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New York and New Jersey and Ratified by Congress



NINTH ANNUAL REPORT

DECEMBER 31, 1929

JOHN F. GALVIN
Chairman

HOWARD S. CULLMAN
JOHN F. MURRAY

FRANK C. FERGUSON
Vice-Chairman

SCHUYLER N. RICE
WILLIAM C. HEPPENHEIMER

COMMISSIONERS

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March 20, 1930

HON. JOHN F. GALVIN, *Chairman,*
The Port of New York Authority,
75 West Street,
New York, New York

DEAR SIR:

We have made an audit of the books and accounts of The Port of New York Authority for the year ended December 31, 1929.

Cash on Hand was verified by actual count and Cash in Banks and Securities were verified with certificates received from the various depositories. All disbursements were verified with the exception of those made from funds in custody of the Treasurers of the States of New York and New Jersey, and we are informed that the latter are audited by the Comptrollers of the States named.

The total discount and expense on bonds sold to December 31, 1929, amounting to \$3,475,580.00 has been charged to bridge construction as a financing cost as per resolution of the Commissioners dated March 20, 1930.

We hereby certify that the within balance sheet is in accordance with the books and, subject to the comments thereon, in our opinion correctly sets forth the true financial position of The Port of New York Authority as at December 31, 1929.

Very truly yours,

S. D. LEIDESDORF & CO.

Certified Public Accountants.

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SUMMARY OF ANNUAL REPORT FOR YEAR 1929

NEW YORK, March 20, 1930

*To the Governor and Legislature of the State of New York:
To the Governor and Legislature of the State of New
Jersey:*

In submitting this, its ninth annual report, the Port Authority respectfully directs your attention to results achieved during the year 1929.

The efforts of other ports to secure differentials or other advantages have been strongly resisted. Our efforts have resulted in notable victories in two serious litigations involving port differentials—the Baltimore Port Differential Case in which the Interstate Commerce Commission, in a decision dated December 3, 1929, fully sustained the contentions of the Port Authority; and the Port Charges Investigation, in which the Interstate Commerce Commission, on August 30, 1929, held there was no basis for segregating charges for terminal delivery from car to shipside.

The negotiations with the carriers regarding inland freight terminals for Manhattan progressed to a point where on July 30, 1929, the Subcommittee reported favorably to the Presidents' Conference Committee. Recommendations were adopted on September 4, 1929, by the latter body to the effect that railroads willing to use inland freight stations for the handling of less carload non-perishable merchandise freight, would do so in accordance with an appropriate agreement which would govern conditions of usage. The final form of such a contract is now being considered, and in anticipation of the early completion of negotiations with the carriers, the Port Authority has been perfecting its plans for financing the project through a bond issue. By a temporary loan, the Port Authority was enabled to acquire property by private purchase instead of condemnation for a proposed site on the block

bounded by Fifteenth Street, Eighth Avenue, Sixteenth Street and Ninth Avenue, Manhattan.

Traffic and revenues on the two Arthur Kill bridges, which were placed in operation on June 29, 1928, are increasing at a very satisfactory rate.

Considerable time has been spent in studying a plan by which the Port Authority would finance and develop a marine terminal in what is known as the "Little Basin" property in Jersey City.

Construction work on both the Hudson River Bridge and the Kill van Kull Bridge is within schedule, and it is expected that both bridges will be opened to traffic in 1932. Special progress reports on these projects will be issued shortly.

The rapid increase in trans-Hudson vehicular traffic indicates the necessity for additional crossings in the immediate future. The Port Authority during the year has given considerable thought to this subject, and is making studies on a proposal to construct a tunnel under the Hudson River in the vicinity of 38th Street, Manhattan, and Weehawken, N. J., with an extension through the Palisades to Homestead, N. J.

Study and planning on additional projects, such as suburban transit facilities, a live poultry terminal, belt lines, fruit and vegetable terminals, etc., have been continued.

The Port Authority has also continued to aid municipalities in studies to determine the economic practicability of various proposed local improvements, and has also continued to cooperate with the Army Engineers in matters involving the construction of bridges across navigable waters in the Port District.

Respectfully submitted,

THE PORT OF
NEW YORK AUTHORITY

{ JOHN F. GALVIN,
FRANK C. FERGUSON,
HOWARD S. CULLMAN,
SCHUYLER N. RICE,
WM. C. HEPPENHEIMER,
JOHN F. MURRAY,
Commissioners.

ANNUAL REPORT, YEAR 1929

SECTION I—DEVELOPMENT AND PROTECTION OF THE PORT

PART I—Port Development

Harmonious relations with the railroads have continued, and the practical cooperation resulting therefrom is leading to definite accomplishment. Pursuant to an agreement with the Chairman of the Presidents' Conference Committee of the Railroads, the policy of concentrating on a particular project has been followed—the one now actively followed being the establishment of Union Inland Freight Terminals in Manhattan.

Union Inland Freight Terminals

The Subcommittee appointed by the Presidents' Conference Committee to investigate the practicability of the Port Authority's latest plans for a Union Inland Freight Terminal in Manhattan has continued its deliberations.

The Port Authority staff submitted to the Subcommittee a memorandum suggesting that an initial unit could be developed in an area between 14th and 18th Streets, Seventh and Ninth Avenues, New York City, which would meet all requirements. An extensive study of this site was made by the Subcommittee and after consideration of costs, capacity and practicability, the Subcommittee, under date of July 30, 1929, reported unanimously to the Presidents' Conference Committee as follows:

"Believing that the generally recognized advantages to Railroads and Merchants of the flexibility in operation of motor vehicles as a means of handling freight within terminal areas particularly, in comparison with present arrangements; and the certain further development of improved highways, including tunnels, elevated structures and bridges, essential to the maximum utility of motor vehicles on the basis of minimum costs, considered in conjunction with the constantly increasing demands for East and North River piers for the accommodation of ocean-going steamships, and the very high rental charges Railroads must pay for the use

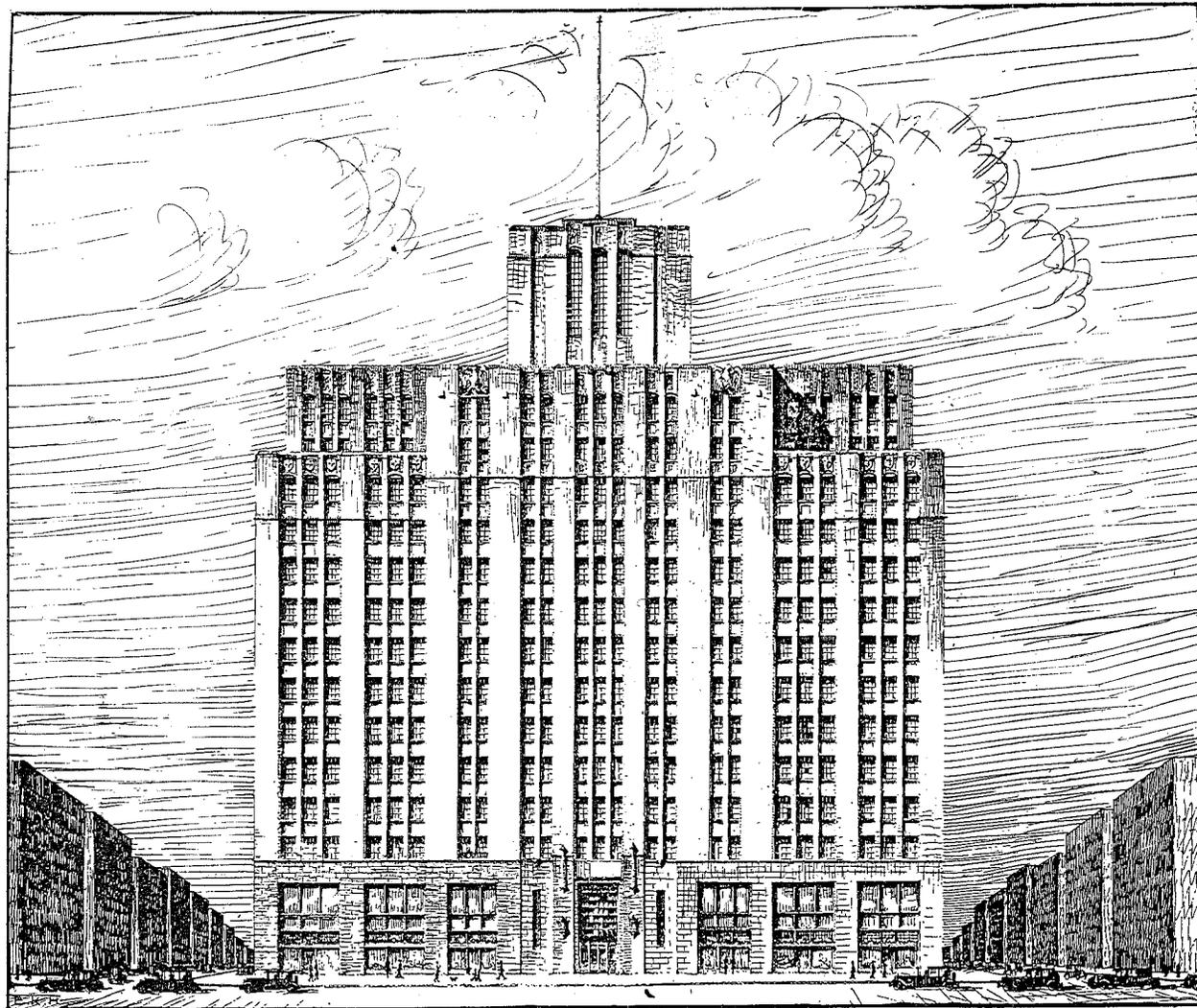
of those piers; may make necessary substitution as an ultimate situation, of Universal Inland Freight Stations and some form of Direct Collection and Delivery Service, for the present forms of operations—recognizing that expenses will be increased during a transition period—your Committee recommends—

“That railroads willing to use Inland Freight Stations for the handling of less-car-load non-perishable merchandise freight advise The Port of New York Authority that if it will construct a Universal Inland Freight Station as proposed and have it ready for use within approximately One year, such Railroads will use it in accordance with an appropriate agreement in which shall be set forth satisfactory conditions of usage, and a definite commitment on the part of The Port of New York Authority to construct Two additional Universal Inland Freight Stations if, and when desired by the Railroads.”

Those recommendations were unanimously adopted by the railroad presidents on September 4, 1929, and the Port Authority was officially notified to that effect on September 7, 1929. The Subcommittee and the Port Authority have since been preparing a form of contract for the use and operation of the proposed facility. Several preliminary drafts of such an agreement have been prepared and discussed in committee and the final draft will issue therefrom in the near future.

This contract is in the nature of a lease by the carriers of the main portion of the ground floor and basement of a building to be financed and erected by the Port Authority, and the rental will be based upon a nominal charge per ton for the freight handled by the carriers through this station. The freight facilities in the building will be operated by the carriers.

The contract with the carriers provides that the Port Authority will complete the freight station facilities within fifteen months of the signing of the agreement. In order to save time the staff of the Port Authority made a careful study of all available building sites in the aforementioned area and, based on property values, foundation conditions, suitable dimensions, freedom from zoning restrictions or city-owned property and accessibility, recommended the entire block bounded by 15th Street, Ninth Avenue, 16th Street and Eighth Avenue, as the most suitable location. In order to prevent real estate speculation and inflation of values, options were obtained on a substantial portion of the total area in the block before making public the exact location under consideration.



Proposed Port Authority Building and Terminal (End Elevation)

A public hearing on the matter of location was held at the offices of the Port Authority on October 1, 1929. General approval of the project was voiced by practically all present, although some objections were raised on behalf of certain civic interests who contended that consideration should be given to a plan which would contemplate the erection of similar terminals at points other than in Manhattan. Objection was raised also by certain civic associations, who, although approving of the proposal to establish inland terminals, objected to the site which had been recommended. These latter objections were based upon the contention that property in the vicinity of the proposed site was destined to become a high-class residential district. The City zoning plans, however, had left this locality unrestricted. The City of New York also requested that our plans be submitted to the appropriate City authorities for approval, and the plans are now being considered by the Borough President of Manhattan. Many civic associations supported the staff's plan wholeheartedly.

In anticipation of the early completion of negotiations with the carriers and the signing of the operating and leasing agreement, the Port Authority has been perfecting its plans for financing this project through a bond issue. No financial assistance will be required of the two States inasmuch as the credit of the Port Authority is so well established that there will be no difficulty in selling bonds after the preliminary arrangements have all been completed.

Considerable work has already been done on the engineering plans and specifications for the terminal building. The firm of Abbott, Merkt & Company of New York City has been retained as Engineer-Architect to prepare detail plans, etc., and direct the construction work under Port Authority supervision.

During the year, twenty-two parcels of property were acquired at an aggregate cost of \$1,311,950, in the block bounded by 15th and 16th Streets, 8th and 9th Avenues, New York City, for proposed terminal purposes.

Belt Lines

As stated in our last report, the effectuation of the various belt line projects included in the Statutory Plan is a matter depending largely on railroad cooperation, not only with the Port Authority, but also between the various trunk lines concerned. The solving of the railroad consolidation problem will hasten establishment of unified belt line service for the Port of New York. The Interstate Commerce Commission, in its recently announced Consolidation Plan, sets forth certain general principles with respect to the desirability of coordinating terminal facilities and operations.

Belt Line No. 7

The commercial or industrial development of the Jamaica Bay section of the Port of New York is largely dependent upon securing adequate rail trackage connecting that waterfront with the Long Island Railroad and thence with all the trunk lines. Under date of November 26, 1929, the Port Authority addressed a communication to the Borough President of Brooklyn, offering to undertake to finance and construct such a rail connection in a location selected by the City of New York and in accordance with plans and specifications of the Long Island Railroad. The offer provided that the City would cooperate to the extent of providing necessary right-of-way, franchises and easements, and would lease the completed line from the Port Authority for an annual amount sufficient to pay interest and amortization charges. Under this arrangement, the City of New York can acquire control of the line under easy payments over a limited period of years, with recapture at any intermediate date if desired. The City in turn would lease the line for operation to the Long Island Railroad under its own terms.

Belt Line No. 13

Belt Line No. 13 has continued to function during the year to the satisfaction of the industries which it serves. In order to complete the program of rate adjustment in

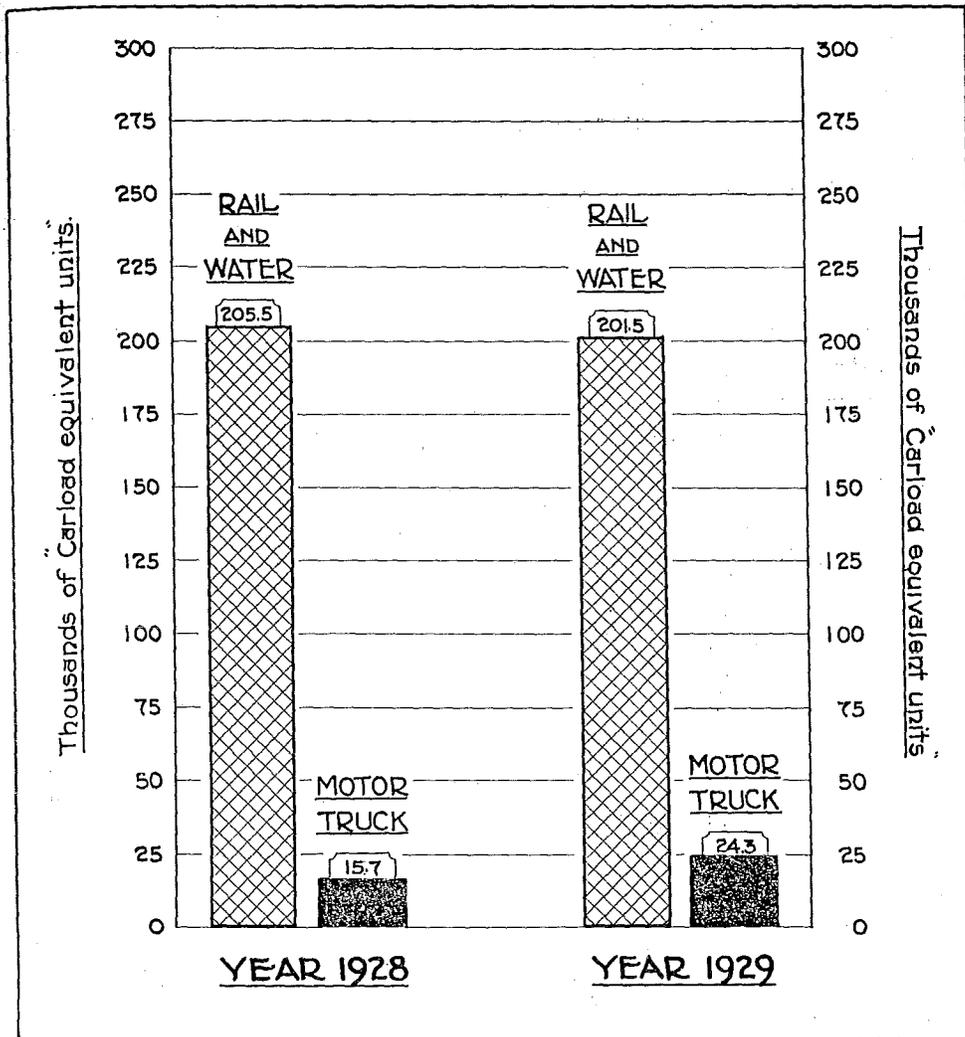
Belt Line 13 territory, the Port Authority, on November 7, 1929, called attention to the failure of the carriers' Belt Line 13 Traffic Committee to establish joint class rates between such points as Jersey City stations on the Erie Railroad, and stations on the West Shore Railroad, such as Utica. This adjustment was originally agreed to by the railroad executives as a result of the old Belt Line No. 13 case before the Interstate Commerce Commission. The matter is now being considered by the carriers' committee.

Belt Line No. 9

There has been some industrial activity on the westerly shore of Staten Island this past year that may result in at least a portion of Belt Line No. 9 being constructed. Two nationally-known oil companies have purchased large tracts of land and negotiations are under way with the Baltimore and Ohio Railroad looking towards extensions of their line along the Arthur Kill shore. At the time the Outerbridge Crossing was under construction, the railroad company constructed a spur track from Tottenville up to the bridge site along the general location of this belt line route. A similar spur at the northerly end is now being planned to extend into the waterfront property north of Goethals Bridge.

Fruit and Vegetable Terminals

The outstanding problems of the year in connection with handling of fruit and vegetables related to motor truck operation. The completion of new interstate crossings (Holland Tunnel and Arthur Kill Bridges), together with the spread of hard-surface highways, has stimulated the movement by motor truck of perishables from nearby shipping points to the metropolitan area. Motor truck shipments to dealers in the New York metropolitan market, August to November, 1929, increased fourteen per cent as compared with a similar period in 1928. The nightly influx of three hundred motor express trucks to the wholesale produce market district on Manhattan Island creates



MOTOR TRUCKS HANDLE MORE FRUITS AND VEGETABLES TO THE PORT OF NEW YORK DISTRICT

Improved highways and new interstate crossings have stimulated motor truck haulage of fruits and vegetables from shipping points within 100 miles to Port District markets. In 1929, 24,300 carlot equivalents, or about 50,000 truckloads, were hauled to dealers in the Washington, Wallabout, Gansevoort and Newark markets, creating new problems in street and sidewalk occupancy.

new problems in street and sidewalk congestion. Local market truckmen hauling from nearby railroad terminals, as well as buyers' trucks picking up produce for delivery to subsidiary markets, must compete for space at dealers' store doors at an hour when the out-of-town motor express deliveries are at their peak.

