DEPARTMENT OF CITY PLANNING
CITY OF NEW YORK

ENVIRONMENTAL ASSESSMENT AND REVIEW DIVISION

Carl Weisbrod, *Director*
Department of City Planning

April 18, 2014

NOTICE OF COMPLETION
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Astoria Cove Development

Project Identification
CEQR No. 13DCP127Q
ULURP Nos. 130384MMQ, 140322ZMQ
140323ZSQ, 140324ZSQ, N140325ZAQ
N140326ZAQ, N140327ZAQ, N140328ZCQ
N140329ZRQ

Lead Agency
City Planning Commission
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SEQRA Classification: Type I

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Pursuant to City Environmental Quality Review (CEQR), Mayoral Executive Order No. 91 of 1977, CEQR Rules of Procedure of 1991 and the regulations of Article 8 of the State Environmental Conservation Law, State Environmental Quality Review Act (SEQRA) as found in 6 NYCRR Part 617, a Draft Environmental Impact Statement (DEIS) has been prepared for the actions described below. The proposal involves actions by the City Planning Commission and Council of the City of New York pursuant to Uniform Land Use Review Procedures (ULURP). Copies of the DEIS are available for public inspection at the office of the undersigned. A public hearing on the DEIS will be held at a later date to be announced, in conjunction with the City Planning Commission's citywide public hearing pursuant to ULURP. Advance notice will be given of the time and place of the hearing. Written comments on the DEIS are requested and would be received and considered by the Lead Agency until the 10th calendar day following the close of the public hearing.

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A. INTRODUCTION

The Applicant, 2030 Astoria Developers, LLC, is seeking a zoning map amendment, City Map amendments, a zoning text amendment, Large-Scale General Development (LSGD) Special Permits, a waterfront special permit, authorizations to modify waterfront public access area requirements, and a waterfront certification by the NYC City Planning Commission (CPC) Chairperson (collectively, "the Proposed Action") affecting an approximately 8.7-acre site in the Astoria neighborhood of Queens, Community District 1.

The Proposed Action will facilitate a proposal by the Applicant to develop a new approximately 2,189,068 gross square foot (gsf) mixed-use development on approximately 377,726 sf of lot area (the "project site"). The proposed project would be comprised of approximately 1,689 dwelling units (approximately 1,689,416 gsf of residential floor area), of which 295 dwelling units would be affordable; approximately 109,470 gsf of local retail space, including an approximately 25,000 gsf supermarket; an elementary school with approximately 456 seats (K-5); approximately 900 accessory parking spaces; and approximately 83,846 sf of publicly accessible open space. The anticipated Build Year is 2023.

Development of the proposed project requires approvals from the City Planning Commission (CPC) for the following discretionary actions:

- A zoning map amendment to rezone the project site from M1-1 and R6 to R6B, R7-3 with a C2-4 commercial overlay, and R7A with a C2-4 commercial overlay;
- A zoning text amendment to extend the Inclusionary Housing Program (IHP) to the portion of the project site zoned R7-3 by making it an Inclusionary Housing Designated Area pursuant to Zoning Resolution (ZR) §23-952 and Appendix F;
- Large-Scale General Development (LSGD) Special Permits (i) pursuant to ZR §74-743(a)(1) to allow for the distribution of floor area from the non-waterfront zoning lot to the waterfront zoning lot that comprise the LSGD; (ii) pursuant to ZR §74-743(a)(2) to authorize a reduction in distance between Building 2 and Building 3; and waive court requirements for Buildings 1, 2, and 3; and (iii) pursuant to ZR §74-743(a)(6) to waive requirements for the minimum distance between Building 5's windows and the western lot line; and extend the Special Permits' vesting term to ten years under ZR §11-42(c);
- A waterfront Special Permit pursuant to ZR §62-836 requesting modifications to yard, height and setback, tower footprint size, and maximum width of walls facing the shoreline;
- An authorization pursuant to ZR §62-822(a) to allow modifications of the area and minimum dimension requirements of waterfront public access areas and visual corridors under ZR §62-50;
- An authorization pursuant to ZR 62-822(b) to allow modification of the requirements of ZR §62-60 (Design Requirements for Waterfronts Public Access Areas);
- An authorization pursuant to ZR §62-822(c) to permit the phased development of the waterfront public access area, as modified by the above-referenced authorizations; and
- A City Map amendment for the establishment of 4th Street from 26th Avenue to the waterfront public access area and elimination of 8th Street from 27th Avenue to the U.S. Pierhead and Bulkhead Line.

Development of the proposed project also requires approvals from the CPC for the following ministerial action:

- A certification by the Chairperson of the CPC pursuant to ZR §62-811 pertaining to the provision of waterfront public access areas and visual corridors, as modified by the above-referenced authorizations.

The Applicant also intends to seek New York City Housing Preservation and Development (HPD) approval of an Affordable Housing Plan pursuant to the Inclusionary Housing Program and potential financing from City and/or State agencies including HPD, the New York City Housing Development Corporation (HDC), and/or NYS Homes and Community Renewal (HCR) for affordable housing construction.

In addition, the proposed project requires approvals from the U.S. Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC) for new stormwater outfalls to be located at the end of 4th and 9th Streets. NYSDEC approval will also be required as part of the proposed waterfront esplanade falls within a NYSDEC-regulated wetland adjacent area. Additionally, a State Pollution Discharge Elimination System (SPDES) permit from the NYSDEC will be required for stormwater discharges during the construction period because construction on the project site involves more than one acre.

The discretionary actions noted above are subject to environmental review. The Department of City Planning (DCP), acting on behalf of CPC, is the lead agency for the environmental review.

Based on the Environmental Assessment Statement that was prepared for the project, the lead agency determined that the proposed actions may potentially result in significant adverse environmental impacts, and that an EIS is required. The DEIS has been prepared in accordance with Executive Order 91 of 1977, as amended, and New York City Environmental Quality Review (CEQR) Rules and Procedures adopted in 1991 (62 Rules of the City of New York, Chapter 5). The 2014 *CEQR Technical Manual* is generally used as a guide with respect to environmental analysis methodologies and impact criteria for evaluating the proposed actions, unless otherwise stated.

B. PROJECT SITE

Currently, to the north of 26th Avenue, the project site is zoned M1-1; on the two lots south of 26th Avenue, the project site is zoned R6. The M1-1 zoning designation allows high performance manufacturing and industrial uses north of 26th Avenue and R6 for residential uses south of 26th Avenue. M1-1 districts also allow commercial and low-density light manufacturing uses, as well as certain community facility uses such as houses of worship and schools. M1-1 districts permit a maximum Floor Area Ratio (FAR) of 1.0. However, residential uses are not permitted. R6 zoning districts are medium-density residential districts a maximum FAR of 2.43, which can range from neighborhoods with a diverse mix of building types and heights to large-scale "tower in the park" developments.

The project site, which is under the Applicant's control, comprises the following:

- A total of 377,726 sf of lot area, including approximately 292,155 sf along the waterfront (Block 907, Lots 1 and 8; and Block 906, Lots 1 and 5);
- Approximately 85,571 sf of upland area located along 26th Avenue between 4th Street and 9th Street (Block 908, Lot 12 and Block 909, Lot 35);

- A total of seven buildings with warehouse and industrial uses (with a combined total floor area of approximately 194,700 gsf)
- Bus/vehicle storage (on the upland portion of the project site);
- Approximately 100 accessory parking spaces;
- Shoreline protection measures in the form of riprap;
- Two mapped but unbuilt segments of 8th Street (to the north and south of 26th Avenue); and
- A portion of 26th Avenue west of 9th Street, which is currently unimproved.

In total, there are fourteen businesses located on the project site with a total of approximately 80 employees. These businesses include industrial/warehouse uses, school bus storage, contracting and carpentry uses.

C. PURPOSE AND NEED FOR THE PROPOSED ACTION

The Proposed Action is intended to provide opportunities for new residential and commercial development, as well as enhance and upgrade accessibility to the area's waterfront. The Applicant intends for the Proposed Action to create opportunities for new housing development, including affordable housing, on underutilized and vacant land formerly used for manufacturing purposes and where there is no longer a concentration of industrial activity and strong demand for housing exists.

The proposed zoning map change is needed to permit construction of the proposed project. This would allow the redevelopment of the project site, a former waterfront industrial site, into an economically integrated mix of residential and local retail uses consistent with the planned and anticipated redevelopment of nearby waterfront sites to the west and complementary to the existing neighborhood to the south and east. Thus, the Proposed Action would allow the Applicant to maximize use of its property while producing new waterfront development, which is sensitive to the adjoining neighborhoods.

In addition, it is the Applicant's position that the Proposed Action significantly advances the City's Comprehensive Waterfront Plan by facilitating the redevelopment of the area's inaccessible waterfront and completing the street grid in this area of Astoria. As noted below, the Proposed Action would allow the Applicant to build-out the currently mapped (but unbuilt) segment of 8th Street (north of 27th Avenue) as a pedestrian walkway, as well as the unimproved and currently inaccessible segment of 26th Avenue for improved vehicular circulation. The Proposed Action would also allow the Applicant to map 4th Street and to develop a public access easement along the waterfront. Together, these street network changes would be expected to complete the existing street grid and improve traffic and pedestrian flow in the area. Thus, the Proposed Action would allow for the creation of physical and visual access to the waterfront, including a publicly accessible waterfront esplanade with a possible linkage to the existing publicly accessible waterfront plaza at Shore Towers Condominiums to the east.

The proposed LSGD and waterfront Special Permits, including waivers of height and setback requirements, are needed in order to redistribute floor area across the entire project site, including both the waterfront and upland parcels, thereby creating a site plan and building layout and design that, according to the Applicant, is superior to what would be allowed as-of-right under the proposed zoning districts. The proposed modification of waterfront access requirements would serve to facilitate an improved open space plan compared to what could be developed as-of-right.

D. DESCRIPTION OF THE PROPOSED ACTION

Proposed Zoning Map Changes

The Proposed Action includes an amendment of the City's zoning map to rezone the project site from the existing M1-1 and R6 to R6B, R7-3 with a C2-4 commercial overlay, and R7A with a C2-4 commercial overlay; a portion of the R6 district would remain. The proposed zoning districts would allow residential uses on the entire project site, which is prohibited under the existing M1-1 zoning on the waterfront parcels. It would also allow a wider range of commercial uses through the mapping of a commercial overlay.

From R6 to R6B and R7A

The existing R6 zoning designation in the rezoning area would be replaced with contextual medium-density R7A and R6B residential zoning districts. The existing R6 zoning is a medium-density residential district a maximum FAR of 2.43, which can range from neighborhoods with a diverse mix of building types and heights to large-scale "tower in the park" developments. Heights of buildings within R6 districts are governed by height factor regulations which often produce tall buildings set back from the street and surrounded by open space and on-site parking. There are no height limits for height factor buildings although they must be set within a sky exposure plane which begins at a height of 60 feet above the street line and then slopes inward over the zoning lot.

The proposed R7A district would be mapped along the southern portion of the rezoning area along the south side of 26th Avenue between 4th Street and 9th Street on portions of Block 908, Lot 12 and Block 909, Lot 35. R7A is a contextual residential district, which permits Use Groups 1 through 4 as-of-right with a maximum FAR of 4.0 for residential and community facility uses. This zoning district allows maximum building heights of 80 feet and streetwall heights of 40 to 65 feet. The building form encouraged by R7A regulations would result in residential buildings that are consistent with the scale, streetwall, and density of the existing buildings in the surrounding area.

The proposed R6B zoning district would be mapped south of the proposed R7A district on portions of Block 908, Lot 12 and Block 909, Lot 35. R6B is a contextual residential zoning district, which permits Use Groups 1 through 4 as-of-right and has a maximum FAR of 2.0 for both residential and community facility uses. Streetwalls in R6B districts can rise 30 to 40 feet, with a maximum building height of 50 feet. The proposed R6B district, with lower bulk, height, and streetwall requirements, would provide consistency with the existing built context of nearby low-scale areas.

From M1-1 to R7-3

The existing low-density M1-1 zoning designations on the project site's waterfront parcels would be replaced with a contextual medium-density R7-3 residential zoning district, which would allow residential development. The project site is located adjacent to existing R6 zoning districts to the east of 9th Street and to the south of 26th Avenue. Therefore, the proposed zoning map change would extend residential zoning with similar districts.

The existing M1-1 zoning is a light manufacturing district with high performance standards that permits Use Groups 5 through 14, 16, and 17 as-of-right and has a maximum FAR of 1.0 for commercial and industrial uses. Certain community facility uses (Use Group 4) such as houses of worship and schools are

also allowed in M1-1 districts up to an FAR of 2.4; residential uses are not permitted. M1-1 zoning districts typically act as buffers between M2 and M3 heavy manufacturing zoning districts and adjacent residential or commercial zoning districts.

The proposed R7-3 zoning district would be mapped in the northern portion of the rezoning area, north of 26th Avenue, along the waterfront between 4th and 9th Streets on Block 906, Lots 1 and 5 and Block 907, Lots 1 and 8. R7-3 is a medium-density residential district that permits Use Groups 1 through 4 as-of-right and permits a maximum FAR of 5.0 with the use of the Inclusionary Housing Program for residential and community facility uses on waterfront blocks. This zoning district allows maximum building heights of 185 feet and streetwall heights of 65 feet on waterfront blocks.

C2-4 Commercial Overlays

C2-4 commercial overlays are proposed to be mapped on the south side of 26th Avenue over the proposed R7A district to a depth of 100 feet and on the entire waterfront portion of the project site between 4th and 9th Streets. C2 commercial overlays are mapped along streets within residential districts that serve the local retail needs of the surrounding residential neighborhood. Typical retail uses include grocery stores, restaurants, and beauty parlors. C2 districts permit a slightly wider range of uses than C1 districts, such as funeral homes and repair services. In R7A and R7-3 districts, C2 commercial overlays permit ground floor retail uses up to 2.0 FAR in mixed residential/commercial buildings; buildings without residential uses would also be allowed 2.0 FAR of commercial uses.

The proposed C2-4 commercial overlays would allow for local retail development in the area.

Proposed Zoning Text Amendment

In addition to the aforementioned zoning map amendment, the Proposed Action includes the following zoning text amendment (see Appendix A).

Inclusionary Housing Program

The proposed zoning text amendment would modify ZR §23-922 to include the proposed R7-3 district within an "Inclusionary Housing Designated Area." This would establish an inclusionary FAR bonus, providing opportunity and incentive for the development of affordable housing on the project site.

