

Decision No. 28871

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

In the Matter of the Application of
KEY SYSTEM, LTD., and KEY TERMINAL
RAILWAY, LTD., for a Certificate of
Public Convenience and Necessity to
operate an interurban railway service
between the City and County of San
Francisco and the East Bay over the
San Francisco-Oakland Bay Bridge, and
for authority to Key System, Ltd. to
lease certain operative property to
Key Terminal Railway, Ltd.)

Amended
Application No. 19703.

In the Matter of Application of
INTERURBAN ELECTRIC RAILWAY COMPANY;

(a) For certificate of public convenience and necessity (1) for the operation of electric train service over the electric lines of Southern Pacific Company in Alameda County, under trackage rights, together with joint use of the ferries of said company between San Francisco and Oakland Pier; (2) for the acquisition and operation of the ferry line of Southern Pacific Company between San Francisco and Alameda Pier; (3) for the operation of electric train service over the transbay bridge under trackage rights upon the completion thereof ready for railroad operation thereover; and

(b) For authority to issue 20,000 shares of its capital stock;

and

Application of SOUTHERN PACIFIC COMPANY for authority (1) to discontinue electric passenger train service on its electric lines in the county above named; (2) for itself and its lessor to transfer its San Francisco - Alameda ferry line to Interurban Electric Railway Company; (3) to grant trackage rights to said company over said electric lines, and to grant to said company the right to jointly use the San Francisco - Oakland Pier ferry; (4) to lease part of its electric line equipment to said Interurban Electric Railway Company, and to sell the remainder of it to the California Toll Bridge Authority; (5) to cancel all tariffs for passenger fares and baggage charges between points on said electric lines and between San Francisco and points thereon; and (6) to acquire 20,000 shares of the capital stock of said Interurban Electric Railway Company.

ORIGINAL

Amended and Supplemental
Application No. 19704.

Frank S. Richards, for Applicant Key System, Ltd., and Key Terminal Railway, Ltd.

C. W. Durbrow and E. J. Foulds, for Applicant Interurban Electric Railway Company and Southern Pacific Company.

F. M. McAuliffe and Lloyd W. Dinkelspiel, for the California Toll Bridge Authority.

Edmond Scott, District Attorney of San Mateo County, Harry M. Wade and Paul A. McCarthy, for the Board of Supervisors of the County of San Mateo.

John J. O'Toole and Dion R. Holm, for the City and County of San Francisco.

F. B. Fernhoff, Walter W. Cooper and John F. Hassler, for the City of Oakland.

Fred C. Hutchinson and Collis R. Thompson, for the City of Berkeley.

Edwin G. Wilcox, for the Oakland Chamber of Commerce.

George E. Sheldon, for a group of Improvement Clubs in Alameda County.

Harold D. Weber and Irving E. Kahn, for the Down Town Property Owners Association of Oakland.

J. F. Brodie and George K. Whitworth, for the Federation of Improvement Clubs of San Mateo County.

H. Albert George, for the City of Alameda.

Chas. X. Newman, for the Lake Merritt Boosters Club.

N. D. Pritchett, for the Order of Railroad Telegraphers.

C. G. McLennon and W. F. Welt, for the Order of Railway Conductors.

G. F. Irvine and C. W. Moffatt, for the Brotherhood of Locomotive Firemen and Enginemen.

R. J. Brooks and Harry See, for the Brotherhood of Railroad Trainmen, in Application No. 19704.

Frank A. Gottstein, for Transportation Committee of the Tax Payers League of Alameda.

Sam Kagel and O. E. Rowan, for Amalgamated Association of Street and Electric Railway and Motor Coach Employees of America, Division 192, Oakland.

Sam Kagel, for National Organization of Masters, Mates and Pilots of America, Local No. 40 of San Francisco, and Marine Engineers' Beneficial Association No. 97 and Ferryboatmen's Union of the Pacific.

E. J. Carroll, for Central Council of Civic Clubs of San Francisco.

Chas. C. Boynton, for the Transbay League.

George W. Gearhart, for Civic League of Improvement Clubs and Associations of San Francisco.

H. Goldman, for the San Mateo County Federation of Improvement Clubs and Associations.

Claude Geneva, Pres., TeleGrove Improvement Club;

Walter D. Bunker, Pres. North Oakland Development Assn.

Harvey Blair, Pres. San Pablo Ave. Development Assn.

S. Victor Wagler, Pres. Highland Terrace Improvement Club.

Miss Pauline A. Strasburg, Pres. West Central Improvement Club.

C. C. Howard, Traffic Committee of the Tax Payers League of Alameda.

Wm. J. Locke and Samuel C. Wright, for Councilman Hans W. Roebke and Councilmen-Elect Bruce A. Munro and Chas. W. Broiles.

G. E. Duffy, for The Atchison, Topeka & Santa Fe Railway Company.

G. F. Irvine, for the Brotherhood of Railway Trainmen.

Chas. D. Wehr, Assistant District Attorney, and BURNETT HAMILTON, County Surveyor, for the County of Alameda.

L. N. Bradshaw, for the Western Pacific Railroad Company and Sacramento Northern Railway.

H. C. Lucas, for Pacific Greyhound Lines.

C. J. Simpson, for the Amalgamated Association of Street and Electric Railway Employes of America, National Organization of Masters, Mates and Pilots, Local No. 40, Marine Engineers' Beneficial Association, No. 97, and Ferryboat Men's Union of the Pacific.

James J. Chapman, Chairman Executive Council, East Bay Rapid Transit Association, and Administrative Director of California Polytaxpayers Conference, Incorporated.

Joseph A. Brown, for Central Council of Civic Clubs and Owners and Lessees Apartment House Association.

Mr. Fuetterer, for Taxpayers League of Alameda.

