

TRANSPORTATION

**REGIONAL
TRANSPORTATION
PROGRAM**

METROPOLITAN TRANSPORTATION AUTHORITY

August 1969

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On March 1, 1968, the Metropolitan Transportation Authority assumed a broadened responsibility under the law. Its jurisdiction now includes:

- the New York City Transit Authority
- the Manhattan and Bronx Surface Transit Operating Authority (known as MABSTOA)
- the Triborough Bridge and Tunnel Authority
- the Long Island Rail Road (which MTA owns)
- the development of general aviation airports and related transportation centers
- negotiations to improve New Haven Rail Road and the Staten Island Rapid Transit and
- the construction of two new bridges across Long Island Sound.

Prior to March 1, MTA, which was known as the Metropolitan Commuter Transportation Authority, was already actively engaged in a number of projects throughout the region outside of the City of New York — including the Long Island Rail Road modernization.

The MTA projects are moving ahead with the primary assistance of a \$2.5 billion transportation bond issue which was proposed by Governor Rockefeller, endorsed by the Legislature, and approved by the voters in a statewide referendum in November 1967. In total, MTA is acting on more than \$2 billion in transportation improvements as its regional "Program for Action" for transportation becomes reality.

Since March 1, MTA has been able to move rapidly toward program implementation with the cooperation and enlightened support of Governor Rockefeller, the State Legislature, the State Department of Transportation and Mayor Lindsay and the Board of Estimate of the City of New York. The U.S. Department of Transportation, the Department of Housing and Urban Development and the Federal Aviation Administration have also been instrumental in furthering federal grants to augment various transportation improvements in the region.

This outlines the program as it is today and updates MTA's over-all "Program for Action" which was first presented to Governor Rockefeller in February 1968.

Specific projects, designed to achieve a balanced network of rail, road and air facilities are programmed in each of the metropolitan region's transportation corridors: the Eastern Corridor (Queens, Brooklyn, Nassau and Suffolk counties); the Northern Corridor (Upper Manhattan and Bronx, Westchester, Putnam, Dutchess, Rockland and Orange counties); the Southern Corridor (Staten Island); and the Central Business District of Manhattan, (south of 63rd Street).

EASTERN CORRIDOR

RAIL IMPROVEMENT PROGRAM

- Existing Rail Line to be Modernized and Re-equipped
- Extension of Electrification Under Way
- Rail Line to be Extended

AVIATION AND TRANSPORTATION CENTERS

- Transportation Center
- General Aviation Airport
- Extension of LIRR to JFK Airport

BRIDGES AND TUNNELS

- General Location—Long Island Sound Crossings
- Bridge Improvements

CURRENT PROGRAM





Transportation Centers and General Aviation

A major air-rail-auto-taxi transportation center will be developed at Republic Airport which was acquired by the State Department of Transportation for MTA on March 31, 1969. The airport will serve the growing industrial needs of Long Island and relieve the major commercial airports of much of their general aviation (flying by other than the scheduled commercial airlines).

Airport Access

The Long Island Rail Road will be extended to the central terminal area of John F. Kennedy Airport to provide a high-speed, reliable link between Manhattan and the airport.

