Chapter 4: Socioeconomic Conditions

A. INTRODUCTION

This chapter assesses the proposed project's effects on the socioeconomic character of the area within and surrounding the project site. As described in the 2012 *City Environmental Quality Review (CEQR) Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activities. Socioeconomic changes may occur when a project directly or indirectly affects any of these elements.

The proposed project would result in the development of 2,644 housing units (including 2,161 market-rate units and 483 affordable units) and approximately 69,000 gross square feet (gsf) of retail space, as well as parking and publicly accessible open space uses. In accordance with *CEQR Technical Manual* guidelines, this analysis considers whether development of these uses could result in significant adverse socioeconomic impacts as a result of: (1) direct displacement of residential population from the project site; (2) indirect displacement of residential population in a ½-mile study area; (3) direct displacement of existing businesses from the project site; (4) indirect displacement of businesses in a ½-mile study area; and (5) adverse effects on specific industries.

PRINCIPAL CONCLUSIONS

This analysis finds that the 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 project would not directly displace any residents, as the building sites do not contain any existing residential units. Therefore, the proposed project would not result in significant adverse impacts due to direct residential displacement.

INDIRECT RESIDENTIAL DISPLACEMENT

A detailed analysis finds that the proposed project 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 project would introduce 2,644 residential units to the study area, of which 483 would be developed as affordable housing. Residential rental rates and sales prices in the study area have increased since 2000, and the recently-completed and planned luxury developments in the area indicate a continuing trend of increasing rents and the influx of more affluent households. The rental rates and sales prices of the market-rate units introduced by the proposed project would be

comparable to other new developments expected to be completed in the study area by 2022. However, given the large number of market-rate units that would be introduced by the project, and the existing disparity between average household incomes in the study area and the projected income of households for the project's market-rate units, a detailed analysis was conducted to determine whether the proposed project would introduce or accelerate a trend of changing socioeconomic conditions that may potentially displace a population of renters vulnerable to rent increases.

The detailed analysis finds that the study area may contain as many as 3,605 residents who live in privately-held units unprotected by rent control, rent stabilization, or other government regulations restricting rents, and whose incomes indicate that they could not afford substantial rent increases. While the proposed project 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 for the following reasons:

- The proposed project is geographically separated from a majority of the potentially vulnerable population. The project site is relatively isolated, bordered by the East River to the north, south, and west, and separated from potentially vulnerable populations by the Astoria Houses Campus[1], the Bridgeview residential developments, and industrial uses. The residential markets in areas containing potentially vulnerable populations are expected to be more strongly influenced by other planned developments in their distinct neighborhoods than by the proposed project.

  There is already an existing trend in the study area toward residential development and the introduction of a more affluent population. Recent development spurred in part by the 2010 Astoria Rezoning along the waterfront and 21st Street indicates an existing trend of residential development in some areas. Even prior to the rezoning, the Astoria waterfront attracted buyers and renters seeking proximity to Manhattan but priced out of waterfront areas in Long Island City. For example, the 82-unit luxury development at 11-15 Broadway was completed in 2011 and provides views of Manhattan. Portions of the study area east of 14th Street have also been experiencing trends of higher-density market rate development, and were rezoned with modest increases in allowable FAR in 2010. For example, the 65-unit Thirty-Fifty apartments, located at 30-50 21st Street, were completed in 2011. While residential trends are strongest along the waterfront, new residential development is expected to continue irrespective of the proposed project in all portions of the study area, due to an increase in residential development in Astoria in general, driven in large part by excess demand from buyers and renters seeking luxury units in nearby Long Island City. Buyers and renters are looking to Astoria due to its proximity to midtown Manhattan and the waterfront, and its relatively less expensive prices compared to Long Island City. This demand for new, market-rate housing and the displacement pressures associated with this demand are expected to continue in the future with or without the proposed project. Current rents in the study area indicate that residents living in unprotected market-rate housing are already paying high rents, suggesting that the potentially vulnerable population in the study area is already facing displacement pressure from high rents irrespective of the proposed project.

[1] As described in Chapter 1, "Project Description," the project site includes the New York City Housing Authority (NYCHA) Astoria Houses Campus, a development of 1,103 units that are protected from rent increases and therefore are not subject to indirect residential displacement pressures.

- 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. As redevelopment opportunities generally are limited to locations with commercial overlays in these neighborhoods, it is less likely that the proposed project would spur new residential development that could affect real estate trends outside of commercial overlays in these areas. It is therefore less likely that the residential population added by the proposed project would affect real estate trends in these areas.
- 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. Moreover, the proposed disposition of the land to the Applicant for Buildings 6 and 7 and the anticipated future disposition of the land for Building 8 would provide revenue to support NYCHA's mission. Specifically, these dispositions and developments are part of NYCHA's plan for capitalizing on its campus assets to generate the revenue to maintain, improve, and preserve the Astoria Houses Campus and building stock.

DIRECT BUSINESS DISPLACEMENT

A screening-level assessment concludes that the proposed project would not result in significant adverse impacts due to direct business displacement. There are two existing industrial uses located on the project site that would be displaced by the proposed project—a warehousing facility used by a construction company, and an ink and toner company. While these potentially displaced businesses are valuable to the city's economy, supporting an estimated 43 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 well below CEQR's 100-employee threshold warranting further assessment of direct business displacement. These users 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 DISPLACEMENT

A preliminary assessment finds that the proposed project 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. Existing industrial uses are expected to continue to experience increased rents and indirect displacement pressures due to this trend irrespective of the proposed project. The proposed project's retail would serve existing residents, and would accommodate future consumer demand introduced by residents of planned

developments and the proposed project. The uses, residents, and workers introduced by the proposed project are not expected to place upward pressure on commercial office rents in the study area.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

A screening-level assessment concludes that the proposed project would not result in any significant adverse impacts due to effects on specific industries. As noted above, the two businesses that would be directly displaced by the proposed project are on short-term leases in anticipation of future site redevelopment. 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.

