

76
T764
1931b

REPORT OF THE South Jersey Transit Commission

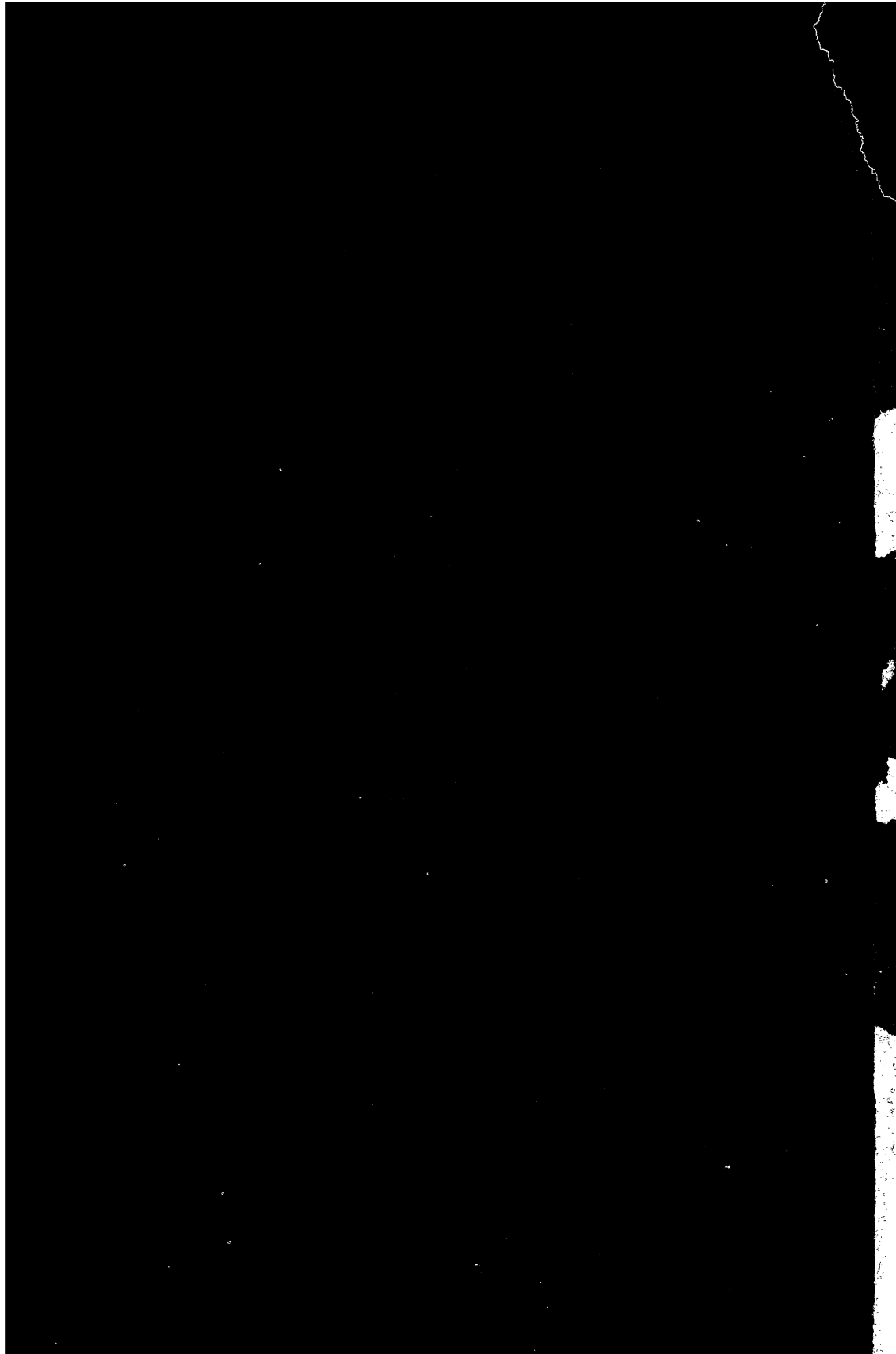
to the
SENATE AND GENERAL ASSEMBLY
of
THE STATE OF NEW JERSEY



New Jersey State Library

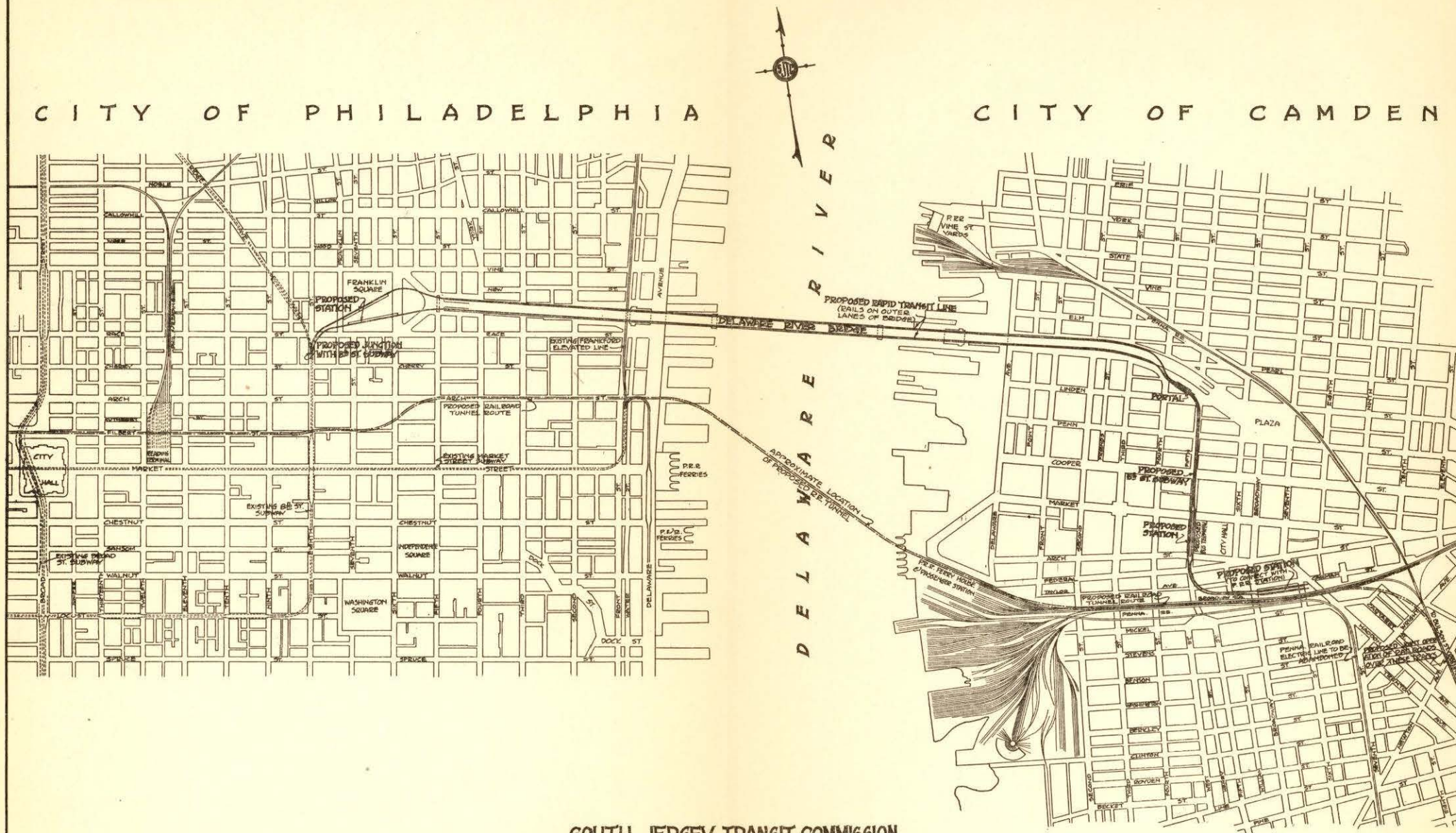
JANUARY 21, 1931

Office: 609 Income Insurance Building, Camden, N. J.