A climax to the difficulties came in a strike of market truck drivers in October, 1929. The terms of settlement of this strike contained a clause which would have forced out-of-town truckmen to make delivery on West Street, Manhattan, where the produce was to be rehandled to dealers' store doors in vehicles of the market truckmen and with an added charge. This rule brought a flood of protests from growers and shippers in New Jersey, Long Island, upstate New York and elsewhere. The New York State Commissioner of Agriculture called a conference between the interested parties, and a member of the Port Authority staff subsequently sat on a committee appointed to work out a better solution of the problem. This committee reported on November 12th that the market truckmen and produce trade had agreed to suspend the objectionable rule permanently, and submitted recommendations to improve conditions in the produce district which are now being considered by the trade.

Conditions in the Newark, N. J., produce market were also disturbed during the year by a trucking strike and by the apprehension of market growers regarding the future facilities for display and sale from trucks. The latter was induced by the prospective abandonment of the Commerce Street, Newark, farmers' market. At the request of the Farm Relief Committee, appointed by the 1929 Legislature of New Jersey, the staff presented facts relating to the market situation in northern New Jersey and is continuing to cooperate with the Committee in planning for better facilities in the Newark area.

The Port Authority continues its cooperation with the United States Department of Agriculture and other public bodies in maintaining headquarters for and supporting the

work of the New York Food Marketing Research Council. This agency is doing very effective work in the field of marketing problems in the metropolitan area and furnishes valuable information to the Port Authority in connection with port terminal plans involving perishable commodities.

Live Poultry Terminal

Since the issuance of its Report on Union Terminal for Live Poultry Trade, on May 5, 1927, the Port Authority has kept in close touch with the negotiations incident to the carrying out of this terminal project. The live poultry trade committee handling this matter was able to agree upon a satisfactory site and to work out details of traffic arrangements, design, etc., but found itself unable to secure sufficient support to finance the project with private capital or to secure adequate guarantees for Port Authority financing.

In the latter part of 1929, because of unsettled conditions in the local trade, outside interests took up the task of enlisting the necessary support. A corporation, backed by large shippers and receivers of live poultry, proposes to operate a complete terminal service and has contracts with the Live Poultry Shippers Association, and, through the Association, with individuals shipping an aggregate of over five thousand cars per annum, providing for the use of the terminal when constructed.

The New York Poultry Exchange (set up under special charter from the New York State Legislature on September 7, 1928) ceased to function under exchange rules early in 1929, following the resignation of the president and the secretary, and the withdrawal of Class B (slaughter house) members. The Port Authority was one of the public agencies which nominated a representative to the Class C (public agencies) membership of the Exchange upon the request of the Attorney General of New York. When it became apparent that the Exchange could not function under present conditions in accordance with original plans, the Port Authority's representative submitted his resignation.

The Port Authority will continue to aid the industry in solving its terminal problems, still believing that the establishment of a union terminal will create the background for a well organized system of trading which the Exchange sought to accomplish in the face of adverse physical conditions.

Jersey City Marine Terminal

The Port Authority was authorized by the 1929 New Jersey Legislature to submit a bid for the so-called "Little Basin" property of the Morris Canal & Banking Company in Jersey City. This authority was entirely unsolicited. A preliminary investigation, however, disclosed that the site, together with adjoining waterfront properties, was an admirable location for a modern steamship terminal.

A conference was arranged with the Mayor and Commissioner of Jersey City and a preliminary understanding arrived at whereby the City and the Port Authority will endeavor to bring about this needed port improvement. It is planned that the Port Authority acquire the "Little Basin" property and other adjacent properties, and construct thereon a modern steamship terminal embracing four large piers with track connections. The Port Authority will finance and construct the improvement, and lease the completed facility to the City of Jersey City for an amount sufficient to cover interest, amortization, etc. The municipality will operate the terminal as a public facility, leasing the piers for occupancy. Upon amortization of the Port Authority's investment the terminal will revert to Jersey City.

Preliminary negotiations have been started with the Morris Canal and Banking Company for the acquisition of the "Little Basin" property, engineering surveys are now under way and an advisory real estate committee has been appointed to appraise all properties involved.

Channel Improvement, Etc.

In accordance with our policy of cooperating with the federal authorities with respect to improving navigation

conditions within the Port District, the staff of the Port Authority has investigated and reported upon numerous projects in connection with channels, pier and bulkhead line modifications, changes in anchorages, and similar matters under the jurisdiction of the United States Army Engineers. Among the more important projects were the following:

1. Applications by Bayonne and Jersey City for modification of the existing bulkhead lines along the east shore of Newark Bay.
2. Extension channelward of existing pierhead line in the North River, West 30th to West 72nd Street, Manhattan.
3. Proposed modification of Quarantine Anchorage in New York Bay and regulations relating thereto.
4. Proposed improvements to the Elizabeth River, to include a channel twelve feet deep and one hundred feet wide, from the mouth of the river to the New York & Long Branch Railroad bridge.
5. Widening of the Hudson River ship channel between the Battery and West 20th Street, Manhattan.
6. Proposed modification of Quarantine Anchorage at Perth Amboy, New Jersey.
7. Proposed modification of harbor lines on east side of Harlem River at High Bridge, New York City.
8. Additional improvement to Shrewsbury River between mouth of the river and Highlands, New Jersey.
9. Proposed improvements to Kill van Kull and Newark Bay ship channels.
10. Proposal to establish anchorage grounds in the vicinity of Port Newark.
11. Proposed survey and examination of the channels through Lower New York Bay, Raritan Bay, Staten Island Sound, Kill van Kull and Newark Bay.

Bridges Over Navigable Waterways

Under the existing law, agencies desiring to construct bridges across navigable waters must make application to the War Department. The Army Engineers have requested opinions from the Port Authority as to the sufficiency of clearances, effects upon navigation, etc. Representatives of the Port Authority have appeared before the Army Engineers to express conclusions on the following applications:

<i>Applicant</i>	<i>Location</i>
Department of Plant & Structures, City of New York	Mott and Hook Creeks—Rockaway Turnpike, Long Island, N. Y.
State Highway Commission of New Jersey	Hackensack and Passaic Rivers— Lincoln Highway, Route 25, New Jersey
Department of Plant & Structures, City of New York	Fresh Kills—Richmond Avenue, Staten Island, N. Y.
Department of Plant & Structures, City of New York	East River—Tri-Borough Bridge, New York City, N. Y.

Additions to Port Facilities

The following new port facilities were begun or completed during 1929 by public and private agencies. The Port Authority claims no credit for these improvements but thinks it fitting that the constant expansion of the commercial and transportation facilities of the Port should be made known. Millions of dollars are being spent here annually to assure an ample capacity for all the commerce that seeks this national gateway.

It is, of course, impossible in a report of this kind to catalogue all new construction work in so extensive an area as the Port District.

West Side Improvement—

Final agreement reached between New York City and the New York Central Railroad; approved by the Transit Commission and the first spike pulled on December 31, 1929, for the removal of steam railroad surface tracks from Eleventh Avenue, Manhattan.

Piers, Docks, etc.—

Construction commenced on three modern steamship piers and supporting warehouses at Exchange Place (Jersey City) Terminal of Pennsylvania Railroad.

New open pier for handling bulk commodities from ship to rail completed and put into operation by the Lackawanna Railroad at its Hoboken terminal.

Largest privately-owned graving dock on Atlantic coast completed and placed in service by Todd Drydock Company at Erie Basin, Brooklyn. Dock is capable of taking a ship 731 feet long, 120 feet wide with maximum draft of 32½ feet, and can accommodate all but eleven of the largest liners entering the Port.

Warehousing—

New Trade Facilities Building completed by New York Dock Company in Brooklyn. Has track connections and permits street trucks being elevated to all upper floors.

Railroad Electrification—

Pennsylvania Railroad announced plans for completely electrifying its line from New York to Washington and all of its New York terminals.

Lackawanna commenced electrification of its Morris & Essex Division from Hoboken to Denville, all within the Port District.

Highway Bridges & Tunnels— Work started by the City of New York on Tri-Borough Bridge across Harlem and East Rivers connecting Boroughs of Manhattan, Bronx and Queens.

New York City is planning a vehicular tunnel under East River connecting Manhattan (East 38th St.) with Boroughs of Queens and Brooklyn; also vehicular tunnel under the Narrows connecting Staten Island and Brooklyn.

Two high-level bridges on New Jersey State Highway Route 25 across Hackensack and Passaic Rivers being planned by Highway Department of State of New Jersey.

SECTION I—DEVELOPMENT AND PROTECTION OF THE PORT

PART 2—Port Protection

Two litigations before the Interstate Commerce Commission, involving "port differentials," were successfully terminated by decisions favorable to the Port of New York, and in another case of like character a favorable disposition has been recommended by the Examiner who heard the evidence. Attention has been directed in previous annual reports to the progress of these cases, but the issues involved and the significance of the favorable decisions rendered this year should be noted.

Baltimore Port Differential Case: (I. C. C. Docket 18715)

By complaint filed in August, 1926, the commercial interests of the Port of Baltimore asked the Interstate Commerce Commission to segregate terminal charges from the line-haul rates and to double the existing differentials of sixty cents per ton in favor of Baltimore on foreign trade to and from central competitive territory. The ports of Philadelphia and Boston later joined with Baltimore in asking for increased differentials under the New York rate. The Port of New York Authority intervened in vigorous opposition to these proposals and had the support of the leading commercial organizations in all sections of the Port District. In a decision dated December 3, 1929, the Commission fully sustained the contentions of the Port Authority by dismissing the complaint and preserving the present rate adjustment. This decision was all the more gratifying because the Commission completely reversed its Examiner who had previously recommended that increased differentials in favor of the outports should be granted.

Port Charges Investigation: (I. C. C. Docket 12681)

A decision handed down by the Interstate Commerce Commission August 30, 1929, holding that there was no warrant for segregating charges for terminal delivery from car to shipside, brought to a favorable conclusion for the Port of New York this proceeding which has been in litigation since 1921. Originally started by warehouses and public terminals at southern ports as an investigation into the practices of the railroads in furnishing free dockage and warehousing, the case was extended to the north Atlantic ports in 1926 and expanded to cover costs of delivering freight from car to shipside according to a formula prepared at the instance of the United States Shipping Board. The terminal costs furnished by the carriers in response to a questionnaire (which covered harbor lighterage but excluded rail switching), naturally showed a higher average cost at the Port of New York than at ports where more switching and less lighterage was being performed. Philadelphia and other outports seized upon these cost figures as a basis for arguing that freight rates should be made in two factors, i. e., a line-haul charge and a separate charge for terminal delivery. The proponents of this theory further urged that the terminal factors be made on the basis of the average costs shown in the questionnaire for each port as a unit. Throughout its presentation, ending with oral argument before the full Commission on April 10, 1929, the Port Authority stressed the harmful effects of discontinuing through, single-factor rates to shipside, and pointed out the inequity of singling out only port cities for segregation of terminal charges and of choosing only the costs from car to ship for establishing such charges.

The decision of the Commission rejecting the theory advanced by the outports removes the danger of a severe penalty upon the foreign and intercoastal trade now handled through all sections of the Port of New York.

Gulf Import and Export Rates: (I. C. C., F. S. A. 2040 et al)

A concerted attempt on the part of the southern railroads, with the support of southern steamship and port interests, to divert a considerable portion of import and export traffic from the Port of New York received a severe check in the recommendations of the Examiner handed down on December 17, 1929. The southern carriers had applied for permission to depart from the long-and-short-haul clause of the Interstate Commerce Act by reducing import and export rates to and from central competitive territory far below rates on domestic traffic, and as much as \$13.00 per ton below the contemporaneous rates applying via the Port of New York. In some instances the proposed rates would amount to only fifty or sixty per cent of the scale held to be reasonable for non-competitive traffic.

The Port Authority, cooperating with the other north Atlantic ports and the eastern railroads and steamship lines presented evidence and arguments against the necessity for the unduly low rates which the southern carriers proposed.

The Examiner for the Interstate Commerce Commission has recommended that the southern carriers be prohibited from carrying rates less than seventy-five per cent of the scale which they maintain on domestic, non-competitive traffic to the south Atlantic and Gulf ports. If these recommendations are adopted by the Commission, the Port of New York will be placed upon a substantial parity with southern ports instead of having another "differential" placed against it.

Off-Track Station and Trucking Investigation: (I. C. C. Docket 19715)

The 1928 report discussed in some detail the issues of this case, which was concerned primarily with the proposal of the carriers to discontinue their trucking services on account of competitive difficulties. In a decision dated August 15, 1929, the Interstate Commerce Commission held that, while the use of the motor truck was economical

and desirable in the public interest, the present practices of carriers offering this service had led to violations of the law and that therefore the service, as operated, should be discontinued and a better plan worked out. The decision says: "The situation in New York Harbor in respect to the delivery and receipt of freight is such that the wisdom of truck coordination plainly suggests itself," and goes on to refer to the conferences in progress between the railroads and the Port Authority looking towards the establishment of union or universal inland stations with this conclusion: "We express the hope that these conferences will result in the establishment of such facilities."

Pursuant to the Commission's order, the railroads discontinued their trucking operations under the existing tariffs on September 25, 1929. In addition to negotiating with the Port Authority for the construction and use of an inland terminal for handling less-carload merchandise freight, a special committee of the Railroad Presidents' Conference is considering plans for an optional store-door collection and delivery service by the carriers for carload merchandise freight, at a uniform trucking charge in addition to the railroad rate.

Eastern Class Rate Investigation: (I. C. C. Docket 15879)

Although no decision has yet been rendered, further progress was made by the Interstate Commerce Commission in revising the basis for class rates on domestic traffic in the territory east of Buffalo and Pittsburgh. A further hearing was held in Washington on May 8, 1929, at which time the results of the revenue test conducted by the carriers were filed and further evidence presented by the Port Authority with respect to the method of calculating mileages to the Port of New York. The Examiner has recommended that the Port of New York District be treated as a unit and that distance to this group be calculated by adding ten miles to the mileages to the rail termini to cover average hauling distance in making deliveries beyond the termini. A similar method of calculating mileage was not

followed at Baltimore and Philadelphia although the carriers had proposed such an arrangement to apply to all three points.

In the reopened hearing and in briefs filed subsequently, the Port Authority adduced additional data to show that the rail termini were approximate centers of the density of freight distribution and that there was no good reason for distinguishing between the Port of New York District and the Baltimore and Philadelphia areas with respect to this ten-mile factor.

The oral argument in this case was completed and the case submitted to the Commission for final decision on July 16, 1929. At that time, counsel for the Port Authority reiterated the desirability of an extension of a uniform basis on New England rates from the old boundary line of the Hudson River over the entire New Jersey side of the Port District to include Newark, Elizabeth, Paterson and Perth Amboy. This is for the purpose of giving the New Jersey side of the Port rates on a parity with New York City on New England traffic,—comparable to the situation at the present time on western and southern traffic.

Iron and Steel Rate Investigation: (I. C. C. Docket 17000, Part 6)

The Port Authority took no part in this case in its early stages since it was primarily concerned with the establishment of a basic rate scale for the domestic movement of iron and steel products throughout the entire Official Classification Territory. Port differentials on export and import traffic were specifically excluded from the scope of the investigation. In its other features the case followed along the lines of the Eastern Class Rate Investigation to a large extent. The decision of the Commission in the Iron and Steel Case, however, which was handed down on June 3, 1929, in advance of the Eastern Class Rate decision, left some doubt as to the rate adjustment applicable between New England and the Port of New York District and also the future adjustment on iron and steel moving to the ports for subsequent intercoastal haul by water. The

Port Authority accordingly requested the Interstate Commerce Commission to reopen the proceedings for the purpose of obtaining more specific findings on these subjects. Many others likewise requested that the case be reopened on these and other grounds but the Commission denied all petitions thereby leaving the matter to be handled on specific consideration at a later date if necessary.

Miscellaneous Investigations, Etc.

In recognition of its obligations to protect the commerce of the Port, the Port Authority has taken part in a number of activities which called for informal investigation and negotiation with Federal authorities, railroads, steamship companies and shippers. The entire list is too voluminous to be reviewed, but a number of those which have been carried to a successful conclusion are mentioned.

Customs Ruling on Transit Grain

An order of the United States Treasury Department, issued through the Collector of the Port on October 25, 1929, threatened to hamper seriously the continued movement of Canadian bonded grain in transit through the Port of New York for export. The matter was taken up promptly with the Secretary of Treasury and as a result of a conference in Washington, November 27, 1929, in which the Port Authority, railroads, elevator and grain trade interests participated, the Assistant Secretary of Treasury agreed to rescind the order so as to facilitate the continued movement of this very important portion of the commerce of the Port.

The investigation of the Port Authority revealed that this Canadian grain constituted twenty per cent of the export tonnage from the Port of New York, earned a gross annual revenue of \$9,000,000 for American railroads and barge canal operators serving the north Atlantic ports, and furnished from twenty to seventy-five per cent of the east-bound cargoes of steamships operating from the Port of New York.

Diversion of United States Grain to Canadian Ports

The serious diversion of American grain through Canadian ports, particularly Montreal, by reason of preferential rates and less rigid standards and grading requirements at the Canadian ports, was commented upon in the 1928 report. The matter was investigated by a committee consisting of the chairmen of the Interstate Commerce Commission and the United States Shipping Board and the secretaries of Commerce and Agriculture, pursuant to Senate Resolution 220. The committee filed a report on January 29, 1929, which appeared to the Port Authority to minimize the importance of the disparity in standards and grading practice. Accordingly a brief was filed with the Senators from New York and New Jersey, pointing out the deficiencies of the report and urging Congressional action in following up negotiations to rectify the situation.

The Port Authority also took occasion to communicate on this subject with the Royal Grain Inquiry Commission, the Board of Grain Commissioners for Canada, and the United States Department of Agriculture. Conferences between Canadian and American officials looking towards an adjustment of the grain standards are promised for the near future.

Foreign Trade Zone Legislation

Bills authorizing the Secretary of the Treasury to permit the establishment of foreign trade zones at ports of entry in the United States under proper regulation were again introduced in the 71st Congress. Such zones (sometimes referred to as "free ports") have been established in European countries to stimulate the transshipment trade, and with marked success. The zones contemplated in the bills now before Congress would be circumscribed areas at ports of entry where importations might be landed from steamships, cleaned, sorted and repacked for re-export to markets outside of the United States without the restrictions which of necessity govern the present handling of this transshipment traffic. The establishment of foreign trade zones has been discussed in this country for several years,

and has been endorsed by a large number of the leading commercial organizations and by practically all the large ports.

During 1929, the Port Authority sent a representative to Washington to appear before the Senate Finance Committee on this subject and has more recently addressed communications to members of Congress reiterating approval of foreign trade zone legislation.

Absorption of Lumber Loading Charges

The Annual Report of 1928 referred to the Port Authority's action in calling attention of the lumber trade and terminal interests to the railroad practice of absorbing the cost of loading lumber direct from ship's tackle to railroad cars at Philadelphia and Baltimore but not at similar terminals in the Port of New York. The proposition of extending this practice to the Port of New York, particularly at Port Newark where the greatest volume of inter-coastal lumber is handled, was placed before the Trunk Line Association on May 2, 1929. The voluntary extension of this practice to the Port of New York was at first refused by the trunk lines, but is now being reconsidered.

Port Information

An increasing number of inquiries regarding port charges, steamship services, pier facilities and matters of similar importance to prospective users of the Port of New York is being handled. In order to place material of this character in readily accessible form, a monthly compilation of facts concerning trends of foreign commerce, shipping, domestic tonnage, and pier and warehouse facilities was begun in February, 1929. Portions of these compilations are being incorporated in a pamphlet entitled "Commerce Bulletin," which is being circulated periodically to Chambers of Commerce, Boards of Trade, and important users of port facilities. The Bulletin has been issued regularly every month since March, 1929, to a list which has grown to include 1400 names, and has proved to be an excellent

medium for placing accurate facts concerning the Port of New York in the hands of those who need them and are best able to use them.