The proposed zoning text amendment would make the IHP zoning regulations applicable in the proposed R7-3 zoning district in the rezoning area. The base and maximum FAR for R7-3 districts under the IHP are 3.75 and 5.0, respectively. In the areas where the IHP would be applicable, new residential developments that provide housing that will remain permanently affordable for low- and moderate-income families would receive increased floor area. Specifically, using the IHP, the floor area may be increased by 1.25 square feet for each square foot of affordable housing provided, up to the maximum FAR, essentially a 33 percent bonus in exchange for 20 percent of the floor area being set aside as affordable units. The additional floor area must be accommodated within the bulk regulations of the underlying zoning districts. Affordable units could be financed through City, State, and Federal affordable housing subsidy programs. Within the project site, the entire waterfront site would be subject to the IHP.

The affordable housing requirement of the Inclusionary Housing zoning bonus could be met through the development of affordable units on- or off-site either through new construction or the preservation of existing affordable units. Off-site affordable units must be located within the same community district (CD) or within a half mile of the development receiving the FAR bonus. The availability of on-site and

off-site options provides maximum flexibility to ensure the broadest possible utilization of the program under various market conditions.

Proposed City Map Amendment

The Proposed Action also involves changes to the City Map, including: (1) the establishment of 4th Street from 26th Avenue to the waterfront esplanade; and (2) the elimination of 8th Street between 27th Avenue and the waterfront. As a result of the proposed mapping action, 4th Street would provide access to the residential and commercial development on the waterfront sites as well as the proposed waterfront esplanade, and 8th Street would be utilized as a pedestrian walkway between 27th Avenue and the waterfront. 4th Street is proposed to be a one-way northbound vehicular street with a mapped width of 60 feet, including a 30-foot travel way and two 15-foot sidewalks. These widths are consistent with the adjacent streets connecting to this newly mapped street segment. New infrastructure to support the proposed project can be placed in the newly mapped public street. In addition to the proposed City Map amendment, a 30-foot wide public access easement would be developed along the waterfront within the public access area between 4th and 9th Streets. The public access easement would function as a one-way eastbound vehicular street.

The proposed new sidewalks and streets would connect the proposed new development with the surrounding neighborhood and allow for pedestrian and vehicle use.

Large-Scale General Development (LSGD) Special Permits

The proposed project would require LSGD Special Permits to allow for the distribution of floor area within the LSGD, waivers of minimum distance between buildings and between windows and lot line requirements, and waivers of court requirements. A Special Permit pursuant to ZR §74-743(a)(1) would allow for the distribution of floor area from the project site's non-waterfront zoning lot to the waterfront zoning lot (within the LSGD). A Special Permit pursuant to ZR §74-743(a)(2) would authorize a reduction in the distance between Buildings 2 and 3 and waive the court requirements for Buildings 1, 2, and 3. A Special Permit pursuant to ZR §74-743(a)(6) would waive minimum distance requirements between Building 5's windows and the western lot line. Lastly, an extension of the vesting term for the LSGD Special Permits to ten years is also being requested pursuant to ZR §11-42(c). These Special Permits would facilitate, according to the Applicant, a superior site plan by authorizing the distribution of bulk within the overall development and an increase in proposed open space.

Waterfront Special Permit

The proposed project would require a waterfront Special Permit to modify yard, height and setback, tower footprint size, and maximum widths of walls facing the shoreline. A Special Permit pursuant to ZR §62-836 would allow for the granting of waivers for the rear yard provisions of ZR §23-47; for the setback provisions of ZR §62-341(a)(2) and ZR §62-341(d)(2)(i); base height provisions of ZR §62-341(c)(1) and ZR §62-341(d)(2); building height provisions of ZR §62-341(c)(2) and ZR §62-341(d)(1); the tower footprint size limitation provision of ZR §62-341(c)(4); and the maximum width of walls facing shoreline provision of ZR §62-341(c)(5). This is being requested in order to achieve, according to the Applicant, a better site plan and an enhanced relationship between the project site, streets, open space and the waterfront.

Waterfront Authorizations and Certifications

The proposed project would require an authorization pursuant to ZR §62-822 to modify the area and minimum dimensions of waterfront public access areas and visual corridors under ZR §62-50; modify the requirements within a waterfront public access area under ZR §62-60; and for phased development of the waterfront public access area, as modified by the above-referenced authorizations. In addition, the Applicant would seek certification by the CPC Chairperson for compliance with waterfront public access and visual corridor requirements, as modified by the above-referenced authorizations, pursuant to ZR §62-811 (a ministerial action). The proposed authorizations and certification would allow, according to the Applicant, development of a waterfront public access area that is superior in access, layout and amenities that will substantially add to the public use and enjoyment of the waterfront.

Additional Actions - Not Subject to City Planning Commission Approval

The proposed project would include improvements to stormwater infrastructure to support the new development. An existing 8-inch combined outfall currently exists at 9th Street. However, it is anticipated that this existing outfall would not be sufficient to support the new development and therefore two new outfalls are being proposed as part of the project. The outfalls are proposed to be located at 9th Street and 4th Street (proposed to be mapped) to enable direct discharge of stormwater flows into the East River. These outfalls would be permitted by NYSDEC and the USACE, and the stormwater generated on-site would be treated for water quality prior to discharge. NYSDEC approval will also be required because of the NYSDEC-regulated adjacent area. Additionally, an SPDES permit from the NYSDEC will be required for stormwater discharges during the construction period because construction on the project site involves more than one acre. These actions are subject to environmental review and will be conducted through a coordinated review with CPC, the lead agency.

In addition, the Applicant has prepared a Letter of Intent along with the New York City School Construction Authority (SCA), which would detail the terms under which the SCA can elect to take title to an elementary school with approximately 456 seats (K-5), which is proposed as part of the project.

(E) Designation

The Proposed Action would also assign (E) designations (E-343) to the project site related to hazardous materials, noise, and air quality to all affected building lots. An (E) designation is a mechanism that ensures no significant adverse impacts would result from a proposed project because of procedures that would be undertaken as part of the development of the project site.

Restrictive Declaration and PCREs

A Restrictive Declaration would be recorded at the time all land use-related actions required to authorize the proposed project's development are approved. The Restrictive Declaration would, among other things:

- Require development in substantial accordance with the approved plans, which establish an envelope within which the buildings must be constructed, including limitations on height, bulk, building envelopes, and floor area;
- Require that the proposed project's development program be within the scope of the development scenario analyzed in the Environmental Impact Statement (EIS);
- Provide for the implementation of "Project Components Related to the Environment" (PCREs)

(i.e., certain project components which were material to the analysis of environmental impacts in the EIS); and

- Provide for mitigation measures indentified in Chapter 20, "Mitigation" substantially consistent with the EIS.

As previously described, the Applicant also intends to seek New York City Housing Preservation and Development (HPD) approval of an Affordable Housing Plan pursuant to the Inclusionary Housing Program and potential financing from City and/or State agencies including HPD, the New York City Housing Development Corporation (HDC), and/or NYS Homes and Community Renewal (HCR) for affordable housing construction.

E. REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

In order to assess the potential effects of the Proposed Action, a reasonable worst-case development scenario (RWCDS) for both "future No-Action" (No-Action) and "future with the Proposed Action" (With-Action) conditions will be analyzed for an analysis year, or Build Year, of 2023. The future With-Action scenario identifies the amount, type and location of development that is expected to occur by the end of 2023 as a result of the Proposed Action. The future without the Proposed Action scenario identifies development projections for 2023 absent the Proposed Action. The effect of the Proposed Action would be the incremental change in conditions between the No-Action and With-Action scenarios.

Future without the Proposed Action (No-Action Condition)

In the future without the Proposed Action, the project site would not be rezoned. For analysis purposes, it is expected that the existing light industrial and warehousing uses would remain on the project site. These consist of approximately 194,700 sf of warehouse and storage space and an estimated 100 accessory parking spaces. It is assumed that the upland portions of the project site, which are currently zoned R6, would be redeveloped on an as-of-right basis in the future without the Proposed Action. These upland parcels are estimated to accommodate approximately 166 residential units in the No-Action condition[1]. Pursuant to zoning, approximately 83 accessory parking spaces are assumed to be provided for the as-of-right residential development. In conjunction with this as-of-right residential development, it is assumed that portions of the unbuilt segment of 8th Street to the south of 26th Avenue and/or portions of the unimproved segment of 26th Avenue would be built-out in order to satisfy New York City Department of Buildings (DOB) requirements regarding street frontage.

Future with the Proposed Action (With-Action Condition)

The development program and building design for the Applicant's proposed development, as described below, would represent the RWCDS for environmental analysis purposes, as it maximizes the site's allowable FAR pursuant to the proposed new zoning.

Description of the Proposed Project

The Applicant is proposing several actions to facilitate a new mixed-use, predominantly residential, development on the project site. The Proposed Action described above will facilitate a new approximately

[1] Based on the following assumptions: lot area of approximately 65,237 sf, a maximum allowable FAR of 2.43, a 5% increase to estimate gsf, and an assumption of 1,000 gsf per unit.

2,189,068 gsf mixed-use development on approximately 377,726 sf of lot area. It is expected that this proposed project would include the following components:

- Up to approximately 1,689,416 gsf of residential floor area, comprising a total of approximately 1,689 units, of which 295 units would be affordable. The 1,689 units are expected to include a mix of rental and condominium units.
- Approximately 109,470 gsf of local retail space, including an approximately 25,000 gsf supermarket.
- A site for an elementary school with approximately 456 seats.
- Approximately 900 accessory parking spaces.
- Approximately 83,846 sf (1.92 acres) of publicly accessible open space.

Table S-1 below provides a summary of the proposed program by building. If the Proposed Action is approved, the proposed project is expected to be completed by 2023.

Table S-1: Summary of Proposed Program

Use	Building 1	Building 2	Building 3	Building 4	Building 5	TOTAL
Residential gsf	639,168	567,963	343,781	79,090	59,414	**1,689,416**
Total Units	639	568	344	79	59	**1,689**
Market-Rate	527	454	275	79	59	**1,394**
Affordable	112	114	69	0	0	**295**
Retail gsf	37,120	48,299	20,947	3,104	0	**109,470**
Supermarket gsf	-	25,000	-	-	-	**25,000**
School gsf	-	-	-	-	62,248	**62,248**
Seats	-	-	-	-	456	**456**
Parking gsf	144,052	99,651	65,778	18,605	0	**298,086**
Accessory Parking Spaces	356	242	230	72	0	**900**
Mechanical gsf	7,805	7,805	3,975	5,264	5,000	**29,848**
Total gsf	**798,145**	**723,718**	**434,481**	**106,063**	**126,662**	**2,189,068**
Open Space	**83,846 sf**					

In conjunction with the proposed project, the mapped but unbuilt portion of 8th Street between 27th Avenue and the waterfront would be demapped and built out to provide pedestrian public access to the waterfront (the "8th Street Mews"). In addition, the currently unimproved and inaccessible portion of 26th Avenue would also be built out in conjunction with the proposed development, thereby providing access to 9th Street and improving traffic circulation in the area. The Applicant is also proposing to map an extension of 4th Street from 26th Avenue to the waterfront esplanade to provide public access to the proposed project and the waterfront.

The proposed project would be accessible via entrances/exits on the north and south side of 26th Avenue, the west side of 9th Street, the east and west side of 4th Street, and the south side of the public access easements, as well as additional entrances/exits to residential units along the 8th Street Mews. The proposed project would be comprised of five buildings, three located along the waterfront north of 26th Avenue, and two on the upland parcels south of 26th Avenue.

Local retail would be located along all vehicular streets within the project site and would include an approximately 25,000 gsf supermarket along 26th Avenue in Building 2.

In addition, the proposed project as currently anticipated includes the provision of a site for a public school in the building proposed for upland Block 908, Lot 12 (Building 5). As currently planned, the proposed school would accommodate approximately 456 elementary (K-5) seats and an approximately 4,000 sf (0.09 acre) private open space to be utilized for school-related activities. As previously stated, the Applicant anticipates entering into a Letter of Intent with the SCA, which would detail the terms under which the SCA can elect to take title to the school proposed as part of the project.

The proposed project would include approximately 83,846 sf (1.92 acres) of publicly accessible open space, which would include a waterfront esplanade that would run along the entire length of the project site, providing multi-layered active and passive recreation space. The waterfront esplanade would be open to vehicular traffic via the proposed public access easement. The proposed project would also improve the portion of 8th Street on the project site as a landscaped pedestrian walkway which would provide access from 27th Avenue to the waterfront, while also serving as a visual corridor.

The buildings comprising the proposed project will range in height from 80 feet on the upland parcels, to a maximum of 320 feet on the waterfront. The buildings located along the waterfront (Buildings 1, 2, and 3) would have base heights between 40 and 102 feet that would be topped with towers ranging in height from 120 to 320 feet (see Figures S-9 and S-10). The buildings located on the upland parcels (Buildings 4 and 5) would have base heights between 40 and 90 feet; Building 4 would have a maximum height of 80 feet, and Building 5 would have a maximum height of 90 feet. Townhouses would be located within the bases of Buildings 2, 3, 4, and 5 along the proposed 8th Street Mews.

As there are no subway stations in the immediate vicinity of the project site, it is anticipated that the proposed project would provide shuttle service for residents during the weekday AM and PM peak hours to and from the 30th Avenue station serving the N and Q lines. It is assumed three shuttles with a 40 passenger capacity would make up to four runs an hour each during the weekday commuter peak hours, depending on ridership demand.

Parking for the proposed project would be located on both the upland and waterfront parcels. Parking in the waterfront buildings would be both below-and above-grade, and the upland buildings would include one continuous below-grade parking garage.

Reasonable Worst-Case Development Scenario for Analysis Purposes

As summarized in Table S-2, compared to future conditions without the Proposed Action, the RWCDS anticipates that the Proposed Action would result in a net increase of 1,523 dwelling units (approximately 1,522,964 gsf), 109,470 gsf of retail space, a 456-seat elementary school, and 817 accessory parking spaces, as well as a reduction of approximately 194,700 sf of warehouse/industrial space. This net increment will represent the basis for environmental analyses in the EIS. As noted above, at this time it is anticipated that the residential component of the proposed project would include 295 affordable units, and this estimate will be used for analysis purposes where applicable.

Table S-2: Net Change in Land Uses as a Result of the Proposed Project

Use	No-Action	With-Action	Net Increment
Residential	166,452 gsf 166 DU	1,689,416 gsf 1,689 DU	1,522,964 gsf 1,523 DU
Retail	--	109,470 gsf	109,470 gsf
Warehouse/Storage	194,700 gsf	--	-194,700 gsf
Public Elementary School	--	456 seats	456 seats
Accessory Parking Spaces	83 (estimated)	900	817
Public Open Space	--	83,846 sf	83,846 sf

F. PROBABLE IMPACTS OF THE PROPOSED ACTION

Land Use, Zoning, and Public Policy

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the *CEQR Technical Manual*, are anticipated in the future with the Proposed Action in the primary or secondary study areas. The Proposed Action would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with land uses, zoning, or public policies in the secondary study area. The Proposed Action would not create land uses or structures that would be incompatible with the underlying zoning, nor would it cause a substantial number of existing structures to become non-conforming. The Proposed Action would not result in land uses that conflict with public policies applicable to the primary or secondary study areas.

