Jenkins, Arthur C.

In the Matter of the Application of

PACIFIC ELECTRIC RAILWAY COMPANY
LOS ANGELES, CALIFORNIA

Before

THE BOARD OF PUBLIC UTILITIES AND TRANSPORTATION

OF THE CITY OF LOS ANGELES

For Authority to Make Certain Changes
In Passenger Rail and Motor Coach
Service, Operations and Facilities
Pursuant to Franchise Ordinance
No. 90344.

J. K. C.

JAN 16 1950

Los Angeles, California
January 5, 1950

Presented by:
Arthur C. Jenkins
Consulting Engineer

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January 5, 1950

Mr. O. A. Smith, President
Pacific Electric Railway Company
675 Pacific Electric Building
Los Angeles, California

Dear Sir:

In accordance with your request, a report has been prepared setting forth in condensed form the salient features of the Modernization Program covering the passenger transportation operations of Pacific Electric Railway Company, as encompassed by the Company's application to the Board of Public Utilities and Transportation of the City of Los Angeles for authority, pursuant to the provisions of Franchise Ordinance No. 90344.

The program as presented herein is in conformity with the presentation made to The Public Utilities Commission of the State of California in Application No. 30095, wherein authority of that body was requested for purpose of launching the plan.

Based upon the results of extensive study conducted by me with assistance of the Company's Bureau of Research, I am thoroughly of the opinion that the pro ram of modernization as described herein and in the several other preliminary and foundation reports which I previously submitted to you, is basically sound, economically feasible, and wholly within the bounds of accepted standards of operation and service as established by the transit industry generally. I am equally confident that the plan as proposed will adequately meet the necessities and convenience of the public, as commonly defined.

Respectfully submitted,

Arthur C. Jenkins

ARTHUR C. JENKINS
CONSULTING ENGINEER

Reg. Civ. Engr. #5246
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REPORT ON
PACIFIC ELECTRIC RAILWAY COMPANY

F O R E W O R D

The modernization plan set forth herein was derived from the results of extensive survey of the passenger operations of Pacific Electric Railway Company. About twelve months were devoted to the studies involved and a number of individual reports were prepared setting forth the findings. Analysis was also made of the conditions, practices and policies prevailing on other transit properties throughout the Country including both privately and publicly owned facilities. Results of those analyses were also compiled in report form. In all, ten separate principal reports were prepared supplemented by several smaller reports prepared to bring information up to date. All of those reports were submitted in evidence before the Public Utilities Commission of the State of California in the matter of Application No. 30095, Application No. 27466, Application No. 23053 and Case No. 4843, at a series of public hearings extending over a period of time from October 13, 1948 to December 15, 1949, on which date the matter was submitted with certain reservations.

Copies of all of said exhibits were furnished by Mr. C. W. Cornell and Mr. E. D. Yeomans, Attorneys for the Applicant, to Mr. Roger Arnebergh, Assistant City Attorney for the City of Los Angeles in those proceedings and to Col. K. Charles Bean, Chief Engineer and General Manager of the Department of Public Utilities and Transportation of the City, as well as to all other principal interested parties.

It is appropriate to acknowledge the highly capable assistance given me in the conduct of the studies, by Mr. D. R. Lewis, Engineering Assistant to the President and Mr. L. H. Appel, Research Engineer.

ARTHUR C. JENKINS

Pacific Electric Railway Company

REPORT ON
PASSENGER TRANSPORTATION MODERNIZATION PLAN

TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

A P P E N D I X

TABLE OF CONTENTS

LIST OF MAPS AND CHARTS

LIST OF TABLES

Pacific Electric Railway Company

REPORT ON APPLICATION FOR AUTHORITY TO MAKE CERTAIN CHANGES IN PASSENGER RAIL AND MOTOR COACH OPERATIONS PURSUANT TO FRANCHISE ORDINANCE NO. 90344 OF THE CITY OF LOS ANGELES

SECTION A

SUMMARY OF SALIENT FEATURES OF PROPOSAL

In view of the magnitude of the modernization program of Pacific Electric Railway Company, the extensive amount of detail involved and the wide expanse of territory embraced by the proposed service, this section is devoted to a summarization of the high lights in condensed form. In following sections the various phases are dealt with in greater detail and in the Appendix will be found tables and charts setting forth certain of the fundamental trends and factual data. A system map is also included to show graphically the extent of the changes in operation that are contemplated.

It is highly important to bear in mind in analyzing the proposal, that the plan does not constitute an abandonment program, but to the contrary it is a replacement process wherein it is intended to establish modern motor coach service in lieu of outmoded surface rail service, (except to the extent of minor deviations that are explained elsewhere herein), and to effect other concomitant changes, all of which will be beneficial to the public.

I -- BRIEF OUTLINE OF PLAN

In brief, the program will accomplish the following changes in operations and facilities:

A. REPLACE OBSOLETE RAIL PASSENGER SERVICE WITH MODERN MOTOR COACH SERVICE ON THE FOLLOWING LINES.

1. Venice Short Line - Los Angeles to Santa Monica via Venice and Ocean Park.
2. Pasadena Short Line - Los Angeles to Pasadena.
3. Pasadena Oak Knoll Line - Los Angeles to Pasadena.
4. Sierra Madre Line - Los Angeles to Sierra Madre.
5. Glendora Line - Los Angeles to Glendora via Arcadia and Monrovia.
6. Baldwin Park Line - Los Angeles to Baldwin Park via El Monte.
7. Newport Beach Line - Los Angeles to Newport Beach.

8. Santa Ana Line - Los Angeles to Santa Ana (no replacement service to points between Watts and Santa Ana.)

9. Echo Park Avenue Local Line - Echo Park Ave. and Donaldson Street to 12th and Hill Streets.

10. Sierra Vista Local Line - Sierra Vista to Sixth and Main Streets.

11. Hollywood-Venice Blvd.-San Vicente Blvd. Local Line - Sunset Blvd. and Vermont Ave. via Sunset Blvd. and Hill St. to 12th St. (Will supplement local rail between Vermont and Bonnie Brae.)

12. San Fernando Valley Line - Between Van Nuys and North Hollywood.

B. DISCONTINUE PASSENGER RAIL SERVICE WITHOUT MOTOR COACH REPLACEMENT ON PORTIONS OF LINES AS FOLLOWS:

1. Santa Ana Line - Between Watts and Santa Ana. (Direct motor coach service to be established between Los Angeles and Santa Ana during traffic peaks.)

2. Newport Beach Line - Between Willow Street and Seal Beach.

3. Echo Park Avenue Line - Between Cerro Gordo Street and Donaldson Street a distance of one block.

4. Hollywood-Venice Blvd.-San Vicente Blvd. Line - Between 12th and Hill Streets, and Genesee St. and San Vicente Blvd. (See Chart II of Appendix)

C. DISCONTINUE PRESENT MOTOR COACH SERVICE

1. Tarzana - Northridge, branch of Ventura Blvd. Line in San Fernando Valley.

2. Tarzana - Woodland Hills, branch of Ventura Blvd. Line in San Fernando Valley.

D. REROUTE PASSENGER RAIL LINES

Separate Watts-Sierra Vista Line into two parts using motor coaches on Sierra Vista end and continuing rail service on Watts end to be operated into the 6th and Main Streets rail terminal instead of along 9th and Main Streets.

E. RELINQUISH FREIGHT RAIL OPERATIONS

1. Venice Short Line - in its entirety. (Except for about 0.2 Mile in Culver City necessary to connect Santa Monica Air Line with Inglewood Line for freight operation.)

2. Huntington Drive - from West Arcadia to Los Angeles.

3. Sierra Madre Line - in its entirety.

4. Alhambra Freight Branch

5. Los Angeles - From 4th and San Pedro Streets along San Pedro Street and Aliso Street to Macy Street Yards, discontinuing all box motor operation on that portion of track.

6. Vineyard - Beverly Hills Line - Along San Vicente Blvd. and Burton Way between Vineyard and Beverly Hills.

F. CONSTRUCT NEW FREIGHT RAIL CONNECTION

Between Glendora and San Bernardino Lines from a point between Azusa and San Gabriel River to a connection with the Crushton freight spur.

G. SHOPS AND EQUIPMENT MAINTENANCE FACILITIES

1. Macy Street Shops - Enlarge and modernize to accommodate expanded motor coach operation, and eliminate all rail service and repairs.

2. Ocean Park Shops - Enlarge and modernize to accommodate expanded motor coach operation. Eliminate all rail service and repairs at present shop.

3. Construct motor coach storage facilities - At several locations to facilitate accessibility and flexibility of operations.

H. CONSTRUCT NEW MOTOR COACH TERMINALS

1. Olive Street - Establish off-street terminal loop facilities for Venice Short Line Motor Coach service on west side of Olive Street between 4th and 5th Streets, almost directly opposite present Olive Street Motor Coach Terminal.

2. Sixth and Los Angeles Streets - Construct new motor coach terminal at 6th and Los Angeles Streets for new Northern District motor coach lines.

I. ACQUIRE NEW PASSENGER MOTOR COACHES

New motor coaches for the proposed operations will be of latest design incorporating most modern developments as to seat comfort and spacing, interior width, aisle width, ventilation and heating, heat insulation of rear seat, heat and glare resistant window glass, engine and power transmission design, and engine noise and exhaust control. All outmoded wooden bodied rail cars will be abandoned and a substantial number of large, heavy, cars of more recent design will be eliminated from regular service.

J. ESTABLISH ONE-MAN RAIL CAR OPERATION

1. Beverly Hills-Hollywood-Subway Line.

2. San Fernando Valley Line.

II. BENEFITS AND OBJECTIVES OF PROPOSED PLAN

Benefits of the proposed modernization plan will accrue not only to the Company but also in large measure to the patrons of the lines involved as well as to the general public of the area served. Those benefits are many in number and varied in degree of importance. Merits of the numerous advantages of the program have been proven beyond doubt by many passenger transit operations throughout the country as a whole and to an extensive degree, in the larger cities of California most notable of which are the cities of Los Angeles, San Francisco, Oakland and San Diego.

With few exceptions, those engineers and officials with specialized experience in design and administration in the fields of vehicular traffic

control, city planning, street and highway design and construction, and transit operation and management, have accepted the basic features of the Companies' proposal as being fundamental in keeping pace with scientific, technical and economic development of passenger transportation including both mass transit and the private automobile. Importance of the latter in shaping the present as well as the future pattern of traffic must not be minimized, particularly in the Los Angeles Metropolitan Area.

In following sections of this report the various elements of advantage will be more extensively discussed but for purpose of brevity the important points are listed in this section as follows:

1. Modernization Proposed, NOT abandonment or drastic curtailment of passenger service.

2. Service Standards, will continue to be controlled by cognizant regulatory authority.

3. Large Scale Fare Increases, of about 35 per cent that would otherwise be necessary, will be avoided.

4. Abandonment of Lightly Patronized Lines, that would otherwise be necessary can be avoided.

5. Permanent Abandonment of Obsolete Wooden Bodied Rail Cars, - together with retirement from regular service of a large number of other heavy rail cars of more recent design.

6. Higher Standards of Service, will be possible through more frequent schedules and greater flexibility of motor coaches.

7. Greater Efficiency in Service, Cleaning and Repair of Equipment, will be possible through more concentrated centralization of maintenance facilities.

