

The Second Avenue Subway is one of a number of projects now under construction or in the planning stage in New York City. In addition, the City and State each have overall environmental, transportation, and development policies in place. These efforts each respond to a variety of purposes and needs, but many of the objectives overlap with those of the Second Avenue Subway, and coordination with these plans and policies is essential to project planning. Thus, these projects form a context in which to frame the goals and objectives for the Second Avenue Subway and to refine the full-length Second Avenue Subway alternative for evaluation in the Final Environmental Impact Statement (FEIS).

## **A. BACKGROUND**

A Second Avenue subway was planned as early as the 1920s with the City's proposal for the Independent (IND) Subway. Since then, three major plans have been introduced for new subway service along Second Avenue. In the 1970s, three tunnel segments were constructed before work stopped due to lack of funding. In Appendix B, the evolution of these plans and constructed tunnel segments, which form the basis of the alignment of the Second Avenue Subway presented in this FEIS, are described.

## **B. MAJOR TRANSPORTATION INITIATIVES**

A number of transportation projects would improve access to and from Manhattan, as described below and illustrated in Figure A-1. Although many of these plans would increase connections between the project area and the surrounding areas, none of them specifically improve north-south mobility for the length of Manhattan's East Side. Together, they nevertheless demonstrate the City, State, and regional efforts to strengthen its existing public transit system. Two of these transportation initiatives are currently in construction and several others are in the planning stages.

### **PROJECTS RECENTLY COMPLETED OR UNDER CONSTRUCTION**

The LIRR East Side Access project is currently in construction and the JFK AirTrain project was recently completed. This FEIS assumes completion of these projects as part of its future condition.

#### *LIRR EAST SIDE ACCESS*

The LIRR East Side Access Project will provide a direct connection to Grand Central Terminal for LIRR commuters. It will link LIRR's Main Line and Port Washington Branches to the lower level of the existing 63rd Street Tunnel. A new tunnel in Manhattan will bring trains directly from 63rd Street to new tracks and platforms below the existing lower level of Grand Central Terminal. The project also includes construction of additional passenger circulation elements at

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Grand Central Terminal and its subway station as well as a new LIRR station in Sunnyside, Queens.

In March 2001, the FTA and MTA issued an FEIS for the East Side Access Project. The FTA issued a Record of Decision for the project in May 2001, which signifies that all environmental work is complete and the project is eligible for continued federal funding and support. In February 2002, FTA approved the project's entrance into final design. The first element under construction is Highbridge Yard in the Bronx, where work began in fall of 2001. The project's full completion is targeted for 2012.

### *JFK AIRTRAIN*

The Port Authority of New York and New Jersey (Port Authority) has completed its new light-rail service to John F. Kennedy International Airport. The 8.1-mile system links the airport's terminals with car rental facilities, long-term and employee parking lots, the Howard Beach subway station, and the LIRR and subway station in Jamaica, Queens. As part of the project, the Port Authority and MTA reconstructed the LIRR and subway stations at Jamaica and Howard Beach. The system became fully operational in 2003.

### **MTA LONG-RANGE PLANNING FRAMEWORK**

MTA has developed the Long-Range Planning Framework to create a unified program of improvements to its subway and commuter rail systems. These improvements are aimed at alleviating overcrowding, reducing travel time, better connecting the rail and subway lines, providing high-quality service, and extending service to underserved areas. This effort recognizes that although a current map of the region's subway and rail lines would show little difference from one produced a half-century ago, the areas and the passengers that they serve have seen tremendous change. In the expectation of continued changes in this century, MTA has begun examining how its network can be expanded and adapted to meet long-term access and mobility needs. Ease of transportation is essential to support economic growth and productivity and to keep the region as a good place to live and work. To this end, MTA and its operating authorities, in coordination with FTA and other agencies, as appropriate, are undertaking these coordinated but independent studies, including the Second Avenue Subway study and the LIRR East Side Access Project now under construction (described above).