The Proposed Action would result in an overall increase in residential and commercial use throughout the primary study area, when compared to conditions in the future without the Proposed Action. The proposed zoning map amendments would allow new residential and commercial development at a scale and density that is compatible with the existing zoning designations in the surrounding areas. Also, while the affected area is currently zoned for manufacturing uses, it is located within an area that is largely characterized by residential and retail uses. The affected area contains underutilized and vacant lots used for vehicle/open storage, where residential uses are not permitted per the existing zoning. The proposed rezoning would therefore provide opportunities for new affordable and market rate residential development on those underutilized lots and would be consistent with the goals outlined in PlaNYC. The proposed rezoning action would therefore that the zoning designation more accurately reflects the area's development trends.

The Proposed Action would also enhance and upgrade the currently inaccessible waterfront area to provide waterfront access. The proposed project includes 83,846 square feet (sf) of publicly accessible open space which would include a waterfront esplanade that would run along the entire length of the project site providing active and passive recreation space. Per the Waterfront Revitalization Program (WRP) Consistency Assessment (WRP #12-104), the proposed project would support the applicable policies of the recently revised WRP.

In addition, to encourage new residential development for all income levels, the Proposed Action would create increased densities though use of the IHP to expand and enhance future affordable housing development opportunities.

Socioeconomic Conditions

The Proposed Action and resultant proposed project would not result in significant adverse socioeconomic impacts. The following summarizes the conclusions for each of the five CEQR areas of socioeconomic concern.

Direct Residential Displacement

The Proposed Action would not directly displace any residents, as the project site does not contain any existing residential units. Therefore, the Proposed Action would not result in significant adverse impacts due to direct residential displacement.

Indirect Residential Displacement

A detailed analysis finds that the Proposed Action would not result in significant adverse impacts due to indirect residential displacement. According to the *CEQR Technical Manual*, indirect displacement of a residential population most often occurs when an action increases property values, and thus rents, making it difficult for some of the existing residents to continue to afford to live in the area. The Proposed Action and resultant proposed development would introduce approximately 1,689 residential units (net of 1,523 units) to the study area, of which 295 would be developed as affordable housing. While the Proposed Action would add a substantial amount of residential development to the project site, this would be in keeping with existing trends toward higher-density residential development in northwestern Queens. Compared with the existing study area population, the population that would be introduced by the Proposed Action could include a larger proportion of households with higher incomes.

A detailed analysis of indirect residential displacement has determined that the study area may contain an as many as 2,487 residents (eight census tracts 69, 71, 73, 79, 81, 83, 87, and 91) in privately-held units unprotected by rent control, rent stabilization, or other government regulations restricting rent that are considered to be "at risk" of indirect residential displacement if their rents were to increase. While the Proposed Action could result in some upward pressure on rents within the study area, it is not expected to result in significant indirect residential displacement of the study area's potentially vulnerable population.

The following describes a number of reasons why indirect residential displacement of the population identified as at risk would be unlikely to take place in the future as a result of the Proposed Action. First, the project site, located along the waterfront on the Halletts Point peninsula, is geographically separated from the identified at risk population, limiting its potential to influence residential market trends in those areas. Many of the study area's potentially vulnerable residents live in housing stock that differs from newer residential uses. Inland portions of the study areas contain older, smaller residential buildings with few amenities that do not cater to the incoming, more affluent residential population who is primarily seeking newly-constructed condominiums, many with waterfront views. In addition, there is little opportunity for large-scale development opportunity in these inland areas; unlike many other portions of the study area, much of the inland portion of the study area was not rezoned to allow higher floor area ratio (FAR) in the 2010 Astoria Rezoning and remains in lower-density, contextual residential districts. Furthermore, by adding new housing units, the proposed project could serve to relieve rather than increase market pressure in the study area. Also, there is already a very strong existing trend in the study area toward residential development and an influx of a more affluent population that is anticipated to accelerate in the future without the Proposed Action. The construction of new residential buildings in Astoria has accelerated noticeably in recent years, and there is a substantial amount of new market-rate housing planned for the study area by 2023, including the approved Halletts Point development, which will add 2,644 dwelling units. Moreover, the proposed project would add affordable housing to the study

area, which would help ensure housing opportunities for lower-income residents and would maintain a more diverse demographic composition within the study area.

Direct Business and Institutional Displacement

A screening-level assessment concluded that the Proposed Action would not result in significant adverse impacts due to direct business displacement. There are 14 existing businesses located on the project site that would be directly displaced by the Proposed Action, including: three manufacturing uses; seven construction-related firms; two transportation-related firms; one wholesale establishment; and one retail establishment. While these potentially displaced businesses are valuable to the City's economy, supporting an estimated 80 jobs, the products and services they provide are not uniquely dependent on their location on the project site, nor are the businesses the subject of regulations or publicly adopted plans aimed at preserving, enhancing, or otherwise protecting them in their current location. The employment associated with the potentially displaced businesses does not constitute a substantial portion of the ½-mile study area's employment base, and is below the *CEQR Technical Manual's* 100-employee threshold warranting a preliminary assessment of direct business displacement. Further, these businesses are occupying Applicant-controlled sites and they have short-term leases with termination clauses in anticipation of site redevelopment should the requested discretionary land use actions be approved.

Indirect Business and Institutional Displacement

A preliminary assessment finds that the Proposed Action would not result in significant adverse impacts due to indirect business displacement. While the proposed project's uses would be a substantial addition to the ½-mile study area, they would not be new types of uses within the study area, and therefore would not introduce a new trend that could alter economic patterns. The study area is already experiencing a trend toward increased residential development, adding to the demand for neighborhood retail and services. The housing inventory in Astoria and Long Island City increased by approximately 4.8 percent with the addition of more than 3,600 units between 2002 and 2008, and a substantial amount of new housing (approximately 3,750 new housing units) is anticipated to be added to the ½-mile study area absent the Proposed Action by 2023. Despite these increases in residential development, there has not been a corresponding increase in retail goods and services. According to the U.S. Census Bureau's County Business Patterns, the number of retail establishments has only increased by approximately three percent since 2000. In the future without the Proposed Action, approximately 103,727 gsf of retail would be added to the ½-mile study area. The proposed project's retail would serve existing residents, and would accommodate future consumer demand introduced by residents of planned developments and the proposed development. Existing industrial uses are expected to continue to experience increased rents and indirect displacement pressures due to this trend irrespective of the Proposed Action. The uses, residents, and workers introduced by the Proposed Action are not expected to place upward pressure on commercial office rents in the study area.

Adverse Effects on Specific Industries

A screening-level assessment concluded that the Proposed Action would not result in any significant adverse impacts due to effects on specific industries. As noted above, the 14 businesses that could be directly displaced by the Proposed Action are on short-term leases with termination clauses that provide a six month notice provision in anticipation of future site redevelopment and would be expected to relocate as a result of the Proposed Action. These businesses represent a small portion of the businesses within their industries, and the goods and services provided by these businesses can be found elsewhere in the City. Similarly, any potential indirect business displacement that could occur as a result of the proposed project would be limited, and would not affect conditions within any City industries.

Community Facilities

Pursuant to *CEQR Technical Manual* guidelines, detailed analyses of potential impacts on public elementary, intermediate and high schools, publicly funded child care services, and public libraries were conducted for the Proposed Action. Based on the *CEQR Technical Manual* screening methodology, detailed analyses of outpatient health care facilities and police and fire protection services are not warranted. As summarized below, the Proposed Action would have a significant adverse impact on publicly funded child care services, as well as a temporary significant adverse impact on elementary schools.

Public Schools

The project site falls within the boundary of New York City Community School District (CSD) 30, Sub-district 3. The RWCDS associated with the Proposed Action would introduce a net increment of 426 elementary school students, 183 intermediate school students, and 213 high school students. The assessment of public schools assesses the potential effects of these additional students on elementary and intermediate schools within Sub-district 3 of CSD 30 and on high schools within the borough of Queens.

In the future with the Proposed Action, elementary schools within Sub-district 3 of CSD 30 would operate at 122.3 percent capacity, with a shortfall of 1,076 seats. Although the collective utilization rate of elementary schools in CSD 30, Sub-district 3 would exceed 100 percent in the With-Action condition, because the proposed project includes a site for a 456-seat elementary school, the Proposed Action would result in a decrease of approximately three percent in the collective utilization rate between the No-Action and With-Action conditions. However, as the proposed school would be constructed in the final phase of the proposed project's development, the Proposed Action would result in a maximum temporary increase in the elementary school utilization rate of 5.67 percent, and therefore would result in a temporary significant adverse elementary school impact.

Intermediate schools would operate with surplus capacity in Sub-district 3 of CSD 30 in the future with the Proposed Action, and therefore, the Proposed Action would not result in a significant adverse impact on intermediate schools.

According to the *CEQR Technical Manual,* the determination of impact significance for high schools is conducted at the borough level. The additional high school students introduced as a result of the Proposed Action would raise the utilization for high schools in Queens from approximately 133.1 percent to 133.4 percent. Accordingly, the Proposed Action would not have a significant adverse impact on high school.

Child Care Services

Within the study area, which extends approximately 1.5 miles from the project site, there are three publicly funded group child care facilities and Head Start programs. As of June 2013, these facilities were operating at capacity (100 percent utilization). In the future with the Proposed Action, the proposed project would generate up to 295 low and moderate income housing units by 2023. Based on *CEQR Technical Manual* Table 6-1b, it is estimated that these 295 units would generate 41 children under the age of 6 eligible for publicly funded child care services. The additional children would increase the utilization rate to 153 percent (an increase of 17 percent from the No-Action condition).

According to the *CEQR Technical Manual*, a significant adverse child care impact may result, warranting consideration of mitigation, if a proposed action would increase the study area's utilization rate by at least

five percent and the resulting utilization rate would be 100 percent or more. The Proposed Action would cause a 17 percent increase in demand over the No-Action child care capacity in the study area, over the CEQR threshold of five percent. Therefore, the Proposed Action would result in a significant adverse impact to publicly funded child care centers and Head Start programs in the study area. To avoid exceeding the significant adverse impact threshold, the number of affordable units included in the proposed project would need to be reduced to 89, which would generate only 12 children eligible for publicly funded group child care. Alternately, 21 additional child care slots would need to be provided to reduce the increase in utilization to below the five percentage point threshold.

Libraries

The project site is within the catchment area of the Astoria Library. Assuming 2.34 persons per household based on 2010 Census data, the Proposed Action would result in a net increase of 3,564 residents to the area. This would increase the study area population, and therefore the number of residents per branch, by 6.5 percent. However, in the 2023 With-Action condition, the Astoria Library would have a ratio of approximately 0.12 holdings per resident, which is the same as under No-Action conditions.

Although the Astoria Library study area population would increase by approximately 6.5 percent, the increase would not be expected to impair the delivery of library services. Residents of the Astoria Library study area and the proposed project would have access to the entire Queens Public Library system through the interlibrary loan system and could have volumes delivered directly to their nearest library branch. There are also three other Queens Library branches located approximately one mile from the project site. Therefore, as noted above, there are more library resources available to study area residents than are reflected in the quantitative analysis. Residents would also have access to libraries near their places of work. In addition, the recent renovations along with the trend toward increased electronic research and interlibrary loans are expected to free up stack space, providing for increased capacity and programs to serve the future population. As such, the Proposed Action would not result in a significant adverse impact to public libraries. In a letter dated March 24, 2014, the Queens Public Library concurred with the conclusion that the Proposed Action would not result in a significant adverse impact to public libraries (see Appendix C).

Open Space

According to the *CEQR Technical Manual*, a proposed action may result in a significant impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbates a deficiency in open space. As the Proposed Action would not directly displace or alter an existing open space, the focus of the open space analysis is on the potential for indirect effects on open space resources. As the Proposed Action would introduce more than 200 residents in the area, a detailed analysis of indirect open space impacts was conducted, pursuant to CEQR. The detailed analysis determined that the Proposed Action would result in a significant adverse impact to active open space in the residential study area as a result of the decrease in the active open space ratio.

The *CEQR Technical Manual* also states that "if the area exhibits a low open space ratio indicating a shortfall of open space, even a small decrease in the ratio as a result of the action may cause an adverse effect." A five percent or greater decrease in the open space ratio is considered to be "substantial" in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents, and a decrease of less than one percent is generally considered to be insignificant unless open space resources are extremely limited.

An open space impact assessment is conducted using both quantitative and qualitative factors, and the determination of significance is based upon the context of a project, including its location, the quality and quantity of the open space in the future With-Action condition, the types of open space provided, and any new open space provided by a project. The open space study area is well-served by open space in existing conditions, with over 75 acres of open space. As the study area has over 1.5 acres of open space per 1,000 residents under existing conditions, the five percent decrease impact threshold does not apply to the analysis of the Proposed Action in and of itself; therefore, the open space analysis also considers the balance of open space resources appropriate to support the affected population.

The Proposed Action would decrease the 2023 No-Action total, active, and passive open space ratios by more than 5 percent. However, as the With-Action total and passive residential open space ratios would remain above the City's optimal planning goals of 2.5 acres and 0.5 acres, respectively, per 1,000 residents, no significant adverse impacts to total or passive open space would result.

The proposed project would include a playground and opportunities for walking and biking, as well as a school play area that would further offset active open space demand from school age children in the area, and would improve access to existing open space resources in the area, including Astoria Park. However, the residential population generated by the Proposed Action would exacerbate an existing deficiency in active open space in the residential study area. Therefore, the Proposed Action would result in a significant adverse impact on active open space in the residential study area.

Shadows

The proposed project would cast incremental shadows on Whitey Ford Field on May 6/August 6 and June 21, Astoria Park on December 21, and the East River on March 21/September 21, May 6/August 6, June 21, and December 21. On all analysis days, project-generated incremental shadows would not be large enough in extent or long enough in duration to result in significant adverse shadow impacts. Project-generated shadows would not affect the utilization or enjoyment of any sunlight-sensitive resources and all open spaces would continue to receive a minimum of four hours of direct sunlight throughout the growing season. Therefore, the proposed project would not result in a significant adverse shadows impact on any nearby sunlight-sensitive resources.

Historic and Cultural Resources

Architectural Resources

Based on consultation with LPC it was determined that there are no designated or potential architectural resources within or in close proximity of the project site. Therefore, the Proposed Action would not result in potential impacts to architectural resources.

