesized the opposite result based on present transit and geographic patterns. In Berkeley, fewer "Yes" votes were cast in areas immediately adjacent to Albany (whether or not the proposed route would cut through the immediate area) than elsewhere in the city.

The Albany pattern is explained by the intensive campaign against the bond issue waged by city officials and civic leaders of Albany and adjacent El Cerrito in Contra Costa County who deplored the specific routing through their respective cities. Voters responded to this campaign strongly in Albany (except in the University Village apartment development of the University of California) casting only 30.5% "Yes" votes if University Village is excluded (35.7% "Yes" with University Village). In El Cerrito, the response to the campaign was less marked, 47.8% "Yes" votes being recorded.

The effect of the campaign against the specific route in Albany is demonstrated by comparing the vote in four precincts located immediately alongside the route to that in four other precincts in the same census tracts, but about 1/4 mile from the route. The proportion of "Yes" votes in the first group of precincts was 20.4%, in the second group 33.9%. In a similar comparison of tracts in Berkeley, not immediately adjacent to the Albany city limits, no such difference was found: two precincts immediately along the route averaged 61.8% "Yes" votes, while four precincts in the same census tracts, but removed from the route, voted 57.7% "Yes". (The number of precincts per tract is insufficient to test for statistical significance of these differences.)

The opposition to the rapid transit project in southeast Oakland can be ascribed to the generally conservative vote cast in this area (included in the 15th Assembly District — see Table 3A) over a number of years on matters of local government. While the Oakland City Council took no official stand on the issue, at least one of the council members, together with other civic leaders mounted an active campaign against the bond issue. It is reported that, knowing the east Oakland area to be a source of votes contra the issue, a special effort was made in this section of the city by the opponents to bring the vote to the ballot boxes. It was also noted that two small weekly newspapers circulating in east Oakland took editorial stands against the bond issue, while the Oakland Tribune, which covers the entire East Bay area supported the project wholeheartedly.

Contra Costa County

With the exception of Albany, the most active campaign against the rapid transit bonds was waged in Contra Costa County. In El Cerrito, the specific routing, rather than the system as a whole, was the point of contention. The eastern sections of the county, however, were much more strongly opposed to the entire system than eastern sections of Alameda County. While the Board of Supervisors of Alameda County voted unanimously to place the bond issue on the ballot, in Contra Costa County two supervisors voted negatively and a third almost did so.

The effects of this campaign and the sentiments behind it are shown in the voting patterns. Percentages of "Yes" votes are generally lower in Contra Costa County than in corresponding areas of Alameda County, and are lowest for the entire district in the eastern end of the county (Oakley, Brentwood and Byron), where the "Yes" vote was even smaller than in Albany. An additional reason for the difference in patterns between eastern Contra Costa and eastern Alameda counties may be the fact that the former is primarily agricultural, while the latter includes the scientific centers at Livermore with its fairly recently arrived population of professional and technical workers. (See Table 2).

At the western end of Contra Costa, on the other hand, support for the rapid transit project was higher. El Cerrito, in fact, voted more heavily for the bond issue than did neighboring Albany in Alameda County. As mentioned above, the councils of both these cities had actively opposed the specific routing, and therefore the bond issue. Albany is the older city (only 9% of its housing units counted in the 1960 census had been built since 1950, versus 41% of the housing
For details in this area see next page

Key to "Yes" vote for rapid transit bonds:

- 66.67% or more
- 60.00 - 66.66%
- 50.00 - 59.99%
- 40.00 - 49.99%
- 39.99% or less

Fig. 3 — Voting pattern - East Bay Counties.
Key to "Yes" vote for rapid transit bonds:

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<thead>
<tr>
<th>Percentage Range</th>
<th>Color</th>
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<tbody>
<tr>
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<tr>
<td>60.00 - 66.66%</td>
<td>#000000</td>
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<td>50.00 - 59.99%</td>
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<td>40.00 - 49.99%</td>
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<tr>
<td>39.99% or less</td>
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</table>

**Legend:**
- County Boundary
- Census County Division Line
- Census Tract Line
- 500-ft elevation contour

Note: Census County Division Lines and Tract Lines do not always coincide with corporate limits. For precise location of these lines, see: U.S. Censuses of Population and Housing 1960; Census Tracts. Final Report PHC(1) - 137.

Fig. 4 — Voting pattern — western section of East Bay.
1949 S.F. Bay Area Rapid Transit District Act - Culy State

1951 S.F. Bay Area Rapid Transit Commission
(9 Counties)

1953 Preliminary Act to legislature

1957 Senate Bill Created Bay Area
Rapid Transit District - Alameda
CC Martin, San Mateo - S.F.
Sept 11, 1957 signed into law
Santa Clara had requested
not to be included

Santa Clara - Feb 18, 1957 - Board
abolitions - Taxpayer Association of 35-36
San Francis - Dec 1961 - N County Board unanimous
refused

May 15, 1962 - Marin
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<th>AUG</th>
<th>SEP</th>
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<th>DEC</th>
<th>JAN</th>
<th>FEB</th>
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<td>606-09 OTHER C.C. MISC.</td>
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<td>607-01 DUES &amp; MEMBERSHIPS</td>
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II. SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT ACT

(Part 2 of Division 10 of the Public Utilities Code, as originally added by Chapter 1056, Statutes of 1957)

CHAPTER 1. GENERAL PROVISIONS AND DEFINITIONS

28500. This part is known and may be cited as the "San Francisco Bay Area Rapid Transit District Act."

28501. This part is in furtherance of the declared policy of the State to stimulate the maximum use of the harbor in San Francisco Bay in order to foster and develop international and other trade for the benefit of the entire State.