CITY OF PHILADELPHIA

CITY OF CAMDEN



SOUTH JERSEY TRANSIT COMMISSION
MAP OF AREAS OF PHILADELPHIA & CAMDEN
 SHOWING PROPOSED
RAPID TRANSIT SYSTEM
 AND CONNECTIONS

SCALE 1" = 1000 FEET

APPROVED JAN. 12, 1931
W. M. Mott
 CHAIRMAN

W. M. Mott
 ENGINEER

REPORT OF THE
South Jersey Transit Commission

to the
SENATE AND GENERAL ASSEMBLY
of
THE STATE OF NEW JERSEY



JANUARY 21, 1931

Office: 609 Income Insurance Building, Camden, N. J.

Commission

JAMES V. MORAN, Chairman

ENOCH L. JOHNSON

KILLAM E. BENNETT

GUSTAVUS W. BERGNER

HENRY H. FITHIAN

ERNEST H. RIGG

HERBERT WILLIS

DAMON G. HUMPHREYS

ALEXANDER H. NELSON, Engineer

*To the Senate and General Assembly
of the State of New Jersey,
Through His Excellency,*

MORGAN F. LARSON,

Governor of the State of New Jersey:

The South Jersey Transit Commission, appointed under the provisions of Chapter 251 of the Laws of 1929 "To study and report upon the best plan, or plans, to be followed in providing a comprehensive scheme of rapid passenger transit between the several communities of the Counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean and Salem, as well as between such communities and the City of Philadelphia," begs leave to submit herewith a report of progress, as follows:

The Commission completed its organization on October 2, 1929, and submitted a preliminary report, based upon an outline survey of the transit conditions in the district, early in the 1930 session of the Legislature.

SPECIAL ACTIVITIES DURING 1930

Our most active efforts during 1930 were, by unanimous consent of the members of the Commission, confined to the Camden area, it being recognized that a constructive and intelligent solution of this local problem was of the greatest importance and that, to a certain extent at least, relief in the South Jersey district was dependent upon success that might be attained in co-ordination and extension at Camden, with particular reference to the necessity of improved trans-river traffic facilities, the need for which has not only operated to paralyze the development of real estate and other interests in the South Jersey area but has actually resulted in a retrogression by reason of the present costly and impeded transportation over the Delaware River Bridge. Expectation in the construction of the bridge promised great advantage to the district and realization of this promise was an important consideration in the formulating of Step No. 1, which

proposed "A high-speed, connecting line from railroad terminals, or a union station, in Camden, through a suitable bus terminal and crossing the Delaware River Bridge to a proper connection with the subway system in Philadelphia."

The work of the Transit Commission during the year that has passed may be classified as follows:

- A. Obtaining accurate information on the business done by the various passenger-carrying utilities operating in the Camden district.
- B. Harmonizing interests, particularly the railroads, with our previously developed plan for Step No. 1 in the solution of the intercity problem.
- C. Arousing interest and securing co-operation of authorities and influential individuals in Philadelphia.
- D. Encouraging joint operation, or a unified interest, between the Pennsylvania and Reading railroad systems in Camden.
- E. Promotion of Step No. 2 in the solution of our problem, which proposed "A tunnel under the Delaware River to suitable terminals in Philadelphia for joint operation, or use, by the two railroad systems."

It remains our conviction that "By the time Step No. 2 could be realized by completion of the tunnel, the bus, trolley car and ordinary intercity traffic would engage the facilities provided by Step No. 1, which might readily be extended, under suitable operating and financial arrangements, to sections which are now suburban to the City of Camden."

TRAFFIC RECORDS AND INTEREST THEREIN

In collecting records of passenger traffic of 1929 we have, generally speaking, encountered satisfactory co-operation; even a few of the independent bus operators, who naturally would be inclined to conceal their results from us, responded favorably to requests for traffic records. Both railroads gave us all de-

sired information, and in as much detail as their auditing or accounting methods permitted; all organized bus lines, in like manner, complied with our requests for facts. The summarizing of all reports along with estimates, based on actual counting of passengers on days of average operation in connection with a few independent bus lines, disclosed the fact that approximately 55,500,000 persons crossed the river, in one direction or the other, during 1929, and that of this total approximately 30,000,000 were bus passengers. Reduced to per-diem figures, this means that on the average day of 1929 there were 152,082 trans-river trips, or 76,041 in each direction, between Camden and Philadelphia.

Our efforts to harmonize the railroads to our Step No. 1 progressed to such an extent that responsible representatives of both the railroads have openly committed themselves to the plan of joint operation, subject to an equitable division, between themselves, of the expenditures necessarily involved in revision and additions to existing construction and in the operation of the improved facilities. This would seem to be an adjustment that might be worked out readily enough.

Continued activities toward arousing public interest in Philadelphia have borne fruit, particularly since publicity has been given to the actual records of trans-river traffic, and it has become recognized that "Real estate values will increase in South Jersey, along with bank deposits in Philadelphia, as the result of intercity rapid transit."

Transit officials recognize that the proposed connection of Philadelphia's subway system with Camden will be a real asset and "The only profitable city-owned rapid transit unit now in existence or contemplation."

Many conferences were held and much effort expended in our endeavor to secure direct connection with the Market Street Subway, in the belief that it would best serve the needs of South Jersey; we desisted only when convinced that further efforts along that line meant indefinite delay in the consummation of any plan. Our suggestion of a two-track subway under Arch and Juniper Streets, to be operated by the railroads, was discouraged,

but future consideration of it is reserved. Such a structure would, later on, be increased to a four-track subway to include the tracks that will eventually operate through the under-river tunnel in our Step No. 2. The approaching sessions of Legislature in both New Jersey and Pennsylvania, at which certain revisions of existing statutes are needed to authorize our project and to provide a practical method of financing it; and the fact that the Pennsylvania Legislature meets regularly only in alternate years impressed upon us the necessity of an early agreement with the Philadelphia authorities so that the Legislatures of both States might be approached with a definite and finished plan for a rapid transit line; otherwise we could not hope for any real relief within a period of two years.

DELAWARE RIVER TUNNEL

Unquestionably the solution of South Jersey's transit problem is contained in Step No. 2 of the Commission's plan and will be found in the realization of that development. To be able to travel from the heart of Philadelphia to Atlantic City, Cape May or other seashore or distant points, or in the opposite direction, without change of cars is an ultimate advantage for which the public hopes and toward which the Commission is bending its effort.

Railroad officials have expressed deep interest in the project and the Pennsylvania Railroad, having had it under consideration for several years, has developed a scheme that anticipates the construction of a subway under Juniper Street, deflecting to Arch Street at a point about midway between Broad Street Station and the river front, which can be continued into an under-river tunnel to emerge at a point near the present Broadway passenger station in Camden. It has been suggested that, with legislation similar to that under which the Port of New York Authority operates, the project might be financed by the two States and be operated by the railroads.

The commencement and completion of the project will depend upon the increase of population and consequent revenue that can be realized from the operation of such a tunnel and, at the present time, all authorities are not in agreement on the pros-

pects of the case. Pennsylvania Railroad engineers have estimated the cost at about Forty-five Million Dollars, and that Company has signified its willingness to operate such a tunnel, if built by the interested States.