8. More Frequent Renewals of Equipment, will be possible due to relatively short term service life applied to motor coaches as compared with much longer service life applied to rail cars.

9. Curb Loading Safety, will provide a greater degress of safety and convenience to passengers who with rail operation must cross normal vehicular traffic lanes to reach rail cars. During inclement weather curb loading has an added advantage.

10. Decrease Congestion through Curb Loading, will increase the vehicular capacity of streets as a whole by about 50 per cent, by eliminating safety zones and rail cars from street centers. With rail operation two lanes in each direction are obstructed at loading zones, thereby reducing effective vehicular capacity of streets. This feature will greatly benefit the large mass of motorists, simplify the problems of traffic control and reduce materially the expenditures that would otherwise be required for street widening and new traffic arteries.

11. Rough Street Surfaces and the rails themselves, which now are a source of annoyance to motorists, will be eliminated.

12. In Time of Major Disaster, if such should occur, motor coaches could immediately be commandeered for evacuation purposes and adapted to any route, destination or type of operation, whereas, rail lines would be of extremely limited value due to fixed routes and ease of track destruction or electric power sabotage.

13. Street and Highway Development - Plans of the City of Los Angeles and other agencies, that have been hindered by existence of rail lines, can be expedited to early completion thereby greatly relieving the rapidly increasing vehicular traffic problem.

14. Unsightly Electric Traction Power Poles and Wires can be eliminated with consequent beautification of thoroughfares.

15. Advantages of the Costly and Extensive Freeway Network can be made immediately available to mass transit riders by motor coaches, but not by rail lines unless designed as an integral part of such structures.

16. High Noise Level of Rail Cars through residential and business areas will be greatly reduced by use of motor coaches.

17. Smog Not a Problem - As compared with the effects of the hundreds of thousands of automobiles and trucks on the streets and highways, the relatively small number of additional motor coaches required under this plan would have no significant or measurable effect upon atmospheric pollution.

18. Carbon Monoxide content of exhaust fumes from Diesel motor coach engines is far below the harmful level and concerted effort is being exerted by manufacturers to control exhaust noise.

19. Rail Rapid Transit - Placing the proposed plan of Pacific Electric Railway Company into effect will not interfere with, retard, or prevent the development of a rail rapid transit program if such should ultimately be the desire of the public. To the contrary it will assist such a plan by clearing the rights-of-way of regular service making them available for use without interference. Existing rights-of-way that might possibly be of use for such purpose will probably not be destroyed, but in large part, will likely be acquired by municipalities or other agencies for street and highway development, thereby becoming the charge of the public to do with as may be deemed in greatest public interest.

20. Elimination of Financial Deficit - Passenger rail operations of Pacific Electric Railway Company will be converted from an annual operating deficit of about $2,400,000 into a nominal profit, thereby making it possible to continue to provide essential mass transit service to the Los Angeles Metropolitan Area and surrounding communities, to preserve employment for many workers, and to preserve minimum fares to the public.

SECTION B

DETAILED DESCRIPTION OF PLAN

Essential features of the modernization plan as proposed in application to The Board of Public Utilities and Transportation of the City of Los Angeles, as it relates to line, facility and equipment changes, are briefly described below. Chart I of the Appendix shows the changes on a system map.

I - RAIL AND MOTOR COACH LINE CHANGES

A. VENICE SHORT LINE - RAIL

1. Replace rail passenger service with motor coach operation over the same route as the rail line, except for minor deviations as follows:

   (a) Motor Coach route will be along Olive Street in the business area of Los Angeles instead of along Hill Street - One block to west.

   (b) Motor coach route will be along Main Street through Venice and Ocean Park instead of along Trolleyway - Less than one block to east.

2. Establish a new off-street terminal on west side of Olive Street between Fourth and Fifth Streets in Los Angeles, opposite present Olive Street motor coach terminal.

3. Connect new motor coach line with existing Los Angeles-Beverly Hills-Santa Monica motor coach line forming a loop operation through Venice, Ocean Park and Santa Monica.

4. Eliminate present rail car service and storage facilities at Ocean Park and construct new motor coach service, repair and storage facility of modern design at Ocean Park.

5. Eliminate rail freight operation throughout entire length of Venice Short Line and along San Vicente Boulevard and Burton Way between Vineyard and Beverly Hills.

6. Make rail right-of-way along Venice Boulevard and San Vicente Boulevard available to City of Los Angeles and other municipalities and public agencies for construction of improved streets and highways.

7. Eliminate all outmoded wooden-bodied rail cars and replace with modern motor coaches.

B. HOLLYWOOD-VENICE BOULEVARD-SAN VICENTE LOCAL RAIL LINE

1. Motor coach service to supplement rail passenger service along Sunset Boulevard between Vermont Avenue and Bonnie Brae and to replace rail service from Bonnie Brae along Sunset Boulevard and Hill Street to 12th Street.

2. Retain rail passenger service along Hollywood Boulevard, but route all cars via Glendale Blvd. into Subway Terminal.

3. Discontinue local service along Venice Boulevard from Hill Street to Vineyard without replacement by motor coach operation, turning local traffic over to Los Angeles Transit Lines rail routes which parallel Venice Boulevard on either side within approximately $\frac{1}{4}$ mile.

4. Discontinue local service along San Vicente Boulevard between Vineyard and Genesee Street, turning traffic over to other rail and motor coach lines in same area, thereby making San Vicente Boulevard available for street and highway improvement.

C. ECHO PARK AVENUE RAIL LINE

1. Replace rail passenger service with motor coach service along same route as rail line.

2. Terminate motor coach line on north end at Donaldson Street, one block south of present terminus, and on south end at 12th and Hill Streets.

3. Construct off-street turn-around loop on north end.

D. SAN FERNANDO VALLEY RAIL LINE

1. Retain present passenger rail service over same route as at present from Subway Terminal in Los Angeles, along Santa Monica Boulevard and Highland Avenue through Hollywood and over Cahuenga Pass to North Hollywood.

2. Replace passenger rail service between North Hollywood and Van Nuys with motor coach service, operating over the same route as the present rail line between such points, and which would be a branch of the present Riverside Drive motor coach line, thereby providing a faster service directly into Los Angeles by-passing traffic congestion through Hollywood.

3. Provide direct motor coach service, without transfer between Van Nuys and Hollywood along Van Nuys and Ventura Boulevards.

4. Reconstruct track along Santa Monica Boulevard between Highland Avenue and Sunset Boulevard to the extent required to conform with franchise provisions.

5. Abandon track in Chandler Boulevard west of Kester Junction and in Van Nuys Boulevard from Chandler Boulevard to end of line at Sherman Way in Van Nuys.

E. VENTURA BOULEVARD MOTOR COACH LINE

1. Discontinue service on Northridge and Woodland Hills branches beyond Tarzana.

2. Establish new branch of line to operate through from Hollywood to Van Nuys along Ventura and Van Nuys Boulevards.

F. PASADENA SHORT LINE - RAIL

1. Replace rail passenger service with motor coach service along same route as present rail line between Pasadena and Los Angeles, except to the small extent necessary to deviate from private right-of-way to nearest parallel streets on inner end between Huntington Drive and Mission Road and Aliso Street and Mission Road.

2. Follow same route as rail line along Aliso Street and San Pedro Street into new motor coach terminal at Sixth and Los Angeles Streets.

3. Establish new high speed express motor coach service during morning and evening traffic peaks, along Arroyo Seco Parkway between Los Angeles and Pasadena to supplement motor coach service over regular route.

G. PASADENA OAK KNOLL RAIL LINE

1. Replace rail passenger service with motor coach service along same route as present rail line between Pasadena and Los Angeles, except to the small extent necessary to deviate from private right-of-way to nearest parallel streets on inner end and for short distances through San Marino and Pasadena.

2. Follow same route as rail line along Aliso and San Pedro Streets into new motor coach terminal at Sixth and Los Angeles Streets.

3. Connect with Pasadena Short Line motor coach line at Colorado Street and Fair Oaks Avenue in Pasadena to form a loop operation.

H. SIERRA MADRE RAIL LINE

Replace rail passenger service with motor coach service along same route as present rail line between Sierra Madre and Los Angeles, except to the extent of small deviation required to make use of nearest parallel streets and highways.

I. MONROVIA-GLENDORA RAIL LINE

Replace rail passenger service with motor coach service over same route as present rail line between Glendora and Los Angeles, except to extent of small deviation required to make use of nearest parallel streets and highways.

J. BALDWIN PARK RAIL LINE

1. Discontinue passenger rail service between Baldwin Park and Los Angeles

2. Establish new motor coach line from Los Angeles to San Gabriel Boulevard paralleling present rail line, as closely as adjacent streets and highways will permit, along San Pedro Street, Ramona Boulevard and Hellman Avenue.

3. Place additional motor coaches in service on both the Valley Boulevard and Garvey Avenue motor coach lines which parallel the rail line on each side, at a distance of about one-half mile.

4. Establish new branch of Garvey Avenue motor coach line to follow same route as rail line between El Monte and Baldwin Park.

K. SIERRA VISTA LOCAL RAIL LINE

1. Separate Sierra Vista end of line from Watts end.

2. Replace rail passenger service with motor coach service between Sierra Vista and Los Angeles along same route as present rail line except to extent of small deviation required to make use of nearest parallel streets.

3. In downtown Los Angeles operate motor coach service inbound along Aliso Street, Los Angeles Street and Eighth Street to Main Street, thence outbound along Main Street, Aliso Street, Ramona Freeway, Mission Road, Marengo Street and Soto Street to Huntington Drive.

L. WATTS LOCAL RAIL LINE

Retain as at present except separate from Sierra Vista end, and operate along San Pedro Street to present rail terminal at Sixth and Main Streets instead of along Ninth Street and Main Street.

M. SANTA ANA RAIL LINE

1. Discontinue passenger rail service between Watts and Santa Ana.

2. Establish direct motor coach route between Los Angeles and Santa Ana during morning and evening traffic peaks supplementing existing motor coach lines which operate over less direct routes.

N. NEWPORT BEACH RAIL LINE

Replace remaining few passenger rail schedules with motor coach service over approximately the same route as present rail line, by placing additional coaches on present motor coach line, to the extent required.

II - OTHER CHANGES

A. FREIGHT RAIL LINE CHANGES

1. Discontinue freight rail service on Venice Short Line and on San Vicente Boulevard and Burton Way.

2. Discontinue freight rail service on Huntington Drive between Valley Junction and a point immediately west of Arcadia and on the Sierra Madre Line.

3. Discontinue freight rail service on the Alhambra Freight Branch.

4. Construct a rail freight connection from a point on the Glendora Line between Azusa and the San Gabriel River to a connection with the Crushton freight spur which connects with the San Bernardino freight line at a point a short distance east of Baldwin Park.

5. Abandon track between Fourth and San Pedro Streets and Macy Street Yards, discontinuing all box motor and freight operation over that portion of track.

B. MACY STREET SHOPS

1. Eliminate all rail service and repair facilities.

2. Expand and modernize present motor coach service and repair facilities utilizing most modern design to assure highest standard of motor coach maintenance, service and repair.

C. NEW MOTOR COACH TERMINAL AT SIXTH AND LOS ANGELES STREETS

1. A new off-street motor coach terminal is to be constructed on the area bounded by Los Angeles Street, Sixth Street and Maple Avenue to accommodate the proposed motor coach lines of the Northern and Southern Districts.