Lighterage Charges, I. C. C. Docket 22824

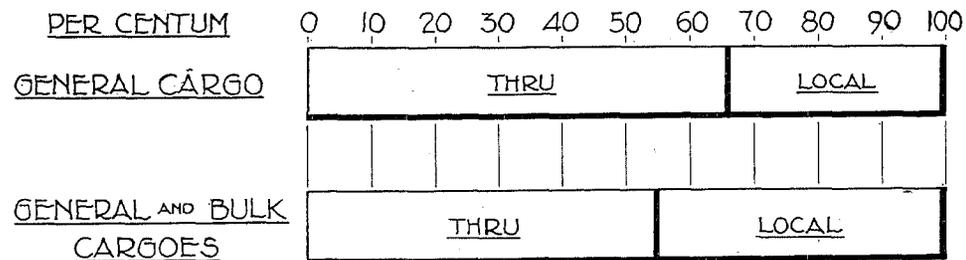
As stated hereinbefore, the Port Authority has appeared before the Interstate Commerce Commission in opposition to the theory that lighterage is an accessorial or additional service. (See Baltimore Differential Case and Port Charges Investigation.)

Early in 1929, the Port Authority invited certain advocates of this theory, comprehending changes in the rate structure for the Port of New York, to confer on the subject. The minutes of the resulting conference were forwarded to the Governors of each State, and on May 16, 1929, a formal communication was addressed to the Governors of the two States analyzing the proposal, and pointing out that, in defense of the entire Port, this theory when advanced by competitive ports had been contested in pending cases before the Interstate Commerce Commission. This communication summed up as follows:

After a careful analysis of the proposal "to stop the rate with the car" as we understand it, we are convinced that it is contrary to the interests of the Port as a whole and to every section of the Port; that it will, if adopted, place the Port as a whole at a disadvantage in competing for export and import business; that it will add to the cost of building operations; that it will tend to destroy values of waterfront property occupied by industries and piers not directly connected by rail; that it will retard progress in reducing the costs of terminal operation and in effectuating essential portions of the Statutory Plan. We are advised by our Counsel and Associate Counsel that the proposal is in direct conflict with the position taken in three proceedings now before the Interstate Commerce Commission, in which we have intervened to protect the position of the Port and the Statutory Plan and that there is no sound legal basis for the proposal.

In 1929 the New Jersey Legislature appropriated Fifty Thousand Dollars to the New Jersey Board of Commerce and Navigation "for the removal of rate discriminations against New Jersey." This appropriation was later declared unconstitutional by the Attorney General, who in turn was directed by the New Jersey Legislature "to investigate transportation rates and practices affecting the commerce of New Jersey," and was authorized to institute suitable proceedings at his discretion, upon approval by

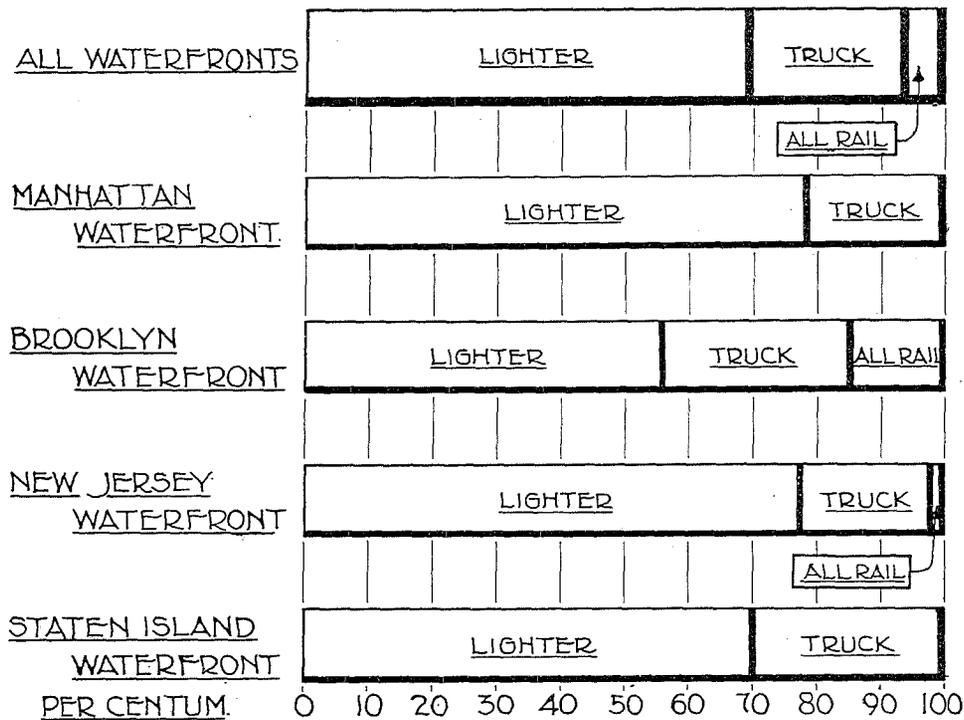
STEAMSHIP FREIGHT LOCAL TO PORT VERSUS INTERCHANGE
WITH OTHER CARRIERS FOR THRU MOVEMENT.



DISTRIBUTION OF STEAMSHIP CARGOES AT THE PORT OF NEW YORK

Analysis of 13 general cargoes shows 34 per cent of steamship freight to be of local origin and destination. When bulk cargoes of oil and sugar are added, 45 per cent of the tonnage is local to the port. Steamships docking in all sections of the port continue to depend primarily upon lighters for delivery, although trucks are becoming an important factor.

METHOD OF TRANSPORTING STEAMSHIP FREIGHT
TO AND FROM PIERS ON VARIOUS WATERFRONTS



the Governor of New Jersey. The Port Authority communicated with the Attorney General of the State of New Jersey on July 8, 1929, placing at his disposal information and data helpful in understanding present rates and practices and offering to cooperate in removing any rates or practices prejudicial to any section of the Port District.

On September 11, 1929, the Attorney General rendered an opinion recommending the institution of proceedings before the Interstate Commerce Commission which the Governor approved.

On October 31, 1929, the State of New Jersey filed a complaint with the Interstate Commerce Commission, naming fifty-four common carriers as defendants. This complaint prays that the Interstate Commerce Commission order the defendants to discontinue the practice of making deliveries to shipside and stations by *lighter* or *truck* without assessment of extra charge, on the ground that such practice is unlawful and unduly prejudicial and discriminatory to the New Jersey section of the Port and unduly preferential to the New York section.

In 1929, the Governor of the State of New York appointed a special committee to represent the State in this matter, and on December 6, 1929, the Attorney-General filed an intervening petition on behalf of the State of New York, and opposing the petition of the State of New Jersey.

On January 2, 1930, the North Jersey Freight Traffic Advisory Committee, composed of representatives of various municipalities, chambers of commerce and shippers in that section of the Port, filed a complaint attacking the grouping of the New York and New Jersey sides of the Port together on *all* types of delivery and asking for a separation of the New Jersey side for rate-making purposes on all types of deliveries.

The State of New Jersey's lighterage complaint has been docketed by the Interstate Commerce Commission and assigned I. C. C. Docket 22824, and that of the Traffic Advisory Committee has been assigned I. C. C. Docket

23040. The Interstate Commerce Commission has decided that hearings on both complaints shall be conducted simultaneously.

The Port of New York Authority has put at the disposal of the Attorneys-General of both States such available data and information in its possession as they have requested.



Perspective of the Hudson River Bridge between Fort Lee, New Jersey, and New York City

SECTION II—INTERSTATE VEHICULAR CROSSINGS

PART I—Bridge Construction

Hudson River Bridge

Construction work on this project has progressed satisfactorily during the past year. The concrete anchorage on the Manhattan side was completed in March, and the rock excavation for the New Jersey anchorage and approach was completed in April.

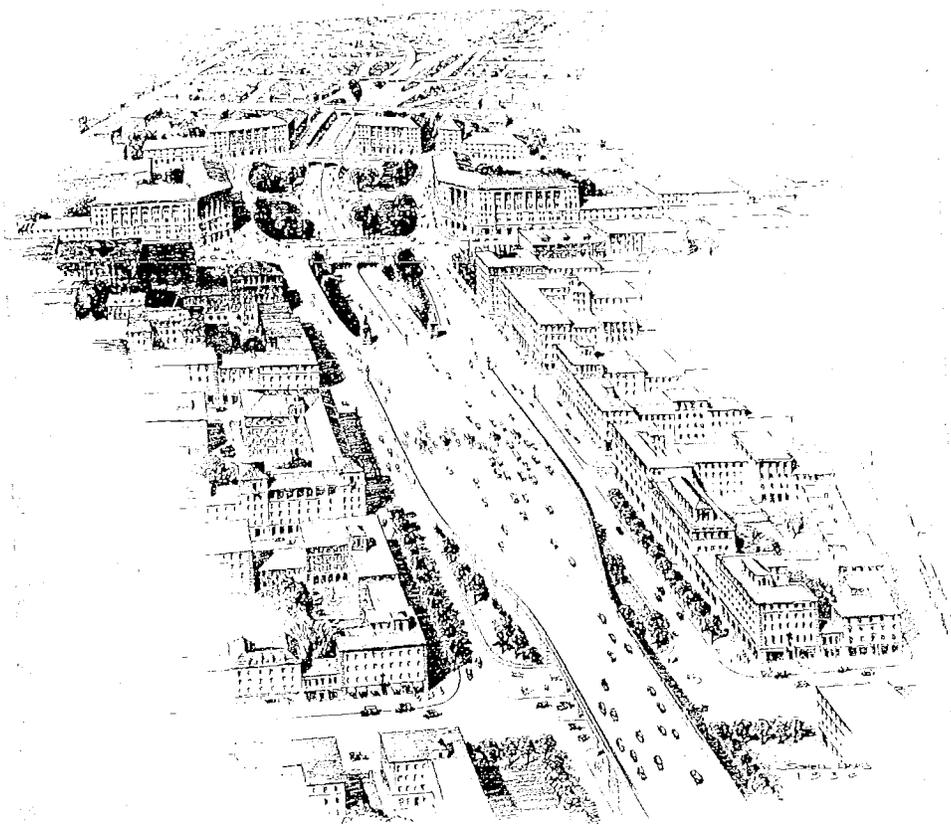
In December, 1928, work on the two towers was deferred until the spring because of the inadvisability of working at such a great height during the winter months. As soon as the weather permitted, work was resumed in the spring and was completed in June, 1929, in time for the contractor to proceed with cable work.

As soon as rock excavation for the New Jersey anchorage permitted, the work of placing the structural steelwork for the anchorage in the tunnels and embedding it in concrete was begun. This work was completed in the spring and there was undertaken immediately the work of placing at the New Jersey anchorage the steel floor which serves as a working platform for the cable construction equipment. The setting up of the cable-spinning plant and the construction of the temporary footwalks or scaffolds upon which the men work while building the cables, was done during the summer months. The first cable for use in supporting the footwalks was raised on July 9th, in the presence of officials of both states.

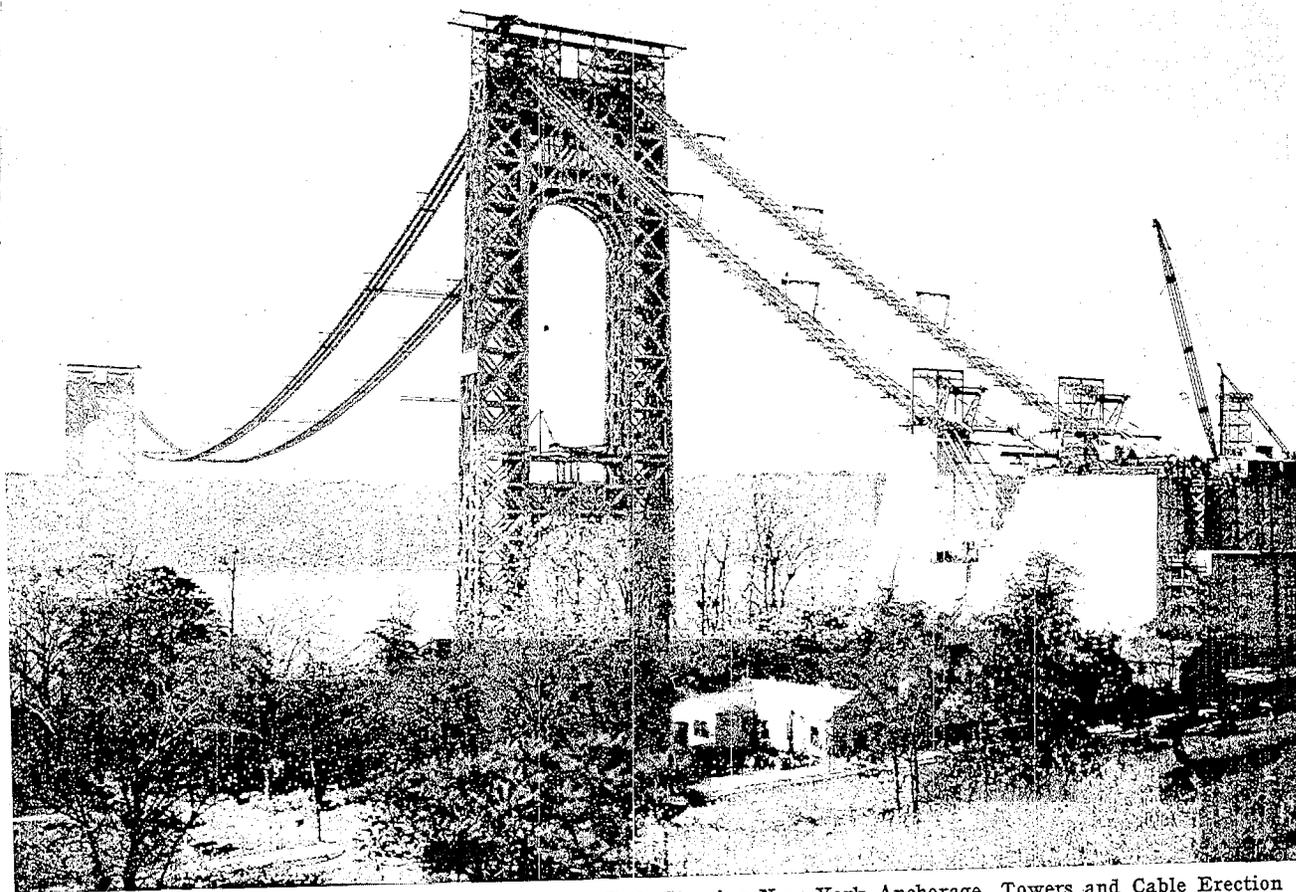
Cable spinning operations began on October 18, 1929, and since then have been progressing steadily. At the end of the year, approximately ten thousand wires were in place, or ten per cent of the total.

The demolition of the buildings in Manhattan, necessary for the construction of the New York approach, was started in December and is progressing rapidly. This is the only





Hudson River Bridge. Perspective of Fort Lee Approach



Hudson River Bridge. General View of Construction Work Showing New York Anchorage, Towers and Cable Erection

for the Hudson River Bridge appear even more conservative than heretofore.

Special progress report on this project is being issued.

Kill van Kull Bridge

The construction of the main arch abutments was completed in sufficient time to permit the scheduled starting in September of the erection of the structural steel for the main arch.

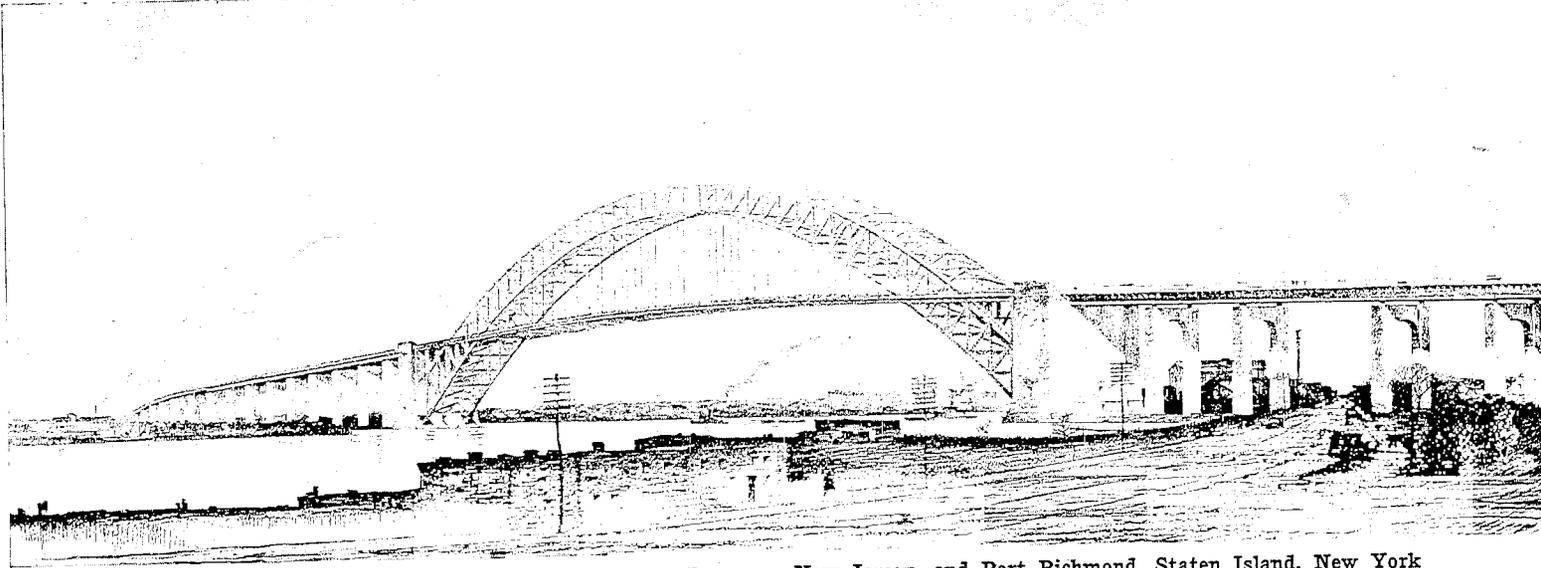
Work on the Port Richmond side was undertaken first, and is proceeding satisfactorily. Erection of the Bayonne end is scheduled to begin in the spring of 1930.

The contracts for the construction of the approach piers in both Port Richmond and Bayonne were let during the year and the work covered by both contracts has been completed.

Studies for the approaches and highway connections, and negotiations with the municipalities with respect thereto have been carried on throughout the year. It is believed that the plans now being considered will be adopted.

Construction work is being kept within schedule and within the estimated costs. It is expected that the bridge can be placed in operation early in 1932, as previously reported.

Special progress report on this project is being issued.



Perspective of the Kill van Kull Bridge between Bayonne, New Jersey, and Port Richmond, Staten Island, New York

additional contract let during the year for construction work.