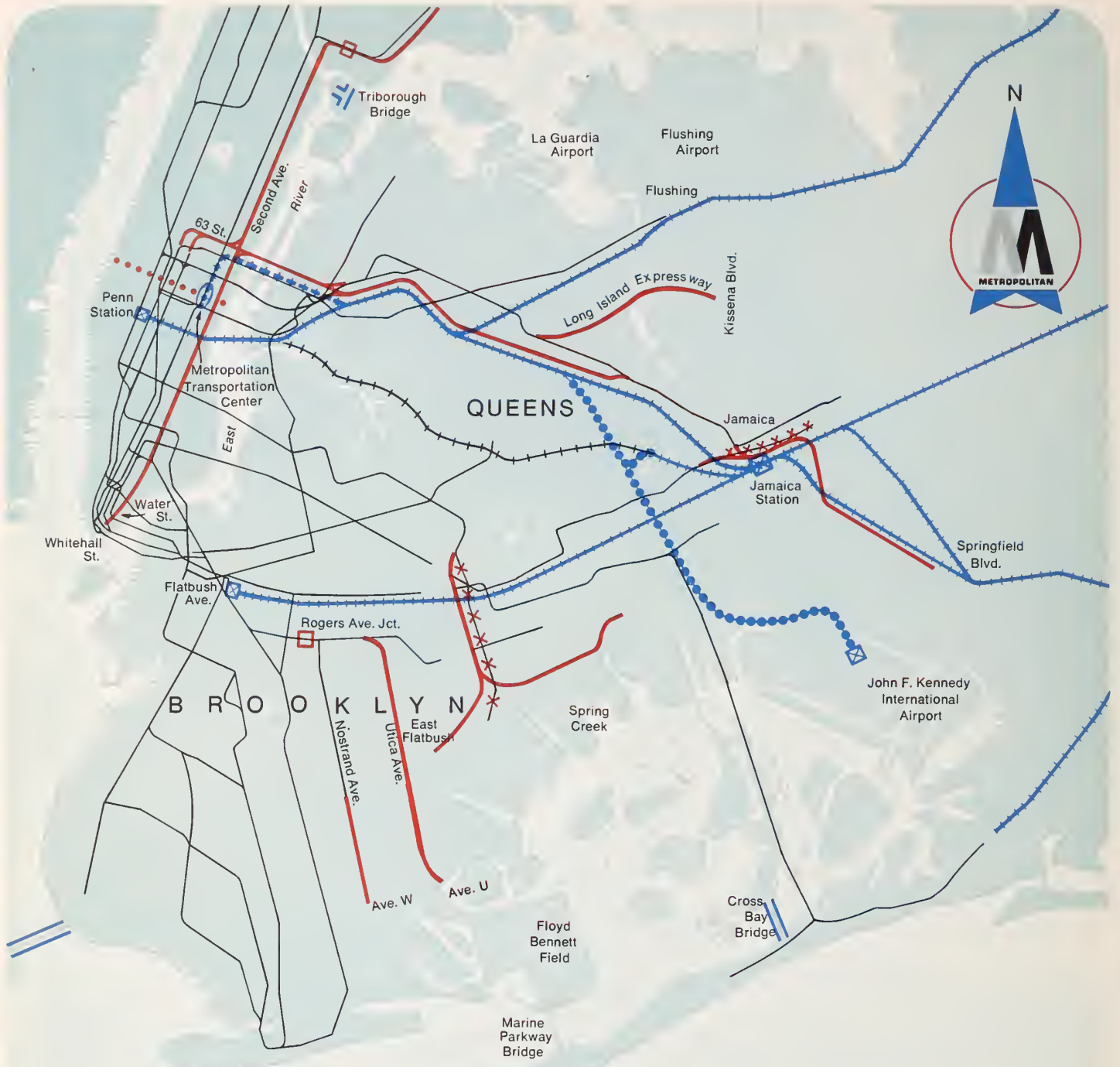
To solve the access problem, the LIRR will be extended into the airport on a route leaving the LIRR Main Line at Rego Park, following the right-of-way of the former Rockaway Beach Branch of the LIRR to Howard Beach and extending on new construction to the airport terminal. The running time from Manhattan to the airport will be under 20 minutes. To serve Queens and Long Island, a spur will be provided to Jamaica.

Bridges and Tunnels

To improve the flow of traffic across the Triborough Bridge, the Randalls Island toll plaza has been reconstructed. To

eliminate interruptions to traffic from a draw bridge, a new high-level fixed span is being constructed for the Cross Bay Bridge.

Two Long Island Sound bridge crossings are planned to provide the growing population and industry on Long Island with outlets which do not pass through congested New York City. Under study are bridges from the Oyster Bay area to the general vicinity of Rye, and from a Port Jefferson site to the general area of Bridgeport, Connecticut.