WARE, HARRIS and DEVLIN, Commissioners:

O P I N I O N

These consolidated proceedings involve the ultimate problem of mass transportation of interurban passengers by electrified trains over the great Bridge, construction of which is now nearing completion, across the waters of San Francisco Bay, via tunnel through Yerba Buena Island, and by means of which two centers of population, the City and County of San Francisco on the west with a population exceeding 650,000, and Oakland and neighboring Alameda County cities on the east with a population exceeding 500,000, shall hereafter be afforded a direct rail service.

The essence of these applications involves the right and responsibility of the Key System and Interurban Electric Railway Company to replace their senior and related companies in the transportation of interurban passengers over the existing facilities by rail and ferries, as hereinafter described, and until the completion of the Bridge rail facilities; and thereafter to abandon all their interurban passenger ferry services and to carry such passengers over the rails and facilities of the Bridge and the leased tracks of their senior and related transportation companies.

The proposed interim operation by Key System and Interurban Electric Railway Company pending the completion of the Bridge rail facilities, is wholly incidental to, and can only be justified by the ultimate abandonment of and change from the ferry boats, and the inauguration of a through rail service across the Bridge when completed. In appraising such an epochal transition from ferry boats to rails, we should first consider the existing physical facts and transportation facilities within this populous area.

PRESENT INTERURBAN PASSENGER OPERATIONS.

Transbay passenger service between San Francisco and cities located on the east shore of the Bay for years has been, and now is, performed by the electric railways and ferry boats of Southern Pacific Company and Key System. (1)

Southern Pacific Company

The present interurban services of Southern Pacific Company operate by ferry boats between the Ferry Building in San Francisco and Oakland Pier and Alameda Pier. From Oakland Pier there radiate three electric rail lines serving Oakland, Berkeley, Albany, and Emeryville and known respectively as: SEVENTH STREET LINE, BERKELEY LINE, and NINTH STREET LINE. From Alameda Pier Southern Pacific Company operates the ENCINAL AVENUE LINE, which serves the residential area throughout the south side of the City of Alameda, and the LINCOLN AVENUE LINE, which serves the residential and industrial areas throughout the north side of Alameda. In addition to these two lines there is operated daily one train each way during the peak hours between Alameda Pier and Dutton Avenue (North San Leandro) via City of Alameda and Fruitvale Bridge. This line serves that portion of Oakland between Fruitvale and the northerly city limits of San Leandro.

Key System

The present interurban services of the Key System operate by ferry boats between the Ferry Building in San Francisco and the Key System Pier from which point there radiate six electric rail lines serving Oakland, Berkeley, Piedmont, Emeryville, and Albany and

(1) Miles of Interurban electric rails in Alameda County and radiating from the bridgehead of the two applicant companies proposing herein to operate over the Bridge facilities are: Southern Pacific Company 90.31 miles; Key System 80.28 miles.

known respectively as SACRAMENTO STREET LINE, ALCATRAZ LINE, CLAREMONT LINE, PIEDMONT LINE, TWENTY-SECOND STREET LINE, and TWELFTH STREET LINE.

Southern Pacific Company and Key System operate through Oakland Pier and Key System Pier during the week days on a twenty minute headway, and during the evenings of said days on a forty minute headway. Through these same piers they operate on Sundays on a forty minute headway. The Southern Pacific service through Alameda Pier operates on a thirty minute headway during the week days, and on an hourly headway in the evenings and on Sundays.

Recent Service Changes.

During the course of the hearings in these matters, and in anticipation of the inauguration of electric railway service over the Bridge, there have been presented to this Commission in collateral proceedings several questions involving certain proposed changes in the service presently rendered by the existing carriers. These changes should here be noted, for they result in a desired improvement and enlargement of the transbay service, whether by ferry or by the Bridge Railway.

On February 7, 1935, Oakland Terminal Railroad Co. joined with Key System in filing Application No. 19822, wherein said applicants sought permission to enter into a lease of portions of the operative property of Oakland Terminal Railroad Co. to Key System. The principal object anticipated by such a lease was to combine the operation of the passenger electric railway (Oakland Terminal Railroad Co.) with the ferry service (Key System.)

Said lease provided that all the properties of the Oakland Terminal Railroad Co. except such as are solely used for the transportation of freight, be leased to the Key System. Lessor, however,

was not relieved by said lease of any lawful obligation in respect to the maintenance or operation of the said leased lines in the event said lease should be terminated; and further agreed to join in the creation of any necessary lien or charge upon the leased properties should additions and betterments thereto necessitate effecting such encumbrances.

By Decision No. 27770, issued by this Commission on February 25, 1935, authority was granted for the execution of said lease subject to the right of the Commission to rescind or modify said decision. Thereafter and on the 13th day of March, 1935 said applicants in Application No. 19882, supra, (being the same applicants in Application No. 19703) filed with the Commission a verified copy of the lease executed as authorized. ⁽²⁾

By these proceedings a single company, to-wit, Key System, engaged in no other business, has assumed entire control of the interurban transportation of passengers previously performed in a dual or joint capacity. This operation obviates the necessity of issuing joint tickets and schedules; eliminates need for segregation of revenues and expenses; and, being exclusively intrastate, the operator is now responsive to the single jurisdiction and regulation of this Commission.

A further salutary change has recently occurred affecting the service of the applicant carriers. On February 7, 1935 Key

(2) At a regular meeting of the board of directors of Key System, Ltd. Dec. 20, 1934, the six directors present unanimously voted the adoption of a resolution amending their Articles of Incorporation and thereby changing their corporate name to "Oakland Terminal Railroad Co."

Similarly on Dec. 20, 1934, the six directors present at their regular meeting unanimously voted the adoption of a resolution whereby the name of Key Terminal Railway, Ltd. was changed to Key System. (Hereafter in this Opinion we shall refer to the Key System, Ltd. as the Oakland Terminal Railroad Co., and shall refer to Key Terminal Railway, Ltd. as Key System.)

Certified copies of certificates of amendment to Articles of Incorporation affecting said changed corporate names were filed with the Commission in Application No. 19703 March 9, 1936.

