Halletts Point Rezoning
Environmental Impact Statement ~~Draft~~ Final Scope of Work

This document is the Final Scope of Work ("Final Scope") for the Halletts Point Rezoning Draft Environmental Impact Statement (DEIS). This Final Scope has been prepared to describe the proposed project, present the proposed framework for the EIS analysis, and discuss the procedures to be followed in the preparation of the DEIS. In accordance with the State Environmental Quality Review Act (SEQRA) and CEQR procedures, a Draft Scope of Work ("Draft Scope") was prepared in accordance with those laws and regulations and the city's *CEQR Technical Manual* and distributed for public review. A public scoping meeting was held on December 13, 2012 at the Goodwill Astoria Headquarters located at 4-21 27th Avenue, Astoria, New York, 11102. Written comments were accepted through the public comment period, which ended December 26, 2012.

This Final Scope incorporates changes in response to the comments on the Draft Scope as well as other background and project updates that were made subsequent to publication of the Draft Scope. The substantive changes to the proposed project and impact assessment methodologies since the Draft Scope was issued are as follows:

- Programmatic and design changes as a result of ongoing consultation with the New York City Department of City Planning (DCP), including a reduction in the amount of parking in Building 8 and the proposal to combine and reconfigure surface lots within the Astoria Houses Campus to accommodate a portion of the parking displaced by the development of Buildings 6, 7, and 8.
- An increase in the number of affordable units proposed.
- At the request of the lead agency, the EIS will consider a Reduced Density Alternative.

Revisions to the Draft Scope have been incorporated into the Final Scope and are indicated by double-underlining new text and striking deleted text.

A. INTRODUCTION

Halletts A Development Company, LLC (the "Applicant") is requesting discretionary approvals (the "proposed actions") that will facilitate a mixed-use development on several parcels on Halletts Point along the East River in Astoria, Queens (see **Figure 1**). The New York City Housing Authority (NYCHA) would be the applicant for certain discretionary approvals ~~affecting the existing NYCHA Astoria Houses campus~~.

The project site comprises all or portions of eight existing tax lots on the Halletts Point peninsula (tentative tax lot numbers to be determined) (see **Figure 2**). The project site contains eight building sites on which new development would occur with the proposed project. As discussed below, seven of the building sites would be developed as part of the Applicant's proposal and one would be developed as part of a future request for proposals (RFP) by NYCHA. In total, ~~there would be development of~~ eight buildings (Buildings 1 through 8) would be developed on the project site~~.~~:



HALLETTS POINT

Project Location
Figure 1

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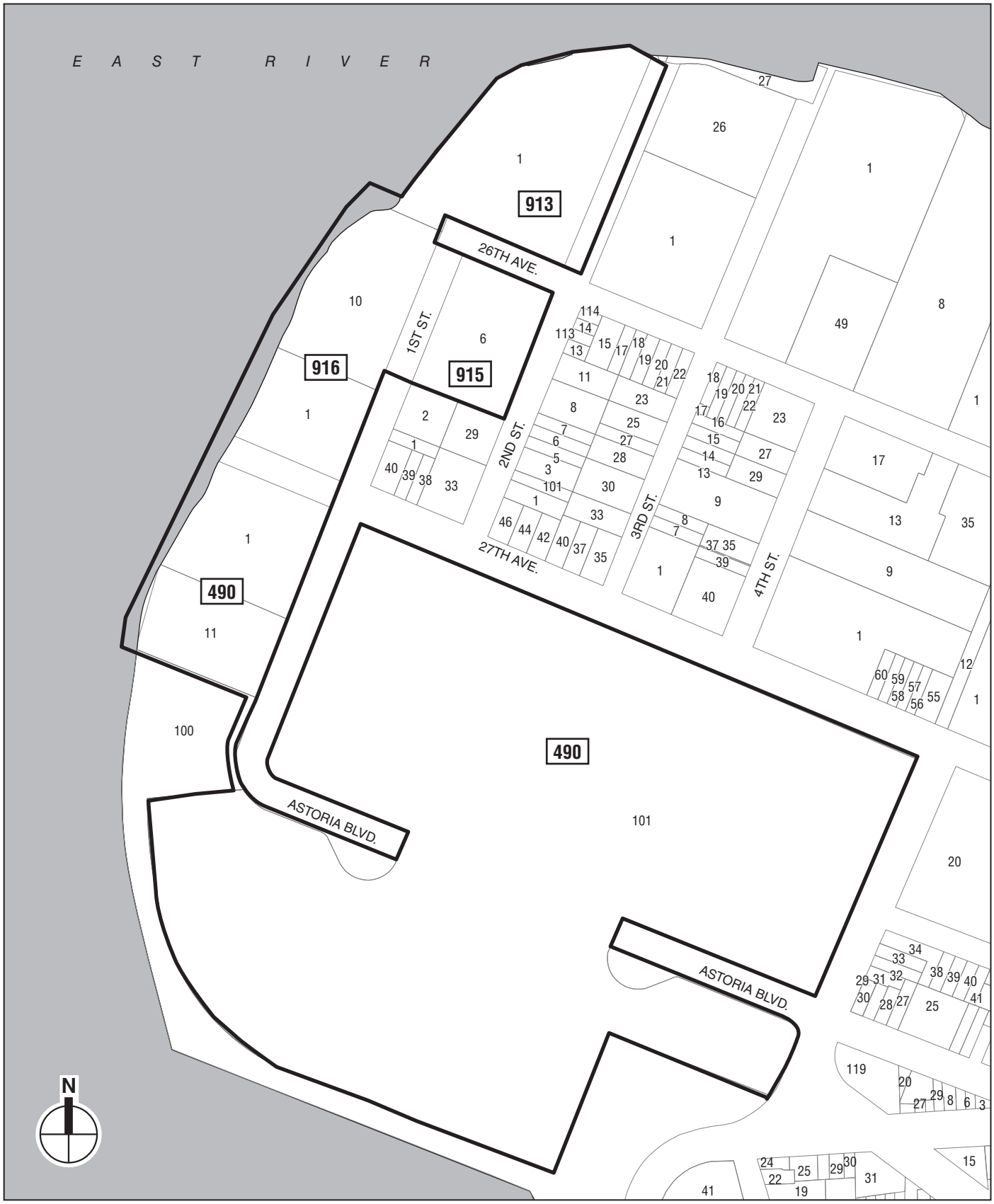


HALLETTS POINT

Project Site
Figure 2

- **Building 1** (Block 915, Lot 6) would be located on the block bounded by 27th Avenue to the south, 1st Street to the west, 26th Avenue to the north, and 2nd Street to the east (the "Eastern Parcel" or "Eastern Zoning Lot").
- **Buildings 2 through 5** (Block 490, Lots 1 and 11 and Block 916, Lots 1 and 10), including the mapped streetbeds of 26th and 27th Avenues between 1st Street and the East River, would be bounded by Hallet's Cove Playground (Block 490, Lot 100) to the south, the East River to the west, Whitey Ford Field (Block 913, Lot 1) to the north, and 1st Street to the east (the "Waterfront [WF] Parcel").
- **Buildings 6 through 8** would be located within the existing NYCHA Astoria Houses campus (Block 490, Lot 101) bounded by 27th Avenue, 1st Street, and 8th Street.

In order to facilitate a better site plan and flexibility in the allocation of affordable housing units among the project sites, the Applicant proposes the creation of a Large-Scale General Development (LSGD) Plan that would include Buildings 1 through 5 and the Astoria Houses Campus (including Buildings 6 through 8). The creation of the LSGD would be facilitated by the alienation of a 10-foot wide strip of parkland of Hallet's Cove Playground (the "Parks Parcel") to create a single zoning lot containing Buildings 2 through 5 and the Astoria Houses campus ~~(together with the Parks Parcel, the "NYCHA Parcel")~~, including Buildings 6, 7, and 8 (~~together~~ the Astoria Houses Campus with the Parks Parcel~~,~~ is known as the "NYCHA Parcel"). In total, the LSGD would contain two zoning lots: one containing Building 1on ~~(~~the ~~"~~Eastern Zoning Lot~~" or "Eastern Parcel")~~ and a second containing the WF Parcel and the NYCHA Parcel, including the Parks Parcel (the "Waterfront Zoning Lot"). The use of an approximately 10-foot wide alienated portion of the Hallet's Cove Playground would require the jurisdictional transfer of parkland from the New York City Department of Parks and Recreation ~~NYC~~(DPR) to NYCHA.

As discussed below, the development of Buildings 6, 7, and 8 would be facilitated by the disposition of NYCHA property, which is subject to Section 18 of the U.S. Housing Act of 1937 and approval by the U.S. Department of Housing and Urban Development (HUD). For Buildings 6 and 7, the NYCHA property would be disposed of to the Applicant for development as part of this application. Building 8 would not be developed by the Applicant; rather, it is expected that this application would facilitate a future disposition action by NYCHA with the development entity and specific building program subject to a future request for proposals (RFP) by NYCHA. A separate Section 18 disposition action for Building 8 would be pursued in the future at the time a development entity is designated by NYCHA.

In order to facilitate this mixed-use development that comprises affordable and market-rate housing, publicly accessible waterfront open space and esplanade, and neighborhood commercial uses including a supermarket, the proposed project would require a number of zoning map changes; zoning text amendments; LSGD special permits related to bulk; waterfront special permits, authorizations, and certifications; and mapping actions. Other discretionary actions being requested include disposition of public housing property, use of development rights associated with lands underwater, and other potential financing approval for affordable housing.

In addition to the actions noted above, the application will also include requests to: (1) rezone a portion of the Astoria Houses campus to include a commercial overlay over the existing residential zoning district along Astoria Boulevard and 27th Avenue (the "NYCHA Rezoning Area") and (2) establish Whitey Ford Field as a mapped public parkland and to rezone a portion of the adjacent streetbed (the "2nd Street Rezoning Area").

Figure 3 shows the various parcels within the proposed LSGD and the proposed rezoning areas associated with the proposed project. For clarity, the term "project site" is used to refer to all or portions of eight existing tax lots, including the sites of the proposed buildings themselves. The term "building sites" refers to areas that would be redeveloped as part of the proposed project; specifically, the WF and Eastern Parcels and the sites of Buildings 6, 7, and 8 on the NYCHA Parcel. The building sites do not include areas where no development associated with the proposed project would occur, i.e., on Hallet's Cove Playground, Whitey Ford Field, or portions of the NYCHA Astoria Houses Campus not located within the building sites for Buildings 6, 7, or 8.

In order to develop the proposed project, certain discretionary approvals are required from the City of New York, as well as from New York State and the United States Army Corp of Engineers (USACE). These discretionary approvals by the City of New York are subject to review under the City's Uniform Land Use Review Procedure (ULURP), which requires a determination pursuant to City Environmental Quality Review (CEQR). DCP, acting on behalf of the City Planning Commission (CPC), will serve as the City's lead agency for ULURP and CEQR.

Development of the proposed project may potentially result in significant adverse environmental impacts, requiring that an Environmental Impact Statement (EIS) be prepared. ~~Scoping is the first step in the EIS preparation and provides an early opportunity for the public and other agencies to be involved in the EIS process. It is intended to determine the range of issues and considerations to be evaluated in the EIS. This draft EIS scope has been prepared to describe the proposed project, present the proposed framework for the EIS analysis, and discuss the procedures to be followed in the preparation of the Draft EIS (DEIS).~~ The 2012 *CEQR Technical Manual* will serve as a guide on the methodologies and impact criteria for evaluating the proposed project's effects on the various environmental areas of analysis.

The proposed disposition of NYCHA property (under Section 18 of the U.S. Housing Act of 1937) ~~will~~ would require a federal approval from HUD subject to review under the National Environmental Policy Act (NEPA). The New York City Department of Housing Preservation and Development (HPD) acts as a Responsible Entity for NYCHA's environmental reviews pursuant to 24 CFR Part 58 and for the proposed disposition approval from the U.S. Department of Housing and Urban Development (HUD). HPD and HUD would therefore serve as Involved ~~Agency~~ Agencies under CEQR. The EIS will include NEPA topics of analysis, as appropriate, to satisfy federal environmental review requirements, as discussed below in Section C, "Scope of Work."

B. PROJECT DESCRIPTION AND PURPOSE & NEED

SITE CONDITIONS

The WF Parcel, Eastern Parcel, and Buildings 6, 7, and 8 on the NYCHA Parcel comprise a total of approximately ~~420,000~~ 420,700sf (~~9.65~~ 9.66 acres); the sites for Buildings 1 through 5 on the WF and Eastern Parcels are approximately ~~343,000~~ 328,000 sf (~~7.87~~ 7.53 acres, including land underwater) and those for Buildings 6 through 8 on the NYCHA Parcel are approximately 92,700 ~~659~~ sf (2.13 acres). The Eastern Parcel is occupied by an electronics and ink toner company, who is expected to vacate. The WF Parcel contains three building structures and three open lots. It is predominantly vacant but portions of this waterfront parcel have been leased to two tenants for construction and telecommunications storage and parking on a short-term or



NOTE: See Figure 14 for the Proposed Zoning Map Changes

SITE PLAN SOURCE: Studio V Architects

Proposed Large Scale General Development and Rezoning Areas

month-to-month lease agreement. The waterfront along the project site consists of structural bulkheads and soil embankments armored with large stone rip-rap or construction debris. An existing platform and bulkhead extend approximately 175 feet north from the southern tip of the site. The bulkhead and platform are in good overall structural condition. The remainder of the waterfront along the waterfront parcel consists of a soil embankment lined with large stone rip-rap. Buildings 1 through 5 are currently zoned M1-1, permitting light industrial uses subject to performance standards common to all M1 districts. Approximately 15,000 sf of the WF Parcel consists of land underwater between the pierhead line and shoreline that is owned by the New York State Office of General Services.

The sites for Buildings 6 through 8 are zoned R6 and contain parking lots, trash compactors, walkways, and a small amount of landscaped area within the Astoria Houses campus. The Astoria Houses contains 22 six- and seven-story residential buildings on an approximately 27-acre campus with a total of 1,103 residential units, as well as surface parking lots, a day care center and senior center, basketball courts and playgrounds, walkways, and other landscaped areas. The campus was completed in 1951. The NYCHA Rezoning Area is also located within the Astoria Houses campus.

Whitey Ford Field is an approximately 3.6-acre park bounded by the East River, 26th Avenue, and 2nd Street, containing a baseball field, bleachers, and open lawn area. It is under the jurisdiction of ~~the New York City Department of Parks and Recreation (~~DPR~~)~~, although it is not mapped parkland. Whitey Ford Field is currently zoned R6. The Parks Parcel consists of a portion of the Hallet's Cove Playground, which contains an asphalt baseball field and basketball courts. The approximately 10-foot wide alienated Parks Parcel that would be incorporated as part of the project includes a number of trees, the park perimeter fence, and a portion of the perimeter sidewalk and baseball field back stop area. The Parks Parcel would be incorporated in the NYCHA Astoria Houses campus as part of the proposed project and would continue to be utilized as open space.

PROJECT DESCRIPTION

As described in more detail below, the proposed actions would facilitate a proposal by the Applicant to develop Buildings 1 through 7 and a proposal by NYCHA to dispose of the site for Building 8 for development pursuant to a future RFP. The proposed project would be built continuously over time and it is expected that the full build out would be complete by 2022.

DEVELOPMENT PROGRAM

The proposed actions (listed below under Discretionary Approvals) would facilitate the development of a total of approximately ~~2.72~~ 2.73 million gross square feet (gsf) on the ~~project~~ building sites, consisting of a total of approximately ~~2.15~~ 2.2 million gsf of residential space (~~2,573~~ 2,644 housing units including 2,161 market-rate and ~~412~~ 483 affordable housing units); approximately 69,000 gross square feet (gsf) of retail space (including an approximately 30,100 gsf retail space designed for supermarket use in Building 1); and approximately ~~1,439~~ 1,347 garage parking spaces and ~~97~~ 53 on-site surface parking spaces on the sites of Buildings 6~~,~~ and 7~~, and 8~~ on the NYCHA Parcel. **Table 1** provides a summary of the proposed development program on each site. The proposed project would also include approximately ~~96,000~~ 102,324 sf (~~2.2~~2.35 acres) of publicly accessible open space, including a waterfront esplanade along the East River and upland connections to 1st Street.

The Applicant intends to provide affordable housing as part of the proposed project, using the City's Inclusionary Housing bonus program. As shown above, affordable housing would be developed on

Buildings 1, 5, 6, and 7. In order to meet the Inclusionary Housing bonus program requirement that affordable housing be provided on-site (i.e., within the same zoning lot), the development of affordable housing on Buildings 6 and 7 would be paired with sites that would contain market-rate units. Specifically, the affordable units developed on Building 6 would satisfy the affordable housing obligations of Buildings 3 and 4, and the affordable units developed on Building 7 would satisfy the affordable housing obligations of Buildings 2 and a portion of 5B. The affordable units developed on Buildings 1 and 5A would satisfy their own affordable housing obligations.

Table 1
Summary of Proposed Program

Use	Bldg 1	Bldg 2	Bldg 3	Bldg 4	Bldg 5A	Bldg 5B	Bldg 6A	Bldg 6B	Bldg 7A	Bldg 7B	Bldg 8[3]	Total
Residential GSF	385,717	286,820	360,378	205,299	195,174	253,129	87,586	49,711	69,438	61,547	240,000	**2,195,159**
Total Units[1]	*472*	*351*	*441*	*251*	*239*	*310*	*111*	*63*	*88*	*78*	*240*	***2,644***
Market-Rate Units	*377*	*351*	*441*	*251*	*191*	*310*	*0*	*0*	*0*	*0*	*240*	***2,161***
Affordable Units	*95*	*0*	*0*	*0*	*48*	*0*	*111*	*63*	*88*	*78*	*0*	***483***
Retail GSF	30,100	4,115	7,033	5,156	2,069	2,660	1,945	3,735	4,755	4,095	3,000	**68,663**
Parking GSF	76,308	60,383	63,818	44,745	50,852	60,661	0[1]	0[1]	0[1]	0[1]	51,015	**407,782**
Garage Parking Spaces[1]	*228*	*215*	*222*	*137*	*162*	*212*	0	*0*	0	*0*	*171*	***1,347***
Surface Parking Spaces[1]	*0*	*0*	*0*	*0*	*0*	*0*	27		26		*0*	***53***[3]
Mechanical GSF	11,738	8,198	13,177	9,138	7,266	6,303	NA	NA	NA	NA	**5,000**	**60,820**
Total GSF	**503,863**	**359,516**	**444,766**	**264,338**	**255,361**	**322,753**	**89,531**	**53,446**	**74,193**	**65,642**	**299,015**	**2,732,424**
Open Space	**102,324 sf (2.35 acres)**											

Notes: GSF = gross square feet. All proposed GSF are approximate.
~~[1] Assumes an average unit size of 695 zoning square feet.~~
[1] All parking would be accessory.
[2] In addition to the Applicant's proposal, NYCHA is seeking approvals in connection with the proposed disposition and future development of Site 8.
[3] The proposed project would also maintain 178 surface parking spaces within the NYCHA Parcel adjacent to Buildings 6 and 7 and in an expanded surface lot south of Astoria Boulevard to replace the surface parking displaced by the development of Buildings 6, 7, and 8.