All these initiatives are being coordinated through the MTA Long-Range Planning Framework Group, which consists of study managers and key staff from MTA and its subsidiaries, LIRR, Metro-North, and NYCT, and additional input from the New York Metropolitan Transportation Council (NYMTC), the Port Authority, and the New York City Department of City Planning (NYCDPC), as appropriate. In particular, the group has worked to make sure that the same assumptions for such items as regional forecasts, current and future levels of transit service evaluation, the future shape of the regional transit network, and common evaluation criteria are used. Although these projects currently in the planning phases would be part of the region's overall transportation system, they are independent actions. Each has its own purpose and need; each is subject to its own assessment and alternatives evaluations; and each can be built without that affecting decisions to build any other proposed projects. The long-range projects other than the Second Avenue Subway and LIRR East Side Access are described below (see also Figure A-1). Because the following projects are still in the alternatives analysis phase, they are not assumed to occur in this FEIS's future condition. As the Second Avenue Subway and the other

Long-Range Planning Framework projects advance, coordination will continue so that the various plans remain compatible.

*LOWER MANHATTAN ACCESS STUDY*

The Lower Manhattan Access Study explored short- and long-term strategies for improving access to Lower Manhattan, mostly from suburban locations. Preliminary short-term alternatives included new connections between transit stations and major activity centers. The long-term alternatives included the extension of commuter rail or new shuttle service between Grand Central Terminal, Penn Station, or Flatbush Avenue Terminal in Brooklyn and Lower Manhattan, or construction of new subways in Manhattan and Brooklyn to ease congestion on the lines serving these rail terminals. A Second Avenue Subway line from Midtown to Lower Manhattan was determined to be the best way to improve access for suburban commuters.

**7** *FLUSHING LINE EXTENSION*

In 2001, NYCDOP published the Far West Midtown Study, which presented the City's policy to permit high-density, mixed-use development (with a large commercial component) between 28th and 43rd Streets west of Eighth Avenue ("Hudson Yards"). An extension of the No. 7 Flushing Line from Times Square is required to make the development possible and to serve the planned expansion of the Jacob K. Javits Convention Center and the proposed 75,000-seat multi-use facility over LIRR's yards. NYCDOP's plan also lays out options for local and State funding of the extension, primarily through tax increment financing. New York City, jointly with NYCDOP, is conducting a Generic Draft EIS for the subway extension, the rezoning of the Hudson Yards area, as well as the proposed Convention Center Expansion and multi-use facility. The EIS is being prepared in accordance with the State Environmental Quality Review Act (SEQRA) and the City Environmental Quality Review (CEQR) and will reflect National Environmental Policy Act (NEPA) considerations. The EIS is being carried out in conjunction with Preliminary Engineering for the subway extension, construction of which is scheduled to begin in late 2004 or early 2005.

*METRO-NORTH PENN STATION ACCESS MIS/DEIS*

Penn Station Access is examining the potential social, economic, and environmental effects of providing direct access to Penn Station from Metro-North's Harlem, Hudson, and New Haven lines, using an existing track connection on Manhattan's West Side. The study is also exploring the location of intermediate stations in Upper Manhattan and the Bronx. The Draft Environmental Impact Statement (DEIS) for this project is expected by the end of 2004.

*LAGUARDIA AIRPORT SUBWAY ACCESS STUDY*

This study evaluated alternatives to provide a one-seat transit service from Midtown and Lower Manhattan to LaGuardia Airport. Nineteen alternatives were assessed to yield a smaller group of options, which are currently being studied. Major alternatives included the extension of the Astoria Line (**N** service) via different alignments, new branches of other subway or commuter rail routes, people movers linking the airport with transit stations, and guided busways.

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### *ACCESS TO THE REGION'S CORE (ARC)*

ARC was sponsored by MTA, New Jersey Transit, and the Port Authority and examined alternatives for improved access to Manhattan for west-of-the-Hudson commuters. Concepts considered include a new rail tunnel under the Hudson River, capacity improvements at Penn Station, and a new rail connection at the Secaucus Transfer linking several new Jersey Transit and Metro-North rail branches to the Northeast Corridor Line. NJ Transit and the Port Authority started a DEIS process in summer 2003.