B. METHODOLOGY

BACKGROUND

Under CEQR, the socioeconomic character of an area includes its population, housing, and economic activity. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land-use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area. In some cases, these changes may be substantial but not adverse. In other cases, these changes may be good for some groups but bad for others. The objective of the CEQR analysis is to disclose whether any changes created by the project would have a significant impact compared with what would happen in the No Build condition.

An assessment of socioeconomic impacts distinguishes between impacts on the residents and businesses in an area and separates these impacts into direct and indirect displacement for both of those segments. Direct displacement occurs when residents or businesses are involuntarily displaced from the actual site of the proposed project or sites directly affected by it. For example, direct displacement would occur if a currently occupied site were redeveloped for new uses or structures or if a proposed easement or right-of-way encroached on a portion of a parcel and rendered it unfit for its current use. In these cases, the occupants of a particular structure to be displaced can usually be identified, and therefore the disclosure of direct displacement focuses on specific businesses and a known number of residents and workers.

Indirect or secondary displacement occurs when residents, business, or employees are involuntarily displaced due to a change in socioeconomic conditions in the area caused by the proposed project. Examples include the displacement of lower-income residents who are forced to move due to rising rents caused by higher-income housing introduced by a proposed project. Examples of indirect business displacement include higher-paying commercial tenants replacing industrial uses when new uses introduced by a proposed project cause commercial rents to increase. Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees potentially affected.

Some projects may affect the operation and viability of a specific industry not necessarily tied to a specific location. An example would be new regulations that prohibit or restrict the use of

certain processes that are critical to certain industries. In these cases, the CEQR review process may involve an assessment of the economic impacts of the project on that specific industry.

DETERMINING WHETHER A SOCIOECONOMIC ASSESSMENT IS APPROPRIATE

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes in the area affected by the project that would not be expected to occur in the absence of the project. The following screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

1. ***Direct Residential Displacement: Would the project directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.***

   The proposed project would not directly displace any residents, as the building sites do not contain any existing residential units, and therefore an assessment of direct residential displacement is unwarranted.

2. ***Direct Business Displacement: Would the project directly displace more than 100 employees? If so, assessments of direct business displacement and indirect business displacement are appropriate.***

   The proposed project would directly displace two industrial business uses that employ approximately 43 people. 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. The 43 employees are below the 100-employee threshold warranting assessment of direct and indirect business displacement.

3. ***Direct Business Displacement: Would the project directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location? If so, an assessment of direct business displacement is warranted.***

   The proposed project would directly displace two industrial uses located on the project site—a warehousing facility used by a construction company, and an ink and toner company—both of which, as noted above, are on short-term leases with termination clauses in anticipation of the site's redevelopment. While these potentially displaced businesses are valuable to the city's economy, 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. Therefore, further assessment of direct business displacement is unwarranted.

4. ***Indirect Displacement due to Increased Rents: Would the project result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less or commercial development of 200,000 square feet (sf) or less would typically not result in significant***

socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.

The proposed project would introduce residential uses in excess of 200 units; therefore, an assessment of potential indirect displacement is warranted.

5. ***Indirect Business Displacement due to Retail Market Saturation: Would the project result in a total of 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites? This type of development may have the potential to draw a substantial amount of sales from existing businesses within the study area, resulting in indirect business displacement due to market saturation.***

   The proposed project would introduce approximately 69,000 sf of neighborhood retail uses, which is well below the 200,000-square-foot CEQR threshold warranting assessment of indirect business displacement due to market saturation.

6. ***Adverse Effects on Specific Industries: Is the project expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents depend on the goods or services provided by the affected businesses, or if the project would result in the loss or substantial diminishment of a particularly important product or service within the city.***

   The two businesses that would be directly displaced by the proposed project do not represent a critical mass of businesses within any industry or category of business, and the number of employees directly displaced would not be considered significant under CEQR. Although these businesses are valuable individually and collectively to the city's economy, the goods and services they provide can be found elsewhere in the city. Therefore, a substantial number of workers or residents do not depend on the goods and services provided by the affected businesses.

Based on the screening assessment presented above, the proposed project warrants an analysis of indirect residential displacement and indirect business displacement due to increased rents.

ANALYSIS FORMAT

Based on *CEQR Technical Manual* guidelines, the analyses of indirect residential displacement and indirect businesses displacement due to increased rents begin with a preliminary assessment. The objective of the preliminary assessment is to learn enough about the potential effects of the proposed project to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to fully determine the extent of the impacts. A detailed analysis is designed to examine existing conditions and then evaluate the changes to those conditions in the Build condition as compared with the changes that would be expected in the No Build condition. As described in Chapter 2, "Analytical Framework," the No Build condition is defined by development projects expected to occur by the build date of the proposed project. These projects are described in terms of the possible changes to socioeconomic conditions that they would cause, including potential population increases, changes in income characteristics of the affected area, changes to the rents or sale prices of residential units, new commercial or industrial uses, or changes to employment or retail sales.