EASTERN CORRIDOR BROOKLYN-QUEENS SECTOR

TRANSIT EXPANSION PROGRAM

- New Rapid Transit Line or Extension
- Existing Junction to be Reconstructed
- Existing Elevated Line to be Removed
- Existing Rapid Transit Line
- New Midtown Distribution System

CURRENT PROGRAM

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RAIL IMPROVEMENT PROGRAM

- Existing Rail Line to be Modernized and Re-equipped
- Rail Line to be Extended
- Existing Station to be Modernized

CURRENT PROGRAM

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**AVIATION AND TRANSPORTATION CENTERS
BRIDGES AND TUNNELS**

- Extension of LIRR to J. F. K. Airport
- Bridge Improvements

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Transit Expansion Program

Engineering plans for the construction of the 63rd Street East River tunnel are completed. This tunnel is the key link to relieve congestion in the Eastern Corridor transit and rail program. It will have four tracks, the two upper tracks for subway trains and the two lower tracks for LIRR trains. In Manhattan, the subway tracks will connect with both the Second Avenue subway and the 63rd Street crosstown subway to Sixth and Seventh Avenues. In Queens, the subway tracks will connect with the present Queens Boulevard subway and a new "super-express" bypass track to outer Queens.

The super-express bypass track will extend from a junction with the new 63rd Street tunnel and the present 53rd Street line near Queens Plaza to Forest Hills. The track will be constructed along the LIRR Main Line right-of-way and will double the rush hour express capacity of the IND Queens system. A turnback will be needed for GG trains west of Forest Hills.

Two new branch lines will be built in Queens to extend subway service directly into areas now remote from rapid transit. One of these lines will extend along the Long Island Expressway as a branch of the Queens Boulevard line to Queens College at Kissena Boulevard. The other will extend into Southeastern Queens as a branch of the Queens Boulevard line from Hillside Avenue and the Van Wyck Expressway to Archer Avenue and along the LIRR Atlantic Branch right-of-way to Springfield Boulevard.

The Long Island Expressway line will be coordinated with the proposed reconstruction of the Expressway if the subway construction is not unduly delayed. The Southeastern Queens route will serve York College and also the LIRR Jamaica station for the convenient interchange of passengers between LIRR, subway and JFK airport trains. The project includes a ramp to permit the removal of the obsolete Jamaica Avenue elevated in the Jamaica business district.

In Brooklyn, the Nostrand Avenue line will be extended from its present inefficient terminal at Flatbush Avenue to a modern terminal in the vicinity of Avenue W.

In addition, a new branch of the IRT Brooklyn line will be built along Utica Avenue from Eastern Parkway to Avenue U and Flatbush Avenue to serve an area now remote from rapid transit lines.

To obtain optimum utilization of these two new extensions, the bottleneck junction at Eastern Parkway and Rogers Avenue will be improved to reduce delays, permit efficient operation of trains and increase system capacity.

Finally, in Brooklyn, an opportunity exists to coordinate the expansion of rapid transit facilities and the removal of an obsolete elevated line if two new interstate highways are built. The existing 14th Street-Canarsie elevated line would be relocated from East New York southward and extend eastward in the beds of the expressways to the vicinity of the Queens boundary in the growing Spring Creek-Lindenwood area north of Jamaica Bay. There could also be a

westerly spur to the East Flatbush area. Alternatively, the elevated portion of the Canarsie line might be removed by relocating the service on the Penn Central right-of-way.

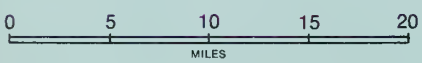
Rail Improvement Program

The rehabilitation of the electrical system of the LIRR and its extension to Huntington with the aid of a \$30 million federal grant is under way. Further extension of electrification to Northport and Pinelawn is planned.

The MTA has ordered 620 new stainless steel air-conditioned electric cars to permit the retirement of all pre-World War II electric cars. Capable of speeds up to 100 mph, these cars will eventually cut in half running time to key express stations.

The LIRR improvement program also includes signal and track improvements, yard and shop modernization and expansion and the streamlining of the Jamaica station complex.

The MTA is continuing its research program to develop improved advanced technology equipment for the LIRR. A gas turbine-electric car test program is under way with the aid of a \$727,344 federal grant approved in September 1968. These dual-powered cars will be able to travel at high speeds on both electrified and non-electrified trackage of the railroad making possible through service from eastern Long Island to Manhattan without change of cars.