Archaeological Resources

A Phase 1A archaeological documentation study concluded that portions of the project site (Block 906, Lot 1; Block 908, Lot 12; and Block 909, Lot 35) could contain potentially sensitive archaeological resources. To determine if archaeological resources are present, Phase 1B archaeological testing will be carried out in these potentially archaeologically sensitive areas; the Phase 1B testing protocol has been reviewed and approved by the New York City Landmarks Preservation Commission (LPC). The Phase 1B testing would be conducted in coordination with the LPC prior to construction of the affected blocks. If LPC determines that no resources of significance are encountered, no further archaeological study

would be warranted. Should the Phase 1B archaeological field testing find significant archaeological resources on the project site, further testing would be conducted under LPC oversight to identify the boundaries and significance of the findings. If required, data recovery would be conducted in accordance with a LPC-approved recovery plan. With implementation of all of the above measures which will be incorporated into the Restrictive Declaration, there would be no significant adverse impacts to archaeological resources.

Urban Design and Visual Resources

Urban Design

The proposed zoning map changes would replace the existing M1-1 and R6 zoning districts within the proposed rezoning area with R6B, R7-3 with a C2-4 commercial overlay, and R7A with a C2-4 commercial overlay. Development facilitated by the Proposed Action would not result in significant adverse impacts on urban design as defined by the guidelines for determining impact significance set forth in the *CEQR Technical Manual*. While the proposed structures would be a departure from the existing conditions, the design would be consistent with anticipated future development in the surrounding area. By focusing the majority of the bulk on the waterfront, the lower height of the inland structures would be more consistent with the surrounding built context. In addition, the proposed waterfront open space would facilitate connections to adjacent existing and proposed open space resources and improve the streetscape. The Proposed Action would also provide public access to the proposed project and the waterfront by mapping an extension of 4th Street, demapping and building out an unbuilt portion of 8th street for pedestrian use, and providing access to 9th Street by building out a currently inaccessible portion of 26th Avenue.

As the Proposed Action would facilitate the construction of multiple large buildings close to one another along the East River, a computational fluid dynamics-based (CFD-based) analysis of pedestrian wind conditions was undertaken to determine whether the proposed project might result in accelerated ground-level winds. The assessment of pedestrian-level wind effects was completed based on the current conceptual level of design of the proposed project, and actual effects would vary depending on the final design of the proposed project, as facilitated by the Proposed Action. The results of the CFD wind analysis indicate that elevated pedestrian wind conditions that could potentially exceed criterion levels would be limited to two locations on the project site: the northwest corner of Building 1 and the northeast corner of Building 3. As the potential high wind conditions at the northwest corner of Building 1 would only occur during the winter months and would occur at a location where a limited number of pedestrians would be affected, no significant adverse urban design impacts due to pedestrian wind would result at this location. However, elevated pedestrian wind conditions in exceedance of the safety criterion could occur at the northeast corner of Building 3 during both summer and winter months adjacent to entrances and other amenity space with higher anticipated pedestrian volumes, Due to both the potential frequency and location of the elevated pedestrian wind conditions adjacent to Building 3, a significant adverse urban design impact due to pedestrian wind conditions could result at that location.

Visual Resources

The Proposed Action would not result in significant adverse impacts to visual resources. Development facilitated by the Proposed Action would open up new view corridors to significant visual resources that are currently obstructed by fencing and inaccessible to the public. In addition, the Proposed Action would result in the creation of new visual resources in the form of waterfront open space.

Natural Resources

The Proposed Action would not result in significant adverse impacts to groundwater, floodplains, water quality, aquatic biota, wetlands, terrestrial natural resources, or threatened or endangered species within and near the project site. Project construction would not result in a net increase in fill below mean high water (MHW) and spring high water (SHW) or a change in the shoreline configuration that would result in loss of NYSDEC tidal wetland adjacent area or aquatic habitat. New stormwater outfalls would be constructed above SHW and would not result in loss of tidal wetland or disturbance to the river bottom. Further discussions will be held with the NYSDEC during the NYSDEC application process. At that time, additional measures may be incorporated either on- or off-site to eliminate the potential for significant adverse impacts to NYSDEC littoral zone tidal wetlands, if deemed necessary. With the implementation of such measures, there would be no significant adverse impacts to NYSDEC littoral zone tidal wetlands, water quality, or aquatic biota from construction of the esplanade.

Stormwater management measures implemented as part of the proposed project would improve the quality of stormwater discharged to the East River. This would benefit NYSDEC tidal wetland adjacent area and aquatic resources adjacent to the project site, as discharge of runoff from the project site is currently untreated. Stormwater management measures implemented as part of the proposed project would regulate the rate at which runoff is discharged to adjacent storm sewers, in accordance with the New York City Department of Environmental Protection (DEP) allowable rate, and then to the East River through the proposed outfalls. Discharge of stormwater runoff to the DEP storm sewer at the rate allowed by DEP would not be expected to contribute to street flooding due to storm sewer capacity exceedances.

Because floodplains within and adjacent to the project site are affected by coastal flooding rather than local or fluvial flooding, the proposed project would not result in increased flooding on or adjacent to the project site. The design and construction of the buildings within the project site would comply with current and any future changes to the New York City Building Code requirements for construction within the 100-year floodplain and any future changes in the floodplain zones designated by the Federal Emergency Management Agency (FEMA). Development of the proposed project would not result in significant adverse impacts to flood levels, flood risk, or the flow of flood waters within the project site or in other portions of the Halletts Point peninsula. Construction of the proposed project would require minimal tree removal and would not eliminate or degrade valuable wildlife habitat. No threatened or endangered terrestrial species are known to occur or have the potential to occur on or in the vicinity of the project site.

Hazardous Materials

A Phase I ESA was prepared in July 2013 in order to evaluate potential contamination on the project site. Several potential sources of contamination were identified, including past and present manufacturing, woodworking, manufacturing supply storage, and automobile repair uses, evidence of historic leaks associated with machinery use, known aboveground storage tanks (ASTs), and suspected underground storage tanks (USTs), asbestos containing materials (ACM), and/or lead based paint (LBP).

Based on the findings of the Phase I ESA, to reduce the potential for human or environmental exposure to contamination during and following construction of the proposed project, an (E) designation would be assigned to the project site (Block 906, Lots 1 and 5, Block 907, Lots 1 and 8, Block 908, Lot 12, and Block 909, Lot 35) to ensure that remedial activities would be undertaken prior to redevelopment. With these (E) designations in place, sampling and remedial protocols and reports will be required, and will be

submitted to the New York City Mayor's Office of Environmental Remediation (OER) for review and approval.

Specifically, based on the findings of the Phase I ESA, a Subsurface (Phase II) Investigation would be conducted in accordance with the DEP-approved Work Plan for the project site to determine whether past or present, on-site or off-site activities have affected subsurface conditions; all Phase II work would be conducted in accordance with the DEP-approved Health and Safety Plan (HASP). Following implementation of this Phase II investigation and based on its findings, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared (and submitted to OER for review and approval) for implementation during the proposed project's construction.

With the (E) designation in place and implementation of the associated sampling and remedial protocols described above, in addition to the remediation phasing protocol to be outlined in the Restrictive Declaration to be recorded, the proposed project is not expected to result in significant adverse impacts for hazardous materials.

Water and Sewer Infrastructure

Based on the methodology set forth in the *CEQR Technical Manual*, the analysis finds that the Proposed Action would not result in a significant adverse impact on the City's water supply, wastewater and stormwater conveyance and treatment infrastructure.

Water Supply

The anticipated water usage as a result of the Proposed Action is expected to total 338,611 gallons per day (gpd) over water demand under existing conditions. This incremental demand would represent less than 0.1 percent of the City's overall water supply and would be distributed over the 8.7-acre site. As changes of this magnitude would not be large enough to have a significant adverse impact on the City's water system, the incremental demand with the Proposed Action would not adversely affect the City's water supply or system water pressure.

Sanitary (Dry Weather) Flows

The Bowery Bay water pollution control plant (WPCP), which is designed to treat a dry weather flow of 150 million gallons per day (mgd), handled an average of 110 mgd of sewage flow between January and December 2012. Based on rates in the *CEQR Technical Manual*, the Proposed Action has the potential to result in an increase of 0.34 mgd of sanitary sewage flow. This incremental increase in sanitary flow would represent approximately 0.2 percent of the Bowery Bay WPCP's designated State Pollution Discharge Elimination System (SPDES) capacity. Pursuant to CEQR methodology, as the projected increase in sanitary sewage would not cause the Bowery Bay WPCP to exceed its operational capacity or its SPDES-permitted capacity, the Proposed Action would not result in significant adverse impacts to sanitary sewage conveyance and treatment.

Stormwater (Wet Weather) Flows

The Proposed Action would include improvements to stormwater infrastructure to support the new development, including the construction of new stormwater outfalls to enable direct discharge of project site stormwater flows into the East River and therefore would decrease the amount of stormwater flows generated on the project site that could contribute to combined sewer overflow (CSO) events. Based on the analysis conducted in accordance with the *CEQR Technical Manual*, with the infrastructure

improvements and Best Management Practices (BMP) implemented on the project site by the Applicant, it is concluded that the Proposed Action would not result in significant adverse impacts on stormwater conveyance and treatment infrastructure.

Energy

Development facilitated by the Proposed Action (the proposed project) is projected to generate demand for approximately 124.3 billion BTUs of energy per year. This energy demand represents the total incremental increase in energy consumption between the future without the Proposed Action (the No-Action condition) and the future with the Proposed Action (the With-Action condition). As explained in the *CEQR Technical Manual*, the incremental demand produced by most projects would not create a significant impact on energy capacity, and detailed assessments are only recommended for projects that may significantly affect the transmission or generation of energy. The proposed project would generate an incremental increase in energy demand that would be negligible when compared to the overall demand within Con Edison's New York City and Westchester County service area. Therefore, the Proposed Action would not result in any significant adverse energy impacts.

Transportation

Traffic

Weekday AM, midday, and PM peak hour traffic conditions were evaluated at 30 intersections generally bounded by Hoyt Avenue North to the north, Broadway to the south, 33rd Street to the east, and 4th Street to the west. These 30 intersections, where project generated trips are expected to be most concentrated, were analyzed for a RWCDS that assumes full completion of the nearby Halletts Point project, which has a 2022 Build Year. It should be noted that an analysis of Saturday peak hour conditions will be conducted between the Draft Environmental Impact Statement (DEIS) and the Final EIS (FEIS), as requested by the New York City Department of Transportation (NYCDOT). This analysis may result in additional significant adverse impacts. The findings of this additional analysis will be documented in the FEIS.

The traffic impact analysis indicates that there would be a potential for significant adverse impacts at 20 intersections during the weekday AM peak hour, nine intersections during the weekday midday peak hour, and 16 intersections during the weekday PM peak hour, as outlined in Table S-3.

As the impacts shown in Table S-3 would result from an increase of traffic volumes due to both the Proposed Action and the Halletts Point development, an additional impact analysis was conducted per guidance by DCP and NYCDOT to determine whether these impacts would occur absent the Halletts Point development. The analysis of future conditions without accounting for the Halletts Point development shows that, although the majority of significant adverse impacts were identified at the same locations for both the future conditions, generally fewer impacts would occur absent the Halletts Point development. A total of 19 of the 30 analyzed intersections would be significantly adversely impacted in one or more peak hours as a result of the Proposed Action absent the Halletts Point development, while 22 of the 30 analyzed intersections would be impacted when accounting for the Halletts Point development.

Table S-3: Summary of Impact Locations

Intersection	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
1. 26th Ave & 4th St			
A. 26th Ave & 9th St			
2. 27th Ave & 4th St			X
3. 27th Ave & 8th St	X	X	X
4. 27th Ave & 12th St	X		X
5. 27th Ave & 14th St	X		
6. 27th Ave & 18th St			
7. Astoria Blvd & 21st St	X	X	X
8. Astoria Blvd & 23rd St	X		X
9. Astoria Blvd & Crescent St	X	X	X
10. Astoria Blvd & 27th St	X		
11. Astoria Blvd & 28th St			
12. Astoria Blvd & 29th St	X	X	X
13. Astoria Blvd & 30th St			
14. Astoria Blvd & 31st St	X		
15. Hoyt Ave S./Astoria Blvd & 33rd St	X	X	X
16. Hoyt Ave N. & 29th St	X		
17. Hoyt Ave N. & 31st St			
18. Astoria Blvd N. & 32nd St	X	X	X
19. Astoria Blvd & 8th St			X
20. 30th Ave & 14th St	X		
21. 30th Ave & 21st St	X		
22. Vernon Blvd & Welling Court/8th St	X	X	X
23. Astoria Blvd & 18th St			
24. Hoyt Ave N. & 21st St	X		X
25. Hoyt Ave S./Astoria Park S. & 21st St	X		X
26. 27th Ave & 9th St	X	X	X
27. Vernon Blvd & 31st Ave	X		X
28. Vernon Blvd & Broadway/11th St	X	X	X
29. 31st Ave & 21st St			

Notes:
X – denotes potential for significant adverse impact.

Transit

Subway

The project site is served by the N, Q, and F lines; the 30th Avenue Station is served by the N and Q lines, and the 21st Street-Queensbridge Station is served by the F line. Based on current station usage, the proximity to the project site, and the shuttle service to the 30th Avenue Station, it was estimated that the majority (approximately 80 percent) of subway riders would utilize the 30th Avenue Station via a shuttle, as noted above, while the remaining 20 percent would utilize the 21st Street-Queensbridge Station. Therefore, according to *CEQR Technical Manual* criteria, a detailed analysis of subway station elements was only warranted at the 30th Avenue Station. In addition, a subway line haul analysis was conducted for the three subway lines serving the project site. The results of the analysis of future conditions indicate that the Proposed Action would result in significant adverse impacts on the 30th Avenue Station's northwest street stair during the PM peak hour. Due to the high volumes of Manhattan-bound morning commuter traffic, significant adverse impacts to the 30th Avenue Station's northbound fare array are anticipated during the AM peak hour. While the Manhattan-bound Q line would operate over capacity in future With-

Action conditions, as the Proposed Action would add less than 5 passengers per car (the CEQR impact criterion), no significant adverse subway line haul impact would result.

Bus

In addition to new bus riders resulting from the Proposed Action, the level of new bus demand on the analyzed local bus route Q103 would include project-generated F line subway riders that are expected to take the Q103 bus to and from the 21st Street-Queensbridge Station. The results of the bus transit impact analysis indicate that the Q103 route would experience significant adverse impacts in the southbound direction during both the weekday AM and PM peak hours, as well as in the northbound direction during the PM peak hour.

Pedestrians

The Proposed Action would not result in any significant adverse impacts to sidewalks, corner areas or crosswalks. A total of 11 existing sidewalks, three corners, and one crosswalk in the vicinity of the project site and close to the 30th Avenue subway station were selected for analysis in the three peak hours. Four additional future sidewalk elements on the project site were analyzed for the With-Action condition only. The results of the analysis of future conditions with the Proposed Action indicate that all analyzed sidewalks, corners, and crosswalks would operate at acceptable levels of service during the weekday AM, midday, and PM peak hours under With-Action conditions. As noted above, as requested by NYCDOT, an analysis of Saturday peak conditions will be conducted between the DEIS and the FEIS and may result in additional significant adverse impacts. The findings of this additional analysis will be documented in the FEIS.