The Applicant intends to provide affordable housing as part of the proposed project, using the city's Inclusionary Housing bonus program. As shown above, affordable housing would be developed in Buildings 1, 5, 6, and 7. In order to meet the New York State Real Property Tax Law 421-a tax abatement program requirement that affordable housing be provided on-site (i.e., within the same zoning lot), the development of affordable housing in Buildings 6 and 7 would be paired with sites that would contain market-rate units. Specifically, the affordable units developed in Building 6A and 6B would satisfy the affordable housing obligations of Buildings 3 and 4, respectively, and the affordable units developed in Building 7A and 7B would satisfy the affordable housing obligations of Building 2 and a portion of Building 5B, respectively. The affordable units developed in Buildings 1 and 5A would satisfy their own affordable housing obligations. It is expected that senior housing units would be developed as part of the affordable housing component of the proposed project, and that Buildings 6A/6B and 7A/7B may be entirely senior housing units. However, to provide for a conservative analysis, the EIS assumes that the proposed project's affordable housing component would not be age-restricted.

Figure 4 shows the illustrative overall site plan for the proposed project. The new development on Buildings 1 through 5 would consist of seven new buildings with high-rise towers rising from low- to mid-rise bases. On Buildings 1 through 5, the proposed project would include residential, retail, and parking uses in low- to mid-rise bases and residential uses in high-rise towers. The low- to mid-rise bases would include one level of below-grade parking and up to four floors of additional parking above-grade. The above-grade parking would be located in the building cores, wrapped by residential and retail uses. The residential uses wrapping the parking garages would consist of townhouses below apartment units. Ground floor retail would line portions of 1st Street and the demapped portion of 27th Avenue, leading to the waterfront. An approximately 30,000 gsf retail space (designed for a supermarket use) would be located on the ground floor of



Large Scale General Development Area

SITE PLAN SOURCE: Studio V Architects

Illustrative Development Site Plan

Figure 4

Building 1. The parking garages in the building cores may be topped by a rooftop terrace for use by the buildings' tenants. The structures on Buildings 1 through 5 would range from ~~16~~ 17 to ~~30~~ 31 stories in height (~~160~~ 170 to ~~300~~ 310 feet) (see **Figures 5** and **6**). The low- to mid-rise bases would be a minimum of four stories and would range from approximately 40 to 80 feet in height. Buildings 6 and 7 would contain four new mid-rise buildings rising to a maximum height of ~~100~~ 130 feet and ~~110~~ 140 feet, respectively (~~10~~ 13 and ~~11~~ 14 stories) (see **Figure 7**). These structures would contain residential and retail uses and surface parking. Local retail uses would be located along 27th Avenue and surface parking lots would be provided at the rear of the buildings. The existing uses on these sites, including parking and trash facilities, would be relocated elsewhere within the Astoria Houses campus, as discussed below. The development of Buildings 6 and 7 would also involve minor modifications to the paths and landscaping areas within the Astoria Houses Campus adjacent to each building site.

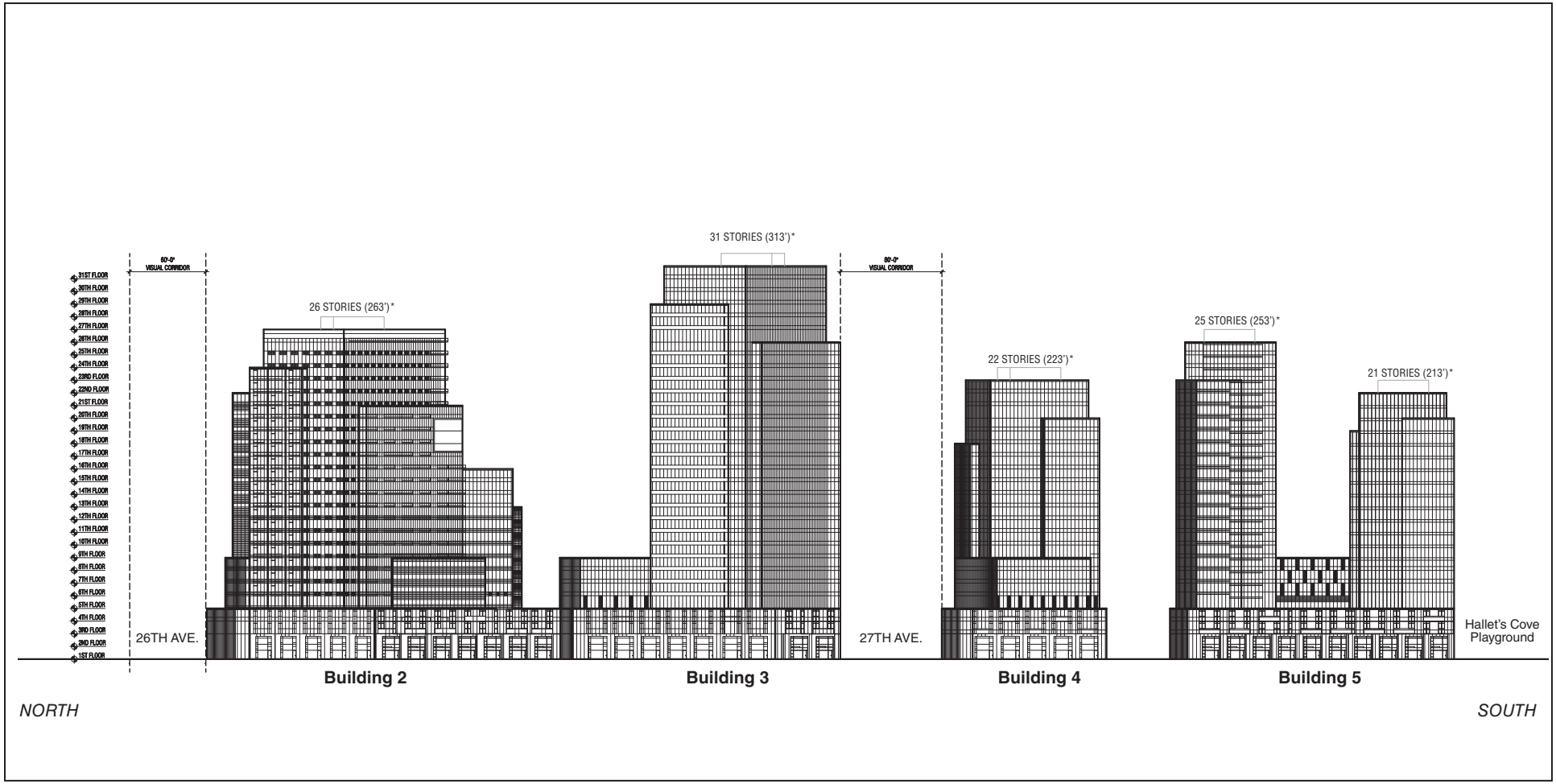
In addition to the Applicant's proposed development program for Buildings 1 through 7, the proposed actions would facilitate a proposal by NYCHA to dispose of the site for Building 8 along Astoria Boulevard for development pursuant to a future RFP. Building 8 would contain one new high-rise building rising to a height of 270 feet (27 stories). This structure would contain market-rate residential units and retail uses and garage parking. Local retail uses would be located on Astoria Boulevard at the intersection of 1st Street. **Figure 8** provides illustrative elevations of the Building 8.

Building heights throughout the proposed development would be articulated to create a varied skyline. ~~**Figure 8** provides an illustrative isometric drawing of the overall proposed project.~~

The development of Buildings 6, 7, and 8 would displace approximately 178 surface parking spaces within the NYCHA Astoria Houses Campus. All of these spaces would be replaced as part of the proposed project. A portion of these spaces would be accommodated within the surface parking lots adjacent to Buildings 6 and 7, and the remainder would be accommodated within combined and reconfigured surface parking lots south of Astoria Boulevard near the intersection of Astoria Boulevard and 8th Street (the expanded surface parking area, see **Figure 4**).

PUBLICLY ACCESSIBLE OPEN SPACE AND WATERFRONT ESPLANADE

As indicated above, the proposed project would incorporate publicly accessible open space including a waterfront esplanade and upland connections to 1st Street. The waterfront esplanade would run the length of the site's waterfront, connecting on the south to Hallet's Cove Playground and on the north to Whitey Ford Field. The waterfront esplanade would include landscaping and seating along the waterfront. The upland connections are intended to provide view corridors and public access from 1st Street to the esplanade and East River and would also include a public plaza at 27th Avenue. **Figure 9** shows an illustrative rendering of the proposed esplanade and **Figure 10** shows the upland connection between 1st Street and the proposed esplanade along the demapped portion of 27th Avenue. As each site along the waterfront is built out, the associated public open space required under the Zoning Resolution would be completed at the same time as the buildings. Upon completion, the proposed project would create approximately ~~95,847~~ 102,324 sf (~~2.2~~2.35 acres) of publicly accessible waterfront open space on the WF Parcel. The proposed waterfront esplanade would be designed to provide a cohesive transition between the project site and Whitey Ford Field to the north and the Hallet's Cove Playground to the south. The proposed project would also create a publicly accessible open space area with benches and plantings adjacent to Building 1 between 1st Street and 2nd Street.



SOURCE: Studio V Architects

*The proposed zoning envelope would allow buildings up to the height indicated

Illustrative Elevation of WF Parcel, View From West

Figure 5

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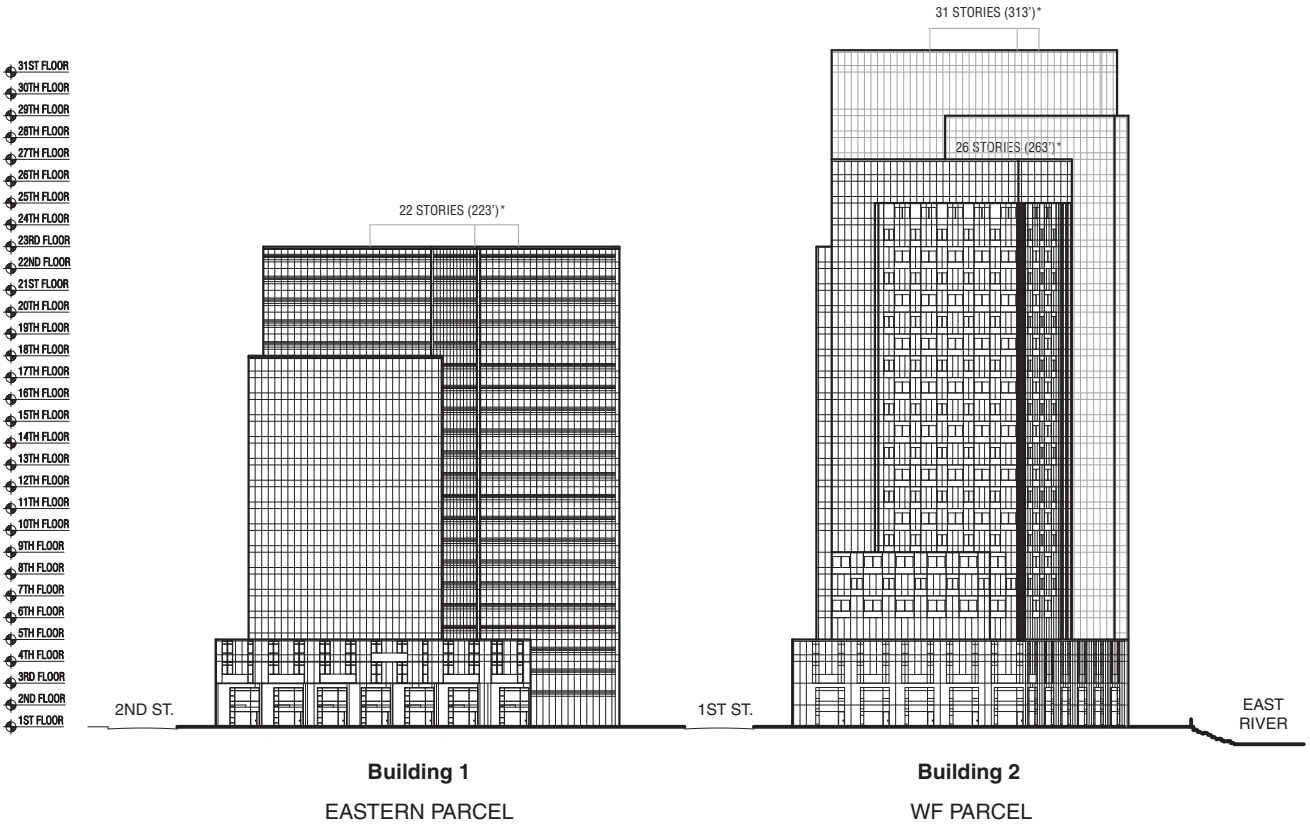


SOURCE: Studio V Architects

*The proposed zoning envelope would allow buildings up to the height indicated

Illustrative Elevation of Eastern and WF Parcel, View From North



Building 6

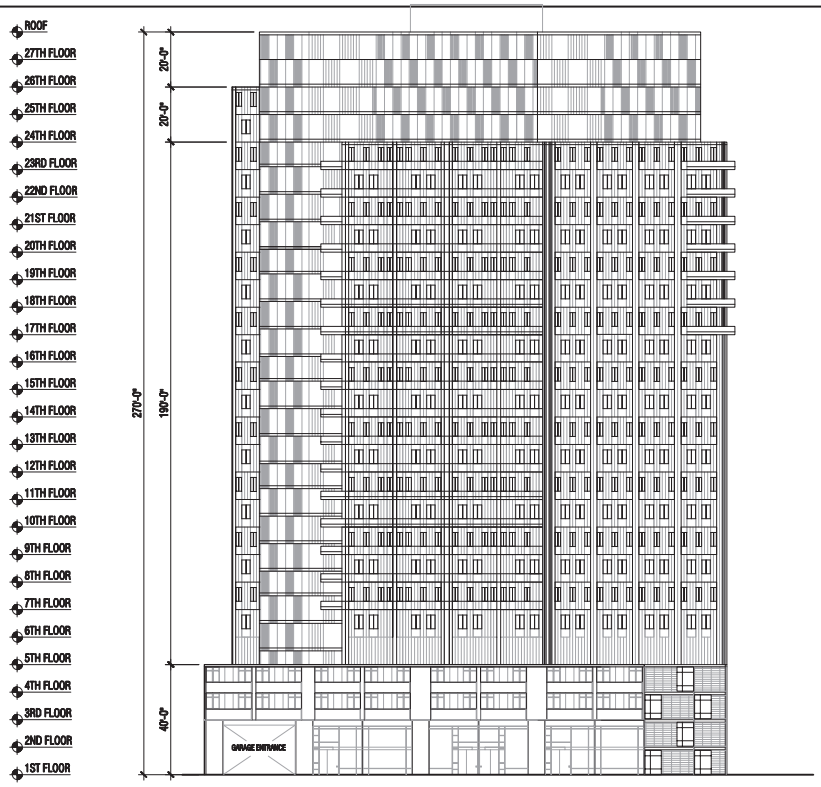


Building 7

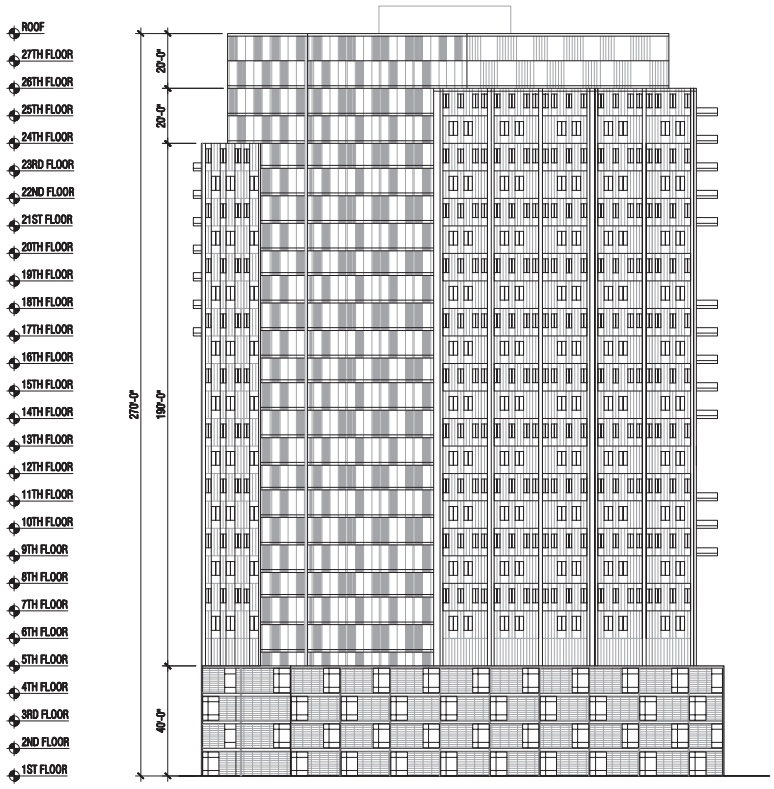
SOURCE: Studio V Architects

Illustrative North Elevation, Building 6 and 7

Figure 7



North Elevation

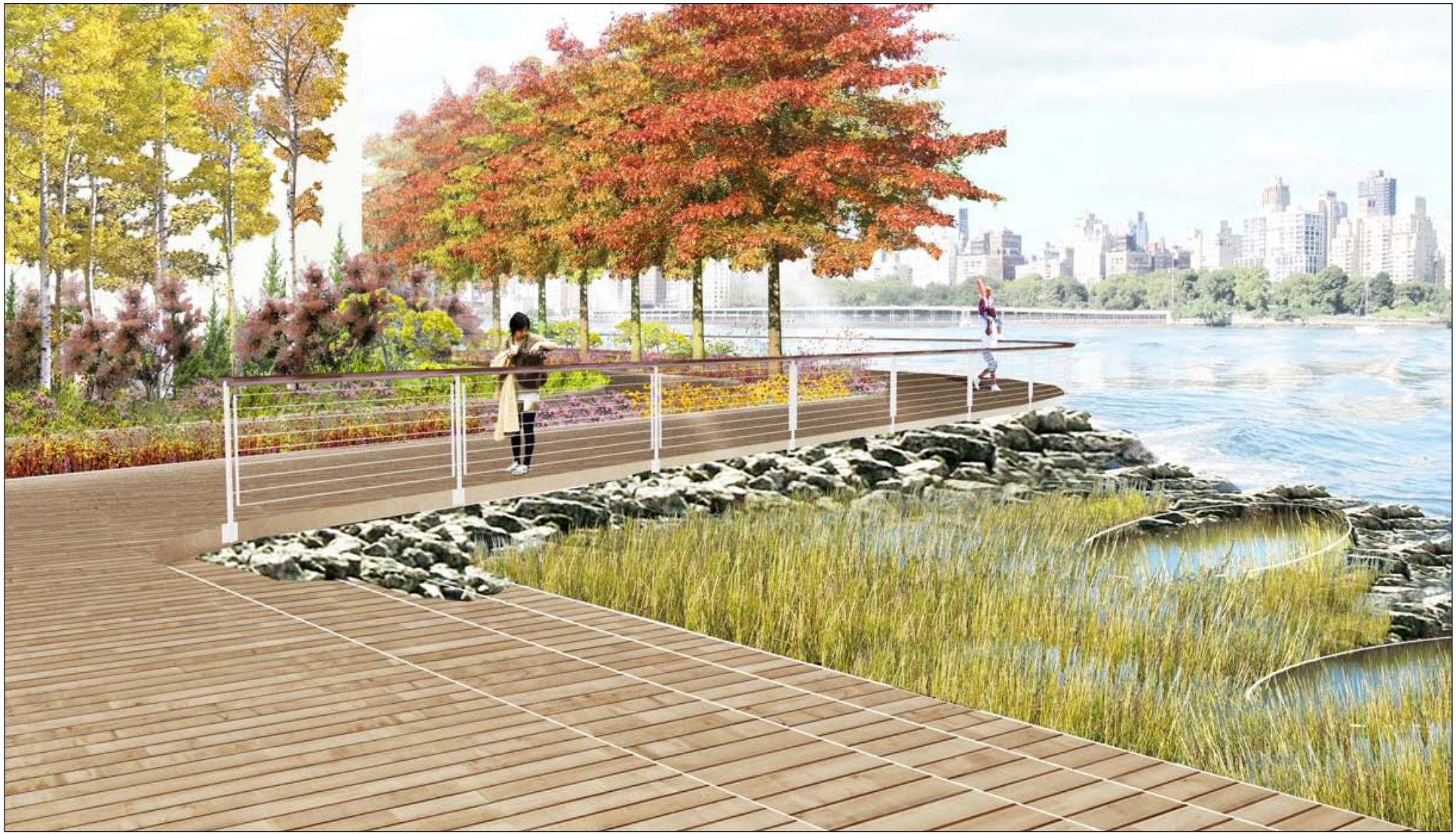


South Elevation

SOURCE: Studio V Architects

HALLETTS POINT

Illustrative Elevations of Building 8
Figure 8



Illustrative Rendering of Proposed Esplanade



Illustrative Rendering of Proposed 27th Avenue Plaza

INFRASTRUCTURE IMPROVEMENTS

The proposed project would include improvements to stormwater and sanitary sewer infrastructure to support the new development. Currently, there are two stormwater outfalls located adjacent to the project site: a 36-inch storm sewer and outfall on 27th Avenue and a 48-inch outfall at 26th Street. The proposed project would include construction of new stormwater outfall(s) for the proposed development sites to enable direct discharge of stormwater flows to the East River. These outfalls would be permitted by the New York State Department of Environmental Conservation (NYSDEC) and USACE, and stormwater generated on-site would be treated for water quality prior to discharge. In addition, it is expected that new sanitary sewers would be provided to convey additional wastewater flows generated from the project. The routing and scope of additional sanitary sewers will be developed as project design progresses in consultation with the New York City Department of Environmental Protection (DEP).