The geographical situation of San Francisco Bay, which makes it one of the finest harbors in the world, at the same time prevents the full utilization of the harbor by acting as a physical barrier to a system of rapid and effective transportation between the various portions of the metropolitan area surrounding the Bay.

Only a specially created district can freely operate in the eighty-four (84) individual units of county, city and county, and city governments located in this area. Because of the unique problems presented by the area it is necessary that this legislation be applicable solely to such area to insure necessary rapid transit service.

Extensive studies and surveys have been made at considerable cost in public funds to determine whether or not interurban mass rapid transit would be a feasible instrument for reducing existing and future interurban travel problems and for relieving existing and future traffic congestion on freeways, streets and highways. These surveys have produced convincing evidence that the prosperity of the entire Bay area will depend upon the preservation and enhancement of its urban centers and subcenters; and that sustaining these centers and subcenters as concentrations of employment, commerce, and culture, in turn will depend upon providing an adequate, modern, interurban mass rapid transit system.
CHAPTER 2. CREATION OF DISTRICT

28600. There is hereby created the San Francisco Bay Area Rapid Transit District, comprising the territory lying within the boundaries of the Counties of Alameda, Contra Costa, Marin, San Francisco, and San Mateo.

28601. Through compliance with the provisions for withdrawal set forth in Chapter 10 of this part, the territory of any of the Counties of Alameda, Contra Costa, Marin, San Francisco, and San Mateo may be withdrawn from the district.

28602. Through compliance with the provisions for annexation set forth in Chapter 9 of this part, the territory of all or any of the Counties of Napa, Santa Clara, Solano, or Sonoma may be included within the district.
on November 6, 1962, in the City and County of San Francisco, by the
electors of the City and County upon the measure hereinafter set forth,
and there has been certified to this Board the result of the votes cast
at said election upon said measure, which said certification is now on
file in the office of the Secretary of the District.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the
San Francisco Bay Area Rapid Transit District as follows:

1. Said canvasses by or on behalf of said Boards of Supervisors
   of Alameda and Contra Costa Counties and the Registrar of Voters of the
   City and County of San Francisco as shown by said certifications and the
   result of said election are hereby ratified, confirmed and approved.

2. At said election the following measure for incurring bonded
   indebtedness was submitted to the electors of the Counties of Alameda
   and Contra Costa and the City and County of San Francisco and the number
   of votes cast in the Counties of Alameda and Contra Costa and the City
   and County of San Francisco for and against said measure was as follows:

   MEASURE A: Shall San Francisco Bay Area Rapid
   (Rapid Transit) Transit District incur a bonded in-
   debtedness in the principal amount of
   $792,000,000 for the object and purpose of acquiring, con-
   structing and operating a rapid transit system for the
   transportation of passengers and their incidental baggage,
   including rights of way, rail lines, bus lines, stations,
   platforms, switches, yards, terminals, parking lots and any
   and all other facilities necessary or convenient for rapid
   transit service within or partly without the district, under-
   ground, upon or above the ground and under, upon, or over
   public streets, highways, bridges, tubes, tunnels, or other
   public ways or waterways, together with all physical struc-
   tures necessary or convenient for the access of persons and
   vehicles thereto, including lands, easements, rights to the
   use or joint use of any or all of the foregoing and all
   other works, property or structures necessary or convenient
   to carry out the objects, purposes and powers vested in the
   District under the "San Francisco Bay Area Rapid Transit
   District Act"?
BEFORE THE BOARD OF DIRECTORS OF THE SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

In the matter of confirming the canvass of votes in Alameda and Contra Costa Counties and the City and County of San Francisco on special district bond election held November 6, 1962. Resolution No. 241

WHEREAS, the Board of Supervisors of Alameda County has duly canvassed or caused to be canvassed the votes cast in the County of Alameda at the special district bond election consolidated with the State of California General Election held on November 6, 1962, in the County of Alameda, by the electors of the County upon the measure hereinafter set forth, and there has been certified to this Board the result of the votes cast at said election upon said measure, which said certification is now on file in the office of the Secretary of the District; and

WHEREAS, the Board of Supervisors of Contra Costa County has duly canvassed or caused to be canvassed the votes cast in the County of Contra Costa at the special district bond election consolidated with the State of California General Election held on November 6, 1962, in the County of Contra Costa, by the electors of the County upon the measure hereinafter set forth, and there has been certified to this Board the result of the votes cast at said election upon said measure, which said certification is now on file in the office of the Secretary of the District; and

WHEREAS, the Registrar of Voters of the City and County of San Francisco has duly canvassed or caused to be canvassed the votes cast in the City and County of San Francisco at the special district bond election consolidated with the State of California General Election held
and was summarized on voting machine ballot labels, as follows:

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT BONDS:

AUTHORIZING SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT TO INCUR A
BONDED INDEBTEDNESS OF $792,000,000 FOR A RAPID TRANSIT SYSTEM PURSUANT
TO THE SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT ACT.