Pedestrian and Vehicular Safety Evaluation

None of the analyzed study area intersections exceeded one pedestrian and/or bicyclist injury crash in one or more years from 2010-2012 or reached the *CEQR Technical Manual* threshold for the total number of crashes per year. Therefore, a significant safety impact on pedestrian/bicyclist and vehicular safety is not anticipated. In addition, no pedestrian and vehicular safety concerns are anticipated on future project site streets. However, the Applicant will work with NYCDOT to implement required school signage and other typical safety features applied in proximity to schools where necessary.

Parking

The maximum parking demand, which is expected to occur from 8-9 PM, as well as the overnight demand, are expected to be accommodated by new parking spaces that would be created as part of the proposed project as well as on-street parking in the immediate vicinity. Therefore, no significant adverse parking impacts are expected.

Air Quality

Air quality analyses addressed mobile sources, parking facilities, heating, ventilation, and air conditioning (HVAC) systems, and air toxics. The results of the analyses are summarized below.

- Emissions from project-related vehicle trips would not cause significant air quality impacts to receptors at the local or neighborhood scale;
- Emissions from parking facilities would not cause a significant air quality impact to project site buildings or existing sensitive land uses;

- An air quality (E) designation will be assigned to the project site and will require the use of natural gas and restrict boiler stack heights for all project site buildings, as well as restricting the stack location on Building 3. With this measure in place, the emissions from the HVAC systems of project site buildings would not cause a significant air quality impact to other project site buildings or existing sensitive land uses;
- As no existing large or major sources are located within the 1,000 feet of the project site, emissions from existing stationary HVAC sources would not cause a significant air quality impact to the proposed project; and
- No significant air quality impacts to the proposed project are anticipated from air toxics.

Greenhouse Gas Emissions and Climate Change

It is estimated that the proposed project would result in approximately 26,348 total metric tons of GHG emissions from its operations and 7,355 metric tons of GHG emissions from mobile sources annually. This would represent an annual total of approximately 33,703 total metric tons of GHG emissions. In comparison, New York City's annual GHG emissions total in 2012 was approximately 47.9 million metric tons. In addition, according to the PlaNYC document *Inventory of New York City Greenhouse Gas Emissions* (December 2013), the total for supplying energy to buildings (residential, commercial, industrial, and institutional) was 33.9 million metric tons.[2] Compared to these values, the contribution of the Proposed Action's GHG emissions to GHG emissions citywide is insignificant and represents approximately 0.07 percent of the total citywide emissions.

The *CEQR Technical Manual* provides specific GHG reduction goals through which a project's consistency with the City's emissions reduction goal is evaluated. The Applicant is currently evaluating the specific energy efficiency measures and design elements that may be implemented to support these goals. The proposed project's use of natural gas for heating systems, its commitment to construction air quality controls, its introduction of a residential shuttle to the 30th Avenue subway station, and its use of water-conserving features and water-efficient landscaping would advance New York City's GHG reduction goals as stated in PlaNYC. In addition, the development could be subject to changes in the New York City Building Code that are currently being considered to require greater energy efficiency and to further the goals of PlaNYC. These could include energy efficiency requirements, specifications regarding cement, and other issues influencing GHG emissions. Furthermore, by virtue of the location of the project site in relation to public transportation, the Proposed Action, which would facilitate dense and efficient mixed-use buildings, would be consistent with the GHG reduction goals. The Proposed Action is, therefore, based on the aforementioned commitments to energy efficient project features, and by virtue of the project's location and nature, consistent with the City's citywide GHG reduction goals, as defined in the *CEQR Technical Manual*.

All waterfront buildings would be constructed to meet the standards of the New York City Building Code and the Best Available Flood Hazard Data available from FEMA at the time of their construction (which will be reflected in the Restrictive Declaration to be recorded). Specific areas of the project site that are within the 100-year floodplain include a small area of Building 1 and small portions of the waterfront esplanade. Should the base flood elevation rise to these projected elevations in the future, the Applicant anticipates retrofitting the perimeter of Building 1 with flood prevention systems (either temporary or permanently installed flood gates/shutters), potentially in conjunction with an emergency flood protection plan. As the potential future floodplain elevations on the remaining waterfront buildings may be slightly

[2] City of New York, *Inventory of New York City Greenhouse Gas Emissions, December 2013,* by Jonathan Dickinson, Jamil Khan, and Mikael Amar. Mayor's Office of Long-Term Planning and Sustainability, New York, 2013.

above the currently anticipated ground floor elevations for the waterfront buildings, the ground floor elevations could simply be raised to be out of the applicable floodplain, as zoning permits the proposed buildings' Base Plane to be set at the 100-year flood elevation. Therefore, the proposed project would minimize the potential for public and private losses due to flood damage, reduce the exposure of public utilities to flood hazards, and prepare for and address future risks, and would be consistent with the City's climate change goals.

Noise

The analysis concludes that significant adverse noise impacts could potentially occur at two non-Applicant owned existing sensitive receptors (Receptor Location 2 at the intersection of 26th Avenue and 4th Street), and therefore potential measures to mitigate noise impacts at these locations will be examined, in consultation with the lead agency, the New York City Department of City Planning (DCP), between the Draft and Final Environmental Impact Statement (EIS).

Wth implementation of the recommended building attenuation measures, the Proposed Action would result in significant adverse noise impacts on project site buildings. The building attenuation analysis concludes that in order to meet *CEQR Technical Manual* interior noise level requirements, up to 35 dBA of building attenuation would be required for all of the proposed project's buildings (see Table S-4). With the incorporation of the attenuation levels specified below under "Noise Attenuation Measures for the Proposed Project," noise levels within the proposed buildings would comply with all applicable requirements. As discussed below, the attenuation specifications for Buildings 1 through 5 would be mandated by placing (E) designations on the project site. However, the predicted future noise levels do not account for a reduction in background noise from nearby industrial sources, and the aforementioned requirements conservatively apply the attenuation required for the highest predicted noise levels on the project site, irrespective of potential reductions resulting from orientation or intervening buildings. Further refinement of the analyses will occur between the DEIS and the FEIS to further determine applicable noise attenuating measures of the Proposed Action prior to the issuance of the FEIS. The noise (E) designation (E-343) to be placed on the project site would be updated, as necessary, based on the refined analysis to ensure that interior noise levels at all project site buildings meet the interior noise levels requirements outlined in the *CEQR Technical Manual* (45 dBA for residential and community facility uses, and 50 dBA for commercial uses). In addition, while the projected noise levels at the proposed project's open space areas could be greater than the 55 dBA L_{10} CEQR guideline, it would be comparable to other parks around New York City and would not constitute a significant adverse noise impact.

The Proposed Action would result in noticeable increase in noise levels in exceedance of the CEQR noise impact criteria during the weekday AM and midday peak hours at the intersection of 26th Avenue and 4th Street as a result of the proposed road network changes and incremental traffic generated by the proposed project and therefore would result in a significant adverse mobile source noise impact at two existing sensitive receptors located in close proximity to this location, pursuant to CEQR. However, the resultant noise levels at this location would remain "marginally unacceptable" as under existing conditions and do not account for any reductions in background noise levels associated with the removal of existing industrial uses from the project site. In addition, noise levels during the affected With-Action peak hours would be less than the maximum existing noise levels at this location, and, therefore, these nearby existing sensitive receptors would not be exposed to noise levels greater than those currently experienced. Further refined analysis will be conducted between the Draft and Final EIS to determine the extent of the noise level increases that would be experienced at these nearby sensitive receptors, in consideration of their distance from the impacted receptor and/or their existing window/wall attenuation

Table S-4: Required Attenuation at the Building Sites under CEQR Criteria

Building Number	Representative Receptor Site	Height (in feet)[1]	Maximum Predicted L_{10} (in dBA)	CEQR Minimum Required Attenuation (in dBA)[2]
1	2	0-100	78.2	35
		100-top	75.2	31
2	2	0-100	78.2	35
		100-top	75.2	31
3	6	0-100	77.5	33
		100-top	74.5	31
4	6	All	77.5	33
5	6	All	74.5	31

Notes:
[1] The maximum L_{10} values at elevations above 100 feet were conservatively assumed to be 3 dBA less than the levels at grade due to increased distance from the at-grade roadways, which are the dominant noise source at this location.
[2] Attenuation values are shown for residential uses; commercial uses would be 5 dBA less.
[3] Attenuation requirements would be mandated by an (E) designation to be assigned to the project site.

Public Health

Public health involves the activities that society undertakes to create and maintain conditions in which people can be healthy. Many public health concerns are closely related to air quality, hazardous materials, construction, and natural resources. Per *CEQR Technical Manual* guidance, a public health assessment is warranted as potential unmitigated significant adverse operation and construction noise impacts may occur. In terms of public health, significance is not determined based upon the incremental change in noise level, but is based principally upon the magnitude of the noise level and duration of exposure.

The significant adverse operational noise impact, identified at the intersection of 26th Avenue and 4th Street, would occur over a geographically limited area, and would not result in prolonged exposure to levels above 85 dBA. The With-Action L_{10} for the AM, midday, and PM peak hour was measured at 69.2, 69.3, and 78.2 dBA, respectively. The Proposed Action is not anticipated to cause excessively high chronic noise exposure and, therefore, is not expected to result in a significant adverse public health impact related to noise.

Construction activities would also be expected to result in substantially elevated noise levels that would exceed CEQR noise magnitude impact criteria at nine existing residential/community facility buildings and one existing open space. With the proposed noise attenuation measures included as part of the construction program and the partial mitigation measures proposed, the magnitude and duration of the noise levels at receptor locations would not result in any significant adverse public health impacts. Even if an unmitigated construction noise impact is identified, neither the extent nor the duration of the noise exposure would be great enough to constitute a significant adverse public health impact.

Neighborhood Character

Based on the methodology of the *CEQR Technical Manual*, a preliminary assessment of the Proposed Action's effects on neighborhood character was conducted to determine the need for a detailed analysis. Of the relevant technical areas specified in the *CEQR Technical Manual*, the Proposed Action would not result in significant adverse impacts on land use, zoning, and public policy, socioeconomic conditions,

shadows, or historic and cultural resources. The scale of significant adverse impacts to open space, noise, transportation, and pedestrian wind would not affect any defining features of neighborhood character, nor would a combination of moderately adverse effects affect the neighborhood's defining features. The proposed project would be consistent with existing trends and would facilitate new mixed-use development, waterfront open space, and improved neighborhood circulation. Thus, based on the results of the preliminary assessment, there is no potential for the Proposed Action to result in significant adverse impacts to neighborhood character, and further analysis is not warranted.

Construction Impacts

The analysis concludes that construction of the proposed project would result in significant adverse construction impacts with respect to vehicular traffic and noise. The results of construction analyses for each technical area are discussed in more detail below.

Land Use and Neighborhood Character

Construction of the proposed project would not result in significant adverse impacts on land use or neighborhood character. The proposed project would entail construction over an approximately nine-year period; no one location on-site would be under construction or used for staging for the full nine years. Throughout the construction period, access to surrounding residences, businesses, and waterfront uses in the area would be maintained, as required by City regulations. In addition, throughout the construction period, measures would be implemented to control noise, vibration, emissions, and dust on the construction sites and minimize impacts on the surrounding areas. Even with these measures in place, impacts, in some cases significant impacts are predicted to occur. However, because none of these impacts would be continuous in any one location or permanent, they would not create significant impacts on land use patterns or neighborhood character in the area.

Socioeconomic Conditions

Construction of the proposed project would not result in significant adverse impacts on socioeconomic conditions. Construction of the proposed project could, in some instances, temporarily affect pedestrian and vehicular access on street frontages immediately adjacent to the project site. However, lane and/or sidewalk closures are not expected to occur in front of entrances to any existing or planned retail businesses, construction activities would not obstruct major thoroughfares used by customers or businesses, and the limited number of businesses surrounding the project site would not be significantly affected by any temporary reductions in the amount of pedestrian foot traffic or vehicular delays that could occur as a result of construction activities. In addition, construction would create direct benefits resulting from expenditures on labor, materials, and services and indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction also would contribute to increased tax revenues for the City and the State, including those from personal income taxes.

Community Facilities

No study area community facilities would be directly affected by construction activities for an extended duration. The construction sites would be surrounded by construction fencing and barriers that would limit the effects of construction on nearby facilities. As the proposed 456-seat elementary school in Building 5 would be constructed in the final phase of the proposed project's development, no construction activities would occur adjacent to the school once it is operational. In addition, construction workers would not place any burden on public schools and would have minimal, if any, demands on libraries,

child care facilities, and health care services. Construction of the proposed project's buildings and other project elements would not block or restrict access to any community facilities in the area and would not materially affect emergency response times.

Open Space

Construction of the proposed project would not result in significant adverse impacts to area open spaces. As no open space resources currently exist on the project site, and no open space resources would be used for staging or other construction activities, no open space resources would be disrupted during the construction of the proposed project. Construction fences around these sites would shield the adjacent parks (including the nearby Shore Towers waterfront open space and the completed portions of the proposed waterfront open space) from construction activities. As construction of the proposed project would not limit access to existing or proposed open spaces in the vicinity of the project site, no significant adverse construction-related impacts on open space are anticipated.

At limited times some project site and study area public open spaces would experience project-related short-term significant noise impacts from activities such as excavation and foundation construction. This would also be the case for the project site open spaces being developed incrementally as part of the proposed project. In these instances, the portion of the new esplanade already completed could experience project-related short-term significant noise impacts due to construction of subsequent adjacent building sites. These activities would generate noise that could impair the enjoyment of nearby public open space users. However, as such noise effects would be temporary and of short duration, these would not be considered significant adverse open space impacts resulting from construction of the proposed project.

Historic and Cultural Resources

A Phase 1A archaeological documentation study concluded that portions of the project site (Block 906, Lot 1; Block 908, Lot 12; and Block 909, Lot 35) could contain potentially sensitive archaeological resources. To determine if archaeological resources are present, Phase 1B archaeological testing will be carried out in these archaeologically sensitive areas; the Phase 1B testing protocol has been reviewed and approved by the New York City Landmarks Preservation Commission (LPC). The Phase 1B testing would be conducted in consultation with the LPC prior to construction of the affected blocks. If no resources of significance are encountered, no further archaeological study would be warranted. Should the Phase 1B archaeological field testing find significant archaeological resources on the project site, further testing would be undertaken in consultation with LPC to identify the boundaries and significance of the find. If required, data recovery would be undertaken in consultation with LPC. With implementation of all of the above measures, which will be incorporated into the Restrictive Declaration, there would be no significant adverse impacts to archaeological resources resulting from construction of the proposed project.

