Chapter 2: Environmental Analysis

This chapter assesses the potential environmental effects of the Proposed Project, consistent with the National Environmental Policy Act (NEPA), the State Environmental Quality Review Act (SEQRA), and the methodology set forth in the *City Environmental Quality Review (CEQR) Technical Manual* (Mayor's Office of Environmental Coordination, 2001).

A. LAND USE, ZONING AND PUBLIC POLICY

See Chapter 2, Section A, "Land Use, Zoning, and Public Policy," attached.

B. SOCIOECONOMIC CONDITIONS

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if any action may reasonably be expected to create substantial socioeconomic changes within the area affected by the action that would not occur in the absence of the action. Actions that would trigger a CEQR analysis include the following:

- Direct displacement of a residential population so that the socioeconomic profile of the neighborhood would be substantially altered.
- The displacement of substantial numbers of businesses or employees; or the direct displacement of a business or institution that is unusually important because of its critical social or economic role in the community, that would have unusual difficulty in relocating successfully; because it is of a type or in a location that makes it the subject of other regulations or publicly adopted plans aimed at its preservation; because it serves a population uniquely dependent on its services in its present location; or because it is particularly important to neighborhood character.
- Introduction of substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Such an action could lead to indirect displacement of residential populations. Residential development of 200 units or fewer would typically not result in significant socioeconomic impacts.

The proposed streetscape, storefront and façade, and open space improvements would not displace residential populations or businesses, nor would it introduce development different from existing uses in the surrounding area. The portion of the site at Burling Slip is currently used for the temporary parking of City vehicles, and no businesses or jobs would be displaced with the construction of a playground at this location.

The Proposed Project would have beneficial impacts on the project site and study area by visually improving the area, enhancing several existing open spaces, increasing open space at DeLury Square, and creating a new open space at Burling Slip. Consequently, the Proposed Project would not result in any significant adverse impacts on socioeconomic conditions, and no further analysis is required.

C. COMMUNITY FACILITIES AND SERVICES

The Proposed Project would not physically alter or displace community facilities (with the exception of public open space, which is discussed below), nor would it directly affect the delivery of public services. In addition, the Proposed Project would not add residential units to the area. Therefore, the Proposed Project would not have the potential to result in significant indirect effects on public schools, libraries, hospitals, or day care centers.

The New York City Police Department (NYPD) regularly reviews its operations for each precinct. Based on the geographic area, population change, and crime statistics, it will adjust staffing in order to maintain adequate community protection. The New York City Fire Department (FDNY) similarly adjusts its operations as needed. The Proposed Project is not expected to impact the delivery of local police or fire protection, nor would it directly displace a police or fire station. Therefore, no further analysis is necessary, and the Proposed Project would not result in significant adverse impacts on community facilities.

D. OPEN SPACE

The *CEQR Technical Manual* recommends conducting a detailed open space assessment if a proposed action will add 200 residents or 500 employees to an area. The Proposed Project would not add any new residents or employees to the area and therefore would not add to the demand for public open space. Rather, as described in Chapter 1, "Project Description," the Proposed Project would enhance the existing open spaces at Titanic Memorial Park and the Pearl Street Playground, enhance and expand open space at DeLury Square, and create a new open space at Burling Slip. The Proposed Project would increase the amount of public open space on the project site from 0.36 to 0.96 acres.

A new 22,000-square-foot children's playground would be created at Burling Slip, which is currently an asphalt-paved open space owned by the City and temporarily used for parking City vehicles. Amenities would include play equipment and benches. The playground would consist of a wooden structure with a sand play area at the western end and a water feature and sitting area at the eastern end. A "crow's nest" on the northern edge of the playground would provide an elevated viewing platform and would also house a bathroom and a storage area. A "sound fence" with hollow tubes that make and transmit sounds would run along the northern edge of the playground.

John DeLury Sr. Plaza, a small paved plaza located at the intersection of Fulton Street and Gold Street, would be expanded to create a unified public space. The section of street that links westbound Fulton Street to northbound Gold Street would be closed and connected to an adjacent, privately owned parcel of land which would be acquired by the City. The enlarged space would be mapped as park, and the total open space area would be expanded to 10,900 square feet.

The 3,500-square-foot Titanic Memorial Park would be refurbished to become an improved gateway to the South Street Seaport. The design would consolidate planting and seating areas to achieve a more efficient and functional layout. The proposed design includes a water feature that would evoke Manhattan's original shoreline, which ran across this open space.