A preliminary assessment was sufficient to conclude that the proposed project would not result in any significant adverse socioeconomic impacts due to indirect business displacement. For

indirect residential displacement, a detailed analysis was required in order to rule out the potential for significant adverse impacts.

STUDY AREA DEFINITION

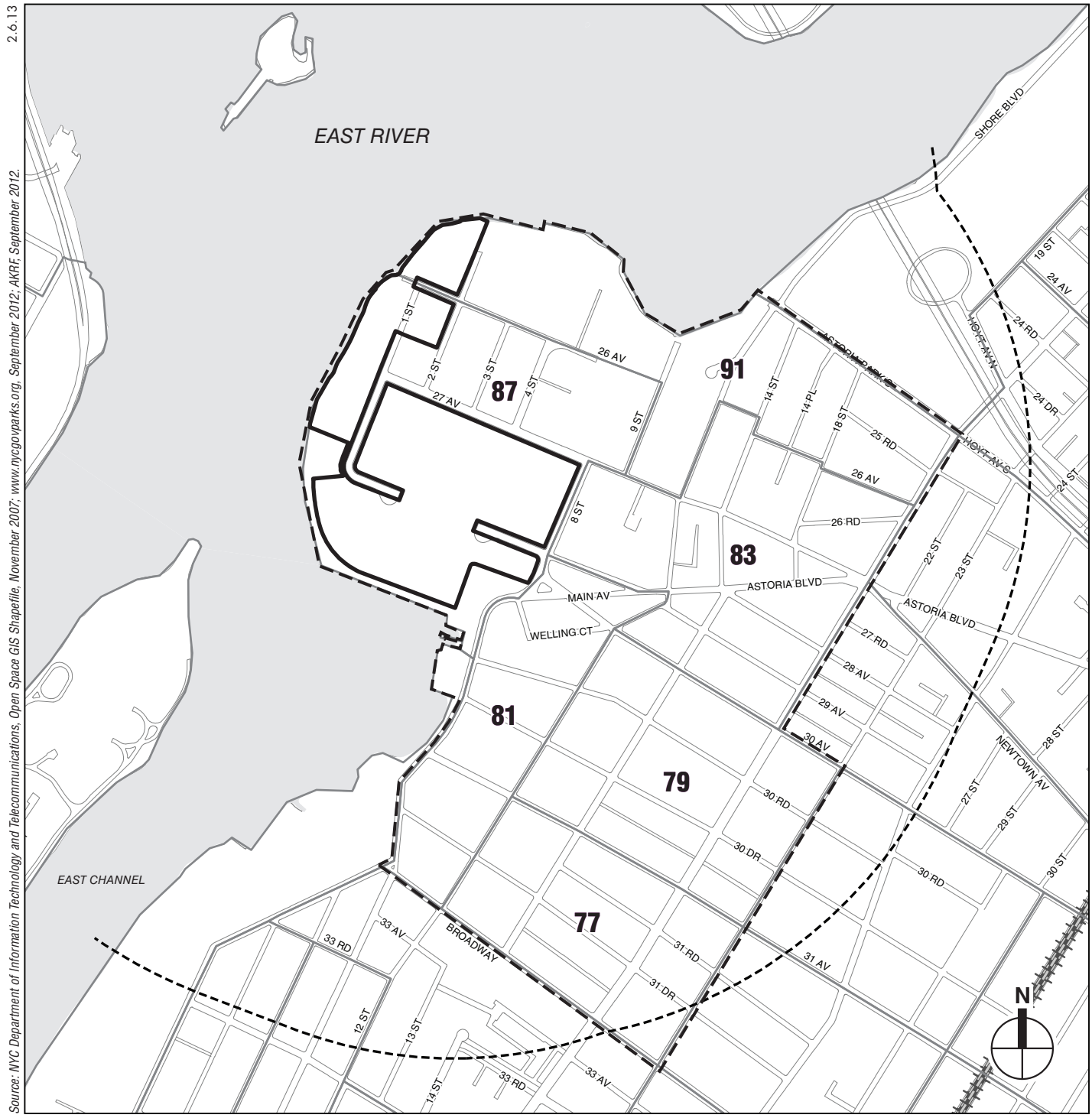
According to the *CEQR Technical Manual*, the socioeconomic study area typically reflects the land use study area, and should reflect the scale of the project relative to the area's population. The *CEQR Technical Manual* explains that for projects that would increase the population by more than 5 percent compared with the population expected to reside in the ¼-mile study area in the No Build condition, a ½-mile study area is appropriate. As detailed in Chapter 1, "Project Description," the proposed project would result in 2,644 new residential units, which would increase the population of the ¼-mile study area by more than 5 percent. Therefore, the study area for the socioeconomic assessment of indirect residential and business displacement approximates a ½-mile perimeter around the project site. Because the analysis examines population and income data, the ½-mile area was modified to reflect census tract boundaries. The ½-mile socioeconomic study area for indirect displacement includes Census Tracts 77, 79, 81, 83, 87, and 91 (see **Figure 4-1**).

DATA SOURCES

Data related to residential conditions, including population, housing, and income data, were obtained from the U.S. Census Bureau's 2000 and 2010 Census and the 2007-2011 American Community Survey (ACS). Land use and parcel data were collected from the New York City Department of Finance's Real Property Assessment Data (RPAD) 2012 database. Estimates of rent-regulated housing were obtained from the New York State Department of Housing and Community Renewal (DHCR), compiled by the New York City Department of City Planning (DCP) Housing, Economic, and Infrastructure Planning (HEIP) Division from March 2008. Data relating to low-income renters was obtained from Public Use Microdata Sample (PUMS) data for 2007-2011 ACS estimates of household income by tenure and household size. The PUMS data was provided by DCP for Public Use Microdata Area (PUMA) 4101, which approximates Queens Community District 1. Additional real estate data were obtained from Prudential Douglas Elliman Real Estate and Streeteasy.com. This information was supplemented with field visits to the study area in October 2012 and February 2013.