In addition, there is an established water distribution network through the Halletts Point peninsula generally consisting of 8" to 20" water mains. Consistent with NYCDEP policy, mains located within the streets fronting the development sites constructed prior to 1945 would be reconstructed to current NYCDEP design standards.

Furthermore, the design and construction of the proposed project would comply with *New York City Building Code* requirements for construction within the 100-year floodplain. The finish floor elevations for the residential townhouse structures proposed for the WF Parcel along the East River and on the Eastern Parcel would be about 3 feet above the 100 year flood elevation. The remaining residential units within the WF Parcel and Eastern Parcel would be within the towers above the low- to mid-rise bases and thus would be well above the 100- and 500-year flood elevation. The finish floor elevations for the ground floor retail uses on the WF Parcel would be about 2 inches above the 100-year flood elevation.

NYCHA REZONING AREA

As noted above, the application would also rezone a portion of the Astoria Houses campus to include a commercial overlay over the existing R6 zoning district along Astoria Boulevard and 27th Avenue. The portion of the NYCHA Rezoning Area along 27th Avenue would facilitate the development of approximately 15,000 gsf of retail in Buildings 6 and 7 along 27th Avenue, as described above. The portion of the NYCHA Rezoning Area along Astoria Boulevard would include the development of approximately 3,000 gsf of retail on Building 8. Because of the configuration of the NYCHA buildings and the presence of NYCHA tenants, it is not expected that new retail uses would be developed in the ground floors of existing buildings within the NYCHA Rezoning Area. It should be noted that the proposed project would not displace any existing NYCHA tenants nor would it reduce the number of existing parking spaces on the NYCHA Astoria Houses Campus.

It should be noted that NYCHA is contemplating a master plan for the Astoria Houses Campus that may include future development on other parcels within the campus. The NYCHA Rezoning Area may facilitate future development on other sites within the Astoria Houses Campus. There are no current plans or a projected timeline for the development of future commercial uses or other development parcels along Astoria Boulevard, but these uses are contemplated as part of NYCHA's long-term master planning for the Astoria Houses Campus. Future development in the Astoria Houses would be subject to the proposed Large-Scale General Development (LSGD), if approved, and therefore any modification to the LSGD to facilitate this or any new development would require further review by the New York City Planning Commission.

ROAD NETWORK IMPROVEMENTS

The proposed project would include a number of street improvements. **Figure 11** shows the existing street network and **Figure 12** shows proposed improvements to the network. A portion of 27th Avenue, located west of 1st Street and currently used as accessory parking for adjacent businesses, would be demapped and transformed into a pedestrian waterfront access corridor. The portion of 26th Avenue west of 1st Street would also be demapped and transformed into a pedestrian waterfront access corridor. In addition, a new connecting street segment between existing mapped portions of Astoria Boulevard is proposed on the NYCHA parcel. Between 1st Street and 8th Street, Astoria Boulevard would be two-directional with one lane in either direction. Parking may be added along some segments of the street, depending on required street widths and the location of existing mature trees. Traffic calming measures for the new connecting street segment on Astoria Boulevard would be explored in consultation with the New York City Department of Transportation (DOT).

To the north, 26th Avenue would become one-way eastbound between 1st and 2nd Streets. Between 26th and 27th Avenues, 1st Street would become one way northbound and 2nd Street would become one-way southbound. Third and 4th Streets would remain unchanged in their directionality between 26th and 27th Avenues.

TRANSIT SERVICE IMPROVEMENTS

The proposed project would also include an important transit amenity—an on-street bus layover facility along 2nd Street adjacent to Building 1. Preliminary discussions have taken place between the Applicant and the Metropolitan Transportation Authority-New York City Transit (MTA-NYCT) on potentially increasing bus service and/or extending routes as the project sites become occupied.

SUSTAINABILITY AND SEA LEVEL RISE RESILIENCE MEASURES

The Applicant intends to take a proactive approach to incorporating measures into the proposed project to address and plan for resilience to flooding, including future sea level rise. All habitable residential spaces in the proposed project would be approximately three feet above the current applicable 100 year flood elevation. When accounting for future sea level rise (specifically, the New York City Panel on Climate Change (NPCC) projected central estimate of 1.0 to 1.9 feet), the vast majority of residential units would be well above the projected future 100 year flood elevation. The residential uses closest to the current 100 year flood elevation, the proposed townhouses along the esplanade and upland connections, would still be above the central estimates of projected sea level rise. Building lobbies and the ground floor retail spaces, which are approximately 2 inches above the current 100 year flood elevation, would be flood-proofed and would utilize flood barriers on an as needed basis (i.e. before predicted storm events). In addition, if approved, the proposed project would account for elevating the proposed buildings above any future applicable flood elevations as designated by the Federal Emergency Management Agency (FEMA).[1] The Applicant is also committed to elevating critical

[1] The FEMA Advisory Base Flood Elevation (ABFE) for the portion of New York City including the project site was released for review on February 25, 2013. The ABFE for the WF Parcel would be up to 13 feet, an approximately 5 foot increase over the currently applicable 100 year flood elevation. Although the ABFE is subject to further review, if it is adopted as part of a future updated Flood

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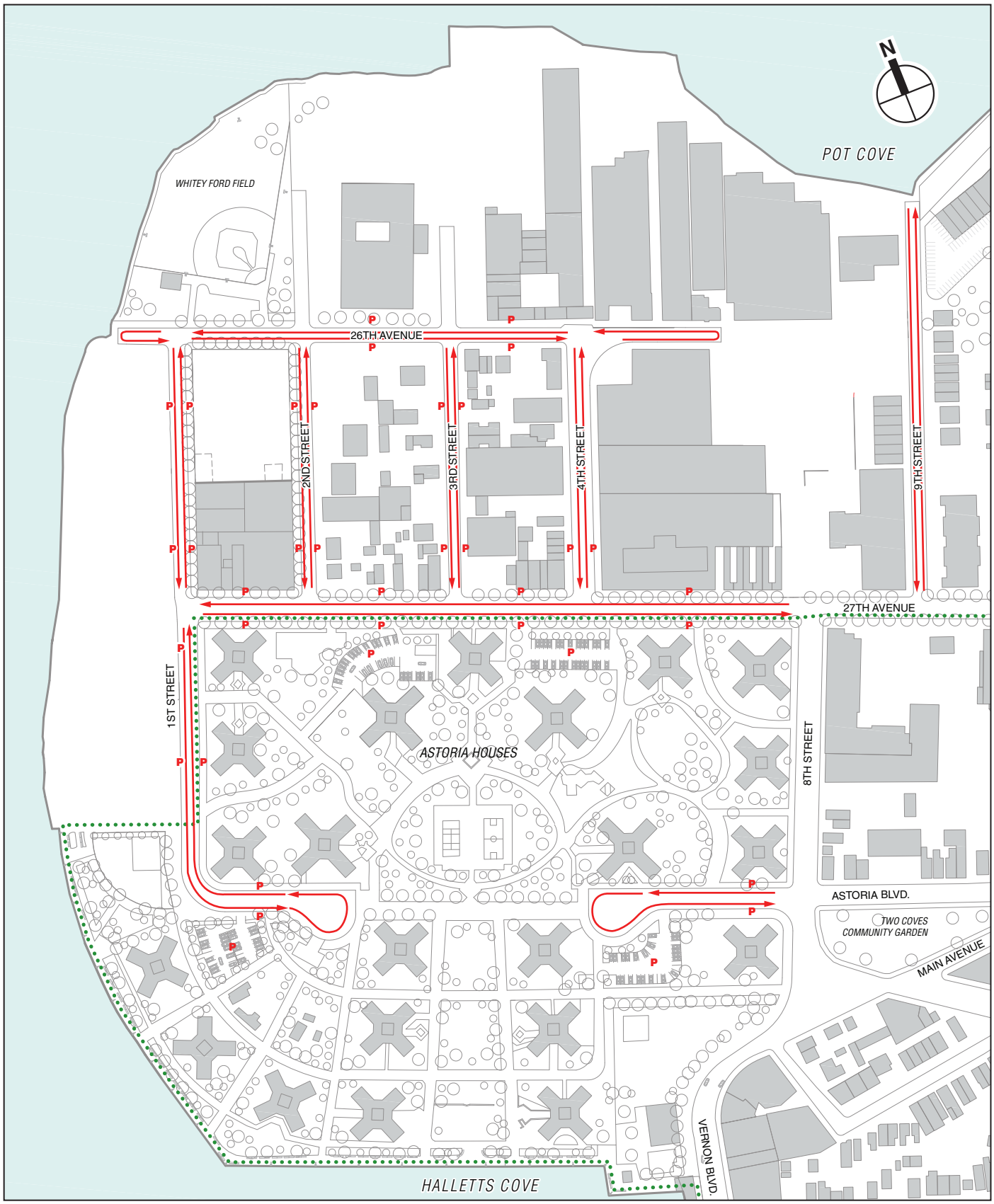

Direction of Traffic

P *Street Parking*

Bike Route

HALLETTS POINT

Existing Street Network

Figure 11

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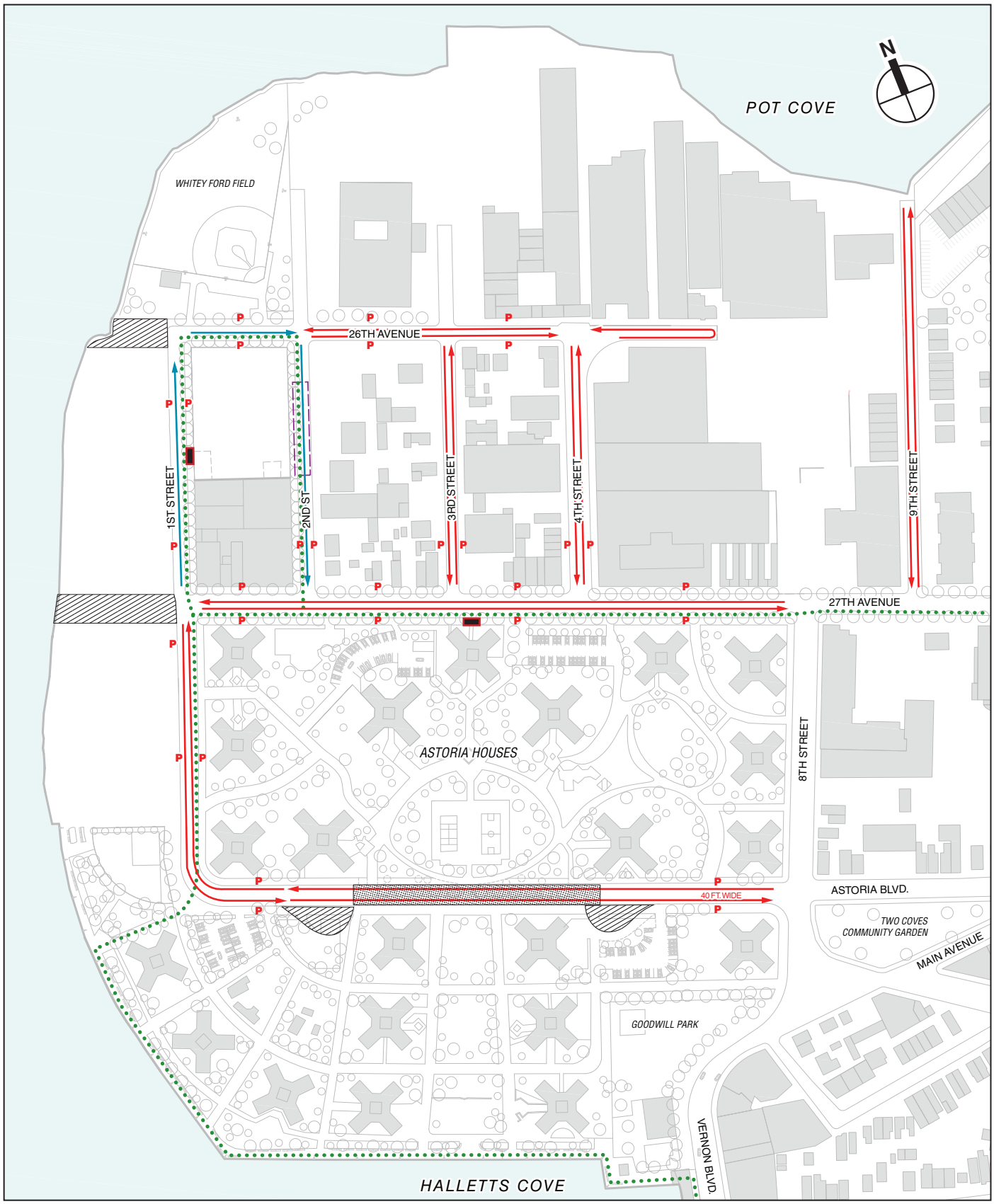

HALLETTS POINT

Proposed Street Network

Figure 12

infrastructure above the flood level or, in cases where infrastructure is required to be at lower levels by building code, to be sealed. To the extent practicable and feasible, the proposed project would to elevate emergency generators, fuel pumps, and water, electricity, and gas distribution well above flood levels and flood-protect those utility connections and fuel tanks that are required to be at lower elevations.

MODIFICATIONS TO THE NYCHA ASTORIA HOUSES CENTRAL BOILER PLANT EXHAUST

The Applicant has discussed with NYCHA the potential for modifications to the existing NYCHA Astoria Houses central boiler plant to address potential air quality issues. Specifically, as part of the development of Building 7A, the central boiler plant may be modified to duct the exhaust gas from the existing boiler exhausts to a new location at proposed Building 7A. The NYCHA Astoria Houses central boiler plant is located in the existing Astoria Houses building located between the proposed Buildings 6A/6B and 7A/7B (Astoria Houses Building 7 located at 3-04 27th Avenue). As part of the project, emissions from the NYCHA central boiler plant would be rerouted to a new boiler stack located at proposed Building 7A. The Applicant is also considering, in consultation with NYCHA, other options that would address emissions from the NYCHA Astoria Houses central boiler plant in a manner no less protective of the environment.

DISCRETIONARY APPROVALS

Implementation of the proposed project would require approval of discretionary actions by the CPC, including:

Zoning Map Changes

- Rezoning of Eastern and WF Parcels from an M1-1 District to R7-3/C1-4 District;
- ~~Rezoning of~~ Establish a C1-4 District within an existing R6 District on p/o the Astoria Houses Campus ~~from R6 to R6/C1-4~~ NYCHA would be the co-applicant for this rezoning action, which would facilitate the proposed project's development of Buildings 6, 7, and 8;
- Establish ~~zoning of~~ an R6 District on the Parks Parcel~~from N/A to R6; and~~;
- Rezoning of parcel bounded by edge of Whitey Ford Field, centerline of 2nd Street, East River, and 26th Avenue from R6 to M1-1~~.~~;
- Rezoning a former portion of 26th Avenue between 1st Street and the US Bulkhead and Pierhead line from an R6 District to an R7-3/C1-4 District; and
- Rezoning a portion of 26th Avenue between 1st Street and 2nd Street from an R6 District to an R7-3 District.

Zoning Text Amendments

- Text amendment to ZR §63-02(a)(4) ~~and~~ ,63-25(d), and Appendices A, B, and C to make Queens Community District 1~~, except certain portions~~ shown on Map ~~5~~1 in Appendix ~~8~~B, eligible for the Food Retail Expansion to Support Health (FRESH) Program;

Insurance Rate Map, the proposed project would comply with these flood elevations as required by the New York City *Building Code.*

- Text amendment to ZR §62-454 to exempt accessory parking located no more than 33' above the height of the base plane from the definition of floor area ~~(this text amendment would apply only to the project site)~~;
- Text amendment to ZR §23-952, §62-322, and Appendix F to ~~make~~ apply the ~~Waterfront and Eastern Zoning Lots an~~ Inclusionary Housing ~~designated area~~program to the WF and Eastern Parcel;
- Text amendment to ZR §23-952 to add R7-3 base and maximum floor area ratios ~~(this text amendment would apply only to the project site)~~;
- Text amendment to modify ZR §62-132 to ~~require~~allow lot lines coincident with the boundary of a mapped Public Park in ~~CPC approved LSGD~~Queens Community District 1 to be treated as a wide street line for the purposes of applying §23-86 (minimum distance between legally required windows and walls or lot lines~~) and the lot line coincides with the boundary of a mapped public park in Queens Community District 1 (this text amendment would apply only to the project site)~~; and
- Text amendment to modify ZR §74-742 to permit a Large Scale General Development ~~Special Permits~~special permit to be applied for ~~and granted~~ even ~~though such LSGD does not meet the ownership requirements~~ if a portion of the LSGD is owned by the City or State of New York or is located within the bed of 26th Avenue, between 1st Street and the bulkhead line~~a defunct corporation (this text amendment would apply only to the project site)~~.
- Text amendment to modify ZR §74-743 to authorize CPC to permit floor area distribution from a zoning lot containing public housing buildings on the Halletts Point Peninsula if unused floor area on a separate parcel containing light industrial buildings to be demolished can be transferred to another zoning lot within a large scale general development and such distribution contributes to better site planning of a waterfront public access area and the development of affordable housing units.

LSGD Bulk Modification Special Permits

- ZR §74-743(a)~~(1)~~ Special Permit to
  - allow floor area ~~and lot coverage~~ from the Waterfront Zoning Lot to be distributed ~~be used on~~ to the Eastern Zoning Lot ~~within the LSGD.~~ ;
  - allow lot coverage from the Eastern Zoning Lot to be used on Waterfront Zoning Lot;
  - waive the ZR §23-532 through-lot rear yard equivalent;
  - waive the height & setback provisions of ZR §62-341(c)(1) and (2);
  - waive the tower footprint size limitation provision of §62-341(c)(4);
  - waive the maximum width of walls facing shoreline provision of §62-341(c)(5); and
  - allow a phased construction program for Development, pursuant to ZR §11-42(c).