### *FULTON STREET TRANSIT CENTER*

Plans and environmental documents are being developed for a new transit hub in the vicinity of Fulton Street and Broadway in Lower Manhattan. This hub would incorporate six Lower Manhattan subway stations, and improve connections among 12 lines: 2 3 4 5 A C J M Z. This project, which will be completed in 2007, will facilitate the commutes of hundreds of thousands of commuters and residents to Lower Manhattan.

## **OTHER MAJOR TRANSPORTATION STUDIES AND PROJECTS**

### *CROSS HARBOR FREIGHT MOVEMENT PROJECT*

The FHWA, Federal Railroad Administration, and New York City Economic Development Corporation (NYCEDC) are preparing an EIS to assess improvements to freight movement across the Hudson River between northern New Jersey and New York City. The range of alternatives include operating improvements for more efficient float operations, the potential construction of a new rail yard in Maspeth, Queens, improvements to rail infrastructure including increasing clearance heights along LIRR's Bay Ridge Branch and Montauk Branch, and construction of a rail freight tunnel under New York Harbor.

### *SOUTH FERRY SUBWAY STATION*

NYCT will rebuild the existing South Ferry Subway station on the 1/9 lines at a new location under Peter Minuit Plaza (adjacent to Battery Park). This project will increase train capacity (the new station will accommodate two 10-car trains) and service reliability, provide ADA accessibility, and offer customers a free transfer to the N/R lines at Whitehall Street. Environmental documents are being prepared in 2003 and the project will be completed by 2007.

## **REGIONAL TRANSPORTATION PLAN: MOBILITY FOR THE MILLENNIUM**

NYMTC, in cooperation with state and local transportation agencies, is responsible for the development of a Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) for the New York portion of the metropolitan region. The RTP, *Mobility for the Millennium, A Transportation Plan for the New York Region*, most recently updated in 1999, identifies issues and lays out long-range transportation goals and objectives for the region's transportation system to be achieved by 2020. The plan includes the following goals relevant to the Second Avenue Subway:

- Achieve and maintain a state of good repair on the transportation system. Objectives related to this goal include bringing transit infrastructure to a state of good repair and maintaining the system on a normal replacement cycle.

- Maximize the transportation system's level of service and manage demand. This mobility goal includes the objectives of increasing the market share of all transit modes, including (among others) rail rapid transit, local and express bus, ferry, and commuter rail.
- Develop integrated land use and transportation solutions for the short-, medium-, and long-term future. This includes taking into account how new development will affect the transportation system, and how that system should improve access to major activity centers.
- Improve the safety and security of the mass transportation system, including improving the environment of transit stations and facilities, and reducing the number of pedestrian and bicycle-related fatalities throughout the region.
- Improve regional environmental quality, balance environmental quality with the region's mobility and economic activity, and conform to the State Implementation Plan and Clean Air Act Amendments. A particularly relevant objective related to this goal is to minimize growth in vehicular traffic (vehicle miles traveled), thus reducing air pollution from cars, buses, and trucks (mobile source emissions).
- Identify public and private funding resources to implement the long-range plan. This goal, through its objectives, fosters increasing operating efficiencies in transportation systems and minimizes the time needed to implement projects.
- Continue to monitor the performance of the long-range plan, adding measures and projects, as necessary to achieve the goals of the plan.

As part of its discussion of the current planning framework, the 1999 RTP also lists various studies that are under way, including the MESA MIS/DEIS. The RTP is currently being updated to reflect a 2025 planning horizon.

#### **NEW YORK STATE AIR QUALITY IMPLEMENTATION PLAN AND TRANSPORTATION IMPROVEMENT PLAN (TIP)**

The Clean Air Act requires each state to submit a State Implementation Plan (SIP) to the EPA demonstrating attainment of the National Ambient Air Quality Standards (NAAQS). Amendments to the Act in 1977 and 1990 require comprehensive plan revisions for areas where one or more of the standards have yet to be attained. In the New York City metropolitan area, the standard for ozone continues to be exceeded. Consequently, as part of the SIP, New York City is implementing measures to reduce levels of hydrocarbons and nitrogen oxides as part of its effort to attain the NAAQS ozone standard. In addition, Manhattan is designated as a moderate non-attainment area<sup>1</sup> for PM<sub>10</sub>.