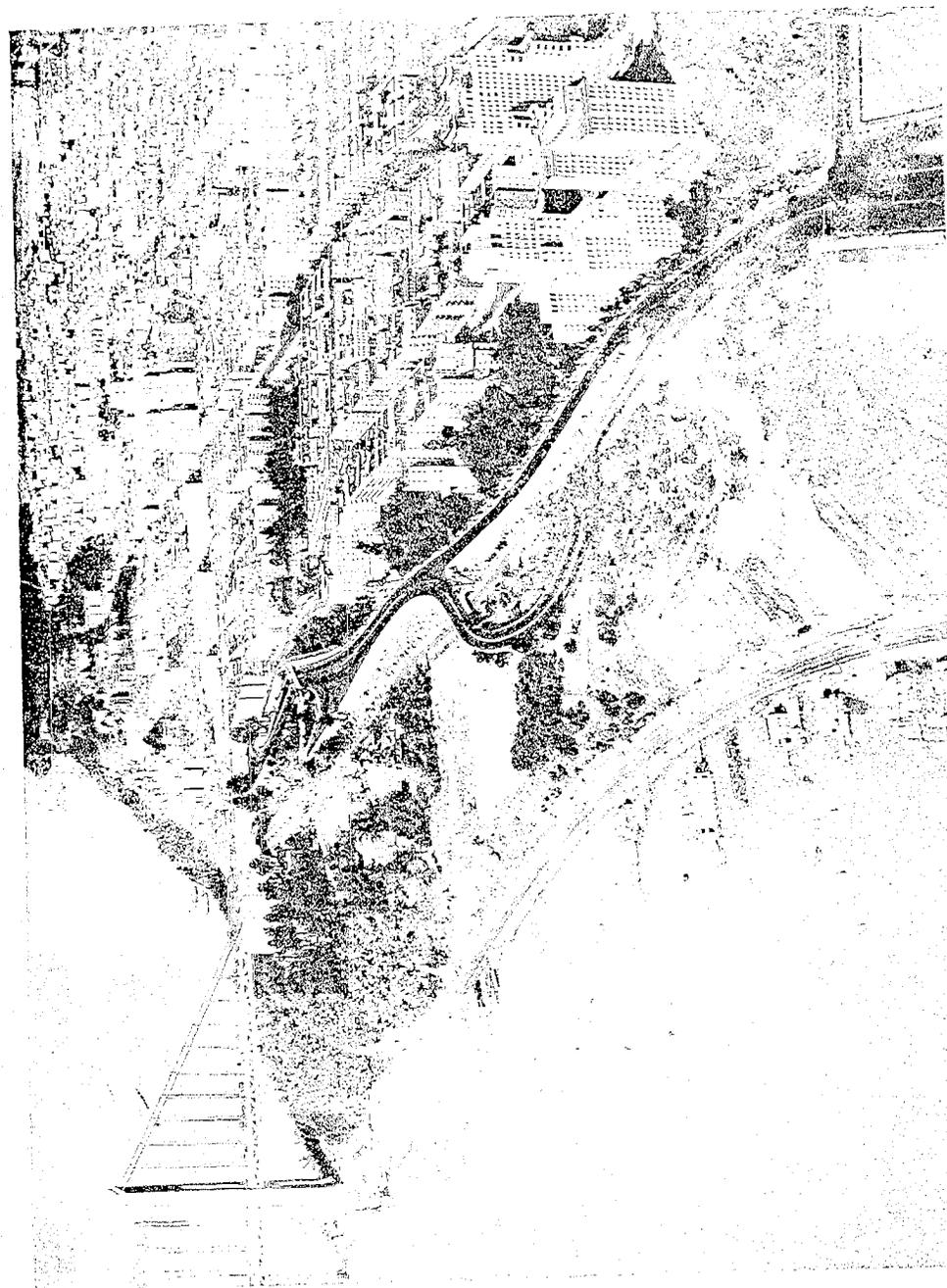
Negotiations were continued with the City of New York in regard to the New York approach and highway connections. An agreement has been reached between the City and the Port Authority with respect to the general plan. It is expected that the contract for the construction of the first portion of the approach will be let in the spring of 1930.

The studies for the New Jersey approach and negotiations with the State and Municipal Officials have progressed steadily throughout the year and a definite plan for this approach has been completed and adopted. It is expected that construction work on this approach will begin in the summer of 1930.

The thorough inspection exercised by the Port Authority over the manufacture of all materials that go into the bridge has been maintained. The volume of this work necessitated by not only the Hudson River Bridge but also the Kill van Kull Bridge, rendered the rented laboratory quarters inadequate, and a new, modern, and thoroughly equipped testing laboratory building, housing the inspection force, has been built in Jersey City and was occupied in September. The Division of Research has also been placed in this building. Certain research work has been carried on during the year in collaboration with the United States Bureau of Standards and the United States Bureau of Public Roads in Washington.

All of the operations in connection with the construction of the bridge have proceeded within schedule and within the estimated costs. Barring unforeseen delays, the prediction may be made, as in the report of a year ago, that the bridge will be opened to traffic not later than the spring of 1932.

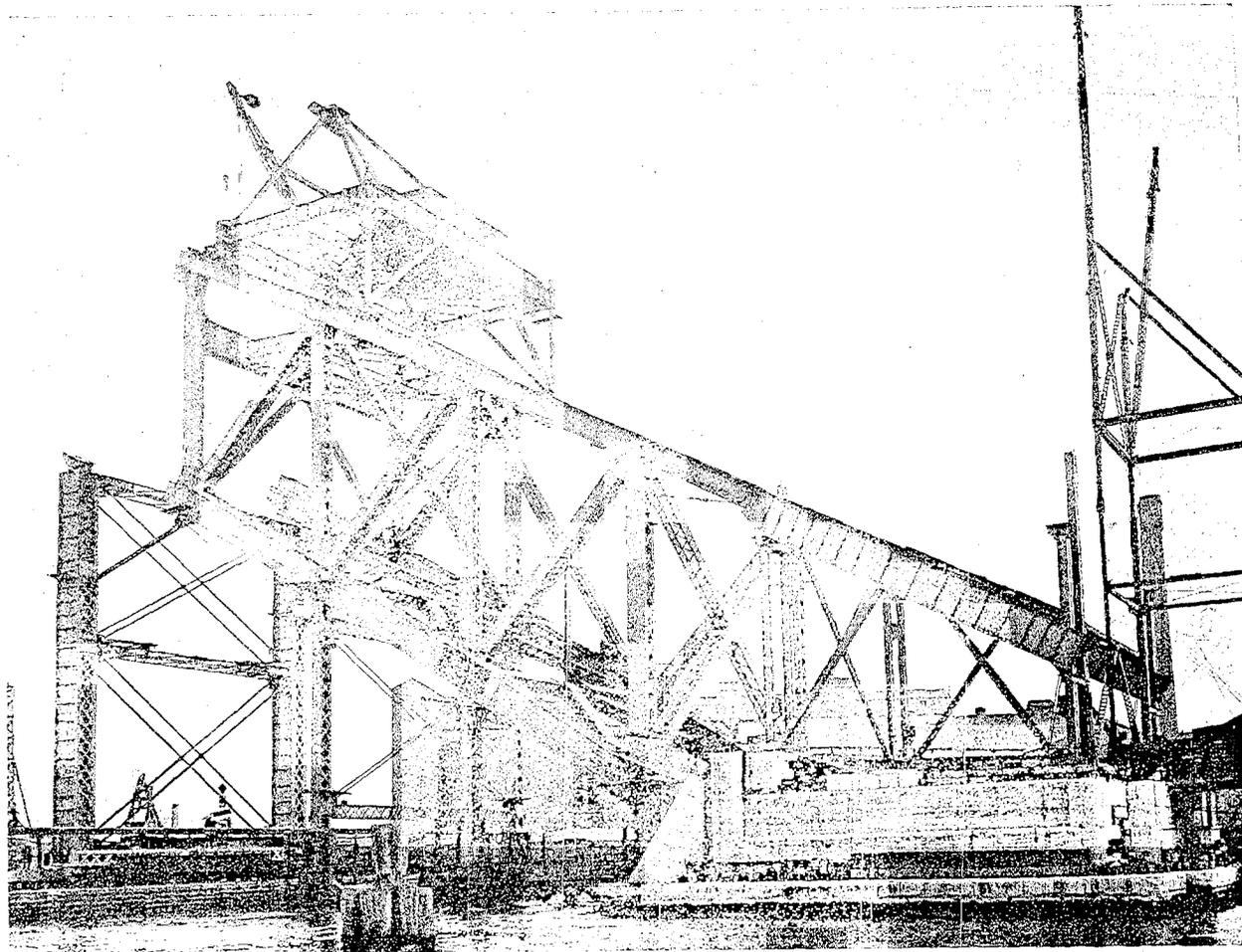
On account of changing traffic conditions brought about by the Holland Tunnel and additional ferries, as well as by new traffic routes, current statistics and analyses have been maintained. The results show an encouraging trend which makes the original estimates of traffic volume and revenues



Hudson River Bridge. Perspective of New York Approach and Connections to Riverside Drive



Kill van Kull Bridge. Airplane view from Port Richmond—Approach Piers and Arch Erection



Kill van Kull Bridge. Erection of Arch Span, Staten Island End

SECTION II—INTERSTATE VEHICULAR CROSSINGS

PART 2—Bridge Operation

The Goethals Bridge spanning the Arthur Kill between Elizabeth, New Jersey, and Howland Hook, Staten Island, New York; and the Outerbridge Crossing between Perth Amboy, New Jersey, and Tottenville, Staten Island, New York, were opened for traffic on June 29, 1928. December 31, 1929, completed the first calendar year of operation.

Personnel

Notwithstanding a continual increase in vehicular traffic from January to August, 1929, greater experience and proficiency made it possible to handle all operations, including heavy traffic in midsummer months, without increasing the operating personnel which was retained to handle traffic during the winter of 1928-1929. The customary seasonal decline in traffic in the fall made it possible to again reduce this personnel in November, 1929, to the winter basis on which we are now operating. A comparison of the operating personnel for the two bridges for the past two seasons is set forth in the following table:

	Summer Force 1928	Winter Force 1928-1929	Summer Force 1929	Winter Force 1929-1930
General Superintendent	1	1	1	1
Clerk to General Superintendent.	1	1	1	1
Superintendents	2	2	2	2
Assistant Superintendents	2	2	2	2
Tellers	4	..	..	..
Bridgemasters	8	6	6	4
Bridgemen	32	21	21	10
Electricians	1	1	1	1
Janitors	2	..	..	..
Total	53	34	34	21

It will probably be necessary to increase the present force in order to handle the summer traffic during 1930.

There have been no changes in rates of pay of these forces since our last report. Two employees were dismissed for cause and two resigned.

Toll Schedule

The schedule of tolls is the same as that reported last year except that there has been added a series of commutation rates for motor trucks. Increased construction and commercial activity in the communities adjacent to these bridges prompted a Port Authority investigation into the practicability of reducing the burden on freight traffic by providing reduced rates for regular truck patrons and at the same time increasing our revenues. On September 1, 1929, the following commutation rates on motor trucks were established, based on a minimum of one hundred (100) trips in each calendar month:

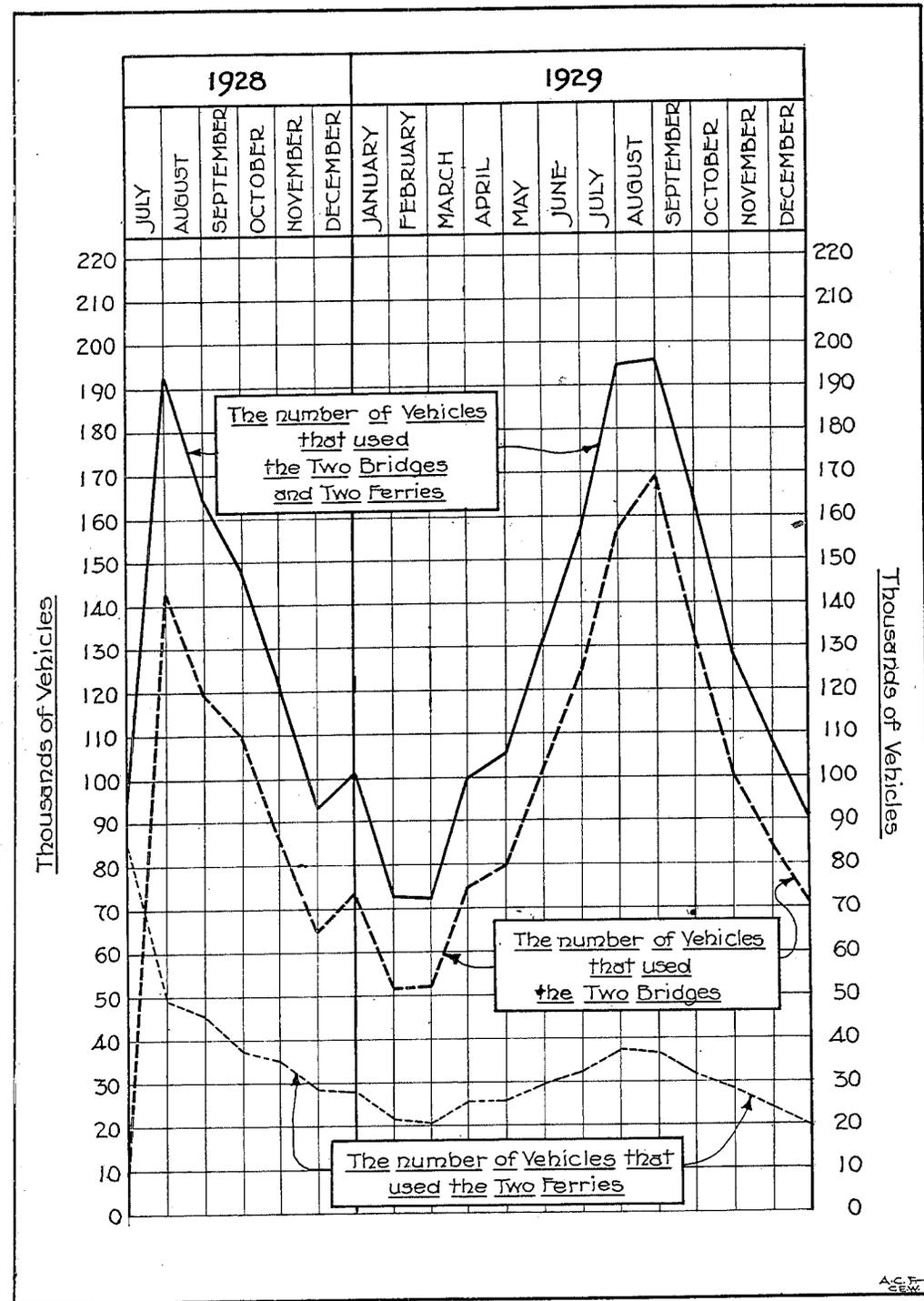
VEHICLE TYPE	Single Trip Rate	Monthly Commutation Rate (100 Trips)
Motor truck with driver and helper, less than 2 tons carrying capacity.....	\$0.60	\$45.00
Motor truck with driver and helper, 2 tons and less than 5 tons carrying capacity.....	.75	60.00
Motor truck, with driver and helper, 5 tons and over carrying capacity.....	1.00	75.00
Tractor with trailer, driver and helper.....	1.00	75.00

The policy of allowing no free or complimentary transportation, except to vehicles of the Army, Navy, police and fire departments as required by law, was rigidly observed. No passes are issued.

Traffic Results

Traffic over the Goethals Bridge showed a steady and progressive increase each month during the past year from January to July, inclusive, and that over the Outerbridge Crossing from January to August, inclusive. Incidentally, there was also a noticeable increase in truck traffic over both crossings in September, 1929, as the result of commutation rates established.

Traffic over both bridges increased twenty per cent during the last six months of 1929 as compared with the corresponding period of 1928, which represents a thirty-seven per cent increase over Goethals Bridge and a two per cent increase over Outerbridge Crossing.



Vehicular traffic over Arthur Kill crossings at Perth Amboy and Elizabeth

The beneficial effect of the opening of these bridges in June, 1928, upon the growth of vehicular traffic across the Arthur Kill, both bridges and ferries, is shown by the following table:

	Total Annual Vehicles	Gain over Preceding Year	
		Vehicles	Per cent
1922	566,177		
1923	656,095	89,918	15.9
1924	782,767	126,672	19.3
1925	897,493	114,726	14.7
1926	968,199	70,706	7.9
1927	1,062,795	94,596	9.8
1928 (bridges opened 6/29/28) ..	1,293,118	230,323	33.6
1929	1,560,203	267,085	20.7

Prior to 1928, it will be noted that the ferries were approaching their capacity as represented by a declining rate of increase. The opening of the bridges in 1928 caused a sharp "step-up" in traffic that year followed by a normal increase in 1929.

During the last quarter of 1929, the two bridges handled seventy-nine per cent of the total vehicular traffic across the Arthur Kill and the ferries twenty-one per cent. Had the ferries not been operated during 1929, the two bridges would have attracted about 260,000 additional vehicles.

The Carteret Ferry, between Carteret, New Jersey, and Linoleumville, Staten Island, ceased operations on August 31, 1929, and the bridges inherited most of its traffic. The Tottenville Ferry and the Elizabeth Ferry have both curtailed services during the past year, and will probably be less of a competitive factor next year. These ferries are now largely used for commercial service between the communities immediately adjacent to their terminals.

The following table shows the traffic handled by the two bridges in the last six months of 1928 and 1929, respectively:

	Goethals Bridge	Outerbridge Crossing	Total
1928	292,218	295,838	588,056
1929	401,788	301,140	702,928
Increase	109,570	5,302	114,872
Per cent increase	37	2	20

A graphic chart is appended showing the monthly fluctuation of the total Arthur Kill traffic since the bridges were opened; also the proportion of the total traffic carried by the bridges and ferries respectively. A large proportion of the traffic over these bridges is made up of pleasure cars. Approximately fifty per cent of the car movements occur on Saturdays and Sundays.

Effective April 15, 1929, after completion of the sidewalks, the two bridges were opened to pedestrians and 16,800 persons paid to walk across during 1929.

Developing Traffic

In order to keep the motoring public acquainted with the bridge routes, upwards of 40,000 circulars, 6,000 posters and 38,000 strip maps, were distributed during the past year, in addition to 500 each of the New York and New Jersey State highway maps. A mailing list of approximately 2,000 names is maintained, including automobile associations, chambers of commerce, boards of trade, map publishers, hotels, travel bureaus and others to whom is furnished current information on new routes leading to the bridges.

Three large illuminated directional signs, street lights and upwards of 1,000 metal signs were erected on state routes, at principal intersections, during the year, as guides to the bridges;—state and municipal departments cooperating wholeheartedly.

Bus Operations

Bus operations over Goethals Bridge were conducted by the Nevin Bus Company up to August 4, 1929, on which date the Fox Hills Bus Company took over the service. Due to a seasonal decline in patronage, this operator was forced to discontinue service December 25, 1929. There is always a heavy demand for bus service during the summer months and it is confidently expected that another such service will be started in the spring.