NORTHERN CORRIDOR

RAIL IMPROVEMENT PROGRAM

- Existing Rail Line to be Modernized and Re-equipped
- Electrification to be Extended
- Express Track to be Constructed

CURRENT PROGRAM

- Existing Rail Line to be Modernized and Re-equipped
- Electrification to be Extended
- Express Track to be Constructed

AVIATION AND TRANSPORTATION CENTERS

Transportation Center

CURRENT PROGRAM



BRIDGES AND TUNNELS

- General Location—Long Island Sound Crossings
- Bridge Improvements



Rail Improvement Program

In conjunction with the Connecticut Transportation Authority, the MTA has developed plans to modernize the New Haven Railroad. The federal government has granted \$28 million to help this program. Specifications for the purchase of 144 new high-speed, air-conditioned electric commuter cars have been completed. The program also includes modernization and upgrading of the electrical and signal systems, and station improvements including the construction of high-level platforms. The work of modernizing the New Haven Railroad can proceed as soon as the legal problems associated with the takeover of the New Haven Railroad by the Penn Central Railroad are resolved.

On the Penn Central Railroad's Harlem and Hudson Divisions, it is planned to purchase high-speed, air-conditioned electric cars, modernize the train control and electric systems, extend electrification from North White Plains to Brewster on the busy Harlem Division and add an express third track between Mt. Vernon and North White Plains.

The approval of the New Jersey transportation bond issue in November 1968 now makes it possible for New York and New Jersey to cooperate in providing new equipment to modernize the commuter service of the Erie Lackawanna Railroad which extends into Rockland and Orange counties in New York State.

Transportation Centers and General Aviation

The 1969 Legislature authorized MTA to study sites for two general airports to serve the needs of northern Westchester County and Rockland and southern Orange Counties. They would provide facilities for private and corporate aircraft. Other transportation centers for convenient interchange between auto and bus or rail are being planned at Rye, White Plains, Tarrytown, Pearl River and Orangeburg.



NORTHERN CORRIDOR MANHATTAN-BRONX SECTOR

TRANSIT EXPANSION PROGRAM

- New Rapid Transit Line or Extension
- Existing Line to be Rehabilitated
- Existing Junction or Station to be Reconstructed
- Existing Elevated Line to be Removed

CURRENT PROGRAM

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RAIL IMPROVEMENT PROGRAM

- Existing Rail Line to be Modernized and Re-equipped
- Existing Station to be Modernized

CURRENT PROGRAM

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BRIDGES AND TUNNELS

- Triborough Bridge Toll Plaza Reconstruction

Transit Expansion Program

A new Second Avenue subway will be built from The Bronx to the Battery to provide badly needed transit relief in the Northern Corridor. The Second Avenue subway will:

- relieve the intolerable overcrowding on the Lexington Avenue subway and its branches
- reduce travel time between 42nd Street and the northeast Bronx from 43 minutes to less than 30 minutes
- provide better distribution of passengers in Manhattan as riders will have a choice of either east side trains via Second Avenue or west side trains crossing over on 63rd Street.

The Second Avenue subway will be coordinated with other lines. The existing station at Brook Avenue and East 138th Street will be reconstructed to permit transferring between Second Avenue, Lexington Avenue, Pelham Bay and Dyre Avenue trains. The White Plains Road line will be straightened

out at 180th Street to eliminate sharp curves and permit across-the-platform transferring between White Plains Road trains and Second Avenue trains in order to reduce travel time from East 241st Street.

The Board of Estimate has approved two sections of the Second Avenue subway so that preparation of detailed engineering plans can now proceed.

The Board also agreed to the extension of the subway to the Battery and a Route and General Plan has been presented for the approval of the Board.

Also included in the current program is the removal of the obsolete Third Avenue elevated in The Bronx after the construction of a new route now being studied along the Park Avenue right-of-way of the Penn Central Railroad from 149th Street to the vicinity of the City line, including transfer to the IRT subway at 149th Street. The new route, currently under study, will ultimately connect directly to the Lexington Avenue or Second Avenue subway for through service to Manhattan.