The project would lend itself readily to being operated jointly by the two railroads and it is interesting information that the Transit Department of the City of Philadelphia, in connection with the construction of the North Broad Street Subway, provided a reinforced concrete slab construction over the subway of such design as will support the proposed overhead, railroad subway. It is entirely possible to design a subway so that connections for the convenient loading and unloading of passengers at the present Reading Terminal Station can be accomplished. The arrangement at Broad Street Station would probably be a direct connection of the proposed subway to the existing track system between the new railroad terminal station and the station which it is proposed to construct at West Philadelphia.

In addition to the financing and actual construction of the tunnel project there is involved the question of electrification of the two railroads in the South Jersey area, which in itself will involve heavy expenditure and require considerable time in its realization; the system that has been in use, for a considerable number of years, by the Pennsylvania Railroad Company in the operation of its Hudson River Tunnel into New York, which involves changing locomotives at Manhattan Transfer, could be used at a transfer station in Camden where electric and steam locomotives would interchange, but this is an expensive and cumbersome operation.

GENERAL CONFERENCE ON STEP NO. 1

Upon completion of a thorough study of the situation in all its important details, which made necessary many consultations and meetings with the corporations, and individuals directly connected with the involved utilities, as well as with civic, service and political organizations, associations and committees interested in the possibility of improvement in transit facilities, the Transit Commission felt ready to seek a joint conference of all the involved utility owners and operators and the representatives

of the interested municipalities. With the energetic and able assistance of Honorable David Baird, Jr., who has been unflinching in his activities, counsel and other help to the Transit Commission at all times, the matter was brought to the attention of His Excellency, Governor Larson, who promptly called the New Jersey members of the Delaware River Bridge Joint Commission into conference with him and, a little later on, the Transit Commission and Senator Baird. A result of the latter conference was that the Governor issued personal invitations to the chief executives of all interested utilities and to others, whose presence was needed, to confer with him at the Administration Building of the Delaware River Bridge Joint Commission, on November 12, 1930, at which time and place there assembled a group of men of almost unlimited authority in local transportation matters, as well as men of great influence and prominence in other lines, everyone of whom disclosed a keen interest in the solution of the problem at hand. From this Governor's Conference there was appointed, by the Governor and under the chairmanship of Senator Baird, an Engineers' Committee, or Committee on Interstate Transit, upon which was represented the Pennsylvania Railroad, the Reading Railroad, Public Service Interstate Transportation Company, Philadelphia Rapid Transit, the Cities of Philadelphia and Camden, the Delaware River Bridge Joint Commission and the South Jersey Transit Commission.

Four meetings, at intervals of about one week, were held by this Committee and every feature of the project was considered in full detail. No suggested, or even likely, plan was overlooked and Appendices "A" and "B," attached hereto, give reports of the Director of Transit on the Philadelphia situation and of the Transit Commission on the Camden situation; each report is accompanied by plans of the routes discussed. The general character, as well as the location for construction, of the subway in Camden was agreed to and determined in consideration of a broad principle proposed by Senator Baird, that "Camden must defer to South Jersey in all things that help South Jersey and do not injure Camden and South Jersey, in turn, must concede to Camden all things that help Camden and do not injure South Jersey."

The proceedings of the Committee were not always in perfect harmony but unlimited discussions were permitted and these were carried on, with commendable frankness, to the conclusions stated in Appendix "C," which is the Committee's report to the Governor's Conference called into session to receive the report and presided over by His Excellency, The Governor, on December 18, 1930. Some suggestion and even criticism, in connection with certain proposed plans that had not been favorably considered by the Committee, were offered, heard and considered and, upon the conclusion of all discussion on the question, the report of the Committee was accepted and approved by the Governor's Conference, the dissenting vote of the Reading Railroad being recorded. Appendix "D" is the report of the transactions at the Governor's Conference and Appendix "E" is the statement of the Reading Railroad Company in support of its dissenting vote.

It was requested that the recommendations approved and adopted by the Governor's Conference be referred to the Delaware River Bridge Joint Commission and to the South Jersey Transit Commission, for their use in having the solicitors of the two commissions prepare bills for consideration by the Legislatures of Pennsylvania and New Jersey at the beginning of the respective sessions. An offer by Hon. T. Harry Rowland, New Jersey Solicitor of the Delaware River Bridge Joint Commission, to act as solicitor for the South Jersey Transit Commission in the situation and without compensation was graciously tendered and, at a special meeting of the Commission on December 18, 1930, was formally accepted. At the same meeting the following resolution was adopted:

"WHEREAS, The South Jersey Transit Commission, in line with its endeavor to hasten the work of the Commission, felt it to be advisable to solicit the aid of His Excellency, the Governor, and, with the co-operation of the Hon. David Baird, Jr., did secure a conference at the Governor's office for the purpose of presenting the situation to him; and

WHEREAS, The presentation of the proposed plans by the Commission at the aforesaid conference did result in the appointment, by the Governor, of a committee which, through a sub-

committee headed by the Hon. David Baird, Jr., has reviewed the various plans proposed, both in the City of Camden and the City of Philadelphia, and has given a great deal of effort and careful study to the situation with the result that the Governor's Committee has accepted and approved a comprehensive plan, with definite locations in both the Cities of Camden and Philadelphia, which action by the Governor's Committee has been reported to the South Jersey Transit Commission; and

WHEREAS, The work of the South Jersey Transit Commission, in formulating a feasible plan for the early solution of the problem that has existed in connection with rapid transit between Camden and Philadelphia, has been promoted and greatly aided by the activity of the Governor's Committee,

NOW THEREFORE BE IT RESOLVED, That the South Jersey Transit Commission, and its individual members, do hereby express their appreciation to His Excellency, the Governor, to the Hon. David Baird, Jr., and to each other member of the Governor's Committee for the definite results and the promptness in securing same; and

BE IT FURTHER RESOLVED, That a certified copy of this Resolution be forwarded to His Excellency, Governor Larson, to the Hon. David Baird, Jr., and to each other member of the Governor's Committee."

JOINT OPERATION OF RAILROADS

Effort and suggestion, made in advance of the creation of our Commission, toward consolidation or joint operation of at least certain divisions of the existing railroads have been expanded and emphasized as a major effort until public sentiment has grown greatly in favor of unification, or at least joint operation, of the existing railroads. The recent revision and development of the plan, originally proposed by the Interstate Commerce Commission, which would group Eastern railroads into four systems, promises, through merging the Reading with the Baltimore and Ohio System, to introduce economical operation in such a definite way as must necessarily bring us at least limited joint operation. The advantages possible in such a development, under supervision of the Interstate Commerce Commission, are in-

creased train capacities, improved arrangement of train schedules, better terminal facilities, decreased elapsed time for train operations, with quality of service and operated rolling stock at least up to present standard.

DETAILED OPERATION REQUIREMENTS AT CAMDEN

In view of the criticism on the part of the Reading Railroad Company to Step No. 1, as set forth in Appendix "E" of this report, a careful investigation of existing conditions and a diligent study of changes and revisions included in the adopted plan have been made and, aside from partial abandonment of the existing Reading Terminal facilities in Camden, there are involved the following revisions and new construction, or improvements.

1. Elevation of the section of Pennsylvania Railroad tracks over which the trains of both railroads would be operated, together with elevation of the Reading approach to the section.
2. Grade crossing eliminations, by bridges over certain streets and crossing vacation at others, in connection with the aforesaid track elevation.
3. Additional trackage in the same section of roadbed, over which both railroads would be operated.
4. Revision and increase of present capacity of Pennsylvania Railroad terminal yards as may be required for operation of both railroads.
5. A union station that will make effective the plans for Step No. 1, and, with subsequent revision and extension as may be necessary, become also a feature of Step No. 2 and thereby provide, during many years to come, for all through railroad transit requirements of the South Jersey area, while meeting the needs of local traffic distribution.