The U.S. Census Bureau, in consultation with the lead agency, ~~currently is developing~~ worked to develop additional data for use in CEQR analyses of indirect residential displacement. This data ~~may~~ was intended to allow the analysis to further refine the location and numbers of study area residents who may be potentially vulnerable to displacement. ~~If this data becomes available and if deemed appropriate by the lead agency, the analysis of indirect residential displacement may be updated to incorporate this additional data between the Draft and Final Environmental Impact Statement (EIS).~~ However, because the data was based on too limited a sample size to provide statistically accurate estimates, DCP determined that the data could not be utilized. Therefore, it is not utilized in this FEIS.

For the indirect business displacement analysis, employment data was obtained from ESRI, a commercial data provider.



Source: NYC Department of Information Technology and Telecommunications, Open Space GIS Shapefile, November 2007; www.nycgovparks.org, September 2012; AKRF, September 2012.

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HALLETTS POINT

Socioeconomic Study Area
Figure 4-1

C. PRELIMINARY ASSESSMENT

INDIRECT RESIDENTIAL DISPLACEMENT

Indirect residential displacement usually results from substantial new development that is markedly different from existing uses and activity in an area, which causes increased property values in the area. Increased property values can lead to increased rents, which can make it difficult for some existing residents to remain in their homes. The indirect residential displacement assessment aims to determine whether the proposed project would either introduce a trend or accelerate an existing trend of changing socioeconomic conditions that may have the potential to displace a residential population and substantially change the socioeconomic character of the neighborhood. This preliminary assessment follows the step-by-step preliminary assessment guidelines of the *CEQR Technical Manual*.

Step 1: Determine if the proposed project would add new population with higher average incomes compared with the average incomes of the existing populations and any new population expected to reside in the study area without the project.

The socioeconomic study area is within the Queens neighborhood of Astoria, and includes the neighborhood's transitioning industrial waterfront, as well as inland residential areas. The study area also includes the Astoria Houses Campus, a 1,103-unit NYCHA public housing development, which is part of the overall project site. The concentration of low-income households in the Astoria Houses Campus contributes to the low average household income for the study area as compared with all of Queens and New York City. As shown in **Table 4-1**, between 2007 and 2011 the average household income for the ½-mile study area was $60,605, lower than the average in both Queens ($75,513) and New York City ($84,079).

Table 4-1
Average Household Income (1999, 2007-2011)

	1999	2007-2011	Percent Change
Study Area	$58,079	$60,605	4.3%
Queens	$76,905	$75,513	-1.8%
New York City	$83,124	$84,079	1.1%

Notes: 1. Average household income for the study area was estimated based on a weighted average of mean household income for the census tracts in the study area.
2. The ACS collects data throughout the period on an on-going, monthly basis and asks for respondents' income over the "past 12 months." The 2007–2011 ACS data therefore reflects incomes over 2007 and 2011, while Census 2000 data reflects income over the prior calendar year (1999). The median household income for both time periods is presented in 2012 dollars using an average of the U.S. Department of Labor's July 2012 Consumer Price Index for the "New York-Northern New Jersey-Long Island Area."
Sources: U.S. Census Bureau, 2000 Census, Summary File 3; 2007-2011 American Community Survey; U.S. Department of Labor Bureau of Labor Statistics; AKRF, Inc.

At the same time, newer market-rate residential development in the study area has introduced more affluent households, resulting in a trend toward increasing average household income. Since 1999 the average household income within the study area has increased by 4.3 percent, while average household incomes decreased in Queens (by 1.8 percent) and increased at a lower rate in New York City (1.1 percent) over the same time period (see **Table 4-1**).

A survey of current market-rate rentals in Astoria found that rental rates for one-bedroom units generally range from $1,250 to $2,990 per month, rental rates for two-bedroom units range from $1,685 to $2,630 per month, and rental rates for three-bedroom units range from $3,000 to

$4,600 per month.[1] Assuming that renters spend 30 percent of their income on rent, households renting a market-rate one-bedroom apartment in the study area have an estimated income of between $50,000 and $119,600 a year; households renting a market-rate two-bedroom apartment have incomes between $67,400 and $105,240 a year; and households renting a market-rate three-bedroom apartment have incomes between $124,000 and $184,000 a year.[2]

The proposed project would result in the development of 2,644 residential units. Of the 2,644 residential units, 483 would be developed as affordable housing using the incentives of the Inclusionary Housing Program, and would be occupied by a range of low- to middle-income households. It is expected that the proposed project would give preference for the sale or rental of 50 percent of the affordable units to current residents of Queens Community Board 1. Thus the proposed project would provide opportunities for long-term residents to remain in the area, and in this respect would help to maintain a more diverse demographic composition within the study area.

The remaining 2,161 units would be market rate and are expected to be priced on the high end of the market for the study area. The proposed project's market-rate residents would therefore have incomes on the high end of the ranges presented above, which are well above the study area's 2007-2011 average household income of $60,605. While the project's affordable housing units would ensure housing opportunities for lower-income residents, and in this respect would maintain a more diverse demographic composition within the study area, in the aggregate, the average income of the project-generated population—estimated to be $81,559—would be higher than the average household income of the existing study area population. The proposed project's average household income is expected to be comparable to the average income of the new population expected to reside in the study area without the project. However, given the substantial difference between the study area's existing average household income and that of the proposed project's population, Step 2 of the preliminary assessment is warranted.

