Silvercup West FEIS

Executive Summary

Executive Summary
Table of Contents

EXECUTIVE SUMMARY ES-1

A. PROJECT DESCRIPTION ES-1
B. PROPOSED BUILDING PROGRAM ES-3
C. REQUIRED ACTIONS AND APPROVALS ES-7
D. LAND USE, ZONING, AND PUBLIC POLICY ES-11
E. SOCIOECONOMIC CONDITIONS ES-12
F. NEIGHBORHOOD CHARACTER ES-15
G. COMMUNITY FACILITIES AND SERVICES ES-16
H. OPEN SPACE ES-17
I. SHADOWS ES-18
J. HISTORIC RESOURCES ES-19
K. TRAFFIC AND PARKING ES-21
L. TRANSIT AND PEDESTRIANS ES-23
M. AIR QUALITY ES-24
N. NOISE ES-26
O. INFRASTRUCTURE ES-27
P. SOLID WASTE ES-27
Q. ENERGY ES-27
R. NATURAL RESOURCES ES-28
S. HAZARDOUS MATERIALS ES-29
T. URBAN DESIGN AND VISUAL RESOURCES ES-30
U. CONSTRUCTION IMPACTS ES-32
V. WATERFRONT REVITALIZATION PROGRAM ES-34
W. PUBLIC HEALTH ES-35
X. GENERIC ANALYSIS OF IMPACTS FROM SALT PILE RELOCATION ES-35
Y. MITIGATION ES-36
Z. ALTERNATIVES ES-37
AA. UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS ES-44
BB. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION ES-44
CC. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES ES-45

List of Tables

TABLE ES-1: PREFERRED DEVELOPMENT PROGRAM AND POTENTIAL VARIATIONS ES-2
TABLE ES-2: OPEN SPACE ES-5
TABLE ES-3: 2009 NO BUILD VERSUS BUILD WEEKDAY TRAFFIC LOS SUMMARY ES-21
TABLE ES-4: 2009 NO BUILD VERSUS BUILD SATURDAY MIDDAY TRAFFIC LOS SUMMARY ES-22
TABLE ES-5: SIGNIFICANT TRAFFIC IMPACT MITIGATION SUMMARY ES-23
TABLE ES-6: FUTURE WITH THE PROPOSED ACTION (2009) – MAXIMUM 8-HOUR CO LEVELS ES-24
TABLE ES-7: FUTURE WITH THE PROPOSED ACTION (2009) – MAXIMUM $PM_{2.5}$ INCREMENTAL IMPACTS ES-25
TABLE ES-8: CONSTRUCTION ACTIVITIES AND PROJECTED DURATIONS ES-33
TABLE ES-9: SIGNIFICANT TRAFFIC IMPACT MITIGATION SUMMARY ES-36

Executive Summary

A. PROJECT DESCRIPTION

1. Purpose & Need

The purpose and need for the Project include:

- The need to meet current and anticipated demand for film and television production facilities that conform to industry standards;
- The need to compete against other venues offering film and television production facilities;
- The need to support the redevelopment of Long Island City as a "24-hour" neighborhood containing a mix of industrial, commercial, residential, retail, cultural and open space uses contributing to the vitality of Queens as a whole; and
- The need to provide improved access to the East River waterfront from locations in Queens.

2. Project Description

Terra Cotta, LLC (the Applicant) seeks approval by the CPC of an amendment to the zoning map for the area bounded by the northern boundary of the existing M1-4 district to the north at the northern limit of the Queensboro Bridge, the midpoint of Vernon Boulevard to the east, the midpoint of 43rd Avenue to the south, and the East River to the west (the Rezoning Area). The Rezoning Area comprises Block 477, Lots 7, 13, 15, 20 and 24. In addition, the Applicant is seeking related CPC and Board of Standards and Appeals (BSA) approvals to enable development of an approximately 2.77 million gsf mixed-use development (Silvercup West) on Block 477, Lots 13, 15, 20, and 24 (the Project Site). The Project Site is bounded by the Queensboro Bridge on the north, Vernon Boulevard on the east, 43rd Avenue on the south, and the East River on the west. The approximately 6.0-acre Project Site, which is located within an M1-4 district and in an area covered by the Waterfront Access Plan Q-1 (WAP) for Northern Hunters Point, is currently occupied, in part, by a temporary New York Power Authority (NYPA) facility on Lot 24, the former New York Architectural Terra Cotta Company building on Lot 20, and a New York City Department of Sanitation (DSNY) open storage pile of sand and salt located within the mapped but unopened segment of 43rd Avenue on the southern edge of the Project Site. Both the NYPA facility and DSNY storage pile would be moved prior to construction.

Vacant land on the Project Site (following the removal of the NYPA facility) would be replaced by approximately 2.77 million gsf (approximately 2.10 million zoning square feet [zsf]) of new mixed use development containing a broad range of uses, including television and film production studios, residential, office, retail, museum and/or other cultural or community facilities, a health club, and a catering facility. Development of Silvercup West would conform to either a Preferred Development Program or one of three Variations. The Preferred Development Program and its three Variations are summarized in Table ES-1.

TABLE ES-1: PREFERRED DEVELOPMENT PROGRAM AND POTENTIAL VARIATIONS

Use	Preferred Development Program (gsf)	Variation 1 *(Residential)* (gsf)	Variation 2 *(Studio)* (gsf)	Variation 3 *(Residential and Studio)* (gsf)
Residential	1,044,970	1,700,018	1,044,970	1,700,018
Commercial	816,538	161,490	816,538	161,490
Office	*655,048*	*0*	*655,048*	*0*
Retail	*76,581*	*76,581*	*76,581*	*76,581*
Health Club	*40,013*	*40,013*	*40,013*	*40,013*
Catering	*44,896*	*44,896*	*44,896*	*44,896*
Cultural/Community Facility	126,401	126,401	0	0
Studio/Studio Support	346,574	346,574	473,282	473,282
Loading/Parking	433,761	433,761	433,761	433,761
TOTAL Floor Area	**2,768,551**	**2,768,551**	**2,768,551**	**2,768,551**
Public Open Space (Upland Connection and Esplanade)	55,000	55,000	55,000	55,000

As indicated in Table ES-1, some aspects of the development program would be the same in all the Variations. These include the retail and restaurant space, the catering facility and the health club. However, the Variations differ from the Preferred Development Program in terms of the amounts of residential space, office and support space, and the cultural facility space. Specifically:

- One variation (Variation 1: Residential) would replace the 655,048 gsf of office space with an equivalent amount of residential space containing 655 apartments.
- A second variation (Variation 2: Studio) would replace the 126,401 gsf cultural facility with an equivalent amount of studio and studio support space, including two additional studios.
- A third variation (Variation 3: Residential and Studio) would replace the 655,048 gsf of office space with an equivalent amount of residential space containing 655 apartments and would replace the 126,401 gsf cultural facility with an equivalent amount of studio and studio support space, including two additional studios.

Total floor area would be the same with the Preferred Development Program and each of its three Variations. The floor-area ratio (FAR) of the proposed project would be approximately 7.9 with the Preferred Development Program or any of the three Variations. Final selection of the program to be developed would depend on market conditions at the time of development.

In all cases, the development would be subject to a Restrictive Declaration, which would result in the same bulk and building envelope in the Preferred Development Program and the three Variations. The Preferred Development Program and each of the three Variations would provide approximately 1,400 accessory parking spaces, and new publicly accessible open space.

Restoration of the New York Architectural Terra Cotta Company building will take place simultaneous with, but as a separate action from, the proposed Project. Required permits for the restoration of the New York Architectural Terra Cotta Company building have been received from the New York City Landmarks Preservation Commission (LPC).

The Project would be privately financed by the Applicant, and require a number of City, State and federal approvals, as detailed in Section C of this document. The Build Year for the Proposed Action is 2009.

The Applicant intends to obtain Leadership in Energy and Environmental Design (LEED) certification for the Project. Several aspects of the Project would be important to achieving certification. These include the location of the Project Site in the vicinity of extensive public transit and existing utilities infrastructure, a carefully managed construction process, water and energy efficiency in building operations, the selected building materials, and efforts to achieve good indoor environmental quality.

B. PROPOSED BUILDING PROGRAM

The central component of the proposed building program would consist of a 114-foot-high central core structure (Core Complex) that would cover approximately 40 percent of the Project Site (approximately 95,000 sf of surface area). The Core Complex would include television and film production studio space and a catering facility. To the north of the Core Complex, a mixed commercial office tower (North Complex) would be constructed, with portions of the lower levels reserved for cultural/community space and a restaurant. To the south of the Core Complex, two residential towers above retail space and a health club are planned (South Complex). The uses contained within the three Complexes have been selected to complement each other and create a 24/7 environment.

Access to each Complex has been designed to encourage the mixing of uses and to animate the street along the perimeter of the building. Each of the three Complexes would include direct access to both Vernon Boulevard and the East River Esplanade (Esplanade). The North Complex would also be accessed from the Upland Connection along the northern border of the Project Site. The South Complex would also be accessed from 43rd Avenue.

From north to south, the following summarizes the major elements of each Complex.

1. North Complex

The commercial and community facility uses of the Project would be located in the North Complex, the intended design for which would consist of a base structure that would contain glass atriums to the west, north and east. A stepped commercial tower would rise from the eastern half of the base. The multiple levels within the base structure would be interleaved to provide for a mix of uses and users to animate the lobby throughout the day and week.

The base of the North Complex would be approximately 340 feet by 120 feet in dimension and would have a maximum elevation of approximately 129 feet. The roof surface of the tower at an elevation of 429 feet is intended to be treated as a green roof. The maximum elevation of the commercial tower would be 537.6 feet.

The building would contain approximately 655,000 gsf of office space. This office space, while not restricted, would be marketed to the entertainment and media industries. Entrance to the commercial tower would be at Vernon Boulevard and Queens Plaza South, at the western end of Terra Cotta Plaza. The North Complex would also be accessed from the Upland Connection along the northern border of the Project Site.

Community facility space (Community Facility) would be located within the western half of the lower levels of the North Complex to the west of and beneath the office tower. It would contain approximately 126,401 gsf of area (0.41 FAR), a portion of which would be used as screening rooms. The Community Facility would be located on five levels, all accessed from the multilevel northern lobby and linked by a series of open escalators. There is no currently identified tenant for this space. However, the Applicant is speaking to a number of Queens and Citywide cultural institutions, many of which have expressed interest in the space. The building design provides for maximum flexibility in fitting out the Community Facility to meet the needs of one or multiple tenants.

2. Core Complex

The operational and physical center of Silvercup West would be the Core Complex, which would contain the expanded production studio facilities, including eight motion picture and television studios. The studios would be accessed by a two-story lobby located on Vernon Boulevard. A vehicular drop-off would be provided at the entrance. The studios would be directly accessed by trucks entering from 43rd Avenue. The studios would each be approximately 18,000 zsf in area, and approximately 30–40 feet in height, and stacked on two levels. Each level would contain four studios. The studios and their accessory space would comprise approximately 347,000 gsf of area. Accessory studio support uses, such as carpentry shops, production offices, dressing rooms, and storage space, would be located on the studio levels and on intermediate levels between the studios to the east and west, fronting on Vernon Boulevard and the East River.

An approximately 45,000 gsf catering facility would be located above the studios in the Core Complex. The catering facility is intended to meet the need for event venues in western Queens.

The roof of the Core Complex would be stepped down from east to west providing views of the East River, the Manhattan skyline and the Queensboro Bridge. The elevation of the eastern street wall fronting on Vernon Boulevard would be 114.5 feet, and would step down to a roof terrace at 109 feet in the western half of the roof and then further step down to a public terrace at 104.5 feet overlooking the East River. The public terrace would be accessible to the public via an elevator from the Esplanade. The western roof of the Core Complex would be improved with a series of private open spaces, designed for passive recreational use by residents, visitors to the cultural institutions, and customers of the catering facility. It is anticipated that the design of the rooftop gardens would include lawns, trees, and a reflecting pool. The eastern portion of the roof is intended to be a green roof in its anticipated design, and would not provide for resident or visitor access.

A large illuminated accessory sign ("Sign") would be installed on the western façade of the Core Complex above the Esplanade. The Sign would not flash. The Sign, which would consist of letters made of a perforated metal screen outlined in red lights, would depict the familiar "Silvercup Studios" logo. The Sign would be approximately 195 feet in length and 46 feet in height; the largest letters - the initial "S" and terminal "P" - would be approximately 46 feet in height and the smallest would be approximately 25 feet in height. The surface area of the Sign would be approximately 3,422 square feet. The lowest point of the Sign would be almost 45 feet above the Esplanade. It would not project above the Building but would be contained within the western façade of the Core Complex. The letters for "Studios" beneath "Silvercup" would be 8 feet 3 inches in height.

The proposed Sign would be consistent with the historic visual character of the Long Island City waterfront, which is characterized by the existing Silvercup sign on the Main Lot and the Pepsi Cola sign at Queens West.

3. South Complex

The residential component of the building would be located to the south of the Core Complex (South Complex). Its treatment would be in keeping with high-density residential waterfront developments, with ground floor lobbies, retail uses and other service uses (including a health club) along the Esplanade and 43rd Avenue.

Two residential towers would rise above the South Complex base. They would be located at the southernmost portion of the Project Site, to provide for maximum visibility of the Queensboro Bridge from the surrounding community. The eastern residential tower would be 600 feet in elevation and the western residential tower would be 517.5 feet in elevation. The South Complex would contain approximately 1,045,000 gsf of residential floor area, with approximately 1,000 residential units.

4. Open Space

The Proposed Action would provide approximately 80,000 sf (1.83 acres) of publicly accessible at-grade open space. Over two-thirds (approximately 55,000 sf) of this open space would be provided in the Upland Connection and waterfront Esplanade that would be provided in accordance with Article VI Chapter 2 of the Zoning Resolution (Special Regulations Applying in the Waterfront Area, or "Waterfront Zoning") as modified by the WAP for Northern Hunters Point (Sect. 62-851 ZR). In addition to the Esplanade and Upland Connection, the Proposed Action would provide an additional 25,000 sf of publicly accessible open space, consisting of two plazas on Vernon Boulevard, at Queens Plaza South and at 43rd Avenue, and a landscaped extension of the Esplanade off-site at the end of 43rd Avenue.

TABLE ES-2: OPEN SPACE

Facility	Square Footage
Waterfront Public Open Space	55,285 sf
Terra Cotta Plaza	8,230 sf
Vernon/43 Plaza	4,286 sf
43rd Avenue Esplanade extension	7,392 sf
Rooftop Terrace	4,500 sf
TOTAL	**79,693 sf**

In addition, 4,500 square feet of publicly accessible outdoor open space would be provided in a public overlook on the northwestern area of the roof terrace of the Core Complex. The Project would also provide over 10,000 square feet of private roof terrace open space for residents, workers, and museum and catering facility visitors. Private open space would be located on the roof of the Core Complex.

a) Public Open Space (Waterfront Zoning Requirements)

i. Upland Connection

An Upland Connection to the waterfront would be provided along the northern boundary of the property, at the prolongation of the southern line of Queens Plaza South and running to the bulkhead. The Upland Connection would provide almost 25,000 sf of landscaped open space between the North Complex and the property's northern boundary. A private drive servicing the internal on-site loading berths would run along the northern boundary of the eastern half of the Upland Connection and would be delineated from the pedestrian circulation zone by bollards and a different pavement treatment.