The total cost of the above revisions and improvements, including properties and damages, has been approximately estimated at Five Million Dollars and, as previously mentioned, this must be met by the railroads. A saving of net operating costs

to both railroads in the total of \$250,000 per year would justify the expenditure, not to mention the business that would be won back from the busses by the improved facilities offered to the traveling public.

THE SITUATION OUTSIDE OF CAMDEN

Except for minor changes in routes and the number of busses there have been few developments or improvements in the general South Jersey area, outside of Camden. Public sentiment all over the section, is being aroused, by interested organizations of men and women, toward improved transit to such an extent that nothing short of radical improvement will be acceptable. Unification of existing railroads is everywhere discussed and, although there may be some difference in methods proposed for accomplishing it, direct and through transit by railroad, into and from Philadelphia with an optional stop in Camden, is practically the unanimous desire. Many outlying communities are still struggling in the throes of unorganized and more or less undependable bus service but, to a considerable extent, the people realize the difficulties to be overcome and are commendably patient. Busses continue to demonstrate that they can fill an important place in the general transit scheme and, to those who are giving transit problems continuous and intensive study, the picture of the future is gradually unfolding.

In Philadelphia the almost impossible situation of busses monopolizing the down-town streets has been somewhat improved by the construction, or at least setting apart, of bus stations on privately owned property. If such terminals are not advantageously located, if the development is accompanied by curtailment of allowed bus stops at important street corners and if routing of busses on streets not convenient for the uses of bus riders is arranged, there will naturally result decreased popularity of transportation by busses.

Traffic conditions on the Delaware River Bridge, for vehicles other than busses, have been greatly improved by being made more safe through confining the busses to the outer traffic lanes of the roadway, where they travel at a lower rate of speed than formerly.

SPECIFIC OBJECTS TO BE ACCOMPLISHED

The developed belief of the Transit Commission is that a center of population distant thirty-five miles from the center of Philadelphia should have a commuting schedule of not more than one hour, with lesser distances cared for in the same ratio. Outside the thirty-five mile zone there should be co-ordination, unification and extension of existing transit facilities to the end that present and reasonable needs will be provided for, and encouragement for development will be offered to all seashore resorts and other centers of population that do not now enjoy modern transportation advantages.

In support of these two beliefs the Transit Commission has exerted its efforts, with some measure of success toward the promotion of Step No. 1 and Step No. 2, already described at length herein, and has addressed itself to the following undertakings:

1. Securing express, commuting trains between outlying centers of population, especially resort cities, and Camden at usual commuting hours.
2. Securing rapid transit between principal centers of population, with feeder lines that will operate on schedule that make immediate connections.
3. The possibility of developing a commuting traffic over the Delair Bridge for the benefit of the area now served by the Amboy Division of the Pennsylvania Railroad.
4. Upon the enactment of Federal legislation that will make interstate bus traffic subject to regulation by the Interstate Commerce Commission, a restricting of bus service to important, interstate traffic; to strictly local operation, on secondary roads, between outlying towns not properly served by railroad traffic and to operation as feeders for rapid transit rail lines.
5. The construction of an additional bridge over, or a tunnel under, the Delaware River at a point South of Camden, by which vehicular traffic between South Jersey and Philadelphia may be carried.

6. Offering all possible encouragement and assistance toward unification or joint operation of existing railroads, under supervision of the Interstate Commerce Commission, in securing the benefits and advantages previously herein enumerated.

PROSPECTIVE

With enabling legislation that will broaden the authority of the Delaware River Bridge Joint Commission and make funds available, there is good reason to expect that Step No. 1 can be put into actual service at a date not much later than one year subsequent to the awarding of essential contracts, covering the construction and completion of modern subways and the laying of rails on the Delaware River Bridge, which latter operation has already been authorized by the New Jersey Legislature.

The good offices of the Public Utility Commission, exerted toward securing an agreement between the two railroad companies for sharing their proper expenditures in establishing joint operation at Camden in accomplishment of Step No. 1, which has already been requested by an Assembly resolution, will go far toward bringing about the desired end, which, in the language of Thomas N. McCarter, President of Public Service Interstate Transportation Company, is "A step in the right direction." This improvement will relieve the acute condition at Camden and will provide for a rapidly increasing demand for transportation.

We earnestly request that the recommendations of the Governor's Conference, which are contained in Appendix "C" of this report, be accorded your prompt and definite approval through the enacting of legislation in accordance with bills now under consideration. Prompt action will have great influence in securing the legislation by Pennsylvania, that is necessary to supplement and make effective New Jersey legislation, in clearing the way for improvements in transportation that are not only highly essential to prosperity in the Camden area but are indispensable to development of the entire South Jersey section. Indicated improvements will bring such increased welfare and

prosperity to the section, through advantage being taken of opportunities in the development of natural resources and latent potentialities, as will surpass all ordinary expectation.

Respectfully submitted,

SOUTH JERSEY TRANSIT COMMISSION,

JAMES V. MORAN,

Chairman,

ENOCH L. JOHNSON

GUSTAVUS W. BERGNER

ERNEST H. RIGG

KILLAM E. BENNETT

HENRY H. FITHIAN

HERBERT WILLIS

DAMON G. HUMPHREYS

APPENDIX "A"

HON. DAVID BAIRD, JR., *Chairman,*
Interstate Rail Transit Committee,
Camden, N. J.

DEAR SIR:

In compliance with instructions from your Committee November 17, 1930, I beg leave to report as follows relative to the five possible high speed transit connections from the Delaware River Bridge to the high speed transit system in Philadelphia.

ROUTE No. 1—A two-track connection from the Delaware River Bridge, across Franklin Square to Eighth and Race Streets, where the track would connect with the existing subway structure now nearing completion and where provisions have been made for this connection. Trains operating over the bridge through this connection would run south in Eighth Street to Locust Street, west in Locust Street to the future terminus of this line in southwest Philadelphia, returning over the same route. The estimated cost of this connection, if made to the two outer tracks on the bridge, would be \$2,650,000. If the connection were made to the two south tracks of the bridge, the cost would be \$2,416,000.

ROUTE No. 2—This is the connection proposed by the South Jersey Transit Commission and consists of a connection from the Bridge tracks at a point near Third Street by means of a curve of more than 180 degrees, and thence extending parallel to the bridge to Front Street to a connection with the existing structure of the Frankford Elevated Railway. Trains operated over this connection would run south in Front Street to Market Street and thence west in Market Street to Sixty-ninth Street, returning over the same route. This connection, if made to the two outer tracks, would cost \$1,263,000. If made to the two south tracks it would cost \$880,000.

ROUTE No. 3—The connection from this route would extend from the Bridge across Franklin Square to Eighth and

Race Streets, would run southbound in Eighth Street to Filbert Street, west in Filbert Street to Broad Street and thence out the Parkway, ultimately running through the northwest section of the City to Roxborough, and returning by the same route to Seventh and Filbert Streets, north in Seventh Street to Race Street, and across Franklin Square to the Bridge connection. The cost of this connection from Sixteenth Street to the bridge, connecting with the outer tracks of the Bridge, would be \$9,-800,000. If the connection were made to the south tracks of the Bridge, the cost would be \$9,610,000.

ROUTE No. 4—Connection from the Bridge to this route would extend across Franklin Square to Eighth and Race Streets, south in Eighth Street to Arch Street, west in Arch Street to Sixteenth Street and the Parkway, ultimate running through the northwest section of the City to Roxborough, and returning by way of the same route to Seventh and Arch Streets, north in Seventh Street to Race Street and across Franklin Square to the Bridge. The cost of this connection from Sixteenth and Arch Streets to the Bridge, connecting with the outer tracks of the bridge, would be \$8,980,000. If the connection were made to the south tracks of the Bridge the cost would be \$8,800,000.