System and Southern Pacific Company filed with this Commission applications for permission to file tariffs allowing optional routing of transbay commute tickets for an experimental period. This authority was granted by the Commission on February 18, 1935, with expiration date set at June 30, 1935. Subsequent and consecutive extensions of time have since been granted and such authority is now in effect until June 30, 1936. By the foregoing arrangement a holder of a commute book of one company may use it to travel on the other company's trains and boats. This interchange of commute tickets has long been desired by the traveling public and its institution has proven definitely in the public interest.

The most recent improvement to be offered the existing East Bay local and interurban service has been proposed by Key System in Application No. 20418 filed with this Commission on March 13, 1936, wherein Key System has proposed to maintain and operate in connection with its interurban service a motor coach service over the following described route in the City of Oakland:

From 12th and Jackson Streets, along 12th Street to Webster Street, along Webster Street to 19th Street, along 19th Street to Lakeside Drive, along Lakeside Drive to Madison Street, along Madison Street to 12th Street, and along 12th Street to the point of beginning.

Key System proposes to connect this service with its interurban electric railway facilities at 12th and Jackson Streets. It is further proposed that tariffs for said new service will be the same as the Key System tariffs now filed with the Commission, which include tariffs for the transportation of local passengers in connection with the service of "East Bay Street Railways, Ltd.," and the extension of the free transfer privilege to said local service.

This additional passenger service likewise has been desired by the traveling public and believing that the institution of the same is in the public interest, an order of this Commission authoriz-

ing its inauguration is issued by this Commission simultaneously with the making of the Order hereinafter set forth.

Interurban Electric Railway Company.

Shortly before the institution of these proceedings the Southern Pacific caused to be created its subsidiary company to-wit, Interurban Electric Railway Company (hereafter in this opinion called Interurban), under the laws of this State. This incorporation occurred to facilitate the plan of applicants in No. 19704 wherein it is proposed that the latter corporation shall acquire from its parent corporation: first, trackage rights for the operation of interurban passenger train service over all of the existing electric lines now operated by said parent company in Alameda County, as hereinbefore outlined, and, secondly, the ferry operation between San Francisco and Alameda Pier together with joint use with said Southern Pacific Company of ferry operations between San Francisco and Oakland Pier.

Said applicants propose that the Interurban shall replace its senior company in the transportation of interurban passengers over the existing facilities by rail and ferries. Upon the completion of the Bridge, said applicants propose the abandonment of said interurban passenger ferry services and simultaneously therewith the inauguration by the Interurban of through interurban passenger service between San Francisco and Alameda County cities over the rail and terminal facilities of the Bridge and the above specified leased tracks of Southern Pacific Company.

To accomplish the foregoing purpose, said applicants in No. 19704 have asked of this Commission in the instant proceeding, first, authority to enter into operating contracts with each other; secondly, authorization for the discontinuance by Southern Pacific Company of its present ferry-electric railway interurban passenger services;

thirdly, a certificate of public convenience and necessity permitting Interurban Electric Railway Company to resume performance of the services sought to be discontinued by Southern Pacific Company, and upon completion of the Bridge permitting the Interurban Electric Railway Company to abandon its ferry service and thereafter operate over the rail and terminal facilities of the Bridge and its electric lines in Alameda County a through rail interurban passenger service, as above outlined.

As a means of acquiring ownership by the Southern Pacific Company on the one hand, and operating capital by the Interurban Electric Railway Company on the other hand, these applicants have asked the authority of this Commission permitting the Interurban to issue and sell 20,000 non-par shares of its capital stock at \$10 per share.

THE BAY BRIDGE.

The present certainty of the San Francisco-Oakland Bay Bridge is the result of many years of public spirited planning and engineering effort. President Herbert Hoover and Governor C. C. Young focalized this stupendous undertaking, and a commission of their joint creation (3) known as the Hoover-Young San Francisco Bay Bridge Commission was

(3) The following constitutes the personnel of this historic Commission: Mark L. Requa, Chairman; George T. Cameron, Vice Chairman; Rear Admiral Luther E. Gregory, C.E.C., U.S.N. Ret'd.; Rear Admiral W. H. Standley, U.S.N.; Brigadier General G. B. Pillsbury, U.S.A.; Lieutenant Colonel E. L. Daley, U.S.A.; Senator Arthur H. Breed; Charles D. Marx; C. H. Purcell, Secretary.

It is noteworthy that C. H. Purcell, Secretary of said Commission, and State Highway Engineer, Division of Highways, Department of Public Works, State of California, has been Chief Engineer of the Bay Bridge from its conception. To him goes much of the credit of pioneering and achieving the flotation method of installing the caissons. To him also goes much of the credit of directing the various phases of this enterprise - the financing arrangements, the negotiations with the Cities upon either side of the Bay, and the design and building of a series of structures beyond precedent. This Bridge will stand as an immutable monument to the imagination, power and genius of California's Chief Engineer and his co-workers, all of whom are responsible for its creation.

convened at Sacramento, California, on October 7, 1929, and thereupon resolved:

"That the problem of this Commission is to endeavor to work out a solution of the State and interurban traffic needs between the counties of San Francisco and Alameda across San Francisco Bay, reconciling these with the needs of national defense and the national interests of navigation."⁽⁴⁾

In anticipation of this Bridge, and other bridges, the 1929 Legislature of California passed the Toll Bridge Act,⁽⁵⁾ which created the California Toll Bridge Authority, and which shall hereafter be referred to in this opinion as Authority.⁽⁶⁾ Said Authority was created for the express purpose of acquiring and operating toll bridges. It has the power to fix toll rates and issue bonds, which are to be secured only by tolls or other revenues from such toll bridge operations. It is required to collect such tolls until all bonds are fully redeemed and paid. In the exercise of these powers the

⁽⁴⁾ Quoted from Ex. 1, page 5. "Report of the Hoover-Young San Francisco Bay Bridge Commission."