The Upland Connection would be over 500 feet in length with a width ranging between 30 and 90 feet. The Upland Connection would preserve a wide view corridor and provide a physical link to the East River.

A curved 16-foot-wide pedestrian path would extend along the length of the Upland Connection and would be lined with benches. At the western portion of the Upland Connection, chaise lounges, chess tables and benches would be arranged along the northern property line. A sculpture located just west of the driveway at the northern property line would serve to link the new open space to Long Island City's industrial past while providing visual interest to the Upland Connection.

The pedestrian circulation zone would be flanked by over 6,500 sf of low beds planted with native decorative grasses. The eastern segment of the northern boundary of the Upland Corridor would be planted with a single row of 6 black tupelo or similar trees, which would mask a retaining wall that would be required due to the grade change at the City-owned property under the Queensboro Bridge.

ii. Esplanade

The proposed Project would provide a shore public walkway that meets all of the dimensional requirements for an esplanade (Section 62-61 and 62-631 ZR) along the property's entire riverfront. This 500-foot-long Esplanade would connect the Upland Connection at the Project Site's northern boundary to the City-owned property at the foot of 43rd Avenue to the south. The total area of the Esplanade would be approximately 30,000 sf (two-thirds of an acre). Consistent with the WAP, the northern end of the Esplanade is designed to permit the continuation of the public walkway in the future to City-owned property under the Queensboro Bridge.

At its widest two points, the Esplanade would be approximately 90 feet in width at the northwestern and southwestern corners of the Building. The width of the Esplanade would meet or exceed the minimum requirement of 40 feet.

The Esplanade would provide two pedestrian circulation zones parallel to the river's edge, which would encourage a variety of passive recreational experiences along the waterfront: the upland path would be more shaded, adjacent to tables and chairs, and related to the building's ground floor and cultural uses, while the seaward path would be in a more exposed, sunny location, directed more to the north-south flow of pedestrians and to water-viewing.

In order to provide for a visually uncluttered view of the East River and Manhattan skyline beyond, the Applicant proposes to restrict the use of lighting fixtures on poles along the Esplanade, as required. Instead, illuminated bollards, uplights and lights integrated into benches and railings would provide for sufficient illumination without impeding views with raised fixtures.

5. Vehicular Access

Multiple access points would be provided to minimize vehicular and pedestrian conflicts, and to accommodate the vehicular demands of separate uses. Vehicular access to the Project Site would be provided via Vernon Boulevard and a newly opened 43rd Avenue, offering access from Queens Plaza, the Queensboro Bridge, Long Island City to the north and east, and Hunters Point to the south.

Loading berths would be located within the structure of the Core Complex, and would not be visible from the street and would be accessed via 43rd Avenue. All studio, office, retail, catering, community facility and health club uses would be directly served by these interval berths.

6. Shoreline Restoration

The Applicant has obtained the necessary permits to replace a deteriorating bulkhead along the northern portion of the Project Site. This permit process involved a separate environmental review. The Applicant will apply for permits from the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Army Corps of Engineers (USACE) to replace the bulkhead along the southern portion of the Project Site, including the shoreline at the end of 43rd Avenue. While the replacement of the northern portion of the bulkhead is considered to be a separate and independent action from the Proposed Action, the potential impacts of the replacement of the southern portion are analyzed in this FEIS.

C. REQUIRED ACTIONS AND APPROVALS

The following discretionary approvals are required to implement the Proposed Action:

- **Zoning text amendments to (i) Section 123-90 to create a special mixed-use district and (ii) to Section 123-40 to permit an accessory sign.** The Applicant is requesting an amendment to Section 123-90 of the Zoning Resolution to create a new Special Mixed Use District for Northern Hunters Point ("Mixed Use" or "MX-9" District). The boundaries of the proposed Mixed Use District would be coterminous with the existing M1-4 District's northern boundaries, the midpoint of Vernon Boulevard and the midpoint of 43rd Avenue and the pierhead line of the East River. The Applicant is also requesting an amendment to Section 123-40 of the Zoning Resolution to create, in the MX-9 District, a special permit to modify the applicable provisions of Sections 32-64 (Surface area and illumination) and 32-65 (Height of Signs). These modifications would facilitate the proposed illuminated "Silvercup Studios" sign as designed, to be incorporated into the western façade of the Core Complex.

- **Amendment to the Zoning Map changing from an M1-4 district to an MX-9 (M1-5/R10) special mixed-use district.** The Site's current zoning designation is an M1-4 District (2.0 FAR); this is proposed to be changed to an MX-9 (M1-5/R10) Special Mixed Use District. Zoning Map 9b would be amended for the area generally bounded by the northern boundary of the existing M1-4 district to the north, the midpoint of Vernon Boulevard to the east, the midpoint of 43rd Avenue to the south and the bulkhead line of the East River to the west. The Applicant requests a change in zoning to an M1-5/R10 Special Mixed Use District in order to enable the development of a mixed-use development containing production studios and support space and residential, retail, office and cultural uses, many of which are not now permitted as a matter of right. The maximum FAR allowed in an M1-5 district is 5.0 FAR; the maximum FAR allowed in an R10 district is 10 FAR. The Zoning Map amendment also includes an (E) Designation for noise on the Project Site.

- **Special Permit pursuant to Section 13-561 for an accessory off street parking garage.** Article I, Chapter 3 of the Zoning Resolution regulates the development and operation of parking facilities in certain high density areas, including Long Island City. Within Long Island City, accessory parking for a mixed-use development is limited to 225 parking spaces. Parking facilities that exceed that number are permitted by special permit pursuant to Section 13-561 of the Zoning Resolution. A special permit is needed for the Project's proposed parking garage, which would contain 1,400 parking spaces on four levels within the building.

- **Special permit pursuant to Section 123-40 to modify sign regulations of Sections 32-64 and 32-65.** This permit is needed to construct a sign of the proposed dimensions in a Special Mixed Use District, in derogation from the size limitations set forth in Sections 32-64 and 32-65.

- **Special permit pursuant to Section 62-736 to modify Section 62-341 (a) (2) and (c) 1, 2, 4, 5 and 6 on waterfront blocks.** A special permit is needed to facilitate construction of the proposed Building that does not strictly comply with the height and setback regulations contained within Article VI, Chapter 2 (Special Regulations Applying in the Waterfront Area) of the Zoning Resolution. The Project as designed would not strictly conform to certain of the height and setback requirements contained within Section 62-341 ZR. Accordingly, the following waivers or modifications of provisions of Section 62-341 are requested:
  - *The Building's base does not provide the required setbacks on its four sides (Section 62-341 (a) (2).* The Building's northern and southern faces would not provide all of the required setbacks (10 feet on 43rd Avenue, 30 feet on the Esplanade, or 15 feet on the Upland Connection). The Building would not provide the required 30-foot setback at three points along its western façade fronting on the Esplanade: (i) the west face of the North Complex, which will be 117.64 feet in height; (ii) the public access elevator in the Core Complex, which will be 118.64 feet in height; and (iii) west façade of the South Complex, rise up from the ground without setback. There would be two points on the eastern façade where the 10-foot setback would not be provided. The southern façade of the South Complex would rise straight up without providing the required 10-foot setback. The northern façade of the North Complex would rise straight up without providing the required 15-foot setback.
  - *The Building's base exceeds the maximum base height of 110 feet and 65 feet for residential use and commercial use, respectively, (Section 62-341(c)(1)).* The Building's northern and southern faces, which would not have any setbacks (10 feet on 43rd Avenue or 15 feet on the Upland Connection) but would instead rise directly up from the ground, would exceed the maximum base height of 110 feet and 65 feet, respectively. The western face of the Building would exceed the 65-foot maximum base height at three points without the 30 foot setback: (i) the west face of the North Complex, which would be 117.64 feet in height; (ii) the public access elevator in the Core Complex, which would be 118.64 feet in height; and (iii) the west face of the South Complex, which would rise without the 30-foot setback at 110 feet in height.
  - *The Building exceeds the maximum building height of 350 feet and 185 feet for residential use and commercial use, respectively (Section 62-341 (c)(2)).* The Building will contain three towers, all of which will exceed the maximum building heights. The residential towers on the South Complex will exceed 350 feet in height to 506.14 and 588.64 feet in height; the commercial tower on North Complex will be stepped at 417.64 and 526.24 feet in height, which will exceed the maximum building height of 185 feet.
  - *The residential floor sizes above the maximum base height to exceed 8,100 zoning square feet (Section 62-341(c)(4)).* The residential floor plates of both towers above the maximum base height would each be 10,012 zoning square feet in area.
  - *The floorplates above 150 feet are greater than 85 percent of the floorplates below 150 feet. (Section 62-34 (c)(5)).* The Building would not provide setbacks at 150 feet in any of the three towers. Floors above 150 feet in both the residential towers would be of the same area and configuration as that of the floors directly below 150 feet. The commercial tower would have a floor plate of 24,150 zoning square feet from a height of 117.64 feet to 417.64 feet. At that level, the tower floor plate would be reduced in area to 11,550 zoning square feet and would rise to 526.24 feet.
  - *The length of the building wall facing the shore line exceeds 100 feet (Section 62-341 (c)(6)).* The length of the western building wall (facing the East River) of the commercial tower would be 120 feet.

Development of the Project Site (as defined herein) pursuant to this Special Permit would be subject to a Restrictive Declaration, which would, among other things, require a development that would result in the same bulk and building envelope in the Preferred Development Program and the three Variations. Without this Special Permit, development under the proposed zoning would be restricted by the Restrictive Declaration to an FAR of 7.9.

- **Authorization pursuant to Section 62-722 (b) to modify waterfront public access and visual corridor design requirements of Section 62-60.** In order to facilitate development of a shore public walkway and upland connection, substantially in conformance with the landscape plan, an authorization pursuant to Section 62-722 for waivers from the locational requirements for lights, buffers and trees is requested. The requested waivers are:
  - *Section 62-622: Upland Connections.* Two continuous buffers of 7 feet each bordering the single pedestrian circulation zone along both sides are required, but only one would be provided. The pedestrian circulation path within the Upland Connection is designed to be a wide sweeping arc that spans the approximately 500-foot length of the Upland Connection. Due to the curve of the proposed pedestrian path, the depth of planted buffers between the Building's external support pillars and the path would vary with over 12 feet in depth at the widest, central point. In addition, no buffer would be provided at the northwest edge of the Upland Connection. This would permit, in the future, a connection to any waterfront public walkway that may be provided under the Bridge, thus linking the Project Site to the Queensbridge Park to the north.
  - *Section 62-626 (2): Permitted obstructions.* Sculptures are not listed as permitted obstructions in waterfront public open space. The open space design for the Upland Connection calls for a sculptural form, as yet undesigned, to be placed at the "notch" in the northeastern property line. The design of the sculpture would be inspired by the kilns that previously were located on the site.
  - *Section 62-631(a): Special design requirements for public access prototypes: Shore Public Walkway Prototype 1: Esplanade: Circulation and access.* A continuous landward circulation path of a minimum of ten feet is proposed as part of the Esplanade plan. However, approximately 220 feet of the circulation path would be located under the overhang of the Core Complex in the central portion of the Esplanade. This portion of the circulation path would not lie within open space as defined by the Zoning Resolution and, therefore, would not be in strict conformance with the requirements of Section 62-631.
  - *Section 62-631(c)(2)(i): Special design requirements for public access prototypes: Shore Public Walkway Prototype 1: Esplanade: Trees.* A continuous tree pit planted with a single row of shade trees is required within the pedestrian circulation zone of an esplanade but would not be provided. The proposed Esplanade would be over 500 feet in length. In order to avoid a monotonous or rigid plan, to create a variety of experiences and to enhance the design of the Building, two massings of large shade trees (bosques) would be placed at the north and south with a grove of six trees in the center. Between the bosques and the central grove would be softly curving benches set off by lower flowering ornamental trees. In place of the 18 large shade trees that would be planted in a single continuous row, the proposed site plan contains 35 large trees and 10 ornamental trees.
  - *Section 62-642(b): Design requirements for visual corridors: permitted obstructions: sculpture.* Sculptures are not listed as permitted obstructions in visual corridors. As described above, the proposed site plan includes a sculpture within the northern buffer area in the "notch" created by the irregular property line between the Project Site and the city-owned land to the north.
  - *Section 62-642 (d): Design requirements for visual corridors: permitted obstructions: trees in visual corridors.* Pursuant to the WAP, a visual corridor is required that is the

prolongation of Queens Plaza South. This creates a view corridor that falls partially within the Project Site and partially on the city-owned property to the north. A row of 6 shade trees is proposed to be located within the 15-foot–wide area along both sides of the centerline of the visual corridor, within which trees are not permitted.

- *Section 62-673: Lighting – All waterfront public access areas shall provide lighting in accordance with the following requirements.* Section 62-673 requires that all waterfront public access areas provide illumination in light posts of a minimum of 12 feet that are spaced at a maximum of 40 feet apart. The lighting must be located within 5 feet of a circulation path (Section 62-673 (a) ZR).

  The proposed lighting plan, would provide light poles along the circulation path of the Upland Connection. However, the Esplanade would be illuminated by a combination of lighting fixtures instead of 12-foot high light poles. The lights would be integrated into the railing at the water's edge and in bollards and benches. Uplights would be placed beneath the trees in the north and south bosques. The result of the proposed Esplanade lighting plan would conform to the appropriate illumination standards contained within Section 62-673 (b).

- **Certification pursuant to Section 62-711(c) that a site plan conforming to Section 62-80 has been submitted.** Publicly accessible open space would be provided in accordance with Article VI Chapter 2 ("Waterfront Zoning") as modified by the Waterfront Access Plan Q-1, for Northern Hunters Point (Section 62-851 ZR). The WAP designates the Project Site as Parcels 2, 3 and 4. The proposed Visual Corridor, Upland Connection and Esplanade would conform to all requirements within Section 62-80 ZR.

- **Amendment to the City Map for 43rd Avenue between Vernon Boulevard and the East River.** The Applicant proposes to modify the elevation of this mapped but unimproved portion of 43rd Avenue so as to provide for better site design and drainage. The existing mapped elevation at the intersection of Vernon Boulevard and 43rd Avenue would remain unchanged at 12.33 feet. However, the mapped elevation at the foot of 43rd Avenue at the water's edge would be raised from 5.5 feet to 7.5 feet. The modification in elevation will more accurately reflect the actual topography of the street bed, adjacent properties and existing bulkhead.

- **Special Permit by the Board of Standards and Appeals for a Physical Culture or Health Establishment**: A public health club is defined by the Zoning Resolution as a "physical culture or health establishment" and requires a Board of Standards and Appeals special permit pursuant to Section 73-36. There is no operator identified at this time for the health club.

- **New York State Department of Environmental Conservation (NYSDEC): Tidal Wetlands Permit (6NYCRR Part 661):** This permit is needed for construction of a portion of the Esplanade within the regulated tidal wetlands Adjacent Area.