ROUTE No. 5—Connection for this route to the Bridge would be across Franklin Square to Eighth and Race Streets, and thence west in Race Street to Broad Street, with a connection to the existing Broad Street Subway, returning over the same route. The cost of this connection, if made to the outer tracks of the bridge, would be \$7,780,000. If the connection were made to the south tracks of the Bridge, the cost would be \$7,-626,000.

ALTERNATE CONNECTIONS FOR EACH OF THESE ROUTES, AS SHOWN, TO THE BRIDGE—West-bound, either from the north or outside tracks, or from the tracks immediately south of the Bridge roadway, is shown. East-bound track is the same in either case.

This matter of the tracks to be used on the Bridge for this connection should be given further careful consideration before any of these plans are adopted. In our previous considerations

of future connections, it has been our thought that unless there should be fairly conclusive evidence shown that all four tracks would be required for rail transportation, it would be wiser to utilize the two outer tracks, leaving the track space immediately adjacent to the Bridge roadway, on the north and south sides, available for future use for truck, bus or automobile use.

You will note that Route No. 3 and No. 4 utilize a part of the three-track subway structure that we are just completing in Eighth Street.

These estimates include track, signals and operating appurtenances, except cars, but they do not include any provision for the reconstruction of the underpass in Fifth Street nor for any other street underpasses that may later be required by the adoption of plans prepared by the City Planning Commission.

Whichever route shall be ultimately adopted for a connection between the Bridge and a rapid transit system being built by the City, it is our conviction that the first step in any solution of this problem must be a connection from the Delaware River Bridge to the existing subway in Eighth Street at Race Street. All our studies extending over a period of years have established this conviction so firmly that we felt warranted in including in the subway contract now in progress in Eighth Street provisions for the same, at a substantial expenditure of the City's funds.

Route No. 2, connecting with the existing structure of the Frankford Elevated Railway, cannot be considered from any angle. It has already been pointed out on several occasions that the existing traffic conditions on the Frankford Elevated and in the Market Street Subway would preclude the operation of such a route.

In connection with Route No. 3, it should be considered that the Department changed the profile for depth of the Broad Street Subway at Filbert Street by lowering it to a sufficient depth to permit future crossing of the Broad Street Subway by the extension of the Pennsylvania subway tracks eastward in Filbert Street. Should the Pennsylvania Railroad desire to develop the suggested connection between their suburban station at Sixteenth Street and Camden, this is the only point available for

such a crossing and in this case the suggested route would be unworkable. If these conclusions are correct, then the City should reserve Arch Street between Seventh Street and Sixteenth Street for future City-owned rapid transit routes.

Route No. 4 would appear to be a through routing connection for a future City-owned rapid transit line from northwestern Philadelphia and Roxborough to New Jersey by way of the Delaware River Bridge. It is not clear in our minds, at this time, that this solution would meet the needs of the citizens of that section of the City.

Route No. 5, connecting with the four-track subway in Broad Street and extending southward through that system, has many undesirable features and should be studied very carefully before receiving serious consideration.

All the routes shown on this plan, with the exception of Route No. 1, are of a tentative character and should only be considered as a basis for study of the subject.

Regarding the estimate of tributary traffic would state that at the present stage of discussion of a proposed rapid transit line over the Delaware River Bridge, there are a number of indeterminate factors which would affect the actual traffic carried by the line, such as the final routing and extent of the line in Camden, the routing of the delivery terminal in Philadelphia, the competition of bridge busses and their future routing or disposal, the rate of fare on the rapid transit line as related to the fares on other trans-river facilities, transfer privileges with surface lines in Camden, convenient connections with steam railroad stations, etc. No complete set of passenger statistics of present facilities has become available to us in the limited time of this study, but estimates made from the most recent statistics obtainable from various sources indicate that the present total traffic, via all modes of transportation across the Delaware River Bridge and the ferries, is in the neighborhood of 70,000,000 passengers per annum.

In making this preliminary estimate from the available information, a favorable situation, with respect to the proposed rapid transit line, has been assumed based on the building of the

complete rapid transit line in Camden as far south as Kaighn's Point, direct delivery to the central business district in Philadelphia, and a rate of fare favoring the use of the rapid transit line. On the above basis, it is estimated that the tributary traffic of such a line in the year 1930 would be approximately 26,000,000 passengers. The accompanying statement shows the estimated derivation of this traffic by diversion from the existing groups of trans-river traffic handled by present facilities. No estimate for local traffic in Camden is included.

DELAWARE RIVER BRIDGE

PROPOSED RAPID TRANSIT LINE

Estimated Tributary Traffic.

<i>Diverted from</i>	<i>Estimated Passengers Year 1930</i>
Delaware River Bridge	
Busses	13,400,000
Private Autos	1,300,000
Ferries	
Individuals	11,300,000
Private Autos	200,000
Estimated Total Traffic—1930.....	26,200,000
Estimated Normal Weekday—1930.....	84,000

There is attached hereto Department of City Transit Drawing No. 26798.

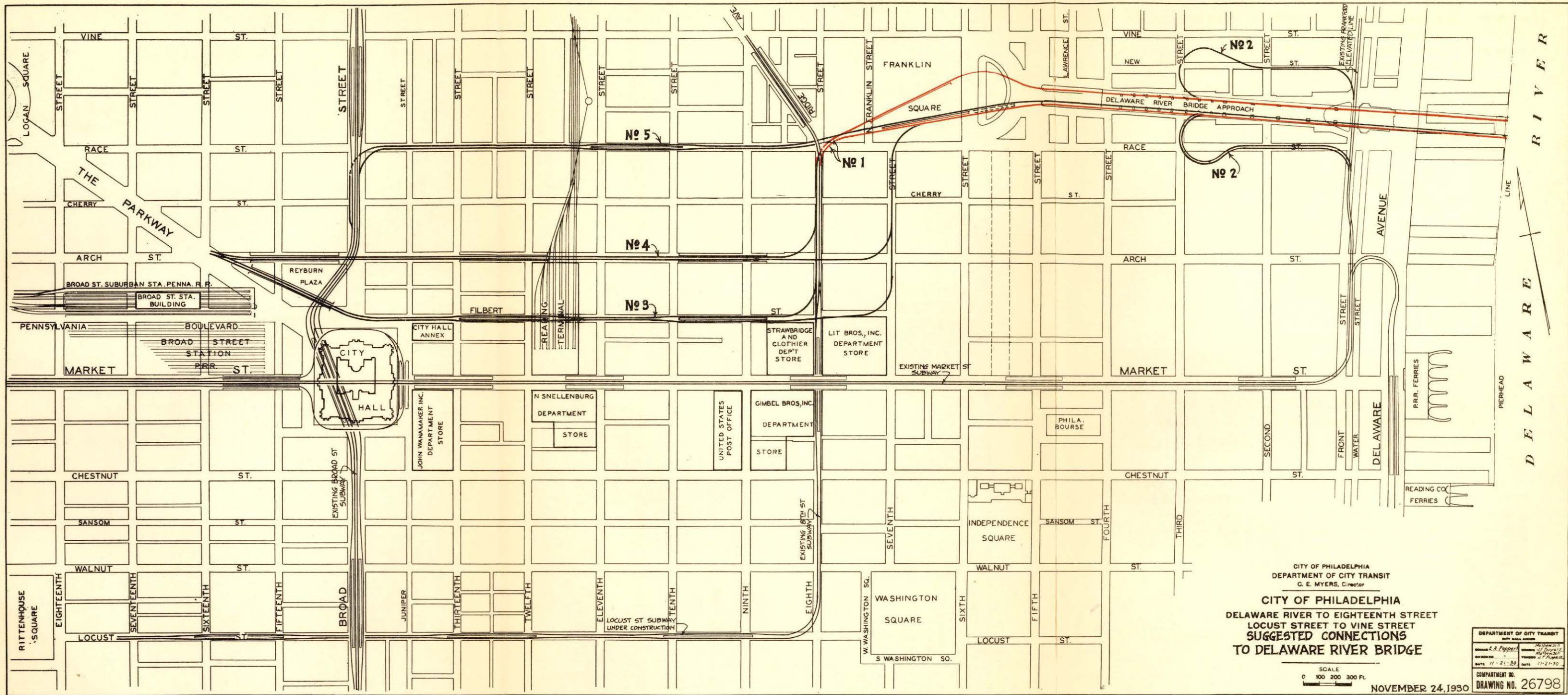
In making this plan and submitting this report to your Committee, I must state that in no sense is the Department of City Transit of Philadelphia committed to any of these propositions save only the line from the Bridge to Eighth and Race Streets. The other information is given to you for study purposes only, without commitment on the part of this Department.