<table>
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<tr>
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<th>Total Vote &quot;YES&quot;</th>
<th>Total Vote &quot;NO&quot;</th>
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</thead>
<tbody>
<tr>
<td>Alameda County</td>
<td>193,402</td>
<td>128,726</td>
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<tr>
<td>Contra Costa County</td>
<td>81,543</td>
<td>68,134</td>
</tr>
<tr>
<td>City and County of San Francisco</td>
<td>163,559</td>
<td>80,967</td>
</tr>
<tr>
<td>TOTAL</td>
<td>438,504</td>
<td>277,827</td>
</tr>
</tbody>
</table>

3. The total number of votes cast in the District at said special
district bond election and the total number of votes given in each pre-
cinct and by absentee voters of the District for and against said measure
were and are set forth in said canvasses by or on behalf of said Boards
of Supervisors of Alameda and Contra Costa Counties and the Registrar of
Voters of the City and County of San Francisco as more fully appears on
the official records of said Boards of Supervisors and said Registrar
of Voters which are incorporated herein and made a part hereof.

4. That more than 60% of all of the votes cast at said special
district bond election on said measure were in favor of said measure and
that said measure carried.

###
SECRETARY'S CERTIFICATE

I, Richard J. Shepherd, Secretary of San Francisco Bay Area Rapid Transit District, do hereby certify that the foregoing is a full, true and correct copy of a resolution duly adopted by the Board of Directors of said District at a special meeting of said Board duly and regularly and legally held at the regular meeting place thereof on the 6th day of December, 1962, of which meeting all of the members of said Board had due notice and at which a majority thereof was present and acted; that at said meeting said resolution was introduced by Director _______________ and read in full, and was thereupon, upon motion of Director _______________, seconded by Director _______________, adopted by the following vote:

AYES: Directors

NOES:

ABSENT:

That I have carefully compared the same with the original minutes of said meeting on file and of record in my office and that said resolution is duly entered of record in said minutes of said Board, and said resolution is a full, true and correct copy of the original resolution adopted at said meeting and entered in said minutes. That said resolution has not been amended, modified or rescinded since the date of its adoption and the same is now in full force and effect.

WITNESS my hand and the seal of the District this ____ day of ______________, 1962.

Secretary of San Francisco Bay Area Rapid Transit District
July 3, 1978

Mr. Gilbert M. Borman
Clerk of the Board of Supervisors
City and County of San Francisco
City Hall
San Francisco, CA 94102

Dear Mr. Borman:

Subject: BART Extension to San Francisco Airport

Receipt is acknowledged of Resolution No. 491-78, adopted by the Board of Supervisors on June 19, 1978, urging extension of BART to the San Francisco International Airport. Copies have been forwarded to the members of our Board of Directors and to appropriate members of the District staff.

For the information of your Board of Supervisors, the only extension of BART tracks in an area outside the three-county BART District that is currently being studied by our Board is a turn-back track immediately adjacent to our Daly City station.

Sincerely yours,

Richard J. Shephard
Secretary

RJS:ca

cc w/att: Board of Directors

bcc w/att: M. Barrett
C. K. Bernard
R. D. Callaway
W. F. Goelz
F. C. Herringer
To Board of Directors
Bay Area Rapid Transit District
800 Madison Street
Oakland, California 94607

of San Francisco: Your attention is hereby directed to the following, passed by the Board of Supervisors of the City and County of San Francisco:

RESOLUTION NO. 591-78

WHEREAS, the Board of Directors of the Bay Area Rapid Transit District is now studying various options for the extension of BART; and

WHEREAS, Certain legislation is pending in the State Legislature limiting future extensions of BART to geographic areas which do not include this airport, now, therefore, as it

RESOLVED, That the Board of Supervisors of the City and County of San Francisco does hereby call upon and urge the Board of Directors of the Bay Area Rapid Transit District to develop and carry out policies which would lead to an extension of BART service from San Francisco to the San Francisco International Airport; and, be it

FURTHER RESOLVED, That the Clerk of the Board of Supervisors be and he is hereby directed to transmit copies of this resolution to the Board of Directors, Bay Area Rapid Transit District, to the Metropolitan Transportation Commission, and to San Francisco's delegation to the State Legislature.

GILBERT H. BORENAN

Clerk
OFFICE OF
BOARD OF

To Board Bay At 800 1st
of San Francisco:

Approved • • • •

Adopted on date of introduction—Board of Supervisors, San Francisco, JUN 23 1973


Nays: Supervisors: ................................................................. .................................

Ayes: Supervisors: ................................................................. .................................

Mayor: ................................................................. .................................

Clerk: ................................................................. .................................

JUL 23 1973

F0-78-5

P0e No. ................................................................. .................................

Approved ................................................................. .................................

GILBERT H. BOREMAN
Clerk
A regular meeting of the Board of Directors was held on April 24, 1980, convening at 9:20 a.m. in the Board Room, 800 Madison Street, Oakland, California. President Bianco presided; Phillip O. Ormsbee, Secretary.