- **NYSDEC Tidal Wetlands Permit, Protection of Waters Permit (6NYCRR Part 608) and US Army Corps of Engineers permits pursuant to Section 10 (Rivers and Harbors Act of 1899) and Section 404 of the Clean Water Act:** These permits are needed to replace the bulkhead along the Project Site's western boundary where the temporary NYPA power generating facility is located and at the end of 43rd Avenue. The permits are required for filling and other work within state regulated tidal wetlands and navigable waters of the United States. It is anticipated that the work will proceed under ACOE Nationwide Permits 3 (Maintenance) and/or 13 (Bank Stabilization).

- **NYSDEC (6NYCRR 602) Long Island Well Permit:** This permit would be needed for dewatering during construction in excess of permit threshold withdrawal rates specified in the regulations.

D. LAND USE, ZONING, AND PUBLIC POLICY

1. Land Use

The Proposed Action would not result in any significant adverse impacts on land use. Instead, the Proposed Action would support the City's efforts to redevelop the Long Island City waterfront, would provide additional housing, open space and public access to the East River, and would support State and City efforts to encourage the growth of the film and television production industry in New York. The proposed mixed-use development would be consistent with the trend toward development of a mix of uses on the Hunters Point waterfront and in the Long Island City area and would help meet the demands for additional housing to serve the growing population in Queens and for Class A office space outside Manhattan.

The Proposed Action would integrate an underutilized portion of the waterfront into the surrounding areas by enlivening the Project Site with a mix of uses consistent with the retail and residential uses being developed along the waterfront south of the Project Site at Queens West and River East. The Esplanade and open space elements included in the Proposed Action would supplement existing open space and park uses found in Queensbridge Park and along the waterfront to the south of the Project Site. New residents and employees introduced by the Proposed Action would have convenient access to nearby public open space, Queens Plaza and inland businesses. Moreover, the open space, commercial and cultural/community facility uses included in the Proposed Action would be accessible to visitors from Queens Plaza, inland areas, and residents of Queensbridge Houses, Queens West and River East.

No significant adverse impacts on the development of industrial uses would result from the Proposed Action since there are numerous industrially zoned parcels available for development in the vicinity of the Project Site. The proposed Long Island City Industrial Business Zone (IBZ) would further protect existing manufacturing and industrial uses located therein from outside development pressures.

2. Zoning

The proposed zoning map amendment would replace the existing M1-4 Light Industrial District on the Project Site with an M1-5/R10 Special Mixed Use District. The proposed special mixed use zoning district would allow uses that are not currently permitted as-of-right. Specifically, the proposed zoning would permit a maximum FAR of 5.0 for commercial and manufacturing uses, and 10.0 for community facility and residential uses compared to the current maximum FARs within the existing M1-4 zoning of 2.0 for manufacturing uses, 6.5 for community facilities, and 2.0 for commercial buildings. The maximum density of the Proposed Action would be capped at 7.9 FAR, approximately 2,100,000 zsf, pursuant to the Restrictive Declaration that would be executed and recorded in connection with the Special Permit pursuant to Section 63-736 ZR, as described above, and as required by Waterfront Zoning. Overall FAR for the Project Site under the proposed rezoning would be 7.9. The proposed rezoning would allow for as-of-right buildings of a maximum height of 350 feet compared to the maximum height of 110 feet allowed under the current M1-4 zoning designation.

The proposed rezoning would not adversely affect the availability of land in Long Island City appropriately zoned for manufacturing uses, since sufficient land would continue to be zoned for manufacturing uses in the Secondary Study Area to meet foreseeable needs. The remaining land in the Study Area and elsewhere in Long Island City will be within the new Long Island City IBZ. The City has established a new Office of Industrial and Manufacturing Businesses dedicated to supporting

and stimulating the industrial and manufacturing job base within this IBZ. This new designation will guide development of the approximately 900-acre area within the IBZ unaffected by the Proposed Action.

The proposed zoning changes would recognize the ongoing shift away from the industrial and manufacturing uses that once dominated the area to a broader range of uses. Overall, the proposed zoning would complement the existing mixed use districts mapped in Queens Plaza and Hunters Point and support the City's long-term goals to encourage high-density mixed development on the waterfront as reflected by the Queens West and River East projects south of the Project Site.

3. Public Policy

The Proposed Action would be consistent with City policies regarding waterfront uses, housing, industrial retention, and the development and strengthening of the City's film and television industry.

Silvercup West would redevelop an underutilized section of the Northern Hunters Point waterfront, consistent with the policies included in the *Citywide Comprehensive Waterfront Plan: Reclaiming the City's Edge* (1992), the *Northern Hunters Point Study* (1991), and the *Plan for the Queens Waterfront: A Framework for Development* (1993), and the NYCDCP *City of New York Strategic Plan* (Summer 2004), particularly those related to waterfront access. The *Plan for the Queens Waterfront* specifically calls for redevelopment of the northern Hunters Point Waterfront with non-industrial uses, and identifies the Project Site as a location for open space and residential uses. View corridors would be realized by the Proposed Action, consistent with plans and policies included in the *Citywide Comprehensive Waterfront Plan.*

The Proposed Project would provide new housing to meet the needs of New York City's growing population, consistent with the NYCDCP *Strategic Plan* (2005) and complementary to other City actions intended to increase the housing supply at all price levels, including at locations well-served by public transit and other existing infrastructure. In so doing, the Proposed Action would be consistent with City actions that allowed for the construction of high-density development along the East River waterfront in Queens, including Queens West and River East.

The Proposed Action would result in a substantial amount of new cultural/community facility space, and support the City's goal of enhancing the arts and cultural community in Queens. The new film and television production facilities would be consistent with the City's efforts to preserve and expand this key sector of the local economy. By so doing, it would preserve and grow thousands of skilled technical and related blue collar support jobs, both on-site and in the immediate area, particularly in the new Long Island City IBZ.

4. Variations

The Variations to the Preferred Development Program would include a similar range of uses, would be constructed within the same building envelope and would require the same rezoning actions as the Preferred Development Program. Like the Preferred Development Program, the Variations would, therefore, result in no significant adverse impacts to land use or zoning and would be consistent with public policies.

E. SOCIOECONOMIC CONDITIONS

The Proposed Action would not result in any significant adverse socioeconomic impacts as defined in the *CEQR Technical Manual*. Instead, it would result in economic benefits to the Borough of Queens

and to New York City as a whole, by introducing new residents, new commercial and retail space, new film and television production space, and other uses to the Project Site. Without the Proposed Action, changes to socioeconomic conditions in Hunters Point would occur as the result of other residential, office/commercial and mixed use projects currently approved for this area. The Proposed Action would contribute to this ongoing trend toward mixed-use development in Hunters Point.

1. Potential Direct Residential, Business and Institutional Displacement

There are no permanent residential, business or institutional uses on the Project Site nor are any anticipated by 2009. Therefore, no direct displacement of residents, businesses or institutions would result from the Proposed Action. Based on these findings, the Proposed Action would not result in significant adverse direct residential, business or institutional displacement impacts.

2. Potential Indirect Residential Displacement

As described in the *CEQR Technical Manual*, households that are most vulnerable to indirect displacement include low-income households (i.e., households with a median income below the median income of the Borough of Queens as a whole) who live in dwellings not afforded the protections of rent control or rent stabilization. Within the Socioeconomics Study Area, the census tracts containing the most low-income residents are not the ones with the majority of unprotected rental housing, largely because many of the Study Area's low income residents live in the Queensbridge Houses, where rent levels are protected by programs administered by the New York City Housing Authority (NYCHA). It is projected that the socioeconomic profile of the new residents introduced as a result of the Proposed Action would not be substantially different from that of River East, Queens West, and other major market-rate residential development projects along the Long Island City waterfront. Likewise, the cost of the new market-rate housing that would be introduced with the Proposed Action would be comparable to the cost of other market-rate housing in the area, including the cost of new housing to be developed as part of the River East development project. Overall, the population vulnerable to displacement currently residing in the Study Area would be no more at risk for indirect displacement with the Proposed Action than without the Proposed Action, given observed trends in the increase in property values and rents in the area compared to the total inventory of dwelling units in the area, in which low-income population currently reside. Moreover, the most costly units being developed in the area would be along the waterfront, not in the census tracts inhabited by residents potentially vulnerable to displacement.

3. Potential Adverse Effects on Specific Industries

The Proposed Action would significantly benefit the television and movie production industry. Film and television production studios are located in Long Island City and nearby Astoria, Queens. These studios have made Long Island City a center for this industry and related support industries, including specialty contractors, set construction trades, carpenters, electricians, and other trades. By adding approximately 350,000 gsf of film and television production studio space, the Proposed Action would attract more business to New York City and enhance the competitiveness of the industry.

The number of manufacturing uses in New York City has declined as part of a broad trend since the 1950s, with no noticeable effect attributable to such localized actions as the Hunters Point and Long Island City rezonings, or the presence of new residential and mixed-use waterfront development. Industrial space in a variety of sizes continues to be available in Long Island City. The area contains a wide variety of businesses, and is not the primary home of any singularly important industry or category of businesses, with the possible exception of film and TV production, which would be

benefited by the Proposed Action. In addition, the imminent designation of the Long Island City IBZ will further protect the area's manufacturing businesses from displacement. The rezoning of approximately 6.0 acres of the over 1,200 acres of land currently zoned in the general area for manufacturing uses in the Long Island City area (Zip Code Areas 11101 and 11106) would leave a substantial amount of land in the Study Area zoned for manufacturing uses and, thus, would have no significant adverse impacts resulting from the displacement of any specific business.

4. Potential Indirect Business or Institutional Displacement

Development of the Proposed Action, in which underutilized property would be revitalized, would not constitute displace a use or property that "blights" the area. Instead, the numerous and varied businesses in the Study Area constitute an active and robust commercial center, which has no appearance of being vulnerable to displacement resulting from the new residential, commercial and retail uses that would be part of the Proposed Action. Introducing new residential and commercial uses, along with additional film industry uses characteristic of the area, would not significantly affect neighboring uses already in place. Likewise, development of the Project Site would not displace any uses that support area businesses or institutions in any way.

Precedent within the Long Island City area, particularly development and operation of the Citibank building at Court Square, demonstrates that a single large development does not have far-reaching adverse effects on businesses or institutions over a wide area of Long Island City or Queens. The vicinity of the project Site exhibits a vibrant business sector, which appears in no danger of suffering significant displacement as the result of new residential and commercial development on the Project Site. Moreover, businesses within the most likely pedestrian corridor to the Project Site from the Queens Plaza subway station are, for the most part, housed in spaces unsuited for conversion to retail uses. Thus, while the Proposed Action, represents a substantial change in land use and activity at the Project Site, secondary effects on other businesses and industries would be limited. The Proposed Action, which would add a substantial amount of available office space to the area, would not increase property values to such an extent that existing businesses would be priced out of the area to a degree beyond that anticipated without the Proposed Action, given the large amount of space in Long Island City appropriately zoned for manufacturing uses.

The Proposed Action would include development of retail uses and uses supportive of the film and television production industry. New production studios would result in increases in employment in skilled trades and in light industrial-type support businesses (e.g., materials vendors, catering, and other services) in the Long Island City industrial area, although the increase in the number of film production industry workers would not be so large as to alter the character of this already strong business sector. Further, the policies and programs anticipated for the proposed Long Island City IBZ will encourage retention of viable industrial uses in the area.

The Proposed Action would not indirectly affect the socioeconomic conditions of the surrounding industrial community south and east of the Project Site. Therefore, it would not result in indirect displacement of any existing customer base that supports surrounding businesses. It is equally unlikely that the Proposed Action would result in a change in socioeconomic conditions in the area north of the Queensboro Bridge, which is dominated by public recreation facilities controlled by the New York City Department of Parks and Recreation (NYCDPR) and a public housing complex controlled by the NYCHA.

5. Variations

As with the Preferred Development Program, none of the Variations would directly displace any existing or planned residential, commercial, or institutional uses on the Project Site or elsewhere in Long Island City. Also, none of the Variations would be anticipated to result in the indirect displacement of a residential population vulnerable to displacement, since the overwhelming portion of households with a median income less than that of the Borough of Queens as a whole are living in buildings protected by rent control or rent stabilization, including the low-income households residing in the Queensbridge Houses. In addition, none of the Variations would result in significant adverse effects on any singularly important industry or category of businesses in the Study Area, since the proposed uses would not be in competition with any particular industry or category of businesses by the Variations. Instead, it is anticipated that the Variations would help strengthen overall business conditions in the Study Area. Similarly, like with the Preferred Development Program, none of the Variations would have the potential to result in significant level of indirect displacement of existing businesses in the Study Area.

F. NEIGHBORHOOD CHARACTER

The Proposed Action would not result in any significant adverse impacts to neighborhood character. Identified traffic, transit, and pedestrian impacts would be fully mitigated through standard engineering practices and would not result in any significant adverse impacts to neighborhood character. Likewise, other analyses indicate that no significant adverse impacts would result to attributes that define neighborhood character, including land use, socioeconomic conditions, historic resources, urban design, visual resources, or noise. Instead, as summarized below, the Proposed Action would result in benefits to most of these attributes.

The Proposed Action would eliminate the DSNY salt storage pile, would introduce new elements to improve the composition of land uses and built forms south of the Queensboro Bridge, and would provide new employment and recreational opportunities for area residents. The Project would improve access to the waterfront and support efforts to provide a continuous promenade along the East River. There would be an increase in workers and residents that would enliven the area. Its new public open spaces, public waterfront access, and potential for accessibility to Queensbridge Park would further serve to increase activity levels. Silvercup West would also introduce new space for cultural facilities and new retail shops to be enjoyed by the new and existing residents of Long Island City.

The mix of residential, commercial, studio, and cultural/community facility uses, and new public open space that would be introduced by the Proposed Action, would help to integrate the Project Site into the surrounding Long Island City community. Consistent with recent development trends in the area, the Proposed Action would improve underutilized, formerly industrial property along the waterfront and not result in any significant adverse land use or zoning impacts. A zoning change and other related actions, included as part of the Proposed Action, would allow for the redevelopment of this dormant and underutilized waterfront location, and would be supportive of the City's long-term vision for the East River waterfront as a vital mixed use community.

Each of the three Variations, like the Preferred Development Program, would provide for the expansion of Silvercup Studios, part of the economic base of the Study Area. Each would enliven the waterfront site with new uses and open space. Though different from the Preferred Development Program in the number of residents and the programming of commercial and studio space, the Variations would result in similarly positive improvements to the neighborhood character of the area.

As with the Preferred Development Program, the Variations would not result in any significant adverse impacts to neighborhood character.

G. COMMUNITY FACILITIES AND SERVICES

The Proposed Action would not physically alter or displace any community facility, and, as a consequence, would not result in any direct significant adverse impacts to community facilities. As described below, the Proposed Action would also not result in any significant adverse indirect impacts on community facilities and services.

1. Public Schools

The Proposed Action is not expected to cause significant adverse impacts for CSD 30 School Planning Zone 3. The Proposed Action would introduce approximately 1,000 market-rate residential units, in which would reside approximately 178 elementary school pupils, 94 middle school students, and 42 high school students. These 272 additional middle and elementary school students would represent an approximately one percent increase in the student population in Community School District (CSD) 30 over Future Conditions without the Proposed Action. The capacity of 290 elementary school seats available in the one-mile Study Area under Future Conditions without the Proposed Action comfortably exceeds the Project-generated demand for 178 elementary school seats. Similarly, at the school planning zone level projected enrollment would be met by existing capacity.