New York State and the EPA have not yet determined whether New York City is within attainment of the PM<sub>2.5</sub> NAAQS. Early monitoring data indicate that the region is well within the 24-hour PM<sub>2.5</sub> standard, but the monitoring data for compliance with the annual standard do not indicate that New York City is within the annual PM<sub>2.5</sub> standard. States are required to submit proposed PM<sub>2.5</sub> NAAQS attainment/non-attainment designations to EPA within 1 year after receipt of 3 years of monitoring data.

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<sup>1</sup> A non-attainment area is any area that does not meet, or that contributes to ambient air quality in a nearby area that does not meet, the national primary or secondary ambient air quality standard for the pollutant area.

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EPA has recently redesignated New York City as an area in attainment for CO. The Clean Air Act Amendments (CAAA) described above require that a maintenance plan be established to ensure continued compliance of the CO NAAQS for former non-attainment areas. In addition, for ozone, the CAAA requires a series of SIP revisions. These revisions include air quality control measures for target years, emission reductions of ozone precursor emissions (VOCs and NO<sub>x</sub>), and an ozone attainment demonstration by 2007. In June 1997, the New York State Department of Environmental Conservation submitted an ozone SIP revision that addressed the status of these requirements.

The conformity requirements of the Clean Air Act and regulations promulgated thereunder (conformity requirements), limit the ability of federal agencies to assist, fund, permit, and approve transportation projects which do not conform to the applicable SIP. Accordingly, an area's metropolitan planning organization (MPO)—the entity responsible for transportation planning, the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA) issue conformity determinations with respect to the SIP on metropolitan long-range transportation plans (LRTPs) and transportation improvement programs (TIPs) before they are adopted or approved. New, non-exempt projects that are not included in a conforming TIP cannot be approved unless a project-level conformity analysis has been performed. This analysis must demonstrate that the project would not cause new exceedances, exacerbate existing exceedances, or delay the achievement of the NAAQS or interim emissions reductions milestones in order to receive approval.

The New York Metropolitan Transportation Council (NYMTC) is the MPO for this region. NYMTC approved the conformity determination for the LRTP, known as the Regional Transportation Plan entitled *Mobility for the Millennium*, on September 23, 1999. FHWA and FTA then approved the LRTP conformity determination on September 30, 1999, and EPA concurred with the findings. The most recent 2002-2004 TIP was approved by NYMTC on September 20, 2001, and then forwarded to the federal agencies for their official approval occurring on September 26, 2001. Due to the evolution of the Second Avenue Subway project, only a northern subway segment (one of the alternatives assessed in the MIS/DEIS) was envisioned at that time and included in the LRTP. Thus the approved conforming TIP did not include the construction of the full-length Second Avenue Subway.

The conformity requirements require that a currently conforming TIP exist in order for any transportation project to be approved but also limit the conformity status of a TIP and LRTP to a maximum of three years for nonattainment and maintenance areas. Thus the conformity determination for the LRTP, approved in September 1999, was set to lapse in October 2002. However, due to the World Trade Center disaster on September 11, 2001, and the resultant loss of NYMTC's files containing regional transportation and air quality data, combined with the major changes to the downtown mass transit system, the conformity requirements for the New York City metropolitan area have been temporarily waived until September 30, 2005, pursuant to Public Law 107-230 enacted October 1, 2002.

Components of the current TIP that would affect the project area are described below.

### *NYCT PROJECTS*

NYCT's planned capital improvements in the current TIP continue to address the fundamental long-term need to restore and enhance infrastructure and facilities. A wide variety of improvements are planned, most of which are aimed at maintaining the system in a good state of repair.