The triangular-shaped, 5,200-square-foot Pearl Street Playground, bounded by Fulton, Pearl, and Water Streets, would be renovated to become a more welcoming area for children, families, and local residents. The Proposed Project would upgrade the existing facility and provide an

enhanced play environment for local children and their caregivers. Among the improvements that may be incorporated are new play equipment and play surfaces, enhanced seating, new plantings, lower fencing, and possibly a water feature. This effort will also seek to expand the amount of area used for the playground.

Overall, the Proposed Project would enhance the quality and functionality of existing open space and would increase the amount of open space on the project site by 0.6 acres. Therefore, the Proposed Project would not result in significant adverse impacts on open space.

E. SHADOWS

Under CEQR, a shadows analysis is required if a proposed action would result in shadows long enough to reach a publicly accessible open space or sun-sensitive historic resource (except within an hour and a half of sunrise and sunset). Therefore, assessments are only required if the action would result in a new structure or a substantial addition to an existing structure.

The Proposed Project would result in the renovation of storefronts and façades but would not involve the development of new buildings. There would be no potential for new structures to cast shadows on open spaces or sun-sensitive historic resources. Therefore, no significant adverse shadow impacts are expected, and no further analysis is required.

F. HISTORIC RESOURCES

See Chapter 2, Section B, “Historic Resources.”

G. URBAN DESIGN/VISUAL RESOURCES

See Chapter 2, Section C, “Urban Design and Visual Resources.”

H. NEIGHBORHOOD CHARACTER

Neighborhood character is considered to be an amalgam of the various elements that define a community’s distinct personality. These elements include land use, urban design, visual and historic resources, socioeconomics, traffic, air quality, and noise. As discussed elsewhere in this Environmental Assessment, the Proposed Project would not have any significant adverse impacts on any of these categories. Therefore, the Proposed Project would not result in significant adverse impacts on neighborhood character.

I. NATURAL RESOURCES AND FLOODPLAIN

A natural resources assessment is conducted when a natural resource is present on or near the project site and when an action involves the disturbance of that resource. The identification and evaluation of threatened or endangered species includes an area with a radius of at least ½ mile from the project site.

Requests for information on rare, threatened, or endangered species within the vicinity of Fulton Street and Burling Slip were submitted to the U.S. Fish and Wildlife Service (USFWS) and the New York Natural Heritage Program (NYNHP). In addition, a request for information on Significant Coastal Fish and Wildlife Habitats within the vicinity of the project site was submitted to the New York State Department of State (NYSDOS).

The East River is not considered a Significant Coastal Fish and Wildlife Habitat by NYSDOS (Welsch 2006). No records of rare, threatened, or endangered species or sensitive habitats were reported by USFWS (Olin 2006). NYNHP records indicated three potential nesting sites for the peregrine falcon ([*Falco peregrinus*] New York State endangered) in the Lower Manhattan area. Since 1999, a pair of peregrine falcons has been located in a nest on Water Street, in the Wall Street area of Lower Manhattan. Since 1995, an aerie has been located on the Brooklyn Bridge, which connects the island of Manhattan and Brooklyn across the East River. The third recorded peregrine falcon nest is located on the Williamsburg Bridge (Ketcham 2006); however, the Endangered Species Unit of NYNHP does not anticipate any adverse impacts on the nest sites (Loucks 2006). Because of the distance between the nesting locations and the project site, as well as the fact that the Proposed Project consists mostly of open space creation and enhancement, the Proposed Project would not be expected to adversely affect future use of these nesting locations (Loucks 2006). Therefore, the Proposed Project is not expected to result in significant adverse impacts on any federally or state-listed endangered species.

While a small portion (25,000 square feet) of the project site (Burling Slip and Titanic Memorial Park) is in the 100-year floodplain, the Proposed Project would not have an adverse effect on flooding conditions within the project site and the surrounding area. The Proposed Project would not substantially raise ground level and would not include any habitable structures that would require flood-proofing. Additionally, plantings at the new Burling Slip playground and the redesigned Titanic Memorial Park would decrease the amount of impervious surface on the project site. Therefore, the Proposed Project is not expected to result in significant adverse impacts on floodplains.

J. HAZARDOUS MATERIALS

See Chapter 2, Section D, "Hazardous Materials."

K. WATERFRONT REVITALIZATION PROGRAM

A portion of the project site is located within New York City's coastal zone boundary as outlined in the Department of City Planning's (DCP) coastal zone boundary of New York City, and therefore, the project requires an analysis for consistency with New York City's Local Waterfront Revitalization Program (LWRP). See Appendix A, "Waterfront Revitalization Program," for a New York City Waterfront Revitalization Program Consistency Assessment Form. The Proposed Project is consistent with LWRP.