Highway Handicaps

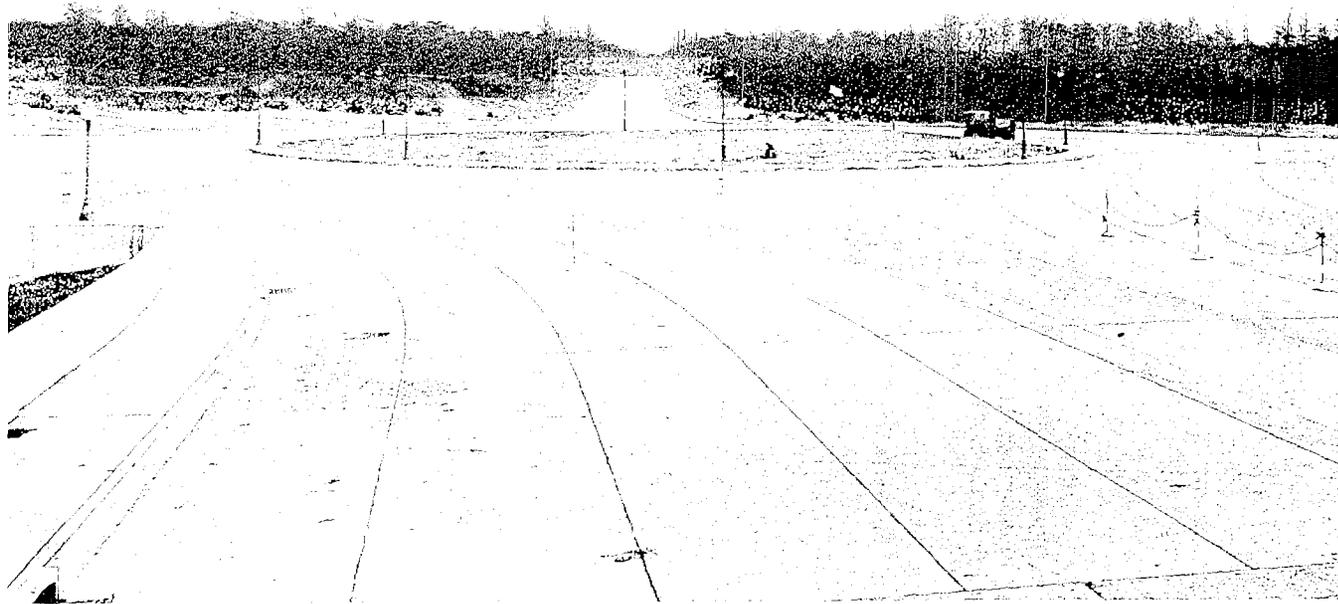
Whereas Goethals Bridge traffic has been growing at the rate of over thirty-seven per cent a year, Outerbridge Crossing traffic has shown a very slight increase. This is due to a number of causes. In the first place, there is a much larger volume of potential traffic adjacent to Goethals Bridge than to Outerbridge Crossing. Then, too, a much larger percentage of Outerbridge traffic is through-traffic than on Goethals, where nearly eighty per cent is local to or from Staten Island points. Through traffic is largely seasonal, being much heavier in the summer months, and it is very sensitive to delays or inconveniences caused by poor highway connections, detours, ferry service, etc.

Outerbridge Crossing was materially handicapped throughout the year by the lack of highway approaches on the Staten Island side, by congestion on the New Jersey shore road around South Amboy, by construction work on the Perth Amboy-Metuchen road connecting this bridge with the Lincoln Highway and by severe congestion and delays to traffic at the St. George Ferry terminal, Staten Island, particularly on Sunday nights in midsummer when traffic prospects are normally at their best.

New York City completed a direct highway connection between the Outerbridge Crossing and Amboy Avenue at Pleasant Plains, Staten Island, the last week in November, 1929, and has begun work on a direct connection from the bridge plaza to Hylan Boulevard at Page Avenue, Tottenville, which should be available this year. The Metuchen-Perth Amboy state highway in New Jersey should also be completed early this year, and with these improved approach conditions, Outerbridge Crossing should do much better.

Police and Traffic Control

During the year, six arrests for reckless driving and disorderly conduct were made on bridge property and five convictions obtained. Eleven motorists on Goethals Bridge and fifty-eight on Outerbridge Crossing, ran out of



Outerbridge Crossing. Tottenville Plaza, looking east from toll booths

gas and were supplied with enough to take them to the nearest filling station.

Two cars were towed off Goethals Bridge and eleven off of Outerbridge Crossing, due to mechanical or other failures. No accidents of major importance occurred on either bridge.

Effective April 13, 1929, the City of New York increased the maximum speed limit for automobiles on Hylan Boulevard, Staten Island, from twenty-five to thirty-five miles per hour. This more nearly conforms to New Jersey's forty-mile limit at the other end of the bridges and has made a very favorable impression on motorists, undoubtedly adding to the popularity of the Staten Island route.

SECTION II—INTERSTATE VEHICULAR CROSSINGS

PART 3—Additional Crossings

The Port Authority reiterates the statements made in its last Annual Report to the effect that there is need for additional improved transportation facilities; that the problem of better interstate communication, regardless of whether it is to be solved in part by improved all-rail facilities and in part by vehicular connections, is *one* problem and that these facilities should not be considered and dealt with separately or as individual projects, but rather as one general comprehensive plan. Such crossings should be built as rapidly as they can be financially supported, as delay is costly and retards progress.

The use of motor vehicles is growing rapidly as a means of handling freight,—and in any consideration of the freight problem in the Port District, the solution must inevitably determine the need for tunnels and bridges. A plan should be adopted which provides for the interrelation of all such facilities and all future crossings should be planned to coincide with that part of the general plan which has already been completed or is under way.

For economical operation and as a valuable aid in the issuance of securities to finance construction, the plan should provide:

1. Combine under one agency all interstate vehicular crossing facilities, both bridges and tunnels, now operated, under construction or to be constructed. Include all revenues from tolls in a revolving fund which, after the payment of operating costs, will be devoted strictly to amortization of debt and the lowering of tolls, and
2. The agency designated to carry out this principle should have authority to issue its own bonds, and that agency's credit instead of State credit should be utilized for financing all future interstate crossings.

The policies as to whether one agency should construct and operate vehicular crossings and whether state credit or Port Authority credit is to be used are matters for determination by the two States.

The fact that the two States have already created the

Port Authority, with power to construct interstate bridges and tunnels in developing the Port of New York, and that that agency has already proceeded with the construction and operation of four interstate crossings,—has led the investing public to believe that a definite policy along these lines had been established.

The Port Authority has now an established credit for just such purposes as this and has an organization which, through slight adjustments, can be altered so as to handle any of the projects contemplated by the Treaty and the Comprehensive Plan.

During the year, events transpired which brought up for serious consideration a proposal for a tunnel under the North River between Manhattan, in the location of 38th Street, and Weehawken and Homestead in New Jersey. The Port Authority has given considerable study to this particular project for some time.

SECTION III—SUBURBAN TRANSIT

The Port Authority has continued its suburban transit studies and its support of the work of the Suburban Transit Engineering Board to the extent funds available might permit, even though no funds for this specific purpose were appropriated. The reason for this action was clearly set forth in a resolution adopted at the meeting of the Commission June 11, 1928, and presented in the 1928 Report.

The following table indicates the source of support and the proportion of the expenses borne by the member agencies on the Suburban Transit Engineering Board for the fiscal year ending June 30, 1930:

SOURCE OF STAFF AND PROPORTIONAL EXPENSES*

	Personnel Number	Per cent Per cent	Per cent of total Salaries	Per cent of total Expenses
Port Authority	9	43	49	53.5
Railroads	7	33	35	32.0
Board of Transportation	3	14	14	13.0
North Jersey Transit Commission.....	1	5	1	1.0
Westchester County	1†	5†	1†	0.5†
	<u>21</u>	<u>100%</u>	<u>100%</u>	<u>100.0%</u>

* Fiscal year—July 1, 1929, to June 30, 1930.

† Represents 2½ months.

As a matter of practical working organization, the entire Metropolitan District, for purpose of study, has been divided into the three major sectors; New Jersey, Westchester and Long Island, with a sector planning committee for each.

The problem confronting these committees is—

First—the collection of the suburban commuter within the sector—and

Second—the distribution of the suburban commuter in the business district of Manhattan, below Central Park.

The first problem is primarily one for the respective planning committees, while the second one is for all the committees acting as a Committee of the Whole.

At present, the major portion of the suburban passengers from the three sectors are brought into the thirteen terminals shown in appended chart (Railroad Terminals). From these terminals the passengers either walk or use some local transit facility to reach their destination.

A report of the progress made toward a comprehensive suburban transit plan has been prepared by the Suburban Transit Engineering Board, and shows the facts relating to the movement of suburban passengers. The report relates to the Westchester and Long Island sectors only—movement to and from the New Jersey sector having been heretofore reported. It includes a survey and study made of the different sizes and types of equipment and motive power in use in the Metropolitan District, showing a wide variation of standards on the suburban railroads.

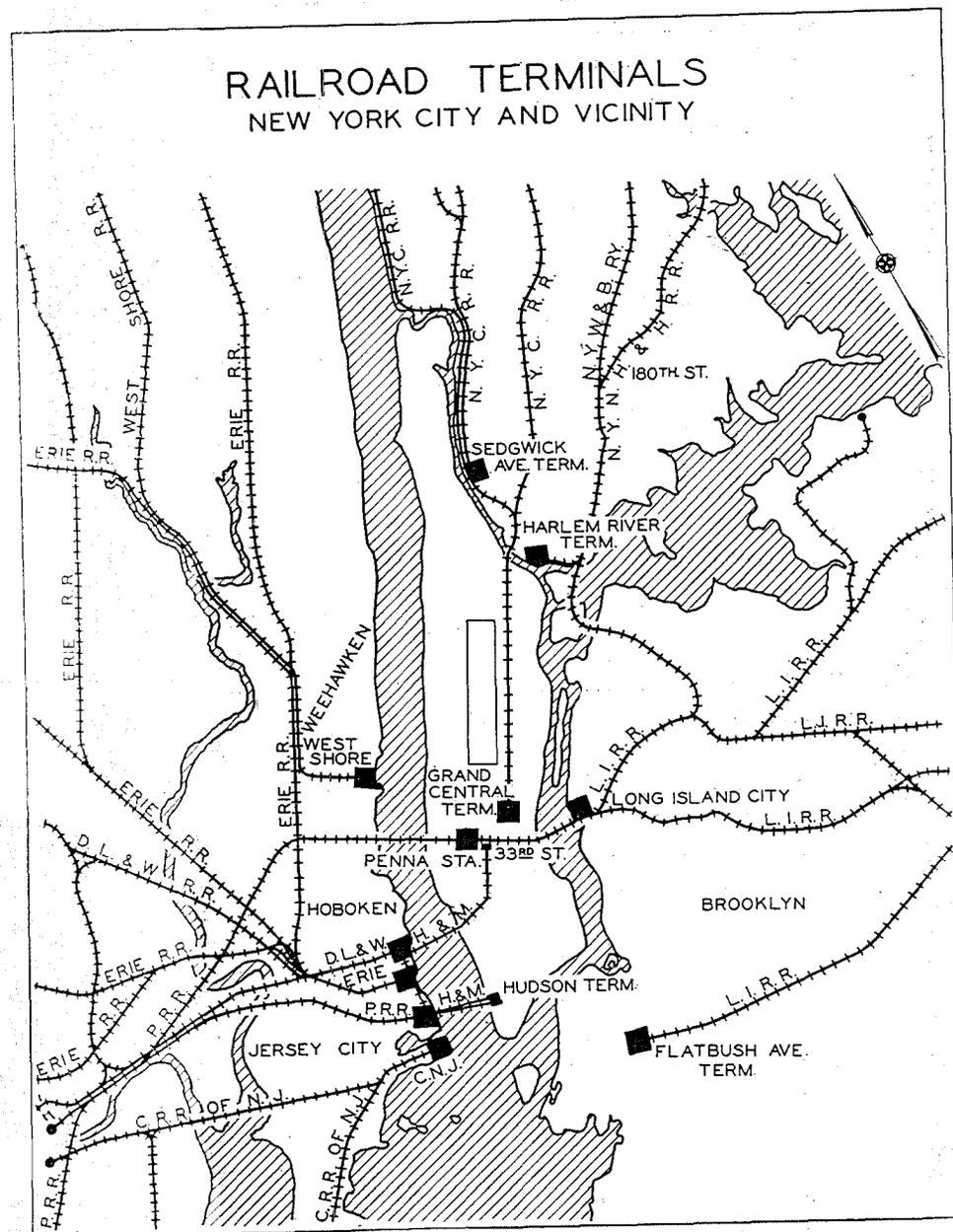
Insofar as the movement of suburban passengers is concerned, the records from the traffic census indicate—

1. Of all the passengers, except those on through or long distance trains, classified as suburban passengers, 32 per cent came from Westchester and 68 per cent from Long Island.

2. More than 90 per cent of the passengers on suburban trains came into or passed through New York City before completing their journey.

3. From the Westchester sector 14 per cent of the total originated within the New York City limits, while the corresponding figure from the Long Island sector was 55 per cent. Considering both sectors as a single unit, the entire journey of 39 per cent of the passengers on suburban trains was within the city limits.

4. Over 40 per cent of the suburban passenger traffic from the Westchester sector originated within a radius of 15 miles from the New York City railroad terminals, and 80 per cent within a 25-mile radius. In the Long Island sector more than 57 per cent origi-



nated within a radius of 15 miles, and 81 per cent within the 25-mile area.

5. The average length of the suburban passenger ride in Westchester was 19 miles, and in Long Island, 17.5 miles.

6. More than three-quarters of the suburban passengers in the two sectors lived within walking distance of the railroad station.

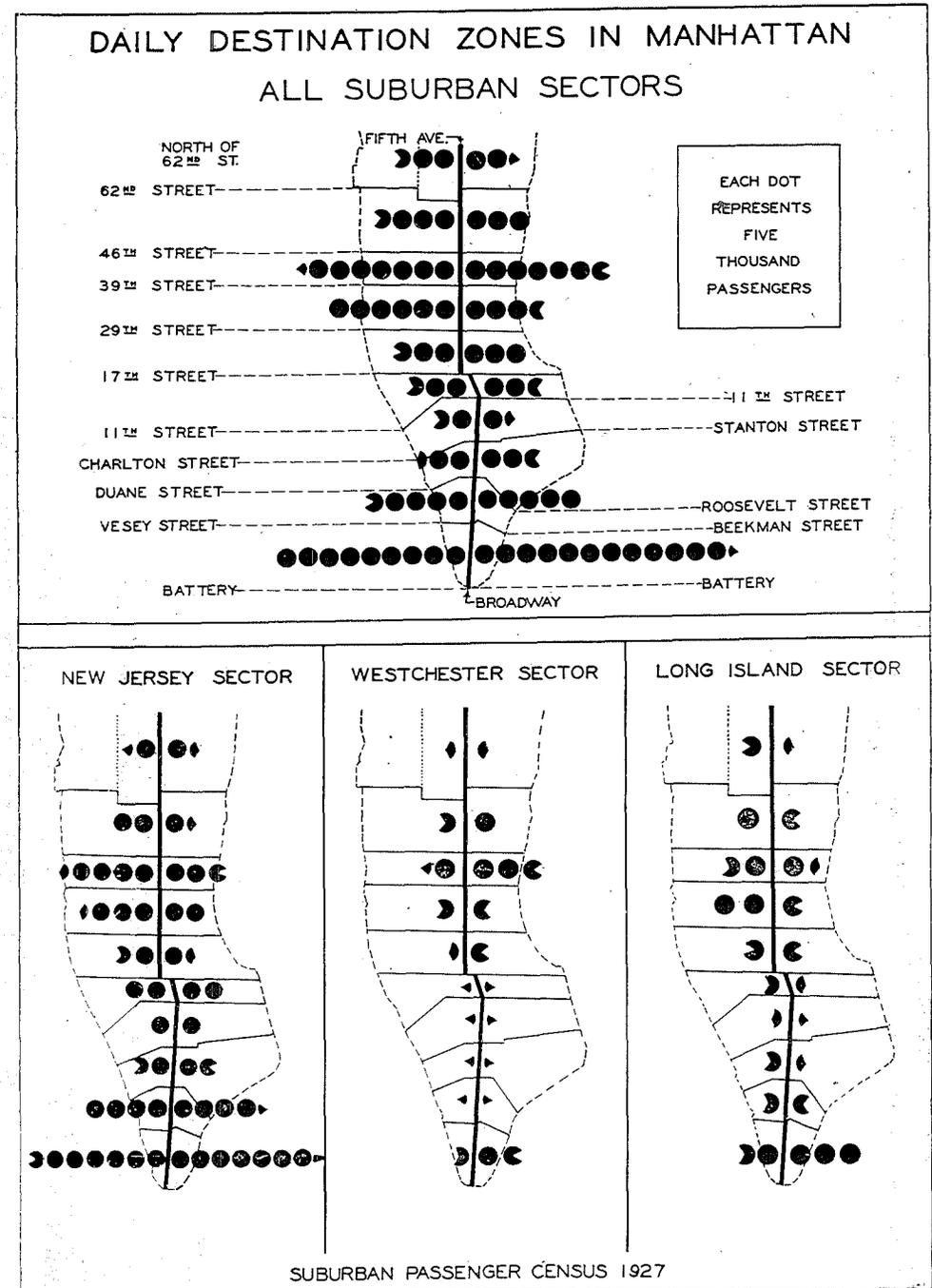
7. Approximately 88 per cent of the suburban passengers that day were traveling at less than the regular one-way fare.

8. One of the most important facts brought out in this census is the large proportion of the total inbound passenger movement which must be handled during a single hour in the morning. This proportion ranges from one-quarter to more than one-half of the entire twenty-four hour inbound business. This is better shown in the following table:

Terminal	Maximum 60-Minute Period	Inbound Passengers 1927	Per cent of 24-Hour Total
Grand Central	8:10-9:09 A. M.	29,051	51.0
Harlem River	7:45-8:44 A. M.	3,552	26.4
Sedgwick Avenue	7:56-8:55 A. M.	806	48.0
Pennsylvania (L. I. R. R. Passengers)	7:50-8:49 A. M.	28,299	39.7
Flatbush Avenue	7:30-8:29 A. M.	16,662	35.8
Long Island City	7:38-8:37 A. M.	1,454	64.2

9. The inbound passenger loads on these terminals during nineteen hours of the day fall below the hourly average for the twenty-four hour period.

10. The destinations of the suburban passengers on Manhattan ranged throughout the Island. More than 30 per cent of the passengers from the Westchester sector remained in the Grand Central zone, between 46th and 39th Streets; while slightly less than 20 per cent had destination in the financial district below Vesey and Beekman Streets. From the Long Island sector 31 per cent found destinations between 46th and 29th Streets, and slightly more than 25 per cent went to the financial district below Vesey Street.



11. When the suburban passengers from the Westchester and Long Island sectors stepped from their trains at the New York terminals, 28 per cent walked to their destination. The remaining 72 per cent became passengers on some local transit facility in New York City, adding to the local congestion on the elevated railroad, street vehicles or subways.

12. If the Grand Central Terminal alone is considered, over 24,000, or 42 per cent of the total, walked to their destination. Of the Long Island Railroad passengers using Pennsylvania Station, 21,500, or 30.2 per cent, walked to their destination.

13. If the census of 1927 for the Westchester and Long Island sectors is combined with the census of 1924 for the New Jersey sector, appended chart (Daily Destination Zones) will indicate the destinations of the daily suburban passengers from the three sectors.