Natural Resources

Construction of the proposed project would not result in significant adverse impacts to natural resources. Construction activities that would be located within the tidal wetlands adjacent area would not result in a net increase in fill below the Spring High Water (SHW) or Mean High Water (MHW) lines or a change in shoreline configuration that would result in loss of NYSDEC littoral zone tidal wetlands. The new stormwater outfalls would be constructed above the SHW elevation and would not have the potential to adversely affect NYSDEC littoral zone tidal wetlands or aquatic resources. Further discussions will be held with the NYSDEC during the NYSDEC application process, and additional measures may be incorporated either on- or off-site to eliminate the potential for significant adverse impacts to NYSDEC

littoral zone tidal wetlands, if deemed necessary. With the implementation of such measures, there would be no significant adverse impacts to NYSDEC littoral zone tidal wetlands, water quality, or aquatic biota from construction of the esplanade.

While construction of the proposed project would require tree removal on the project site as well as the 9th Street sidewalk located along the project site boundaries, it would not eliminate or degrade valuable wildlife habitat. Terrestrial ecological communities present on the project site are characteristic of an urbanized landscape and highly ubiquitous throughout New York City. These ecological communities are not of high ecological value or uncommon in the surrounding area. Therefore, loss of some areas of these communities within the project site due to clearing activities would not result in a significant adverse impact to these or other ecological communities at a local or regional scale. Overall, construction of the proposed project would not have significant adverse impacts to wildlife or wildlife habitat within the project site or in the surrounding area.

Implementation of erosion and sediment control measures and stormwater management measures identified in the Stormwater Pollution Prevention Plan (SWPPP) would minimize potential impacts on littoral zone tidal wetlands and aquatic resources along the edges of the project site associated with discharge of stormwater runoff during land-disturbing activities resulting from construction of the proposed project. Furthermore, the proposed project would adhere to all applicable rules and regulations governing groundwater; consequently, significant adverse impacts to groundwater would not occur as a result of construction of the proposed project. Any hazardous materials encountered during grading or other land-disturbing activities would be handled and removed in accordance with DEP, NYSDEC, the Occupational Safety and Health Administration (OSHA), and United States Environmental Protection Agency (EPA) requirements, and the RAP/CHASP to be prepared for the project site in accordance with the (E) designation that will be assigned to the project site.

Hazardous Materials

Based on the findings of the Phase I Environmental Site Assessment (ESA), an (E) designation would be assigned to the project site (Block 906, Lots 1 and 5; Block 907, Lots 1 and 8; Block 908, Lot 12; and Block 909, Lot 35) to ensure that remedial activities would be undertaken prior to redevelopment. With these (E) designations in place, sampling and remedial protocols and reports will be required, and will be submitted to the New York City Office of Environmental Remediation (OER) for review and approval prior to construction. Specifically, based on the findings of the Phase I ESA, a Subsurface (Phase II) Investigation would be conducted in substantial conformance with the DEP-approved Work Plan for the project site to determine whether past or present, on-site or off-site activities have affected subsurface conditions; all Phase II work would be conducted in substantial conformance with the DEP-approved Health and Safety Plan (HASP). Following implementation of this Phase II investigation and based on its findings, a RAP and associated CHASP would be prepared (and submitted to OER for review and approval) for implementation during the proposed construction. With the (E) designation in place and implementation of the associated sampling and remedial protocols described above, in addition to adherence to the applicable DEP and OSHA regulations, construction of the proposed project would not result in significant adverse hazardous materials impacts.

Transportation

Peak construction conditions during the fourth quarter of 2022 were considered for the analysis of potential transportation (traffic, parking, transit, and pedestrian) impacts during construction. Based on the combined construction and operational vehicle trip projections in 2022 (Q4), construction activity is

expected to result in significant adverse traffic impacts. However, no significant adverse impacts to parking, transit, or pedestrian conditions are anticipated due to construction.

Traffic

The peak construction period vehicle trips, including both construction and operational trips, are expected to occur in the fourth quarter of 2022. Increased vehicle volumes in the surrounding area are anticipated to result in significant adverse impacts at three of the five analyzed construction traffic study area intersections in one or more peak hour: 27th Avenue and 4th Street during the 3-4 PM peak hour; 27th Avenue and 8th Street during both construction peak hours; and 27th Avenue and 9th Street during both construction peak hours. At all other study area intersections where significant adverse traffic impacts are anticipated for the proposed project's full build, similar or lesser impacts are anticipated. With implementation of the same mitigation measures recommended to mitigate the operational traffic impacts, the identified potential significant adverse construction period impacts at 27th Avenue/4th Street and 27th Avenue/9th Street could be fully mitigated. Impacts at 27th Avenue/8th Street could be only partially mitigated.

Maintenance and Protection of Traffic (MPT) plans would be developed, reviewed, and approved by NYCDOTs's Office of Construction Mitigation and Coordination (NYCDOT-OCMC) for curb-lane and sidewalk closures as well as equipment staging activities, as warranted.

Parking

The anticipated construction activities are projected to generate a maximum parking demand of 85 spaces during the peak construction traffic period (2022, Q4). The combined construction and operational parking demand during the construction traffic peak period would be accommodated by the completed project site parking garages, with temporary shortfalls of parking on-site during the construction peak period accommodated by available on-street parking within a ¼-mile of the project site.

Transit

The estimated number of total construction peak hour transit trips would be 37, below the CEQR analysis thresholds of 200 trips at any one subway station (or station element) or any one bus route and 50 trips in any one direction on one bus route. In addition, these construction worker trips would occur outside of peak periods for transit ridership and be distributed and dispersed to the nearby transit facilities. As such, no significant adverse transit impacts are anticipated during the project's construction.

Pedestrians

The estimated number of total construction peak hour pedestrian trips traversing the area's sidewalks, corners, and crosswalks would be 122. While the combined construction and operational pedestrian trips (including walk-only, bus, and subway trips) during the construction peak hour would exceed the CEQR threshold of 200 trips for detailed analysis, they would occur during off-peak hours, and would be less than half the operational project peak pedestrian trips. As the Proposed Action would not result in operational pedestrian impacts upon completion in 2023, there would be no pedestrian impacts with partial build-out of the proposed project during 2022 (Q4) peak construction.

During construction, where sidewalk closures are required, adequate protection or temporary sidewalks would be provided in accordance with NYCDOT-OCMC requirements.

Air Quality

Construction air quality was modeled for CO, NO_2, $PM_{2.5}$ and PM_{10} using EPA's AERMOD dispersion model for the worst-case for construction activities. Even with the commitment to use Tier 3 equipment and locate all construction equipment 50 feet from nearby residential/community facility buildings and open spaces, where feasible, results of the worst-case construction air quality analysis showed potential for annual $PM_{2.5}$ concentrations to exceed the *de minimis* criteria and for annual and one-hour NO_2 concentrations to exceed the NAAQS at sidewalk and project site receptor locations adjacent to the Building 2 construction site. As the remaining construction sites are of similar size, have similar numbers of equipment on the site, or are similarly oriented with regard to adjacent receptor locations, modeled exceedances of the *de minimis* criteria would likely occur at additional receptor locations adjacent to the remaining construction sites.

The construction air quality analysis is based on conservative assumptions. These maximum annual concentrations were computed for the peak construction quarter and the results conservatively assume that this peak construction activity would last an entire year. Other construction quarters would have less activity. Therefore, the potential annual increments would be lower than those based on a quarter of peak activity. In addition, the modeling assumes that the construction activity would occur 24 hours per day instead of the actual construction workday of 8 to 12 hours. Furthermore, the analysis did not account for the effect of construction fencing around the site perimeter. The location of the maximum annual average concentrations would vary based on the location of the sources during construction, which would move throughout the site over time. Based on the limited duration and extent of these predicted exceedances, and the limited potential for exposure, this would not result in significant adverse impacts.

More refined modeling will be conducted between the Draft and Final EIS for the remaining construction sites. Based on the additional analyses, the components of the emissions reduction program described below and the construction emission requirements outlined in the Restrictive Declaration may be adjusted, as appropriate.

Noise

Even with the implementation of noise control measures, including path and source controls, construction of the proposed project would result in significant adverse noise impacts on existing sensitive receptors in the surrounding areas, as well as two open space resources. Specifically, the results of the detailed construction analysis indicate that elevated noise levels are predicted to occur on nine existing residential and/or community facility buildings. In addition, it is anticipated that noise levels at the project site open space and the adjacent Shore Tower waterfront open space would exceed the CEQR recommended 55 dBA for open spaces in the City. As all project site building would include 31-33-35 dBA of attenuation, per the noise (E) designation to be assigned to the site, no significant adverse construction noise impacts would occur on the proposed project building.

Between the DEIS and the FEIS, a more refined construction noise analysis will be undertaken to more precisely determine the magnitude and duration of the elevated noise levels resulting from construction at these locations. The refined analysis will examine the practicability and feasibility of relocating some equipment within the construction sites to add distance and/or shielding between the equipment and the adjacent receptors.

Rodent Control

Construction contracts for the proposed project would include provisions for a rodent (mouse and rat) control program. Before the start of construction of any of the proposed buildings, construction contractors would survey and bait the appropriate areas and provide for proper site sanitation. During the construction phase, as necessary, the contractors would carry out a maintenance program in a manner that avoids hazards to persons, domestic animals, and non-target wildlife. Coordination would be maintained with the appropriate public agencies.

G. MITIGATION

Community Facilities

Public Elementary Schools

The Proposed Action would include a 456-seat elementary school, which would add much-needed elementary school capacity to Community School District (CSD) 30, Sub-district 3 and lower the future elementary school utilization rate, compared to the 2023 No-Action condition. The elementary school shall be constructed pursuant to a Letter of Intent, dated April 17, 2014, entered into between the Applicant and the School Construction Authority (SCA). The Restrictive Declaration entered into in connection with the project shall require the Applicant to work with the SCA in accordance with the terms set forth in the Letter of Intent to implement the construction of the elementary school, which is currently contemplated in the final phase of the proposed project's development, as outlined in the ULURP Phasing Plan, it is currently contemplated that the proposed school would be constructed in the final phase of the proposed project's development. Therefore, the Proposed Action would result in a temporary significant adverse impact on CSD 30, Sub-district 3 elementary schools upon occupancy of Building 2. The Proposed Action would not result in any potential significant adverse impacts on intermediate or high school students.

Based on the public school student generation rates provided in the *CEQR Technical Manual,* Buildings 2, 3, 4, and 5 (residential portion) would generate approximately 248 net elementary school students prior to construction of the proposed 456-seat elementary school and would therefore result in a temporary 5.67 percent increase in the elementary school utilization rate (to 125.4 percent). To mitigate the potential temporary significant adverse elementary school impact, the proposed 456-seat elementary school would need to be constructed prior to completion and occupancy of Building 2. Absent this change in the proposed project's phasing schedule, a temporary unmitigated significant adverse impact to elementary schools could result.

However, it should be noted that the analysis of public elementary school conditions relies on conservative assumptions regarding both background growth in the student population and the development of new residential units in future conditions. Should this level of background growth in the sub-district and residential development in the study area not occur, the temporary impact on elementary school seats in Sub-district 3 of CSD 30 could be reduced or potentially eliminated. It should also be noted that the above analysis does not account for the 1,057 seat PS/IS school that is expected to be developed on the nearby Halletts Point site to mitigate the school impacts identified in the 2013 *Halletts Point Rezoning FEIS.* This future No-Action school is anticipated to be built and operational by 2018.

Child Care Centers

The Proposed Action would result in a potential significant adverse impact to publicly funded group child care facilities based on *CEQR Technical Manual* methodology. The additional children would decrease the available slots and increase the utilization rate by 17 percent from the No-Action condition (to approximately 153 percent), exceeding the CEQR impact threshold of a five percent increase. In order to avoid a significant adverse impact, the number of affordable units introduced by the proposed project would need to be reduced to 89, which would generate an estimated 12 eligible children. This would represent a reduction of 206 affordable dwelling units (a 70 percent reduction), compared to the proposed project.

As the proposed project would be developed sequentially, the potential to result in an increase in a deficiency of available publicly funded group child care slots by 5 percent or more (the CEQR impact threshold) would occur when the proposed project completes construction of approximately 90 affordable residential units (or approximately 13 children eligible for publicly funded group child care). Based on the proposed phasing schedule, it is therefore anticipated that the significant adverse child care impact would occur upon completion and occupancy of Building 2 in the third phase of the project's construction.

It should be noted that the analysis conservatively accounts for the potential child care-eligible children that would be generated by the nearby Halletts Point project (approximately 68 children in 2022) without accounting for the mitigation measures identified in that project's own environmental review. As stated in the 2013 *Halletts Point Rezoning FEIS,* the Halletts Point project would need to provide 37 child care slots to fully mitigate their identified significant adverse child care impact. If this mitigation measure was accounted for in the child care analysis in this EIS, the shortfall of slots would be smaller. In addition, the child care analysis is conservatively based on the existing inventory of public child care providers in the area and does not reflect likely shifts in demand or the creation of new child care capacity.

Mitigation measures for this impact would possibly include adding capacity to existing facilities if determined feasible through consultation with ACS or providing a new child care facility within or near the project site. As a City agency, ACS does not directly provide new child care facilities, but, rather, contracts with providers in areas of need. ACS is also working to create public-private partnerships to facilitate the development of new child care facilities where there is an area of need. As part of this initiative, ACS may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new facilities.

The Restrictive Declaration for the proposed project will require the Applicant to work with ACS to develop appropriate measures to provide additional capacity, if needed, as the project in its entirety is completed. Absent the implementation of such needed mitigation measures, the proposed project could have an unmitigated significant adverse impact on publicly funded child care facilities.

Open Space

The proposed project would include the development of 1.92 acres of publicly accessibly open space, including a waterfront esplanade and an upland connection along the proposed 8th Street Mews. The proposed waterfront esplanade would include landscaping and seating, as well as play equipment. New visual corridors and physical public access would be provided along the 8th Street Mews upland connection, as well as the proposed upland connection.

The proposed project would also include approximately 1,689 residential units, which would place new demands on the area's open space resources. As the Proposed Action would result in a substantial

decrease in the active open space ratio in the residential study area, and the active open space ratio would be below the City's guideline ratio in the future, the Proposed Action would result in a significant adverse active open space impact. The significant adverse active open space impact would occur with completion of 688 residential units, and therefore would occur upon completion and occupancy of Building 2 in the third phase of the proposed project's construction.

Potential partial mitigation measures for this significant adverse impact are currently being explored by the Applicant in consultation with the lead agency, DCP, and the New York City Department of Parks and Recreation (DPR) and will be refined between the Draft and Final EIS. The *CEQR Technical Manual* lists potential mitigation measures for open space impacts. These measures may include, but are not limited to, creating new open space within the study area; funding for improvements, renovation, or maintenance at existing local parks; or improving existing open spaces to increase their utility or capacity to meet identified open space needs in the area, such as through the provision of additional active open space facilities. If feasible mitigation is found, the impacts will be considered partially mitigated. As the significant adverse impact on open space would not be fully mitigated, the Proposed Action would result in an unavoidable adverse impact on open space.