Waterfront Special Permits

- ZR §62-836 Special Permit to waive the Shore Public Walkway initial setback distance provisions of 62-341(a), the height & setback provisions of §62-341(c)(1) and (2), the 30 percent floor area coverage provision of §62-341(c)(3), the tower footprint size limitation provision of §62-341(c)(4), the maximum width of walls facing shoreline provision of §62-341(c)(5), ~~the rear yard equivalent provisions of §23-532,~~ and the minimum distance between buildings on the same zoning lot requirements of §23-711.

Waterfront Authorizations and Certifications

- ZR §62-822(a) Authorization to modify the requirements for location, area and minimum dimensions of waterfront public access areas and visual corridors—NYCHA would be the co-applicant for this authorization;
- ZR §62-822(b) Authorization to modify requirements within a waterfront public access areas—NYCHA would be the co-applicant for this authorization;
- ZR §62-822(c) Authorization for phased development of waterfront public access areas; and
- ZR §62-811(b) Certification by the Chairperson of the City Planning Commission for compliance with the requirements for waterfront public access and visual corridors—NYCHA would be the co-applicant for this certification.

Mapping Actions

- The Elimination, Discontinuance, and Closing of Portions of Two Cul-De-Sacs in Astoria Boulevard Between 1st Street and 8th Street, the conveyance of a Street Easement from NYCHA to the City, and the Related Transfer of City-Owned Property to NYCHA;
- The Establishment of a Park Between 2nd Street and 26th Avenue and the U.S. Pierhead and Bulkhead Line;
- The Elimination of a Portion of Public Park West of 1st Street and South of 27th Avenue and the Related Transfer of City-Owned Property to NYCHA;
- The Elimination, Discontinuance, and Closing of 26th Avenue and 27th Avenue Between 1st Street and the U.S. Pierhead and Bulkhead Line and the Related Disposition of City-Owned Property to the Applicant; and
- The Adjustment of Grades and Block Dimensions Necessitated Thereby.

- ~~Delineation of a 10-foot wide Public Access Easement within the eliminated portion of a Public Park, between First Street and the U.S. Pierhead and Bulkhead Line;~~
- ~~Elimination, discontinuance and closing of 26th Avenue, between First Street and the U.S. Pierhead and Bulkhead Line, and accompanying disposition (per New York City Administrative Code Section 4-105);~~
- ~~Elimination, discontinuance and closing of 27th Avenue, between First Street and the U.S. Pierhead and Bulkhead Line, and accompanying disposition (per New York City Administrative Code Section 4-105);~~
- ~~Elimination, discontinuance and closing of two portions of Astoria Blvd., between First Street and Eighth Street (the NYCHA cul-de-sacs) and accompanying disposition to NYCHA (per New York City Administrative Code Section 4-105);~~
- ~~Elimination of a 10-foot wide portion of a Public Park (subject of New York State alienation legislation 10622), between First Street and the U.S. Pierhead and Bulkhead Line, and accompanying disposition to NYCHA (per the Public Housing Law);~~
- ~~Delineation of a 70-foot wide easement for street purposes between the two ends of Astoria Boulevard, on the NYCHA Parcel;~~
- ~~Delineation of a Public Access Easement within the closed portion of 26th Avenue, between First Street and the U.S. Pierhead and Bulkhead Line;~~
- ~~Delineation of a Public Access Easement within the closed portion of 27th Avenue, between First Street and the U.S. Pierhead and Bulkhead Line; and~~

- ~~Establishing an existing Public Park on the City Map as parkland on Block 913, Lot 1.~~

In addition to the actions listed above, it is anticipated that the authorization application (N090487ZAQ) filed pursuant to ZR §62-822(a) may be amended to allow the waterfront yard elevation to be raised and to modify the level of the visual corridors accordingly. ZR §62-332 (Rear yards and waterfront yards) limits the level of waterfront yards to the elevation of the top of the existing bulkhead, existing stabilized natural shore or mean high water line and ZR §62-512 (Dimensions of visual corridors) requires that the lowest level of a visual corridor be determined by a plane connecting the intersection of the visual corridor with the street and the shoreline. This modification would be requested to address and plan for project resilience to flooding. The Federal Emergency Management Agency (FEMA) has re-evaluated existing flood elevations and released Advisory Base Flood Elevations (ABFEs) indicating that base flood elevation would likely rise several feet. Accordingly, the base plane of the proposed buildings will likely be raised to a higher elevation to maintain compliance with zoning and construction codes, which are based off of base flood elevation. Therefore, the waterfront yard may need to be raised to maintain connectivity with the higher base plane of the buildings fronting First Street and the modification of the above authorization would be required.

ACTIONS NOT SUBJECT TO ULURP

In addition to the proposed actions subject to CPC approval, the proposed project ~~will~~ would require approval from other City, State, and Federal agencies, including:

- NYCHA board approval of the disposition of public housing property at the Astoria Houses Campus for construction of new housing and provision of a street easement;
- Approval by HUD under Section 18 of the U.S. Housing Act for disposition of NYCHA public housing property for construction of ~~new housing~~ Buildings 6 and 7 and provision of a street easement at the Astoria Houses Campus—HPD will be acting as the Responsible Entity on behalf of NYCHA under 24 CFR Part 58 on the disposition action. A separate Section 18 disposition action for Building 8 would be pursued in the future at the time a development entity is designated by NYCHA.
- New York State Office of General Services approval for disposition of a negative easement to allow the use of development rights associated with lands underwater;
- Permits and approvals by the NYSDEC and the USACE for any in-water and tidal wetlands construction activities;
- State Pollutant Discharge Elimination System (SPDES) permit from NYSDEC;
- Alienation of Parkland by the New York State Legislature (New York State alienation legislation 10622);
- ~~Mayoral override of zoning resolution street tree planting requirements for portions of the zoning lot not affected by proposed development.~~
- HPD approval of an Affordable Housing Plan (AHP) pursuant to the Inclusionary Housing Program; and
- Potential financing from City and/or State agencies (HPD, the New York City Housing Development Corporation [HDC], and/or New York State Homes and Community Renewal [HCR]) for affordable housing construction.

Figures 13 and **14** show the existing and proposed zoning with the proposed project, and **Figure 15** presents a comparison map. **Figure 16** shows the proposed mapping actions associated with the proposed project.

OTHER ACTIONS

Mayoral Overrides

Parking

Subsequent to City Planning approval of the proposed ULURP application, if obtained, the Applicant intends to request a Mayoral Override to waive part of the parking requirement applicable to Buildings 6 and 7. For purposes of the proposed ULURP application, the proposed project meets all applicable accessory parking space minimums required by the Zoning Resolution. While existing parking lots on the Astoria Houses Campus would be the site of future development, each of the parking spaces that would be displaced by development would be replaced in consolidated lots located elsewhere on the Astoria Houses Campus. The new required parking spaces generated by new development on the Astoria Houses campus would be partially met by spaces provided within central parking lots on the Astoria Houses Campus and partially by spaces within structured parking garages located in the proposed new buildings on the WF Parcel.

The proposed Mayoral Override would allow the required parking spaces generated on the NYCHA Parcel but accommodated on the WF Parcel to be waived. It would eliminate the necessity that the buildings on the NYCHA Parcel rely on the WF Parcel buildings to remain zoning compliant. Buildings 6 and 7 may include a senior housing component, and such residents are less dependent on personal automobile use. The Mayoral Override would eliminate the need to overly burden existing NYCHA open space with parking, but still permit each parcel to independently comply with zoning.

Street Trees

Subsequent to City Planning approval of the proposed ULURP application, if obtained, the Applicant intends to request a Mayoral Override to waive part of the street tree planting requirements applicable to the proposed project. Under the street tree planting requirements of the Zoning Resolution, street trees would need to be planted along all street frontages of the affected zoning lots. The proposed Mayoral Override would permit trees to be planted only along street frontages adjacent to areas affected by the proposed project. The Mayoral Override would eliminate the burden to plant street trees along the portions of the zoning lot frontage not affected by the proposed project. As noted above, the project site includes the entire 27-acre Astoria Houses Campus which aside from the sites of Buildings 6, 7, and 8 and the expanded surface parking area would not be affected by the proposed project.

PURPOSE AND NEED OF THE PROPOSED ACTIONS

The purpose of the proposed project is to implement a plan for a large-scale housing development with affordable units, along with ground-floor retail space and a publicly accessible waterfront esplanade and open space. The proposed project is intended to transform a largely underused waterfront area into a new, enlivened mixed-use development. The proposed new housing would support the City's plans to provide additional capacity for residential development, especially affordable housing. The proposed neighborhood retail is intended to provide amenities that are currently lacking in the area and which would serve the existing

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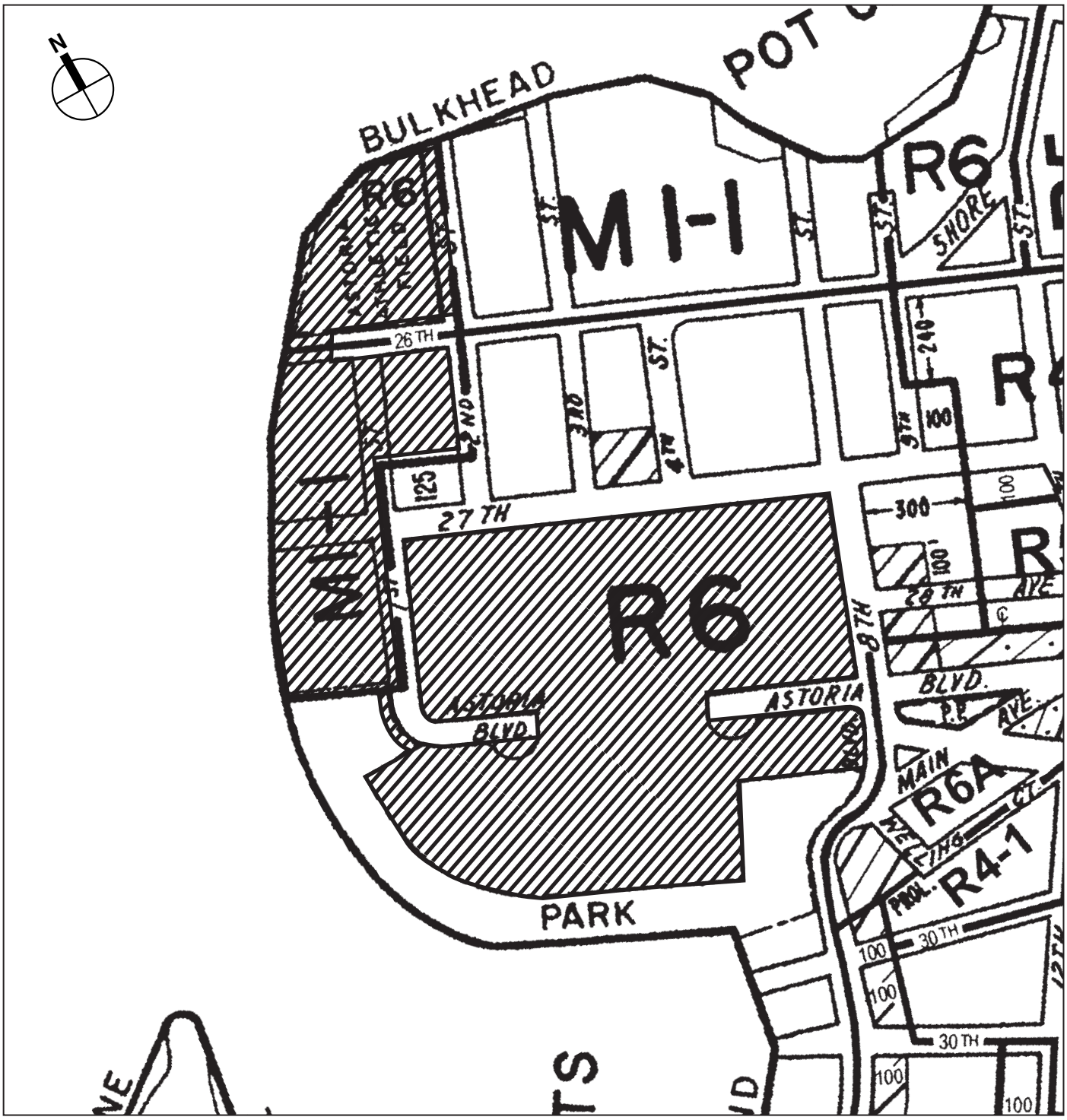