*Subway Fleet*

NYCT will complete replacement of the last “Redbird” cars of the A Division and will also begin buying new cars for the B Division to retire its 60-foot car fleet. All new cars will feature proven technologies and significant advances in passenger comfort and amenities. These range from technical improvements—such as more energy-efficient AC-power propulsion, regenerative braking systems, and improved crash-worthiness—to such amenities as better sound insulation, wider doors, and automated public address systems.

*Bus Fleet*

NYCT will continue a strategy of matching bus types with transit need. This includes the introduction of 60-foot, 90-passenger articulated buses on high-volume routes and 45-foot coaches on suburban or long-distance express routes. NYCT also has made a significant commitment to a series of capital and operating investments to reduce the emission of pollutants from its fleet. This program includes the purchase of buses powered by hybrid electric or compressed natural gas systems as well as emissions reduction measures such as ultra-low-sulfur fuel and catalyzed exhaust filters.

*Stations Enhancements*

NYCT will continue its effort to improve the quality of its stations. Contracts for the rehabilitation and enhancement of some 50 stations will be awarded by 2004, including the second phase of the Times Square reconstruction. Accessibility improvements are planned for 20 additional stations as well as continued upgrades to public address systems and aging escalators.

*Track and Equipment*

NYCT will continue to replace track throughout the system to maintain a state of good repair. Structural improvements are planned for the White Plains Road, Culver, and Nassau Street Lines. Signal rehabilitation and upgrades are planned for the White Plains Road and Concourse Lines. Other major investments include reconstructing the shops at 207th Street and Corona, modernization of the Canarsie Yard, and repair or replacement of aging electrical systems.

*Network Expansion*

NYCT will continue to study network expansions. The studies identified in the TIP included the Second Avenue Subway.

*LIRR AND METRO-NORTH PROJECTS*

LIRR and Metro-North will continue to upgrade their vehicles and systems with the purchase of new rolling stock; track, structures, and signals upgrades; station rehabilitation; and power systems improvements. In addition, LIRR will proceed with construction of the East Side Access Project and will continue with upgrades to Penn Station. Metro-North will continue its study of direct access to Penn Station.

*NYCDOT AND NYSDOT PROJECTS*

The New York City Department of Transportation (NYCDOT) and New York State Department of Transportation (NYSDOT) are planning several bridge and highway reconstruction projects along the East Side of Manhattan.

### *Willis Avenue and Third Avenue Bridge Reconstruction Projects*

In East Harlem, NYCDOT is planning to reconstruct the Willis Avenue Bridge, which links First Avenue in Manhattan with Willis Avenue in the Bronx, and the Third Avenue Bridge, which connects Third Avenue in the Bronx and Manhattan, to improve the bridges' structural elements and connections to the regional roadway system. These projects are planned for completion by 2012.

### *Williamsburg Bridge*

The City will spend approximately \$90 million for the rehabilitation and jacking of the towers, suspender adjustment, underdeck painting, bearing replacement, and traveler replacement of the bridge. This is the final phase of the \$950 million bridge reconstruction, which is planned for completion in late 2002.

### *Manhattan Bridge Rehabilitation*

The City will spend \$368 million for the final phases of the \$500 million bridge reconstruction. NYCT has implemented a temporary service plan to reroute or truncate those lines that usually cross the East River via this bridge. Regular NYCT service will be restored in 2004 when most of this work will be completed.

### *Reconstruction of FDR Drive and Harlem River Drive*

In December, 2002, NYSDOT began preliminary work on a major reconstruction work of the FDR Drive along much of the East Side of Manhattan. In the area between Montgomery and 15th Streets, the construction schedule is unlikely to overlap with work on the Second Avenue Subway. From 23rd Street to 42nd Street, the FDR Drive will be reconstructed, most likely beginning in 2007. A temporary viaduct will be constructed to maintain three lanes in both directions, so that traffic would not divert to local streets. This work is planned to improve the infrastructure, traffic operations, and safety conditions on the roadway, and would provide additional pedestrian access to the waterfront, a two-way bike lane, and an esplanade park. Another reconstruction project will be undertaken farther north, from 58th to 63rd Street. This work will also involve building a temporary roadway to maintain lanes and traffic flow on the FDR Drive. In addition, a smaller construction project to create an extended auxiliary lane is planned between 116th and 125th Streets. In addition, NYCDOT is planning a reconstruction project for the Harlem River Drive between the Third Avenue and Willis Avenue Bridges (known as the 127th Street viaduct).