SOUTHERN CORRIDOR RICHMOND

RAIL IMPROVEMENT PROGRAM

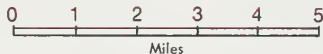
Existing Rapid Transit Line to be
Rehabilitated and Re-equipped

CURRENT PROGRAM



BRIDGES AND TUNNELS

Lower Level Added to
Verrazano-Narrows Bridge



Transit Expansion Program

The Staten Island Rapid Transit Railway, last improved in 1925, will be modernized and re-equipped. Plans and specifications for a fleet of new high-speed, air conditioned cars are being prepared. The electrical system will be rehabilitated and there will be improvements to the roadbed and stations. The end result will be a modern, high-speed rapid transit line.

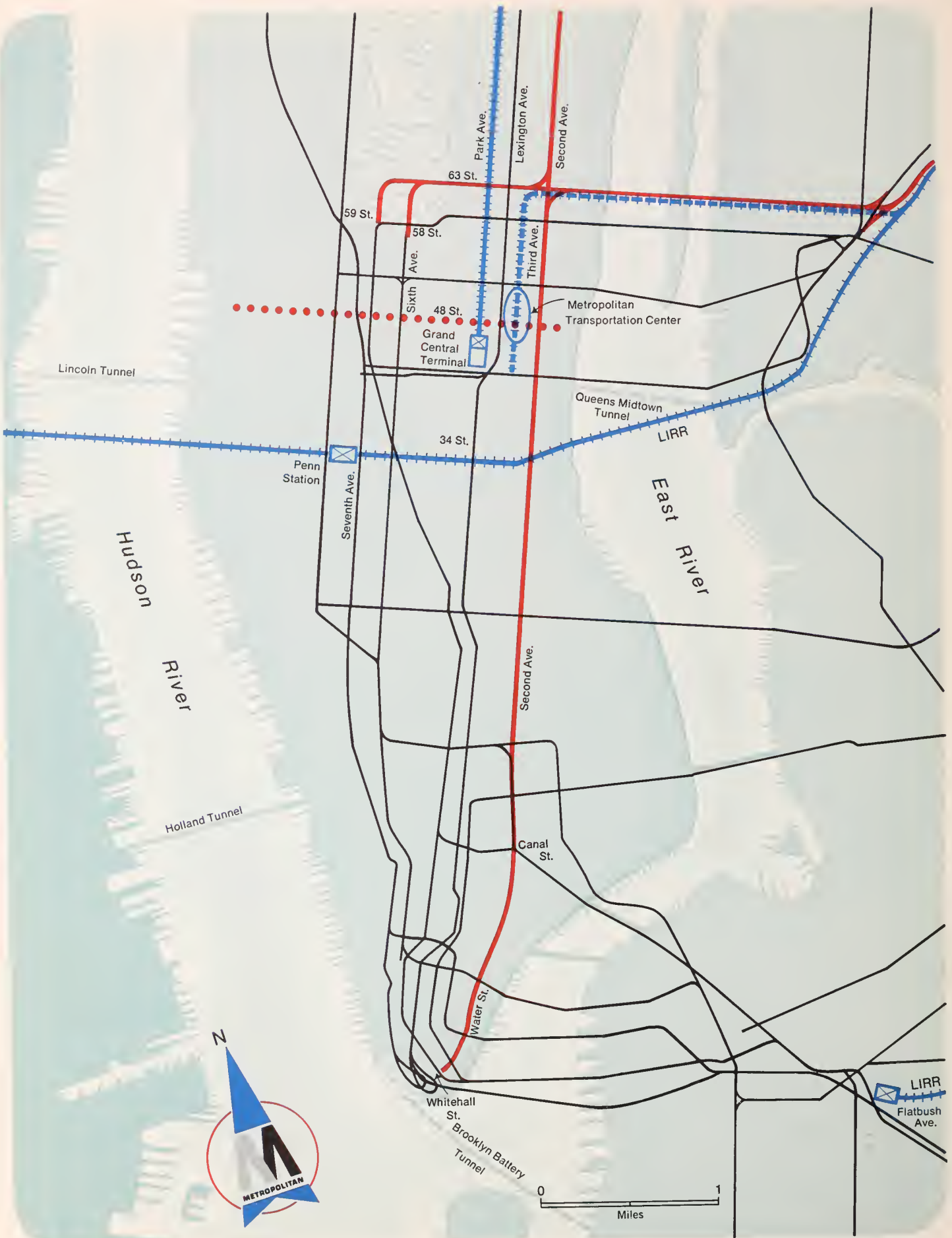
The City of New York has endorsed the SIRT modernization plan and the City is negotiating with the B&O/C&O Railway, owner of the SIRT, to exercise