2. Terminal will be at street level beneath the present elevated rail and motor coach deck adjoining the Pacific Electric Building and will be accessible to the passenger station facilities of the Sixth and Main Streets depot.

D. PASSENGER CARRYING VEHICLES

1. New motor coaches required for the proposed operations will be of latest design incorporating most modern developments as to seat comfort, interior width, aisle width, engine, heat insulation, spring suspension, heat resistant window glass, ventilation, heating, noise elimination and exhaust fume control. These features will be emphasized in submitting bids to manufacturers.

2. All outmoded wooden-bodied rail cars and a large number of large heavy cars of more recent design will be eliminated from service.

3. All remaining passenger rail lines, except the Long Beach, San Pedro and Watts Local Lines will be equipped with either PCC type cars of the 5000-class or with 600-700-class cars, converted for one-man operation.

III - SERVICE STANDARDS

Passenger service standards of the proposed plan are based upon a ratio of passengers to seats as prescribed by the Public Utilities Commission of the

State of California. This control is now in effect and will continue to be adhered to under the proposed plan of motor coach operation, until such time as the Commission may see fit to change the loading standard formula.

It should be clearly understood that the proposed plan of motor coach operation does not contemplate a general reduction in the number of seats to be provided. There will be a reduction in total number of seats, but only off-peak, night, Sunday and holiday operations, where excess seats are now carried due to large capacity of rail cars where smaller capacity motor coaches would suffice.

The only adverse reduction in seats will be in those very few instances where service abandonment is contemplated and in each such case there is either other service available or the volume of traffic is too light to justify continued operation.

SECTION C

FINANCIAL ASPECTS

I - PRESENT FINANCIAL STATUS

The Company has incurred consistently a series of net losses from 1916 to and including 1949, with exception of the year of 1923, the four war years of 1942 to 1945, inclusive, and 1948. For 1948 the net income was only $33,180. The net loss reached a peak of $3,248,384 in 1938 and the maximum year of net profit was in 1943 in amount of $5,602,315. For the year of 1947 the net loss was $1,760,073 as compared with a loss of $218,879 for 1946. Most recently available figures show a net loss for the year ending October 31, 1949, amounting to $1,077,415 for consolidated operations.

For that year the net railway operating income before deductions was a deficit of $221,746. Breaking this item down into its respective parts shows the earning status of the various phases of operation as follows:

OPERATING INCOME
12 MONTHS ENDING OCTOBER 31, 1949

Total Freight		$ 2,132,755
Passenger		
Motor Coach	($ 178,924)	
Rail	($ 2,373,470)	
Total Passenger		($ 2,552,394)
Pacific Electric Building		$ 197,893
TOTAL OPERATING INCOME (LOSS)		($ 221,746)

(LOSS)

It will be noted from these figures that passenger railway operations contributed almost entirely to the deficit, amounting to a loss of $2,373,470 for the year.

II - FINANCIAL HISTORY

Over a period of many years extending beyond 1916, the combined operations of the Company have been conducted at a net loss with exception of the year 1923, and four years during World War II from 1942 to 1945, inclusive. The trend of income is shown by Table III of the Appendix. Due to the continuously poor earning status of the Company, which has been attributable to passenger operations, there has been a gradual replacement of electrified passenger rail lines, by motor coaches operating over the highways throughout Southern California.

Prior to World War II, the Company's financial status was becoming increasingly serious and in an effort to stem the tide of losses, a major rehabilitation program was embarked upon. That program contemplated a wide-scale replacement of losing passenger rail lines with highway motor coach service, but was interrupted by commencement of the war.

Wartime prosperity declined abruptly in 1944 and 1945, and a net loss of $218,879 was experienced for the year of 1946. To compensate for the losses, application for increased fares in passenger service was filed with Public Utilities Commission during the first half of 1946 and by its order of July 31, 1946, increases were granted. As of that same date the Commission instituted an investigation of the Company's operations. With the continued downward trend of net earnings, another application was filed with the Commission on June 23, 1947 seeking further increase in fares to cover increased costs of labor, material, and other essential items. During the year of 1947, the Company experienced a loss to net income in amount of $1,760,073. Hearings were held jointly on the fare application and the Commission's investigation during October and November of 1947, and a decision was issued on January 19, 1948, permitting increased fares to become effective February 1, 1948.

Benefits from that fare increase have not been sufficient to offset the effects of subsequent increases in wage rates and the persistent downward trend in passenger traffic. Although the common practice in the transit industry generally has been to meet increased costs with increased passenger fares, Pacific Electric Railway Company has declined to pursue that course in the hope and with the expectation that the conversion to motor coaches could be accomplished without undue delay and heavy fare increases could be avoided. Unfortunately, the time that has elapsed since studies were started has been extremely costly to the Company. About one year was consumed in completing the various studies and almost another year has been devoted to consideration of the results by the various interested parties in proceedings before the Public Utilities Commission of the State of California. The interim losses are, of course, beyond recovery to the Company.

III - INVESTMENT

Aside from the immediate financial requirements as they involve current earnings and cost of providing service, there is a more basic economic aspect of the problem that should not be overlooked and that is the investment in facilities that are to be abandoned in carrying out this program. There is an inclination on the part of certain members of the public to look upon this proposal as one designed selfishly for the sole purpose of producing a profit for the Company. This is not the case. In placing this program into effect the owners of this property are making a tremendous financial sacrifice. The balance sheet shows an investment in road and equipment, which includes all physical properties required for conducting the service under the Interstate Commerce Commission classification of accounts, amounting to $98,825,949. After deducting accrued depreciation as recorded on the books, the remaining investment is $78,071,470 which the owners are presumably entitled to recover under the fundamental processes of business and economics.

To expel the contention that may be raised as to the validity of book figures as compared with actual valuation, an estimate has been made of the

valuation of operating properties and facilities as of September 30, 1948, and an amount of $84,762,753 determined as the historical reproduction cost. This figure has been developed by bringing forward an official valuation of the property established a number of years ago by the Railroad Commission of the State of California, by adding thereto actual additions and betterments and deducting therefrom actual retirements.

Stepping now to the current problem, the ledger value of the properties that are to be abandoned under this program amounts to $10,263,300. Applying the accrued depreciation percentage to this figure develops that in the program proposed herein the owners of this property will abandon completely, without recovery except to the extent of salvage value, $7,950,000 of their investment. This is not a fictitious investment but actual dollars spent to construct or purchase the facilities presently in use that have become obsolete and non-profitable due to unforeseen changes in the economic status of the industry.

It is a distinct display of confidence in the future of its operations under the program set forth herein for the Company to consent to writing off $7,950,000 without recovery and at the same time invest $4,500,000 of new money. Indeed this should be an indisputable demonstration of the sincerity of the owners of this property to carry on the essential passenger transportation operations that are considered of vital necessity to the many communities served.

We should now analyze the merits of the contentions of those parties who insist that the Company is obligated to continue operating its defunct rail lines and in addition to suffering continued losses from current operations, should invest approximately $11,000,000 of additional money to reconstruct and build up the rail facilities without any prospect of eliminating the financial losses from passenger operation. Such a position cannot be based upon a sound foundation of reasoning when taking into consideration all of the financial and physical considerations that are controlling in shaping the future of this operation. They can only be based upon personal desires and misunderstanding of the actual will of the people as a whole. The entire thesis reduces down to one of insisting upon the public being provided with a deluxe form of transportation service by a private corporation at a cost greater than the revenue that can ever be realized even under the most optimistic estimates.

IV - RATE OF RETURN AND OPERATING RATIO

There is no significance to discussing the matter of rate of return with respect to this operation under present conditions of facilties and earnings. Although a net profit for the year of 1948 was experienced in amount of slightly more than $33,000, passenger rail service for the year ending October 31, 1949 was conducted at a loss of more than $2,370,000. Even including the freight operations, there is no possiblity of a reasonable return on the investment, or a reasonable earning on any basis of computation.

Based upon the rule of thumb of 10% of gross revenue representing a conservative net earning, net operating profit for the year of 1949 systemwide should be in excess of $3,000,000, with a gross operating revenue of $31,700,000. To the contrary, however, operating expenses amounted to $29,600,000 and taxes, $2,340,000, or a total cost of $31,940,000, failing by

$3,240,000 to meet 10 per cent of gross revenue.

The estimated valuation of Pacific Electric properties devoted to passenger operations, based upon previous valuations brought to date, indicates the valuation of properties and facilities as of September 30, 1948, in amount of $32,639,806 devoted exclusively to passenger operations and $21,620,534 devoted to joint passenger and freight operations. Valuation of leased facilities for exclusive passenger operation amounted to $2,600,734 and for joint passenger and freight, $543,062. This would mean a total of $46,322,339 devoted to passenger operation, assuming 50 per cent of the joint facilities to be chargeable to passenger operations. Assuming only those items of property exclusively devoted to passenger service, the valuation would be $35,240,540. Based upon actual usage of facilities, the valuation of those chargeable to passenger operations would be $50,812,280.

On either of these rough bases, without the usual refinement of providing for Materials and Supplies, Working Cash and other elements, a rate of return of only 5 per cent would produce a net income of more than $2,000,000 annually. Actually, however, with current losses, passenger operation falls short of that amount by $4,500,000. Therefore, it can be seen that from any reasonable measurement of earnings the property is not returning an appropriate net.

The only feasible means of producing any appreciable margin of profit on passenger operations is to carry out the modernization program as proposed herein. Anything short of carrying out the full extent of the program will deprive the Company of the financial improvement to which it is justly entitled and will prevent it from rendering the standard of service that would otherwise be possible.

V - BENEFITS OF PROGRAM

As was indicated in the Foreword, separate individual reports have been prepared with respect to each phase of the modernization program thus far completed wherein replacement of passenger rail service is contemplated. In those individual reports all of the necessary detail required to explain the processes followed and the results obtained have been set forth. For the purpose of this report reference is directed to the consolidated summary of financial results from present and proposed operations as shown by Table I of the Appendix. That table shows for each of the lines involved and by Districts, the revenues, expenses and net operating income under present operations, as well as the number of units of passenger equipment required, by lines. In direct comparison it also shows the financial results anticipated under the proposed operation.

In total, the lines involved are operated at an estimated annual operating loss of $1,890,974. Under the proposed plan of replacing rail lines with motor coach service, a net annual operating profit of $438,000 is anticipated. Although this represents a net improvement of more than $2,329,000, the resulting profit of $438,000 per year still falls far short of a reasonable net earning.

Under the present arrangement on the lines considered herein, 84 motor coaches are used and 288 rail cars. Under the proposed operation as applied to the same lines, there would be 265 motor coaches and 75 rail cars. To

carry out the proposed modifications in service and operations will require an estimated expenditure of approximately $5,000,000 for purchase of new equipment, construction of required facilities, alterations in existing plant, and removal of facilities. To continue with rail passenger operations on the lines involved would require, in accordance with the program established by the Public Utilities Commission, an expenditure of approximately $11,000,000 for new rail cars and reconstruction and rehabilitation of track, roadway and facilities, which would only partially satisfy the rail equipment problem and would need to be augmented substantially as time passes for the purchase of additional new rail cars in replacement of present vehicles.