### *Lower Manhattan Pedestrianization Project*

This study, jointly sponsored by NYCDOT and NYCDOP, focuses on key pedestrian streets, as determined by an analysis of circulation patterns and extensive pedestrian counts. Waterfront access will be improved, and street direction changes and sidewalk widening will create significant new pedestrian space. The current reconstruction of Lower Manhattan will likely delay the completion of this project.

### *Midtown Manhattan Pedestrian Network Development*

NYCDOT and NYCDOP jointly issued a report in June 2000 making recommendations to improve pedestrian and vehicular circulation in Times Square and the Theater District, West 42nd Street, and on Eighth Avenue at the Port Authority Bus Terminal. Interim measures to widen sidewalks, install neckdowns (sidewalk widenings near intersections, taxi stands, and bus



stops) in Times Square along Broadway, Seventh Avenue, and certain crosstown streets and measures to improve the use of taxi stands have been implemented. Recommendations are being developed to improve pedestrian safety and vehicular circulation on 57th Street, and to recapture portions of the roadbed for pedestrian use at Fifth Avenue and 59th Street and along Broadway between Times Square and Columbus Circle.

#### *Intersection Improvements*

These projects seek to identify, analyze, and implement pedestrian and vehicular circulation improvements at key locations where Broadway intersects the regular Manhattan street grid. This includes the implementation of projects at Herald Square, Times Square, and Columbus Circle.

#### *East River Crossings Alternatives*

This study by NYCDOP and NYCDOT evaluates the future modal uses on the Williamsburg and Manhattan Bridges. It compares the cost of rehabilitation versus the impact of rerouting certain types of vehicles that would cause damage or reduce the life of these bridges.

#### *Whitehall Ferry Terminal*

NYCDOT and NYCEDC began reconstructing the Whitehall Street Terminal for the Staten Island Ferry in 2001. The total rehabilitation cost is \$90 million, and completion is expected in fall 2004.

#### *Off-Peak Delivery and Service Study*

This study assesses options to encourage delivery and service vehicles to travel during off-peak periods. The primary study proposed a shift in the deliveries from the morning peak period to the 5 AM to 7 AM period through various toll incentives and other operation technological alternatives. A final report has been published.

#### *Truck Route Management and Community Impact Reduction Study*

A comprehensive study is being undertaken to evaluate current trucking operations in the city and their impact on local neighborhoods. It will consider the concerns of both truckers and community groups and will develop strategies to minimize the impacts of deliveries. Implementation of the study's conclusions will result in improved efficiency of truck movements, increased safety, and possibly reduced emissions.

#### *Congestion Pricing Parking Pilot Program for Commercial Vehicles in Midtown Manhattan*

In winter 2000, NYCDOT initiated a program to test the efficiency of varied pricing for commercial vehicle parking, parking enforcement, and traffic flow. The aim of this project is to reduce the double-parking in Midtown that often results from delivery vehicles. This project may result in permanent enforcement techniques and/or regulations.

#### *Subway-Sidewalk Interface II*

As a joint project with NYCDOP, NYCDOT is assessing ways to improve pedestrian access to mass transit. This study consists of an analysis of existing and future conditions at streets and intersections adjacent to subway station entrances. Particular stations with problems of access, congestion, orientation, and safety will be identified and studied. Short- and long-term solutions will then be developed, including both standard and innovative strategies to make locations more

pedestrian friendly. A pilot program will be tested at sites in each borough. Strategies that are under consideration include wider sidewalks and medians, bus neckdowns under elevated stations, changes to street directions or curbside parking regulations, signal timing adjustments, and installation of new signals or stop signs.

*Private Ferries*

NYCDOT is working with State agencies and the Port Authority to expand private ferry operations to meet current and future demand and to target new markets. The City will upgrade physical facilities to accommodate these services, which may include trans-Hudson airport access, routes to sports venues, a north-south service between the Upper East Side, East Midtown, and the Financial District, and suburban service to outlying counties.

*NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) PROJECTS*

NYSDOT has programmed and will design and implement rehabilitation plans for the FDR Drive between 56th and 63rd Streets. It will also begin design for the rehabilitation of the section between 28th and 38th Streets.

**C. THE RECONSTRUCTION OF LOWER MANHATTAN**

The devastating loss of life and property caused by the tragic events of September 11, 2001 requires the city to rebuild, reconnect, and revitalize Lower Manhattan. Agencies and officials involved with Lower Manhattan are in the process of developing plans that would eliminate some of the area's deficiencies, improving its aging and outmoded transportation network, maximizing its open space opportunities, and improving the quality of life for the district's large workforce and fast-growing residential population. Following are some examples of the initiatives both underway and planned for the area.

**CURRENT CONDITIONS IN LOWER MANHATTAN**

**LOWER MANHATTAN DEVELOPMENT CORPORATION**

The Lower Manhattan Development Corporation (LMDC) was established in November 2001 to coordinate the rebuilding and redevelopment of Lower Manhattan south of Houston Street.

The Studio Daniel Libeskind design for the Redevelopment Plan and World Trade Center Memorial, which was selected in February 2003, involves the construction of a World Trade Center Memorial and memorial-related improvements, up to 10 million square feet of commercial office space, up to 1 million square feet of retail space, a hotel with up to 800 rooms and up to 150,000 square feet of conference space, new open space areas, museum and cultural facilities, and various infrastructure improvements.

LMDC has begun the environmental review process studying redevelopment of the World Trade Center site. Plans call for a large memorial; five office towers, the largest of which would be a 2.6 million-square-foot, 1,776-foot-high office building; and between 280,000 to 380,000 square feet of museum and cultural space. The plan also provides for retail establishments, a major new crossroad with cultural facilities, a hotel and conference center, and the new permanent World Trade Center PATH Terminal. The initial phase of construction is expected to be completed by 2009 with full build-out and occupancy by 2015.

While much of LMDC's attention has focused on rebuilding the World Trade Center site itself and restoring it as a functioning part of Lower Manhattan, much of the new development currently under construction or consideration is occurring in other parts of the downtown area, including the Financial District and the South Street Seaport District. LMDC is currently involved in several planning studies that will identify short-term and long-term approaches to the redevelopment of Lower Manhattan's neighborhoods. These include an examination of housing opportunities south of the World Trade Center site either through the conversion of office space to residential uses or the creation of new housing units; and improvements to the road network in Chinatown.

#### NEW YORK CITY'S VISION FOR LOWER MANHATTAN

"New York City's Vision for Lower Manhattan" (City's Vision), presented by Mayor Michael R. Bloomberg in December 2002, emphasizes connecting Lower Manhattan with the surrounding areas, building new neighborhoods and creating public places.

The city seeks to connect downtown with the surrounding area by continuing its investment in ferry stations to reduce congestion on area streets, constructing new bus parking facilities, and establishing the new PATH station at the World Trade Center site. The proposed Fulton Transit Center (discussed below) is another important component of the Lower Manhattan transit complex, which is needed to "untangle the knot" caused by the convergence of 18 subway lines in the downtown area.

The City's Vision also cites a pressing need for schools, retail stores and open space opportunities to accommodate the growing residential population of the area. In response to this projected growth, the city seeks to create two new neighborhoods south of Chambers Street: one located near Fulton Street, east of Broadway; and another South of Liberty Street, west of Broadway. The City's Vision also focuses on creating Fulton Market Square along Fulton Street as a retail, arts, culture, and entertainment destination. Fulton Street would be re-established as a significant thoroughfare in Lower Manhattan.