Project Site

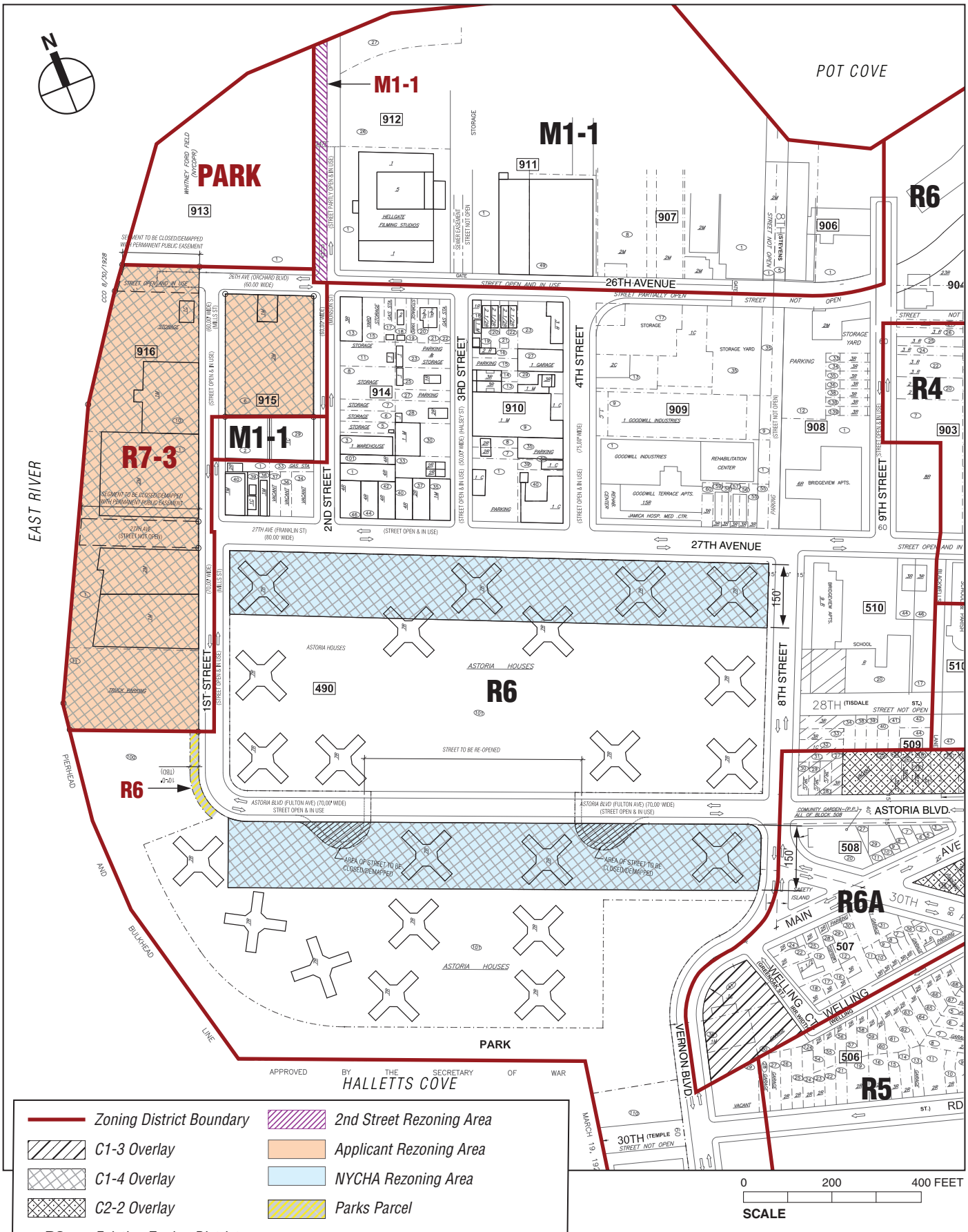
Zoning District Boundary

C1-3 Overlay

C2-3 Overlay

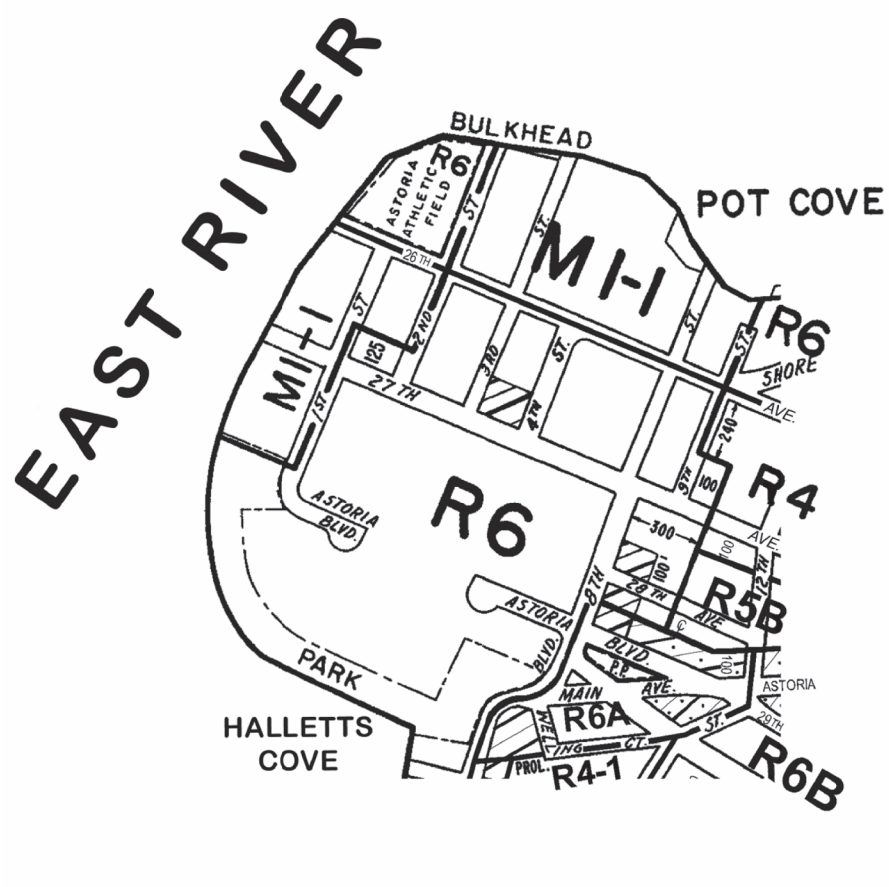
HALLETTS POINT

Existing Zoning
Figure 13

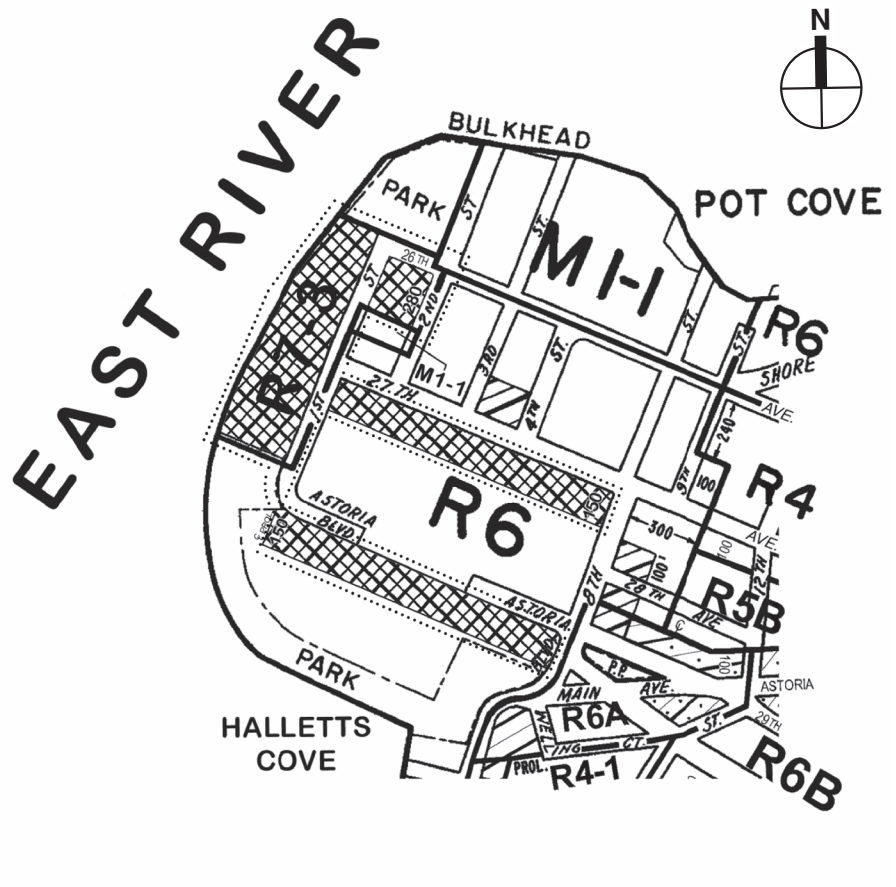


HALLETTS POINT

Proposed Zoning
Figure 14



EXISTING ZONING



PROPOSED ZONING

Area of Rezoning

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

Existing and Proposed Zoning Comparison

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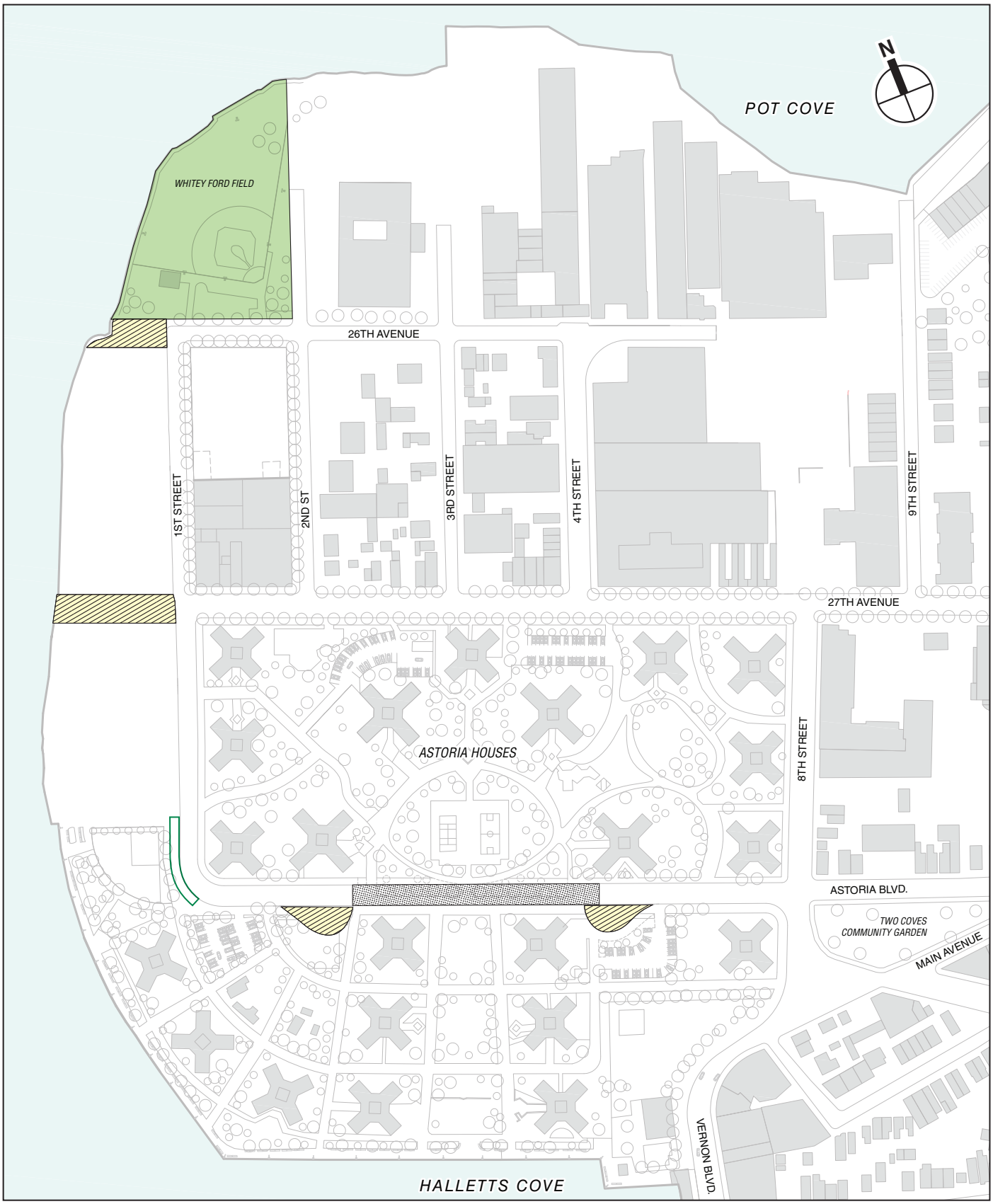


Street Segment to be Closed and Demapped

New Connecting Street Segment

Area to be Mapped as Public Park

Area of Public Park to be Alienated

0 200 400 FEET

SCALE

HALLETTS POINT

Proposed Mapping Actions

Figure 16

residential population in addition to the project-generated population. The proposed action includes a request to include the project area in the FRESH Program, which will facilitate the siting of grocery stores selling a full range of food products with an emphasis on fresh fruits and vegetables, meats, and other perishable goods in this underserved area. The proposed project would also establish a publicly accessible waterfront esplanade with upland connections and a connection to Hallet's Cove Playground south of the site and Whitey Ford Field north of the site. The proposed open space is intended to provide benefits for the Astoria community, the Borough of Queens, and the City as a whole.

In addition to the Applicant's proposal for the development of Buildings 1 through 7, NYCHA is contemplating a master plan for the Astoria Houses that may include future development on other parcels within the campus. NYCHA is seeking to identify sources of revenue in order to continue its mission of maintaining and providing affordable housing, and one source of revenue is to reposition and capitalize on its existing real estate assets. Thus, the proposed disposition of the land for Buildings 6 and 7 to the Applicant and the anticipated future disposition of the land for Building 8 will provide revenue to support NYCHA's mission. The development of Building 8 would also contribute to the introduction of an economically diversified population within the Astoria Houses Campus. As discussed above, the proposed actions would facilitate the disposition of the site for Building 8 by NYCHA pursuant to a future RFP.

The new connecting segment between existing mapped portions of Astoria Boulevard on the NYCHA Parcel, between 1st and 8th Streets, is intended to improve circulation in the area and provide a better connection with the surrounding community. The development of Building 8, including the proposed ground-floor retail, is intended to enliven the new street. The proposed bus layover facility would facilitate the provision of better bus service to the area.

ENVIRONMENTAL REVIEW PROCESS

Acting on behalf of the CPC, which is the lead agency in the environmental review, DCP has determined that the proposed actions and project have the potential to result in significant environmental impacts and, therefore, pursuant to CEQR procedures, has issued a Positive Declaration requiring that an EIS be prepared in conformance with all applicable laws and regulations, including the State Environmental Quality Review Act (SEQRA), the City's Executive Order No. 91, CEQR regulations (August 24, 1977) and the guidelines of the *2012 CEQR Technical Manual*. Furthermore, in consultation with HPD, as Responsible Entity for the proposed disposition approval from HUD, DCP has issued a Notice of Intent to Prepare an EIS to satisfy NEPA procedural requirements in accordance with 24 CFR Part 1502.

As noted above, a Draft Scope was prepared and issued for public review, and oral and written comments were accepted at a public hearing and through the public review period, which ended December 26, 2012. This Final Scope has been prepared to incorporate those relevant comments and will serve as the framework for the preparation of the DEIS.

Once DCP has determined that the DEIS is complete, a Notice of Completion (pursuant to CEQR) and a Notice of Availability (pursuant to NEPA) would be prepared and distributed/published in accordance with applicable regulations. The DEIS will then be subject to additional public review, in accordance with the Uniform Land Use Review Procedure (ULURP), CEQR, and NEPA procedures, with a public hearing and a period for public comment. A Final EIS (FEIS), and response to comments on the DEIS, would be accompanied by a Notice of Completion (pursuant to CEQR) and a Record of Decision (pursuant to NEPA).

The lead agency will then make CEQR findings based on the FEIS, before making a decision on project approval.

As described in greater detail below, the EIS will contain:

- A description of the proposed actions and project and its environmental setting;
- A statement of the potential significant adverse environmental impacts of the proposed project, including their short- and long-term effects, typical associated environmental effects, and cumulative effects when considered with other planned developments in the area;
- A description of mitigation measures proposed to eliminate or minimize adverse environmental impacts;
- An identification of any adverse environmental effects that cannot be avoided if the proposed project is implemented;
- A discussion of alternatives to the proposed actions and project; and
- A discussion of any irreversible and irretrievable commitments of resources to develop the project.

C. SCOPE OF WORK

The EIS for the Halletts Point Rezoning will be prepared pursuant to CEQR in accordance with the 2012 *CEQR Technical Manual*, and pursuant to NEPA in accordance with 24 CFR Part 58 and 40 CFR Part 150. The environmental review provides a means for decision-makers to systematically consider environmental effects along with other aspects of project planning and design, to evaluate reasonable alternatives, and to identify, and mitigate where practicable, any significant adverse environmental impacts. DCP will act as the lead agency for CEQR review.

The first step in preparing the EIS document is the public scoping process. "Scoping," or creating the scope of work, is the process of focusing the environmental impact analysis on the key issues that are to be studied in the EIS. The proposed scope of work for each technical area to be analyzed in the Halletts Point Rezoning EIS follows. The scope of work and the proposed impact assessment criteria below are based on the methodologies and guidance set forth in the 2012 *CEQR Technical Manual*. Environmental review requires a description of existing conditions, a projection of site conditions into the future without the proposed project (the No Build condition) for the year that the action would be completed, and an assessment of future conditions with the proposed project (the Build condition) for the same year. Project impacts are then based on the incremental change between the future without and with the proposed project. The proposed project would be built continuously over time and analyses will be conducted for one Build year, 2022, by which time the full build-out associated with the proposed actions is expected to be complete. No Build conditions will be projected through 2022 and are based on the assumption that conditions on the site would not change in the future without the proposed project.

TASK 1: PROJECT DESCRIPTION

The first chapter of the EIS will introduce the reader to the proposed project and provide the project description from which impacts are assessed. The chapter will contain a project identification; the background and purpose and need for the proposed project and any related actions; a detailed description of the proposed actions, the tax blocks and lots that are affected, and the proposed development program; and a discussion of the approvals required, procedures

to be followed, and the role of the EIS in the approval process. This chapter is key to understanding the proposed project and its potential impacts, and provides the public and decision-makers a framework from which to evaluate the proposed project against both Build and No Build options.

TASK 2: ANALYSIS FRAMEWORK

This chapter will discuss the framework for the analyses of the EIS. It will identify the analysis years and describe the future development conditions (No Build and Build) that will be assessed in the EIS. Each impact category will discuss the existing conditions and conditions in the future No Build and Build conditions. The technical analysis and identification of potential significant adverse impacts will be focused on the incremental change to the environmental setting that the proposed project would create as compared to the future No Build condition. Consequently, this chapter will outline how the various EIS chapters will address cumulative impacts by comprehensively defining the environmental setting expected in the No Build condition, including a discussion of development projects expected to be completed independent of the proposed project (No Build projects), and the baseline growth in the No Build condition that will be analyzed in all the technical areas.

As discussed above, the Applicant's proposal involves the development of two parcels within the NYCHA Astoria Houses campus along 27th Avenue (Buildings 6 and 7). In addition, NYCHA is contemplating a master plan for the Astoria Houses that may include future development on other parcels within the campus. This EIS will consider the potential environmental impacts of the disposition of Building 8 along Astoria Boulevard for future development as described above. To facilitate future development, this application would also rezone a portion of the Astoria Houses campus to include a commercial overlay along Astoria Boulevard. The development of Buildings 6, 7, and 8 will be included in the impact assessment presented in the EIS. Although the timeframe for the future disposition and development of the site of Building 8 is not known, for the purposes of this EIS it is assumed that Building 8 would be completed by 2022.

There are no current plans or a projected timeline for the development of future commercial uses or other development parcels along Astoria Boulevard, but these uses are contemplated as part of NYCHA's long-term master planning for the Astoria Houses campus. Future development in the Astoria Houses would be subject to the proposed LSGD, if approved, and therefore modifications to the LSGD to facilitate this development would require further review by the lead agency.

TASK 3: LAND USE, ZONING, AND PUBLIC POLICY

The proposed project includes a number of actions including a rezoning of several lots, zoning text amendments, and special permits for modifications to height, setback, bulk, and parking requirements. Therefore, the EIS will include an assessment of the proposed actions' consistency with land use, zoning, and public policy, in accordance with the *CEQR Technical Manual*. The assessment will begin with a preliminary analysis, and if necessary, a detailed assessment will be conducted. The analysis will include information on existing land use now and in the future without the proposed project to set the context in which many of the other technical tasks may be understood.

The assessment of land use, zoning, and public policy will consist of the following tasks:

- Provide a brief development history of the project site and ¼-mile study area.

- Based on existing studies, information included in existing geographic information systems (GIS) databases for the area and field surveys, identify, describe, and graphically present predominant land use patterns and site utilization on the project site and in the ¼-mile study area. Recent land use trends and major factors influencing land use trends will be described.
- Describe and map existing zoning and any recent zoning actions on the project site and in the ¼-mile study area.
- Describe other public policies that apply to the project site and the study area, including specific development projects and plans for public improvements and the City's Comprehensive Waterfront Plan updated in 2011.
- Describe the effects of No Build projects on land use patterns and development trends in the future without the proposed project. Also, describe any pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area, including plans for public improvements. The No Build analysis will assume that, absent the proposed project, the project site will continue to be occupied by the existing uses.
- Describe the proposed actions and provide an assessment of the impacts of the proposed project on land use and land use trends, zoning, and public policy. Consider the effects related to issues of compatibility with surrounding land use, consistency with zoning and other public policy initiatives, and the effect of the project on development trends and conditions in the area.
- Since the project site is located in the Coastal Zone, an assessment of the project's consistency with the NYC Waterfront Revitalization Program (WRP) will also be provided. ~~The WRP is currently under revision with expected adoption in 2012, as such consistency with the revised policies of the WRP will also be provided as necessary.~~
- The federal Coastal Zone Management (CZM) Act of 1972 establishes the CZM program at the federal level as well as approved programs at the state level. In accordance with federal regulations found at 15 CFR Part 930 and sections 307 (c) and (d) of the CZM Act, the project will be reviewed for its consistency with the federal CZM Program.
- The project will also be reviewed for its compliance with HUD policy as described in 24 CFR 51, Subpart D (Airport Clear Zones).

If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 4: SOCIOECONOMIC CONDITIONS

This chapter will examine the effects of the proposed action on the socioeconomic character of the study area, including its population characteristics, housing, and economic activity. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of an area.

According to the *CEQR Technical Manual*, the five principal issues of concern with respect to socioeconomic conditions are whether a proposed action would result in significant adverse impacts due to: (1) direct residential displacement; (2) indirect residential displacement; (3) direct business displacement; (4) indirect business displacement; and (5) adverse effects on specific industries. ~~As detailed below, t~~The proposed action warrants an assessment of socioeconomic conditions with respect to indirect residential displacement, and indirect business

displacement~~, and adverse effects on specific industries~~. The project site does not contain any residences; therefore, it would not result in direct residential displacement. ~~In addition, t~~The businesses located on the project site do not contain more than 100 employees; therefore, an assessment of direct business displacement is not warranted. In addition, the two businesses that would be directly displaced by the proposed project do not represent a critical mass of businesses within any industry or category of business; therefore an assessment of adverse effects on specific industries is not warranted.

In conformance with *CEQR Technical Manual* guidelines, the assessment of the ~~four~~ remaining areas of concern will begin with a preliminary assessment to determine whether a detailed analysis is necessary. Detailed analyses will be conducted for those areas in which the preliminary assessment cannot definitively rule out the potential for significant adverse impacts. The detailed assessments, if determined to be necessary, will be framed in the context of existing conditions and evaluations of the future No Build and Build conditions, including any population and employment changes anticipated to take place by the time the project is complete.

INDIRECT RESIDENTIAL DISPLACEMENT

The concern with respect to indirect residential displacement is whether a proposed project—by introducing a substantial new development that is markedly different from existing uses, development, and activities within the neighborhood—could lead to increases in property values, and thus rents, making it difficult for some residents to afford their homes. The objective of the indirect residential displacement analysis is to determine whether the proposed action would either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

The indirect residential displacement analysis will use the most recent available U.S. Census data, New York City Department of Finance's Real Property Assessment Data (RPAD) database, as well as current real estate market data, to present demographic and residential market trends and conditions for a ½-mile study area. The presentation of study area characteristics will include population, housing value and rent, ~~cooperatives and condominium conversion,~~ estimates of the number of housing units not subject to rent protection, and median household income. Following *CEQR Technical Manual* guidelines, the preliminary assessment will perform the following step-by-step evaluation:

- **Step 1**: Determine if the ~~Proposed Action~~ proposed project would add substantial new population with different income as compared with the income of the study area population. If the expected average incomes of the new population would be similar to the average incomes of the study area populations, no further analysis is necessary. If the expected average incomes of the new population would exceed the average incomes of the study area populations, then Step 2 of the analysis will be conducted.
- **Step 2**: Determine if the proposed project population is large enough to affect real estate market conditions in the study area. If the population increase is greater than 5 percent in the study area as a whole or within any identified subareas, then Step 3 will be conducted. If the population increase is greater than 10 percent in the study areas as a whole or within any identified subarea, then a detailed analysis is required.

- **Step 3**: Consider whether the study area has already experienced a readily observable trend toward increasing rents and the likely effect of the action on such trends. This evaluation will consider the following:
  - If the vast majority of the study area has already experienced a readily observable trend toward increasing rents and new market development, further analysis is not necessary. However, if such trends could be considered inconsistent and not sustained, a detailed analysis may be warranted.
  - If no such trend exists either within or near the study area, the action could be expected to have a stabilizing effect on the housing market within the study area by allowing limited new housing opportunities and investment, and no further analysis is necessary.
  - If those trends do exist near to or within smaller portions of the study area, the action could have the potential to accelerate an existing trend. In this circumstance, a detailed analysis will be conducted.

If the preliminary assessment finds that ~~there is a substantial population potentially at risk of indirect displacement~~ the proposed project would introduce a trend or accelerate an existing trend of changing socioeconomic conditions that may have the potential to displace a residential population and substantially change the socioeconomic character of the neighborhood, a detailed analysis will be conducted. The detailed analysis would utilize more in-depth demographic analysis and field survey to characterize existing conditions of residents and housing, identify populations at risk of displacement, assess current and future socioeconomic trends that may affect these populations, and examine the effects of the proposed action on prevailing socioeconomic trends and, thus, impacts on the identified population at risk.