⁽⁵⁾ The Toll Bridge Act provides that so long as bonds are outstanding other competitive bridges and ferries shall not be erected or maintained, with certain exceptions. The Authority may grant permits to and enter into contracts with steam, electric, bus, railroad and other transportation companies, public or private, for the use of any such toll bridge, and for the use of the transportation facilities thereof, upon such terms and conditions as may be mutually agreed upon.

However, such permit or contract shall not relieve any transportation company subject to the jurisdiction of the Railroad Commission from the duty of obtaining such certificate of public convenience and necessity as the law may require, nor from the duty of complying with every lawful order, rule or regulation of the Railroad Commission respecting such transportation service.

(Statutes 1929, chapter 763, as amended by Statutes 1931, chapter 401, Statutes 1933, chapter 10, and Statutes 1935, chapter 228. See Deering's General Laws, Act. 956.)

⁽⁶⁾ The Authority is composed of the Governor, Lieutenant Governor, Director of Public Works, Director of Department of Finance, and Chairman of the Highway Commission.

said Authority has caused the designing, engineering, and financing (7)
of the Bay Bridge.

The limitations of this Opinion will preclude anything approaching an adequate description of the design, construction, and functioning of this structure. It becomes appropriate, nevertheless, to make these general observations:

The San Francisco-Oakland Bay Bridge is a combination of reinforced concrete girder construction (including semi-arch construction), continuous steel construction, and twin suspension construction in the West Bay; tunnel construction through Yerba Buena Island; and a combination of deck truss construction, cantilever construction, through truss construction, in the East Bay.

There are two decks, the upper comprising six lanes for passenger automobile traffic; and the lower accommodating three lanes designed for motor truck traffic on the north side, and two lines of electric rail tracks on the south side. These same ample conditions continue through the Yerba Buena Island which necessitated the greatest single-bore highway tunnel in the world, being 76 feet wide, 58 feet high, and 540 feet long. The approaches and terminal on the San Francisco side will be constructed at a cost of approximately \$9,687,000, said approaches extending westerly to Fifth Street, and it is contemplated rail terminal being located between Minna and

(7) Authority has consummated the cost of this structure in the sum of \$61,400,000 by the sale of revenue bonds to the R. F. C. It now appears probable, as the result of the efficient construction of the Bridge, that a saving of over \$5,000,000 will be made from this amount. This saving together with an additional sale of revenue bonds to the R.F.C. for \$10,000,000 will provide \$15,000,000 necessitated for the construction of rail and terminal facilities involved in these applications. By appropriation, \$6,000,000 of state highway funds is being used for the construction of adequate highway approaches to the Bridge. It follows that the total cost of the project will be approximately \$78,000,000.

(8)

Natoma Streets, and Fremont and Second Streets.

(8) The following principal dimensions and quantities will emphasize this picture of the Bridge.

Length of Project.

San Francisco Terminal to San Francisco anchorage	4,200 feet
West Bay crossing	10,450 feet
Island section	2,950 feet
East Bay crossing to Toll Plaza	19,400 feet
Toll Plaza to Oakland Terminal	6,500 feet
Total	<u>43,500 feet = 8 1/4 miles.</u>

Quantities of Materials.

Structural steel	152,000 tons
Cable wire	18,000 tons
Reinforcing steel	17,000 tons
Concrete	1,000,000 cu. yds.
Cement	1,300,000 bbl.
Timber	30,000,000 F.B.M.
Paint	200,000 gal.

West Bay Crossing.

Height of 4 towers above water	465 to 505 feet
Depth of piers below water	100 to 210 feet
Height of center anchorage above water	301.5 feet
Length of center spans	2,310 feet
Length of side spans	1,160 feet
Clearances (vertical)	
Center of center span	200 feet
At center anchorage	216 feet
Number of cables	2
Number of wires in each cable	17,020
Diameter of each wire	0.195 in.
Total length of cable wire	68,950 miles
Total length of 2 1/4" suspender ropes	43 miles

East Bay Crossing.

Length of main span	1,400 feet
Clearance above high water	185 feet

The colossal center anchorage of steel and concrete between the twin suspension bridges and midway between San Francisco and Yerba Buena Island has a total height of 480 feet from bedrock to bridge floor, the equivalent of a 48-story building. This central anchorage standing in 70 feet of water goes from bedrock, which is 180 feet below high water, to 300 feet above high water.

NEGOTIATIONS OF AUTHORITY.

As the result of many months of consideration by the Authority on the one hand and the applicant carriers on the other hand, Oakland Terminal Railroad Co. and Key System⁽⁹⁾ filed Application No. 19703 with this Commission on the 16th day of November, 1934. Thereafter and on November 20, 1934, said applicants filed an amended application. On November 16, 1934, Interurban and Southern Pacific Company filed their Application No. 19704 with this Commission. On November 20, 1934, said last named carriers filed an amended application in No. 19704, and on March 6, 1936, they filed their amended and supplemental application therein.

All of these applications as filed emanated from the efforts of the Authority and applicant carriers to evolve a solution of the interurban traffic problem between San Francisco and Alameda County during the interval preceding and the era which will follow the completion of the Bay Bridge. Hearings upon these applications were held before this Commission in San Francisco November 27 and 28 and December 4, 5, 6 and 7, 1934.

Upon the conclusion of these six days of hearings this record shows that the Authority and applicants anticipated prompt consummation of their agreements, but instead they experienced, as subsequent testimony discloses, prolonged and arduous endeavors to perfect all of the terms of their covenants. It was not until the 18th day of February, 1936 that the said Authority, at a regular meeting of its members held in Sacramento, officially and unanimously resolved in favor of the making and execution of definite contracts with the applicant carriers.

(9) At the time said application was filed the Oakland Terminal Railroad Co. was called "Key System, Ltd.;" and the Key System was called "Key Terminal Railway, Ltd."

Being advised of these subsequent developments, this Commission on the 24th day of February, 1936, ordered that the tentative submission of these matters of December 7, 1934, be set aside, and further ordered the reopening of the instant applications before the Commission in San Francisco for further hearing on March 6, 1936.