Step 2: Determine if the project's increase in population is large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area.

According to census data, the ½-mile study area population was 16,487 residents in 2010 (see **Table 4-2**). The study area experienced a 1.9 percent rate of population growth since 2000, a rate higher than experienced in Queens (0.1 percent) and similar to that in New York City as a whole (2.1 percent).

[1] Average rental rates were obtained from searches for apartment listings on Streeteasy.com and Elliman.com conducted on September 28, 2012. In order to better reflect the market, these averages exclude the Exo Astoria, a recently constructed luxury rental building that is described below.

[2] Assumption based on U.S. Department of Housing and Urban Development (HUD) definition of affordable housing. According to HUD, families who pay more than 30 percent of their income for housing are cost burdened.

Table 4-2
2000 and 2010 Population

Area	2000	2010	Percent Change
Study Area	16,187	16,487	1.9%
Queens County	2,229,379	2,230,722	0.1%
New York City	8,008,278	8,175,133	2.1%

Sources: U.S. Census Bureau, 2000 Census, Summary File 1; 2010 Census, Summary File 1; AKRF, Inc.

Assuming an average household size of 2.34 persons (the average household size in Queens Community District 1 in the 2010 Census), the proposed project's 2,644 residential units, at full occupancy, would introduce 6,187 new residents to the study area. As shown in **Table 4-3**, when compared with the population expected to reside in the study area in the No Build condition, the proposed project would result in a ~~29.3~~28.1 percent population increase in the ½-mile study area.

According to *CEQR Technical Manual* methodology, a population increase greater than 10 percent warrants a detailed analysis to determine a project's potential for significant adverse impacts due to indirect residential displacement. Therefore, a detailed analysis is presented in Section D, below.

Table 4-3
Estimated Population in the ½-Mile Study Area:
No Build and Build Conditions

	2010	No Build Condition[1]	Build Condition	Percent Change (No Build to Build)
Study Area	16,487	22,022	28,209	28.1%

Notes: 1. Population estimates for planned projects in the No Build condition assume an average household size of 2.34 persons, the average household size for Queens Community District 1 based on 2010 Census data. See Chapter 2, "Analytical Framework" for No Build projects located within the ½-mile study area.
Sources: Census 2010, New York City Department of City Planning, AKRF, Inc.

INDIRECT BUSINESS DISPLACEMENT

The preliminary assessment of indirect business displacement focuses on whether the proposed project could increase commercial property values and rents within the ½-mile study area so that it would become difficult for some categories of businesses to remain in the area. The following three questions (numbered in italics below) address the potential for significant adverse indirect business displacement impacts.

1. ***Would the proposed project introduce a trend that increases commercial property values, making it difficult for businesses essential to the local economy—or a business that is the subject of regulations or publicly adopted plans to preserve, enhance, or otherwise protect it—to remain in the study area?***

The proposed project would introduce 2,644 residential units (including 483 affordable units) and approximately 69,000 gsf of retail space, as well as parking uses and publicly accessible open space. The project's residential population would be a substantial addition to the study area's consumer base, but it would not introduce a trend that would alter existing economic patterns. As detailed in Chapter 3, "Land Use, Zoning, and Public Policy," and in Section D of this chapter, "Detailed Analysis of Indirect Residential Displacement," there is already a trend of increasing residential development and consumer demand in the ½-mile study area. This trend will continue in the future without the proposed project (the No Build condition), with

~~1,941~~2,331 new housing units added to the study area by 2022, for an estimated total of ~~4,622~~5,535 new residents.[1] While the proposed project would contribute to the trend of increased residential development, the retail introduced by the proposed project would satisfy a portion of the study area's increasing demand for neighborhood goods and services, and in this respect could serve to alleviate upward rent pressures on commercial and industrial properties in the surrounding area.

Table 4-4 presents employment data for the ½-mile study area, Queens, and New York City, and serves as an indicator of economic activities. As shown in **Table 4-4**, the health care and social assistance sector accounts for the largest percentage of employment in the study area (22.2 percent), reflecting the presence of the Goodwill Industries headquarters along 27th Avenue. Manufacturing and administrative and support and waste management and remediation services account for the next highest proportions of employment (16.7 and 13.5 percent, respectively). There are a larger percentage of study area employees within these industry sectors than in Queens or New York City as a whole.