L. INFRASTRUCTURE

The Proposed Project's streetscape and storefront and façade improvements would not increase infrastructure demands. The new and enhanced open spaces included as part of the Proposed Project would involve only minimal infrastructure and energy demands within the overall context of New York City's infrastructure usage. Therefore, the Proposed Project would not create any significant adverse impacts on infrastructure.

M. SOLID WASTE AND SANITATION SERVICES

The Proposed Project would involve only minimal increases in demand for solid waste removal and sanitation services from its new and enhanced open spaces. Therefore, it would not create any significant adverse impacts on solid waste and sanitation services.

N. ENERGY

The Proposed Project would involve only minimal energy demands within the overall context of New York City's energy usage. Therefore, the Proposed Project would not create any significant adverse impacts on energy.

O. TRAFFIC AND PARKING

See Chapter 2, Section E, "Traffic and Parking."

P. TRANSIT AND PEDESTRIANS

The Proposed Project is not expected to result in more than 200 peak hour rail or transit riders, nor is it expected to result in an increase of more than 200 peak hour pedestrian trips at any pedestrian elements in the vicinity of the project site. Therefore, transit and pedestrian trips would not exceed the 200-trip threshold specified in the *CEQR Technical Manual,* and quantified transit and pedestrian analyses are not warranted. No significant adverse impacts on transit or pedestrian conditions would occur as a result of the Proposed Project.

As described in Chapter 2, Section E, "Traffic and Parking," high accident locations were not identified near the project site. Therefore, the introduction of a new park at this location is not expected to result in significant adverse impacts on pedestrian safety.

Q. AIR QUALITY

See Chapter 2, Section F, "Air Quality."

R. NOISE

CEQR NOISE CRITERIA

According to the *CEQR Technical Manual*, a noise analysis is appropriate if an action would generate any mobile or stationary sources of noise or would be located in an area with high ambient noise levels. Specifically, an analysis would be required if an action generates or reroutes vehicular traffic, if an action is located near a heavily trafficked thoroughfare, or if an action would be within one mile of an existing flight path or within 1,500 feet of existing rail activity (and with a direct line of sight to that rail facility). While the Proposed Project would reroute vehicular traffic at the intersections of Pearl and Fulton Streets as well as Fulton and Gold Streets, these reroutings would move traffic farther away from the sensitive receptors of the nursing home at Pearl Street and the Southbridge Towers residential complex at Gold Street. A noise assessment might also be appropriate if an action would result in a playground or cause a stationary source to be operating within 1,500 feet of a receptor (with a direct line of sight to that receptor), if the action would include unenclosed mechanical equipment for manufacturing or building ventilation purposes, of if the action would be located in an area with high ambient noise levels resulting from stationary sources.

While the Proposed Project includes a new playground at Burling Slip that would be located directly across John Street from a residential building, it is not expected that the playground would have a significant adverse noise impact on this residential use. Burling Slip is already relatively noisy due to its proximity to the FDR Drive, and because of its existing busy parking

lot facility, which would be removed by the Proposed Project. Moreover, noise levels at the new playground are expected to be lower than at other types of playgrounds, particularly schools, because of its small size and expected presence of parents and playworker-supervisors. Any additional noise from the playground is not expected to have a significant adverse impact on residents.

The Proposed Project would not generate any new vehicular trips, nor would it contain any unenclosed mechanical equipment. Therefore, the Proposed Project would not create any significant adverse impacts on noise levels in the area, and no further analysis is needed.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD) NOISE CRITERIA

The potential noise impacts of the Proposed Project were also evaluated relative to U.S. Department of Housing and Urban Development (HUD) noise criteria. Table 2-1 summarizes HUD site-acceptability standards based on external noise levels. HUD assistance for the construction of new noise sensitive land uses is generally prohibited for projects with "unacceptable" noise exposure and is discouraged for projects with "normally unacceptable" noise exposure without suitable mitigation measures. However, the Proposed Project is not considered a noise sensitive land use, and as such, no impact with regard to HUD noise criteria would result from the Proposed Project.

Table 2-1
HUD Site Acceptability Standards (dBA)

	Exterior Day-Night Average Noise Level (Ldn)
Acceptable	Not exceeding 65 dBA
Normally Unacceptable	Above 65 dBA but not exceeding 75 dBA
Unacceptable	Above 75 dBA
Source: Title 24, Code of Federal Regulations, Part 51.103(c), Exterior Standards.	