Directors present: Directors Allen, Garfinkle, Glasser, Glenn, Shartsis, Simpson, Ussery, and Bianco.

Absent: Director Kirkwood.

Consent Calendar items brought before the Board were:

1. Approval or correction of Minutes of April 10, 1980.
2. Additional express bus service in Western Contra Costa County.
3. Amendment of Transit System Rules to prohibit fare evasion.
5. Public hearings for Tentative Fare Schedule and Preliminary Budget.
8. Contract No. 60FB-110, Installation of Computer Facilities Air Conditioning - Phase I.

Consent calendar motions as follows were moved as a unit by Director Garfinkle. Director Allen seconded the motion, which carried. Ayes - 8: Directors Allen, Garfinkle, Glasser, Glenn, Shartsis, Simpson, Ussery, and Bianco.

Noes - 0. Absent - 1: Director Kirkwood.

That the minutes of the meeting of April 10, 1980, be approved as submitted.
That the General Manager be authorized to file with the Metropolitan Transportation Commission an application for $270,000 to fund additional express bus service in the Western Contra Costa County Transit Authority area.

The adoption of Resolution No. 2770, In the matter of adopting transit system rules applicable to patrons and the public.

The adoption of Resolution No. 2771, In the Matter of Authorizing Urban Mass Transportation Section 5 Operating Assistance Grant Contract, Project CA-05-4179, between San Francisco Bay Area Rapid Transit District and the Metropolitan Transportation Commission.

That the District hold a public hearing on Tuesday, May 20, 1980, commencing at 5:30 p.m. in the Board Room with Administration Committee Chairperson Robert S. Allen as Hearing Officer, to invite the public to comment on the reasonableness of rates and charges to be fixed by the District; and that the District Secretary be directed to publish notice of said public hearing in newspapers of general circulation within the District.

That the 1980/81 Tentative Budget scheduled for adoption at the Board Meeting of May 22, 1980, be adopted as the Preliminary Annual Budget for Fiscal Year 1980/81 for purposes of publishing the required budget pamphlet; that this budget be printed in a budget pamphlet for public distribution in accordance with the Rules of the Board of Directors; and that a public hearing be set for Thursday, June 12, 1980, at 9:00 a.m. in the Board Room.

The adoption of a policy statement on BART extensions. (A copy of this statement is attached to these minutes as Exhibit A and hereby made a part hereof.)

(On the above motion, Director Shartsis' comments as follows, as stated on May 8, 1980, were incorporated into the April 24 minutes by vote of the Board on May 8, 1980.

Director Shartsis stated that he dissented from the policy on BART extensions. During the April 24 meeting he questioned the meaning of this Consent Calendar item -- the statement on incremental development of BART extensions -- and understood from the response that it was a study required by UMTA for an alternative analysis. Director Shartsis' vote would not have been "aye" had it been based on the true nature of the Board's action.)

Adoption of Resolution No. 2772, In the matter of notice requesting bids, Contract No. 41EG-130.

Adoption of Resolution No. 2773, In the matter of notice requesting bids, Contract No. 60FB-110.

That permission be granted to advertise contract for Cash Handling Equipment (Coin Counters).

That the General Manager be authorized to award Contract No. 1Z5103, Construction of Storage Facilities for Maintenance Materials, to Moore Construction Company, pursuant to notification to be issued by the General Manager.

That the Board of Directors support BART-sponsored bills AB 2945, AB 3316, and AB 3410; support SB 650; support SB 1905; seek amendment of bills SB 1447, ACA 74, and AB 2678; oppose SB 1630; and oppose SB 1627 unless amended.
President Bianco, at the request of Director Allen, referred the matter of bicycle locker rental fees back to the Administration Committee.

Mr. Bernard reported regarding selection of legislative advocate.

Director Ussery moved that the General Manager be authorized to enter into an agreement with Phillip H. Schott and Frank J. Burns, Jr. for professional services in connection with legislative representation for the period April through September, 1980. Directors Shartsis and Simpson seconded the motion, which carried. Ayes - 6: Directors Allen, Garfinkle, Glasser, Shartsis, Simpson, and Ussery. Noes - 0. Abstain - 2: Directors Glenn and Bianco. Absent - 1: Director Kirkwood.

Director Ussery, Chairperson of the Public Information and Legislation Committee, reported regarding:

1. Station announcements by train operators.
2. Safety regulation of transit systems.

Mr. Bernard reported regarding the BART Supervisory and Professional Association collective bargaining agreement.

Director Garfinkle moved that the Board confirm the approval it gave on March 27, 1980, to the agreement between the District and BARTSPA for the period January 1, 1980, through June 30, 1983. Director Shartsis seconded the motion, which carried. Ayes - 7: Directors Garfinkle, Glasser, Glenn, Shartsis, Simpson, Ussery, and Bianco. Noes - 1: Director Allen. Absent - 1: Director Kirkwood.

President Bianco and Mr. Goode reported regarding the AMTRAK-Richmond ticketing problem.

Director Glenn, Chairperson of the Engineering and Operations Committee, reported regarding the status of the Daly City Turnback improvement project.

Director Shartsis, with the permission of the Chair, left the meeting.