Table 4-4
Estimated Employees in ½-Mile Study Area, Queens, and New York City

	Study Area		Queens		New York City	
Type of Job by NAICS Category	**Employees**	**Percent**	**Employees**	**Percent**	**Employees**	**Percent**
Agriculture, forestry, fishing and hunting	0	0.0%	524	0.1%	1,595	0.0%
Mining	0	0.0%	56	0.0%	772	0.0%
Utilities	9	0.5%	512	0.1%	4,561	0.1%
Construction	199	10.3%	32,500	5.8%	114,239	3.0%
Manufacturing	321	16.7%	29,206	5.2%	146,456	3.9%
Wholesale trade	92	4.8%	24,431	4.4%	120,018	3.2%
Retail trade	79	4.1%	70,735	12.6%	432,984	11.4%
Transportation and warehousing	86	4.5%	33,193	5.9%	96,027	2.5%
Information	10	0.5%	10,405	1.9%	187,167	4.9%
Finance and insurance	12	0.6%	18,795	3.3%	316,191	8.3%
Real estate and rental and leasing	25	1.3%	21,152	3.8%	143,981	3.8%
Professional, scientific, and technical services	30	1.6%	24,589	4.4%	405,000	10.7%
Management of companies and enterprises	0	0.0%	274	0.0%	32,132	0.8%
Administrative and support and waste management and remediation services	259	13.5%	14,463	2.6%	132,563	3.5%
Educational services	150	7.8%	61,666	11.0%	337,391	8.9%
Health care and social assistance	428	22.2%	87,261	15.5%	500,871	13.2%
Arts, entertainment, and recreation	5	0.3%	7,016	1.2%	77,188	2.0%
Accommodation and food services	116	6.0%	50,446	9.0%	331,181	8.7%
Other services (except public administration)	65	3.4%	39,626	7.1%	229,126	6.0%
Public administration	0	0.0%	28,318	5.0%	130,521	3.4%
Unclassified establishments	39	2.0%	6,120	1.1%	55,688	1.5%
Total	**1,925**	**100**	**561,288**	**100**	**3,795,652**	**100**

Sources: ESRI Business Analyst Online, Inc., Business Summary Report

The study area's industrial sectors—including construction, manufacturing, wholesale trade, and transportation and warehousing—collectively include an estimated 57 businesses employing approximately 700 workers. This employment represents approximately 36 percent of the study area total employment, a higher percentage as compared with Queens (21 percent) and New

[1] The population added in the No Build condition includes ~~4,542~~5,455 residents living in ~~1,941~~2,331 residential units (assuming the average household size for Queens Community District 1 based on 2010 Census data of 2.34 persons) as well as residents living in 80 units of supportive housing.

York City (13 percent), and reflects the study area's historic roots of low-density industrial uses along the waterfront. The northeastern section of the Halletts Point peninsula primarily contains low-rise industrial buildings with light-manufacturing uses and open storage yards, which extend to the waterfront at Pot Cove. Light-manufacturing uses are predominantly construction and building suppliers in this area. Additional warehousing and industrial buildings as well as bus/vehicle storage lots are also located in this area.

Other warehouses, light industrial uses, and storage yards are located on the upland blocks between 1st and 4th Streets, and include a custom cabinet-maker; a tile and marble contractor; plumbing heating and air-conditioning contractors; and an ambulette service provider. Concentrations of industrial and light-manufacturing uses are also found along Main Avenue/Astoria Boulevard and 27th Avenue east of 14th Street (including a garment manufacturer, carpet cleaner, auto service stations, and farm/garden equipment and tile wholesalers on 14th Street near Astoria Boulevard), and along Vernon Boulevard, 12th Street, and 14th Street between 30th Road and Broadway (including electrical contractors, a signage manufacturer, metal stamping, and a wholesale grocer). Most of the industrial businesses in the area have 12 or fewer employees and serve a local trade area that includes surrounding neighborhoods in Queens. However, there are several larger industrial businesses, such as garment and hardware manufacturers, that employee over 50 workers and that distribute product well beyond the local trade area.

As with manufacturing sectors throughout the country, since the 1970s there has been a decline of industrial uses in Queens and within the study area. Today, areas historically occupied by industrial uses that have become vacant or underutilized—particularly along the waterfront—are being redeveloped with residential and commercial uses that cater to the residential population. For example, the vacant, former industrial sites located along 26th Avenue between 4th Street and 9th Street are the subject of a proposal for mixed-use redevelopment—Astoria Cove. If approved, Astoria Cove will transform five lots (totaling approximately 8.4 acres) on the northeastern portion of the Halletts Point peninsula, on either side of 26th Avenue, into a mixed-use, predominantly residential waterfront development.

In areas with increasing residential development, industrial businesses can be potentially vulnerable to indirect displacement due to increased rent, as they tend not to benefit directly from the increased consumer dollars in the area and therefore are less able to afford rent increases due to rising property values. Industrial businesses could be considered potentially vulnerable to indirect displacement, as a property owner could decide to convert an existing industrial property to retail or other commercial use. While some industrial businesses could be displaced due to upward rent pressure, there is no specific industrial business within the study area that is critical to the local economy or that is the subject of regulations or publicly adopted plans to preserve, enhance, or otherwise protect its use. In addition, upward rent pressure is already present in the study area. Recent mixed-use conversions, including the Sohmer Piano Factory, the planned 313-unit residential development at 32-01 Vernon Boulevard, as well as planned mixed-use development such as Astoria Cove indicate that the study area is already transitioning from underutilized industrial use to higher-density residential and commercial use along the waterfront. Further inland there is also a trend toward increased residential development, as evidenced by the many No Build residential projects planned for the area within a ½-mile perimeter of the project site (see Figure 2-1 and Table 2-1 in Chapter 2, "Analytical Framework"). While the proposed project would contribute to an existing trend of increasing residential development in the study area, any upward rent pressure experienced by industrial businesses in the area would be present in the future without the proposed project. Therefore, the

proposed project would not introduce a new trend that would alter economic patterns in the study area.

With respect to non-industrial commercial uses, the proposed project's residents and workers are not expected to substantially alter the demand for commercial office space in the study area. The increased pedestrian traffic and retail demand generated by the proposed project's residential and retail components would not be expected to place upward pressure on rental rates for office space, which is not substantially influenced by increases in pedestrian traffic. The residential population would create demand for new retail, but as described above, there is already a trend of increasing consumer demand in the area, and this demand would be accommodated in part by the retail added by the proposed project.