Correspondingly the parties hereto appeared before the Commission on the date last mentioned and true and correct copies of two voluminous written agreements executed by the Authority and Key System, and Authority and Interurban were offered and received in evidence as Exhibits Nos. 30 and 31, respectively. ⁽¹⁰⁾

ISSUES AND EVIDENCE

This much having been accomplished by way of executed contracts between the Authority and the applicant carriers, first, a proposed agreement between Southern Pacific Company and related companies and Interurban respecting use of electric railway properties in Alameda County, California, and lease of certain electric railway rolling stock, was received in evidence as Exhibit No. 32, ⁽¹¹⁾ and secondly, a proposed agreement between Southern Pacific Company and Interurban respecting ferry boat service across San Francisco Bay during pre-Bridge period was received in evidence as Exhibit ⁽¹²⁾ No. 33.

⁽¹⁰⁾ Contract between Authority and Key System consists of 58 pages and Exhibits "A", "B", "C", "D", "E", "F", "H", "I", and "J". Contract between Authority and Interurban consists of 56 pages and Exhibits "A", "B", "C", "D", "E", "F", "G", and "K".

Certified copies of the official resolutions of the Authority approving and authorizing the execution of said agreements so received as Exhibits 30 and 31 were filed with this Commission March 17, 1936.

⁽¹¹⁾ Ex. No. 32 consists of an agreement of 65 pages, and voluminous Exhibits "A", "B", and "C" attached thereto and by reference made a part of said agreement.

⁽¹²⁾ Exhibit No. 33 consists of an agreement of 6 pages.

These last four Exhibits, Nos. 30 to 33, inclusive, contain all of the agreements governing the relations and obligations of and between the Authority and all of the carriers involved in these consolidated matters. Upon the conclusion of the hearing March 6, 1936, both applications were finally submitted and are now ready for the opinion and order of this Commission.

These are the main questions:

1. Should applicants be authorized by this Commission to enter into these four agreements?
2. Should Interurban be permitted by certificate of public convenience and necessity to replace its related companies in the transportation of interurban passengers over the existing facilities by rail and ferries, as hereinbefore described, and until the completion of the Bridge rail facilities?
3. Should applicants be permitted to abandon all ferry services after the completion of the Bridge Railway and thereafter be permitted, by certificates of public convenience and necessity, to carry interurban passengers over the rails and facilities of the Bridge and the leased tracks of their related transportation companies?
4. Should Interurban be authorized to issue and sell to its present company, Southern Pacific Company, certain shares of its non-par capital stock?

The evidence herein impels our affirmative answer to each and all of these four questions.

The opposition that developed during the course of these hearings was from four sources: First, certain interests protested rail transportation over the Bridge and argued that the public interest would be subserved best by the employment of auto buses. Rebutting these advocates of bus transportation Harrison S. Robinson, President
(13)
Advisory Finance Committee of Authority, testified:

(13) Harrison S. Robinson was appointed President Advisory Finance Committee of California Toll Bridge Authority by Governor James Rolph, Jr. in July 1932. Mr. Robinson was largely responsible for arranging the financing of this Bridge enterprise.

"That it is not practicable to carry the kinds of traffic with its peak loads that must be served between Alameda County and San Francisco by motor buses. We are also aware that the R.F.C. staffs have the same opinion."

"And, hence, it is important to the well-being of the San Francisco Bay area, including each of the counties surrounding that bay, that communication between them be made as safe, ⁽¹⁴⁾ convenient and swift and economical as it is practical to accomplish. The degree to which people in different parts of the San Francisco Bay area are able to contact with each other and to move back and forth to transact their business and their other affairs, is a prime factor in the development of a sound, well-balanced, economically successful metropolitan area, and because of those considerations I venture the opinion that the granting of the application here, or something approximating it, is of prime importance to the public interest, public necessity of this whole region."

This witness cited the Philadelphia-Camden bridge to illustrate one which was opened to traffic without rails, and which depended upon buses for mass movement of passengers. After a period of experimentation these bus operations proved inadequate and unsatisfactory and only recently efforts have been perfected for the financing of rail facilities upon said bridge thereby solving the problem of mass transportation between these two large centers of population.

The overwhelming evidence of public witnesses who testified sustains the Authority's conclusion favoring rails.

Edwin G. Wilcox, as Attorney and Manager for the Traffic Department of the Oakland Chamber of Commerce, and Harold D. Weber, as Manager and Secretary of the Down Town Property Owners' Association of Oakland, testified as representatives of their respective civic organizations in strong approval of the contracts between the Authority and the carriers, and urged this Commission to grant all of

(14) The hazards of storm and fog, so perilous to navigation, are effectually eliminated by the proposed Bridge service.

"There are in each year approximately 26 days when the fog of San Francisco Bay is sufficiently dense to constitute a significant hazard and risk in crowded navigation." (Testimony of Harrison S. Robinson, Tr. 21.)

the authorizations and relief sought in these applications.

During the hearing of March 6, 1936, Exhibit 34 was filed

(15) Testimony of Edwin G. Wilcox, representing Oakland Chamber of Commerce: Tr. p. 394: " * * * The bridge is intended to facilitate communication between the two sides of the Bay. The proposed service will accomplish this. Any other method of operation, in our opinion, would not."

* * *

" * * * We have connecting the two sides of the Bay an established interurban transportation system. It is merely proposed to permit the connection and correlation of this system with the Bay bridge, to the end that the public may derive the fullest possible benefits from the bridge.

"The applications should be granted, and granted promptly, so that the proposed loan can be arranged to carry out the plan."
(Tr. p. 395.)

Testimony of Harold D. Weber, representing Downtown Property Owners' Association of Oakland: (Tr. pp. 402, et seq.)

"The Downtown Property Owners' Association of Oakland favors the granting of these amended applications now pending before the Railroad Commission. And this approval is based on several factors relating to transportation as between trains and buses, to the welfare of the community and to the future benefits which these communities on both sides of the bay are to derive from this great bridge.

"We believe mass transportation over this bridge to be a vital necessity if the bridge is to serve properly the greatest possible number of people."