Mr. Bernard reported regarding amendment to UMTA Grant Contract No. CA-03-0168 and funding of seat replacement program.

Director Garfinkle moved the adoption of Resolution No. 2774, In the matter of authorizing Urban Mass Transportation Capital Grant Contract Amendment, Project CA-03-0168-1, between San Francisco Bay Area Rapid Transit District and the United States of America; and the appropriation of $320,000 from the System Improvement Reserve toward funding the seat replacement program. Director Glenn seconded the motion, which carried. Ayes - 7: Directors Allen, Garfinkle, Glasser, Glenn, Simpson, Ussery, and Bianco. Noes - 0. Absent - 2: Directors Kirkwood and Shartsis.
The President announced that the Board would enter into executive session in
the room behind the rostrum with the General Counsel and management
representatives; that discussion would be confined to matters permissible
for executive-session discussion, such as items within the attorney-
client privilege and personnel and labor matters; and that the Board
would adjourn immediately upon conclusion of the executive session.

The Board then entered into executive session at 9:55 a.m.

Present were: Directors Allen, Garfinkle, Glasser, Glenn, Simpson, Ussery, and Bianco.

The meeting was then adjourned at 10:05 a.m.

Phillip O. Ormsbee
Secretary
POLICY STATEMENT ON BART EXTENSIONS

I The BART rail system should be expanded in four integral phases involving concurrent incremental construction of various extension segments as outlined below.

II Expansion of the system beyond the initial three counties is contingent upon acceptable cost sharing arrangement between those counties and the BART District.

III The integral phases of the proposed BART expansion plan are as follows:

Phase I
a. Extension of the Concord line to a N. Concord/Martinez station adjacent to Highway 4.
b. Extension of the Southern Alameda line by two stations in Fremont.
c. Extension of the San Francisco line beyond Daly City to a station near Colma.

Phase II
a. Extension of the Concord line along Highway 4 to a station in West Pittsburg.
b. Extension from the Bayfair station through Castro Valley along Highway I-580 to near Highway I-680 in the Dublin/Pleasanton area.
c. Extension of the San Mateo line to a Chestnut Avenue station in South San Francisco.

Phase III
a. Concord line extended along Highway 4 to Antioch, including two additional stations, Pittsburg and Antioch.
b. The Livermore-Pleasanton line extended to a downtown Pleasanton station.
c. The San Mateo line extended along the Southern Pacific Railroad line to a station adjacent to the Tanforan Shopping Center.
Phase IV

a. The Livermore-Pleasanton line extended to Livermore with two stations; one on either side of the community.

b. The San Mateo line extended to an Airport station, either adjacent to Highway 101 or within the Airport complex.

IV BART will seek inclusion of the incremental expansion plan in the Regional Transportation Plan prepared by the Metropolitan Transportation Commission.

V Financing for the BART expansion plan will be sought from the Federal Urban Mass Transit Administration (UMTA) capital grant program.

VI In support of a capital grant application, BART will seek UMTA planning funds to conduct an Alternatives Analysis of Phase I of the extension plan.

VII Local capital matching funds will be sought for Phase I from Proposition 5, SB 620 guideway funds and excess bridge tolls.
Minutes of the 613th Meeting
Board of Directors
May 8, 1980

A regular meeting of the Board of Directors was held on May 8, 1980, convening at 9:40 a.m. in the Board Room, 800 Madison Street, Oakland, California. President Bianco presided; Phillip O. Ormsbee, Secretary.

Directors Present: Directors Allen, Garfinkle, Kirkwood, Shartsis, Simpson, Ussery, and Bianco.

Absent: Directors Glasser and Glenn.

Consent Calendar item brought before the Board was approval or correction of Minutes of April 24, 1980.

Regarding the Minutes of April 24, 1980, and the policy statement on BART extensions, Director Shartsis stated that he dissented. During the April 24 meeting he questioned the meaning of this Consent Calendar item -- the statement on incremental development of BART extensions -- and understood from the response that it was a study required by UMTA for an alternative analysis. Director Shartsis' vote would not have been "aye" had it been based on the true nature of the Board's action.

Director Garfinkle moved that the Minutes of the meeting of April 24, 1980, with the addition of Director Shartsis' comments, be approved. Director Allen seconded the motion, which carried. Ayes - 5: Directors Allen, Garfinkle, Simpson, Ussery, and Bianco. Noes - 0. Abstain - 2: Directors Kirkwood and Shartsis. Absent - 2: Directors Glasser and Glenn.

Director Allen, Chairperson of the Administration Committee, reported regarding Proposition 5.

Director Allen moved the adoption of Resolution No. 2775, In the Matter of Support of Proposition 5 (State Article XIX) Project Funding Applications. Director Kirkwood seconded the motion, which carried. Ayes - 7: Directors Allen, Garfinkle, Kirkwood, Shartsis, Simpson, Ussery, and Bianco. Noes - 0. Absent - 2: Directors Glasser and Glenn.

Mr. Bernard reported regarding:
1. Federal legislation.
2. Award of Contract No. 03-NB-110, Pleasant Hill Station Additional Interim Parking.