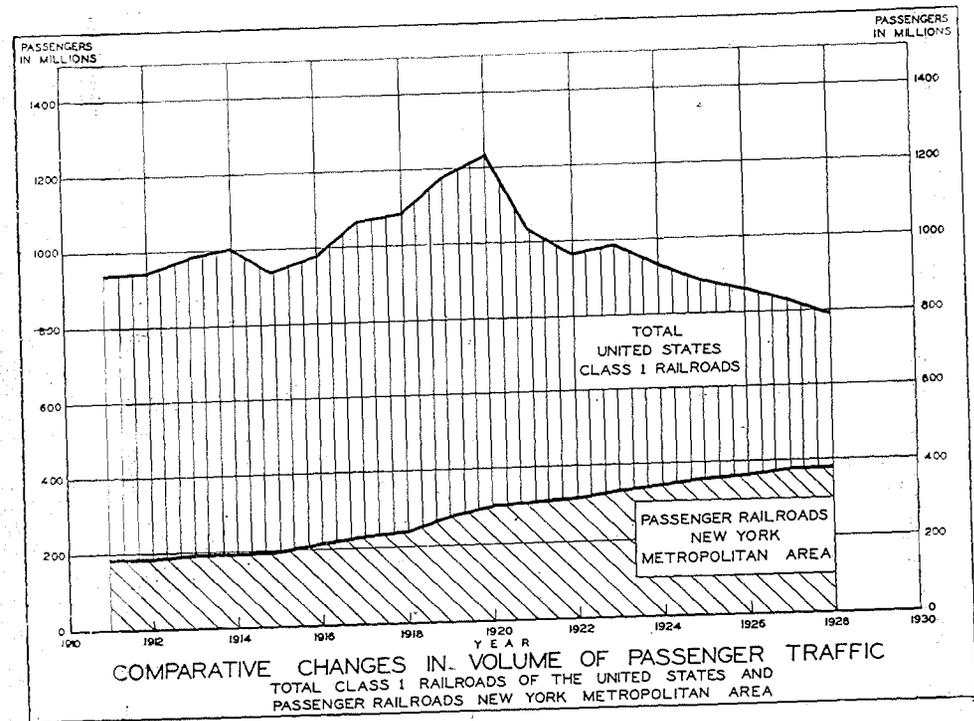
The traffic records show that the railroads in the Metropolitan District handled 22,600 more passengers daily in 1928 than on a corresponding day in 1926. The records for 1929 are not yet available. The following table shows the increase for each sector:

DAILY VOLUME OF PASSENGERS MOVING TOWARD NEW YORK CITY

Sector	1926	1928	Increase 1926-1928
New Jersey	316,100	318,100	2,000
Westchester	86,300	95,400	9,100
Long Island	155,500	167,000	11,500
Total	<u>557,900</u>	<u>580,500</u>	<u>22,600</u>

The total passengers on Class I Railroads for the entire United States have been falling off at an alarming rate. Conversely, the total passengers in the New York Metropolitan District, representing forty-eight per cent of the total on Class I Railroads in the United States, have been steadily increasing. The trend is shown on appended chart (Changes in Volume of Passenger Traffic).

A comprehensive suburban transit plan has not yet been agreed upon or adopted by the Suburban Transit Engi-



neering Board. The sector planning committees of the Board have had under consideration forty-three separate and complete studies.

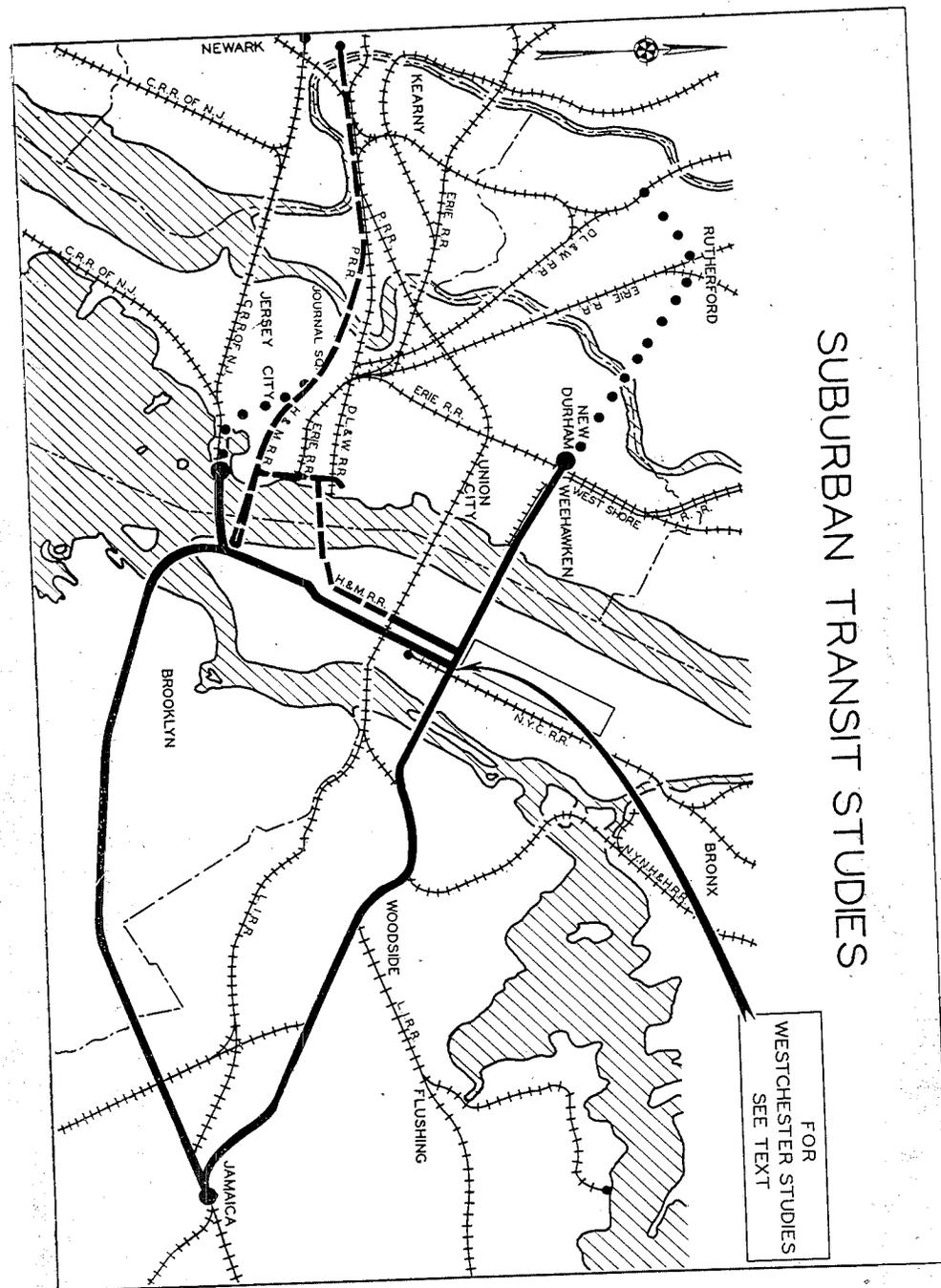
The New Jersey Committee has adopted as a basis for further studies, a plan comprehending a north-and-south suburban transit trunk line in Manhattan with a connection in 57th Street, Manhattan, extending to New Durham, New Jersey, and another extending from the lower end of this suburban trunk Manhattan line to Communipaw, New Jersey, and an extension of the Hudson & Manhattan system from 33rd Street to 57th Street. This suggested plan for New Jersey, as well as a tentative plan for Long Island, are shown on appended chart (Suburban Transit Studies).

The Westchester Committee reported that the capacity of the main line from Grand Central Terminal to Mott Haven is now being increased by signalling all four tracks in both directions so that three of the four tracks can be used to carry the peak load in either direction. These improvements with others will add measurably to the present capacity for handling trains during the rush hours. The New Haven operates many short trains to which cars and seats can be added to handle more passengers with present facilities; this is being done as occasion demands.

With minor changes, there is surplus capacity in the Grand Central Station to handle this additional traffic, and it is thought that upon these measures will rest the ability of the railroads to keep abreast of traffic demands until such time as additional facilities may be required.

The Long Island Committee has suggested a connecting link via Manhattan between the two main feeder lines; i. e., the Main Line of the Long Island Railroad into Pennsylvania Station and the Atlantic Division into Flatbush Avenue, Brooklyn, serving as a distributing line or terminal for the Long Island suburban traffic.

The physical plan tentatively adopted by this Committee to fulfill these requirements would be essentially a loop operation of the suburban traffic west of Jamaica over the connecting link through Queens into 57th Street, Manhat-



tan, through the suburban transit trunk in Manhattan suggested by the New Jersey Committee and back to Flatbush Avenue, Brooklyn, to form the complete loop. Such a loop would have two tracks with loaded trains operating around the loop in both directions. This, in effect, would give the capacity of a four-track straight away line enabling simultaneous operation over both the northerly and southerly legs of the loop from Jamaica. The Manhattan section of this loop would, of course, be a part of a multiple-track trunk line distributing terminal shared in common by the traffic from the other suburban sectors. The Pennsylvania Station would continue to function as a terminal of the Long Island Railroad for those passengers from the more distant points of the Island. The primary source of traffic for the loop is considered to originate east of Jamaica in the suburban communities which do not have the transportation facilities of the City rapid transit lines. The extensive program undertaken by the City in enlarging the rapid transit facilities within the City boundaries of this sector no doubt would relieve the Long Island Railroad of a large part of the local traffic that now complicates the handling of the through suburban traffic. This in effect would release some of the trackage now used by this local service for the suburban transit system.

The Port Authority will continue to cooperate with the North Jersey Transit Commission, the Railroads, and other members of the Suburban Transit Engineering Board, in an effort to ultimately bring about a physical and financial plan which will be submitted as a solution of the suburban transit problem.

SECTION IV—GENERAL

PART I—Financial

The Port of New York Authority is required to finance the construction of improvements which it undertakes, without increasing the burden of the taxpayer.

The funds necessary to create the facilities which are on its program must be raised on its own credit. It is not limited as to the amounts of the securities it issues as are municipalities and other political subdivisions of the two States, but must meet debt charges, administration and maintenance out of the earnings of its facilities. In other words, it must be governed in the issuance of its bonds by the law of economic practicability.

The Compact between the two States expressly withholds from the Port Authority power to levy taxes or assess for benefits. It also forbids the Port Authority to pledge the credit of the States which created it.

The Port Authority has issued to date securities to the amount of \$76,000,000 as follows:

	Amount of issue	Date of sale	Sale basis	Placed on market at
Series "A".....	\$14,000,000	3/4/1926	97.25	100 (yielding 4.50%)
Series "B".....	20,000,000	12/9/1926	95.6377	97.40 (yielding 4.20%)
Series "C".....	12,000,000	1/5/1928	99.777	101 (yielding 3.92%)
Series "B".....	30,000,000	10/22/1929	92.857	95 (yielding 4.93%)

These bonds are a general and direct obligation of the Port Authority and are secured by revenues remaining after meeting expenses of operation and maintenance. The table shown herein gives a full description of the bonds.

In directing the Port Authority to construct the four bridges now on its program, the States of New York and New Jersey provided the money for study purposes. They

BONDS AUTHORIZED AND ISSUED

BY THE PORT OF NEW YORK AUTHORITY AS OF DECEMBER 31, 1929

DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>New York-New Jersey Interstate Bridge</i> Construction of bridges across the Arthur Kill between Perth Amboy, N. J., and Tottenville, Staten Island, N. Y.; Elizabeth, N. J., and Howland Hook, Staten Island, N. Y.	"A"	3/1/1926	\$14,000,000	\$14,000,000	4½%	March 1 and Sept. 1	National City Bank of New York	March 1		Legal for investment of funds of the States of New York and New Jersey and their municipal subdivisions; also insurance companies and associations, savings banks, executors, administrators, guardians, trustees and all other fiduciaries of the two States. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after March 1, 1936, at 105 and accrued interest.
								1932	\$300,000	
								1933	400,000	
								1934	500,000	
								1935	600,000	
								1936	700,000	
								1937	800,000	
								1938	900,000	
								1939	1,000,000	
								1940	1,000,000	
								1941	1,100,000	
								1942	1,200,000	
								1943	1,300,000	
								1944	1,300,000	
1945	1,400,000									
1946	1,500,000									
<i>New York-New Jersey Interstate Bridge</i> Construction of a bridge over the Hudson River between Fort Lee, N. J., and 178th Street, Manhattan, New York City.	"B"	12/1/1926	60,000,000	20,000,000	4%	June 1 and Dec. 1	National City Bank of New York	Dec. 1		Legal for investment of funds of the States of New York and New Jersey and their municipal subdivisions; also insurance companies and associations, savings banks, executors, administrators, guardians, trustees and all other fiduciaries of the two States. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after December 1, 1936, at par and accrued interest.
								1936	1,000,000	
								1937	1,000,000	
								1938	1,000,000	
								1939	1,000,000	
								1940	1,000,000	
								1941	1,000,000	
								1942	1,000,000	
								1943	1,500,000	
								1944	1,500,000	
								1945	1,500,000	
								1946	1,500,000	
								1947	1,500,000	
								1948	1,500,000	
1949	2,000,000									
1950	2,000,000									

BONDS AUTHORIZED AND ISSUED—(Continued)

BY THE PORT OF NEW YORK AUTHORITY AS OF DECEMBER 31, 1929

DESIGNATION	Series	Date of issue	Amount authorized	Amount issued	Rate	INTEREST		MATURITIES		Special provisions
						Date payable	Payable at	Date	Amount	
<i>New York-New Jersey Interstate Bridge</i> Construction of a bridge over the Kill van Kull connecting Bayonne, N. J., and Port Richmond, Staten Island, N. Y.	"C"	1/3/1928	12,000,000	12,000,000	4%	Jan. 3 and July 3	Guaranty Trust Company	Jan. 3		Legal for all state and municipal officers and bodies, all banks, bankers, trust companies, savings banks, savings and loan associations, investment companies, insurance associations, administrators, executors, guardians, trustees and other fiduciaries, and may properly and legally be deposited with and received by any state or municipal officers or agencies for any purpose for which bonds or other obligations of the two States may be deposited. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after January 3, 1938, at 103 and accrued interest.
								1938	300,000	
								1939	400,000	
								1940	400,000	
								1941	400,000	
								1942	500,000	
								1943	600,000	
								1944	700,000	
								1945	800,000	
								1946	900,000	
								1947	1,000,000	
								1948	1,000,000	
								1949	1,000,000	
								1950	1,000,000	
1951	1,000,000									
1952	1,000,000									
1953	1,000,000									
<i>New York-New Jersey Interstate Bridge</i> Construction of a bridge over the Hudson River between Fort Lee, N. J., and 178th Street, Manhattan, New York City.	"B"	11/1/1929	60,000,000	30,000,000	4½%	May 1 and Nov. 1	National City Bank of New York	Nov. 1		Legal for investment of funds of the States of New York and New Jersey and their municipal subdivisions; also insurance companies and associations, savings banks, executors, administrators, guardians, trustees and all other fiduciaries of the two states. Free from New York and New Jersey taxes. Exempt from Federal Income Tax. Callable on any interest payment date on or after November 1, 1939, at 105 and accrued interest.
								1939	1,500,000	
								1940	1,500,000	
								1941	1,500,000	
								1942	1,500,000	
								1943	1,500,000	
								1944	1,500,000	
								1945	1,500,000	
								1946	2,250,000	
								1947	2,250,000	
								1948	2,250,000	
								1949	2,250,000	
								1950	2,250,000	
								1951	2,250,000	
1952	3,000,000									
1953	3,000,000									

also agreed to advance certain sums of money in aid of construction. The amounts so authorized are as follows:

Facility	Estimated cost	Authorized advances, both states	Amounts advanced to December 31, 1929	
			New York	New Jersey
Arthur Kill Bridge.....	\$18,000,000	\$4,000,000	\$1,600,000	\$1,600,000
Hudson River Bridge...	60,000,000	10,000,000	2,000,000	2,000,000
Kill van Kull Bridge...	16,000,000	4,000,000	400,000	400,000

The advances in each instance are payable in five equal annual installments.

Both study funds and advances in aid of construction constitute a debt which must be repaid with interest at four per cent to the two States, out of the earnings of the bridges from tolls or otherwise. The bonds, however, have the first lien on the bridge revenues and the claim of the States is secondary.

It is reasonable to assume that there has been a growing confidence in the Port Authority's methods of financing, and its securities are rated as first-class investments.

SECTION IV — GENERAL

PART 2—Real Estate Operations

Hudson River Bridge

As stated in our last annual report, based upon the then approved plan, the total area of the property to be acquired on the New York side, exclusive of park property, consists of thirty-four parcels. Three parcels of park property were acquired in fee. The decision to extend an approach along Riverside Drive to 168th Street affected twelve additional parcels in whole or in part. Four of the parcels affected by the Riverside Drive approach are improved by apartment buildings but one of them only is affected to an extent justifying purchase of both land and building. The total area of property affected, based upon present plans, consists of forty-nine parcels.

During the year, sixteen parcels, including the three parcels of unimproved park property, were acquired at a total purchase price of \$2,302,752. Of this amount, \$181,452 was for park property, including easements. Of the total area acquired during the year, six parcels were improved by apartment buildings, one by a church, and nine were unimproved property. The following statement shows the status at the end of the year:

KIND OF PROPERTY	Number of Parcels Acquired	Number of Parcels to be Acquired	Total
Unimproved	12	6	18
Churches	2	..	2
Apartment Buildings	29	..	29
Total	43	6	49

The total purchase price of property acquired to the end of the year 1929 was \$8,113,525.96. In area, ninety-three per cent of the property on the New York side, based upon revised plans, had been acquired at the end of the year.

To date, it has not been necessary to resort to condemnation to acquire any property on the New York side.

The tenants in nineteen apartment houses, as well as the congregation occupying one of the churches, were required to vacate by November 30, 1929, as work of demolishing these buildings was started December 1st.

On the New Jersey side of the river, thirteen parcels of property were acquired during the year at an aggregate cost of \$121,120. The total cost of property acquired on the New Jersey side to the end of 1929, was \$983,878.60.

According to present plans, only four parcels of property remain to be acquired on the New Jersey side. These are parts of lots along the outer edge of the right-of-way whose acquisition has been deferred pending adoption of final plans. Approximately ninety-eight per cent of the property had been acquired at the end of the year.

Kill van Kull Bridge

At Bayonne, the only property acquired during the year was industrial property, which included the entire plant of Nitrate Agencies Company, an agricultural insecticide plant; part of Barclay & Company, soap manufacturers; and a small portion of the General Cable Company's plant. Negotiations for the acquisition of these properties extended over a long period of time and were complicated by reason of the necessity of relocating in part several of the plants affected. In determining the value of these plants, the real estate department had the assistance of industrial engineers familiar with plants of the kind affected. The net cost of real estate acquired during the year was \$497,583.20. A number of frame dwellings and some of the equipment from the Nitrate plant were sold, the proceeds therefrom amounting to \$9,025.00. The total net cost of real estate acquired at Bayonne to the end of the year was \$1,806,553.20. Condemnation has not been necessary thus far to acquire property at Bayonne.

Revised plans approved during the year increased somewhat the area required. About ninety-seven per cent of

SUMMARY OF REAL ESTATE PURCHASED FOR BRIDGES
DECEMBER 31, 1929

BRIDGE	Location	Num-ber of parcels	Appraisals	Actual cost	COMPARISON OF ACTUAL COST WITH APPRAISAL	
					Over	Under
Hudson River Bridge.....	New York City.....	43	\$8,176,702 00	\$8,113,525 98	.....	\$63,176 04
	Fort Lee.....	101	1,026,665 00	983,878 60	.....	42,776 40
Kill van Kull Bridge.....	Port Richmond.....	80	785,107 65	819,779 51	\$34,671 86	.....
	Bayonne.....	138	1,838,623 00	1,806,553 20	.....	32,074 80
Goethals Bridge.....	Howland Hook.....	8	68,295 00	69,578 71	1,283 71	.....
	Elizabeth.....	57	483,230 00	468,500 00	.....	14,730 00
Outerbridge Crossing.....	Tottenville.....	1	80,000 00	80,000 00	.....	.....
	Perth Amboy.....	89	565,976 00	555,044 00	.....	10,932 00
Total.....	.....	517	\$13,024,583 65	\$12,896,869 98	\$35,955 67	\$163,689 24

property needed had been acquired at the end of the year. All houses on the right-of-way were advertised for sale during the year and contracts had been executed by the end of the year for the sale and removal of most of the houses.

On the Port Richmond side, seven parcels of property were acquired during the year at a net cost of \$48,830.86. One additional parcel was acquired through exchange of land, and an easement across the right-of-way of the Staten Island Rapid Transit Railway was likewise acquired by conveying to the Railway Company a small parcel of land.

It was necessary to condemn one of the properties to secure valid title. The award was not in excess of the amount offered for the property.

Proceeds from sale of eleven buildings aggregated \$1,557.50. Contracts were awarded for demolition and removal at a cost of \$3,855.00, of twenty-seven buildings for which no offers to purchase were received.