Intermediate schools within the one-mile study area would be over capacity by 77 seats. However, the deficit of 77 seats for the Study Area would be offset by the excess capacity in the school planning zone level or "region" within CSD 30 in which it is located. At the School Planning Zone level, projected enrollment would be met by the existing capacity.

2. Libraries

According to the *CEQR Technical Manual*, potential impacts on libraries may result if a project introduces a large resident population (i.e., greater than a five percent increase in the housing units served, or 621 housing units per branch). Although the number of housing units will increase more than five percent, under the proposed action, catchment area (within ¾ mile of a library) population will increase by only 3 percent. Also, while the number of libraries within ¾ mile of the Project Site will have been reduced prior to the Proposed Action, the service will have been improved with a new library providing a larger collection and superior services. Therefore, the Proposed Action would not result in any significant adverse impacts on libraries.

3. Day Care Facilities and Fire and Police Services

No significant adverse impacts on hospitals or day care centers would result from the Proposed Action, since the Proposed Action would not introduce a large low-income population or a substantial number of subsidized units. Because there would be no direct displacement of fire or police facilities, there would be no significant adverse impacts on these services as a result of the Proposed Action.

4. Variations

Variation 2, which would introduce the same number of residential units as the Preferred Development Program, would likewise result in no significant adverse impacts to public schools, libraries, or community facilities in general. Variations 1 and 3, which would introduce more residential units and school age children than the Preferred Development Program, would also be

accommodated by future public school capacity and library circulation, and like the Preferred Development Program, would not result in any significant adverse impacts to community facilities.

H. OPEN SPACE

1. Preferred Development Program

The Proposed Action would not result in a significant adverse impact to open space resources. The action would result in a decrease in the open space ratio of 2.38 per 1,000 residents in the future conditions without the Proposed Action to 2.08 with the Proposed Action, a 13 percent reduction. The active open space ratio would decrease by approximately 17 percent from 1.30 in the future without the Proposed Action to 1.08. The passive open space ration would decrease by approximately 6 percent from 1.08 to 1.01 in the future with the Proposed Action. Also, the Proposed Action would decrease the active to passive open space ratio from 55 percent active and 45 percent passive open space to 52 percent active and 48 percent passive. This proportion would continue not to meet the optimal proportion of 80 percent active to 20 percent passive open space. However, the open space ratios for both the Residential and Employment Study Areas with the Proposed Action would remain above the citywide median community district open space ratio of 1.5 acres per 1,000 residents, though, like the Future without the Proposed Action, the amount of open space would not meet the City's planning goal of 2.5 acres per 1,000 residents. The residential population of the Residential Study Area would increase by 2,700 to 15,560 residents, while the worker population would increase to 6,638 employees. The total amount of open space in the Residential Study Area would increase by approximately 0.94 acres to 32.42 acres, resulting in an open space ratio of 2.38 for the Residential Study Area, including 1.30 acres of active open space per 1,000 residents and 1.08 acres of passive open space per 1,000 residents. Like the future conditions without the Proposed Action, these ratios would not meet the City's goal of a proportion of 80 percent active open space to 20 percent passive open space.

The total amount of passive open space within the Employment Study Area would also increase by approximately 0.94 acres to approximately 13.62 acres in the Employment Study Area. The resultant open space ratio for the Employment Study Area would be 2.05 acres per 1,000 workers. This ratio would be significantly higher than the 0.15 acres per 1,000 workers which typically satisfies worker demand.

Silvercup West and the opening of 43rd Avenue west of Vernon Boulevard would provide waterfront access that would otherwise be unavailable at the Project Site. Thus, Silvercup West would continue patterns of open space development and waterfront access provision, in keeping with other recent developments along the water to the south. As such, the Proposed Action would improve the network of open space resources in Long Island City overall.

2. Variations

Because Variation 2 would introduce the same number of residents as the Preferred Development Program, it likewise would result in no significant adverse impacts to open space in the Residential Study Area. Variations 1 and 3 also would not result in any significant adverse open space impacts. However, these Variations would introduce 1,769 more residents than the Preferred Development Program, thus creating a residential population of 17,329. The resultant open space ratio would decrease from 2.38 in the future without the Proposed Action to 1.87 acres per 1,000 residents, a 21 percent decrease. These Variations would result in a reduction of the ratio of active open space acreage per 1,000 residents from 1.30 in the future without the Proposed Action to 0.97, a 25 percent

decrease, and would decrease the passive open space ratio from 1.08 to 0.75, a 31 percent decrease. These decreases would be greater than those resulting from the Preferred Development Program and would be nearer the City-wide mean open space ratio of 1.50. However, the Variations, like the Preferred Development Program, would add new high-quality open space to supplement the existing resources in the Residential and Employment Study areas which are currently, for the most part, only moderately used. Therefore, Variations 1 and 3 would result in no significant adverse impacts to open space resources in the Residential Study Area. Overall, no significant adverse impacts to open space resources in the Residential Study Area would result from the Preferred Development Program or the Variations.

I. SHADOWS

Under CEQR, a significant adverse shadow impact is considered to occur when the shadow from a proposed project falls on an important natural resource that would be significantly adversely affected by increased shading, or when the shadow falls on publicly accessible open space, a historic landscape or other historic resource, the significance of which is dependent on sunlight. Although shadows from the Project would fall on limited portions of the East River and Roosevelt Island during part of the morning during most of the year, this would not result in a significant adverse impact on the East River or any sun-dependent significant resource on the island. Even in winter, when shadows are longest, the area of the river in the shadow path would remain in sunlight most of the day. Sunlight-dependent organisms moving through the water would be unaffected by the shadow, since the East River flows swiftly, and the shadow cast by the Proposed Action moves and would not be long lasting in its effect at any one location. Accordingly, the Proposed Action would not have significant adverse impacts on aquatic resources.

Potential impacts of new shadows cast by the Proposed Action on public open spaces in Queens are limited to Project-related shadows on Queensbridge Park (including Vernon Playground) and Queensbridge Baby Park, and open space with Queensbridge Houses which are located north of the Queensboro Bridge. These areas are currently partially in shadow from the Queensboro Bridge and other adjacent structures. The incremental increases in shading from the Proposed Action would be limited in time and extent and would not affect the usability or quality of these resources.

A small portion of Roosevelt Island's southeastern and southwestern waterfront promenade (estimated at less than 1 percent of the entire pedestrian pathway system) would receive morning shadows from the Proposed Action. The small southeastern portion of the promenade would receive morning shadows for less than two hours during the winter, spring, and fall, and the small southwestern portion of the promenade would receive morning shadows for less than 15 minutes during the winter, only. The four outdoor half basketball courts at the Sportspark would be in and out of shadow cast by the Proposed Action for less than 1½ hours in the morning during the winter only, when the courts would be least utilized. Because visitors to the promenade usually walk along it rather than staying in one place, and the vast majority of its length would remain unaffected, and because the basketball courts would be affected only in cold winter months, shadows cast by the Proposed Action on these open spaces would not affect the usability or quality of the resources. Therefore, the Proposed Action would result in no significant adverse impacts on these Roosevelt Island open space resources as a result of new shadows.

The Proposed Action would also cast shadows on the Queensboro Bridge and the New York Architectural Company Terra Cotta Company building, both of which are significant historic resources. However, the historic significance of these resources is not dependent on sunlight. Therefore, the Proposed Action would not result in any significant adverse impacts due to shadows.

The Variations, which would be constructed in the same building envelope as the Preferred Development Program, and cast the same shadows, would likewise not result in any significant adverse shadow impacts.

J. HISTORIC RESOURCES

The largely vacant Project Site houses the two and one-half story former New York Architectural Terra Cotta Company office building, and is immediately adjacent to the Queensboro Bridge. Both are historic resources listed on the National Register of Historic Buildings. There are also several other historic properties (designated and eligible for designation on the National and State Registers of Historic Buildings) within ½ mile of the Project Site. Since the Project would require in-ground construction, there is the potential that it would disturb on-site archaeological resources. However, as summarized below, the results of the analysis indicate that the Proposed Action would not result in any significant adverse impacts on any important historic or archaeological resource.

1. New York Architectural Terra Cotta Company Building

The introduction of the Project would change the existing physical and visual context of the New York Architectural Terra Cotta Company building, which is currently located on the otherwise vacant and unimproved northern portion of the Project Site. The Project would introduce a complex structure of varying heights, the tallest elements of which would be set the furthest away from the New York Architectural Terra Cotta Company building. The New York Architectural Terra Cotta Company building would be buffered from the full height of the Project towers by an L-shaped mid-rise studio complex 114 to 140 feet tall on the west and south of the building. The proposed mid-rise building set closest to the New York Architectural Terra Cotta Company building would be reminiscent of the large (85 feet tall) main factory building that originally dominated the factory complex, and would accentuate the historic building within the new development.

As a result of the Project's high-rise elements, shadows would be cast on the west façade of the New York Architectural Terra Cotta Company building during the afternoon time periods. However, the historical significance of the New York Architectural Terra Cotta Company building is not dependent on sunlight. Consequently, these incremental shadows would not result in any significant adverse impacts. Landscaping on the Project Site would include terra cotta-inspired paving designed to enhance visitors' experience and heighten their appreciation of the design details of the historic building.

2. Queensboro Bridge

As with the New York Architectural Terra Cotta Company building, there would be no significant adverse impacts to the historic Queensboro Bridge as a result of new shadows cast by the Proposed Action, because the historic significance and integrity of the Queensboro Bridge is not sunlight dependent.

Like the Manhattan side of the East River, which features high-rise structures on all sides of the Queensboro Bridge, the Proposed Action would introduce tall towers near the eastern end of the 354-foot-tall Queensboro Bridge in Queens. The nearest Project tower would be located about 100 feet south of the Queensboro Bridge, a distance comparable to the distance between the western end of the Queensboro Bridge and the high-rise structures in Manhattan.

Echoing the arching profile of the bridge itself, the proposed tower heights would rise in a graduated fashion: the tallest elements would be sited further east (away from the waterfront) and at the

southern end of the site, to minimize encroachment on views of the Queensboro Bridge and to maximize visibility of its easternmost tower from the river and vantage points on the waterfront. The lowest tower (stepping up from 429 feet tall on the western edge to 537.6 feet tall on the eastern edge) would be located 100 feet away from the bridge, while the tallest tower (600 feet tall) would be located 500 feet away from the bridge on the southern portion of the Project Site. The proposed open spaces, including plazas, the waterfront Esplanade, and the roof-top terrace, would all provide unique views of the bridge that do not exist today. Views of the bridge from Queensbridge Park would remain unobstructed. However, the new glass towers of the Proposed Action would be visible in the background, behind the bridge. Additionally, the Applicant intends to include visible x-bracing in the design of the proposed towers to complement the structural components of the bridge.

3. Construction Protection

Given the proximity of the Project to the New York Architectural Terra Cotta Company building and the Queensboro Bridge, a construction protection plan will be devised to minimize potential damage from falling objects, ground vibration, changes in the water table, and other construction activities that could adversely affect these two historic resources. Construction of the Project would be required to meet New York City Department of Buildings requirements. The construction protection plan would describe in detail the site preparation procedures that would occur on the Project Site, provide documentation on the existing foundations and structural conditions of the two historic resources, and identify maximum vibration tolerances. Slurry or secant wall construction would be used to construct foundations. Pile driving, if necessary, would be accompanied by vibration monitoring in the New York Architectural Terra Cotta Company building as a means of preventing impacts to this structure. The lifting of construction materials by cranes over the New York Architectural Terra Cotta Company building would be prohibited, eliminating the possibility of dropping heavy construction material onto the structure.

4. Other Historic Properties

All other historic resources inventoried in the Historic Resources Study Area are more than ¼ mile away (including several on Roosevelt Island). At most, the Proposed Action would be visible in the background of views in their vicinity. In no case would the Project cast new shadows on any important historic resource other than the New York Architectural Terra Cotta Company building and the Queensboro Bridge.

5. Archaeological Resources

Initial documentary research has revealed that there is potential that archaeological deposits related to the New York Architectural Terra Cotta Company operations remain on the Project Site. Consequently, the New York State Historic Preservation Officer (SHPO) has determined that "Stage 1B" archaeological testing is warranted on lots 13, 15, and 20, comprising the northern portion of the Project Site. The Stage 1B testing program will be conducted following completion of the EIS. The results of the Stage 1B testing will dictate whether further archaeological investigations will be necessary. Ongoing consultation with the SHPO regarding any evidence of potentially significant resources will ensure that appropriate mitigation procedures, if necessary, would be implemented prior to construction. Stage 1B investigation of the southern portion of the Project Site determined there was no likelihood of archaeological artifacts remaining there. Therefore, the Proposed Action would result in no significant adverse impacts to archaeological resources.

6. Variations

The three Variations would be constructed within the same footprint and building envelope and use the same construction techniques as the Preferred Development Program and, therefore, would likewise not result in significant adverse impacts to historic (architectural) or archaeological resources. As with the Preferred Development Program, a construction plan would be developed to avoid potential damage to the New York Architectural Terra Cotta Company building and the Queensboro Bridge.

K. TRAFFIC AND PARKING

1. Traffic

The project vicinity experiences heavy travel demands by daily commuters working and residing in Long Island City and commuters traveling to Manhattan. However, many sections of the local street network that serve the Project Site have substantial amounts of unused capacity. These streets include Vernon Boulevard, Queens Plaza South and 43rd Avenue, all of which lead directly to the Project Site. The traffic and parking analyses cover a large study area encompassing 30 existing intersections and two new intersections created for access to and from the project's parking garage.

A summary of the projected levels of service (LOS) and significant adverse impacts appears in Table ES-3 (the overall intersection LOS is a weighted average of all of the individual traffic movements):

TABLE ES-3: 2009 NO BUILD VERSUS BUILD WEEKDAY TRAFFIC LOS SUMMARY

	No Build			Build		
Signalized Intersections	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Overall LOS A/B	6	9	8	4	8	5
Overall LOS C	5	7	4	6	7	7
Overall LOS D	6	2	8	6	3	8
Overall LOS E/F	7	6	4	8	6	4
Number of Movements at LOS E or F	17	9	16	19	10	18
Number of Significantly Impacted Intersections	-	-	-	8	6	12
Unsignalized Intersections	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Overall LOS A/B	4	5	2	3	2	1
Overall LOS C	1	0	3	1	2	1
Overall LOS D	0	0	0	0	0	1
Overall LOS E/F	1	1	1	4	4	5
Number of Movements at LOS E or F	2	2	2	6	5	9
Number of Significantly Impacted Intersections	-	-	-	5	4	6

- In the weekday AM peak hour, eight signalized intersections would operate at overall unacceptable LOS E or F in the Build condition as opposed to seven in the No Build condition. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays. Nineteen specific traffic movements (e.g., left turns from one street to another, through traffic on one street passing through the intersection, etc.) out of approximately 101 total traffic movements analyzed would operate at LOS E or F conditions, and eight intersections would be significantly impacted.