Director Ussery, with the permission of the Chair, left the meeting.
Director Simpson moved that the General Manager be authorized to award Contract No. 03NB-110, Construction of Pleasant Hill Station Additional Interim Parking, to Gallagher & Burk, Inc., pursuant to notification to be issued by the General Manager. Directors Bianco and Garfinkle seconded the motion, which carried. Ayes - 6: Directors Allen, Garfinkle, Kirkwood, Shartsis, Simpson, and Bianco. Noes - 0. Absent - 3: Directors Glasser, Glenn, and Ussery.

Mr. Bernard reported regarding:
1. The Close Headways Hearing of the Public Utilities Commission.
2. Public Hearing for the Fare Schedule.

Director Garfinkle moved that a public hearing be set for Thursday, June 12, 1980, at 9:00 a.m., in the BART Board Room to invite the public to comment on the reasonableness of rates and charges to be fixed by the District. Director Allen seconded the motion, which carried. Ayes - 6: Directors Allen, Garfinkle, Kirkwood, Shartsis, Simpson, and Bianco. Noes - 0. Absent - 3: Directors Glasser, Glenn, and Ussery.

The President announced that the Board would enter into executive session in the room behind the rostrum with the General Counsel and management representatives; that discussion would be confined to matters permissible for executive-session discussion, such as items within the attorney-client privilege and personnel and labor matters; and that the Board would adjourn immediately upon conclusion of the executive session.

The Board then entered into executive session at 10:05 a.m.

Present were: Directors Allen, Garfinkle, Kirkwood, Shartsis, Simpson, and Bianco.

The meeting was then adjourned at 10:20 a.m.

Phillip O. Ormsbee
Secretary
A regular meeting of the Board of Directors was held on September 3, 1981, convening at 9:00 a.m. in the Board Room, 800 Madison Street, Oakland, California. President Glenn presided; Phillip O. Ormsbee, Secretary.

Directors Present: Directors Allen, Bianco, Pryor, Shartsis, Ussery, and Glenn.

Absent: None. Directors Garfinkle, Kirkwood, and Simpson entered the meeting later, as noted in these Minutes.

Consent Calendar items brought before the Board were:

1. Approval or correction of Minutes of August 6, 1981.
5. Agreement with Port of Oakland for Air-BART Improvements.
7. Contract No. 27BB-120, Design, Furnish and Install Communications Cable Network - Systemwide.
8. Maintenance services agreement with S.E. Laboratories, Inc., for calibration and repair of BART test equipment and tools.
9. Change order to agreement with Peat, Marwick, Mitchell & Co. for audit and support of procurement of computer equipment for Integrated Control System.
10. Acceptance of Contract No. 150041, West Portal Station.
12. Award of Proposal/Contracts Nos. 5057, Brush Holders, Traction Motor, and 5075, T-1 Thyristors.
13. Locking of station restroom doors.
Director Garfinkle entered the meeting.

Consent Calendar motions, as follows, were moved as a unit by Director Allen. Director Bianco seconded the motion, which carried. Ayes - 7: Directors Allen, Bianco, Garfinkle, Pryor, Shartsis, Ussery, and Glenn. Noes - 0. Absent - 2: Directors Kirkwood and Simpson.

That the Minutes of the meeting of August 6, 1981, be approved.

The adoption of Resolution No. 2892, In the matter of authorizing the filing of an application with the Metropolitan Transportation Commission (MTC) for an allocation of Bay Bridge Net Toll Revenues for Fiscal Year 1981/82.

That the General Manager be authorized to submit an application to the State of California for Fiscal Year 1981/82 Article XIX funds for the following projects:

- Integrated Control System $ 2,500,000
- Fremont Parking Lot 1,700,000
- Concord Parking Facility 1,785,000

Total $ 5,985,000

That the General Manager be authorized to submit an application to the State of California for Fiscal Year 1982/83 SB-620 Guideway Funds for partial funding for the following projects:

- Daly City Turnback $ 280,000
- Transit Vehicle Fire Hardening 6,398,000

Total $ 6,678,000

The adoption of Resolution No. 2893, In the matter of Authorizing the Execution of an Agreement with the Port of Oakland for the Oakland Air-BART Capital Grant Project.

That the General Manager be authorized to arrange for the preparation of specifications and the advertising of Contract No. 15ND-110, Additional Wheelchair Curb Cuts.

That the General Manager be authorized to arrange for the preparation of specifications and the advertising of Contract No. 27BB-120, Design, Furnish, and Install Communications Cable Network - Systemwide.

That the General Manager be authorized to execute an agreement with S. E. Laboratories, Inc., for calibration and repair of BART test equipment and tools.

That the General Manager be authorized to execute a change order for increased work for an amount not to exceed $25,000 to the agreement with Peat, Marwick, Mitchell and Co. for audit and support of the procurement of computer equipment for the Integrated Control System.

The adoption of Resolution No. 2894, In the Matter of Accepting Contract No. 150041.
The adoption of Resolution No. 2895, In the Matter of Accepting Contract No. 05BD-110.

That the General Manager be authorized to award Proposal/Contract No. 5057, traction motor brush holders, to Byrne & Co. for the bid price, to which will be added applicable sales and use taxes, pursuant to notification to be issued by the General Manager.