Very truly yours,

C. E. MYERS,

Director,

Department of City Transit, Philadelphia.



CITY OF PHILADELPHIA
 DEPARTMENT OF CITY TRANSIT
 C. E. MYERS, Director

CITY OF PHILADELPHIA
DELAWARE RIVER TO EIGHTEENTH STREET
LOCUST STREET TO VINE STREET
SUGGESTED CONNECTIONS
TO DELAWARE RIVER BRIDGE

SCALE
 0 100 200 300 FT.

NOVEMBER 24, 1930

DEPARTMENT OF CITY TRANSIT
 CITY MAP DIVISION

DESIGNED BY *C. E. Myers*
 DRAWN BY *J. J. Pappert*
 DATE *11-21-30*

COMPARTMENT NO.
DRAWING NO. 26798

Printed

APPENDIX "B"

Camden, N. J., December 2, 1930.

HON. DAVID BAIRD, JR.,
*Chairman, Interstate Rail Transit Committee,
Camden, New Jersey.*

DEAR SIR:

For the information of your Committee in comprehending the possibilities of meeting the transit requirements of South Jersey, particularly in the immediate vicinity of Camden at this time, I am submitting herewith a map of a considerable section of the City of Camden upon which are shown the locations of all rapid transit lines that have been suggested and I am including herewith descriptions and estimates of construction costs.

PLAN No. 1, Known as the revised "Bardo Plan," is essentially an extension of Plan No. 7 to the Delaware River Bridge, through a station in the neighborhood of Pearl and Sixth Streets and with a terminal at the old Vine Street Ferry. This plan proposes to carry through railroad trains over the bridge and, by tunnels or subways to be constructed in Philadelphia, to existing terminal railroad stations there. The inherent construction difficulties and the costly, or near-impossible, operation of the plan, as definitely set forth by representatives of the interested railroads, have discouraged us in attempting to estimate the cost of construction further than to ascertain that, even if constructed as an elevated system, it would be highly expensive by reason of necessary grade crossing eliminations and excessive property damages. It is objected to because it would create a so-called "Chinese Wall" through a section of Camden where real estate values are high. The original "Bardo Plan" provided a three-story terminal station immediately over and covering the Bridge Plaza, with both local and through trains operating over the Bridge.

PLAN No. 2, Known as the "Costello Plan," involves comparatively small cost, beyond the bridge-rails operation, if de-

signed as a temporary project. As a permanent project, with a station in keeping with the adjacent bridge construction architecture, a suitable terminal bus station, pedestrian tunnels, rearrangement of traffic lanes and other necessities, it involves an estimated cost of \$820,000.00. It would provide fairly well as a transfer for bus passengers but would be of little value to passengers traveling by railroad trains.

As a temporary project—if connection with the Philadelphia Subway System could be promptly arranged—it would serve a good purpose during the construction period of other plans and, under certain conditions, it might be continued as a station on Plan No. 3 or Plan No. 6.

PLAN No. 3. This plan is exactly the same as Plan No. 6, except that it terminated at the Pennsylvania Railroad Bridge over Fifth Street and proposes that railroad passengers use a pedestrian tunnel to and from the station opposite the new City Hall. The length of the subway proposed by Plan No. 6 is shortened and the estimated cost is reduced to \$2,929,000.

PLAN No. 4. This plan was a feature of the original suggestion of the South Jersey Transit Commission and consists of a branch of Plan No. 6 to run from, approximately, Federal and Fifth Streets, by subway to Henry Street and by elevated construction on Henry, Line and Second Streets and on Ferry and Atlantic Avenues, to the existing Reading Terminal Station. The estimated cost of this plan is \$4,600,000. Two intermediate stations are provided in this plan.

PLAN No. 5. This plan starts at the same point as Plan No. 4 and is substantially the same except that subway construction is required through its entire length of approximately eight thousand (8,000) feet and the location is on Fifth Street, Newton Avenue, Fourth Street and Atlantic Avenue to the same terminal as Plan No. 4. The estimated cost of this plan is \$7,500,000. Two intermediate stations are provided in this plan.

PLAN No. 6. In the South Jersey Transit Commission's plan this is "Step No. One" in the solution of the transit problem and, since a connection with Market Street Subway in Philadelphia

apparently cannot be realized, there now exists no economy in construction that justifies carrying both tracks on the down-stream side of the bridge, and, especially to meet Mr. Modjeski's suggestion, the plan now comprehends a West-bound track on the outer, up-stream traffic lane of the bridge and an East-bound track on the outer, down-stream traffic lane of the bridge. These tracks converge at Fourth Street and at about the present street elevation, to form a two-track subway approach which descends, at the approximate grade of the bridge, to the subway portal located near the North property line of Linden Street; from this point the subway proceeds, under Fifth Street and with a suitable station opposite the new City Hall, to Federal Street where it curves to the East and parallels the existing right-of-way of the Pennsylvania Railroad Company, through a terminal station to be constructed by the railroad interests, to a terminal near the West property line of Haddon Avenue. Under proper management and some further development, this subway might be continued to a physical connection with the railroad tracks and so make possible the operation of a reasonable number of rapid transit trains, in connection with Plan No. 7, to and from suburban stations on both of the interested railroads; the plan also lends itself to extension, independent of existing railroads, into the suburban district. The estimated cost of this plan is \$3,600,000.

PLAN No. 7. This plan, or suggestion, indicates a method by which a reasonable joint operation of the two railroads may be accomplished by constructing a physical connection at what is known as Bulson Street Crossing, eliminating several existing grade crossings of streets immediately North of this Junction and constructing a Union Station near the site of the present Broadway Station. Operated in connection with Plan No. 6 this would provide, through a transfer at the Union Station from railroad to rapid transit trains, a quick trip across the river and access, through a rapidly developing subway system, to destinations, in Philadelphia, desired by those residents of South Jersey who use, and will continue to use, railroad facilities. Incidentally, this is the essential preliminary to accomplishing an under-river tunnel for the use of through railroad trains direct to Philadelphia terminals, which is indispensable to furnishing the

kind of rapid transit to which South Jersey is entitled. This plan is being studied by the engineers of the interested railroads who are expected to submit, at this meeting, interesting information regarding its development and the approximate cost of its construction.

GENERAL STATEMENT

Compilation of available records of railroads and organized busses, including estimates based on incomplete returns of independent bus lines and neglecting the passengers carried by street cars, shows that there were, approximately, fifty-five million five hundred thousand (55,500,000) trans-river crossings during the year 1929, of which total approximately thirty millions (30,000,000) were by busses.