- In the weekday Midday peak hour, six signalized intersections would operate at overall LOS E or F, while three would operate at overall LOS D in the Build condition as compared to six LOS E/F conditions and two LOS D conditions in the No Build scenario. Ten traffic movements would operate at LOS E or F, and six intersections would be significantly impacted.
- In the weekday PM peak hour, four signalized intersections would operate at overall LOS E or F in the Build condition as opposed to four in the No Build condition. Eight signalized intersections would operate at overall LOS D and 18 traffic movements would operate at LOS E or F. Twelve intersections would be significantly impacted.
- In the Saturday Midday peak hour, three signalized intersections would operate at overall LOS E or F, and two would continue to operate at overall LOS D in the Build condition. Four traffic movements would operate at LOS E or F and four intersections would be significantly impacted.
- Five of the eight unsignalized intersections analyzed (including the two "new" intersections at the Project Site's access driveways along Vernon Boulevard) would operate at overall LOS E or F during at least one of the peak hours analyzed. Significant impacts would occur at five, four, six and two intersections during the weekday AM, Midday, PM, and Saturday Midday peak hours, respectively.

TABLE ES-4: 2009 NO BUILD VERSUS BUILD SATURDAY MIDDAY TRAFFIC LOS SUMMARY

Signalized Intersections	No Build	Build
	Saturday MD	**Saturday MD**
Overall LOS A/B	8	8
Overall LOS C	1	1
Overall LOS D	2	2
Overall LOS E/F	3	3
Number of Movements at LOS E or F	4	4
Number of Significantly Impacted Intersections	-	4
Unsignalized Intersections	**Saturday MD**	**Saturday MD**
Overall LOS A/B	5	4
Overall LOS C	0	1
Overall LOS D	0	0
Overall LOS E/F	0	2
Number of Movements at LOS E or F	0	4
Number of Significantly Impacted Intersections	-	2

Detailed evaluation of mitigation measures indicates that all significant adverse traffic impacts would be fully mitigated by standard traffic engineering improvements such as installation of traffic signals, signal timing and phasing modifications, parking prohibitions, and lane restriping. These measures represent the standard range of traffic capacity improvements that have been proposed and implemented to mitigate anticipated traffic impacts for numerous projects in the City. Of the 32 locations analyzed during the weekday peak hours (signalized and unsignalized), significant adverse impacts would occur at 13 intersections during the AM peak hour, 10 intersections during the Midday peak hour, and 18 intersections during the PM peak hour. Of the 21 intersections analyzed during the Saturday Midday peak hour, significant adverse impacts would occur at 6 intersections (Table ES-5).

TABLE ES-5: SIGNIFICANT TRAFFIC IMPACT MITIGATION SUMMARY

Intersections	AM	Midday	PM	Saturday Midday
Number of Intersections Not Significantly Impacted	19	21	14	15
Number of Significantly Impacted Intersections	13	11	18	6

2. Parking

The analysis of parking conditions indicates that sufficient parking would be provided to accommodate the proposed project's expected parking demands, and that the Proposed Action would not result in any significant adverse parking impacts.

3. Variations

Each of the Variations would generate approximately the same number of vehicle trips or less, compared to the Preferred Development Program, during all peak travel periods. One of the Variations would result in a significant adverse traffic impact during the weekday AM peak hour at the location of 21st Street and 40th Avenue, which would be mitigated with the application of signal timing modifications.

L. TRANSIT AND PEDESTRIANS

1. Preferred Development Program

The Proposed Action would generate a large volume of public transit and pedestrian trips. The DEIS examines the potential impact of these trips on pedestrian and public transit services and facilities in the study area. The results of these analyses indicate that the Proposed Action would result in one significant adverse impact on the Q103 bus during the AM and PM peak hours. This impact would be mitigated by the addition of two northbound buses during the AM peak hour and one southbound bus during the PM peak hour. It is the general policy of MTA Bus to provide additional bus service where demand warrants.

The results of the analyses also indicate that the Proposed Action would result in a significant adverse pedestrian impact at the pedestrian crossing locations across Vernon Boulevard at Queens Plaza South and 43rd Avenue, both of which are proximate to the Project Site. Installing traffic signals at both intersections would mitigate both significant adverse traffic and pedestrian impacts at this location.

2. Variations

Each of the Variations would generate approximately the same number of pedestrian and transit trips or less compared to the Preferred Development Program during all peak travel periods. Consequently, like the Preferred Development Program, none of the Variations should result in any significant adverse transit or pedestrian impacts after application of the same mitigation measures as with the Preferred Development Program.

M. AIR QUALITY

1. Preferred Development Program

This DEIS analyzes the potential for the Proposed Action to result in significant adverse air quality impacts due to emissions from traffic generated by the Proposed Action; emissions related to heating, ventilation and air conditioning (HVAC) created by the Proposed Action; emissions from the proposed parking facility; and impacts of existing mobile and stationary sources on proposed residences. The cumulative impacts of all of these sources are also analyzed.

These air quality analyses were conducted in accordance with the procedures outlined in the *CEQR Technical Manual* to determine whether the Proposed Action would result in violations of the National Ambient Air Quality Standards (NAAQS) or health-related guideline values. Concerning mobile source-related emissions, the results of these analyses indicate that the Proposed Action would not cause any exceedance of the NAAQS for carbon monoxide (CO) or the New York City Department of Environmental Protection (NYCDEP) "de minimis" criteria for CO, nor would it cause any increase in fine particulate matter ($PM_{2.5}$) greater than the NYCDEP 24-hour or annual interim "Significant Threshold Values" (STVs) for $PM_{2.5}$. Accordingly, the Proposed Action would not have any significant adverse air quality impacts associated with mobile source emissions.

A summary of the results of the CO analysis for the Future with the Proposed Action in 2009 is provided in Table ES-6. The values shown are the maximum CO concentration increments predicted near each analysis site with the Proposed Action.

TABLE ES-6: FUTURE WITH THE PROPOSED ACTION (2009) – MAXIMUM 8-HOUR CO LEVELS

Site #	Analysis Site	No Build 8-hr CO Level (ppm)	Build 8-hr CO Level (ppm)	Maximum Time Period
1	Vernon Blvd/43rd Ave	2.91	2.91	PM
2	Vernon Blvd/44th Drive	2.81	2.81	PM
3	Queens Blvd/Northern Blvd/Jackson Ave	3.77	3.77	PM
4	Queens Blvd/Thomson Ave/Van Dam Street	3.97	4.30	MD
		4.19	4.19	PM
5	Van Dam Street/Borden Ave/Queens Midtown Expwy Service Rd	4.42	4.42	PM
6	Jackson Ave/49th Ave/11th Street	3.46	3.49	AM
7	Vernon Boulevard and 41st Avenue	3.14	3.20	AM
		3.07	3.31	PM

Notes:
1. Maximum results of all time periods analyzed.
2. All values include appropriate background concentration.
3. 8-hour CO background concentration = 2.3 ppm

Time Periods:
AM – AM peak traffic period (8-9 AM)
MD – Midday peak traffic period (12-1 PM)
PM – PM peak traffic period (5-6 PM)

According to this analysis, CO levels would not exceed the NAAQS or the NYCDEP CO "de minimis" values at any analysis site, indicating that the Proposed Action would not cause any significant adverse CO emissions impacts.

In addition, in accordance with NYCDEP interim guidance procedures, a $PM_{2.5}$ analysis was conducted. The intersection with the highest estimated number of project-generated vehicles during any peak traffic hour, Vernon Boulevard and 43rd Avenue (Analysis Site #1), was selected as the "worst-case" location to determine incremental $PM_{2.5}$ 24-hour and annual impacts. The maximum predicted annual and 24-hour concentrations, shown in Table ES-7, predicted near this intersection are below NYCDEP's annual and 24-hour STVs of 0.1 and 5 $\mu g/m^3$, respectively. The results of this analysis indicate that the Proposed Action would not cause increases in concentrations above the 24-hour and annual $PM_{2.5}$ STVs at any of the analysis sites.

TABLE ES-7: FUTURE WITH THE PROPOSED ACTION (2009) – MAXIMUM $PM_{2.5}$ INCREMENTAL IMPACTS ($\mu G/M^3$)

Site #	Analysis Site	24-hour Increment	Annual Increment	Significant Threshold Value
1	Vernon Blvd/43rd Ave	3.2	--	5
		--	0.022	0.1

Based on the results of the mobile source analysis, emissions associated with increased traffic and changes in traffic patterns as a result of the Proposed Action would not cause any significant adverse air quality impacts.

Concerning stationary source-related emissions, the results of the analyses indicate that the Proposed Action would not result in significant adverse air quality impacts at residential uses associated with the Proposed Action due to emissions from the Project's HVAC system, or from emissions from heating systems from nearby existing and planned developments.

The analyses also demonstrate that receptors at the proposed Project would not experience any significant adverse impacts from nearby industrial sources, or from emissions from the Ravenswood power plant or Queensboro Bridge, both of which are located north of the Project Site. Additional detailed assessments indicate that emissions associated with the proposed parking garage included as part of the Proposed Action would not cause any exceedance of the NAAQS at either an adjacent sidewalk receptor or at receptors located at operable windows of the proposed residential towers, and therefore, there would be no significant adverse impacts to air quality levels at these locations.

A cumulative analysis, incorporating emissions from the garage exhaust, mobile source emissions generated by the traffic at the nearby intersection, mobile source emissions from the Queensboro Bridge, emissions from the HVAC system, and emissions from the Ravenswood power plant, indicates that these cumulative emissions would not result in any exceedances of the NAAQS and, therefore, would not result in a significant adverse impact on air quality.

2. Variations

Analyses also indicate that emissions associated with project-related mobile source and HVAC emissions, air toxic releases from nearby industrial facilities, the proposed parking garage, and the Queensboro Bridge traffic, either separately or cumulatively, under the three Variations would not

cause any significant adverse air quality impacts, since the impacts associated with these emissions sources would be essentially the same as those identified for the Preferred Development Program.

N. NOISE

1. Preferred Development Program

This FEIS assesses the potential for the Proposed Action to significantly increase noise levels in the vicinity of the Project Site by introducing new stationary noise sources and by changing existing traffic characteristics. In addition, the evaluation considers the potential effect of introducing new noise-sensitive land uses into an area potentially affected by noise from nearby manufacturing uses and associated truck traffic. Since the Proposed Action would include the establishment of high rise residential and office towers near the Queensboro Bridge, the potential for traffic noise from bridge decks to significantly affect interior noise levels at elevated exposed areas of the towers was also evaluated.

The potential for the project to result in significant adverse noise impacts is assessed based on changes in noise levels and on noise exposure levels outlined in the *CEQR Technical Manual*. The effects of the proposed HVAC system are evaluated based on New York City building and noise code requirements that would apply to the Project.

Noise levels at residential land uses that would be introduced as part of the Proposed Project would be in the "Marginally Acceptable" category, and would not require more than standard window/wall attenuation to achieve acceptable interior noise levels of 45 dBA. The maximum future noise level at the proposed commercial development (which would be residential in Variation 1) would be 76.7 dBA (L_{10}), which falls into a "Marginally Unacceptable" noise exposure category. Since Special Mixed Use Districts require 35 dBA window/wall attenuation for dwelling units (123-32 ZRNYC), no additional window/wall attenuation would need to be provided to achieve acceptable noise levels of less than 45 dBA for the residential portions of the project. Because the Special Mix-Use District noise attenuation requirements apply only to residential uses, as a supplement to the regulations, an (E) Designation for noise will be mapped on the Project Site (Block 477, Lots, 13, 15, 20, and 24) to ensure that adequate noise attenuation would be provided for the commercial uses introduced as part of the Proposed Action. The text of the (E) Designation is as follows:

> **In order to ensure an acceptable interior noise environment, future commercial uses must provide a closed window condition with a minimum of 35 dB(A) window/wall attenuation in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation would also have to be provided. Alternative means of ventilation would include, but would not be limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD-approved fans.**

The residential noise attenuation requirements of the Special Mixed-Use District in conjunction with the (E) Designation for future commercial uses on the site would ensure that no significant adverse noise impacts would occur as a result of the Proposed Action.

Stationary noise sources, including HVAC and associated mechanical equipment, would be designed and operated to satisfy Section 24-227 of the New York City Noise Control Code. This would assure that noise levels within the proposed structures would be less than the acceptable interior noise level of 45 dBA as required by the New York City Department of Environmental Protection, that noise

levels at the boundaries of the Project Site would not exceed the City of New York Ambient Noise Quality Zone Criteria, and that operation of the HVAC systems would not result in an increase of 3 dBA compared to noise levels in the Future without the Proposed Action. As a consequence, there would be no significant adverse noise impact due to new stationary sources of noise.

2. Variations

Each of the Variations would generate the same number of vehicle trips or less compared to the Preferred Development Program during all peak travel periods. Consequently, as with the Preferred Development Program, none of the Variations would increase noise levels by 3 dBA or more at any location due to project generated traffic. Also like the Preferred Development Program, New York City Noise Code requirements would ensure that noise levels from HVAC equipment would not contravene CEQR impact thresholds. The assessment also indicates that noise levels along the faces of the residential tower close to the Queensboro Bridge included in Variations 1 and 3 would not result in a significant noise impacts, as sufficient attenuation would be provided as a stipulation of the zoning code and as a requirement of the (E) Designation.

O. INFRASTRUCTURE

Using the CEQR methodology for calculating demand, there would be sufficient water supply capacity and pressure with the Proposed Action. Similarly, based on the estimated sanitary sewage generation, the Proposed Action would not result in any significant adverse impact on the Bowery Bay Water Pollution Control Plant (WPCP), which serves the Project Site, nor would it significantly contribute to combined sewer overflow (CSO) events.

Though differing from the Preferred Development Program in terms of water and sanitary sewer demands, the three Variations, like the Preferred Development Program, would not result in any significant adverse impacts to the City's water supply or wastewater treatment capabilities.

P. SOLID WASTE

The Proposed Action would result in no significant adverse impacts to solid waste services due to the additional amount of solid waste generated by the residential uses or the solid waste produced by other Project uses.

Though differing from the Preferred Development Program in terms of solid waste generation water, the three Variations, like the Preferred Development Program, would not result in any significant adverse impacts to the City's municipal solid waste management programs.

Q. ENERGY

The marginal increase in City-wide energy demand attributable to the Project would result in no significant adverse impact.

Though differing from the Preferred Development Program in terms of energy demands, the three Variations, like the Preferred Development Program, would not result in any significant adverse impacts to the availability of energy to serve the City's needs.

R. NATURAL RESOURCES

The *CEQR Technical Manual* defines a natural resource as a plant or animal species and any area that is "capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance." Included in these resources are surface and groundwaters, soils, wetlands, and the City's landscaped areas, gardens, parks, and built structures that are used by wildlife. This FEIS includes a detailed analysis of the potential impact of the Proposed Action on these resources. This analysis concludes that neither the Preferred Development Program nor the Variations would result in any significant adverse impacts on natural resources. The Proposed Action would improve water quality by directing stormwater runoff through an existing stormwater outfall to the East River located beneath 43rd Avenue, and avoiding combined sewers, in accordance with the NYSDEC preferred approach for separating storm and sanitary flows in areas served by combined sewers. This would reduce the potential for combined sewer overflows from the Bowery Bay WPCP.