INDIRECT BUSINESS DISPLACEMENT

According to the *CEQR Technical Manual*, commercial developments of 200,000 square feet or less or residential development of 200 units or less would typically not result in significant indirect impacts. Although the net increment of commercial space added by the Proposed Action would be less than 200,000 square feet, the proposed action would introduce a substantial new residential use that could alter socioeconomic conditions in the study area. Therefore, an indirect business displacement analysis will be conducted to determine if the proposed action would introduce trends that make it difficult for businesses that are essential to the local economy to remain in the area.

The analysis will describe and characterize conditions and trends in employment and businesses within the study area using the most recent available data from public and private sources such as New York State Department of Labor, the U.S. Census Bureau, and ESRI, as well as discussions with local real estate brokers as necessary. This information will be used in a preliminary assessment to consider:

- Whether the proposed action would introduce enough of a new economic activity to alter existing economic patterns;
- Whether the proposed action would add to the concentration of a particular sector of the local economy enough to alter or accelerate existing economic patterns;
- Whether the proposed action would directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses; and

- Whether the proposed action would directly or indirectly displace residents, workers, or visitors who form the customer base of existing businesses in the area.

If the preliminary assessment finds that the proposed action could introduce trends that make it difficult for businesses that are essential to the local economy to remain in the area, a detailed analysis will be conducted. The detailed analysis would follow the *CEQR Technical Manual* guidelines to determine whether the proposed action would increase property values and thus increase rents for a potentially vulnerable category of businesses and whether relocation opportunities exist for those businesses.

~~*SPECIFIC INDUSTRIES*~~

~~Based on the guidelines in the *CEQR Technical Manual*, the analysis for effects on specific industries will respond to the following issues:~~

- ~~Whether the proposed action would significantly affect business conditions in any industry or category of businesses within or outside the study area; and~~
- ~~Whether the proposed action would indirectly substantially reduce employment or impair the economic viability in a specific industry or category of businesses.~~

TASK 5: COMMUNITY FACILITIES AND SERVICES

The demand for community facilities and services is directly related to the type and size of the new population generated by a proposed project. New workers tend to create limited demands for community facilities and services, while new residents create more substantial and permanent demands. This chapter of the DEIS will evaluate the effects on community services due to the proposed project, including effects on police and fire protection, public schools, outpatient and emergency health care facilities, libraries, and publicly funded child care facilities. The community facilities and services assessment will include a description of existing conditions and evaluations of the conditions in the future with and without the proposed project.

According to the *CEQR Technical Manual*, preliminary thresholds indicating the need for detailed analyses are as follows:

- Public Schools: More than 50 new elementary/middle school or 150 high school students.
- Libraries: A greater than 5 percent increase in the ratio of residential units to libraries in the borough. For Queens, this is equivalent to residential population increase of 621 residential units.
- Health Care Facilities (outpatient): The ability of health care facilities to provide services for a new project usually does not warrant a detailed assessment under CEQR. Generally, a detailed assessment of health care facilities is included only if a proposed action would directly affect the physical operations of, or access to and from, a hospital or public health clinic, or if a proposed action would create a sizeable new neighborhood where none existed before.
- Child Care Facilities (publicly funded): More than 20 eligible children based on the number of new low/moderate-income residential units by borough. For Queens, an increase of 139 low/moderate-income residential units exceeds this threshold.
- Fire Protection: The ability of the fire department to provide fire protection services for a new project usually does not warrant a detailed assessment under CEQR. Generally, a detailed assessment of fire protection services is included only if a proposed action would

directly affect the physical operations of, or access to and from, a fire station house, or if a proposed action would create a sizeable new neighborhood where none existed before.

- Police Protection: The ability of the police department to provide public safety for a new project usually does not warrant a detailed assessment under CEQR. Generally, a detailed assessment of police protective services is included only if a proposed action would directly affect the physical operations of, or access to and from, a precinct house, or if a proposed action would create a sizeable new neighborhood where none existed before

Based on these thresholds and the assumptions of the proposed project, detailed analyses will be conducted, as applicable, for public schools, libraries, and child care facilities. The schools assessment will include: identification of public schools serving the project area; assessment of conditions in terms of enrollment and utilization during the current school year, noting any specific problems with school capacity; identification of conditions that will exist in the future without the project, taking into consideration projected increases in future enrollment based on Department of Education enrollment projections and planned projects in the area, and plans to increase school capacity either through administrative actions on the part of the Department of Education or as a result of the construction of new school space; and assessment of conditions in the future with the proposed project based on the number of new students introduced as a result of the proposed project, relative to available capacity that may exist in the future with the project. If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 6: OPEN SPACE

The *CEQR Technical Manual* recommends performing an open space assessment if a project would have a direct effect on an area open space or an indirect effect through increased population size. Typically, an assessment is conducted if the proposed project's population is greater than 200 residents or 500 employees.

The proposed project would introduce new employees associated with the retail uses, community facility space, and residential building maintenance, but it is not anticipated that it would result in a total of 500 or more workers. However, the proposed project would generate a substantial number of new residents, such that it will exceed the CEQR analysis threshold and will place added demand on existing open space and recreational facilities. The open space assessment will begin with a preliminary assessment to determine the need for further analysis. If warranted, a detailed assessment will be prepared.

This section of the EIS will assess potential direct and/or indirect impacts of the proposed project on open space and recreation. A discussion of the open space added by the proposed project will be provided. Tasks for the open space analysis will include:

- Inventory existing open space and recreational facilities within approximately ½-mile of the project site. Tally open space acreage for passive and active, publicly accessible open space.
- Estimate residential population of the open space study area based on the 2010 Census.
- In conformance with *CEQR Technical Manual* methodologies, assess the adequacy of existing publicly accessible open space facilities. The assessment of adequacy is based on a comparison of the ratio of open space per 1,000 people to City guidelines.
- Assess expected changes in future levels of open space supply and demand in the build year, based on other planned development projects in the study area. Develop open space ratios

for future conditions and compare them with existing ratios to determine changes in future levels of adequacy.

- Based on the project's estimated population and the proposed open space that would be created, assess the project's effects on open space supply and demand. This assessment will be based on a comparison of open space ratios with the project to open space ratios without the project.
- In coordination with other tasks, identify any potential direct impacts on nearby open space from shadows, air quality, or noise generated by the proposed project.

If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 7: SHADOWS

This chapter will examine the proposed project's potential shadow effects pursuant to *CEQR Technical Manual* criteria. Generally, shadow impacts could occur if an action would result in new structures or additions to buildings resulting in structures over 50 feet in height that could cast shadows on natural features, publicly accessible open space, or on historic features that are dependent on sunlight. The proposed project would include the construction of structures up to approximately 300 feet in height along the waterfront and in close proximity to several existing open space resources including Hallet's Cove Playground and Whitey Ford Field. Thus, an analysis of shadows is appropriate.

An analysis of shadows will be prepared focusing on the relation between the incremental shadows created by the proposed project's buildings on any sun-sensitive landscape or activities in the open spaces on and near the project site. These analyses will include the following tasks:

- Identify sun-sensitive landscapes and historic resources within the path of the proposed project's shadows. In coordination with a survey for the open space and historic analyses, map and describe any sun-sensitive areas. For open spaces, map active and passive recreation areas and features of the open spaces such as benches or play equipment. The East River, an important natural ~~landscape~~ feature, will be included in the shadows analysis.
- Prepare shadow diagrams for time periods when shadows from the new buildings could fall onto ~~existing~~ open spaces and natural features of concern ~~as well as open space created as a result of the project~~. The analysis will also take into account any historic resources identified in the area that may have significant sunlight dependent features such as stained glass windows. These diagrams will be prepared for up to four representative analysis days (March 21/September 21, May 6/August 6, June 21, December 21) if shadows from the proposed building would fall onto any of the open spaces, natural features or sun-sensitive historic resources on that day.
- Map the shadows from the existing buildings, No Build buildings, and the proposed project. Describe the effect of the incremental shadows from the proposed project on publicly accessible open spaces, ~~project open spaces,~~ and natural features, as well as any historic resources with significant sunlight dependent features based on the shadow diagrams for each of the analysis dates.
- Create a duration table that will show the entering and exiting times when an incremental shadow will fall on each of the affected sun-sensitive features and characterize whether the extent and duration of shadows will result in significant adverse impacts.

If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 8: HISTORIC AND CULTURAL RESOURCES

The *CEQR Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. Historic resources include designated New York City Landmarks (NYCLs) and Historic Districts; properties calendared for consideration as NYCLs by LPC or determined eligible for NYCL designation; properties listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing, or properties contained within a S/NR listed or eligible district; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHLs); and potential historic resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements).

The project site contains several low-rise manufacturing buildings and property owned by NYCHA. The area surrounding the project site contains primarily undistinguished industrial structures, the mid-20th century Astoria Houses, and a number of small residential buildings that have been significantly altered. Pursuant to CEQR and Section 106 of the National Historic Preservation Act (NHPA), and 36 CFR Part 800 (Protection of Historic Resources), the New York City Landmarks Preservation Commission (LPC) and New York State Office of Parks, Recreation and Historic Preservation (OPRHP) will be contacted regarding the project site's archaeological sensitivity. An assessment of architectural resources will be provided to identify if there are any ~~verify that there are no~~ architectural resources that could be affected by the proposed project. The analysis will include the following tasks:

- Consult with LPC and OPRHP regarding the site's potential archaeological sensitivity. A Phase 1A Archaeological Study will be prepared if requested by LPC and/or OPRHP and summarized in the EIS.
- Prepare a narrative documenting the history of the project site and study area. This narrative will serve as a basis in assessing the potential historic significance of the structures in the area.
- Within a 400-foot study area surrounding the project site, identify if there are any known architectural resources. Conduct a field survey to identify if there are any potential architectural resources that could be impacted by the proposed project. Potential architectural resources comprise properties that appear to meet the eligibility criteria for NYCL designation and/or S/NR listing. Map and briefly describe any potential architectural resources. NYCLs and Historic Districts, properties calendared or determined eligible for NYCL designation, NHLs, and properties listed on the Registers or determined eligible for S/NR listing.
- Evaluate the project's potential effects on any identified architectural and archaeological resources pursuant to CEQR and Section 106 of the NHPA.

If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 9: URBAN DESIGN AND VISUAL RESOURCES

This section of the EIS considers the potential of the proposed project to affect the pedestrian's experience of the built environment. The built environment, or its urban design, is created by a

number of components. These include streets, buildings, open space, natural features, and visual resources, which make up the arrangement, appearance, and functionality of the urban design of a given area. The assessment will begin with a preliminary analysis, and if necessary, a detailed assessment will be conducted. The analysis will include the following tasks:

- Define the study area for urban design and visual resources. The study area will be defined to encompass the project site, immediate area, and areas from which the proposed project will be visible, including the Queens, Manhattan, and Ward's Island waterfront.
- Prepare a concise narrative of the project site and the study area. The narrative will address the components of urban design as defined in the 2012 *CEQR Technical Manual*: streets, buildings, visual resources, open space, natural resources, and wind. The narrative will be supported with the following items from the detailed analysis checklist in Section 330 of Chapter 10 in the *CEQR Technical Manual*: photographs; area maps including those showing existing view corridors and access to visual resources; and information on building massing, floor area, lot and tower coverage, building heights, open area, building setbacks, and average floor plate sizes, etc.
- Based on planned and proposed development projects and using the information gathered above for existing conditions, assess whether and how urban design conditions are expected to change in the future without the proposed project. This will include other planned projects in the area.
- Present program information for the proposed project, including site plans, zoning calculations, floor area calculations, lot and tower coverage, building heights and setbacks, and street wall heights, as such information is developed and becomes available. Program information may also include, as appropriate, sketches or renderings of the future with the proposed project for existing views, elevations along street fronts, and sections through street and other pedestrian areas, and proposed program and use distribution.
- Assess how the proposed project would affect the pedestrian's experience of the built environment relative to the future without the proposed project and determine the significance of those changes.
- Analyze the project's potential effects on pedestrian wind conditions. The construction of large buildings at locations that experience high wind conditions may result in an exacerbation of wind conditions due to 'channelization' or 'downwash' effects that may affect pedestrian safety. Analysis may include computer modeling or the use of a wind tunnel, as appropriate, and will focus on the extent to which the massing and orientation of buildings and other features of the proposed development contribute to an exacerbation of pedestrian wind conditions. In the event that studies indicate the potential for exacerbation of pedestrian wind conditions that could affect pedestrian safety, modifications to the urban design features of the project, including changes to building massing, landscaping and other measures, that are consistent with the overall urban design objectives of the project, will be considered.
- If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 10: NATURAL RESOURCES

The project site is located on the East River waterfront. It is completely developed and its shoreline is protected. The EIS will provide an assessment of natural resources. Existing natural resources within or in the vicinity of the proposed action area will be characterized, including

terrestrial plants and wildlife, and water quality and aquatic biota of the East River ~~in the vicinity of the project site~~. The proposed project's potential impacts ~~on~~ to natural resources will be assessed, including short-term construction effects, ~~and~~ long-term effects such as the discharge of stormwater runoff from the project, ~~as well as~~ and beneficial impacts to wildlife from landscaping that would be implemented as part of the proposed project. A discussion of any related permits that may be required ~~would~~ will be provided.

The analysis will include the following tasks:

- On the basis of existing regional and site-specific water quality information (e.g., DEP Harbor Survey and the East River Long Term Control Plan), including ~~the~~ trends and projection data, characterize water quality conditions along the East River. ~~using regional and site specific data as may be available through a literature review.~~ This section will also describe the general hydrodynamic characteristics of the East River, including ~~providing~~ information on currents, tidal range, water quality classification, and overall pollutant loads and chemical and biological conditions.
- On the basis of a site reconnaissance and existing information on aquatic and terrestrial resources in the vicinity of the project site, including essential fish habitats, wetlands, terrestrial resources, and threatened or endangered species from resource agencies such as the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service and New York State Department of Environmental Conservation, ~~and site reconnaissance,~~ characterize the existing aquatic resources of the East River within the vicinity of the project site and the terrestrial resources within the project site.
- Assess potential effects ~~on~~ to natural resources and water quality in the future without the proposed project, accounting for any changes in the study area that may alter natural resources or water quality and public initiatives intended to improve the natural habitat and water quality of the New York metropolitan area.
- Assess potential impacts to aquatic resources from the proposed project, considering ~~possible~~ changes in shoreline protection, changes in water coverage, temporary sediment disturbance resulting from possible in-water construction activities associated with shoreline enhancement and development of new stormwater outfalls (see "Infrastructure" below), and discharge of stormwater runoff from the proposed project ~~to affect water quality and aquatic biota~~. Potential impacts to terrestrial resources will ~~would~~ be assessed by considering ~~the existing limited terrestrial resources on the project site~~ tree removal and other vegetation disturbance, visual and noise disturbances to wildlife, risk of bird collisions with the proposed project's buildings, and benefits of ~~beneficial impacts that would result from~~ landscaping and tidal vegetation restoration that would be implemented as part of the proposed project. The need for any state or federal approvals will be identified.
- Review the proposed project for compliance with the Endangered Species Act of 1973, as amended, and HUD's implementing regulations at 50 CFR Part 402. The USFWS database for Queens County will be consulted to determine the presence of any listed threatened or endangered species or critical habitat in the project area. The project will include further consultation and coordination with USFWS as required.
- Review the project area for the presence of wetlands identified on the National Wetlands Inventory (NWI) and in consultation with the USFWS. Executive Order 11990 (Protection of Wetlands) requires federal activities to avoid adverse impacts to wetlands where practicable. The potential for the project to result in any short- or long-term adverse impacts associated with both on- and off-site wetlands will be assessed.

- Assess the proposed project's potential effects on the Brooklyn-Queens Aquifer System, which is designated a sole source aquifer, in accordance with HUD requirements at 40 CFR Part 149 (Sole Source Aquifers).
- Assess the project for its consistency with other HUD environmental review requirements related to natural resources, such as the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.), as amended, particularly Sections 7(b) and (c), and the Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.) and HUD's implementing regulations at 7 CFR Part 658.
- Floodplains Analysis. The project site is located within the 100-year floodplain, as identified on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), and is also within a Special Flood Hazard Area (SFHA). Projects located within a floodplain are subject to Executive Order 11988 (Floodplain Management). To comply with HUD's implementing regulations at 24 CFR Part 55, a §55.20 analysis (the 8-step process) will be completed to document noticing compliance, any alternatives to locating the project in the floodplain, and any potential impacts associated with occupying the floodplain, along with proposed mitigation measures, as necessary. The analysis will also note that the Flood Disaster Protection Act of 1973, as amended, requires that property owners purchase flood insurance for buildings located within Special Flood Hazard Areas (SFHA) when Federal financial assistance is used to acquire, repair, improve, or construct a building. It is anticipated that the 8-step process ~~would~~ will be carried out as part of the EIS process to allow for proper noticing and public comment on the findings.
- If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 11: HAZARDOUS MATERIALS

This section will primarily examine the potential for impacts related to subsurface contamination, including an evaluation of the existing soil and groundwater conditions in areas that would be affected by the proposed project. It will also address the potential for hazardous materials to be present within existing site structures. It will summarize conditions at ~~on~~ the sites based on a review of recent and previously performed Phase I Environmental Site Assessments (ESAs) and prior reports ~~on~~ including those summarizing ~~prior~~ subsurface investigations. As necessary, to update older Phase I reports, regulatory database searches will be conducted and new site inspections will be performed per American Society for Testing and Materials (ASTM) 1527-05.

The analysis will include assessment of the potential for contamination of soil and groundwater at the project site, and the need for any testing or other measures, based on the following:

- Findings from previous Phase I ESAs and reports on subsurface testing:
  - The land use history of the project site based on historic maps, atlases, and other records.
  - NYSDEC and the City's Fire and Building Department records relating to underground storage tanks.
  - Records of other areas of environmental concern—including hazardous waste disposal sites, hazardous waste generators or treatment facilities, and hazardous substance releases—through a computer database for all locations within a distance of the site as specified in ASTM 1527-05.

  - Available information on site and/or area subsurface conditions (geology and hydrogeology) including prior laboratory analysis of site soil or groundwater samples.
  - Inspection of the site and the surrounding study area for any evidence of contamination, including the presence of drums or tanks, stained soils, stressed vegetation, and illegally dumped or stored material.

- If there is the potential for significant adverse impacts relating to the proposed project, the need to perform additional soil or groundwater sampling and remediation or other measures as mitigation will be described as well as the need for any (E) designation or similar measures to ensure the mitigation is performed.
- The regulatory databases obtained for the Phase I Environmental Site Assessments will also be used to attempt to determine whether any facilities are within the Acceptable Separation Distances (ASDs) for explosive, fire prone, or hazardous/toxic/radioactive facilities in accordance with 24 CFR Part 51 Subpart C.
- The project will also be reviewed for compliance with HUD Notice 79-33--Policy Guidance to Address the Problems Posed by Toxic Chemicals and Radioactive Materials.

TASK 12: WATER AND SEWER INFRASTRUCTURE

The *CEQR Technical Manual* outlines thresholds for analysis of a project's water demand and its generation of wastewater and stormwater. A preliminary water supply and projected water demand analysis is warranted if a project would result in an exceptionally large demand for water (greater than one million gallons), or would be located in an area that experiences low water pressure (e.g., Rockaway Peninsula or Coney Island). A preliminary wastewater and stormwater infrastructure analysis is warranted if a proposed project exceeds the thresholds outlined in Section 220, "Wastewater and Stormwater Conveyance and Treatment." These thresholds include location of the proposed project, cumulative rezonings and/or development in the project area, proposed increase in density and proposed increase in impervious surfaces. A water supply and demand analysis would not be warranted because the estimated water demand under the proposed project would not surpass the *CEQR Technical Manual* threshold of one million gallons per day. Additionally, the proposed project would not be located in an area that experiences low water pressure.