"We further believe that trains are the most satisfactory method of providing this mass transportation with the maximum comfort and convenience to the passengers."

" * * * Furthermore, operation of this service, as requested in the applications pending, will cause the least dislocation of existing habits and routes of travel on the part of the greater number of commuters to be served."

* * *

"We do not believe bus operation would be satisfactory."

* * *

"Not only do we believe that chaotic traffic conditions might develop from bus operation over the bridge at peak hours, but we further believe that a transbay bus system would disrupt and dislocate present local street arrangements and the routings of the present local street car and bus lines in the East Bay cities."

which was a compendium of letters and resolutions approving said contracts last mentioned and urging their execution. Included in Exhibit 34 were letters from the City Attorneys representing Emeryville, Oakland, Piedmont and San Francisco, and from the City Manager of Berkeley; and resolutions from the governing boards of the five cities last named, together with similar endorsements from the Chamber of Commerce and Junior Chamber of Commerce of San Francisco, Oakland and Berkeley Chambers of Commerce, and Emeryville Industries Association.

The second organized effort to alter the negotiations between the Authority and the applicants (Exhibits 30 and 31) was expressed through public officials from the County of San Mateo, which adjoins San Francisco by land on the south. This fast growing section has in recent years drawn heavily for its population from the metropolitan area to the north. Transportation facilities are afforded by steam trains of the Southern Pacific Company, street cars, numerous auto buses, and a flood of privately owned automobiles, the use of which is made more attractive by reason of many commodious paved boulevards and highways.

The principal objection of San Mateo County centered around the specious argument that the inauguration of the services proposed in these applications would deprive them of their protection and relief under Section 19 of the Public Utilities Act. The fear was expressed that through the process of disassociating Southern Pacific Company from the operation of interurban passenger service between San Francisco and Alameda County, as above outlined, through the creation of its subsidiary, the Interurban, the Southern Pacific Company in its operation from San Francisco south through San Mateo County might establish discriminatory and less favorable rates and services for said County to its prejudice and injury.

We see nothing in the position taken by San Mateo County that warrants further comment than this: in the first place, the Authority has acted within its jurisdiction and in the exercise of its best judgment. (16)

(16. If the Authority needs any justification for the course so adopted, it may be found in this testimony:

Testimony of Frank L. Burkhalter, Vice President Southern Pacific Company, Tr. p. 230, lines 17 to 26, inclusive; and Tr. p. 231, lines 1 to 7 inclusive:

"The plan for bridge operation will require the assumption of an obligation by the new operating Company to operate an adequate interurban passenger train service over the bridge in conjunction with the Southern Pacific electric lines in Alameda County, which shall continue during the life of the Bridge bonds, about 30 years, with the obligation to join other users in maintaining and insuring the bridge railway and the San Francisco terminal. In view of the many unknown factors in such a long time obligation, it would not be prudent for Southern Pacific Company, in the present trying times, to commit itself to render service of this character for so long a time. However, as through service can be provided by the new Company in conjunction with Southern Pacific's electric lines in Alameda County, which is so much desired by the public, it is obviously in the public interest to so arrange."

Testimony of Harrison S. Robinson, Tr. p. 93, line 24, et seq.:

"The Toll Bridge Authority has no legal right to operate a railroad. It would require an Act of the Legislature of the State of California vesting it with such power. That is number one. Number two, in order to operate an interurban system, the Toll Bridge Authority would not only have to be able to operate trains across the bridge but also to operate them through the subsidiary territory and it would have to make arrangements to connect up the feeders in Alameda and Contra Costa Counties, on the west side of the Bay, and in San Francisco on the east side - - or, the other way around, Alameda and Contra Costa on the east side and San Francisco on the west side of the Bay - - in order to have any business over the bridge. And if it found it impracticable to accomplish that state of affairs, then particularly on the east side of the Bay it would have to go into an extensive interurban service covering the principal population areas of Contra Costa and Alameda Counties. Such an enterprise calls for a very large capital investment and calls for a considerable sum of working capital in order to carry it on. The Toll Bridge Authority has not access to any moneys to meet any of those necessities. And in case the interurban carriers now in existence and not permitted to go over the bridge with their operation, because the Toll Bridge Authority would be allocating that to itself, would still have their ferries left and you would have, as a practical proposition, a life and death struggle between carriers established and operating ferries and an interurban system paralleling it. And under such circumstances you could not borrow any money, in the best of our judgment. Furthermore, the whole problem of operating not only a great bridge but also a far flung and intricate interurban railroad system at a time when the nature of such systems is in a state of flux, when many changes are taking place and the crystallization of the proper type and kind of service has not yet occurred, is a hazardous enterprise which, in our opinion, should not be inflicted unnecessarily upon the public. And I regret, as I say, to make this declaration in front of the railroad representatives, because we have been fighting them so long over this problem that I don't like them to know how strong their position is in that way with us."

in causing this new condition which seems displeasing to San Mateo County. Moreover the communities of San Mateo County by reason of their most convenient accessibility to San Francisco enjoy every opportunity of transportation facilities, communication and contact that could reasonably be demanded.

The third objection to the order of this Commission, as hereinafter outlined, was originally urged December 6, 1934, and amplified by written protest filed on March 9, 1936, by Pacific Greyhound Lines, Inc. This common carrier has heretofore filed its Application No. 19743 wherein it seeks authority to establish an optional route for service between San Francisco and Alameda County points via the Bridge when completed. Said bus company is now operating a service under certification between San Francisco and certain Alameda County points via Southern Pacific - Golden Gate Ferries, Inc. Pacific Greyhound now argues that before this Commission shall grant the relief sought in these applications said Commission should guarantee everything sought by the Greyhound in its application now pending, No. 19743.