Also as a result of the Proposed Action, the DSNY salt and sand storage pile would be relocated elsewhere in the DSNY service area, in accordance with DSNY siting criteria. Removal of the salt and sand pile would eliminate a source of potential surface water degradation. This would represent a net benefit for water quality regardless of where the new shed would be located. Reestablishment of the bulkhead on the southern portion of the Project Site and along the end of 43rd Avenue where it meets the river would require the placement of approximately 2,768 cubic yards of fill along the 366-foot stretch of shoreline landward of the bulkhead line, of which approximately 552 cubic yards would be below the mean high water line and therefore within regulated tidal wetlands and navigable waters of the United States. This fill would displace surface waters and areas defined as tidal wetlands that have encroached into the Project Site in recent years. The total surface area displacement would be approximately 5,597.5 square feet. Field studies indicate that these areas are only minimally, if at all, used as habitat by aquatic wildlife. These activities would reestablish conditions that existed prior to the deterioration of the bulkhead, would not displace any valuable habitat, and therefore would not result in significant impacts on natural resources.

Newly created impermeable surfaces would reduce the infiltration of precipitation to the water table. However, this would not adversely affect a significant resource since site groundwater at the water's edge is brackish, tidally influenced, and not a source of drinking water.

The Proposed Action would be developed east of the new bulkhead and, consequently, would not have a direct impact on tidal wetlands. Indeed, after the installation of the new bulkhead is complete, immediately west of the bulkhead the lands underwater will be submerged under more than six feet of water, as they were historically. Such open water areas are not considered to have wetland properties and are not regulated as tidal wetlands. However, on the southern portion of the site, the regulated tidal wetland "Adjacent Area" would extend inland from the shoreline to the 10-foot topographic elevation. NYSDEC permitting requirements limit the introduction of impervious surface in this Adjacent Area to no more than 20 percent of its surface area without a variance. A portion of the Esplanade component of the Proposed Action would be constructed within this Adjacent Area, and would introduce impervious surface beyond this 20 percent coverage limitation. The placement of the Esplanade within the Adjacent Area is necessary to provide enough space within the Project Site for construction of studio spaces meeting industry requirements. This impervious coverage would not affect tidal wetlands, because, as discussed above, the areas west of the bulkhead would not function as wetlands.

As stated previously, because there would be no significant changes to the East River water quality or habitat of the Project Site under the Proposed Action, no significant adverse impacts to terrestrial or aquatic wildlife would result.

The western portion of the Project Area is situated in the 100-year floodplain. However, it is not within an area classified as a floodway. Structures planned for this area would not result in any increases in flood levels in surrounding areas or represent a significant floodplain encroachment. Most of the urbanized waterfront area along the East River is occupied by impervious development; therefore, the Proposed Action would not significantly alter existing primary floodplain characteristics.

Therefore, the Proposed Action would not result in any significant adverse impact to natural resources.

S. HAZARDOUS MATERIALS

1. Preferred Development Program

This FEIS assesses the potential for the Proposed Action to result in short-term exposure to hazardous materials during construction and long-term exposure during operation of the Proposed Action. The descriptions and analyses are based on previously conducted hazardous material investigations prepared to identify conditions at the Project Site. Review of these investigations indicates that previous remedial efforts at the Project Site have resulted in the removal of petroleum product and petroleum- and lead-contaminated soil and groundwater, but that the Project Site continues to contain residual soil and groundwater contaminated with volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and petroleum hydrocarbons, as a consequence of past uses of the Project Site. Consequently, there is a potential for significant impacts related to exposure to contaminated soils. These potential impacts would be mitigated by the Applicant through the completion of site investigations and remediation of on-site contamination, if necessary. The Applicant would file a Restrictive Declaration to ensure this occurs. The Restrictive Declaration would require that the fee owner of the Project Site conduct a testing and sampling protocol, and remediate where appropriate, to the satisfaction of NYCDEP before issuance of a building permit by the Department of Buildings. The Restrictive Declaration would also require the development of a construction health and safety plan (HASP).

The replacement of the bulkhead along the southern portion of the site would also be covered in the HASP, and would not involve use of any hazardous materials. Therefore there would be no significant adverse impacts related to hazardous materials resulting from reconstruction of the southern portion bulkhead.

2. Variations

There would be no difference between the Preferred Development Program and the three Variations in terms of hazardous materials. The Variations would be constructed within the same footprint and using the same construction techniques as the Preferred Development Program. As with the Preferred Development Program, a Restrictive Declaration would be filed, construction activities would occur in accordance with a HASP and all soils and groundwater would be managed in accordance with applicable laws and regulations. As a consequence, like the Preferred Development Program, the Variations would not result in any unmitigated significant adverse impacts related to hazardous materials.

T. URBAN DESIGN AND VISUAL RESOURCES

1. Urban Design

The Proposed Action would improve urban design conditions in the Study Area by establishing a greater formal connection between the inland areas and the waterfront. It would also continue the type of waterfront development initiated by Queens West and furthered by River East. Thus, the Proposed Action would be consistent with the building bulk, type, and arrangement of similar recent development along the Long Island City waterfront. The Proposed Action would also introduce new opportunities for the public to appreciate many attractive features of the Project Site environs, both by providing public open space that takes advantage of the Project Site's location on the East River and proximity to the Queensboro Bridge and New York Architectural Terra Cotta Company building and also by providing a mix of uses that would maintain a 24-hour community of residents, workers, and visitors. Seating, landscaping, and attractive uses of materials and objects inspired by the industrial history of the Project Site would enhance the network of public spaces surrounding Silvercup West.

The new Esplanade at the water's edge would provide new opportunities to view the Manhattan skyline and the Queensboro Bridge and provide attractive waterfront access where none currently exists. This development of waterfront public open space is integral to City plans to provide a series of linked greenways along the East River. The Esplanade, the opening and development of 43rd Avenue, and the Upland Connection, together with plazas and the Vernon Boulevard streetscape interface, would ensure proper circulation throughout the Project Site. Therefore, while there would be dramatic changes to urban form as a result of the Proposed Action, the Proposed Action would not result in significant adverse impacts to urban design.

The Proposed Action would not change block form, street pattern, or hierarchy. Although 43rd Avenue would be opened and regraded, and the DSNY salt storage facility relocated, the street pattern around the site would not be changed. The characteristic large block form of the Long Island City waterfront would be retained. The Proposed Action would take advantage of the large site form to arrange the proposed mix of uses together with open spaces and other pedestrian amenities to integrate the Project with the surrounding community.

The bulk and site arrangement characterizing the Project would not be unique to Long Island City. The Project would relate to the Citibank building due to similarities in building type and height, and would correlate even more closely to the Queens West and River East high-rise towers and open spaces along the waterfront to the south. The proposed mix of uses, building bulk and type, and arrangement of building towers would ensure that the Project, though of a relatively large-scale compared to much of Long Island City, would be integrated into its environs.

The Silvercup sign would be in keeping with the rooftop signage that has historically characterized Long Island City.

The building towers would form a "bold gateway" around the Queensboro Bridge approach into Queens—a Project goal. The creation of such a gateway would be achieved by endowing Silvercup West with a distinctive architectural character. The arrangement of towers at different heights would accentuate the catenary arch of the Queensboro Bridge. The Applicant intends to include x-bracing to reflect similar structural forms integral to the Queensboro Bridge and further distinguish the gateway design.

The streetscape improvements introduced by the Proposed Action, including the provision of linked public open space, would create an attractive pedestrian environment and physical pedestrian access

on and around the Project Site. The Proposed Action would create the 43rd Avenue streetscape and redefine the Vernon Boulevard streetscape along the eastern edge of the Project Site. The Project would take advantage of the unique on-site historic and visual resource—the New York Architectural Terra Cotta Company building—to enhance the Vernon Boulevard streetscape.

Public open spaces would be developed as attractive components of the Project Site and streetscapes. The open space areas would encourage circulation around the Project Site and from Vernon Boulevard to the waterfront, and designated Visual Corridors would be realized, providing views toward the East River from Vernon Boulevard. Each area would be landscaped and outfitted with pedestrian amenities. Plazas would be created at the northern and southern corners of the Project Site along Vernon Boulevard, each with trees and seating.

The proposed building materials and landscape design, as well as art and other public amenities, would be used to create separate outdoor spaces, each with its own unique design character, and thus the large scale of the Project Site would be humanized. At the same time, certain design elements would create a sense of unity throughout the public spaces. Terra cotta panels would be incorporated into façades, potentially in a range of colors in use at the time the New York Architectural Terra Cotta Company was in business on the Project Site. Other building materials would be incorporated as well, particularly within the pedestrian zones, to allude to the New York Architectural Terra Cotta Company building and site history.

2. Visual Resources

The Project Site is adjacent to three major features that constitute important visual resources in the Study Area: the East River waterfront, the historic Queensboro Bridge, and the historic New York Architectural Terra Cotta Company building. The waterfront and views toward Manhattan are the focus of the designated visual corridors that would be developed as part of the Proposed Action. These visual corridors, together with complementary public open space and pedestrian features incorporated into the Project would further enhance these three important visual resources. Altogether, the Proposed Action would result in no significant adverse impacts to visual resources; rather, the Proposed Action would improve their condition by realizing designated visual corridors, providing new vantage points from which to appreciate the resources, and designing the public spaces to be attractive to and comfortable for users.

Clear pathways and spaces throughout the Upland Connection and Esplanade would provide up-close views of the bridge. The Applicant intends to include a series of escalators located behind a transparent wall on the northern side of the cultural/community facility to bring people up and along the space of the Queensboro Bridge, to a promontory overlooking the East River, the bridge, and the Manhattan skyline. A public elevator on the exterior of the building wall and accessed from the Esplanade at the western face of the Core Complex building's northwest corner, would take people to the rooftop space. This public open space would include a sitting area with movable tables and chairs, and provide expansive views of the Manhattan skyline to the west and the Queensboro Bridge.

The character-defining presence of the bridge, enjoyed from vantage points outside the Study Area, including the East River Promenade in Manhattan and Roosevelt Island, would not be significantly altered. The Queensboro Bridge stretching across the water, with its unique lighting pattern, would remain a prominent feature of the riverscape and nighttime sky, as would the historic industrial signage of Long Island City, which would be complemented by the new proposed Silvercup Studios illuminated sign.

The landscaping of the Upland Connection would be visible from Queensbridge Park. Thus, views from Queensbridge Park of a derelict Project Site would be replaced with views of a well-landscaped

and active public area around the Project. Similarly, new views from the Project Site into Queensbridge Park would add to the visual quality of the Upland Connection. The Upland Connection would direct pedestrian traffic to the East River and shape the experience along Queens Plaza. The Proposed Action would regrade the width of this corridor, which currently rises to block views, over its length from Vernon Boulevard to the river.

The New York Architectural Terra Cotta Company building would stand as a new architectural showpiece on the Vernon Boulevard streetscape. As described previously, the Project building would frame and provide a complementary setting for the landmark structure.

Two designated visual corridors would be developed by the Proposed Action. In both cases, the Proposed Action would realize visual corridors where effectively none would otherwise exist, since views of the waterfront would remain obstructed without the Proposed Action. The visual corridor provided on the southern edge of the Project Site would comprise 43rd Avenue. The street would be opened and developed for public access, the salt pile would be relocated, and a continuation of the Esplanade at the waterfront end would provide new views to the water.

3. Variations

The three Variations would be constructed within the same footprint and building envelope as the Preferred Development Program, and the overall architectural character would also be the same. Like the Preferred Development Program, the design of the Variations would reflect the catenary arch of the Queensboro Bridge. Further, the new visual corridors would also be created, and the Esplanade, Upland Connection, and streetscape components would also be designed the same for the Variations and the Preferred Development Program. Therefore, no significant adverse impacts to urban design and visual resources would result from the Variations, and the Variations, like the Preferred Development Program, would notably enhance this portion of the Long Island City waterfront and enliven the streetscape around the Project Site.

U. CONSTRUCTION IMPACTS

1. Preferred Development Program

Project construction would begin in 2006, and be completed in 2009, a total construction period of approximately three years. As summarized in Table ES-8, construction would occur in five overlapping stages, entailing land clearing, the placement of necessary foundations, studio construction, office tower construction, and construction of the two residential towers. Land clearance, excavation and development of the foundation for the entire Project would require approximately 12 months beginning in the latter part of 2006. Construction of the office tower and production studios would begin approximately 9 months after the initiation of land clearing and excavation activities. Both would be completed in 2009. Construction of the residential towers would commence approximately 3 months after the start of the construction of the commercial tower and would also be completed in 2009. The reconstruction of the bulkhead along the western boundary of the Project Site would also be initiated during the initial stage of construction, simultaneous with site clearing and excavation activities.

TABLE ES-8: CONSTRUCTION ACTIVITIES AND PROJECTED DURATIONS

Construction Activity	Duration in Months
Excavation and Foundation	12 months
Studio Construction	24 months
Office Tower Construction	30 months
Construction of First Residential Tower	20 months
Construction of Second Residential Tower	20 months

Note: Durations shown are approximate and may vary based on final design.

Included as part of the site preparation and excavation activities would be the characterization of soils and groundwater on-site for the presence of contaminated materials, pursuant to work plans to be approved by NYCDEP. All construction activities and removal of any on-site contaminated or hazardous materials would be completed in conformance with a HASP to ensure the safety of workers and the surrounding community. The HASP would comply with all applicable federal, state and local regulations, and include health and safety requirements related to site-specific environmental conditions at the Project Site.

The most significant air pollutant associated with construction activities is particulate matter, particularly $PM_{2.5}$ (particulate matter less than 2.5 microns in size). Particulate matter emissions are primarily related to grading, excavation, construction and demolition, land clearing, drilling, material loading operations, and the movement of heavy duty vehicles and equipment. $PM_{2.5}$ emissions are mostly related to the exhaust of diesel powered construction equipment and trucks. These emissions would not result in an exceedance of any ambient air quality standard given the limited extent and duration of construction activities. In addition, localized increases in mobile source emissions would be mitigated through application of measures to maintain and protect traffic mandated in a NYCDOT-approved maintenance and protection of traffic plan. As a result, there would be no significant adverse impacts on air quality during construction of the Proposed Action.

Construction noise is regulated by the New York City Noise Code and by United States Environmental Protection Agency (USEPA) noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. These regulations would be carefully followed. Compliance with these requirements would be ensured by including them in the contract documents as material specifications and by directives to the construction contractor. As a consequence, construction noise at the Project Site would be similar to the noise associated with the construction of other commercial and residential development projects in the city, and would not result in significant adverse impacts. Temporary increases in noise levels would be partially masked by traffic noise along the busy Queensboro Bridge and its access ramps.

The potential for vibration-related impacts would be minimized due to use of slurry or secant wall foundation methods. If required, pile driving would be accompanied by vibration monitoring to prevent impacts to the New York Architectural Terra Cotta Company building. As a consequence, no adverse vibration-related impacts would occur during construction of the Project.