Making allowance for the natural increase of travel and with reasonable deduction for continued use of existing facilities and possible further use of private automobiles, I believe it is a conservative estimate that fifty-two million (52,000,000) people will be available for transportation over the bridge, during the year 1933, by a rapid transit system that offers reasonable connections with railroads and busses in Camden, just and equitable rate of fare and transfer privileges, and subway connections and service, in Philadelphia, that meet the needs and reasonable convenience of the traveling public.

Respectfully,

ALEXANDER H. NELSON,
Engineer, South Jersey Transit Commission.



SOUTH JERSEY TRANSIT COMMISSION
PLAN SHOWING LOCATIONS FOR PROPOSED
RAPID TRANSIT CONNECTIONS
IN
CAMDEN, NEW JERSEY
SCALE 1" = 100' FT
PREPARED FOR CONSIDERATION BY THE
SOUTH JERSEY TRANSIT COMMISSION - NOVEMBER 1930
R. J. [Signature]

APPENDIX "C"

Administration Building,
Bridge Plaza, Camden, N. J.
December 18, 1930.

To His Excellency,

GOVERNOR MORGAN F. LARSON

AND MEMBERS OF GENERAL CONFERENCE COMMITTEE.

GENTLEMEN :

In accordance with instructions received from the General Conference called by Governor Larson on November 12, 1930, your Committee has carefully studied the problem of providing high speed rail transit between Pennsylvania and New Jersey in the vicinity of Philadelphia and Camden.

Meetings were held by the Committee on November 17th, November 24th, December 2nd and December 9th. Reports analyzing all suggested routes in Philadelphia were submitted by Director Clarence E. Myers, of the Department of City Transit of Philadelphia, and in Camden by Mr. Alexander H. Nelson, Engineer of the South Jersey Transit Commission. An analysis of the difficulties attending the operation of railroad trains across the Delaware River Bridge was made for the Committee by Mr. T. J. Skillman, Chief Engineer of the Pennsylvania Railroad and Mr. George I. Wright, Engineer of Electric Traction of the Reading Railroad.

These statements may be studied in detail in view of the following recommendations the Committee makes:

RECOMMENDATIONS

1. That the powers of the Delaware River Bridge Joint Commission be extended by the Legislatures of Pennsylvania and New Jersey to cover the construction and operation of a high speed rail transit line beginning approximately at Haddon Avenue and Carman Street, Camden, crossing the Delaware River Bridge on the outer track sections and joining the subway system of the City of Philadelphia at Eighth and Race Streets.

2. That the Joint Commission be empowered to make an engineering study at once of a tunnel linking the railroad systems of Pennsylvania and New Jersey.
3. That authority be given to the Joint Commission for the construction of additional bridges across the Delaware River or tunnels beneath the river.
4. Joint operation of the Pennsylvania and Reading Railroads by construction of a physical connection and a Union Station in Camden.

The Committee is of the opinion that the recommended extension of the Philadelphia subway system into Camden is of immediate importance and offers quickest relief from present conditions. For future serious consideration are recommended the possibilities of a subway in Arch Street, Philadelphia, and an extension of the proposed bridge high-speed line from Fifth and Federal Streets to the Reading Railroad Station in South Camden.

Preliminary estimates indicate that a two track connection from Eighth and Race Streets, Philadelphia, to Haddon Avenue and Carman Street, Camden, can be built at a cost not to exceed \$10,000,000.

Trains would be operated over the outer track sections of the Delaware River Bridge which originally were designed for high speed service and which have not been utilized to date. There would still remain the two inner track sections which adjoin the present vehicular roadway and which might be paved and incorporated in the bridge highway whenever the demands of increasing traffic warrant.

The Committee recommends that the present terminus of the line be located at Haddon Avenue, paralleling the Broadway Station of the Pennsylvania Railroad. The transfer of railroad passengers to the subway would be at least as easy and comfortable as that occurring at the Sixty-ninth Street Station of the Market Street subway around which centers a most remarkable development. Another station would be provided in the plaza around the Camden City Hall where it is proposed to build a bus terminal.

Provision would be made for at least one station in Philadelphia. At Eighth and Race Streets the tracks would connect with the subway now nearing completion. Bridge trains would run south under Eighth Street to Locust and west in Locust Street to the future terminus of the Locust Street line in southwest Philadelphia and return over the same route.

The contract to build the Locust Street subway as far as Eighteenth Street has already been awarded by the Department of City Transit of Philadelphia.

It is conservatively estimated that the proposed line would be patronized by 25,000,000 passengers annually. There is no doubt that there now exists sufficient demand to warrant immediate construction.

The Committee has kept in mind the problem of financing the improvement and believes that this can best be done through extension of the powers and duties of the Joint Commission. In this connection the Committee has been told that on the Pennsylvania side of the river the City of Philadelphia had appropriated \$10,784,662 for the construction of the bridge through a series of bond issues and the Commonwealth of Pennsylvania had appropriated a similar amount out of general receipts. The State of New Jersey provided \$15,895,418.57 for the bridge through two bond issues aggregating \$36,000,000 which were used for the construction of the bridge and the Holland Tunnel between New York and Jersey City. Pennsylvania and Philadelphia each has an unexpended balance of about \$187,918 and New Jersey \$19,920.40.

The City of Philadelphia went into Common Pleas Court No. 5 on June 24, 1929, with a petition to have the amount invested in the bridge deducted from the City's borrowing capacity and the Court approved the petition when evidence was presented that the City's share of the net revenue from bridge tolls was in excess of the interest and sinking fund charges upon the \$10,784,662.

These charges the Court found amount to \$562,084.04 annually. During the fiscal year ending June 30, 1930, the return to Philadelphia from operation of the bridge was \$766,992.59 or a surplus of \$204,908.55 over Sinking Fund charges.

It was suggested that the City might be able to capitalize this excess by issuing bonds without endangering the borrowing capacity in accordance with the provision of the amendment to the Constitution of Pennsylvania adopted November 2nd, 1920, which reads as follows:

"In ascertaining the borrowing capacity of the City of Philadelphia, at any time, there shall be deducted from such debt so much of the debt of said city as shall have been incurred, or is about to be incurred, and the proceeds thereof expended, or about to be expended, upon any public improvement, or in the construction, purchase, or condemnation of any public utility, or part thereof, or facility therefor, if such public improvement or public utility, or part thereof, whether separately or in connection with any other public improvement or public utility, or part thereof, may reasonably be expected to yield revenue in excess of operating expenses sufficient to pay the interest and sinking fund charges thereon."

By this means possibly \$3,000,000 could be provided by the City and probably a like appropriation might be had from Pennsylvania. These sums would be added to the cost of the bridge to be repaid from tolls. Several plans were considered in regard to New Jersey's share of the cost.

Beyond indicating possible methods of meeting the cost of the improvement your Committee does not go, believing this to be a matter for further consideration by those charged with the responsibilities of State and Municipal financing.

It is respectfully pointed out, however, that the Legislatures of both New Jersey and Pennsylvania will be in session next month and the requested legislation should be prepared without delay.

Of great importance to the traveling public and the progress of the States would be a physical connection between the Pennsylvania and Reading Railroads as recommended by this committee. This has been stamped as feasible by the representatives of the railroads on this Committee and the cost is placed at \$5,000,000.

The Committee reports that the recommendations in this report are approved by all the members with the exception of Mr. George I. Wright, representing the Reading Company. Mr. Wright was compelled to record his dissent formally stating "The Reading feels that Recommendation No. 1 does not provide for the needs of its patrons and that the possibility of realizing Recommendation No. 4 at this time is very doubtful."

Respectfully submitted,

DAVID BAIRD, JR., Chairman
CLARENCE E. MYERS
WINFIELD S. PRICE
THOMAS J. DALEY
THOMAS B. SMITH
JOHN B. KATES
T. J. SKILLMAN
W. R. SCANLIN
MARTIN SCHREIBER
JAMES V. MORAN
ALEXANDER H. NELSON
GEORGE I. WRIGHT (Dissenting)

JOSEPH K. COSTELLO,
Secretary.