The proposed plan will completely eliminate all wooden bodied rail cars and all of the older steel bodied cars, leaving only three classes of rail equipment, namely, the 5000 Class which are a modern P.C.C. type, the 600-700 Class which are highly satisfactory rail cars with many years of remaining service, and the 300-400 Class steel cars which are of relatively recent manufacture and of substantial and adequate design and construction, with many years of remaining satisfactory service life.

Therefore, briefly comparing the salient features of the two plans, as related to the rail replacement part of the program, the results are as follows:

1. Proposed Operation

   (a) Eliminate annual deficit of $1,900,000.
   (b) Create annual net operating profit of $438,000.
   (c) Produce a net financial improvement of $2,329,000.
   (d) Eliminate all wooden bodied cars and old steel cars.
   (e) Require total expenditure of approximately $5,000,000.
   (f) Probably avoid the necessity for increases in fares.

2. Continued Rail Operation

   (a) Incur continued net operating deficit of approximately $1,900,000 annually.

   (b) Require expenditure of $11,000,000 on track, roadway and equipment.
   (c) Require further expenditure for rail car replacement within a short period of time.
   (d) Necessitate either immediate application for heavy increases in fares or drastic curtailment or elimination of passenger transportation service.

The summarized results of the proposed plan indicate conclusively the necessity of placing it into effect, and standard practice demonstrates its ability to completely comply with the requirements of public convenience and necessity. Under profitable operation it will be possible for the Company to carry on further improvements and to more nearly meet the desires of the public as to service, equipment and fares.

SECTION D

ANALYSIS OF THE PROBLEM

MAGNITUDE OF OPERATIONS

The Company conducts joint freight and passenger operations over a widespread network of electrified rail lines supplemented by an extensive grid of passenger motor coach service, radiating generally from the City of Los Angeles as a center and extends from Santa Monica on the ocean front, easterly to San Bernardino, a distance of 75 miles; and from San Fernando on the north, a distance of 55 miles to Santa Ana and Balboa on the south.

Gross annual combined revenue for the year of 1949 was $31,756,000 and total annual operating expenses were approximately $29,600,000, exclusive of taxes which amounted to $2,300,000. Approximately 128,000,000 passengers are carried annually over 436 miles of railway and 911 miles of motor coach routes. About 9,300,000 car miles are operated annually in freight service; 20,400,000 vehicle miles in passenger motor coach service; and 13,200,000 miles in electric passenger car service. The Company operates 509 motor coaches, 445 passenger rail cars, 1,400 freight cars and 51 freight locomotives, and employs approximately 5,200 persons.

MODERNIZATION PROGRAM

Modernization as characterised herein does not mean necessarily the replacement of existing facilities and equipment in like kind of more modern and deluxe design. It means the conversion of facilities, operations, and service, to incorporate the most modern and highly accepted standards of practice as adopted by the transit industry generally in its efforts to keep pace with the trend of times and economic conditions.

Replacement of outmoded passenger rail cars that have long since become obsolete and prohibitively costly to operate, with new motor coaches of latest design incorporating all of the refinements and developments of recent years in this rapidly growing industry, represents modernization. This is a modernization program designed to bring about on this property, financial revitalization. Rehabilitation is not a correct description of the process

FUNDAMENTAL PREMISE

The primary motivating factors behind the entire modernization program are the financial deficiencies experienced by the Company in passenger transportation, the extremely large reconstruction expenditures that would be required for continued rail operation, and the absence of any hope that rail passenger service on this system can ever be made profitable in the future. If losing rail lines had been converted to motor coach service earlier, the present magnitude of deficit would have been avoided. The natural trends of economic and scientific development that have been largely responsible for the present unfavorable condition are almost entirely beyond control of management.

Various phases of the studies that are the foundation of this report, have been based upon the theory of dual obligation and premised upon the assumption that the two cannot be separated. One of these obligations is that of the Company to recognize the convenience and necessity of the traveling public, to

utilize the most modern developments in facilities and procedure, and to maintain the highest standard of service commensurate with its earning ability and the restrictions imposed upon it as a private industry. The other is the obligation of the public to pay in return for the service received, an amount sufficient to cover the costs of service and a reasonable margin of profit.

In analyzing the problem it would be highly unfair to the carrier to completely disregard its underlying rights and to attempt to direct its activities at present and for the future, solely upon the basis of what may appear to be the maximum desired comfort and convenience of passengers, without giving appropriate consideration to the economies involved. Although judicious management is a highly important ingredient in the discharge of any business enterprise, it is not a panacea that can forestall the inevitable forces of nature. In coping with a problem of the magnitude confronting Pacific Electric and the public it serves, the scope of vision must be sufficiently divergent to encompass the greater and more basic segments without undue concentration upon the minutia of personalities and minor incidents.

Based upon experiences of the industry within California itself, as well as all other large population centers of the Country, there is only one obvious conclusion as to the underlying causes of Pacific Electric's predicament. Effects of the private automobile, decentralization of business centers, slowing down of rail service by street construction and traffic interference have all had an adverse effect on traffic of rail lines. This has been a natural trend of events that has brought about the necessity for transit operators to eliminate costly rail transportation and adopt a more economic conveyance that can be supported by the depleted earnings. This has not been by choice, but inevitable in the wake of the inroads of private automobiles upon traffic, and ever ascending costs upon the economic balance.

The condition of financial distress with which Pacific Electric finds itself confronted is not new and is not unique to this Company. Neither is it due to the effects of mismanagement, nor can it be corrected by good management without seeking means of escape from the conditions that are primarily contributory. The mere expression of a desire on behalf of its patrons for transportation by rail without consideration of the financial elements should not be accepted as controlling in deciding the fate of rail service when the results would obviously mean financial losses that would require a calculated program of deferred maintenance and liquidation of capital that ultimately would react as a burden upon the public through higher fares and poorer service.

This operator is a common carrier dependent for its existence upon the revenues it derives from transportation services rendered to the public. That portion of the public making use of freight services is equally entitled to just and non-discriminatory rates as that portion using passenger service and it is no more reasonable to expect freight operations to support losing passenger lines than it is to content that if conditions were reversed passenger fares should be established at a sufficiently high level to offset losses from freight operation. It must be kept in mind that the problem extends to the whole public served and that the principle of just, reasonable and non-discriminatory rates, rules, practices and procedures must be extended with equal consideration to all.

If the conversion program is not permitted and continued rail service is required, even with continued use of present facilities, it would be mandatory

that drastic curtailment in service be exercised which would probably leave many of the smaller communities at remote locations without service, in order that the more populous areas might enjoy unjustified rail service.

The next question is to determine the source from which the financial betterment is to be acquired. Either costs of operations must be decreased, revenues must be increased, or a combination of the two must be effected. The magnitude of deficit is such that under continued operation without major change in facilities there is no possible means of reducing costs of operations to a sufficient degree. Careful analysis of the other side of the formula impels the conclusion that the required financial improvement cannot be completely realized through increases of passenger fares. These points having been established, then the search must extend more deeply into the functional aspects of the operation.

If the passengers presently carried by the lines of this system consider the service to be necessary to their existence and patronage is sufficient to warrant, nothing should be done to unreasonably deprive them of service. This means that the same passenger capacity presently provided should be preserved in accordance with prescribed loading standards and changed only as the trend of use inclines upward or downward.

Therefore, having established the need for financial improvement, the inability to obtain it from increased fares or reduction of operating costs, and the fact that the service is essential and should not be eliminated, there remains only one source from which the desired result can be forthcoming and that is to take advantage of the economies that can be effected by changing the physical characteristics of the operations to meet modern standards and practices. This reduces the entire problem to one element, that of replacement of obsolete rail passenger facilities that have become increasingly more costly to operate and less capable of providing the highest standard of service, with modern rubber-tired vehicles routed over the paved streets and highways, providing a flexible operation with more extensive coverage of the populated area.

ABILITY OF MOTOR COACHES TO PERFORM

The passenger motor coach is today one of the most important modes of mass passenger transportation in the country and has, over a period of many years, proven its ability to the fullest satisfaction of the industry and in many cases individual motor coach lines carry traffic volume equal to that transported by the heaviest rail lines. The trend away from rail to motor coach service and the acceptability of vehicle can be demonstrated by the following citations:

(1) In San Francisco, where traffic density is second highest in the country, the municipally owned transit operation is rapidly replacing rail lines with rubber-tired vehicles.

(2) The municipally owned transit system in Seattle has replaced all of its streetcar lines with rubber-tired vehicles.

(3) In New York City, where traffic density reaches the highest level in the country including both vehicles and passengers, motor coaches have replaced a substantial percentage of rail operations.

(4) In the East Bay Area of Oakland, Berkeley and Alameda, motor coaches have replaced all streetcar lines and have replaced many of the interurban electric rail lines.

(5) Interurban Electric Railway Company, a former subsidiary of Southern Pacific Company, operated an interurban electric rail service between San Francisco and points in the East Bay Area over seven principle feeder routes serving the thickly populated territory of Alameda County. All of those lines have now disappeared due to inability of the system to meet cost of operation.

(6) Interurban electric passenger service of Northwestern Pacific Railroad, formerly operated in Marin County to the north of San Francisco Bay, disappeared a number of years ago due to insufficient earnings.

(7) The Sacramento Northern Railway Company, which formerly operated electric passenger rail service between San Francisco and Sacramento, discontinued such operations a number of years ago due to financial losses incurred.

(8) Numerous lines of Pacific Electric Railway Company, formerly radiating from Los Angeles to outlying communities and cities, have heretofore been abandoned, with motor coach substitution in some cases and in others, with no replacement service.

(9) Numerous former passenger rail lines of Los Angeles Transit Lines within the city of Los Angeles have been replaced by motor coach operation as a means of maintaining a proper earning status.

(10) The San Diego Electric Railway, which provides passenger service in that City and adjoining communities was recently granted permission to substitute motor coach service for electric rail lines. In that instance the lines were equipped with modern, up-to-date, streamlined, P.C.C. type cars.

(11) Motor coaches have replaced streetcar operation completely in the cities of San Jose, Stockton, Sacramento, Fresno, Bakersfield, Pasadena, Long Beach and others in the State of California.

(12) In many other cities throughout the United States this same trend has been followed, in most instances to a greater extent than on Pacific Electric.

(13) Tables VII, VIII and Chart V show the trend from rail to motor coach operation in passenger transit throughout the country and indicate the proportion of use of the two types of vehicles over the period of years from 1922 to and including 1948.

(14) Table No. VII shows that in 1928, 86% of total transit passengers were carried by rail and only 14% by motor coach. For 1948, twenty years later, only 43% were carried by rail and 57% by rubber-tired vehicles. For surface rail lines, other than subways and elevated lines, the percentage dropped from 71 in 1928 to 31 in 1948.

(15) In vehicle miles operated, 77% was by rail in 1928 as against 23%

by motor coach; in 1948 only 35% was by rail and 65% by rubber-tired vehicles, 60% of which was by motor coach. Surface rail lines, excluding subways and elevated lines, decreased from 61% in 1928 to only 21% in 1948.

(16) For the year of 1948, 206 new subway and elevated cars were delivered and 478 surface streetcars as compared with 8,439 rubber-tired vehicles of which 7,009 were motor coaches. These figures were for the transit industry only and do not include long-haul carriers.

(17) For the year of 1948 there was only a total of 12,993 electric railway track miles, of which 1,251 represented subway and elevated lines, as compared with 99,490 route miles for rubber-tired vehicles, of which 96,473 miles was motor coach operation.