The total amount expended for real estate on the Port Richmond side to the end of the year was \$819,779.51. About ninety-eight per cent of property needed has been acquired. The area yet to be acquired consists of six parcels, three of which are improved.

SECTION IV — GENERAL

PART 3—Accounting Reports

CLASSIFICATION OF OPERATING EXPENSES—ARTHUR KILL BRIDGES
YEAR ENDED DECEMBER 31, 1929

I. MAINTENANCE

301. Superintendence	\$273 45
302. Painting .....	.....
303. Paving	14 71
304. Other bridge maintenance	772 49
305. Buildings	247 69
306. Lighting, signal and communication	1,690 95
307. Machinery, tools and equipment	2,488 17
308. Clearing roadways and footwalks	172 08
309. Insurance	15,791 96
310. Stationery and printing .....	.....
311. Injuries and damages .....	.....
312. Depreciation of property	1,772 64
313. Other expenses .....	.....
Total Maintenance	<u>\$23,224 14</u>

II. OPERATIONS

321. Superintendence	\$24,330 30
322. Directing traffic	20,250 46
323. Collecting tolls	22,027 64
324. Other operating employees	2,556 98
325. Lighting	16,417 04
326. Heating	858 87
327. Telephone and telegraph	1,995 04
328. Operating automobiles and motorcycles	1,519 80
329. Miscellaneous supplies and expenses	5,100 26
330. Advertising	5,518 77
331. Insurance	5,570 99
332. Stationery and printing	813 05
333. Injuries and damages	159 00
334. Other expenses	30 05
Total Operations	<u>\$107,148 25</u>

III. GENERAL EXPENSES

341. Salaries and expenses of officers	\$3,413 01
342. Salaries and expenses of other employees	5,066 54
343. Legal expenses	2,370 93
344. Office rental and expenses	940 79
345. Insurance	528 33
346. Stationery and printing	553 08
347. Other expenses	143 58
Total General Expenses	<u>\$13,016 26</u>

Grand Total

\$143,388 65

INCOME ACCOUNT OF ARTHUR KILL BRIDGES JUNE 29, 1928—
DECEMBER 31, 1929

	June 29, 1928 Dec. 31, 1928	Jan. 1, 1929 Dec. 31, 1929	Total
<i>Income</i>			
Operating Revenue	\$356,717 90	\$710,398 05	\$1,067,115 95
Rent Income	2,773 63	781 18	3,554 81
Miscellaneous Income .....	.....	39,394 21	39,394 21
Gross Income	<u>\$359,491 53</u>	<u>\$750,573 44</u>	<u>\$1,110,064 97</u>
<i>Deductions from Gross Income</i>			
Operating Expenses	\$86,814 78	\$143,388 65	\$230,203 43
Interest on Funded Debt .....	.....	630,000 00	630,000 00
Miscellaneous Income Charges .....	.....	525 00	525 00
Total Deductions	<u>\$86,814 78</u>	<u>\$773,913 65</u>	<u>\$860,728 43</u>
NET INCOME	<u>\$272,676 75</u>	<u>*\$23,340 21</u>	<u>\$249,336 54</u>

* Deficit.

EXPENDITURES FOR EFFECTUATION OF COMPREHENSIVE PLAN
YEAR ENDED DECEMBER 31, 1929

<i>Projects</i>	<i>Amount</i>
Belt Line No. 1—General	\$129 60
Belt Line No. 1—Hell Gate Bridge Route	273 15
Belt Line No. 13—General	484 09
Brooklyn-New Jersey Ferry Service	2 31
Channels, Bridges and Anchorages	3,857 03
Consolidated Lighterage and Carfloatage Operations	132 51
Food Receiving Terminals and Food Distribution	11,420 81
Food Distribution—Marketing Research Council	3,228 51
General Development Port District	71,015 67
I. C. C. and State Commission Cases	18,346 18
Inland Terminals and Movement of Freight by Motor Truck	42,710 49
New York Central Railroad—West Side Improvement	567 03
Suburban Transit	43,744 10
Terminal Operations General	9,161 72
Traffic Rates and Regulations	13,164 90
Jersey City Marine Terminal	2,895 20
Total	<u>\$221,133 30</u>

General Balance Sheet as at December 31, 1929

ASSETS

BRIDGE CONSTRUCTION IN PROGRESS:			
The Goethals Bridge—Elizabeth to Howland Hook	\$7,217,101 91		
The Outerbridge Crossing—Tottenville to Perth Amboy	9,782,493 55		
Hudson River Bridge	32,376,498 81		
Bayonne-Port Richmond Bridge	6,077,066 42		
		\$55,453,160 69	
INVESTMENTS:			
Series "A" Interstate Bridge Bonds, par value \$401,000.00	\$392,515 18		
Capital stock of subsidiary company	500 00		
		393,015 18	
CURRENT ASSETS:			
Cash in banks	\$31,590,828 63		
Cash on hand	4,626 75		
Total cash	\$31,595,455 38		
Bills receivable	19,622 89		
Accrued interest receivable	6,015 00		
Payroll revolving fund—reimbursements in transit	18,132 07		
Advances for options, closings, tests, etc.	685,519 10		
Unexpended balances of State appropriations under the comprehensive plan, per contra:			
State of New Jersey, Laws of 1929	\$50,077 55		
State of New York, Laws of 1929	52,965 58		
State of New York, Laws of 1928	5,700 46		
	108,743 59		
Total current assets		32,433,488 03	
DEFERRED STATE ADVANCES, PER CONTRA:			
Amounts authorized by the States of New Jersey and New York to be advanced in annual installments to The Port of New York Authority to aid in the construction of interstate bridges:			
The Outerbridge Crossing and The Goethals Bridge	\$800,000 00		
Hudson River Bridge	6,000,000 00		
Bayonne-Port Richmond Bridge	3,200,000 00		
		10,000,000 00	
DEFERRED CHARGES:			
Miscellaneous items	\$5,765 98		
		5,765 98	
CASH ON DEPOSIT WITH PAYING AGENT FOR UNREDEEMED BOND INTEREST COUPONS, PER CONTRA:			
Series "A" bonds	\$4,342 50		
Series "B" bonds	20,380 00		
Series "C" bonds	1,440 00		
		26,162 50	
		\$98,311,592 38	

COMMENTS: In addition to the assets and liabilities stated on the balance sheet above, there is available for bridge construction the proceeds from the future sale of \$10,000,000.00 of Interstate Bridge Bonds which have been authorized but not issued, and there is an additional liability stated by the management to be \$13,331,315.53 at December 31, 1929, for contracts awarded but not completed at that date.

The total discount and expense on bonds sold to December 31, 1929 amounting to \$3,475,580.00 has been charged to bridge construction as a financing cost as per resolution of the Commissioners dated March 20, 1930.

General Balance Sheet as at December 31, 1929

LIABILITIES

LONG TERM INDEBTEDNESS:			
Series "A" Interstate Bridge Bonds, issued for the construction of the Outerbridge Crossing, and The Goethals Bridge	\$14,000,000 00		
Series "C" Interstate Bridge Bonds, issued for the construction of the Bayonne-Port Richmond Bridge	12,000,000 00		
Authorized for the construction of the Hudson River bridge	\$60,000,000 00		
Less: Unissued	10,000,000 00		
Series "B" Interstate Bridge Bonds issued	50,000,000 00	\$76,000,000 00	
CURRENT LIABILITIES:			
Notes payable	\$750,000 00		
Audited vouchers payable	421,371 40		
Mortgages payable and accrued interest	1,394,198 66		
Accrued interest on Bonds:			
Series "A" bonds	\$210,000 00		
Series "B" bonds	291,654 70		
Series "C" bonds	240,000 00		
	741,654 70		
Total current liabilities		3,307,224 76	
SUBORDINATED LONG TERM INDEBTEDNESS:			
Advances made by the States of New Jersey and New York for preliminary surveys and to aid in the construction of interstate bridges, the repayment of which is subordinated by law to the respective serial bond issues:			
The Outerbridge Crossing and The Goethals Bridge	\$3,399,918 20		
Hudson River Bridge	4,299,921 97		
Bayonne-Port Richmond Bridge	900,000 00		
		\$8,599,840 17	
DEFERRED STATE ADVANCES, PER CONTRA:			
Amounts authorized by the States of New Jersey and New York to be advanced in annual installments to The Port of New York Authority to aid in the construction of interstate bridges:			
The Outerbridge Crossing and The Goethals Bridge	\$800,000 00		
Hudson River Bridge	6,000,000 00		
Bayonne-Port Richmond Bridge	3,200,000 00		
		10,000,000 00	
UNEXPENDED BALANCES OF STATE APPROPRIATIONS UNDER THE COMPREHENSIVE PLAN, PER CONTRA:			
State of New Jersey, Laws of 1929	\$50,077 55		
State of New York, Laws of 1929	52,965 58		
State of New York, Laws of 1928	5,700 46		
		108,743 59	
UNREDEEMED BOND INTEREST COUPONS, PER CONTRA:			
Series "A" bonds	\$4,342 50		
Series "B" bonds	20,380 00		
Series "C" bonds	1,440 00		
		26,162 50	
DEFERRED CREDITS:			
Interest on bank balances	\$2,621 57		
Items in suspense	20,420 73		
Accrued depreciation of equipment	1,532 64		
		24,574 94	
RESERVE—Arthur Kill bridges		245,046 42	
		\$98,311,592 38	

CERTIFICATE OF AUDIT

We have made an audit of the books and accounts of The Port of New York Authority for the year ended December 31, 1929.

We hereby certify that the above balance sheet is in accordance with the books and subject to the foregoing comments, in our opinion correctly sets forth its true financial position as at December 31, 1929.

S. D. LEIDESDORF & CO.
Certified Public Accountants.
New York, N. Y.,
March 20, 1930.

HUDSON RIVER BRIDGE
STATEMENT OF EXPENDITURES UNDER CONSTRUCTION CONTRACTS
MARCH, 1926, TO DECEMBER, 1929, INCLUSIVE

Contract reference	DESCRIPTION	BIDS RECEIVED			Engineer's estimate of contract items	EXPENDITURES			Remarks	
		Number	High bid	Low bid		Accepted bid	Contract items	Contingent work		Contract items plus contingent work
HRB-1....	Test borings.....					\$20,262 58	\$8,164 83	\$28,427 41	Complete.	
HRB-2....	Foundations and tower bases— N. J.	12	\$2,723,350 00	\$1,160,200 00	\$1,160,200 00	\$2,599,200 00	1,057,190 00	1,058,701 43	Complete.	
HRB-3....	Excavation— N. J. anchorage and approach.	18	2,765,700 00	694,000 00	694,000 00	1,492,500 00	748,713 44	†153,842 43	902,555 87	Complete.*
HRB-4....	N. Y. anchorage and tower foundation.	32	1,773,425 00	986,600 00	986,000 00	1,778,000 00	1,072,433 04	5,512 25	1,077,945 29	HRB-4-Contract 99% complete; figures represent amounts earned. HRB-5A-Contract 72% complete; figures represent amounts earned. HRB-5B-Contract 52% complete; figures represent amounts earned. HRB-7-Contract let in December; no payments made to contractor.
HRB-5A..	Steel towers and floors..	3	10,621,020 00	10,134,440 00	10,134,440 00	10,483,400 00	7,292,070 30	76,933 97	7,369,004 27	
HRB-5B..	Wire cables.....	3	14,979,455 00	12,339,977 00	12,339,977 00	15,355,200 00	5,886,109 89	11,217 21	5,897,327 10	
HRB-7....	Clearing site— N. Y. approach.	9	256,450 00	149,000 00	149,000 00	450,000 00				

Engineers' estimate of contract items is arrived at on basis of estimated quantities at an assumed unit price for each contract item. Contractors' bids represent an aggregate estimated cost, based on fixed unit prices bid by the contractor and the engineers' estimate of quantities.
 * Final payment not made to contractor.
 † Occasioned by necessary changes in plans account unforeseen foundation conditions.

KILL VAN KULL BRIDGE
STATEMENT OF EXPENDITURES UNDER CONSTRUCTION CONTRACTS
MARCH, 1926, TO DECEMBER, 1929, INCLUSIVE

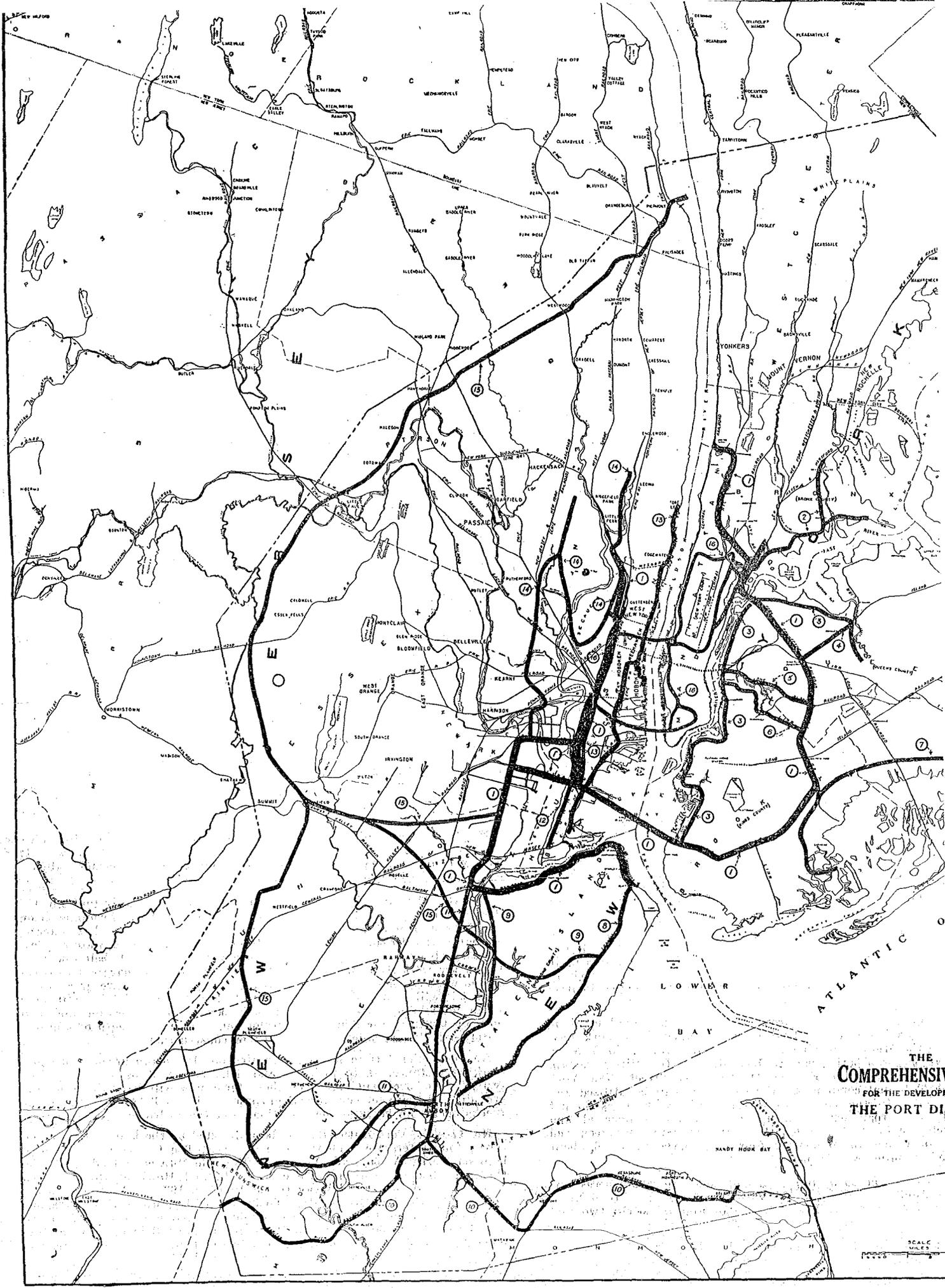
Contract reference	DESCRIPTION	BIDS RECEIVED			Engineer's estimate of contract items	EXPENDITURES			Remarks	
		Number	High bid	Low bid		Accepted bid	Contract items	Contingent work		Contract items plus contingent work
BP-1.....	Test borings.....	4	\$9,180	\$4,856 25	\$4,856 25	\$10,000 00	\$5,721 25	\$5,721 25	Complete.*	
BP-2....	Main bridge abutments	15	777,900	515,709 00	515,709 00	851,200 00	496,295 95	\$2,043 23	498,339 18	Complete.
BP-3....	Steelwork.....	3	5,469,950	5,041,770 00	5,041,770 00	5,781,000 00	1,162,377 25	4,046 23	1,166,423 48	BP-3. Contract 26% complete; figures represent amounts earned.
BP-4....	Bayonne approach piers	13	571,500	387,930 00	387,930 00	524,200 00	316,666 84	45 63	316,712 47	BP-4. Contract 90% complete; figures represent amount earned.
BP-5.....	Port Richmond approach piers.	19	555,415	314,780 00	314,780 00	456,600 00	305,638 73	†20,307 65	325,946 38	BP-5. Complete.

Engineers' estimate of contract items is arrived at on basis of estimated quantities at an assumed unit price for each contract item. Contractors' bids represent an aggregate estimated cost, based on fixed unit prices bid by the contractor and the engineers' estimate of quantities.
 * More borings were made at contract prices than originally contracted for.
 † Occasioned by adjustment in price account unexpected foundation conditions.