A preliminary wastewater and stormwater infrastructure analysis, however, would be warranted because the proposed development would exceed the *CEQR Technical Manual* threshold of 400 units in a combined sewer area in Queens. This preliminary analysis would include, among other elements, the following: description of the existing wastewater and stormwater conveyance systems and the affected Bowery Bay Wastewater Treatment Plant (WWTP) for the latest 12-month period; determination of the existing sanitary flows, No Build sanitary flows, and sanitary flows as a result of the proposed project; consideration and analysis of incremental flows from the project on the capacity of the affected WWTP; description of existing surface types, No Build surface types and surface types as a result of the proposed project; determination of volume and peak discharge rates of stormwater expected from the site under existing, No Build and Future With the Proposed Project conditions; and completion of the DEP flow calculations matrix. Additionally, an assessment of existing and future stormwater generation from the proposed project and its potential for impacts will be conducted. The assessment will include a stormwater best management practice (BMP) concept plan, which will illustrate potential opportunities to incorporate onsite stormwater source controls and will also include a plan identifying potential locations of onsite stormwater source controls. The proposed project would

also result in the construction of new stormwater outfalls that would require federal and/or state permits which would redirect a portion of the stormwater from the project site to the East River from the combined sewer system. It is also expected that new sanitary sewers would be provided to convey additional wastewater flows generated from the proposed project. Based on the results of the preliminary analysis, a detailed assessment may be conducted if warranted. If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 13: SOLID WASTE AND SANITATION SERVICES

The proposed project includes new development that would require sanitation services. This chapter will provide an estimate of the additional solid waste expected to be generated by the proposed project and assess its effects on the City's solid waste and sanitation services and its consistency with the City's Solid Waste Management Plan (SWMP) or with state policy related to the City's integrated solid waste management system. The City's solid waste system includes waste minimization at the point of generation, collection, treatment, recycling, composting, transfer, processing, energy recovery, and disposal. The analysis will include the following tasks:

- Describe existing and future New York City solid waste disposal practices, including the collection system and disposal methods.
- Estimate existing solid waste generation and solid waste generation in the future without the proposed project.
- Project solid waste generation by the proposed project based on CEQR guidelines.
- Assess the impacts of the proposed project's incremental solid waste generation on the City's collection needs and disposal capacity.

TASK 14: ENERGY

According to the *CEQR Technical Manual*, actions resulting in new construction would not create significant energy impacts because all new structures requiring heating and cooling are subject to the New York State Energy Conservation Code, which reflects State and City energy policy. Therefore, a detailed energy assessment is not required. For CEQR analysis purposes, energy analysis focuses on an action's consumption of energy. This chapter will include an estimate of the additional energy consumption associated with the proposed project and describe the energy systems that will supply the proposed project with electricity and/or natural gas. This will include descriptions of the capacity and existing demand of the entire systems, and of the distribution networks serving the project site.

TASK 15: TRANSPORTATION

The proposed project would generate additional vehicular travel and increase demand for parking, as well as pedestrian traffic and subway and bus riders. These new trips have the potential to affect the area's transportation systems. Therefore, the EIS will include an analysis of transportation. The analysis will include the following tasks:

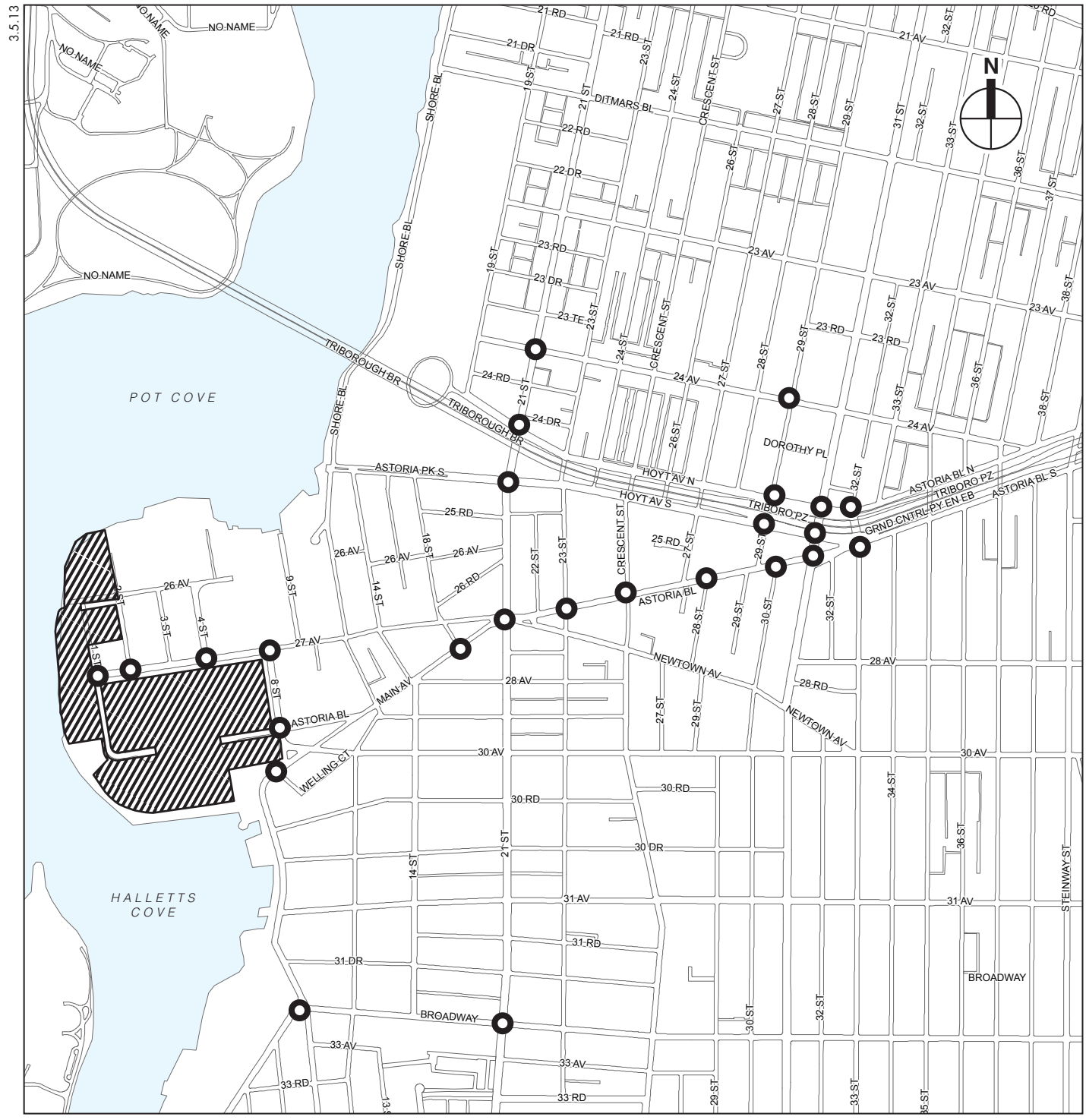
TRAVEL DEMAND PROJECTIONS

- Estimate the travel demand characteristics of the proposed project based on available sources, U.S. Census data, and standard references. This will include daily and hourly person trips, and a modal distribution to estimate trips by auto, taxi, and other modes

(subway, bus, walk only). A truck trip generation estimate will also be prepared and analyzed together with the projected auto and taxi trips. The resultant volumes will be assigned to the area roadway network, transit facilities, and pedestrian elements for each analysis period. Similar estimates will also be developed for identified No Build projects.

TRAFFIC

- Define the primary and secondary traffic study areas encompassing a total of 25 intersections to be analyzed. The primary traffic study area includes intersections closest to the project site and through which most project-generated traffic would pass. In general, the primary study area will include potentially critical intersections within the Halletts Point area and along the primary routes to/from the development area along Astoria Boulevard, Hoyt Avenue North and South, and other nearby intersections. The secondary traffic study area includes potentially critical intersections further away from the site at which a significant volume of project-generated traffic can be expected to pass and/or where background traffic conditions are heavily trafficked or are known congestion points. The following intersections have been identified for analysis within the primary and secondary study areas (see **Figure 17**):
  - Astoria Boulevard and 21st Street
  - Astoria Boulevard and 23rd Street
  - Astoria Boulevard and Crescent Street
  - Astoria Boulevard and 28th Street
  - Astoria Boulevard and 30th Street
  - Astoria Boulevard and 31st Street
  - 31st Street and Hoyt Avenue South
  - 31st Street and Hoyt Avenue North
  - 29th Street and Hoyt Avenue South
  - 29th Street and Hoyt Avenue North
  - 21st Street and Hoyt Avenue South
  - 21st Street and Hoyt Avenue North
  - 24th Avenue and 21st Street
  - 24th Avenue and 29th Avenue
  - 32nd Street and Astoria Boulevard North
  - 33rd Street and Astoria Boulevard
  - Astoria Boulevard and 8th Street
  - Vernon Boulevard and 8th Street
  - 27th Avenue and 8th Street
  - Vernon Boulevard and Broadway
  - 21st Street and Broadway
  - 27th Avenue and 1st Street
  - 27th Avenue and 2nd Street
  - 27th Avenue and 4th Street
  - Astoria Boulevard and 18th Street



Traffic Study Locations

Figure 17

HALLETTS POINT

- Conduct traffic counts during weekday AM, midday, and PM peak hours via a blend of 24-hour Automatic Traffic Recorder (ATR) machine counts. The 24-hour ATR counts will be conducted for a full week at up to eight locations, while the intersection counts will be conducted for one midweek day and adjusted for traffic variations indicated in the ATR data, if necessary.
- Tabulate the traffic count data, identify the specific weekday AM, midday, and PM peak hours, and prepare balanced traffic volume maps for the three peak traffic analysis hours.
- Inventory street widths and directions, number of travel lanes and lane widths, traffic restrictions, parking regulations, signal phasing and timing plans, location of bus stops, and other data needed to conduct the traffic analyses. Official signal timing plans will be obtained from the New York City Department of Transportation (NYCDOT) and discrepancies from field-observed signal timings will be noted.
- Conduct travel time and delay runs for each of the traffic analysis peak hours along the principal routes in the area that would be used by traffic approaching and leaving the project site.
- Conduct intersection capacity and level-of-service (LOS) analyses using *2000 Highway Capacity Manual* procedures, resulting in volume-to-capacity (v/c) ratios, average vehicle delays, and LOS by lane group and for the overall intersection.
- Determine traffic volumes under the future No Build condition and prepare balanced No Build traffic volume maps. This will include an annual background traffic growth rate as specified in the *CEQR Technical Manual* plus traffic expected to be generated by major development projects proposed for the study area. Traffic projections for No Build projects will be obtained from existing environmental studies or from a trip generation analysis to be conducted for this EIS.
- Prepare No Build project-generated vehicle trips and assign these trips to the roadway network to develop No Build traffic increments for the intersections being analyzed.
- Conduct intersection capacity and LOS analyses for future No Build conditions using *2000 Highway Capacity Manual* procedures, resulting in volume-to-capacity (v/c) ratios, average vehicle delays, and LOS by lane group and for the overall intersection. Level of service results will be presented in graphical and tabular formats.
- Conduct intersection capacity and LOS analyses for Build conditions using *2000 Highway Capacity Manual* procedures, resulting in volume-to-capacity (v/c) ratios, average vehicle delays, and LOS by lane group and for the overall intersection. Proposed roadway network changes—i.e., a new connecting segment between existing mapped portions of Astoria Boulevard to allow vehicular traffic through the NYCHA property and the proposed one-way street direction changes along one square block of the development site—will be incorporated into the Build conditions analysis. Level of service results will be presented in graphical and tabular formats. Significant traffic impacts will be identified as per *CEQR Technical Manual* guidelines.
- Identify and evaluate traffic capacity improvements needed to mitigate significant traffic impacts including, for example, new traffic signal installations if needed to mitigate significant traffic impacts at unsignalized intersections, signal phasing and timing modifications, enforcement of existing parking regulations, modifications to existing parking regulations where needed for additional traffic capacity at intersections, turn prohibitions,

lane restriping and/or intersection channelization improvements, and other standard traffic engineering measures.

PARKING

- Conduct an inventory of on-street and off-street parking spaces within a one-quarter mile radius of the project site. This will include a mapping of parking lots and garages, a tabulation of their capacities and their occupancies on a typical weekday, including surface parking lots within the NYCHA housing complex, and a quantification of the number of available on-street spaces that are legally available for use by future development in the area.
- Project parking usage and availability under the No Build condition using the annual background traffic growth rate and new parking facilities (if any) expected to be operational in the future and their expected occupancy levels.
- Develop parking accumulation estimates for the proposed Build condition based on the amount of parking proposed for the development, and develop profiles of in/out activity by hour of the day. Identify projected parking shortfalls, if any, and identify measures to alleviate such shortfalls.

TRANSIT

Based on the program assumptions described above, the proposed development will trigger a quantified analysis of its potential effects on transit (subway and bus) operations. The project site is served by three local bus routes (Q18, Q102, and Q103), but it is located some distance from subway stations. However, the Q18 and Q102 routes provide connections to the 30th Avenue (N/Q) subway station, and the Q103 route connects to the 21st Street-Queensbridge (F) subway station. Both stations have a limited number of street-level stairways and a single control area; therefore, if warranted per travel demand estimates, both will be assessed to determine if project-generated trips will impact their circulation and operation. Furthermore, since the project would generate bus riders for those connecting to subways as well as those traveling solely by bus, it is anticipated that the CEQR analysis threshold will be triggered for all three routes that serve the project site.

The quantified assessment of transit operations will include the following tasks:

- Describe nearby transit facilities, characterize subway and bus ridership levels and key pedestrian routes. A detailed analysis of control areas and pedestrian circulation elements will be conducted, as warranted per travel demand estimates, at the 21st Street-Queensbridge (F) subway station and the 30th Avenue (N/Q) subway station. It is expected that since the project site is more accessible to nearby bus routes, a substantial portion of subway riders will use the Q18, Q102, an Q103 buses to connect with the subway stations and other destinations in Queens. Therefore, peak hour ridership conditions on these routes will also be described. In addition, preliminary discussions with MTA Bus could over time result in improving existing service on these routes, as well as the possible extension ~~a rerouting~~ of the Q19 to also serve the project site. ~~Peak hour ridership conditions for this route will be evaluated, if such rerouting becomes a realistic consideration. Other potential changes to area bus service will be addressed, as appropriate.~~
- Determine existing volumes for the analyzed subway stations and bus routes based on field surveys and information from New York City Transit (NYCT). Determine existing capacity

and the operation of these stations and bus routes based on CEQR criteria and NYCT Design Guidelines.

- Determine future No Build condition volumes and operations for the analyzed subway stations and bus routes.
- Determine future Build condition volumes and operations for the analyzed subway stations and bus routes, and compare these results to the No Build condition to determine if significant adverse impacts will be anticipated.
- If significant impacts are identified, mitigation measures will be proposed, subject to review and approval by NYCT.

PEDESTRIANS

The proposed project has the potential to generate a substantial number of pedestrian trips both from commuters traveling to and from local bus stops and those traveling only on foot. The project's retail, community facility, and open space components will also attract walk only trips from the surrounding area. Therefore, the EIS will include a quantified assessment of crosswalks, corners, and sidewalks near the project site and the two subway stations described above to determine if project-generated trips will result in significant adverse impacts on pedestrian circulation and safety.

- Determine pedestrian study area and collect existing conditions data. The study area will be developed based on key routes of travel to and from the project site and is assumed to include 6 intersections and their corresponding sidewalks.
- Determine the existing capacities and LOS at these locations according to *CEQR Technical Manual* and/or *Highway Capacity Manual* 2000 criteria.
- Determine future No Build condition volumes and operations for the analyzed crosswalks, corners, and sidewalks.
- Determine future Build condition volumes and operations for the analyzed crosswalks, corners, and sidewalks, and compare these results to the No Build condition to determine if significant adverse impacts will be anticipated.
- If significant impacts are identified, mitigation measures will be proposed, subject to review and approval by NYCDOT.

VEHICULAR AND PEDESTRIAN SAFETY

Assess vehicular and pedestrian safety conditions at intersections within the traffic study area. Obtain the most recent three year accident data from the New York State Department of Transportation (NYSDOT) for the intersections in the vicinity of the development parcels. Summarize the accident data and determine if any of the intersections are classified as high vehicle crash or high pedestrian/bike accident locations based on CEQR criteria. If high accident locations are identified, feasible improvement measures will be explored to enhance vehicular and pedestrian safety at these locations.

TASK 16: AIR QUALITY

The proposed project will generate emissions from both direct and indirect sources. Direct sources of emissions will primarily be from fossil fuel-fired heating, ventilation and air conditioning systems (HVAC) associated with the proposed project. Potential indirect air quality impacts of the proposed project will stem from increases in vehicular traffic.

The number of project-generated trips will likely exceed the *CEQR Technical Manual* carbon monoxide (CO) analysis screening threshold of 170 vehicles in the peak hour at a number of locations within the study area. In addition, the projected number of heavy-duty trucks or equivalent vehicles will likely exceed the applicable fine particulate matter ($PM_{2.5}$) screening thresholds in the 2012 *CEQR Technical Manual*. Therefore, a microscale analysis of CO and $PM_{2.5}$ mobile source emissions at affected intersections is necessary. The proposed project would also provide new parking facilities; therefore, the mobile source analysis must account for the additional impacts from these sources.

The stationary source air quality impact analysis will have to determine the effects of HVAC emissions from the proposed project on pollutant levels (i.e., sulfur dioxide [SO_2], ~~CO,~~ particulate matter and/or nitrogen dioxide [NO_2] concentrations). In addition, the proposed project will construct new residential buildings in an area currently zoned for industrial/manufacturing uses. Therefore, a screening analysis to examine the potential for impacts on residents of the proposed project from industrial emissions will be performed.

MOBILE SOURCE ANALYSES

- Gather existing air quality data. Collect and summarize existing ambient air quality data for the study area. Specifically, ambient air quality monitoring data published by NYSDEC will be compiled for the analysis of existing and future conditions.
- Determine receptor locations for the CO microscale analysis. Select critical intersection locations in the study area, and outside the study area, based on data obtained from the transportation analysis. At each intersection, multiple receptor sites will be analyzed in accordance with CEQR guidelines.
- Select dispersion model. At each of the receptor sites previously identified, identify the appropriate dispersion model to be used in the microscale carbon monoxide analysis. It is anticipated that the CAL3QHC dispersion model (Version 2) will be used for the CO microscale analysis. The refined CAL3QHCR intersection model will be used to predict the maximum change in $PM_{2.5}$ concentrations.
- Select emission calculation methodology and "worst-case" meteorological conditions. Vehicular cruise and idle emissions for the dispersion modeling will be computed using EPA's MOBILE6.2 model. Conservative meteorological conditions to be assumed in the CAL3QHC dispersion modeling are a 1 meter per second wind speed, Class D stability and a 0.70 persistence factor. In addition, the 2012 *CEQR Technical Manual* recommended winter temperature of 43 degrees Fahrenheit for the Borough of Queens will be used as input to the model. For the CALQHCR analysis, five years of meteorological data from LaGuardia Airport and concurrent upper air data from Brookhaven, New York will be used for the simulation program.
- At each mobile source microscale receptor site, calculate maximum 1- and 8-hour CO concentrations for existing conditions, the future conditions without the proposed project and the future conditions with the proposed project. 24-Hour and annual average $PM_{2.5}$ concentrations will be determined for the future conditions without the proposed project and the future conditions with the proposed project. Concentrations will be determined for up to two peak periods. No field monitoring will be included as part of these analyses.
- Assess the potential CO impacts associated with proposed parking facilities. Information on the conceptual design of the parking facilities will be employed to determine potential off-site impacts from emissions. A screening analysis will be used following the procedures

suggested in the 2012 *CEQR Technical Manual* for parking facilities to determine maximum potential worst-case impacts. Cumulative impacts from on-street sources and emissions from the proposed parking facilities will be calculated where appropriate.