its option to buy the line under the terms of the existing lease.

Bridges and Tunnels

To accommodate the rapid increase in traffic on the Verrazano-Narrows Bridge, the construction of approaches to the lower level roadway has been completed.

Traffic on the bridge has increased from 17.6 million vehicles during the first full year of operation to nearly 28 million in 1968. The lower level was opened to traffic on June 28, 1969.



.....NEW YORK CITY'S TRANSPORTATION-SYSTEM - OUTLOOK AND PLANS.....

1. Subways (Buses)
2. Commuter R.R.'s
3. (Private Buses)
4. Airports - (A/P Links & Stewart A.F.B)
5. Transportation Centers -

PURPOSE: Describe expected programs, positions thereof, above over the following: a) 3-5 years b) 10 years - as well as potential total investments by type.

SUBWAYS: At present the city and the M.T.A. - using a combination of city, state and federal monies is presently committed to spend \$1.5 Billion on programs underway as well as a future \$1. Billion within 10 years.

The 1.5 Billion includes the following projects:

I. MANHATTAN - BRONX

a) The 2nd Avenue Subway - initially running from 130th Street in Manhattan to Water Street in the Wall Street Area, and includes this Downtown Lower East Side Loop. This is programmed to be operative between 1974-75. Later plans, to be completed by 1980, call for an extension into the North-Eastern Bronx and a hook-up with the existing Lexington Avenue System.

b) Removal of the Bronx portion of the 3rd Avenue Elevated. To be replaced with a ground level higher speed system on the existing Penn. Central rights of way. This re-construction and use of existing rights of way will extend the line to the New York City Border. In addition in the 138th Area there will be a re-constructed transfer point with the 7th Avenue Line and the Lexington Avenue System.

Expected hook-up is by 1975-76.

c) Completion of the new 63rd tunnel-running from Queens to Manhattan and allowing for a new L.I.R.R. Terminal at 48th Street and 3rd Avenue, a transfer point with existing Queens IND. - BMT Lines with the Downtown Sixth Avenue System, via Central Park and allows a direct transfer to the new 2nd Avenue ^{is} subway. The Tunnel/expected to be completed by 1975-76. The balance of the above depends upon this Tunnel and the full project will then be completed between 1978-1980. This will also include the New Queens lines through South Queens and the Long Island Expressway extension.

d) The MTA is currently studying the feasibility of air-conditioning the Lexington Avenue Line,

and depending upon the results of this study, expects to have the subway fully air-conditioned by 1980. In many cases, 80% of the system will be air-conditioned by 1975. This is of course, dependent upon federal monies and delivery schedules by suppliers.

e) As part of the 48th Street Terminal, the MTA plans to develop an innovative people mover system across 48th Street to the West Side. This also will be tied to the City Planning Commission's Manhattan West Side plan. The results from this study are expected within a year. As part of this City-wide people mover study program, which includes both the MTA and the Port of New York Authority (for airports), MTA will also conduct the feasibility of a financial District People Mover Feeder Project. This latter is, of course, very important in view of the Massive Building Project which is occurring in the Wall Street Area. The results of these 2 projects will be extremely important in the long range planning of how to use New People - Mover Systems in New York City's two Central Business Districts.