Urban Design

Pedestrian Wind

The proposed project could potentially result in significant adverse pedestrian wind impacts at the northeast corner of Building 3. The results of the computational fluid dynamics (CFD) wind analysis indicate that during both the winter (December through February) and summer (June through August) months there is the potential for pedestrian wind conditions to exceed criterion levels at the northeast corner of Building 3 adjacent to entrances and other amenity space with high anticipated pedestrian volumes.

Due to the massing and orientation of adjacent Shore Towers and its exposure to the prevailing northwest winds, accelerated wind conditions likely already exist at this location under existing conditions. As such, any building form on the Building 3 site would be faced with similar pre-existing wind conditions and would require special design considerations. Such considerations have been incorporated in the proposed Building 3 design, which situates the proposed building's tower to the northeast, away from the existing winds near Shore Towers. However, even with such measures incorporated into Building 3's massing, wind conditions exceeding the criterion level could occur during both summer and winter months at the building's northeast corner, as discussed above.

Potential measures that could be employed that have been shown to reduce or minimize the effects of winds at ground level include the development of one or more protective canopies; chamfering building corners; the incorporation of setbacks or terraces; the incorporation of vertical wind screens; and/or the incorporation of hard and soft landscaping (see Appendix E). At the northeast corner of Building 3, where there are minimal opportunities for additional landscaping features, a protective canopy could be incorporated along the building's north façade, adjacent to the northeast corner. Further analysis will be undertaken to determine which of the aforementioned measures would best address the potential pedestrian wind conditions at this location. Incorporation of a canopy or alternate mitigation, such as the measures outlined above, would fully mitigate the potential significant adverse pedestrian wind impact.

Transportation

Traffic

In the 2023 future, vehicle volumes in the traffic study area are expected to increase due to both the Astoria Cove and nearby Halletts Point projects. As such, in addition to the RWCDS No-Action and With-Action conditions, an alternate future condition without the Halletts Point development and the associated traffic mitigation measures identified in the 2013 *Halletts Point Rezoning FEIS* was analyzed to determine whether the disclosed impacts would occur absent the Halletts Point development. Potential significant adverse traffic impacts were identified at a number of locations in the traffic study area under the future With-Action condition, with slightly fewer impact locations anticipated absent the Halletts Point development (the Alternate With-Action condition). Table S-5 summarizes the potential significant adverse traffic impacts under both future With-Action conditions and the alternative without Halletts Point and identifies whether the identified impacts could be fully or partially mitigated with the implementation of traffic improvement measures, or could not be mitigated. It should be noted that an analysis of Saturday peak hour conditions will be conducted between the DEIS and the FEIS, as requested by NYCDOT. This analysis may result in additional significant adverse impacts, and the need for additional and/or alternate mitigation measures. The findings of this additional analysis will be documented in the FEIS.

Table S-5: Comparison of Traffic Impact Mitigation under the RWCDS With-Action Condition and the Alternate With-Action Condition

	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
Intersections	With-Action Condition	Alternate With-Action Condition	With-Action Condition	Alternate With-Action Condition	With-Action Condition	Alternate With-Action Condition
No significant impact	10	11	21	22	14	16
Impact could be fully mitigated	10	14	8	7	9	11
Impact could be partially mitigated	6	4	0	1	3	3
Unmitigated impact	4	1	1	0	4	0

The overall finding of the traffic mitigation analysis is that in the RWCDS With-Action condition 17 of the 30 analyzed intersections would either not experience significant impacts or could be fully mitigated with readily implementable traffic improvement measures, including installing a traffic signal at a currently unsignalized intersection, signal timing changes, parking regulation changes to gain a travel lane at key intersections, and lane restripings. In comparison, should Halletts Point not be completed by the 2023 Build Year, 24 of the 30 analyzed intersections would either not experience significant impacts or could be fully mitigated with readily implementable traffic improvement measures. These measures represent standard capacity improvements that are typically implemented by NYCDOT. Additional review of potential mitigation measures that may fully or partially mitigate other significant adverse impact locations that are identified as unmitigatable in the DEIS will be undertaken for the FEIS.

Transit

Subway Station Operations

The proposed project would result in potential significant adverse subway impacts at the 30th Avenue (N and Q line) Station's northwest street stair in the PM peak hour and at the northbound fare array in the AM peak hour.

As the identified potential impact at the northwest stairway is largely due to the high No-Action and With-Action volumes expected at the stairway due to its proximity to an existing bus stop and the proposed shuttle bus stop, the possibility of relocating the proposed shuttle bus route and/or providing additional shuttle service to other area subway stations will be explored, in consultation with NYCT, between the Draft and Final EIS. Other typical stairway impact mitigation measures include stairway widening or adding vertical capacity, where possible.

Similarly, mitigation measures to reduce volumes at the 30th Avenue Station and thereby mitigate the identified fare array impact, such as providing a shuttle bus to an alternate station in the area will be explored in consultation with NYCT between the Draft and Final EIS. Other typical fare array mitigation measures include adding more turnstiles, if there is sufficient space.

Bus Line Haul

Under future With-Action conditions, the Q103 bus route would experience significant adverse impacts in the southbound direction during both the weekday AM and PM peak hours, as well as in the northbound direction during the weekday PM peak hour. Potential mitigation measures include service adjustments to these lines, subject to changes in bus ridership and New York City Transit (NYCT) and MTA Bus Company fiscal and operational constraints.

Noise

The Proposed Action would result in incremental noise increases at the intersection of 26th Avenue and 4th Street in exceedance of the CEQR impact criteria during the weekday AM and midday peak hours, and therefore would constitute a significant adverse impact, pursuant to CEQR. With implementation of the attenuation measures to be mandated through a noise (E) designation assigned to the project site, no significant adverse impacts would result on project site buildings.

However, two existing sensitive receptors are located in close proximity to Receptor Location 2 (at the intersection of 26th Avenue and 4th Street), and therefore potential measures to mitigate noise impacts at these locations will be examined, in consultation with DCP, between the Draft and Final EIS. Potential mitigation measures for mobile source noise impacts may include the rerouting of traffic where feasible, and/or traffic calming measures, which could result in lower noise levels than predicted in the analysis, and/or other measures including installation of new attenuated windows, air conditioning units, or other measures in non-Applicant owned buildings where such measures are not available. While the identified significant adverse impact may be able to be mitigated by the above measures, additional evaluation and analysis will be done between Draft and Final EIS to determine the extent of the noise level increases that would be experienced at these nearby sensitive receptors, in consideration of their distance from the impacted receptor and/or their existing window/wall attenuation. If any impacts are determined to be unmitigatable between Draft and Final EIS, they will be identified as such.

It should also be noted that the estimated With-Action noise levels conservatively reflect existing background noise levels, which include noise-generating industrial uses on and adjacent to the project site, it is likely that actual future With-Action noise levels would be less than the levels projected. In addition, worst-case noise levels at Receptor Location 2 would remain in the "marginally unacceptable" category, as under both existing and No-Action conditions, and the resultant L_{eq} levels would remain below the worst-case maximum existing and No-Action L_{eq} conditions at this location during both peak hours. As such, nearby existing sensitive receptors would not be exposed to noise levels greater than those currently experienced at this location. Further analyses will take place between the DEIS and the FEIS to

precisely determine the future noise levels at these locations and determine the appropriate mitigation measures, as needed.

Construction

Transportation

The highest amount of construction traffic associated with construction of the proposed project is anticipated in the fourth quarter of 2022. During this peak construction traffic period, the total number of construction-related and operational vehicle trips generated from the proposed project would be approximately 59 percent and 34 percent less than the total number of vehicle trips generated by the proposed project in the 2023 Build Year's AM and PM peak hours, respectively. Nevertheless, incremental vehicle trips in the 2022 (Q4) construction traffic period are expected to result in significant adverse impacts at three of the five intersections analyzed for potential construction traffic-related impacts: 27th Avenue at 4th Street; 27th Avenue at 8th Street; and 27th Avenue at 9th Street. By early implementation of the same mitigation measures as those proposed to mitigate the projected 2023 full-build traffic impacts, two of the three impacted intersections would be fully mitigated. Impacts at the intersection of 27th Avenue and 8th Street would be partially mitigated and/or unmitigated during the construction traffic peak hours, as under full build conditions.

Noise

Construction noise is regulated by the requirements of the local, State, and Federal noise emission standards. Beyond these equipment noise emission standards, equipment noise levels quieter than those of typical construction equipment would be achieved for certain construction equipment through better engine mufflers, refinements in fan design and/or improved hydraulic systems, and path controls would be used where feasible and practical. However, even with these noise control measures, construction activities would be expected to result in substantially elevated noise levels that would exceed CEQR impact criteria at nine existing residential/community facility buildings and one existing open space, as well as the proposed project's open space. Between the DEIS and FEIS, a more refined construction noise analysis will be undertaken to more precisely determine the magnitude and duration of the elevated noise levels resulting from construction at these locations.

Existing buildings that may not have an alternate means of ventilation could experience significant adverse noise impact for certain limited periods during construction requiring mitigation. The *CEQR Technical Manual* lists potential mitigation measures for construction noise impacts. These measures include, but are not limited to, noise barriers, the use of low noise emission equipment, locating stationary equipment as far as feasibly away from receptors, enclosing areas, limiting the duration of activities, specifying quiet equipment, scheduling activities to minimize impacts (either time of day or seasonal considerations), and/or location noise equipment near natural or existing barriers that would shield sensitive receptors. Additionally, potential mitigation measures for non-Applicant owned sites could include installation of new attenuated windows, air conditioning units and/or other measures.

In addition, noise levels at the Shore Towers waterfront esplanade and the proposed project's waterfront open space would exceed the CEQR-recommended open space noise level of 55 dBA during certain periods of the proposed project's construction, as under the full build-out conditions. Potential mitigation measures, such as noise barriers or relocating some equipment within the construction sites to add distance and/or shielding between the equipment and the Shore Towers waterfront esplanade will be examined between the DEIS and FEIS.

While the identified significant adverse construction noise impacts may be able to be mitigated by the above measures, additional evaluation and analysis will be done between Draft and Final EIS to determine the practicality and feasibility of implementing these measure to minimize or avoid the potential significant adverse impacts, taking into account the practicability relative to project goals. If any impacts are determined to be unmitigatable between Draft and Final EIS, they will be identified as such.

H. ALTERNATIVES

No-Action Alternative

The No-Action Alternative examined future conditions absent the Proposed Action (i.e., none of the discretionary approvals proposed as part of the Proposed Action would be adopted). Under the No-Action Alternative, existing zoning would remain in the area affected by the Proposed Action and it is assumed that two residential buildings with a combined 166 market-rate residential units would be constructed as-of-right on the upland parcels. No affordable housing would be developed on the project site under the No-Action Alternative. All existing industrial uses on the waterfront parcels would remain. It is further anticipated that 83 accessory parking spaces would be developed and portions of 8th Street and/or 26th Avenue would be constructed in order to satisfy New York City zoning and DOB requirements.

The significant adverse community facilities, active open space, noise, transportation, construction, and pedestrian wind impacts anticipated for the Proposed Action would not occur with the No-Action Alternative. Many of the study area intersection movements that are congested under existing conditions would continue to operate at the same level of service with slight increases in volume-to-capacity (v/c) ratios and delays. Subway station elements and area bus routes would similarly be increasingly congested under the No-Action Alternative. As no Restrictive Declaration would be recorded outlining requirements pertaining to potential archaeological resources, potential impacts on archaeological resources could occur due to construction on the upland parcels under the No-Action Alternative. Compared to the mitigation measures identified for the Proposed Action, this alternative would require less mitigation to address the significant adverse impacts that would result from its development.

However, the No-Action Alternative would not meet the goals and objective of the Proposed Action. The benefits expected from the Proposed Action including improvements to the area street network, the provision of waterfront open space, improving public access and visual corridors to the waterfront, the construction of new stormwater outfalls and associated infrastructure improvements, the provision of a new elementary school, and the creation of much-needed residential units, local retail, and a supermarket, would not be realized under the No-Action Alternative.

Lower Density Alternative

A Lower Density Alternative to the Proposed Action was developed to determine whether the impacts to community facilities, open space, urban design, transportation, noise, and construction could be reduced or eliminated while accomplishing the purpose and need established for the Proposed Action. The Lower Density Alternative would result in 267 fewer DU compared to the Proposed Action, including 33 fewer affordable DU; the same amount of commercial and community facility square footage (109,470 gsf and 62,248 gsf, respectively) and open space (1.92 acres) would be developed under both scenarios.

The Lower Density Alternative would still result in significant adverse impacts on community facilities, active open space, transportation, noise, construction, and pedestrian wind. The Lower Density Alternative is expected to result in the same or a slightly lower number of significant adverse traffic impacts than the Proposed Action, and would result in two fewer partially mitigated or unmitigated

significant adverse traffic impacts. In addition, both the Lower Density Alternative and the Proposed Action would result in significant adverse bus line haul and subway station element impacts. As the Lower Density Alternative would not substantially alter the anticipated construction schedule, similar or slightly lesser construction traffic and construction noise impacts are anticipated under this alternative. These impacts could be mitigated using the same mitigation measures identified for the Proposed Action, with slightly lesser mitigation needed to mitigate the child care impact.

Overall, although the Lower Density Alternative would meet a number of the goals and objective of the Proposed Action, it would do so to a lesser degree than the Proposed Action. Specifically, as the Lower Density Alternative would result in fewer residential units, it would be less supportive of the objective of the Proposed Action to create opportunities for new housing development, including affordable housing, while continuing to result in significant adverse impacts on child care facilities, active open space, transportation, and construction.

Ferry Alternative

The Ferry Alternative analyzes the provision of a ferry dock on the upland parcel and the establishment of a ferry route to the project site that would serve the proposed project's residents and workers, as well as the greater Astoria neighborhood. As under the Proposed Action, the Ferry Alternative would result in the development of approximately 1,689 dwelling units (approximately 1,689,416 gsf of residential floor area), of which 295 dwelling units would be affordable; approximately 109,470 gsf of local retail space, including an approximately 25,000 gsf supermarket; a site for an elementary school with approximately 456 seats (K-5); approximately 900 accessory parking spaces. For analysis purposes it is assumed that up to approximately 0.36 acres of additional passive open space (comprised of the ferry pier) would be developed under this alternative, for a total of 2.28 acres of open space. While the provision of ferry service at the project site is being considered at this time, it should be noted that this would be contingent upon City funding to extend ferry service to this area and would be a discretionary action subject to City approval.