(18) Statistics show that 835 American cities formerly served by streetcars now rely exclusively on motor coaches for passenger transportation.

(19) Much additional data is available, all pointing toward the same conclusion.

CONGESTION NOT CONTROLLING

Although opponents to motor coach operation contend that replacement of rail cars by motor coaches will create intolerable traffic congestion, reference to statistics and facts renders that contention relatively insignificant. Available information indicates the following:

(1) Consideration of the congestion problem has not prevented the phenomenal growth of motor coach operation in replacement of rail cars in many other cities and communities throughout the country as referred to above.

(2) The findings of numerous traffic checks made in many cities uniformly point out the tremendously greater number of trucks and private vehicles on city streets than mass transit vehicles, typical examples of which are as follows:

(a) Cordon count of traffic in San Francisco in October of 1947 indicated that during the day between 7:00 AM and 7:00 PM, of approximately 450,000 vehicles entering and leaving the downtown area, 97.4% consisted of private automobiles, taxis, and trucks, whereas only 2.4% were mass transit vehicles.

(b) Traffic study made in 1947 under direction of the City Planning Commission of the City of Oakland showed that 91% of passenger vehicles entering the downtown area were automobiles as compared with 9% transit vehicles.

(c) Recent check of traffic by the City of Los Angeles indicates that of the total vehicles entering the downtown area 87% are automobiles and 13% are transit vehicles.

(3) In a pamphlet, dated January 1, 1948, issued by the Los Angeles

Chamber of Commerce, it is stated: "Los Angeles county has 1,333,718 automobiles registered as compared with 1,093,290 in 1940. Fine highways, attractive scenery, and sunshiny days invite the population to use their cars alike for pleasure and business. More than one car to every 3 persons is found here." The same pamphlet shows further that for 1947 in Los Angeles County there were 117,283 trucks, or a total of trucks and automobiles in the County of 1,451,001.

In view of the tremendous number of private automobiles and commercial trucks using the city streets of Los Angeles, the amount of added congestion that would be created by the relatively insignificant additional number of motor coaches under the proposed plan of substitution would be infinitesimal. It is inconsistent that all possible effort should be exerted to restrict the number of mass transit vehicles on the streets, whereas private automobiles, with their inefficient utilization of street surfaces, are permitted to increase without limit.

Were it not for the fact that the motor coach is larger than the private automobile and of a distinctive color, which makes it stand out in traffic, it would not be noticeable on the streets and certainly, with its experienced driver, would cause much less traffic interference and congestion than the relatively inexperienced and incapable drivers of private automobiles.

EFFECT OF AUTOMOBILE

If any semblance of reliable public transportation is to be preserved, there must be developed a new approach to the problem and a more complete understanding of the difficulties confronting the industry. Under present conditions, and in the past, the public has considered mass transportation as one problem and private transportation as another, entirely unrelated. As mass transportation has been forced into the discard by the acute competitive effect of private automobiles, its costs have increased, and its profits have disappeared. The automobile, to the contrary, has forged ahead taking away the erstwhile profitable traffic and leaving mass transportation to cope with the costly peak hour travel which becomes progressively more serious.

Whereas, due to reduced net earnings, it was impossible for transportation operations, in many instances, to obtain the necessary capital for expansion and preservation of their facilities, by joint effort, automobile users pooled their resources at high individual cost through state or other tax collecting agencies, and financed the construction of magnificent paved highways and elevated freeways in a network of traffic arteries of a magnitude and cost never dreamed of before the automobile. Any expenditure for improvement of facilities for mass transportation of passengers has had to come from the companies themselves and every dollar invested is an obligation that must be repaid, not out of public funds, but out of earnings.

During the past few decades, along with human progress has come a definite trend toward shorter working hours and the desire on behalf of a majority of the people to commence their working day at virtually the same time, and to conclude it within a very narrow time band. This has thrown upon the transit operators one of the burdens that has been responsible for forcing the industry to its financial knees. This condition is one that brings about much misunderstanding on behalf of the public generally as to the problems of the transpor-

tation companies. The large masses of people riding during the peak hours in the morning and in the evening observe cars and coaches that are filled with passengers. The individual passenger cannot understand how it can be possible with such loads for a company to be losing money. They fail to realize, however, that the vehicle on which they are riding may very likely, upon finishing that trip, be returned to the garage or carhouse to set there for the remainder of the day until that passenger is ready to go home at night. A large percentage of passenger-carrying equipment makes only one round trip per day in productive service, but the man who operates that vehicle must be paid for a full day's work. The investment in the equipment stands idle and non-productive during a large part of each day, when it could be in productive use if traffic were available.

Contrary to this situation, the individual who uses his private automobile looks out for his own convenience. If he finds that by leaving his home at a certain time in the morning he is confronted with intolerable traffic congestion, he shifts his time to an earlier start or a later one, thereby automatically spreading out the peak. He will do that when it is the result of his own will. However, the same person, if when using mass transportation, finds it difficult to board a vehicle at the time he wishes to travel, he condemns the company, but will not submit willingly to a change in his hour of departure. Mass transportation naturally does not possess the advantage of speed that are available by use of private transportation. It is an inherent part of the industry that stops must be made to pick up and discharge passengers.

Upon the basis of the average occupancy of automobiles using the streets and highways of California, which is the surprisingly low figure of about $1\frac{1}{2}$ passengers per car, one motor coach will carry the same number of persons seated that 30 automobiles will carry, and with a reasonable standing load, will equal 40 automobiles. This is an important consideration when weighing the merits of objection to use of the highways and streets by motor coaches. No objection is ever raised to the increased number of automobiles and trucks on the street, as they increase in volume more roadways are constructed to accommodate them, apparently without any upper limit. Weighed upon their relative merits, persons using mass transit vehicles should be accorded greater consideration than those traveling in private automobiles, as the former makes by far the greater and more effective use of public streets.

RAIL RAPID TRANSIT

Another faction of the proponents for preservation of existing passenger rail lines is motivated in its endeavors by the desire to create a Metropolitan Rail Rapid Transit System to be operated by a duly constituted Transportation District. It is this group that brings to bear the greater amount of opposition to the proposed replacement of existing non-profitable passenger rail lines by profitable motor coach operations. They insist that development of a publicly owned Rail Rapid Transit System is largely dependent upon preservation of existing tracks and rights-of-way of Pacific Electric Railway Company.

It is true that the rail lines of the Company were originally laid out in such fashion as to provide the most beneficial and effective coverage of the area from a transportation point of view. At least it must be conceded that the Company did exercise judicious foresight in its early engineering of facilities to meet future requirements. This fact alone, however, cannot be

construed as an obligation upon the Company to preserve these rail lines indefinitely at heavy financial losses to itself for the benefit of the public, to the extent that they may ultimately be considered desirable for incorporation into a publicly owned Rail Rapid Transit Program, if such should ever develop. There is absolutely no connection between the two from the point of view of the real equities involved.

It has been to a large extent due to the preliminary negotiations toward development of a Metropolitan Rail Rapid Transit District that Pacific Electric has deferred action in connection with a modernization program. The Company management has been most receptive throughout the development of this plan to the ultimate advantages it might bring and has actively participated to the extent of contributing substantially of both funds and manpower in an effort to promote and expedite this project which it considered to be in the interest of the general public, despite the inevitable adverse effect it might have upon Pacific Electric.

Action in connection with the formation of the Rail Rapid Transit District commenced more than five years ago. Much time and effort was exerted by many influential persons, businesses, public agencies and civic groups to the development of a framework that could be placed before the people for their support. Draft of an enabling act was prepared and submitted for consideration of the State Legislature in 1948. It was the hope at that time that the matter could be brought to a sufficiently quick conslusion to permit incorporation of certain of the rapid transit lines in the system of automotive freeways contemplated for immediate construction by the State of California. The Legislature did not act upon the proposal. Subsequently the matter has been reconsidered, reviewed and modified by its proponents, but at this time there is nothing concrete in the way of a program that goes beyond the stage of speculatiion.

There is no assurance whatever that, even if the enabling act is passed, the District formed and a plan prepared, that it will be favorably acted upon by the people. To the contrary, there is evidence of much opposition to the plan on the part of certain of the cities that would be included within the District. Unanimity of thought and desire is difficult of accomplishment in any enterprise that involves so many communities with such diversity of interests. Even if the way were paved completely so that immediate action could be started toward ultimate construction of a Rail Rapid Transit System, it would require a period of from ten to twelve years before it could be finally put into operation. Within that length of time it is easily conceivable that Pacific Electric Railway Company, if forced to continue its passenger rail service for incorporation in the Rail Rapid Transit Program, could have become extinct by the date of completion.

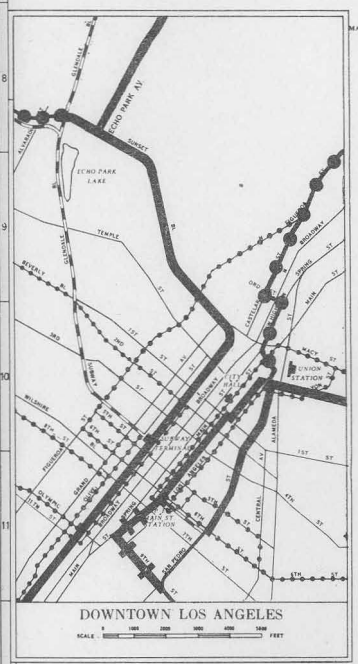
The argument that the Company should preserve its rail lines in expectation of their possible need in this proposed publicly owned project, at its own expense, and together with continuing annual losses from operation, cannot be defended upon any basis of the rights of free enterprise or the legal obligations of a public utility operation.

The time has long since passed when the Company should have proceeded independently upon a course designed to insure its own financial future. It cannot wait longer upon final development of the Metropolitan Rail Rapid Transit System.