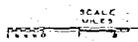
EXPENDITURES FOR CONSTRUCTION OF BRIDGES
YEAR ENDED DECEMBER 31, 1929 AND TOTAL TO DATE

	TOTAL		HUDSON RIVER BRIDGE		BAYONNE-PORT RICHMOND BRIDGE		HOWLAND HOOK-ELIZABETH BRIDGE		TOTTENVILLE-PERTH AMBOY BRIDGE		TOTAL ARTHUR KILL BRIDGES	
	Year 1929	Total to Date	Year 1929	Total to Date	Year 1929	Total to date	Year 1929	Total to date	Year 1929	Total to date	Year 1929	Total to date
ENGINEERING:												
Chief superintendent.....	\$80,306 88	\$170,397 66	\$43,552 15	\$103,427 29	\$14,662 72	\$27,067 02	\$935 90	\$16,983 15	\$1,156 11	\$22,920 20	\$2,092 01	\$39,903 34
Engineering consultants.....	42,902 41	149,286 80	24,362 16	93,609 73	18,540 25	22,903 03	.....	13,356 75	.....	19,417 29	.....	32,774 04
Structural consultants.....	37,343 04	158,483 12	34,900 35	103,709 52	404 21	31,606 15	815 39	9,266 99	1,223 09	13,900 46	2,038 48	23,167 43
Technical studies.....	23,232 42	74,134 03	21,248 85	54,780 20	1,515 69	3,379 81	249 18	7,020 95	213 70	8,953 07	467 88	15,974 08
Engineering studies.....	40,439 00	115,042 17	23,941 16	72,944 66	16,490 29	32,156 83	3 00	4,504 72	4 55	5,435 96	7 55	9,940 68
Engineering — plans and specifications.....	120,162 70	314,383 45	77,165 66	188,982 78	42,111 54	97,003 55	461 97	13,606 03	423 53	14,791 09	\$85 50	29,397 16
Engineering and supervision — engineering consultants.....	33,025 21	389,431 10	.....	.....	.....	.....	13,246 92	155,869 28	19,778 29	233,621 82	33,025 21	359,431 10
Engineering drawings, blue prints and maps.....	46 54	1,364 21	28 05	150 13	18 49	1,213 33	.....	30	.....	45	.....	77 00
Engineering drawings, blue prints and maps.....	1,470 27	3,761 38	158 03	1,781 85	479 69	612 93	337 32	585 55	495 23	781 05	.....	1,266 00
Engineering drawings, blue prints and maps.....	206,928 11	646,424 94	135,016 21	310,583 95	63,588 66	95,471 59	2,593 50	100,390 78	5,729 74	139,978 62	8,323 24	240,369 40
Engineering inspection.....	156,585 36	365,565 14	90,247 01	210,581 33	65,830 09	72,026 41	213 36	37,260 38	294 90	45,697 02	508 26	\$2,957 40
Engineering rental and expenses.....	27,151 61	81,951 91	20,301 92	52,340 24	6,804 44	13,194 61	14 10	6,921 48	31 15	9,495 58	45 25	16,417 00
Engineering furniture and equipment.....	1,357 92	17,121 87	1,174 36	9,883 83	183 56	1,391 14	.....	2,466 23	.....	3,880 67	.....	5,846 90
Engineering equipment.....	1,422 23	16,522 05	1,138 60	9,596 78	283 63	1,237 21	.....	2,805 11	.....	3,882 95	.....	5,688 00
Engineering laboratory equipment.....	57,030 45*	19,936 55	37,835 49*	9,750 56	19,099 96*	1,052 09	43 65*	3,651 99	51 35*	5,481 91	95 00*	9,133 90
Engineering mobile and marine equipment.....	2,685 18	7,300 23	2,109 15	2,109 15	703 03	2,532 12	51 00*	1,247 35	76 00*	1,411 61	127 00*	2,658 90
Engineering of automobiles and marine equipment.....	4,825 22	17,818 58	1,606 32	2,229 06	3,189 58	5,381 67	96	4,522 45	28 36	5,685 40	29 32	10,207 85
Engineering engineering expenditures.....	229,853 14	229,853 14	171,930 29	171,930 29	57,922 85	57,922 85	.....	.....	.....	.....	.....	.....
Total.....	\$932,706 79	\$2,778,778 33	\$611,044 78	\$1,398,391 35	\$273,628 76	\$466,152 34	\$18,776 95	\$380,399 49	\$29,256 30	\$533,835 15	\$48,033 25	\$914,234 64
EXPENDITURE IN LAND:												
Land — east approach.....	\$2,323,074 36	\$9,082,884 18	\$2,274,243 50	\$8,113,525 96	\$48,830 86	\$819,779 51	.....	\$69,578 71	.....	\$80,000 00	.....	\$149,578 71
Land — west approach.....	641,403 20	3,821,775 80	121,120 00	983,878 60	497,583 20	1,806,553 20	\$22,500 00	468,500 00	\$200 00	562,844 00	.....	1,081,164 00
Land — salaries and expenses.....	79,618 15	311,841 43	54,543 62	153,042 11	18,167 17	91,693 38	\$3,608 80	28,750 90	3,298 56	38,355 04	6,907 36	67,165 94
Land — assessments.....	28,194 63	132,748 86	22,830 44	97,664 37	5,364 19	27,362 54	.....	2,246 70	.....	5,475 25	.....	7,721 95
Total.....	\$3,072,290 34	\$13,349,250 27	\$2,472,737 56	\$9,348,111 04	\$569,945 42	\$2,745,388 63	\$26,108 80	\$569,076 31	\$3,498 56	\$686,674 29	\$29,607 36	\$1,255,750 60
CONSTRUCTION:												
Construction borings.....	\$1,501 13	\$52,922 21	.....	\$28,427 41	\$1,501 13	\$10,027 88	.....	\$5,722 70	.....	\$8,744 22	.....	\$14,460 00
Construction structure.....	1,546,744 05	9,900,637 19	\$509,387 19	3,081,493 81	1,036,779 27	1,142,498 94	.....	2,407,957 48	\$577 59	3,318,686 96	\$577 59	5,725,644 43
Construction superstructure.....	7,269,697 51	19,312,143 95	6,080,570 23	13,637,623 63	1,162,377 25	1,162,377 25	\$8,273 33	1,905,285 31	18,476 70	2,606,857 76	26,750 00	4,423,146 07
Construction sidewalks.....	99,484 67	925,391 93	1,500 00	1,500 00	.....	.....	\$8,095 16	378,378 58	59,889 51	59,889 51	97,984 07	925,391 93
Construction ways and footwalks.....	71,993 15	1,328,326 16	.....	.....	848 69	848 69	36,478 00	576,627 39	34,666 46	751,350 08	71,144 49	1,328,326 16
Construction utility lines.....	9,466 22	22,638 30	.....	.....	600 00	600 00	4,173 85	9,609 89	4,692 37	12,423 11	.....	22,638 30
Construction lines.....	2,449 15	2,693 50	.....	.....	.....	.....	2,449 15	2,449 15	.....	2,449 15	.....	2,693 50
Construction signs.....	14,981 50	114,921 03	.....	.....	.....	.....	9,397 72	60,274 63	5,583 78	54,646 40	14,981 50	114,921 03
Construction telephone and signal system.....	386 49	2,514 13	.....	.....	.....	.....	183 06	1,101 51	203 43	1,412 62	.....	386 49
Construction lighting system.....	4,289 98	4,289 98	.....	.....	.....	.....	546 07	546 07	3,743 91	4,289 98	.....	4,289 98
Construction machinery, tools and equipment.....	17,577 12	208,798 07	.....	.....	.....	.....	7,831 53	98,005 55	9,745 59	110,792 52	17,577 12	208,798 07
Construction materials and damages.....	1,446 57	14,342 94	.....	.....	.....	.....	552 98	7,098 74	893 59	7,244 20	1,446 57	14,342 94
Construction construction expenditures.....	28,105 61	105,239 65	35,409 10	68,631 33	259 43	259 43	2,902 21*	28,391 70	4,660 71*	7,957 19	7,562 92*	36,348 86
Total.....	\$9,068,123 15	\$31,995,359 04	\$6,626,866 52	\$16,767,676 18	\$2,202,365 77	\$2,316,612 19	\$105,078 64	\$5,481,448 70	\$133,812 22	\$7,429,621 97	\$238,890 86	\$12,911,070 67
GENERAL EXPENDITURES:												
General expenses of general officers.....	\$51,452 97	\$145,968 32	\$37,484 88	\$83,432 96	\$13,252 57	\$24,196 93	\$332 72	\$15,874 09	\$382 80	\$22,464 34	\$715 52	\$38,333 43
General expenses of clerks and attendants.....	81,962 79	290,559 71	61,173 97	122,798 03	19,958 11	32,644 71	343 24	22,275 43	487 47	30,841 54	830 71	53,116 97
General expenses of counsel, attorneys and assistants.....	46,697 60	142,137 07	34,560 46	77,427 29	11,220 16	23,310 39	631 59	18,559 75	285 39	22,839 64	916 98	41,399 39
General law expenditures.....	206 31	4,156 02	178 30	1,060 26	28 01	256 12	.....	1,478 67	.....	1,360 97	.....	2,839 64
General rental and expenses.....	33,398 47	108,563 02	25,244 34	61,723 52	7,898 45	14,404 12	118 13	12,687 65	137 55	19,747 73	255 68	32,435 83
General furniture and equipment.....	1,529 50	12,735 84	1,124 75	6,023 25	359 64	907 25	15 03	2,118 14	30 08	3,107 20	45 11	5,225 84
General machinery, printing and advertising.....	11,414 36	51,169 37	8,644 99	25,813 76	2,686 20	7,332 23	33 27	7,778 23	49 90	10,245 15	83 17	18,023 38
General insurance.....	7,059 68	46,489 81	4,120 32	12,355 23	2,929 77	4,248 11	23 93*	11,458 47	33 52	18,428 00	9 59	29,886 47
General general expenditures.....	22,102 82	64,463 88	17,044 94	39,467 35	4,345 85	11,706 78	444 11	5,508 68	267 92	7,781 07	712 03	13,289 75
Total.....	\$255,824 50	\$784,243 04	\$189,576 95	\$430,681 65	\$62,678 76	\$119,006 64	\$1,894 16	\$97,739 11	\$1,674 63	\$136,815 64	\$3,568 79	\$234,554 78
DEBT AND INCOME DURING CONSTRUCTION:												
Debt payable during construction.....	\$1,636,035 46	\$5,634,709 54	\$1,156,035 46	\$2,885,184 09	\$480,000 00	\$964,508 38	.....	\$714,010 50	.....	\$1,071,006 57	.....	\$1,785,017 07
Income earned during construction.....	444,642 60*	2,377,850 53*	162,678 78*	1,090,984 53*	281,963 82*	591,353 95*	.....	278,132 02*	.....	417,198 03*	.....	695,330 07
Interest on debt during construction.....	3,203,785 07	3,366,322 76	2,865,918 97	2,951,694 72	22,308 04	23,544 50	\$126,223 22	156,433 60	\$189,334 84	234,650 40	\$315,558 06	391,084 00
Interest of fiscal agents.....	2,544 81	13,106 08	1,715 50	5,605 83	470 50	4,542 50	143 52	1,183 10	215 20	1,774 65	358 81	2,957 77
Interest miscellaneous rentals and expenses.....	368,984 97*	714,229 91*	334,401 59*	638,222 97*	34,675 87*	75,226 58*	57 64	725 38*	34 85	54 98*	92 49	780 30
Total.....	\$4,028,737 77	\$5,922,057 94	\$3,526,589 56	\$4,113,277 14	\$186,138 85	\$325,832 39	\$126,424 38	\$592,769 80	\$189,584 98	\$890,178 61	\$316,009 36	\$1,482,948 41
RECAPITULATION:												
Engineering.....	\$932,706 79	\$2,778,778 33	\$611,044 78	\$1,398,391 35	\$273,628 76	\$466,152 34	\$18,776 95	\$380,399 49	\$29,256 30	\$533,835 15	\$48,033 25	\$914,234 64
Expenditure in land.....	3,072,290 34	13,349,250 27	2,472,737 56	9,348,111 04	569,945 42	2,745,388 63	26,108 80	569,076 31	3,498 56	686,674 29	29,607 36	1,255,750 60
Construction.....	9,068,123 15	31,995,359 04	6,626,866 52	16,767,676 18	2,202,365 77	2,316,612 19	105,078 64	5,481,448 70	133,812 22	7,429,621 97	238,890 86	12,911,070 67
General expenditures.....	255,824 50	784,243 04	189,576 95	430,681 65	62,678 76	119,006 64	1,894 16	97,739 11	1,674 63	136,815 64	3,568 79	234,554 78
Debt and income during construction.....	4,028,737 77	5,922,057 94	3,526,589 56	4,113,277 14	186,138 85	325,832 39	126,424 38	592,769 80	189,584 98	890,178 61	316,009 36	1,482,948 41
Grand total.....	\$17,357,682 55	\$54,829,688 62	\$13,426,815 37	\$32,058,137 36	\$3,294,757 56	\$5,972,992 19	\$278,282 93	\$7,121,433 41	\$357,826 69	\$9,677,125 06	\$686,109 62	\$18,798,550 07

Notes on p. 21*



THE
COMPREHENSIVE
FOR THE DEVELOPMENT
OF THE PORT DISTRICT



Description of the Comprehensive Plan

No. 1—Middle belt line—the keystone of the arch of railroad terminal coordination within the Port District. It connects New Jersey and Staten Island and the railroads on the westerly side of the port in Brooklyn, Queens, the Bronx and the railroads on the easterly side of the port. This connection is the most direct, the shortest and the simplest of any brought to the attention of the Commissioners for study and consideration. This line connects with the New York Central Railroad in the Bronx; with the New York, New Haven and Hartford Railroad in the Bronx; with the Long Island Railroad in Queens and Brooklyn; with the Baltimore and Ohio Railroad near Elizabethport and in Staten Island; with the Central Railroad Company of New Jersey at Elizabethport and at points in Newark and Jersey City; with the Pennsylvania Railroad in Newark and Jersey City; with the Lehigh Valley Railroad in Newark and Jersey City; with the Delaware, Lackawanna and Western Railroad in Jersey City and the Secaucus Meadows; with the Erie Railroad in Jersey City and the Secaucus Meadows; with the New York, Susquehanna and Western Railroad in West Hoboken; with the New York, Erie and Western and the West Shore Railroads on the westerly side of the Palisades above the Weehawken tunnel.

Its length is approximately sixty-one and one-half miles, of which approximately fifty-one and one-half miles have already been built. Additional tracks to those already built will have to be added. There remains only approximately ten miles of entirely new line to be built. In the construction of the tunnel and approaches from Greenville to Bay Ridge freight can commence to flow without the necessity of building other trackage except short connections at the tunnel ends. To handle the full traffic that should traverse this middle belt line or to use it for local service would require the improvement of existing tracks and additions to them.

The route to the Middle belt line is as follows: Connecting at the Hudson river at Spuyten Duyvel running easterly and southerly generally along the easterly side of the Harlem river, utilizing existing lines and improving and adding where necessary, to a connection with Hell Gate and the New Haven Railroad, a distance of approximately seven miles; thence continuing in a general southerly direction, utilizing existing lines and improving and adding where necessary to a point near Bay Ridge, a distance of approximately eighteen and one-half miles; thence a new two-track tunnel under New York Bay in a westerly direction to a portal in the Greenville yard of the Pennsylvania Railroad in Jersey City, a distance of approximately five miles, to a connection with the tracks of the Pennsylvania and Lehigh Valley Railroads; thence in a generally northerly direction along the easterly side of Newark Bay and Hackensack river at the westerly foot of the Palisades, utilizing existing tracks and improving and adding where necessary, making connections with the Jersey Central, Pennsylvania, Lehigh Valley, Delaware, Lackawanna and Western, Erie, New York, Susquehanna and Western, New York, Erie and Western, and West Shore railroads, a distance of approximately ten miles. From the Greenville portal of the Bay tunnel and from the line along the easterly side of Newark Bay by the bridges of the Central Railroad of New Jersey (crossing the Hackensack and Passaic Rivers) and of the Pennsylvania and Lehigh Valley Railroads (crossing Newark Bay) to the line of the Central Railroad of New Jersey running along the westerly side of Newark Bay and thence southerly along this line to a connection with the Baltimore and Ohio Railroad south of Elizabethport, utilizing existing lines and improving and adding where necessary, a distance of approximately 12 miles; thence in an easterly direction along the Arthur Kill, utilizing existing lines and improving and adding where necessary, along the northerly and easterly shores of Staten Island to the new city piers and to a connection, if the City of New York consent thereto, with the tunnel under the Narrows to Brooklyn provided under legislation as a municipal project—a distance of approximately five miles.

No. 2—A marginal railroad in the Bronx extending along the shore of East River and Westchester creek connecting with the Middle belt line (No. 1), and with the New York, New Haven and Hartford Railroad in the vicinity of Westchester. This is a new line and will open up territory for commercial and industrial development. Its length is approximately five miles.

No. 3—A marginal railroad in Queens and Brooklyn extending along Flushing creek, Flushing Bay, the East River and upper New York Bay, connecting with the Middle belt line (No. 1), by lines No. 4, No. 5, No. 6 directly at the southerly end at Bay Ridge. It utilizes certain existing lines of the Brooklyn Eastern District, Jay Street, New York and Bush Terminal companies. Existing lines will be utilized and improved and added to and new lines will be built where lines do not exist. This railroad will open up territory for commercial and industrial development. It has a length of approximately nineteen and one-half miles, of which approximately four miles now exist and about one and one-half miles will be new.

No. 4—An existing line to be improved and added to where necessary. It connects the Middle belt line (No. 1) with the marginal railroad No. 3 at its northeasterly end. It has a length of approximately two and one-half miles.

No. 5—An existing line to be improved and added to where necessary. It connects the Middle belt line (No. 1), with the marginal railroad No. 3, at Staten Island City. It has a length of approximately four miles.

No. 6—A portion of this line exists and a portion is new. It connects the Middle belt line (No. 1), with the marginal railroad No. 3 in the Greenpoint section of Brooklyn. The existing portion to be improved and added to where necessary. It will open up territory for industrial development. It has a length of approximately four miles of which two miles now exist.

No. 7—A marginal railroad surrounding the northerly and westerly shores of Jamaica Bay.—This line is new and connects with the Middle belt line (No. 1). It will open up territory for commercial and industrial development. It has a length of approximately twelve and one-half miles.

No. 8—An existing line, to be improved and added to where necessary. It extends along the southeasterly shore of Staten Island. It connects with Middle belt line (No. 1), and will open up territory for commercial and industrial development. It has a length of approximately twelve miles.

No. 9—A marginal railroad extending along the westerly shore of Staten Island and a branch connection with No. 8. This line is new and will open up territory for commercial and industrial development. It connects with the Middle belt line (No. 1), and with a branch from the Outer belt line (No. 15); with its branch it is about fifteen and one-quarter miles long.

No. 10—This line is made up mostly of existing lines, to be improved and added to where necessary. It connects with the Middle belt line (No. 1) by way of marginal railroad No. 11. It extends along the southerly shore of Raritan Bay and through the territory south of the Raritan river reaching New Brunswick. It will open up territory for commercial and industrial development. It has a length of approximately twenty-nine and one-half miles, of which practically the entire length exists.

No. 11—A marginal railroad extending from a connection with the proposed Outer belt line (No. 15) near New Brunswick along the northerly shore of the Raritan river to Perth Amboy, thence northerly along the westerly side of the Arthur Kill to a connection with the Middle belt line (No. 1) south of Elizabethport. The portion of this line which exists to be improved and added to where necessary. This line will open up territory for commercial and industrial development. It has a length of approximately fifteen and one-quarter miles, of which about nine and one-half miles now exist.

No. 12—A marginal railroad extending along the easterly shore of Newark Bay and the Hackensack river and connects with the Middle belt line (No. 1). This line which does not now exist will open up territory for commercial and industrial development. It has a length of approximately seven miles.

No. 13—A marginal railroad extending along the westerly side of the Hudson river and the Upper New York Bay. It is made up mostly of existing lines—the Erie Terminals, Jersey Junction, Hoboken Shore, and National Docks railroads. It is to be improved and added to where necessary. This line, connected with Middle belt line (No. 1), and operated as a belt line will serve the waterfront and open up territory for commercial and industrial development. It has a length of approximately sixteen and one-half miles, of which about fifteen miles now exist.

No. 14—A marginal railroad connecting with the Middle belt line (No. 1), and extending through the Hackensack and Secaucus Meadows. It will open up territory for commercial and industrial development. It is a new line and has a length of approximately twenty-three miles.

No. 15—The Outer belt line, extending around the westerly limits of the Port District beyond the congested section. Its northerly terminus is on the Hudson river at Piermont above the harbor congestion and it connects by marginal railroads at the southerly end with the harbor waters below the congested section. By spurs it connects with the Middle belt line (No. 1), on the westerly shore of Newark Bay and with the marginal railroad on the westerly shore of Staten Island (No. 9). It will have great value in that it will afford military protection to the Port District. It will serve as an interchange between the railroads beyond the congestion and will open up territory for industrial development. It has a length of approximately seventy-one miles which is all new construction.

No. 16—Union terminal stations located on Manhattan in zones of equal trucking distance, as to pick-ups and deliveries, will be served by this system. The overhead rights of these terminals will be utilized by the providing of space for commercial purposes. They will be served by motor trucks operating between these stations and the railroads in New Jersey.

No. 17—The Port Authority has been directed by the two States to construct four interstate bridges. Two of these, The Outerbridge Crossing, between Perth Amboy, N. J., and Tottenville, Staten Island, and The Goethals Bridge, between Elizabeth, N. J., and Howland Hook, Staten Island, were opened to highway traffic June 29, 1928, and are now being operated by the Port Authority. Their cost will approximate \$16,800,000. The Hudson River Bridge, between Manhattan and Fort Lee, N. J. (estimated to cost \$60,000,000); and the Kill van Kull Bridge, between Bayonne, N. J., and Port Richmond, Staten Island (estimated to cost \$16,000,000), are expected to be opened to traffic in 1932.