That the General Manager be authorized to award Proposal/Contract No. 5075, T-1 Thyristors, to International Rectifier, c/o Ewing-Foley, Inc., for the bid price, to which will be added applicable sales and use taxes, pursuant to notification to be issued by the General Manager.

(A tabulation of the proposals received on the two above-mentioned proposal/contracts is attached to these Minutes and hereby made a part hereof. The relevant motions were made on the basis of analysis by the staff and certification by the Director of Finance that funds are available for this purpose and, in accordance with Resolution No. 1320, that adequate funds remain to complete the basic system.)

That the policy of locking restroom doors remain as it is. (The current policy is that restroom doors in unpaid areas remain locked, with access controlled by the station agent, while restroom doors in paid areas remain unlocked, with an inside latch controlled by the patron inside.)

Director Garfinkle, Chairperson of the Administration Committee, reported regarding 1981/82 tax levies.

Director Bianco, Chairperson of the Engineering and Operations Committee, reported regarding:

1. Designation and placement of future stations and extension routing.

2. Adoption of an alignment with associated stations as the preferred route for the proposed Pittsburg-Antioch Extension.


Mr. Irving Deutscher addressed the Board.

Director Bianco moved the adoption of Resolution No. 2896, In the Matter of Adopting a Preferred Route Alignment for a Pittsburg-Antioch Extension, and that the General Manager be authorized to submit a grant application to the Metropolitan Transportation Commission for funding of the expenditures listed under Priorities I and II of the Extension Right-of-Way and Facilities Expenditures exhibit and the Expenditures by Priority and Ranking exhibit. (Copies of these two exhibits, marked Attachments A and B, are attached to these Minutes and hereby made a part hereof.) Director Garfinkle seconded the motion, which carried. Ayes - 7: Directors Allen, Bianco, Garfinkle, Kirkwood, Shartsis, Simpson, and Glenn. Noes - 1: Director Ussery. Abstain - 1: Director Pryor. Absent - 0.
Director Bianco made the preceding motion with the understanding that if grant applications are not funded in a timely fashion, staff will return to the Board to discuss use of District reserves to acquire individual parcels.

Director Bianco, continuing, reported that the matter of award of Proposal/Contract No. 5055, High Speed Duplicating Machine, was referred back to the Engineering and Operations Committee at the request of Mr. Demko.

Director Bianco asked that the matter of access to BART stations from the City of Alameda, as requested by Director Pryor, be taken up in an early meeting of the Public Information and Legislation Committee.

Director Ussery, Chairperson of the Public Information and Legislation Committee, reported regarding redistricting.

Mr. Goode reported regarding execution of Federal Capital Grant Project CA-03-0234, Oakland Air-BART capital project grant.

Director Garfinkle moved the adoption of Resolution No. 2897, In the matter of authorizing Urban Mass Transportation Capital Grant Contract, Project CA-03-0234, between San Francisco Bay Area Rapid Transit District and the United States of America. Director Bianco seconded the motion, which carried. Ayes - 9: Directors Allen, Bianco, Garfinkle, Kirkwood, Pryor, Shartsis, Simpson, Ussery, and Glenn. Noes - 0. Absent - 0.

Mr. Demko reported regarding the resolution of many issues with the City and County of San Francisco and the San Francisco Transit Task Force, the oldest issue dating back to 1962.

Director Garfinkle requested a report on the current operations situation and asked that the Minutes show that he was tardy this morning because of a failure on the Fremont Line and the lack of a timely announcement to allow patrons to overcome that problem.

Director Bianco asked that the concession program be put on the agenda of the next Public Information and Legislation Committee meeting.

The meeting was then adjourned at 10:35 a.m.