ARTHUR C. JENKINS

Pacific Electric Railway Company

MAP SHOWING PASSENGER RAIL LINES PROPOSED FOR REPLACEMENT BY MOTOR COACH SERVICE AND OTHER CHANGES



LEGEND

- Rail Lines - Passenger and Freight - to be continued
- Rail Lines - Passenger Only - to be continued
- Rail Lines - Freight Only - to be continued
- Motor Coach Lines - to be continued
- Proposed Motor Coach Lines To Be Established in Lieu of Present Rail Passenger Service. Exception: On Venice Blvd. between Vineyard and downtown Los Angeles, proposed motor coach line would not handle local passengers.
- Proposed Additional Motor Coach Lines
- Proposed Motor Coach Line Discontinuance
- Proposed Rail Passenger Service Discontinuance, without bus service substitution
- Proposed Rail Line - Freight Only
- Proposed Freight Rail Line Abandonment

PACIFIC ELECTRIC RAIL LINES MOTOR COACH

SCALE IN MILES

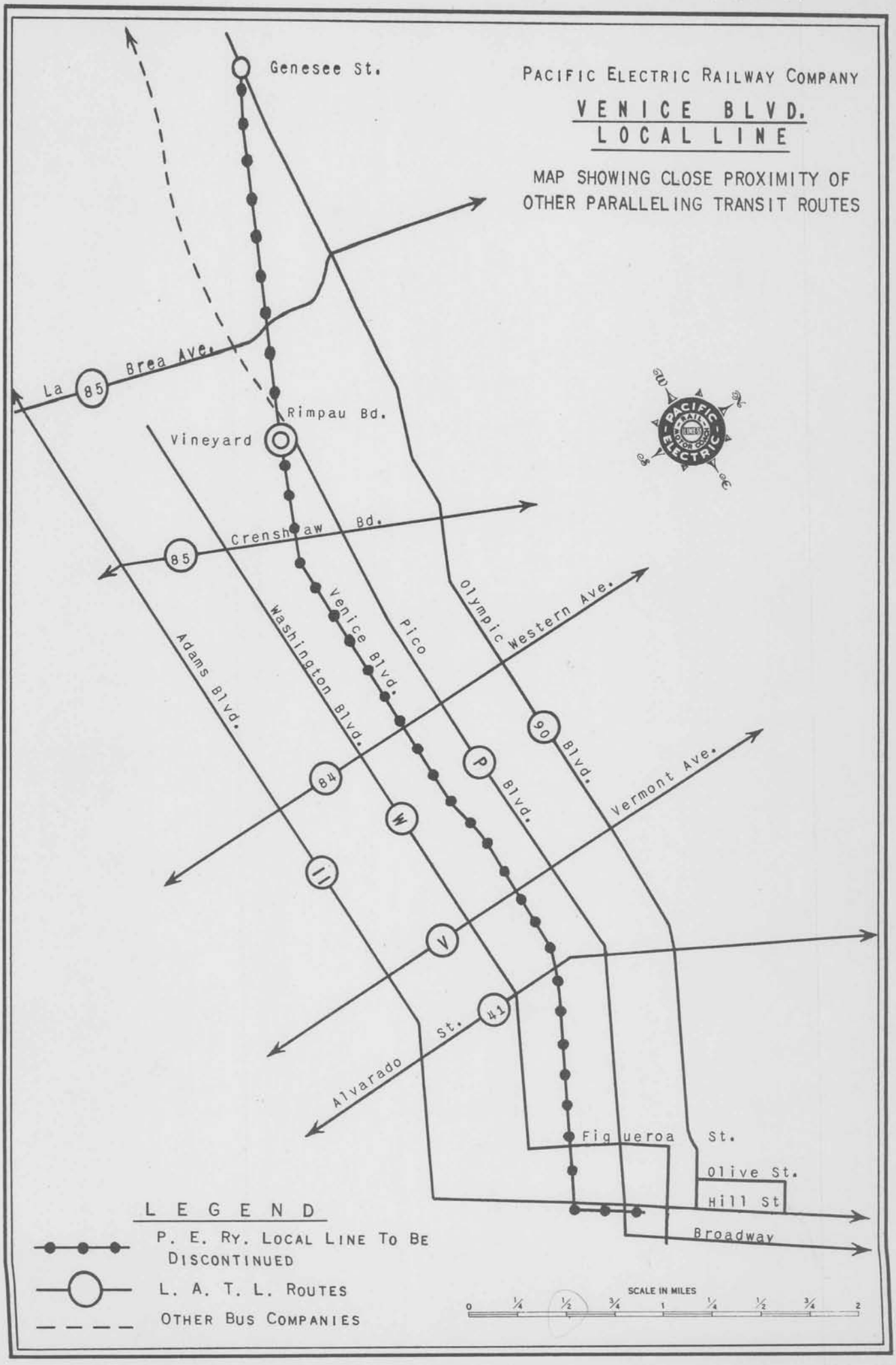
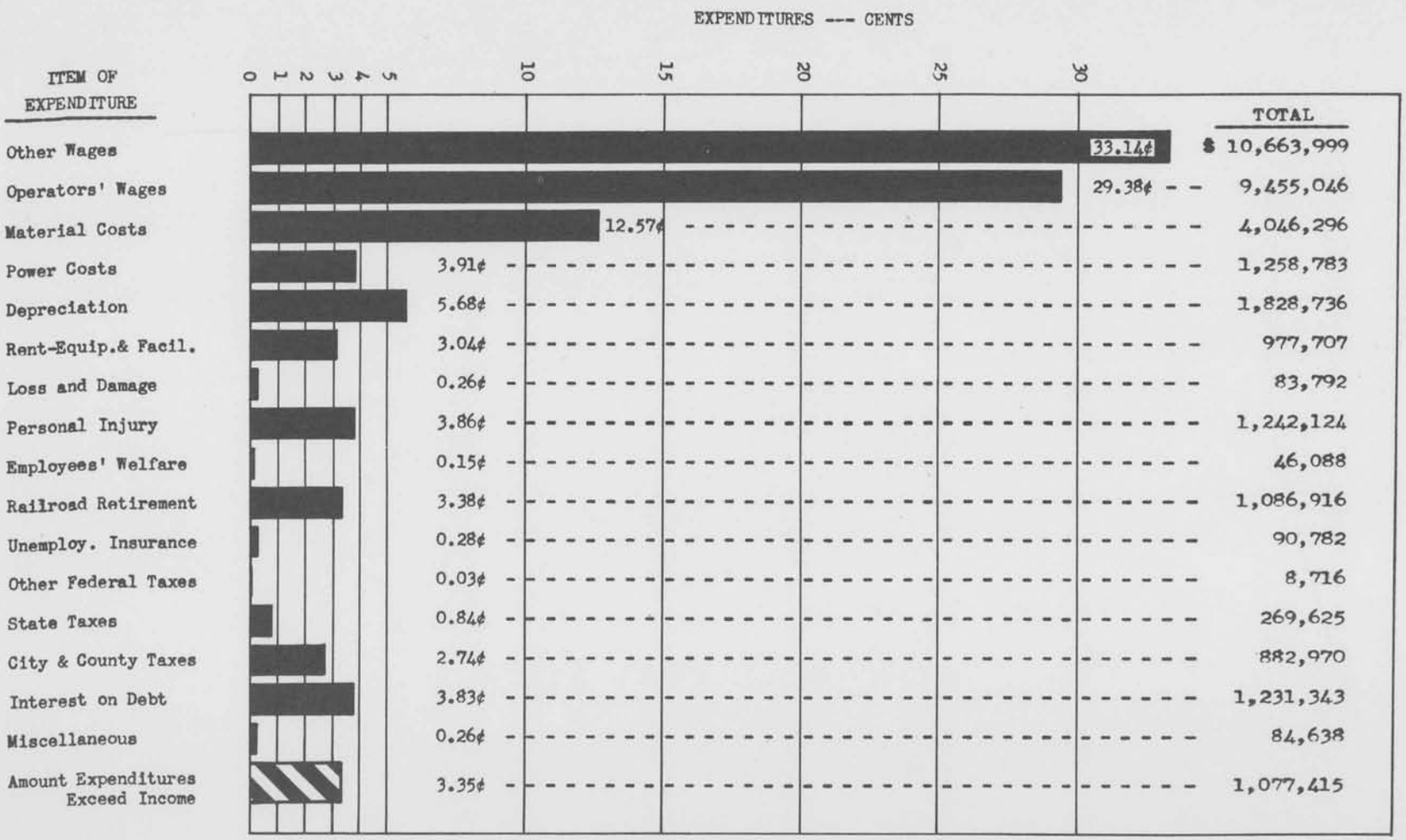

Genesee St.
PACIFIC ELECTRIC RAILWAY COMPANY
VENICE BLVD.
LOCAL LINE
MAP SHOWING CLOSE PROXIMITY OF
OTHER PARALLELING TRANSIT ROUTES
La
85
Brea Ave.
Rimpau Bd.
Vineyard
Crenshaw Bd.
85
Venice Blvd.
Washington Blvd.
Adams Blvd.
Pico
Olympic
Western Ave.
90
Blvd.
P
Blvd.
84
W
11
Vermont Ave.
V
41
St.
Alvarado
Figueroa St.
Olive St.
Hill St
Broadway
PACIFIC ELECTRIC
LEGEND
P. E. RY. LOCAL LINE TO BE DISCONTINUED
L. A. T. L. ROUTES
OTHER BUS COMPANIES
SCALE IN MILES
0 1/4 1/2 3/4 1 1/4 1/2 3/4 2

CHART III

Pacific Electric Railway Company

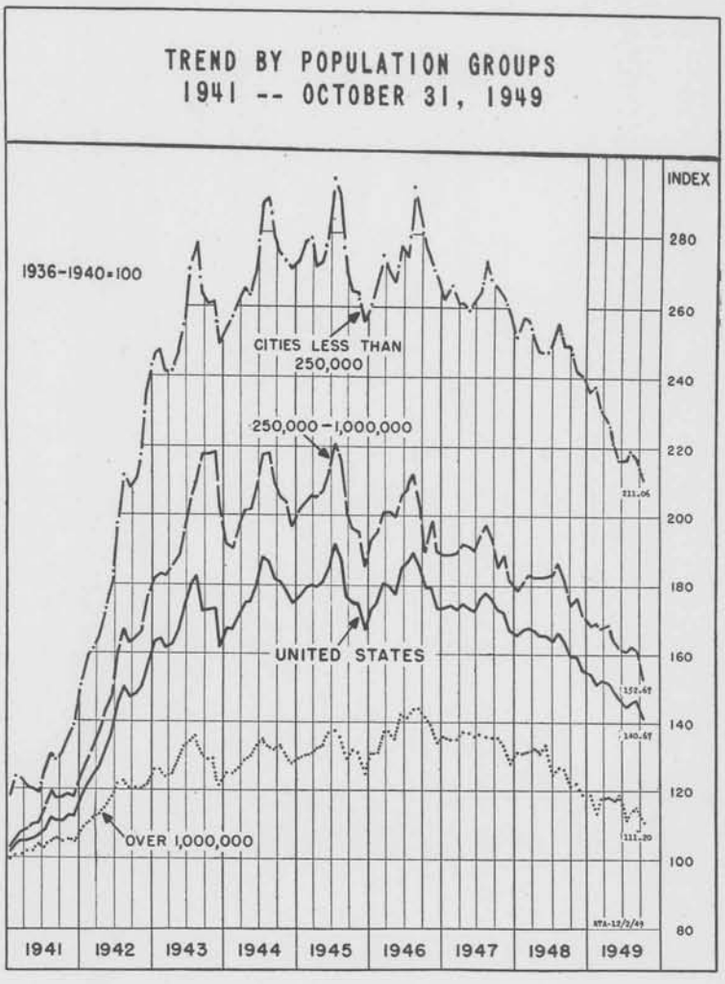
EXPENDITURES PER DOLLAR OF REVENUE AND TOTAL EXPENDITURES BY CLASS OF EXPENSE

12 MONTHS ENDING OCTOBER 31, 1949



ITEM OF EXPENDITURE		TOTAL
Other Wages	33.14¢	$ 10,663,999
Operators' Wages	29.38¢	9,455,046
Material Costs	12.57¢	4,046,296
Power Costs	3.91¢	1,258,783
Depreciation	5.68¢	1,828,736
Rent-Equip.& Facil.	3.04¢	977,707
Loss and Damage	0.26¢	83,792
Personal Injury	3.86¢	1,242,124
Employees' Welfare	0.15¢	46,088
Railroad Retirement	3.38¢	1,086,916
Unemploy. Insurance	0.28¢	90,782
Other Federal Taxes	0.03¢	8,716
State Taxes	0.84¢	269,625
City & County Taxes	2.74¢	882,970
Interest on Debt	3.83¢	1,231,343
Miscellaneous	0.26¢	84,638
Amount Expenditures Exceed Income	3.35¢	1,077,415