QUEENS - BROOKLYN

a) The New Southern Queens Line - This system which is tied to the New 63rd Street Tunnel. Will use the existing Long Island Railroad right-

of-way as far as Springfield Boulevard at which point it will join the IND System and continue to Jamaica - This project as is the Long Island Expressway extension from Queens Boulevard, will be completed within 3-4 years. This latter extension is from the existing Queens IND lines where the IND System undercuts the Long Island Expressway.

b) Within 3-5 years the existing portion of the Jamaica Avenue Elevated from 127th Street and Jamaica Avenue will swing South to Archer Avenue and become a subway possibly as far as the New "York College" complex. In addition, this will go South along the existing Long Island Railroad right of way (which heads toward Southern Nassau County) to Springfield Boulevard in Springfield Gardens. (If the run to York College takes place, it would require some increased capital costs).

c) Extension of the Nostrand Avenue Line (from Flatbush Avenue) to Avenue W. within 3-5 years.

d) Continuation and extension of the Utica Line South Down Utica Avenue to Avenue W. and Flatbush Avenue. The Mill Basin Region of South Eastern Brooklyn within 3-5 years.

e) To obtain optimum utilization of these lines, refurbishing of their interchanges along Eastern Parkway will also occur.

f) In the area in Mid-South Brooklyn which is designated by this City to be "Linear City", the MTA and the City have suggested the coordination of a Cross-Brooklyn Expressway with a Mass. Transit extension has been planned. However, the project is been held in abeyance since the concept has been help up by various City Agencies.

III. STATEN ISLAND

a) Current programs are underway for the purchase of approx.50 new cars and the rehabilitation of the existing Staten Island Rapid Transit System. In addition, plans are being drawn to add a lower level to the Verranzano Narrows Bridge.

II. New York - New Jersey Commuter Railroads

a) Modernization and re-equipment of the New Haven - New York Central Lines.

1) 144 - new cars - to be delivered by the Summer of 1972 for the New Haven. These cars will be built by General Electric at a cost of approximately 62 million. They will be capable of at least 75 M.P.H. and will be fully air-conditioned.

2) 80 new cars - similar to those to be used on the New Haven, will be delivered to the Penn. Central's - Harlem and Hudson Divisions (to be operated under the control of the M.T.A. - as is the New Haven) and will be delivered by the Summer of 1971.

3) Electrification of the Penn. Central's - Hudson Division from Croton North Station to Peekskill. This is to be completed by 1972.

4) Modernization of the White Plains to Brewster Line will take place by 1972. (It is also contemplated that this line will soon be electrified).

5) The Plans also call for an express track from Mount Vernon to White Plains to be constructed by 1974 on Penn. Central's Harlem Division.

B) In conjunction with the New Jersey Department of Transportation, the Port of New York Authority and the Erie Lackwanna, the following are either underway, understudy or under Program Review.

1) The designation of Harriman Monroe and Middletown-Goshen as Transportation Centers to linked via the Erie Lackwanna's Graham Freight-Line to Stewart Air Force Base in Newburgh, New York.

2) As part of the above, the Erie Lackwanna Line will be the Recipient, as a result of monies already appropriated for New High-Speed air-conditioned cars which will be Gas-Turbine powered and are consequently revolutionary in that they eliminate the need for expenditures for electrification will soon be available. Their availability is subject to the conclusion of some agreements with the Railroad. Once this occurs, delivery of these new cars could be within 2-3 years.

3) Within the New York Counties of Rochland and

Orange Counties, plans call for a complete re-modernization of the Erie Lackawanna Lines. The New Jersey Department of Transportation also calls for

4) The MTA has proposed, subject to improvements, that the Erie Lackawanna construct with Stage and Federal Monies, a spur designed to allow its trains to come directly into Penn. Station. Existing feasibility studies show that the Penn. Central Headways could allow this new use of these tracks.

c) The Long Island Railroad and Related Projects

1) Penn. Station - John F. Kennedy Rail Link
Preliminary plans have been approved for the construction of such a line mainly using existing Long Island Railroad rights of way. Given no problems in terms of monies or community concerns, it is expected that such a line will be operational, in a temporary terminal by 1974. The terminal will be temporary depending upon final plans for People Mover Systems within the Airport. This will be a major factor contributing to the increased accessibility to and importance of the City's Airport facilities. Cost - approximately \$150 million.