S. CONSTRUCTION IMPACTS

The Proposed Project would result in demolition and construction activities. Like all construction projects, work at the project site would result in temporary disruptions to the surrounding community. These activities would occur over approximately 24 months. These effects would be temporary and are not considered significant.

The anticipated construction schedule is outlined below in Table 2-2.

Table 2-2
Anticipated Construction Schedule

Project Component	Start Date	Completion Date
Burling Slip	March 2008	February 2009
Titanic Park	July 2008	July 2009
DeLury Square	July 2008	September 2009
Pearl Street Playground	Winter 2008-09	October 2009
Streetscape Improvements	Spring 2008	December 2009

The Incentives Program for the Design Guidelines is expected to start in 2008 and conclude in 2011. This would result in varying amounts of construction ranging from very minor work to larger efforts, depending on the review of the Incentives Program review panel.

Construction activities for the Proposed Project would normally take place Monday through Friday, although the delivery or installation of certain critical equipment could occur on weekend days. The permitted hours of construction are regulated by the New York City Department of Buildings, apply in all areas of the City, and are reflected in the collective bargaining agreements with major construction trade unions. In accordance with those regulations, work would begin at 7:00 AM on weekdays, although some workers would arrive and begin the prepare work areas between 6:00 and 7:00 AM. Normally, work would end by 6:00 PM.

The construction of the Proposed Project would be required to comply with applicable control measures for construction noise. Construction noise is regulated by the New York City Noise Control Code and by noise emission standards for construction equipment issued by the U.S. Environmental Protection Agency (EPA). These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as to not create unnecessary noise. Compliance with those noise control measures would be ensured by including them in the contract documents as materials specification and by directives to the construction contractors. No significant noise impacts are expected to occur as a result of the construction.

Dust emissions can occur from hauling debris and traffic over unpaved areas. All necessary measures would be implemented to ensure that the New York City Air Pollution Control Code regulating construction-related dust emissions is followed.

Further, construction associated with the Proposed Project would be coordinated with other construction work taking place in the area through the Lower Manhattan Construction Command Center (LMCCC). Working with LMCCC and the Environmental Performance Commitments (EPCs) of the Lower Manhattan Development Corporation (LMDC), any potential adverse impacts of construction for the Proposed Project would be minimized to the greatest extent possible. The EPCs, which are the same measures used to minimize emissions from all of the large-scale Lower Manhattan recovery projects, include the use of ultra-low-sulfur diesel (ULSD) for all nonroad construction engines and tailpipe emissions reduction technologies, such as diesel particle filters (DPF) and diesel oxidation catalysts (DOC), to all engines with a power output of 50 horsepower or greater, which significantly reduce the emission of particulate matter. These commitments would be implemented via construction contracts and enforced by LMCCC. Moreover, Local Law 77 of the City of New York also requires the use of ultra-low-sulfur diesel fuels and best available technology on non-road engines owned, operated, or leased by or on behalf of any City agency. As a result, no significant air quality impacts from dust emissions would be expected.

T. PUBLIC HEALTH

According to the *CEQR Technical Manual*, public health comprises the activities that society undertakes to create and promote a community's wellness. Public health may be jeopardized by poor air quality resulting from traffic or stationary sources, hazardous materials in soil or

groundwater used for drinking water, significant adverse impacts related to noise or odors, solid waste management practices that attract vermin and pest populations, and actions that result in exceedances in city, state, or federal standards.

As described previously, the Proposed Project would not result in significant adverse impacts to air quality or noise. No exceedances of city, state, or federal standards would occur. The Proposed Project would not involve solid waste management practices that would attract vermin or pest populations. Therefore, the Proposed Project would not result in any significant adverse impacts on public health, and no further analysis is necessary.

U. GROWTH-INDUCING ASPECTS OF THE PROJECT

The Proposed Project includes public investment in streetscape improvements, public open spaces, and incentives to spur private rehabilitation and renovation of storefronts and facades. No substantial new development is expected to occur as a result of the Proposed Project.

V. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources both natural and built would be expended in the construction and operation of elements of the Proposed Project. These resources include the building materials used in construction of open spaces and renovation of storefronts and facades; energy in the form of gas and electricity consumed during construction and operation of by the various mechanical and processing systems; and the human effort (time and labor) required to develop, construct, and operate various components of the project. They are considered irretrievably committed because their reuse for some purpose other than the project would be highly unlikely. ✷