NATIONAL TREND OF PASSENGER TRAFFIC
TRANSIT INDUSTRY

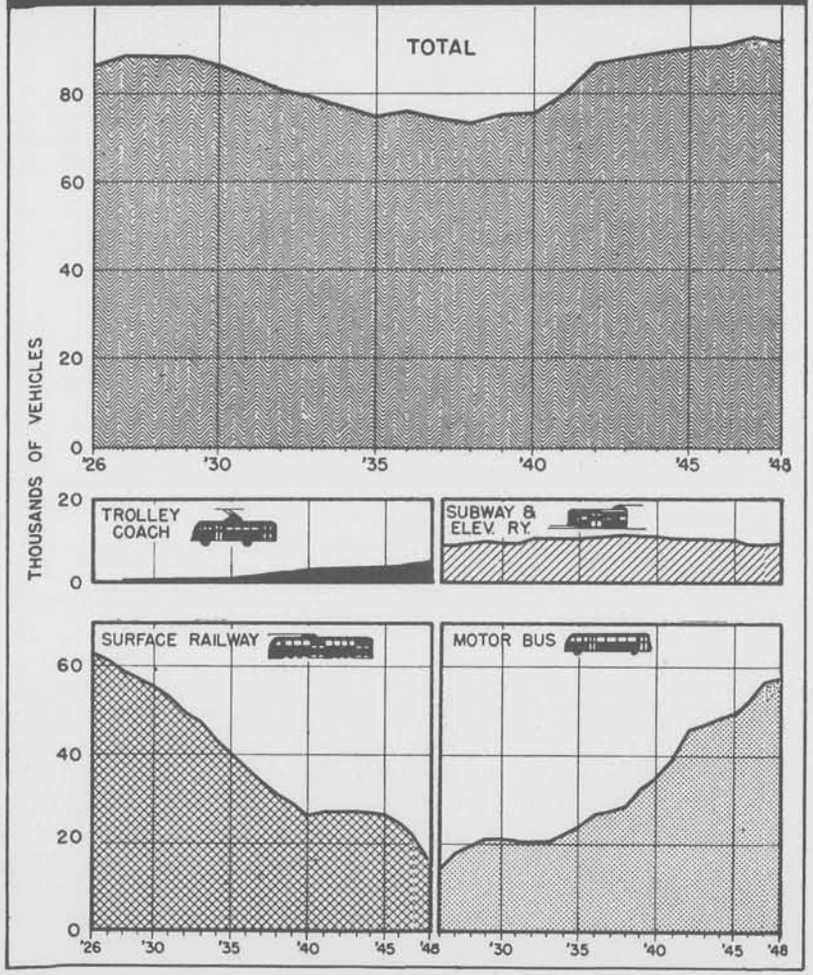


TOTAL PASSENGERS CARRIED ON TRANSIT LINES OF THE UNITED STATES IN OCTOBER 1949, AND DURING THE TEN MONTHS ENDED OCTOBER 31, 1949

Population Group	October		10 Months Ended 10/31/49	
	1949 (Thous.)	% Change	1949 (Thous.)	% Change
Cities over 1,000,000	601,511	— 8.70	6,072,057	—10.84
500,000—1,000,000	238,154	—12.44	2,442,232	—10.07
250,000— 500,000	233,292	—12.48	2,466,647	—10.18
100,000— 250,000	177,159	—15.43	1,812,969	—12.48
50,000— 100,000	141,983	—14.93	1,474,932	—10.49
Less than 50,000	73,465	—16.05	746,099	—11.20
TOTAL ALL CITIES	1,465,564	—11.78	15,014,936	—10.79
SUBURBAN AND OTHER	87,682	—14.23	877,815	—10.50
GRAND TOTAL	1,553,246	—11.92	15,892,751	—10.78

NATIONAL TRENDS IN PASSENGER TRANSIT

TREND OF TRANSIT PASSENGER VEHICLES OWNED



PERCENTAGE CHANGE IN 1948 TRANSIT TRAFFIC BY POPULATION GROUPS

TRANSIT GROUP	PERCENTAGE DECREASE: 1947-1948 %
SUBWAY & ELEVATED	5.44
SURFACE LINES: *POPULATION GROUPS*	
OVER 1,000,000	5.38
500,000–1,000,000	4.34
250,000–500,000	5.26
100,000–250,000	6.30
50,000–100,000	4.68
LESS THAN 50,000	2.31
SUBURBAN & OTHER	6.91
UNITED STATES	5.20

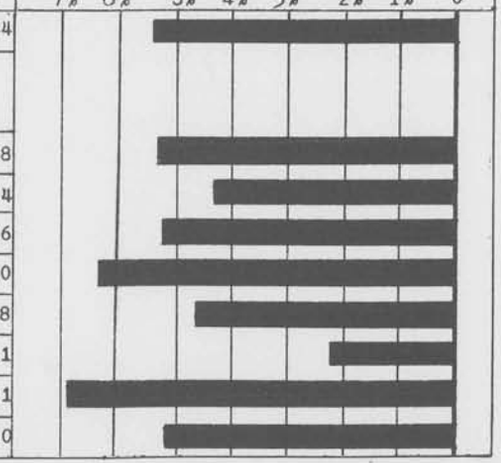


Chart V

Pacific Electric Railway Company

SUMMARY OF ESTIMATED ANNUAL FINANCIAL RESULTS FROM PRESENT AND PROPOSED OPERATIONS

PRESENT OPERATIONS

ITEM	LINES	REVENUES	EXPENSES & TAXES	NET	UNITS INCL. SPARES (M.C.)	UNITS INCL. SPARES (Rail)
	(1)	(2)	(3)	(4)	(5)	(6)
	NORTHERN DISTRICT LINES					
1	Pasadena via Oak Knoll and Pasadena Short Line (Rail)	$ 797,218	$ 978,154	$(180,936)	-	35
2	Monrovia-Glendora (Rail)	481,059	774,801	(293,742)	-	20
3	Sierra Madre (Rail and M.C.)	105,105	169,723	(64,618)	1	8
4	Sierra Vista (Rail)	332,729	485,087	(152,358)	-	16
5	El Monte-Baldwin Park (Rail)	342,694	624,464	(281,770)	-	22
6	Total-Northern District Lines	$2,058,805	$3,032,229	$(973,424)	1	101
	SOUTHERN DISTRICT LINES					
7	L.A.-Santa Ana (Rail)	$472,622	$ 676,701	$(204,079)	-	18
8	L.A.-Newport Beach (Rail)	24,129	45,696	(21,567)	-	3
9	Total-Southern District Lines	$496,751	$ 722,397	$(225,646)	-	21
	WESTERN DISTRICT LINES					
10	Venice Short Line (Rail)	$ 779,720	$ 973,626	$(193,906)	-	42
11	L.A.-Santa Monica (M.C.)	899,922	872,338	27,584	53	-
12	Subway-Santa Monica Blvd.-West Hollywood-Van Nuys (Rail)	1,133,808	1,390,306	(256,498)	-	44
13	Subway-Hollywood Blvd.-San Vicente-Echo Park (Rail)	1,766,851	1,944,629	(177,778)	-	80
14	Hollywood-Ventura Blvd. (M.C.)	223,632	235,589	(11,957)	10	-
15	L.A.-No. Hollywood-Van Nuys via Riverside Dr. (M.C.)	238,642	317,991	(79,349)	20	-
16	Total-Western District Lines	$5,042,575	$5,734,479	$(691,904)	83	166
17	TOTAL - PRESENT OPERATIONS	$7,598,131	$9,489,105	$(1,890,974)	84	288

PROPOSED OPERATIONS

ITEM	LINES	REVENUES	EXPENSES & TAXES	NET	UNITS INCL. SPARES (M.C.)	UNITS INCL. SPARES (Rail)
	(7)	(8)	(9)	(10)	(11)	(12)
	NORTHERN DISTRICT LINES					
1	Pasadena via Oak Knoll and Pasadena Short Line (M.C.)	$ 738,352	$ 541,856	$196,496	27	-
2	Monrovia-Glendora (M.C.)	539,925	466,476	73,449	24	-
3	Sierra Madre (M.C.)	105,105	108,388	(3,283)	8	-
4	Sierra Vista (M.C.)	332,729	331,824	905	19	-
5	El Monte-Baldwin Park (M.C.)	325,876	301,785	24,091	23	-
6	Total-Northern District Lines	$2,041,987	$1,750,329	$291,658	101	-
	SOUTHERN DISTRICT LINES					
7	L.A.-Santa Ana #(M.C.)	$ 46,611	$ 44,532	$ 2,079	3	-
8	L.A.-Newport-Balboa #(M.C.)	21,670	29,932	(8,262)	3	-
9	Total-Southern District Lines	$ 68,281	$ 74,464	$ (6,183)	6	-
	WESTERN DISTRICT LINES					
10	Venice Short Line - Santa Monica, combined (M.C.)	$1,679,642	$ 1,532,836	$146,806	61	-
11	Subway-Santa Monica Blvd.-West Hollywood-North Hollywood (Rail)	900,694	897,617	3,077	-	35
12	Subway-Hollywood Blvd.-Beverly Hills (Rail)	999,772	951,964	47,808	-	40
13	Echo Park Avenue (M.C.)	178,647	174,265	4,382	12	-
14	Hollywood-Ventura Blvd. #(M.C.)	295,654	288,427	7,227	13	-
15	L.A.-No. Hollywood-Van Nuys via Riverside Dr. #(M.C.)	417,797	473,487	(55,690)	27	-
16	Hill St.-Sunset Blvd. (M.C.)	462,893	463,294	(401)	25	-
17	Total-Western District Lines	$4,935,099	$4,781,890	153,209	158	75
18	TOTAL - PROPOSED OPERATIONS	$7,045,367	$6,606,683	$438,684	265	75

- Additional service proposed on present motor coach lines
( ) - Indicates RED figures

TABLE I

TABLE II

Pacific Electric Railway Company

STATEMENT OF INVESTMENT AND REMOVAL COSTS AS RELATING ONLY TO THOSE LINES INCLUDED IN MODERNIZATION PROGRAM AS PROPOSED

		PRESENT OPERATIONS CONTINUED WITH ALL NEW RAIL EQUIPMENT			
	LINES	TRACK REHABILITATION	NEW CONSTRUCTION	EQUIPMENT	TOTAL
	(1)	(2)	(3)	(4)	(5)
1	Northern District	$2,796,584	$2,516,000	$ 4,040,000	$ 9,352,584
2	Southern District	621,000	476,000	920,000	2,017,000
3	Western District	3,448,410	101,800	6,960,000	10,510,210
4	Total	$6,865,994	$3,093,800	$11,920,000	$21,879,794

		PRESENT OPERATIONS CONTINUED WITH ONLY SUFFICIENT NEW RAIL EQUIPMENT TO REPLACE WOODEN-BODIED CARS			
	LINES	TRACK REHABILITATION	NEW CONSTRUCTION	EQUIPMENT	TOTAL
	(1)	(2)	(3)	(4)	(5)
5	Northern District	$2,796,584	$2,516,000	$ -	$ 5,312,584
6	Southern District	621,000	476,000	-	1,097,000
7	Western District	3,448,410	101,800	1,280,000	4,830,210
8	Total	$6,865,994	$3,093,800	$ 1,280,000	$11,239,794