- Compare existing and future levels with standards. Future pollutant levels with and without the proposed project will be compared with the National Ambient Air Quality Standards (NAAQS) to determine compliance with standards, the City's CO *de minimis* criteria and $PM_{2.5}$ interim guidance criteria to determine the impacts of the proposed project.
- ~~Provide a qualitative discussion of the effects of project-related traffic on NO_2 concentrations at affected roadways.~~
- The Clean Air Act (42 U.S.C. 7401 et seq.) and, in particular, sections 176 (c) and (d), prohibits federal assistance to projects that are not in conformance with the State Implementation Plan (SIP). Therefore, the EIS will determine the consistency of the proposed project with the strategies contained in the SIP for the area. At any receptor sites where violations of standards occur, further analyses will be performed to determine what mitigation measures will be required to attain standards.

STATIONARY SOURCE ANALYSES

- A stationary source analyses will be performed using the EPA AERMOD refined dispersion model to determine the potential impacts from the proposed project. For this analysis, five recent years of meteorological data from LaGuardia Airport and concurrent upper air data from Brookhaven, New York will be utilized for the simulation program. Concentrations of NO_2, SO_2 (if burning fuel oil), and particulate matter will be determined at off-site receptor sites, as well on project receptors. Predicted values will be compared with national and State ambient air quality standards and other relevant standards. In the event that violations of standards are predicted, examine design measures to reduce pollutant levels to within standards.
- The potential impacts from existing or proposed large emission sources within 1,000 feet of the project site, as well as commercial, institutional or large-scale residential developments within 400 feet of the project site, will be determined. The analysis will use the combustion source screening procedures outlined in the 2012 *CEQR Technical Manual*. If potential significant adverse impacts are identified from existing large emission sources within 1,000 feet of the project site, and/or commercial, institutional or large-scale residential developments within 400 feet of the project site, a refined dispersion modeling analysis will be performed using the AERMOD model. Concentrations of pollutants of concern will be determined at off-site receptor sites, as well on project receptors. Predicted values will be compared with national and State ambient air quality standards and other relevant standards. In the event that violations of standards are predicted, examine design measures to reduce pollutant levels to within standards.
- A field survey will be performed to determine if there are any manufacturing or processing facilities within 400 feet of the project site. DEP's Bureau of Environmental Compliance files will be examined to determine if there are permits for any industrial facilities that are identified. A review of federal and state permits will also be conducted. If manufacturing or processing facilities are identified within 400 feet of the proposed project, an industrial stationary source air quality analysis as detailed in the *CEQR Technical Manual* will be performed. The AERMOD dispersion model screening database will be used to estimate the short-term and annual concentrations of critical pollutants at the potential receptor sites.

Predicted worst-case impacts on the proposed project will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in the NYSDEC's *DAR-1 AGC/SGC Tables* (October 2010) to determine the potential for significant impacts. In the event that violations of standards are predicted, measures to reduce pollutant levels to within standards will be examined.

- Conduct an analysis of the project's compliance with federal Clean Air Act and HUD's implementing regulations at 40 CFR Parts 5, 51, and 93.

TASK 17: GREENHOUSE GAS EMISSIONS

In accordance with the *CEQR Technical M*anual, project-generated greenhouse gas (GHG) emissions generated by the proposed project will be quantified, and an assessment of consistency with the City's established GHG reduction goal will be performed. Emissions will be estimated for the analysis year and reported as carbon dioxide equivalent (CO_2e) metric tons per year. GHG emissions other than carbon dioxide (CO_2) will be included if they would account for a substantial portion of overall emissions, adjusted to account for the global warming potential (GWP). If the extent and duration of construction or the expected use of materials is found to be potentially significant, construction-related emissions would be quantified for the duration of construction. Relevant measures to reduce energy consumption and GHG emissions that could be incorporated into the proposed project will be discussed, and the potential for those measures to reduce GHG emissions from the proposed project will be assessed to the extent practicable.

Since some of the project sites are located within the 100-year floodplain, the potential impacts of climate change on the proposed project will be evaluated. The discussion will focus on the potential sea level rise and changes in storm frequency projected to result from global climate change and the potential future impact of those changes on project infrastructure and uses.

The analysis will include the following tasks:

- The potential effects of climate change on the proposed development will be evaluated based on the best existing information. The evaluation will focus on potential future sea and storm levels and the interaction with project infrastructure and uses. The discussion will focus on early integration of climate change considerations into the project to allow for uncertainties regarding future environmental conditions resulting from climate change.
- Direct Emissions—GHG emissions from on-site boilers used for heat and hot water, and natural gas used for cooking.
- Indirect Emissions—GHG emissions from purchased electricity and/or steam generated off-site and consumed on-site during the project's operation will be estimated.
- Indirect Mobile Source Emissions—GHG emissions from vehicle trips to and from the project site will be quantified.
- Emissions from project construction and emissions associated with the extraction or production of construction materials will be qualitatively discussed. Opportunities for reducing GHG emissions associated with construction will be considered.
- Proposed measures to reduce energy use and GHG emissions will be discussed and quantified to the extent that information is available.
- Consistency with the City's GHG reduction goal will be assessed. While the City's overall goal is to reduce GHG emissions by 30 percent below 2005 level by 2030, individual project consistency is evaluated based on building energy efficiency, proximity to transit, on-site

renewable power and distributed generation, efforts to reduce on-road vehicle trips and/or to reduce the carbon fuel intensity or improve vehicle efficiency for project-generated vehicle trips, and other efforts to reduce the project's carbon footprint.

TASK 18: NOISE

The noise analysis will determine whether the proposed project would result in increases in noise level that could have a significant adverse impact on nearby sensitive receptors, and also consider the effect of existing noise levels at the project site on proposed uses. The project would be reviewed for compliance with Subpart B (Noise Abatement and Control) of 24 CFR Part 51.

Pursuant to the *2012 CEQR Technical Manual*, Chapter 9, "Noise," Section 723 (Federal Coordination), if any part of a proposed project would involve funding or actions through HPD, analysis methodologies, significant impact thresholds, and reporting of noise information should be in accordance with HUD regulations or in a form acceptable to HPD, acting as the Responsible Entity for the federal NYCHA actions. Therefore, the noise analysis will comply with this requirement.

The noise analysis for the proposed project would be divided into three sections:

- Identification of potential impacts due to traffic generated by the proposed project;
- Determination of the necessary window/wall attenuation to achieve acceptable interior noise levels according to CEQR and HUD criteria, as based on exterior noise generated by nearby roadways, railways, aircraft overflights, and other local noise sources; and
- Examination of expected noise levels at existing and proposed active and passive open space areas.

Each section of the analysis would have a separate methodology, each of which is described below.

NOISE DUE TO TRAFFIC GENERATED BY THE PROPOSED PROJECT

As part of the analysis of potential noise impacts resulting from traffic generated by the proposed project, the following tasks will be performed in compliance with guidelines contained in the *CEQR Technical Manual* and 24 CFR Part 51:

- Select appropriate noise descriptors. Appropriate noise descriptors that characterize the noise environment and the impact of the proposed project will be selected based on current CEQR criteria. Consequently, the 1-hour equivalent ($L_{eq(1)}$) will be examined.
- Select noise receptor locations. These receptor sites would include locations where the proposed project would have the greatest potential to affect ambient noise levels (based upon expected routes for project-generated traffic). Particular attention will be paid to sensitive land uses—parks, open space, residences, etc. Up to two (2) noise receptor sites will be selected for analysis.
- Determine existing noise levels. At the identified locations, existing noise readings will be determined by performing one-hour equivalent (20 minutes readings as per *CEQR Technical Manual* guidelines) continuous noise levels (L_{eq}) and statistical percentile noise levels. The noise levels will be measured in units of "A" weighted decibels (dBA) as well as one-third octave bands. The monitoring periods will coincide with the expected peak periods of use of the project. These would be the weekday AM, midday, and PM time periods.

- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual*, future No Build and Build noise levels will be estimated at the proposed noise receptor sites. Existing noise levels, acoustical fundamentals, and mathematical models will be used to determine future No Build and Build noise levels.
- Determine noise impacts. Noise impacts will be determined by comparing future Build project noise levels with future No Build noise levels following the CEQR methodology.
- Assess measures to mitigate identified noise impacts as necessary.

BUILDING ATTENUATION ANALYSIS

Structures with noise sensitive uses constructed as part of the proposed project would be required to provide sufficient window/wall attenuation to ensure acceptable interior $L_{10(1)}$ noise levels to comply with CEQR criteria and acceptable L_{dn} noise levels to comply with HUD criteria. The L_{10} and L_{dn} noise descriptors, as used by *CEQR Technical Manual* and HUD noise abatement criteria, respectively, will be used to characterize noise in this analysis. The following tasks would be performed for the building attenuation analysis in compliance with guidelines contained in the *CEQR Technical Manual*:

- Selection of noise measurement locations. Up to seven (7) measurement sites (that may or may not overlap with the measurements performed as part of the other analyses) will be selected at the project site during a site visit. These measurement sites would be placed in areas to be analyzed for building attenuation. This would focus on areas of potentially high ambient noise at the project site.
- Determine existing noise levels. At the identified locations, existing noise levels will be determined by measuring one-hour equivalent (20 minutes measurements as per *CEQR Technical Manual* guidelines) continuous noise levels (L_{eq}) and statistical percentile noise levels. The noise levels will be measured in units of dBA as well as one-third octave bands. Measurements would be performed during typical weekday AM, midday, and PM peak periods as well as a late-night period. Depending on site access and security, a continuous 24-hour measurement at one site may be performed in lieu of the 20-minute measurements.
- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual*, future No Build and Build noise levels will be estimated at the proposed noise receptor sites. Existing noise levels, acoustical fundamentals, and mathematical models will be used to determine future No Build and Build noise levels.
- Determine the required amount of building attenuation. The level of building attenuation necessary to satisfy CEQR and HUD requirements is a function of the exterior noise levels. Predicted values will be compared to appropriate standards and guideline levels. As necessary, attenuation measures will be recommended for buildings associated with the proposed project.

PROJECT OPEN SPACE ANALYSIS

Noise levels at the proposed new publicly accessible waterfront open spaces will be examined and compared to CEQR guidelines. The *CEQR Technical Manual* recommended L_{10} descriptor will be used to characterize noise in this analysis. The following tasks would be performed for the building attenuation analysis in compliance with guidelines contained in the *CEQR Technical Manual*:

- Selection of noise measurement locations. Up to six (6) measurement sites (that may or may not overlap with the measurements performed as part of the other analyses) will be selected at the project site during a site visit. These measurement sites would be placed in locations representative of future open spaces associated with the proposed project.
- Determine existing noise levels. At the identified locations, existing noise levels will be determined by measuring one-hour equivalent (20 minutes measurements as per *CEQR Technical Manual* guidelines) continuous noise levels (L_{eq}) and statistical percentile noise levels. The noise levels will be measured in units of dBA as well as one-third octave bands. Measurements would be performed during typical weekday AM, midday, and PM peak periods.
- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual*, future No Build and Build noise levels will be estimated at the proposed noise receptor sites. Existing noise levels, acoustical fundamentals, and mathematical models will be used to determine future No Build and future Build noise levels.
- Compare with *CEQR* guidelines. Future Build noise levels would be compared with *CEQR Technical Manual* guidelines for publicly accessible open spaces requiring serenity and quiet.

TASK 19: NEIGHBORHOOD CHARACTER

Neighborhood character is established by a number of factors, such as land use, urban design, visual resources, historic resources, socioeconomic conditions, open space, shadows, traffic, and noise. The proposed project could affect the character of the area by introducing a residential development including retail and open space uses to a site previously used for manufacturing. This chapter of the document will explain those effects in a summary fashion. Methodologies outlined in the *CEQR Technical Manual* will be used to provide an assessment of neighborhood character. The assessment would begin with a preliminary analysis and if necessary a detailed assessment would be conducted. The analysis will include the following tasks:

- Based on other EIS sections, describe the predominant factors that contribute to defining the character of the neighborhood surrounding the project site, which is marked by a mix of residential, industrial, and retail uses.
- ~~Based on planned development projects, public policy initiatives, and planned public improvements, summarize changes that can be expected in the character of the area in the future without the proposed project.~~
- Assess and summarize the proposed project's impacts on neighborhood character drawing on the analysis presented in other pertinent EIS sections.

TASK 20: CONSTRUCTION

Construction activities, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. The ~~likely~~ reasonable worst-case conceptual construction phasing ~~program~~ and schedule for development at the project site will be described~~, including phasing~~. An analysis framework will be created for the purposes of the construction assessment. This framework will reflect the fact that the proposed project would be built continuously over time in a single phase and will be consistent with the expected construction sequencing of the proposed project with respect to the pairing of the affordable housing in Buildings 6 and 7 with buildings that contain market-rate units. This impact

assessment will be an analysis of potential impacts based on the *CEQR Technical Manual* with an analysis of the effects of construction activities, including the demolition of buildings, excavation and foundation work, construction of new buildings, and landscaping. As the proposed project also includes various infrastructure improvements, the potential effects from construction of new utilities, connections, roadway improvements, or replacement of existing utilities on and near the project site will be considered in the construction analyses.

The EIS will analyze the potential for impacts during the construction period based on detailed construction schedules, phasing plans, and staging plans developed for the specific development program, and will include quantitative analyses of potential traffic and transportation, air quality, and noise impacts. Quantitative analyses will be based on a peak construction condition, which will reflect a combination of buildings under construction and other buildings fully occupied and operational. The technical areas proposed to be analyzed in the EIS include:

- Socioeconomic Conditions: Consider whether construction conditions would affect access to existing businesses, the potential consequences concerning their continued viability, and the potential effects of their loss, if any, on the character of the area.
- Historic and Cultural Resources: If architectural or archaeological resources are identified on or near the project site under the historic and cultural resources task, summarize actions to be taken during project construction to protect these resources.
- Hazardous Materials: In coordination with the hazardous materials task described above, summarize actions to be taken during construction to limit exposure of construction workers, residents, and the environment to potential contaminants.
- ~~Infrastructure: Identify potential effects from construction of new utilities or replacement of existing utilities on and near the project site.~~
- Transportation Systems: The traffic analyses for the peak potential construction impact condition will include traffic generated both by buildings that will have been completed and are fully occupied by the Construction Build analysis year and vehicular traffic from construction workers driving to and from the construction sites and construction trucks. Peak weekday morning and afternoon traffic hours will be established for the worst-case condition of construction traffic and background traffic.

  Weekday peak morning and afternoon vehicular trips will be determined and assigned to the street network. Truck trips will be assigned to NYCDOT-designated truck routes en route to the construction sites. It is assumed that the new connecting segment between existing mapped portions of Astoria Boulevard on the NYCHA Parcel would occur at or near full development build-out conditions; for the purposes of the Construction impact analysis it is assumed that the Astoria Boulevard connector would not be open and trucks would not be able to use Astoria Boulevard for their activities near the NYCHA properties.

  Seven intersections representing peak conditions near the project site will be identified for construction impact analysis based on the traffic assignment process. The analyses will be conducted for the peak Construction Impact year, and would reflect background traffic growth and the No Build development projects that would be built and fully occupied by that year. The traffic analyses will also consider the temporary losses in travel lanes that may be associated with construction activities. Significant traffic impacts will be identified, and appropriate traffic improvement measures will be identified to mitigate those impacts. The Construction analysis will also identify the loss, if any, of on-street parking due to construction activity and the need for parking that would be generated by construction workers driving to the site.

For transit and pedestrians, because trip-making of construction workers would primarily occur outside of area peak hours, a discussion of the trip projections and a qualitative assessment of potential impacts will be prepared.

- Air Quality: ~~Analyze direct emissions from demolition and construction site activity, including fugitive dust and on-site diesel equipment~~ Assess the potential for air quality impacts due to onsite construction activities. Air pollutant sources would include combustion exhaust associated with non-road engines (e.g., cranes, excavators) and trucks operating on-site, as well as onsite activities that generate fugitive dust (e.g., excavation, demolition). Analyze potential effects from increases in mobile source emissions of trucks and worker vehicles at nearby sensitive receptors and congested locations~~, and from potential long-term traffic diversions~~.
- Noise: Analyze noise from the construction activity, including effects on nearby sensitive receptors. Discuss the potential for vibrations caused by construction activities to damage buildings, and, if necessary, mitigation measures to minimize damage due to construction-related vibration.

Qualitative analyses will also be undertaken to address the potential for construction-related project impacts with respect to the following analysis areas: community facilities; land use and neighborhood character; open space; natural resources; and rodent control.

TASK 21: PUBLIC HEALTH

According to the guidelines of the 2012 *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any one of these technical areas and the lead agency determines that a public health assessment is warranted, an analysis will be provided for that specific technical area.

TASK 22: MITIGATION MEASURES

Where significant proposed action impacts have been identified in the prior tasks, measures to mitigate those impacts will be described. These measures will be developed and coordinated with the responsible City and State agencies, as necessary. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts. ~~This chapter will also describe the expected timing of the new connecting segment between existing mapped portions of Astoria Boulevard through the NYCHA Parcel.~~

TASK 23: ALTERNATIVES

The purpose of an alternatives section in an EIS is to examine development options that would tend to reduce project-related impacts. The alternatives are usually defined when the full extent of the proposed project's impacts is identified, but at this time, it is anticipated that they will include the following:

- No ~~Action~~ Build Alternative, which assumes a scenario in which the project site is not rezoned and the buildings on the site remain and could be reoccupied (as-of-right alternative);
- A Reduced Density Alternative, in which Building 8 is not included under the proposed actions, and

- A No Unmitigated Adverse Impacts Alternative, if unavoidable adverse impacts are identified in the EIS.~~; and~~
- ~~Other possible alternatives that may be developed in consultation with DCP during the EIS preparation process or that may be posed by the public during the scoping of the EIS.~~

For technical areas where impacts have been identified, the alternatives analysis will determine whether these impacts would still occur under each alternative. The analysis of each alternative will be largely qualitative, except where impacts of the project have been identified.

TASK 24: EIS SUMMARY CHAPTERS

EXECUTIVE SUMMARY

Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will use relevant material from the body of the EIS to describe the proposed project, environmental impacts, measures to mitigate those impacts, and alternatives to the proposed project.

UNAVOIDABLE ADVERSE IMPACTS

Those impacts, if any, which could not be avoided and could not be practicably mitigated will be described in this chapter.

GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

This chapter will focus on whether the proposed project would have the potential to induce new development within the surrounding area.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

This chapter focuses on those resources, such as energy and construction materials, that would be irretrievably committed should the proposed project be built.

CUMULATIVE EFFECTS

This chapter will summarize the project's anticipated cumulative effects, or effects which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. This chapter will rely on the technical analyses of the EIS for a description of the No Build condition, and will assess the project's potential effects in combination with anticipated conditions in the future without the proposed project.

TASK 25: ENVIRONMENTAL JUSTICE

Executive Order 12898 requires federal agencies to consider whether actions they might fund or approve may have any disproportionately high and adverse environmental or human health effects on low-income or minority populations. Due to the proposed disposition of NYCHA property, which will require federal approval from HUD subject to review under NEPA, the EIS will consider the project's potential for disproportionately high and adverse impacts on minority and low-income populations following the guidance and methodologies outlined in the Council on Environmental Quality's *Environmental Justice Guidance under the National Environmental Policy Act* (December 1997). ✷