2) Electrification of the Mineola to Hicksville

Line (already completed) and of the Huntington to Northport Line (to be completed by 1971)- will allow full use of the 620 New Budd, air-conditioned, high speed cars and consequently increase the number of seats and the comfort of the passenger.

3) On the Southern portion of the Long Island Railroad, the line between Hicksville and Pinelawn will be electrified, as well as the General Aviation Airport and Transportation Center in the Republic Aircraft site will be completed by 1972.

4) Of considerable interest will be the proposed construction of a Gas Turbine Test Tract along the existing right of way between Bethpage and Ronkonkoma. Needless to say, the results of such tests would be of immediate consequence to the area's total Mass-Transit needs and planning.

5) With the completion of the 63rd Tunnel (1975-76), the 48th Terminal and the electrification and upgrading of all the Lines as far out as Babylon and Northport, high speed, comfortable and easy access to all important transportation hubs in Brooklyn, Queens and Manhattan will be a reality.

Authorized modernization and expansion programs underway
(at current estimates)

Subways	\$1,500,000,000
Long Island Railroad	300,000,000
Staten Island Rapid Transit	25,000,000
Penn Central:	
New Haven commuter service	80,000,000
Hudson/Harlem Divisions	65,000,000
Rail link to Kennedy Airport	150,000,000
Improvements to Stewart Airport and Erie Lackawanna	30,000,000
Republic Airport Transportation Center	30,000,000
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TOTAL	\$2,180,000,000
Future capital projects	\$1,000,000,000

CENTRAL BUSINESS DISTRICT

Transit Expansion Program

In the Central Business District, the Second Avenue subway will provide the added track capacity needed to accommodate new subway routes from the Northern and Eastern corridors. The new subway will serve the burgeoning office developments in East Midtown Manhattan and along Water Street and at the Battery in Lower Manhattan.

A new Midtown Manhattan route will be built across 48th Street. This badly needed crosstown link will improve circulation and reduce congestion within the midtown area. It will distribute passengers from the new East Side LIRR terminal, the new Second Avenue Subway and the planned north end entrance to Grand Central Terminal. The eastern anchor of the route could be the United Nations and the western anchor the superliner pier complex to be built on the Hudson River.

The precise system will depend upon the results of a cooperative study and plan for development and circulation in Midtown Manhattan to be conducted with the City's agencies. Service must be available on a little-or-no wait basis throughout the day and there must be frequent and convenient points of entry. Systems to be evaluated include high-speed continuously moving conveyor systems and various automatic vehicle systems.

Rail Improvement Program

A new East Midtown terminal is to be built for the Long Island Rail Road in the vicinity of 48th Street and Third Avenue to accommodate LIRR trains operating through the 63rd Street tunnel. Also planned is a Metropolitan Transportation Center, which will include the East Midtown airline terminal for direct LIRR train service to Kennedy Airport.

The Penn Central Railroad will be requested to provide a north end entrance to Grand Central Terminal in the vicinity of 48th Street. This entrance will shorten the walk for commuters going north, relieve congestion at 42nd Street, integrate Grand Central Terminal with the LIRR and airline facilities available at the Metropolitan Transportation Center, and provide access to the 48th Street route.

There will be improvements at Penn Station to provide for fuller use of ten-car trains on the LIRR and to provide for train service to Kennedy Airport.

Structural changes have been made at the curved entrance to the Flatbush Avenue Terminal in Brooklyn in order to permit full utilization of air-conditioned cars. Signal improvements are being made in the Atlantic Avenue tunnel to Jamaica to accommodate the new equipment. Engineering plans for this work have been completed.

CENTRAL BUSINESS DISTRICT

TRANSIT EXPANSION PROGRAM

- New Rapid Transit Line or Extension
- New Midtown Distribution System
- Existing Rapid Transit Line

RAIL IMPROVEMENT PROGRAM

- Existing Rail Line to be Modernized and Re-equipped
- Rail Line to be Extended
- Existing Station to be Improved

AVIATION AND TRANSPORTATION CENTER

- Transportation Center

CURRENT PROGRAM