APPENDIX "D"

ADMINISTRATION BUILDING,
BRIDGE PLAZA, CAMDEN, N. J.

December 18, 1930.

In response to a call from Governor Morgan F. Larson, the General Conference of representatives of interests engaged in the study of improvement of transit communication between Pennsylvania and New Jersey in the vicinity of Philadelphia and Camden was held in this office at 2:00 P. M. on the above date.

Governor Larson presided. Among those present were Senator David Baird, Jr., Chairman of the Sub-Committee on Interstate Transit; Mayor Harry A. Mackey of Philadelphia; Mayor Winfield S. Price of Camden; Clarence E. Myers, Director, Department of City Transit of Philadelphia; Thomas N. McCarter, President, Public Service Interstate Transportation Company; William H. Folwell, I. Norwood Griscom, Thomas B. Smith, John B. Kates, Thomas J. S. Barlow, Arthur C. King, and Richard Weglein of the Delaware River Bridge Joint Commission; Ralph Modjeski, Chief Engineer, and T. Harry Rowland, Counsel, Delaware River Bridge Joint Commission; James V. Moran, Chairman, Enoch L. Johnson, Killam E. Bennett, Gustavus W. Bergner, Henry H. Fithian, Ernest H. Rigg, Herbert Willis, Damon G. Humphreys and Alexander H. Nelson, Engineer, South Jersey Transit Commission; Ralph T. Senter, President, Philadelphia Rapid Transit Company; W. R. Scanlin, Chief Engineer, Philadelphia Rapid Transit Company; C. L. Bardo, President, New York Shipbuilding Company; Thomas J. Daley, City Engineer of Camden; M. W. Clement and C. F. Krick, Vice Presidents, and T. J. Skillman, Chief Engineer, Pennsylvania Railroad; George I. Wright, Engineer, Electric Traction, Reading Company; Martin Schreiber, General Manager in Charge of Plant, Public Service Interstate Transportation Company.

Senator Baird presented the report of the sub-Committee on Interstate Transit to the General Conference and explained in

detail each of the recommendations offered in the report. The recommendations were as follows:

1. That the powers of the Delaware River Bridge Joint Commission be extended by the Legislatures of Pennsylvania and New Jersey to cover the construction and operation of a high speed rail transit line beginning approximately at Haddon Avenue and Carman Street, Camden, crossing the Delaware River Bridge on the outer track sections and joining the subway system of the City of Philadelphia at Eighth and Race Streets.
2. That the Joint Commission be empowered to make an engineering study at once of a tunnel linking the railroad systems of Pennsylvania and New Jersey.
3. That authority be given to the Joint Commission for the construction of additional bridges across the Delaware River or tunnels beneath the river.
4. Joint operation of the Pennsylvania and Reading Railroads by construction of a physical connection and a Union Station in Camden.

Mr. McCarter spoke in favor of the report which he characterized as a step in the right direction toward solution of the present transit difficulties.

Mr. Bardo suggested the possibility of operating multiple unit trains across the bridge and Mr. Clements advocated construction of a tunnel under the river for railroad use. A general discussion followed.

The position of the Reading Company dissenting from the report of the sub-Committee was presented.

Mr. Lucius W. Parker, representing the Camden County Mayors' Association, presented a resolution calling for joint operation of the Pennsylvania and Reading Railroad lines in South Jersey.

A number of telegrams from Mayors of municipalities in New Jersey, endorsing Mr. Parker's stand, were read by direction of the chair.

Mayor Rigg spoke in favor of the carrying out of the report of the sub-Committee and said that the river tunnel for future traffic should be anticipated as soon as possible.

Mr. Moran moved that the report be accepted. The motion was carried with all but one dissenting voice.

Senator Baird pointed out that the report should not only be accepted but approved.

Mr. King moved that the report be approved. Carried.

Senator Baird suggested that the report should be forwarded to the Delaware River Bridge Joint Commission and the South Jersey Transit Commission.

Mayor Mackey said that it would be desirable to have representatives appear before the Legislatures of New Jersey and Pennsylvania in order that authority might be given to the Bridge Commission to bring about the needed improvements.

Governor Larson directed the sub-Committee on Interstate Transit and the General Conference to hold themselves in readiness for any call that Senator Baird might issue for a meeting.

The Governor thanked all present for the time and attention given to the problem and the General Conference then adjourned.

JOSEPH K. COSTELLO,
Secretary.

APPENDIX "E"

READING COMPANY

PRESIDENT'S OFFICE

17th December, 1930.

HONORABLE MORGAN F. LARSON, *Governor*
Trenton, N. J.

DEAR GOVERNOR LARSON:

As I wired you on Monday, I expect to be in New York at a Board Meeting of the Reading Company tomorrow, the 18th, and it will therefore be impossible for me to be at the meeting in Camden. As Mr. Ewing is a member of our Board it will also be impossible for him to be there.

Our Electrical Engineer, who was a member of the sub-Committee, will attend the meeting and will be prepared to answer any question, as to details, that you may desire to ask him.

I write you below as to the position of Reading Company with regard to this project.

The report of the sub-Committee, as I understand it, proposes rapid transit over the Delaware River Bridge. On the Philadelphia side connection is made with the Eighth Street and Locust Street Subway systems and on the Camden side to terminate in the vicinity of Haddon Avenue and Carman Street.

FIRST: Under this plan there is no provision on Camden side for taking care of the large traffic tributary to the Reading System. The plan, is, therefore, in our judgment, defective in that it does not provide for handling from seven to ten million persons per annum tributary to the Reading System.

On the Philadelphia side, while there is no objection to a connection with the Eighth Street-Locust Street line, a connection with Reading Terminal and Pennsylvania Terminal via Arch Street is quite desirable and important.

SECOND: Recommendation No. 4 reads:

“Joint operation of the Pennsylvania and Reading Railroads by construction of a physical connection and a Union Station in Camden.”

This would require the Reading to vacate the terminal which it has only recently constructed at a cost of \$4,000,000. It cannot be presumed that the Reading will be able to use the Pennsylvania terminals without paying interest charges on the value of those terminals and a proportionate cost of operation, so that the Reading would in effect be assuming the cost of the two terminals in Camden, in view of the vacation of an existing terminal. The cost to the Reading for such use would be prohibitive and in view of the rapidly declining traffic it cannot assume this additional financial burden.

Furthermore, there are some serious operating objections to such plan and unless there is an actual consolidation of railroads in southern New Jersey, this plan is impracticable from a Reading point of view.

It is indeed unfortunate that the Committee has not been able to develop a plan which would take care of all of the traffic now terminating in Camden and destined through to Philadelphia and vice versa, and I want to express the hope that a plan may yet be found which would include the Reading territory as well as all other territories.

Yours very truly,

AGNEW T. DICE,
President.

EXHIBIT "E"

SUMMARIZED EXPENSE ACCOUNT

FROM OCTOBER 1ST, 1929
THROUGH JANUARY 1ST, 1931.

Salaries	\$11,641 43
Associated Engineer's Fee	2,500 00
Office Rent	1,505 00
Office Equipment	831 98
Office Supplies and Service	397 99
Tel. and Tel. and Postage	297 41
Draftsman's Wages and Expenses	294 93
Chauffeur and Automobile Expense.....	357 03
Contract for Test Borings	953 60
Commissioners' Traveling Expenses	891 97
Engineer's Traveling Expenses	250 41
Report to Legislature—Printing	181 70
Blue Printing	88 18
Insurance	80 25
Total.....	\$20,271 88