Phillip O. Ormsbee
District Secretary
## ATTACHMENT A

### RECOMMENDED EXTENSION RIGHT-OF-WAY AND FACILITIES EXPENDITURES

<table>
<thead>
<tr>
<th>EXTENSION</th>
<th>USAGE</th>
<th>LOCATION</th>
<th>SIZE (ACRES)</th>
<th>CURRENT COST ($MILLIONS)</th>
<th>FUTURE COST ($MILLIONS)</th>
<th>SAVINGS IF PURCHASED NOW ($MILLIONS)</th>
<th>RESIDUAL VALUE IF NOT USED ($MILLIONS)</th>
<th>CURRENTLY PROPOSED DEVELOPMENT</th>
<th>DEVELOPMENT PRESSURE</th>
<th>INTERIM USAGE</th>
<th>RECOMMENDED EXPENDITURE PRIORITY **</th>
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<tbody>
<tr>
<td>NORTH CONCORD STATION</td>
<td>Pitts./Ant. Station</td>
<td>U.S. Naval Weapons Station, Hwy 4 &amp; Port Chicago Hwy</td>
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<td>0.6</td>
<td>0.6</td>
<td>0</td>
<td>0.6</td>
<td>--</td>
<td>13</td>
<td>SATELLITE PARKING FOR CONCORD STATION</td>
<td>I1a</td>
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<tr>
<td>WEST PITTSBURG STATION</td>
<td>Pitts./Ant. Station</td>
<td>Hwy 4 &amp; Bailey Rd. (S.W.)</td>
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<td>2.2</td>
<td>6.0</td>
<td>3.8</td>
<td>2.2</td>
<td>RESIDENCES</td>
<td>4</td>
<td>PARK &amp; RIDE FOR EXPRESS BUS</td>
<td>Ia</td>
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<td>Pitts./Ant. Station</td>
<td>Hwy 4 &amp; Railroad Ave. (S.W.)</td>
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<td>2.2</td>
<td>0</td>
<td>2.2</td>
<td>--</td>
<td>11</td>
<td>PARK &amp; RIDE FOR EXPRESS BUS</td>
<td>IIe</td>
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<tr>
<td>PLEASANTON STATION</td>
<td>Antioch Station</td>
<td>Hwy 4 &amp; Sorersville Rd. (N.W.) Near Standard Oil Avenue</td>
<td>10.0</td>
<td>2.2</td>
<td>2.2</td>
<td>0</td>
<td>2.2</td>
<td>--</td>
<td>9</td>
<td>PARK &amp; RIDE FOR EXPRESS BUS</td>
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<td>LIVERMORE-PLEASANTON</td>
<td>Castro Valley Station</td>
<td>Hwy 4 &amp; Hillcrest Ave. (N.E.)</td>
<td>10.0</td>
<td>1.3</td>
<td>4.4</td>
<td>3.1</td>
<td>1.3</td>
<td>Industrial Park</td>
<td>3</td>
<td>PARK &amp; RIDE FOR EXPRESS BUS</td>
<td>Id</td>
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<tr>
<td>LIVERMORE-PLEASANTON</td>
<td>Livermore Station</td>
<td>Washington Blvd. &amp; Osgood Rd. (S.E.)</td>
<td>5.8</td>
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<td>SHOPPING CENTER</td>
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<td>Livermore Station</td>
<td>Mission Blvd. &amp; Warm Springs Blvd. (N.W.)</td>
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<td>6.0</td>
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<td>0.4</td>
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<td>AT-GRADE RR CROSSING</td>
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<td>Stoneridge Mall Road</td>
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<td>6.0</td>
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<td>Offices &amp; Residences</td>
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<td>PARK &amp; RIDE FOR EXPRESS BUS</td>
<td>Ic</td>
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<td>Livermore Station</td>
<td>North Mines Rd. &amp; 1st St.</td>
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<td>0.9</td>
<td>0.7</td>
<td>0.9</td>
<td>--</td>
<td>10</td>
<td>--</td>
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<td>Livermore Station</td>
<td>Bernal Ave. &amp; WPRR</td>
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<td>2.2</td>
<td>0</td>
<td>2.2</td>
<td>--</td>
<td>12</td>
<td>--</td>
<td>IIIa</td>
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<tr>
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<td>Norbridge at Redwood Rd.</td>
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<td>N/A</td>
<td>N/A</td>
<td>Educ. Uses</td>
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<td>PARK/RIDE SITE</td>
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</table>

* 1-HIGHEST
14-LOWEST

** 1-HIGHEST
6-LOWEST
### ATTACHMENT B

**RECOMMENDED EXTENSION RIGHT-OF-WAY AND FACILITIES EXPENDITURES BY PRIORITY AND RANKING**

<table>
<thead>
<tr>
<th>PRIORITY AND RANKING</th>
<th>EXTENSION</th>
<th>USAGE</th>
<th>COST ($MILLIONS)</th>
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<tbody>
<tr>
<td><strong>Ia</strong></td>
<td>PITTSBURG-ANTIOCH</td>
<td>WEST PITTSBURG STATION</td>
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<tr>
<td><strong>Ib</strong></td>
<td>WARM SPRINGS</td>
<td>TRACK ALIGNMENT</td>
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<tr>
<td><strong>Ic</strong></td>
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<td>DUBLIN STATION</td>
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<td>PITTSBURG-ANTIOCH</td>
<td>ANTIOCH STATION (HILLCREST AVE.)</td>
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<tr>
<td><strong>Ie</strong></td>
<td>WARM SPRINGS</td>
<td>IRVINGTON STATION (5.8 ACRES)</td>
<td>0.3</td>
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</tbody>
</table>

**PRIORITY I TOTAL** 6.2

| **IIa**               | PITTSBURG-ANTIOCH | NORTH CONCORD STATION | 0.6 |
| **IIb**               | WARM SPRINGS | MISSION STATION | 2.2 |
| **IIc**               | PITTSBURG-ANTIOCH | PITTS./ANT. STATION (SOMERSVILLE) | 2.2 |
| **IId**               | WARM SPRINGS | IRVINGTON STATION (3.8 ACRES) | 0.3 |
| **IIf**               | LIVERMORE PLEASANTON | EAST LIVERMORE STATION | 0.2 |
| **IIf**               | EAST LIVERMORE STATION | EAST LIVERMORE STATION | 0.2 |
| **IIf**               | WARM SPRINGS | BLACOW ROAD OVERCROSSING | 0.6 |
| **IIh**               | LIVERMORE/PLEASANTON | CASTRO VALLEY STATION | N/A |

**PRIORITY II TOTAL** 8.3

| **IIIa**               | LIVERMORE PLEASANTON | PLEASANTON STATION | 2.2 |

**PRIORITY III TOTAL** 2.2