2. Would the proposed project directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses?

The proposed project would not directly displace any residential uses and would directly displace only two businesses. While these businesses contribute to the overall economy of the area and the city, neither of the potentially displaced businesses provide substantial direct support to other businesses in the study area, nor do they bring substantial numbers of people to the area that form a customer base for local businesses. As discussed in the preliminary assessment of direct business displacement, local businesses do not rely on the potentially displaced businesses' products and services for day-to-day needs.

3. Would the proposed project directly or indirectly displace residents, workers, or visitors who form the customer base of existing businesses in the study area?

The proposed project would not directly displace any residents, and would displace only a small number of workers in the study area. The proposed project is not expected to result in significant indirect business displacement that would negatively affect the customer base of any existing businesses in the study area. Although the workers who would be directly displaced form a portion of the customer base of some existing businesses in the area, the proposed project would introduce new residents and workers that would add to the customer base of the existing businesses. The proposed project would enliven the project site and bring an influx of residents and workers to the waterfront and the upland areas.

CONCLUSION

The proposed project would enliven the waterfront with new mixed-use development. While the proposed project 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 along the study area's waterfront. The retail added by the proposed project would support the existing and project-generated population living in an area where retail is lacking and residential development is leading to increased retail demand. While the proposed project would contribute to an existing trend of residential development, it would not introduce this trend; any upward rent pressure experienced by industrial businesses in the area would be present in the future without the proposed project. Therefore, based on *CEQR Technical Manual* guidelines, the proposed project would not result in any significant adverse impacts due to indirect business displacement.

D. DETAILED ANALYSIS OF INDIRECT RESIDENTIAL DISPLACEMENT

The preliminary assessment for indirect residential displacement indicated the need for further analysis in order to determine whether the proposed project could result in significant adverse impacts due to indirect residential displacement. Therefore, a detailed analysis has been conducted. The approach to a detailed analysis of indirect residential displacement builds upon the information provided in the preliminary assessment, but requires more in-depth analysis of census information and may include field surveys. The objective of the detailed analysis is to determine whether the proposed project may introduce or accelerate a socioeconomic trend that may potentially displace a vulnerable population ("population at risk"). Populations at risk are defined as renters living in units not protected by rent stabilization, rent control, or other government regulations restricting rents, whose incomes are too low to afford increases in rents. In order to determine impacts, the detailed analysis characterizes existing conditions of residents and housing to identify potential populations at risk, assesses current and future socioeconomic trends in the area that may affect these populations, and examines the potential effects of the proposed project on those trends.

The detailed analysis of indirect residential displacement uses the same ½-mile study area, adjusted to census tract boundaries, that was used in the preliminary assessment (See **Figure 4-1**). The ½-mile study area represents a portion of the Astoria neighborhood.

EXISTING CONDITIONS

This section describes the population and housing characteristics of the ½-mile study area. It outlines trend data since the 2000 Census, and compares the characteristics of the ½-mile study area to Queens and New York City as a whole.

POPULATION

According to the U.S. Census, in 2010 the ½-mile study area had a population of 16,487 (see **Table 4-5**). The study area population increased by 1.9 percent between 2000 and 2010—a rate higher than in Queens (0.1 percent) and New York City (2.1 percent). Between 2000 and 2010, population growth was highest in Census Tract 81, which is located along the waterfront, south of the project site (see **Figure 4-1**). The population increased in this census tract by 21.5 percent, likely due to the construction of new, higher-density residential buildings near the waterfront. For example, the East River Tower is a 20-story 70-unit luxury tower at 11-24 31st Avenue, completed in 2007. Census Tract 77—located east of Tract 81 and bordered by Broadway in the south and 31st Avenue in the north—also experienced notable growth with an 11.1 percent increase in population. According to RPAD data, Census Tract 77 contains 330 residential units that were built since 2000, which was more than in any other census tract in the study area. Overall, Census Tracts 81 and 77 were responsible for almost all of the population growth within the study area from 2000 to 2010. Census Tract 83, located directly east of the project site and bounded by 21st Street on the east, was the only tract in the study area where population decreased between 2000 and 2010.

Table 4-5
Population: 2000 and 2010

Census Tracts	2000	2010	Percentage Increase
77	1,330	1,478	11.1%
79	3,489	3,493	0.1%
81	978	1,188	21.5%
83	3,114	2,950	-5.3%
87	4,545	4,582	0.8%
91	2,731	2,796	2.4%
Total, Study Area	**16,187**	**16,487**	**1.9%**
Queens County	**2,229,379**	**2,230,722**	**0.1%**
New York City	**8,008,278**	**8,175,133**	**2.1%**

Sources: U.S. Department of Commerce, Bureau of the Census, 2000 and 2010 Census Summary File 1; AKRF, Inc.

HOUSEHOLDS AND INCOME

According to the census, the ½-mile study area contained a total of 5,986 households in 2010, with an average household size of 2.75 persons per household; this is lower than the average household size for Queens but higher than that of New York City as a whole (see **Table 4-6**). The average household size for the study area decreased since 2000, when it was higher than for both Queens and New York City. Mirroring the increase in population, Census Tracts 77 and 81, located in the southern portion of the study area, experienced the largest percent increases in numbers of new households (30 percent and 21 percent, respectively).