9 Note: Equipment requirements eliminated amount to:

Northern District	$ 4,040,000
Southern District	920,000
Western District	5,680,000
	$10,640,000

		OPERATIONS AS PROPOSED IN MODERNIZATION PROGRAM				
	LINES	TRACK REHABILI-TATION	NET COST TO REMOVE TRACK	NEW CONSTRUC-TION	EQUIPMENT	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)
10	Northern District	-	$ 257,770	$625,000	$1,818,000	$2,700,770
11	Southern District	-	-	15,000	108,000	123,000
12	Western District	$954,589	198,965	86,000	981,000	2,220,554
13	Total	$954,589	$456,735	$726,000	$2,907,000	$5,044,324

TABLE V

Pacific Electric Railway Company

OPERATING REVENUE AND EXPENSES-SYSTEM

YEAR	PASSENGER: RAIL	PASSENGER: MOTOR COACH	FREIGHT	P.E.BLDG.	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)
OPERATING REVENUE					
1936	$ 5,959,758	$ 1,457,492	$ 3,119,809	$ 420,100	$10,957,159
1937	6,259,464	1,733,326	3,167,289	488,860	11,648,939
1938	5,844,360	1,755,555	2,946,742	514,822	11,061,479
1939	5,578,642	2,077,712	3,202,159	436,948	11,295,461
1940	4,945,392	2,945,976	3,742,119	429,798	12,063,285
1941	5,184,978	3,062,588	4,744,832	430,716	13,423,114
1942	7,012,345	5,087,734	7,460,965	190,066	19,751,110
1943	10,971,107	7,695,656	12,901,733	228,429	31,796,925
1944	13,036,792	9,510,449	14,100,049	239,629	36,886,919
1945	13,629,263	9,784,055	12,738,614	260,023	36,411,955
1946	12,740,051	9,592,750	9,749,173	269,197	32,351,171
1947	11,261,629	9,952,222	12,259,809	324,825	33,798,485
1948	11,001,541	10,552,172	12,374,910	384,840	34,313,463
1949*	9,918,322	9,832,288	11,628,419	376,996	31,756,025
OPERATING EXPENSES (Excluding Taxes Assignable to Operations)					
1936	$ 6,299,484	$ 1,407,029	$ 2,121,295	$ 304,235	$10,132,043
1937	6,839,724	1,604,135	2,308,837	415,999	11,168,695
1938	6,664,236	1,588,446	2,071,552	350,212	10,674,446
1939	6,353,178	1,836,460	2,095,049	420,016	10,704,703
1940	6,040,756	2,395,745	2,206,178	433,320	11,075,999
1941	5,857,358	2,459,106	3,015,087	415,551	11,747,102
1942	6,873,607	3,459,382	4,515,347	112,147	14,960,483
1943	9,483,474	5,060,717	7,823,138	124,266	22,491,595
1944	11,618,939	6,571,442	9,709,719	153,733	28,053,833
1945	13,213,647	8,460,309	10,921,522	205,008	32,800,486
1946	14,256,266	8,162,374	9,268,200	239,481	31,926,321
1947	13,596,142	8,545,552	9,449,812	184,253	31,775,759
1948	12,553,809	9,355,355	8,970,593	144,286	31,024,043
1949*	11,529,667	9,241,035	8,719,067	148,990	29,638,759
TAXES ASSIGNABLE TO OPERATIONS					
1936	$ 598,863	$ 49,153	$ 162,610	$ 32,232	$ 842,858
1937	805,226	71,846	249,851	41,283	1,168,206
1938	857,023	87,239	217,778	51,498	1,213,538
1939	827,791	103,950	207,717	60,290	1,199,748
1940	761,408	175,922	250,447	64,220	1,251,996
1941	642,914	167,092	325,300	60,230	1,195,536
1942	519,748	251,308	551,493	20,980	1,343,530
1943	676,986	478,175	670,741	19,088	1,844,990
1944	1,078,745	1,641,198	2,656,880	35,749	5,412,572
1945	837,935	553,921	655,760	16,024	2,063,639
1946	652,271	(130,875)	(593,026)	10,865	(60,764)
1947	1,091,675	774,358	958,450	35,850	2,860,333
1948	811,253	807,533	762,690	29,339	2,410,816
1949*	762,126	770,176	776,598	30,110	2,339,010

* 12 Months ending October 31, 1949
(LOSS)

TABLE VI

Pacific Electric Railway Company

PASSENGER STATISTICS

YEAR (1)	RAIL NUMBER (2)	RAIL % INCR. (3)	MOTOR COACH NUMBER (4)	MOTOR COACH % INCR. (5)	TOTAL NUMBER (6)	TOTAL % INCR. (7)
1936	59,756,955	-	20,815,802	-	80,572,757	-
1937	60,304,692	0.92	24,584,814	18.11	84,889,506	5.36
1938	53,598,263	(11.12)	24,666,277	0.33	78,264,540	(7.80)
1939	49,773,804	(7.13)	25,691,496	4.16	75,465,300	(3.58)
1940	48,071,234	(3.42)	31,768,416	23.65	79,839,650	5.80
1941	49,464,879	2.89	28,301,345	(10.91)	77,766,224	(2.60)
1942	60,324,100	21.95	38,841,645	37.24	99,165,745	27.52
1943	84,071,038	39.37	53,333,938	37.31	137,404,976	38.56
1944	104,124,721	23.85	64,302,382	20.57	168,427,103	22.58
1945	109,103,535	4.78	68,719,273	6.87	177,822,808	5.58
1946	103,081,715	(5.84)	71,001,117	3.32	174,082,832	(2.10)
1947	90,369,385	(12.33)	73,038,753	2.87	163,408,138	(6.13)
1948	75,280,914	(16.70)	68,639,730	(6.02)	143,920,644	(11.93)
1949*	67,890,477	(8.90)	60,378,005	(12.04)	128,268,482	(10.88)

VEHICLE MILES

YEAR (1)	RAIL NUMBER (2)	RAIL % INCREASE (3)	MOTOR COACH NUMBER (4)	MOTOR COACH % INCREASE (5)
1936	18,276,962	-	7,569,772	-
1937	18,299,843	0.13	8,308,072	9.75
1938	16,571,868	(9.44)	8,113,729	(2.34)
1939	15,554,208	(6.14)	9,287,231	14.46
1940	13,486,593	(15.33)	13,515,593	45.53
1941	11,834,791	(12.25)	12,196,202	(9.76)
1942	12,778,267	7.97	13,854,560	13.60
1943	17,147,747	34.19	16,501,342	19.10
1944	18,887,729	10.15	18,441,759	11.76
1945	19,424,202	2.84	19,145,839	3.82
1946	17,979,187	(7.44)	19,504,188	1.87
1947	15,765,586	(12.31)	20,366,301	4.42
1948	14,538,444	(7.78)	20,945,078	2.84
1949*	13,245,041	(9.82)	20,429,824	(2.46)

* 12 months ending October 31, 1949.

(LOSS)

TABLE VII

Pacific Electric Railway Company

TOTAL TRANSIT PASSENGERS IN THE UNITED STATES BY

TYPES OF SERVICE---1922 - 1948

CALENDAR YEAR	RAILWAY			TROLLEY COACH	MOTOR COACH	GRAND TOTAL
	SURFACE	SUBWAY & ELEVATED	TOTAL			
	(Millions)	(Millions)	(Millions)	(Millions)	(Millions)	(Millions)
1922	13,389	1,942	15,331	.....	404	15,735
1923	13,569	2,081	15,650	.....	661	16,311
1924	13,105	2,207	15,312	.....	989	16,301
1925	12,903	2,264	15,167	.....	1,484	16,651
1926	12,875	2,350	15,225	.....	2,009	17,234
1927	12,450	2,451	14,901	.....	2,300	17,201
1928	12,026	2,492	14,518	3	2,468	16,989
%	71	15	86	.....	14	100
1929	11,787	2,571	14,358	5	2,622	16,985
1930	10,513	2,559	13,072	16	2,479	15,567
1931	9,175	2,408	11,583	28	2,313	13,924
1932	7,648	2,204	9,852	37	2,136	12,025
1933	7,074	2,133	9,207	45	2,075	11,327
1934	7,394	2,206	9,600	68	2,370	12,038
1935	7,276	2,236	9,512	96	2,618	12,226
1936	7,501	2,323	9,824	143	3,179	13,146
1937	7,161	2,307	9,468	289	3,489	13,246
1938	6,545	2,236	8,781	389	3,475	12,645
%	52	17	69	3	28	100
1939	6,171	2,368	8,539	445	3,853	12,837
1940	5,943	2,382	8,325	534	4,239	13,098
1941	6,081	2,421	8,502	652	4,931	14,085
1942	7,290	2,566	9,856	899	7,245	18,000
1943	9,150	2,656	11,806	1,175	9,019	22,000
1944	9,516	2,621	12,137	1,234	9,646	23,017
1945	9,426	2,698	12,124	1,244	9,886	23,254
1946	9,027	2,835	11,862	1,311	10,199	23,372
1947	8,096	2,756	10,852	1,356	10,332	22,540
1948	6,506	2,606	9,112	1,528	10,728	21,368
%	31	12	43	7	50	100

TABLE VIII

Pacific Electric Railway Company

TRENDS OF PASSENGER EQUIPMENT IN THE UNITED STATES 1926-1948

CALENDAR YEAR	RAILWAY CARS: SURFACE	RAILWAY CARS: SUBWAY AND ELEVATED	RAILWAY CARS: TOTAL	TROLLEY COACH	MOTOR COACH	GRAND TOTAL
1926	62,857	8,909	71,766	.....	14,400	86,166
1927	61,379	8,957	70,336	.....	18,000	88,336
1928	58,940	9,611	68,551	41	19,700	88,292
%	66	11	78	.....	22	100
1929	56,980	9,983	66,963	57	21,100	88,120
1930	55,150	9,640	64,790	173	21,300	86,263
1931	53,120	9,638	62,758	225	20,700	83,683
1932	49,500	10,434	59,934	269	20,200	80,403
1933	47,700	10,424	58,124	310	20,200	78,634
1934	43,700	10,418	54,118	441	22,200	76,759
1935	40,050	10,416	50,466	578	23,800	74,844
1936	37,180	10,923	48,103	1,136	26,800	76,039
1937	34,180	11,032	45,212	1,655	27,500	74,367
1938	31,400	11,205	42,605	2,032	28,500	73,137
%	43	15	58	3	39	100
1939	29,320	11,052	40,372	2,184	32,600	75,156
1940	26,630	11,032	37,662	2,802	35,000	75,464
1941	27,092	10,578	37,670	3,029	39,300	79,999
1942	27,230	10,278	37,508	3,385	46,000	86,893
1943	27,250	10,255	37,505	3,501	47,100	88,106
1944	27,180	10,105	37,285	3,561	48,400	89,246
1945	26,680	10,075	36,755	3,716	49,670	90,141
1946	24,730	9,232	33,962	3,916	52,450	90,328
1947	21,607	9,370	30,977	4,706	56,917	92,600
1948	17,911	9,456	27,367	5,708	58,540	91,615
%	20	10	30	6	64	100