As the Ferry Alternative would not alter the proposed project's building bulk or program, the community facilities, open space, urban design, transportation, noise, and construction impacts associated with the Proposed Action are similarly anticipated under the Ferry Alternative, and therefore, similar measures would mitigate these identified significant adverse impacts. The Ferry Alternative would result in minor decreases in subway demand from both the proposed project and the surrounding area, and therefore would likely lessen the anticipated impacts at the 30th Avenue (N and Q lines) Station. The Ferry Alternative would result in a minor increase in traffic volumes (less than five additional vehicles in any peak hour), and therefore would result in minor incremental increases in mobile source noise and air quality emissions. However, as the Ferry Alternative would require additional discretionary actions not being sought at this time, a separate environmental assessment, including an analysis of potential public health impacts, would be conducted at a later date if this alternative is pursued.

No Unmitigated Significant Adverse Impacts Alternative

The No Unmitigated Significant Adverse Impact Alternative examines a scenario in which the density of the Proposed Action is changed specifically to avoid the unmitigated significant adverse impacts associated with the Proposed Action. There is the potential for unmitigated impacts in the areas of active open space, traffic, noise, construction traffic, and construction noise. The proposed mitigation measures would fully mitigate all of the significant adverse community facilities, transit, noise, and pedestrian wind impacts. Between the Draft and Final EIS, possible partial mitigation measures for the active open space impact with be explored in coordination with DCP and DPR, and the proposed traffic and noise

mitigation measures will be further refined in coordination with NYCDOT and DCP.

In order to result in no unmitigated significant adverse impacts, the number of residential units on the project site would need to be reduced by up to approximately 90 percent, and, therefore, would be unlikely to include affordable residential units. Overall, this alternative would be less successful than the Proposed Action at meeting the project's goals of providing opportunities for new residential and commercial development; enhancing and upgrading the waterfront area to provide waterfront access; creating opportunities for new housing development, including affordable housing; advancing the City's Comprehensive Waterfront Plan; and creating a superior site plan, building layout, and design.

I. UNAVOIDABLE ADVERSE IMPACTS

Public Elementary Schools

The Proposed Action would include a site for a 456-seat elementary school, which would add much-needed elementary school capacity to Community School District (CSD) 30, Sub-district 3 and lower the future elementary school utilization rate, compared to the 2023 No-Action condition. The elementary school shall be constructed pursuant to a Letter of Intent, dated April 17, 2014, entered into between the Applicant and the School Construction Authority (SCA). The Restrictive Declaration entered into in connection with the project shall require the Applicant to work with the SCA in accordance with the terms set forth in the Letter of Intent to implement the construction of the elementary school, which is currently contemplated in the final phase of the proposed project's development, as outlined in the ULURP Phasing Plan. Therefore, the Proposed Action would result in a temporary significant adverse impact on CSD 30, Sub-district 3 elementary schools upon occupancy of Building 2. The Proposed Action would not result in any potential significant adverse impacts on intermediate or high school students. To mitigate the potential temporary significant adverse elementary school impact, the proposed 456-seat elementary school would need to be constructed prior to completion and occupancy of Building 2. Absent this change in the proposed project's phasing schedule, a temporary unmitigated significant adverse impact to elementary schools would result.

Child Care

Following *CEQR Technical Manual* methodology, the proposed project would result in a significant adverse impact to publicly funded child care facilities. Mitigation measures for this significant adverse impact will possibly include adding capacity to existing facilities if determined feasible through consultation with the New York City Administration of Children's Services (ACS) or providing a new child care facility within or near the project site. As a City agency, ACS does not directly provide new child care facilities, but, rather, contracts with providers in areas of need. ACS is also working to create public-private partnerships to facilitate the development of new child care facilities where there is an area of need. As part of this initiative, ACS may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new facilities. Mitigation measures for this significant adverse impact will continue to be explored by the Applicant in consultation with the lead agency, the New York City Department of City Planning (DCP), and the SCA, and will be refined between the Draft and Final EIS.

The Restrictive Declaration for the proposed project will require the Applicant to work with ACS to develop appropriate mitigation measures to provide additional capacity, if needed, as the project in its entirety is completed. Absent the implementation of such needed mitigation measures, the proposed project could have an unmitigated significant adverse impact on publicly funded child care facilities.

Open Space

As the Proposed Action would result in a substantial decrease in the active open space ratio in the residential study area, and the active open space ratio would be below the City's guideline ratio in the future, the Proposed Action would result in a significant adverse active open space impact. Potential partial mitigation measures for this significant adverse impact are currently being explored by the Applicant in consultation with the lead agency, DCP, and DPR and will be refined between the Draft and Final EIS. The *CEQR Technical Manual* lists potential mitigation measures for open space impacts. These measures may include, but are not limited to, creating new open space within the study area; funding for improvements, renovation, or maintenance at existing local parks; or improving existing open spaces to increase their utility or capacity to meet identified open space needs in the area, such as through the provision of additional active open space facilities. If feasible mitigation is found, the impacts will be considered partially mitigated. As the significant adverse impact on open space would not be fully mitigated, the Proposed Action would result in an unavoidable adverse impact on open space.

Transportation

Traffic

In the 2023 future, vehicle volumes in the traffic study area are expected to increase due to both the Astoria Cove and nearby Halletts Point project. As such, in addition to the RWCDS No-Action and With-Action conditions, an alternate future condition without the Halletts Point development and the associated traffic mitigation measures identified in the 2013 *Halletts Point Rezoning FEIS* to determine whether the disclosed impacts would occur absent the Halletts Point development. Potential significant adverse traffic impacts were identified at a number of locations in the traffic study area under the future With-Action condition, with slightly fewer anticipated absent the Halletts Point development. It should be noted that an analysis of Saturday peak hour conditions will be conducted between the Draft and the Final EIS, as requested by NYCDOT. This analysis may result in additional significant adverse impacts, and the need for additional and/or alternate mitigation measures. The findings of this additional analysis will be documented in the FEIS.

Many of the intersections expected to experience significant adverse traffic impacts could be mitigated through implementation of standard traffic improvements such as installing traffic signals at currently unsignalized intersections, modifying signal timing, changing parking regulation to gain a travel lane at key intersections, and restriping lanes. However, as described below, in some cases, traffic impacts from the proposed project would not be fully mitigated in the RWCDS With-Action condition and/or the Alternate With-Action condition. Specifically, 13 of the 30 analyzed intersections that would have significant adverse traffic impacts in the future With-Action condition could not be fully mitigated in at least one peak hour. In comparison, should Halletts Point not be completed by the 2023 Build Year (the Alternate With-Action condition), six of the 30 study area intersections that would have significant adverse traffic impacts could not be fully mitigated in at least one peak hour. Because these impacts would not be fully mitigated, they are considered unavoidable adverse impacts.

Between the Draft and the Final EIS, NYCDOT will review the specific measures proposed for each intersection to confirm adequacy and feasibility of their implementation and recommend changes as necessary. Should the Manual of Uniform Traffic Control Devices' (MUTCD) signal warrant analysis indicate that a traffic signal is not warranted at a location where a signal is proposed as mitigation, or if it is determined that another proposed mitigation measure is not feasible at a particular location, the Applicant, in consultation with NYCDOT will explore other mitigation measures to mitigate impacts.

However, if it is determined that other measures are not available to mitigate the identified impacts, either in part or in whole, the impact will be identified in the FEIS as unmitigatable. In addition, further review of potential mitigation measures that may fully or partially mitigate other significant impact locations that are identified as unmitigatable in the DEIS will be undertaken for the FEIS.

Transit

Subway Station Operations

Significant adverse subway station impacts are anticipated at the 30th Avenue Station during the AM and PM peak hours. Specifically, during the AM peak hour, the station's northbound fare array would experience significant adverse impacts, and during the PM peak hour, the street stair at the northwest corner of 30th Avenue and 31st Street (S3-M3) would experience significant adverse impacts. Potential measures to mitigate these impacts will be explored in consultation with New York City Transit (NYCT) between the Draft and Final EIS, and could include relocating the proposed shuttle bus route, providing additional shuttle service to other areas subway stations, adding vertical capacity or widening the station's northwest stair, and/or adding more turnstiles at the impacted fare array. If feasible mitigation is note found, these impacts would be considered unavoidable.

Bus Line Haul

The Proposed Action would result in potential significant adverse bus line haul impacts on the southbound Q103 during the weekday AM peak hour and on the northbound and southbound Q103 during the weekday PM peak hour. NYCT and MTA Bus routinely monitor changes in bus ridership and, subject to the agencies' fiscal and operational constraints, make necessary service adjustments where warranted. The identified potential impacts could be mitigated if increased service adjustments are made. If adjustments are not made, these impacts would be considered unavoidable.

Noise

The Proposed Action would result in incremental noise increases at the intersection of 26th Avenue and 4th Street in exceedance of the CEQR impact criteria during the weekday AM and midday peak hours, and therefore would constitute a significant adverse impact, pursuant to CEQR. Two existing sensitive receptors are located in close proximity to Receptor Location 2 (at the intersection of 26th Avenue and 4th Street), and therefore potential measures to mitigate noise impacts at these locations will be examined, potential measures to mitigate noise impacts at these locations will be examined, in consultation with DCP, between the Draft and Final EIS. Potential mitigation measures for mobile source noise impacts may include the rerouting of traffic where feasible, and/or traffic calming measures, which could result in lower noise levels than predicted in the analysis, and/or other measures including installation of new attenuated windows, air conditioning units, or other measures in non-Applicant owned buildings, if warranted, taking into account the practicability relative to project goals. While the identified significant adverse impact may be able to be mitigated by the above measures, additional evaluation and analysis will be done between Draft and Final EIS. Absent implementation of such measures, this significant adverse noise impact would constitute an unavoidable significant adverse impact.

It should also be noted that the estimated With-Action noise levels conservatively reflect existing background noise levels, which include noise-generating industrial uses on and adjacent to the project site, it is likely that actual future With-Action noise levels would be less than the levels projected. In addition, worst-case noise levels at Receptor Location 2 would remain in the "marginally unacceptable" category, as under both existing and No-Action conditions, and the resultant L_{eq} levels would remain

below the worst-case maximum existing and No-Action L_{eq} conditions at this location during both peak hours. As such, nearby existing sensitive receptors would not be exposed to noise levels greater than those currently experienced at this location.

Construction

Transportation

The highest amount of construction traffic associated with construction of the proposed project is anticipated in the fourth quarter of 2022. Incremental vehicle trips (including both construction-related and operational trips) in the 2022 (Q4) construction traffic period are expected to result in significant adverse impacts at three of the five intersections analyzed for potential construction traffic-related impacts. At all other study area intersections where significant adverse traffic impacts are anticipated for the proposed project's full build, similar or lesser impacts are anticipated. By applying early the same mitigation measures as those proposed for mitigation for the proposed project's full build-out, two of the three impacted intersections would be fully mitigated. However, the anticipated significant adverse impact at the intersection of 27th Avenue and 8th Street would be unmitigated during the 3-4 PM construction peak hour and only partially mitigated during the 6-7 AM construction peak hour. Because the traffic impact at this location could not be fully mitigated, it is considered an unavoidable adverse impact. This same location would also not be fully mitigated in the 2023 full build-out conditions.

Noise

Construction activities would be expected to result in substantially elevated noise levels that would exceed CEQR impact criteria at nine existing residential/community facility buildings and one existing open space. In addition, elevated noise levels in exceedance of the CEQR impact criteria are predicted to occur on portions of the proposed project's waterfront open space. Between the DEIS and FEIS, a more refined construction noise analysis will be undertaken to more precisely determine the magnitude and duration of the elevated noise levels resulting from construction at these locations.

Any identified existing building that currently has double-glazed windows and an alternate means of ventilation would consequently be expected to experience interior $L_{10(1)}$ values less than 45 dBA (the CEQR acceptable noise level criteria) during most of the time. However, during some limited time periods construction activities may result in interior noise levels that would be above the 45 dBA $L_{10(1)}$ noise level recommended by CEQR for these uses, and additional receptor controls would be unlikely to fully mitigate the temporary construction noise impacts. Therefore, these temporary significant adverse construction noise impacts would constitute temporary unavoidable significant adverse impacts.

Existing buildings that may not have an alternate means of ventilation could experience significant adverse noise impact for certain limited periods during construction requiring mitigation. Further exploration of potential mitigation measures will be conducted between the DEIS and FEIS to determine the practicality and feasibility of implementing these measure to minimize or avoid the potential significant adverse impacts, taking into account the practicability relative to project goals. Absent implementation of such measures, these existing residential and/or community facility buildings would experience temporary significant adverse noise impacts during the proposed project's construction, and would therefore constitute temporary unavoidable significant adverse impacts.

With regard to open space, noise levels at both the Shore Towers waterfront esplanade and the proposed project's waterfront open space would exceed the CEQR-recommended open space noise level of 55 dBA during some periods of the proposed project's construction, as under the full build-out conditions.

Potential mitigation measures, such as noise barriers or relocating some equipment within the construction sites to add distance and/or shielding between the equipment and the Shore Towers waterfront esplanade will be examined between the DEIS and FEIS. Absent implementation of such measures, these temporary significant adverse impacts during construction would constitute temporary unavoidable significant adverse impacts.

J. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION

As set forth in the *CEQR Technical Manual*, growth-inducing aspects of a proposed action generally refer to "secondary" impacts of a proposed action that trigger further development. The Proposed Action would expand future development opportunity while providing incentive for affordable housing through the Inclusionary Housing (IH) Program. In addition, the proposed mapping action would connect the existing neighborhoods in the vicinity of the project site.

The projected increase in residential population is likely to increase the demand for neighborhood services in the surrounding area, ranging from religious establishments to banks and local retail. The Proposed Action could also lead to additional growth in the City and State economies, primarily due to employment and fiscal effects during construction of the proposed project and operation of the development after its completion.

The Proposed Action is not expected to induce additional notable growth outside of the project site. This "outside" residential growth is anticipated to occur independent of the Proposed Action, and the new uses introduced by the proposed project would not trigger additional residential development outside of the project site. In addition, the proposed project's retail uses would not represent a new type of use within the study area and would serve both existing resident demand and future consumer demand.

The proposed project would improve existing infrastructure on and around the project site. It should be noted, however, that the study area is sufficiently well-developed such that improvements associated with the Proposed Action would not induce additional notable growth outside of the project site.

K. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources, both natural and man-made, would be expended in the construction and operation of the development facilitated by the Proposed Action. These are considered irretrievably committed resources because their reuse for some other purposes would be highly unlikely. Examples of irreversible and irretrievably committed resources that would be expended in conjunction with the Proposed Action include: the land use changes associated with the proposed rezoning action, which constitutes a long-term commitment of land resources; funds committed to the design, construction/renovation, and operation of the proposed project; and the public services provided in connection with the proposed project. These commitments of resources and materials are weighed against the Proposed Action's goals of transforming a largely underused waterfront area into a new, enlivened mixed-use development, including much-needed affordable housing and neighborhood retail as well as a 456-seat public elementary school, while providing new publicly accessible waterfront open space and transportation and infrastructure improvements that would serve both the existing residential population and new residents from the proposed project.

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