No right or privilege asked by or granted unto either of the applicants can be construed as altering or abridging the existing status and rights of Pacific Greyhound. Their present operation between San Francisco and East Bay points is across the water via Southern Pacific - Golden Gate Ferries, Inc. When its application is heard by the Commission, the question as to whether public convenience and necessity requires the routing of its bus facilities over the Bridge will be determined. We are of the opinion that we should not, in passing upon the applications of these two electric railway carriers, anticipate the rights or needs of any of the other public carriers which now traverse the Bay.

The City of Alameda Situation.

The fourth and most serious objection to the proposed Bridge operations was insistently urged by representatives of the City of Alameda and consists of three counts:

1. Alameda contemplates with apprehension the abandonment of a ferry system that has served that community for more than 70 years.
2. Alameda contends that the proposed service by rail, which will follow the abandonment of the existing ferry service, will require more traveling time.
3. The stability and dependability of the Fruitvale Bridge which will be used by said rail service across the waters at eastern Alameda gives some measure of concern.

Disposing of the first City of Alameda objection it must be remembered that the R.F.C. loan of an additional \$10,000,000 for rail facilities over the bridge is to be contingent upon the discontinuance of all ferry service by the applicants. The justification for this enormous expenditure for the construction of this facility is public interest. The R.F.C. expects and demands repayment from the revenue earned in the course of the operation of the Bridge. The vast majority of the traveling public that will be affected will be greatly benefited. ⁽¹⁷⁾ In consideration of these benefits the commuters must of necessity bear their share in amortizing this investment. This means all of the commuters and logically explains the necessity for the ultimate abandonment of all interurban ferry boat services.

(17) City of Alameda furnishes 13.40 per cent of transbay interurban passengers. It is conceded that all of the remaining 86.60 per cent of transbay interurban passengers will enjoy a material reduction in travel time over the Bridge rails.

The weighted average of time saved by all passengers over Bridge rails will exceed 10 minutes per trip, or approximately 23 per cent of the present time factor will be eliminated by the Bridge rails.

In support of the second objection of the City of Alameda L. M. King, Engineer for said City presented Exhibit 37 by means of which he endeavored to show that 64.7 per cent of all San Francisco-Alameda passengers will have their time of travel increased a weighted average of 6.2 minutes if routed via the Fruitvale Bridge. To refute this testimony, Interurban produced C. A. Veale, for sixteen years Trainmaster and Assistant Superintendant of the electric line service in the East Bay territory for Southern Pacific Company. The witness Veale in his Exhibit No. 51 presented evidence which purported to show that the City of Alameda commuter will enjoy a weighted average decrease of 7.5 minutes resulting from the proposed Fruitvale Bridge rail service. Evidence was previously offered supported by the study of Engineer Lester S. Ready which indicates the prospects of a saving of 5.5 minutes in walking time upon inauguration of the Bridge services on the San Francisco side. It is contended that a material saving in walking time to the San Francisco Bridge Terminal will be enjoyed. The witness Veale has predicated his conclusion in Exhibit 51 first upon the study of Engineer Ready, secondly upon assumed bridge speeds, and finally upon actual running tests on the Alameda side. Further evidence offered by Mr. Veale was to the effect that 10.90 per cent of the patrons of the Lincoln Avenue Line and 17.98 per cent of the patrons of the Encinal Avenue Line will experience an increase in traveling time as against 89.10 per cent of the patrons who travel via Lincoln Avenue Line and 82.02 per cent of those using Encinal Avenue Line will enjoy a decrease in traveling time.

Actual operating experience alone will prove conclusively whether the proposed service for the Alameda City passengers will effect a saving or loss in traveling time. From the viewpoint of the commuter from the City of Alameda it is difficult to welcome the proposed circuitous loop after having traveled in a direct course toward destination for so many years.

The third objection of the City of Alameda relative to the Fruitvale Bridge was directed, first against its frailty, and secondly against the frequent "openings" thereby precluding transit across said Fruitvale Bridge. As to the latter, over a period of one year ending November 30, 1934, these openings averaged less than five per day and each opening occasioned approximately a five minute delay (Exhibit 29.) Should this Fruitvale Bridge ever become inoperative, emergency service would be available to and from the island City of Alameda by bus through the Posey Tube connecting the westerly end of the City of Alameda to the mainland of Alameda County and affording a very direct contact with the proposed rail service.

The record shows that a more direct service would be afforded the City of Alameda through a tube for rail transportation if constructed at the extreme westerly end of the island and by means of which the Encinal and Lincoln Avenue services would be connected with the bridgehead. Such a tube would cost from \$2,500,000 to \$4,000,000 according to the testimony. Time will evolve the answer as to whether this expenditure is justifiable and in the public interest. Meanwhile, we accept the conclusion that every diligent and faithful effort be henceforth pursued in order to render an adequate inter-urban passenger service to and from the City of Alameda.

CONCLUSION.

We are called upon to weigh the elements of public interest as appear in a consummated project, the agreements between the Authority and the applicant. There is no escape from the conclusion that the great majority of the interurban patrons will enjoy tremendous and enduring advantages and benefits from the new direct Bridge rail service. These are the factors of speed, safety, comfort and convenience. Public interest commands the way for the inauguration of this new direct rail service.

We are of the opinion that public convenience and necessity require the granting of these applications. We recommend the following form of Order.

O R D E R

Based upon the conclusions expressed in the foregoing opinion, the Railroad Commission of the State of California finds that public convenience and necessity requires the granting, and the said Commission does hereby grant, to the respective applicants in these proceedings certificate and authority, subject to the conditions and reservations hereinafter stated, as follows:

1. Key System to conduct an electric railway service for the transportation of passengers and hand baggage over the San Francisco-Oakland Bay Bridge and the necessary Bridge Railway tracks and approaches thereto, when completed, between the terminus of said Bridge Railway in the City and County of San Francisco and those points within the County of Alameda now served by Key System by means of its existing electric railway facilities within the County of Alameda; and Key System is hereby further authorized to enter into that certain agreement respecting the operation of electric railway trains over said Bridge executed March 6, 1936, by Key System and California Toll Bridge Authority and filed as Exhibit 30 in these proceedings.