The Mayor's concern for the lack of open space and public places in the downtown area has stimulated plans for a series of new parks, the cumulative size of which is expected to be larger than Central Park. These plans include Greenwich Square, a tree-lined park along the deck of the Brooklyn Battery Tunnel, a promenade lined with 700 trees along West Street, East River Waterfront park, an extensive waterfront colonnade which would feature a mix of housing, cultural institutions and approximately 35 acres of open space and significant streetscape improvements along Water Street, which is envisioned as the focal point of the East Side. Ultimately, the city is planning for a 2.2 mile pathway which would loop through the downtown, connecting the Battery, Fulton Street and the new World Trade Center development.

#### TRANSPORTATION IMPROVEMENTS

Aside from the Fulton Street Transfer Center and reconstruction of the South Ferry Station projects discussed above, creation of a replacement PATH rapid transit station is an additional important transit project currently planned for Lower Manhattan. This project, the permanent reconstruction of the World Trade Center PATH Terminal, is to be phased over a period of 3 to 6 years at a cost of \$1.7 to \$2.0 billion. The new PATH facility will feature numerous modernized amenities, such as additional and augmented platforms and state-of-the-art fare collection equipment. The terminal will also provide extensive pedestrian access to both the new World Trade Center development and the trains at the Fulton Street Transit Facility and other

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subway stations. The PATH terminal will also provide users with access to streets, and the future memorial and commercial developments.

### ***HOUSING DEVELOPMENTS***

Among the other new structures planned for the area include several large new housing projects, such as the 51-story 2 Gold Street building, which is planned to contain 650 dwelling units. Additionally, a 291 unit residential development is planned at the corner of William and Liberty Streets, a 300-unit building is proposed for Peck Slip and Beekman Street, and a 400-unit building is planned at 90 West Street.

## **D. OTHER MAJOR LAND USE PLANS**

A number of economic and land development initiatives are planned for Manhattan's East Side. These projects, many of which would be located east of Lexington Avenue, will result in increased demand for transit service in the area.

### ***UPPER MANHATTAN EMPOWERMENT ZONE (UMEZ)***

The UMEZ was created to revitalize Upper Manhattan. This Federal economic development initiative is supported by both the City and State and uses public funds to encourage private development in the area. Its current and future efforts will result in office, retail, and residential projects in the various communities of Upper Manhattan, including East Harlem. As described in Chapter 6, "Social Conditions," a large portion of East Harlem has just been rezoned as an additional means of supporting residential and economic growth in this area.

### ***COOPER SQUARE URBAN RENEWAL AREA***

The New York City Department of Housing Preservation and Development (NYCHPD) has formulated a plan and designated a developer for four sites between the Bowery and Second Avenue from Houston to East 4th Street. The plan includes 712 new housing units, 30,000 square feet of community facilities, and 150,000 square feet of retail space. There may also be future expansions of the community facility and retail uses.

### ***OTHER NYCHPD PROJECTS***

NYCHPD has been active throughout Harlem and the Lower East Side in overseeing and funding the rehabilitation or construction of new housing units. The program, which emphasizes owner occupancy and infill projects, includes a broad range of rental and other types of housing, has been responsible for the occupancy of thousands of units on Manhattan's East Side. This program is ongoing and will continue to supply lower-income neighborhoods with affordable housing.

### ***HOSPITAL AND INSTITUTIONAL EXPANSION PROJECTS***

New York University Medical Center, Rockefeller University, The Cooper Union, and Memorial Sloan-Kettering Cancer Center are planning expansions of their East Side campuses. Together, these proposals could result in the addition of more than 4 million square feet of academic, research, and medical facilities on the East Side.

*HARLEM AND EAST RIVER ESPLANADE*

The New York City Department of Parks and Recreation is developing a greenway along the East River waterfront from Fulton Street to 145th Street. When completed, a continuous walkway/bikeway will run along the East and Harlem Rivers with numerous intermediate parks and recreational areas.

*CONSOLIDATED EDISON FIRST AVENUE PROPERTIES*

Consolidated Edison issued a final Generic Environmental Impact Statement for the disposition of 9.8 acres of property along First Avenue between 35th and 41st Streets in January 2004. It has entered into an agreement with a developer for high-density redevelopment on the sites. To be completed by 2011, this development could result in an additional 5 million square feet of uses including residential, commercial and medical offices, local and destination retail, and public open space. \*