2. Variations

The construction-related impacts of the three Variations would be the same as with the Preferred Development Program since they would be constructed over the same time period and require the use of the same construction techniques and the same types and number of construction equipment as the Preferred Development Program. The Variations would also result in structures that would be within the same building envelope and have the same foot print as the Preferred Development Program. As with the Preferred Development Program, none of the Variations would result in significant adverse impacts on any environmental factor during construction. Therefore, the Proposed Action would result in no significant adverse impacts related to construction.

V. WATERFRONT REVITALIZATION PROGRAM

1. Preferred Development Program

The Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. §§1451-1464) was enacted by Congress to balance the competing demands of growth and development with the need to protect coastal resources. This balance is primarily achieved through coastal zone management programs adopted by the states and designed to regulate land use activities that could affect coastal waters. The Coastal Zone Management Act Reauthorization Amendments of 1990 strengthened the act by requiring state programs to focus on controlling land use activities and the cumulative effect of activities in coastal zones. In 1981, New York State adopted the Waterfront Revitalization and Coastal Resources Act, creating the New York State Coastal Management Program (CMP). The CMP has been incorporated into the local New York City Waterfront Revitalization Program (WRP) as approved by New York State in 1982 and revised in 1999. The revised New York City WRP, which consists of 10 coastal policies now comprises the operable coastal zone management policies in New York City. The WRP set general goals for the City's entire waterfront, and specific goals for portions of the waterfront that have notable characteristics. Specific goals were not set for the Project Site or the northern Hunters Point area.

The Proposed Action is reviewed in terms of the 10 WRP policies. The WRP assessment considers the Project Site, which lies in the coastal zone, and the areas surrounding the Project Site that are also located within the coastal zone. The limits of the coastal zone includes the area between the East River pier head line and the east side of Vernon Boulevard, as well as property further inland along Queens Plaza North and South to the east side of 21st Street. The Project Site is not located within a Special Natural Waterfront Area or Significant Maritime and Industrial Area, as designated by NYCDCP. The results of this assessment indicate that the Proposed Action and the reconstruction of the bulkhead would be consistent with all policies of the WRP.

2. Variations

The three Variations would be constructed within the same footprint and building envelope as the Preferred Development Program. Since these Variations would occupy the same building envelope, there are only minor differences in how these Variations would affect the waterfront. Therefore, due to fundamental similarities among the Variations and the Preferred Development Program, the Variations would also be consistent with each of the 10 WRP policies.

W. PUBLIC HEALTH

CEQR guidance requires that Public Health be addressed when an aspect of the proposed project may relate to an urban public health issue. Indicators of such concerns include the establishment of a sensitive (residential) land use in a manufacturing zone or where potential exposure to hazardous contaminants may exist.

The Proposed Action would develop a site within a manufacturing zone for a number of uses, including residential. Phase 1 and 2 environmental site assessments have indicated that prior use of the Project Site has resulted in some soil contamination, principally related to fuel spills. There is no indication that acutely toxic or hazardous materials are on site.

All construction activities would be completed in accordance with a site-specific HASP, which would detail the procedures and methods to be implemented to protect the health and safety of workers and the general public. The HASP would include procedures for the safe handling of site soils and groundwater, including any water from on-site dewatering activities, relating the type and location of construction activities to the type of contaminant in the area. Any contaminated soils and groundwater would be managed in accordance with applicable or regulatory requirements. If soil, groundwater or soil gas investigations to be conducted pursuant to work plans approved by NYCDEP, reveal the presence of VOCs, the necessity for soil gas mitigation systems (i.e., vapor barrier and sub-slab depressurization systems) will be evaluated. If warranted, vapor protection will be incorporated into the design of the structures. In addition, at the completion of the Proposed Action the entire Project Site would be covered with appropriate surfaces, to include asphalt, concrete, other paving materials, or certified clean fill material.

As indicated in Chapter 11, "Air Quality," neither stationary nor mobile sources of air emissions associated with the Proposed Action would result in exposure of the public to pollutant levels that exceed health standards. Therefore, the Proposed Action would not result in significant adverse impacts to public health.

X. GENERIC ANALYSIS OF IMPACTS FROM SALT PILE RELOCATION

The mapped but unopened segment of 43rd Avenue at the southern boundary of the Project Site is currently used by the DSNY for the open storage of rock salt, which is applied to roadways as de-icing material during winter storm events in Queens Community Districts Numbers 1 and 2. The maximum capacity of the storage pile is approximately 10,000 tons of rock salt and covers approximately 30,000 sf of land. At peak usage during a major storm event, a maximum of 12 DSNY salt-spreading trucks use the facility. The salt pile is replenished each fall and, depending on the number and severity of winter storm events, is also replenished once or twice more during the winter season. Parking is limited to a few spaces required for operating the facility.

Development of Silvercup West would require the relocation of the storage pile to an alternative site, the location of which is currently unknown. In conformance with the City ULURP, relocating the storage pile would require the completion of a site selection study to identify the site, environmental review in accordance with CEQR, and public review. DSNY indicates that to continue to serve Queens Community Districts Numbers 1 and 2, a new site would need to be approximately ½-acre in size and be located north of the Long Island Expressway (LIE) and west of the Brooklyn-Queens Expressway (BQE). In accordance with DSNY requirements, the relocated facility would likely include a waterproof enclosure (e.g., shed) to cover the salt pile and truck loading operations, an

impervious pad or surface on which the salt pile would be located, and curbing to prevent runoff from the site to infiltrate into ground- and surface-waters. Likely criteria that would be applied in identifying and evaluating alternative sites for the relocation of the salt storage facility would include adequate site size, convenient access to the regional roadway network, ground conditions and topography, avoidance of nearby sensitive land uses, avoidance of the 100-year flood plain, nearby water bodies or other ecologically sensitive areas, site ownership, a preference for vacant land, appropriate zoning designation, and cost.

Based on a generic analysis, no significant adverse impacts would result from the relocation of the salt storage facility. In particular, its relocation to an industrial zone and its limited scale of operations would virtually ensure that no sensitive uses would be proximate or affected. The salt storage facility would be a use consistent with an industrial zone, and its likely enclosure at the new site would serve to improve the effect the current salt storage has on natural resources in this DSNY service area and be consistent with waterfront revitalization policy.

Y. MITIGATION

1. Traffic

The Proposed Action would result in significant adverse impacts on traffic conditions at a limited number of intersections in the Traffic and Parking Study Area. Significant adverse impact would occur at 32 signalized and unsignalized intersections analyzed for the weekday peak hours. Significant adverse impacts would occur at 13 intersections during the AM peak hour, 10 intersections during the Midday peak hour, and 18 intersections during the PM peak hour (Table ES-9). Of the 21 intersections analyzed during the Saturday Midday peak hour, significant adverse impacts would occur at 6 intersections.

TABLE ES-9: SIGNIFICANT TRAFFIC IMPACT MITIGATION SUMMARY

Intersections	AM	Midday	PM	Saturday Midday
Number of Intersections Not Significantly Impacted	19	21	14	15
Number of Significantly Impacted Intersections	13	11	18	6

Detailed evaluation of mitigation measures indicates that all significant adverse traffic impacts would be fully mitigated by standard traffic engineering improvements such as installation of traffic signals, signal timing and phasing modifications, parking prohibitions, and lane restriping. These measures represent the standard range of traffic capacity improvements that have been proposed and implemented to mitigate anticipated traffic impacts for numerous projects in New York City.

<u>One of the Variations would result in a significant adverse traffic impact during the AM peak period which would not occur under the Preferred Development Program, which would be mitigated with the application of signal timing changes.</u>

2. Buses

The Proposed Project would result in significant impacts to the Q103 bus route in the northbound direction during the AM peak hour, and in the southbound direction during the PM peak hour. The

significant impact during the AM peak hour would be mitigated by the addition of two buses in the northbound direction. These two additional buses would lower the average number of passengers per bus at its peak load point from 108 to 60. The significant impact during the PM peak hour would be mitigated by the addition of one bus in the southbound direction. This additional bus would lower the average number of passengers per bus at its peak load point from 71 to 51.

MTA Bus, as standard practice, routinely conducts periodic ridership counts and adjusts bus service frequency to meet its service criteria, within physical and operating constraints.

3. Pedestrians

Significant impacts to pedestrian crossing locations across Vernon Boulevard at Queens Plaza South and 43rd Avenue would occur as a result of the Proposed Action. These impacts would be mitigated with traffic signals installed at both of these intersections.

4. Hazardous Materials

Preliminary investigations indicate that site soils may have contamination as a result of prior use of the site. Potential impacts from exposure to contaminated soils would be mitigated by the Applicant through the completion of site investigations and remediation of on-site contamination, if necessary. The Applicant will file a Restrictive Declaration with NYCDEP to ensure this occurs.

Z. ALTERNATIVES

CEQR requires that alternatives to the Proposed Action be identified and evaluated in the EIS. As under the State Environmental Quality Review Act (SEQRA), alternatives considered should reduce or eliminate impacts of the Proposed Action while substantively meeting the goals and objectives of the action. Alternatives demonstrate to the decision-maker the possible options to the Proposed Action and provide a framework for comparison of potential impacts and project objectives. The range of alternatives to be considered is determined by the nature of the specific action and its potential impacts, but must include a No Action Alternative.

1. No Action Alternative

The No Action scenario is evaluated in detail in each of the chapters of this FEIS under "Future Conditions without the Proposed Action." These assessments include the effects of anticipated development that would occur separate from the Proposed Action by the identified analysis year (2009). This includes a substantial amount of both new commercial and residential in the vicinity of the Project Site.

With the No Action Alternative, no new development would be expected to occur on the Project Site by 2009. The New York Architectural Terra Cotta Company building would remain vacant, though newly restored. The DSNY de-icing salt and sand storage pile would remain in its existing location on the mapped but unopened segment of 43rd Avenue, but the NYPA facility would have been removed from its existing location on Lot 24. Land use in the Primary Land Use Study Area would be the same as Existing conditions. However, considerable new development would occur in the Secondary Study Area in the vicinity of Queens Plaza and along the Hunters Point waterfront, including completion of the River East development project. Unlike the Proposed Action, this alternative would not be consistent with public policies that encourage provision of public access to and use of the waterfront.

With the No Action Alternative, the Project Site would continue to be underutilized and not generate any economic activity. However, the new development anticipated in the vicinity of Queens Plaza and along the Hunters Point waterfront would result in approximately 900 new dwelling units with a population of approximately 2,430 people. This would represent a significant increase in Study Area population without the Proposed Action.

The neighborhood character of the Study Area would be substantially the same as it is under the Existing Conditions. New development in the vicinity of Queens Plaza and along the Hunters Point waterfront will have a beneficial effect on socioeconomic conditions in the area but would generate increased levels of traffic and noise.

Under the No Action Alternative, the New York City Department of Education (NYCDOE) would continue to develop new schools and restructure and improve existing schools in accordance with its *Children First 2005-2009 Five-Year Capital Plan-2005 Amendment.* In addition, the Queens Borough Public Library would continue to implement its plan to build a new branch to replace the existing branches near the Project Site. No new public open space would be provided on the Project Site. The community would not enjoy the benefits of new public waterfront access on the East River or landscaped plazas on Vernon Boulevard. The Project Site would continue to be vacant, except for the New York Architectural Terra Cotta Company building and the de-icing salt and sand pile along the mapped but unopened segment of 43rd Avenue. The NYPA facility would be removed and would no longer cast shadows on the New York Architectural Terra Cotta Company building or the Project Site. Shadows that would be cast by the Proposed Project on open space resources in the vicinity of the Project Site and on Roosevelt Island would not occur under the No Action Alternative. However, shadows cast by the Proposed Action would be limited in duration and incremental coverage so as not to result in significant shadow impacts if the Project is built.

There are several properties in the Study Area that the NYCLPC has stated are eligible for listing in the State and National Registers of Historic Places and for New York City Landmark designation. There is the possibility that some of these properties may be officially designated under the No Action Alternative. Additionally, the New York Architectural Terra Cotta Company building will be restored. The restoration program would include preservation of the building's original terra cotta and brick exterior and interior features, as described in permits approved by the NYCLPC. No other changes to any inventoried architectural resource, including the Queensboro Bridge are anticipated.

Under the No Action Alternative, the urban design and visual quality of most of the Study Area would remain unchanged from its current condition. The NYPA facility located on the southern portion of the Project Site would be removed, resulting in some additional unobstructed views of the Queensboro Bridge from sidewalks to the south of the Bridge. However, the de-icing salt and sand pile would remain within the mapped but unopened segment of 43rd Avenue, obstructing views of the Bridge from the south and of the river from the west. Development in Queens Plaza and along the Hunters Point waterfront, including the completion of the River East development project in the Secondary Land Use Study Area, would change and improve the urban design in those areas, but would also affect some views of the Queensboro Bridge. No projects are planned that would significantly alter the urban form or visual character of the inland blocks south of the Queensboro Bridge, or that would affect the appearance of Queensbridge Park and NYCHA Queensbridge Houses north of the Project Site. The improvements to the area's urban design and the creation of new and enhanced views of visual resources that would result from the Proposed Project would not occur under the No Action Alternative.

Under the No Action Alternative, mitigation measures primarily along the Queens Plaza/Queens Boulevard and Jackson Avenue corridors that were proposed and approved as part of the *Queens*

Plaza Bike and Pedestrian Improvement Project and the *LIC Rezoning FEIS* would be implemented. These measures included physical/geometric modifications at 11 locations along those corridors. Based on these physical modifications and projected increases in traffic volumes associated with a number of City-approved projects and rezoning actions in Long Island City, it is projected that, under the No Action Alternative, a number of intersections in the area would operate at unacceptable LOS during the weekday and Saturday AM, Midday and PM peak traffic periods. In addition, it is projected that a number of on- and off-street parking spaces would be lost compared to existing conditions as a result of a number of anticipated development projects. The traffic impacts that would result from the Proposed Action would not occur under this scenario. However, the impacts of the Proposed Action would, in any case, be mitigated through standard traffic engineering improvements.

All subway stairways, corridors, turnstiles, and escalators on the Queensboro Plaza N/W/7 station, 21st Street-Queensbridge F Station and the 23rd Street/Ely Avenue E/V station would operate at acceptable LOS during both the AM and PM peak periods under the No Action Alternative. The analysis of bus ridership indicates that all bus routes would operate with available capacity under the No Action Alternative. However, the analysis of crosswalk and street corners indicates that four crossing locations most proximate to the Project Site would experience unacceptable LOS during the AM- and PM-peak analysis periods under the No Action Alternative. The pedestrian impacts at Queens Plaza South and 43rd Avenue, and the impact on the Q103 bus route would not occur under the No Action Alternative. However, these impacts would be mitigated by installation of crossing signals and the addition of one bus under the Proposed Action.

Air quality conditions under the No Action Alternative would remain approximately the same as under existing conditions, and there would be no exceedances of any ambient air quality standard. Noise levels at noise-sensitive sites in the vicinity of the Project Site would remain in the Marginally Acceptable to Marginally Unacceptable range, as defined under CEQR noise criteria. Noise levels on and in the immediate vicinity of the Project Site would be less than existing noise levels due to the removal of the temporary NYPA facility.