2. Key System, upon its commencement of said electric railway train service over the San Francisco-Oakland Bay Bridge, as hereinabove authorized, to abandon all service for the transportation of passengers and baggage between San Francisco and points within the County of Alameda by means of ferry or ferries.

3. Interurban Electric Railway Company to issue 20,000 shares of its non-par capital stock at \$10 per share, the proceeds from such sale to be used for working capital and the purchase of such materials and supplies as may be required in its public utility operations herein authorized.

4. Southern Pacific Company to purchase 20,000 shares of the capital stock of said Interurban Electric Railway Company at \$10 per share.

5. Interurban Electric Railway Company to operate an electric railway service for the transportation of passengers and hand baggage over the San Francisco-Oakland Bay Bridge and the necessary Bridge Railway tracks and approaches thereto, when completed, between the terminus of said Bridge Railway in San Francisco and those points in the County of Alameda now served by Southern Pacific Company by means of its existing electric railway facilities, such electric railway service to be rendered by Interurban Electric Railway Company over said Bridge to be in conjunction with the electric railway service rendered over the electric railway lines and facilities in the County of Alameda which Interurban Electric Railway Company is herein authorized to acquire or lease from Southern Pacific Company; and Interurban Electric Railway Company is hereby further authorized to enter into that certain agreement respecting the operation of electric railway train service over said Bridge executed March 6, 1956 by Interurban Electric Railway Company and California Toll Bridge Authority and filed as Exhibit 31 in these proceedings.

6. Interurban Electric Railway Company to acquire from Southern Pacific Company, and Southern Pacific Company to grant to Interurban Electric Railway Company, trackage rights over all of the electric railway lines now operated by Southern Pacific Company in the County of Alameda, together with the right to operate said lines for the transportation of passengers and baggage, and Interurban Electric Railway Company to lease all the electric railway equipment appurtenant to and used upon said electric railway lines now operated by Southern Pacific in said County of Alameda, State of California; and the said applicants are hereby further authorized to enter into that certain proposed agreement respecting such trackage rights and lease of equipment, which agreement was filed as Exhibit 32 in these proceedings.

7. Interurban Electric Railway Company to acquire from Southern Pacific Company, and Southern Pacific Company to grant to Interurban Electric Railway Company, the right to conduct, until the completion of said Bridge Railway and railway facilities, the transbay passenger ferry service which Southern Pacific Company now operates or conducts as lessee of South Pacific Coast Railway Company between San Francisco and the Alameda Pier, County of Alameda, and also the right to conduct the transbay ferry service for the transportation of passengers and baggage which Southern Pacific Company now operates or conducts between San Francisco and the Oakland Pier, County of Alameda, the said ferry service to be conducted by Interurban Electric Railway Company to the Oakland Pier to be by means of the joint use of the ferry facilities now operated by Southern Pacific Company between said points; and the said applicants are hereby further authorized to enter into the proposed agreement respecting the operation of said ferry services pending the commencement of electric railway service over said Bridge, which agreement was filed as Exhibit 33 in these proceedings.

8. Interurban Electric Railway Company, upon its commencement of said electric railway train service over the San Francisco-Oakland Bay Bridge as hereinabove authorized, to abandon all service for the transportation of passengers between San Francisco and the Oakland Pier, County of Alameda, and between San Francisco and the Alameda Pier, County of Alameda, by means of ferry or ferries.

9. Southern Pacific Company, upon commencement by Interurban Electric Railway Company of the electric railway and ferry services herein authorized, to discontinue the operation of electric passenger train service over its said electric railway lines in the County of Alameda, and to discontinue its passenger ferry service between San Francisco and the Alameda Pier, and

to discontinue also all local passenger service by ferry across the San Francisco Bay except that between San Francisco and Oakland Pier operated in connection with its steam railway passenger train service.

It is a condition of this order, however, that prior to the commencement by Interurban Electric Railway Company of electric train service over the San Francisco-Oakland Bay Bridge, and at such time as the Commission may hereafter direct, said Interurban Electric Railway Company shall file tariffs naming rates of fare for the transportation of passengers and property over said Bridge Railway in accordance with the provisions of the said agreement between Interurban Electric Railway Company and California Toll Bridge Authority filed as Exhibit 31 in these proceedings; and Interurban Electric Railway Company shall also, before commencement of the trans-bay passenger services by means of electric railway and ferry via Oakland Pier and Alameda Pier as herein authorized, shall file a tariff or tariffs naming rates of fare identical with the fares then charged by Southern Pacific Company.

It is a further condition of this order that Key System, before commencement of electric railway service over the San Francisco-Oakland Bay Bridge as herein authorized, and at such time as the Commission may hereafter direct, shall cancel its tariffs covering the transportation of passengers and baggage in its trans-bay service by means of its electric railway and ferry facilities, and shall thereupon file tariffs naming rates for the transportation of passengers and baggage over said Bridge Railway in accordance with the provisions of the said agreement between Key System and California Toll Bridge Authority filed as Exhibit 30 in these proceedings.

It should be understood, and it is a further condition of this order, that the authority herein granted to Interurban Electric Railway Company and Southern Pacific Company to enter into the agree-

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ments between themselves in this order referred to shall not be taken as in any way controlling the Commission's future action in any proceeding involving the rates charged or service rendered by either of said applicants; nor shall the Authority heretofore granted to Key System by Decision No. 27770, dated February 25, 1935, to enter into an agreement with Oakland Terminal Railroad Co. respecting the lease of properties, be taken as in any way controlling the Commission's future action in proceedings involving the rates charged or service rendered by Key System in its operation of an electric railway service over the San Francisco-Oakland Bay Bridge as herein authorized.

This Order shall become effective fifteen (15) days from the date thereof.

The foregoing Opinion and Order are hereby approved and ordered filed as the Opinion and Order of the Railroad Commission of the State of California.

Dated at San Francisco, California, this 23rd day of March, 1936.

W. B. Harris
Leon White
M. A. Cum
Walter Ware
Frank R. Derby
Commissioners.