Under the No Action Alternative, the NYPA facility would be relocated, eliminating its demand on the municipal solid waste management, water supply and wastewater management systems. Conditions on the Project Site related to infrastructure would otherwise be the same as under Existing Conditions. Projects anticipated to be completed by 2009 in the vicinity of the Project Site would total approximately 2,163,000 sf of commercial and approximately 4,183,000 sf of residential development. These projects would increase demand on local infrastructure but would be within the available capacities of all systems of concern.

Under the No Action Alternative, the NYPA facility would be relocated and a continuous bulkhead reestablished along the western edge of the Project Site. Neither action would be anticipated to have a significant adverse impact on natural resources. The DSNY de-icing salt and sand storage pile would remain in its current location, salt-laden runoff from which would continue to remain a potential on-site source of surface and groundwater contamination.

Under the No Action Alternative, renovation of the New York Architectural Terra Cotta Company building would be completed, including necessary removal of asbestos containing material and lead in accordance with applicable requirements. Potentially contaminated soils and groundwater in the Project Site would be left in place.

Under the No Action Alternative, construction on the Project Site would not take place and the short-duration impact of the Project would not occur. Removal of contaminated soils in the northern portion of the Project Site would not take place.

2. Reduced Bulk Alternative

The DEIS evaluates the potential environmental effect of an alternative with a reduced density as compared with the Preferred Development Program. For the purposes of this analysis it is assumed that the site would be developed consistent with the uses programmed in the Preferred Development Program, but in accordance with the bulk requirements of an M1-5/R8 zoning district. In this alternative the FAR would be lowered to 6.5 for the mixed use development. The redevelopment of the site would result in a similar site layout, because of physical constraints related to the placement of the studios.

This Alternative would have a total floor area of 2,396,644 sf, a reduction of 14.4 percent. This reduction would be divided between the commercial and residential towers (North Complex and South Complex). The height of the westernmost residential tower would be reduced by 21 floors (five half floors and 16 full floors) making its top elevation approximately 215 feet lower. The tower closest to the bridge (proposed for commercial use under the preferred Development Program) would be reduced by 10 floors (five half-sized floors and five full-sized floors, with an additional reduction by approximately 60 percent of one additional floor). The top elevation would be approximately 400 feet. The Core Complex and eastern residential tower would have the same size and shape and the towers would have the same horizontal dimensions as under the Proposed Action. In this alternative, the salt pile would be relocated, as with the Preferred Development Program.

Land use and neighborhood character of the Study Area would be substantially similar to the Preferred Development Program. The new development would have a similar effect on socioeconomic conditions in the area.

The Reduced Density Alternative, like the Preferred Development Program and Variations, would result in no significant adverse impacts to community facilities and services. Because it would introduce fewer housing units, there would be a somewhat reduced demand for public school seats and library services than under the Preferred Development Program.

The alternative, like the Preferred Development Program and Variations would result in no significant impact to open space serving the study area in the year 2009. The 6.5 FAR would, like the Proposed Action, provide approximately 80,000 square feet of high quality open space, much of it on one waterfront or with views of the East River and the Queensboro Bridge.

The Reduced Density Alternative, like the Preferred Development Program and Variations, would result in no significant adverse shadow impacts. The incremental shadows cast by the Project would be similar, as the maximum elevation of the Project (the eastern residential tower) would be the same.

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program (apart from the reduced heights of the North Complex and west residential tower). Thus, the Reduced Density alternative would be built on the same footprint as the Proposed Action, and, like the Proposed Action, would not have significant impacts on historic resources. Site development would adopt the same construction techniques to protect the adjacent New York Architectural Terra Cotta Company building. The development that would be constructed as part of the Reduced Density Alternative would still be much larger than the New York Architectural Terra Cotta Company building and taller than the Queensboro Bridge. It would still include a mid-level area setting off the New York Architectural Terra Cotta Company building, and would still provide new and enhanced views of it and the Queensboro Bridge.

However, unlike the Preferred Development Program, the design of this alternative would not echo the arch of the Queensboro Bridge, as the relative heights of the towers would be different.

Although this would reduce the visual appeal of the structure in relation to its surroundings, the Reduced Density Alternative would result in no significant adverse effects to urban design or visual quality. The Reduced Density Alternative would be developed in strict conformance with a Restrictive Declaration, which would define a building envelope very similar to that of the Preferred Development Program.

The overall set of significant traffic impacts and mitigation requirements is expected to be very similar to the Preferred Development Program with just one exception—the intersection of Northern Boulevard and 31st Street is not expected to have significant impacts during the AM peak hour with the Reduced Density Alternative. However, similar to the Preferred Development Program, this intersection would continue to remain a significantly impacted location during the PM peak hour. No different significant adverse traffic impacts are expected. As with the Preferred Development Program, there should be no parking shortfalls.

Also, for the Reduced Density Alternative, traffic improvements and mitigation measures along Vernon Boulevard – including the need for two new traffic signals – would be the same as for the Preferred Development Program

The Reduced Density Alternative would have no significant impact on subways, similar to the Preferred Development Program. The significant adverse impact to the Q103 bus route with the Preferred Development Program would be reduced but would still remain and require an additional northbound bus as mitigation.

Similar to the Preferred Development Program, the Reduced Density Alternative would not result in any significant adverse impacts to air quality.

Similar to the Preferred Development Program, the Reduced Density Alternative would not result in any significant adverse impacts to noise. The alternative would result in fewer peak-hour vehicle trips traveling through the study area. This would likely correspond with a marginal reduction of noise levels from those predicted with the Preferred Development Program. This alternative would, similar to the Preferred Development Program, requiring an (E) Designation to achieve 45 dBA interior noise levels in commercial uses not covered by the zoning resolutions requirement for 35 dBA required attenuation within a mixed-use district.

The Reduced Density Alternative, like the Preferred Development Program and Variations, would result in no significant adverse impacts related to infrastructure, solid waste and energy.

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program and on the same footprint. Like the Preferred Development Program, the reduced density alternative would require reconstruction of the southern portion of the bulkhead and would involve coverage of regulated Tidal Wetlands adjacent area with impervious surfaces. However, the Reduced Density Alternative, like the Preferred Development Program and Variations, would result in no significant adverse impacts to natural resources as a result of these activities.

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program and on the same footprint. Construction and pre-construction activities would be the same. As with the Preferred Development Program, construction activities

would occur in accordance with a HASP and all soils and groundwater would be managed in accordance with applicable laws, regulations, and consent agreements with the DEP. As with the Proposed Action, testing and, if necessary, remediation of the Project Site would occur pursuant to work plans approved by DEP, in accordance with a Restrictive Declaration to be recorded against the Project Site. The Reduced Density Alternative, therefore, like the Preferred Development Program and Variations, would result in no significant adverse impacts related to hazardous materials.

The Reduced Density Alternative would not differ significantly form the Preferred Development Program in its effect on urban design and visual quality.

The construction-related impacts of the Reduced Density Alternative would be the same as with the Preferred Development Program and Variations, as construction would occur in similar stages during a slightly shortened time period. The Reduced Density Alternative would require the use of the same construction techniques and the same types and number of construction equipment as the Preferred Development Program. Therefore, the Reduced Density Alternative would likewise result in no significant adverse impacts related to construction.

As with the Preferred Development Program and Variations, the Reduced Density Alternative would be consistent with the Coastal Zone Management/Waterfront Revitalization Program policies.

Similar to the Preferred Development Program, the Reduced Density Alternative would include the mechanisms to protect public health during construction, including a Restrictive Declaration requiring DEP approval of investigative and remedial action. Contamination would be identified as part of routine screening and testing procedures of site soils to be disturbed. Hazardous materials, if identified, would be handled in accordance with a HASP and disposed of in accordance with State and Federal requirements.

With this alternative, as with the development of the Preferred Development Program and Variations, the salt storage facility would be relocated from 43rd Avenue. Therefore, the analysis included in the assessment of the Preferred Development Program, indicating that there would be no significant adverse impacts resulting from its relocation, would not change for the Reduced Development Program.

3. Alternative Size, Design or Configuration Alternatives

According to the *CEQR Manual*, an alternative design or configuration should be considered for actions where potential significant adverse impacts are related to the proposed action's bulk, visual character, contextual or direct effect on historic or other environmentally sensitive resources, or its physical relationship to another use, such as a power plant stack, a noise generator, or an area of soil contamination. Although the analyses in this FEIS have not identified any significant adverse impacts related to any of these considerations, an analysis was undertaken to determine the feasibility of constructing an alternative design to the Proposed Project that would meet the goals and objectives of the Proposed Action, as described above. However, because of the restricted dimensions of the Project Site in conjunction with requirements of the Zoning Resolution; the need to construct studios that meet film and television industry special requirements while allowing for convenient truck access; building height limitations imposed by the Federal Aviation Administration (FAA); and the need to maximize views and the utility of open space within the structure for prospective residents and commercial tenants, no alternative design to that of the Proposed Action was identified that would substantively meet the goals and objectives of the project. This analysis is summarized below:

1. *Requirements imposed by Article VI, Chapter 2 – Special Regulations Applying in the Waterfront Area of the New York City Zoning Resolution, including the detailed requirements of Section 62-*

851, Waterfront Access Plan Q-1: Northern Hunters Point. These requirements mandate the provision of a 40-foot wide shore public walkway along the East River. In addition, these requirements also mandate the provision of an "upland connection" along the northern boundary of the Project Site between Vernon Boulevard and the shore public walkway, the provision of continuous public access along the mapped right-of-way of 43rd Avenue between Vernon Boulevard and the public waterfront esplanade, and the provision of designated east-west visual corridors along the northern boundary of the Project Site between Vernon Boulevard and the East River pierhead line, and along the mapped right-of-way of 43rd Avenue between Vernon Boulevard and the East River. These requirements limited the orientation of the Project's bulk to outside of these prescribed open areas, and precluded construction of shorter but bulkier towers that would encroach on these areas.

2. *Need to provide for the minimum dimensions of a television and movie production studio required to meet the functional requirements of the industry, including the need to provide at least 18,000 square feet of contiguous space at a minimum height of 30-to-40 feet.* In today's marketplace, a new sound stage and the support spaces (dressing rooms, green rooms, audio-visual control rooms and equipment moving zones) flanking it must have minimum dimensions to accommodate industry needs.

   The net result of these requirements is that the minimum east-west dimension of the studio space must be approximately 448 feet at its widest point. The entire Project Site, assuming that the shoreline is reestablished as proposed at the location of the original bulkhead along the NYPA-occupied property, or a platform extended over the eroded shoreline to this location, would have an east–west dimension of approximately 505.5 feet from the western edge of Vernon Boulevard to the proposed bulkhead. Under the Proposed Development Action, the remainder of the site width would be taken up by the 40-foot Esplanade and a sidewalk to the east of the building, along Vernon Boulevard.

3. *Need to provide for column free contiguous studio space.* In addition to providing studio space of sufficient dimensions to meet modern industry needs, all studio space must be column free to provide for necessary flexibility in the development of movie and television sets. This necessity renders infeasible schemes in which the massive residential and commercial towers are located on top of studio space, and requires that the towers be pushed to the perimeter of the Project Site. Otherwise, without internal columns, there would be insufficient structural support for the towers. This requirement renders infeasible plans for shorter but bulkier towers extending onto the top of the Core Complex.

4. *Need to provide for truck access to the studio space.* Trucks laden with construction supplies, specialized materials for sets, and other apparatus and equipment must be provided with easy access to each studio. The use of elevators for this purpose is too time consuming and would take up too much space to be operationally and structurally feasible. The proposed structure would have two layers of studios stacked on top of one another, serviced by interval loading berths for trucks. Reconfiguring the bulk to include more layers of studios within a smaller footprint would not be feasible because this would require the use of elevators.

5. *Federal Aviation Administration-imposed 600-feet limitation on the height of structures within the flight paths to and from LaGuardia Airport.* This limits the maximum height of both the residential and commercial elements of the project to less than 600 feet, meaning that designs with fewer, taller towers are not feasible.

6. *Maximization of views.* To ensure the economic viability of the Proposed Action, the residential and commercial towers must provide a maximum amount of uninterrupted views of the East River, the Manhattan skyline and the historic Queensboro Bridge. This dictated that the proposed residential towers be placed as far apart as possible to maximize these views, and that the towers

be oriented with their longer sides facing north and south, so as to minimize the east-facing walls with no views.

7. *Other considerations.* Finally, marketing of space in the project, either to residents or commercial tenants, will require that it meet certain aesthetic and functional requirements. For example, shadows from the proposed towers should not fall on the proposed public and private open space features on the roof of the Core Complex during the majority of the day, as this would reduce or eliminate the utility of this space and negate it as a marketable amenity of the Project. The need to minimize the length of time in which these open spaces are in shadow mandates that two slender residential towers be placed on the southern portion of the Project Site to allow for sunlight to fall on the open spaces during at least a portion of the day. Convenient public access from street level must also be provided to proposed retail uses to ensure profitability. Finally, the overall aesthetic quality of the Proposed Action must be at a high level to attract tenants, visitors and shoppers.

   A rotated configuration, in which the length of the studio space is oriented north and south and the towers are located along the east and west ends of the Project Site is also not feasible. As discussed above, locating the commercial tower in the western boundary of site and the residential towers along Vernon Boulevard on the eastern boundary of the site would result in the blocking of views of the East River and Manhattan skyline from the residential towers by the commercial tower. Locating the commercial tower on the eastern boundary of the site would result in the loss of leasable space within the tower due to the presence of the lot on which the New York Architectural Terra Cotta Building is located, which would require reduction of the floorplate of this tower. In addition, ingress and egress to the residential towers would be constrained by locating them on the western boundary of the Project Site, away from roadways.

In summary, for these reasons, no alternative configuration was identified that would substantively meet the goals and objectives of the Proposed Project.

AA. UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

As detailed in the assessments of each analysis area described above, the Proposed Action would not result in any unavoidable significant adverse impacts.

BB. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION

Although the Proposed Action would not introduce or greatly expand the infrastructure capacity of the area, it would result in substantial new development of a variety of uses. These uses would generate a net increase in economic activity in Long Island City, and would contribute to growth in the city and state economies.

Because the Project would introduce a new commercial and residential population, it is possible that a limited amount of new commercial development could occur elsewhere in the surrounding community. Although growth in the area would be limited by existing zoning controls, there is the potential that a limited amount of new local retail uses may be developed to support the additional residential and commercial populations that would be introduced with the Proposed Action. In addition, new uses in support of the expanded film, television, and commercial production facilities may also be generated as a consequence of the Proposed Action. None of these effects would result in significant adverse impacts on land use or socioeconomic conditions in the area. Instead, they would result in substantial economic benefits to the area.

CC. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The Proposed Action would result in the irreversible and irretrievable use of both natural and man-made resources that would be expended during the construction and operation of the Proposed Action, including the irreversible and irretrievable use of building materials, energy and human effort required to construct and operate the Proposed Project. These are considered to be irretrievably committed, since their reuse for another purpose would be highly unlikely or completely unviable. This would be offset by the long-term economic and other benefits gained by the Proposed Action. In addition, approximately 260,350 BTUs/hr of energy would be consumed each year for the operation of the Proposed Action. Moreover, the physical development of the Proposed Action would render use of the Project Site for another use infeasible.