Table 4-6
Household Characteristics: 1999 and 2009

Area	Households		Average Household Size	
Census Tracts	**2000**	**2010**	**2000**	**2010**
77	450	586	2.94	2.51
79	1,081	1,219	3.23	2.87
81	301	364	3.25	3.24
83	1,020	1,040	3.04	2.83
87	1,473	1,530	3.09	2.99
91	1,177	1,247	2.32	2.24
Total, Study Area	**5,502**	**5,986**	**2.94**	**2.75**
Queens County	**2,229,379**	**2,230,722**	**2.81**	**2.82**
New York City	**8,008,278**	**8,175,133**	**2.59**	**2.57**

Sources: U.S. Department of Commerce, Bureau of the Census, 2000 and 2010 Census Summary File 1; AKRF, Inc.

Between 2007 and 2011, median household income in the ½-mile study area was $48,380—an increase of approximately 10.0 percent since 1999 (See **Table 4-7**). Both Queens and New York City as whole experienced decreases in median household income over this time (2.3 percent and 1.6 percent, respectively). Census Tract 81, located along the waterfront south of the project site, experienced the highest increase in median household income between 1999 and 2007-2011 (40.0 percent). This is in large part due to the development of new, market-rate residential units along this portion of the waterfront. Since 1999, three buildings were built in Census Tract 81 that contained more than 70 residential units. Other than the East River Tower, discussed above, an eight-story, 82 unit development was completed at 11-15 Broadway and a seven-story 72-unit development was completed at 30-85 Vernon Boulevard. Census Tract 77, east of Census Tract

81, and Census Tract 91, located in the northern portion of the study area, along the waterfront south of Astoria Park, both experienced increases in median household income over this time of around 20 percent.

The proportion of the population in the study area living below the poverty level has decreased since 2000, from 28.3 percent of the study area population for whom poverty status is determined, to 19.9 percent between 2007 and 2011. The percentage of population living below the poverty level decreased in all census tracts in the study area except for one: Census Tract 79 (bounded by 30th Avenue, 23rd Street, 31st Avenue, and 12th Street), which was the only study area census tract to experience a large decrease in median household income since 1999.

Table 4-7
Income Characteristics: 1999 and 2007-2011

Census Tracts	Median Household Income[1]			Poverty Status[2]	
	1999	2007-2011	Percent Change	2000	2007-2011
77	$55,895	$67,703	21.1%	11.8%	8.8%
79	$48,033	$42,416	-11.7%	17.6%	20.8%
81	$42,127	$58,998	40.0%	28.7%	2.8%
83	$50,838	$52,475	3.2%	24.8%	15.2%
87	$20,964	$23,370	11.5%	46.5%	34.9%
91	$58,253	$69,408	19.1%	23.5%	15.7%
Total, Study Area	**$43,984**	**$48,380**	**10.0%**	**28.3%**	**19.9%**
Queens County	**$60,298**	**$58,893**	**-2.3%**	**14.6%**	**13.7%**
New York City	**$54,407**	**$53,530**	**-1.6%**	**21.2%**	**19.4%**

Notes:
1. Median household income is presented in constant 2012 dollars based on the U.S. Department of Labor Bureau of Labor Statistics' 2012 half-year Consumer Price Index for all Urban Consumers for New York-Northern New Jersey-Long Island. Median household income for the study area represents a weighted average of the median incomes of the census tracts in the study area.
2. Percent of population with incomes below established poverty level. The Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is in poverty. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level," The official poverty thresholds do not vary geographically, but they are updated annually for inflation using the Consumer Price Index.

Sources:
U.S. Department of Commerce, Bureau of the Census, 2000 Census, Summary File 1 and Summary File 3; American Community Survey 2007-2011 5-Year Estimates; U.S. Department of Labor Bureau of Labor Statistics' Consumer Price Index for all Urban Consumers for New York-Northern New Jersey-Long Island.

HOUSING

The study area contains a mix of housing types, including detached single-family homes, multi-family walk up apartments, and mixed-use buildings with ground-floor retail. The study area also contains a number of newer, large tower apartment and condominium buildings, as well as converted industrial buildings. The residential buildings in the eastern portion of the study area are generally low-rise (two to five stories) with a few taller buildings along the main corridors, specifically 21st Street. Closer to the waterfront, taller buildings have recently been constructed among older, low-rise buildings.

The number of housing units in the ½-mile study area increased at a higher rate between 2000 and 2010 than in Queens and New York City as a whole (see **Table 4-8**). Approximately 981 housing units were added to the study area during this time, for an increase of 17.1 percent. All of the census tracts in the study area gained more housing units proportionately during this time than Queens and New York City as a whole, except for Census Tract 87 in the southern portion of the Halletts Point peninsula, which is dominated by NYCHA housing and under existing

zoning has had little opportunity for new development. The number of housing units increased most dramatically in Census Tracts 81 and 77, where new residential units were built near the waterfront, as described above.

Table 4-8
Housing Characteristics: 1999 and 2009

Census Tract	Total Housing Units			Occupancy Status (Percent)				Tenure (Percent)			
				Occupied		Vacant		Owner		Renter	
	2000	2010	Percent Change	2000	2010	2000	2010	2000	2010	2000	2010
77	472	652	38.1	95.3	89.9	4.7	10.1	28.2	20.6	71.8	79.4
79	1,109	1,325	19.5	97.5	92.0	2.5	8.0	22.5	20.8	77.5	79.2
81	331	473	42.9	90.9	77.0	9.1	23.0	20.6	29.9	79.4	70.1
83	1,056	1,296	22.7	96.6	80.2	3.4	19.8	16.4	14.8	83.6	85.2
87	1,552	1,582	1.9	94.9	96.7	5.1	3.3	1.2	1.2	98.8	98.8
91	1,221	1,394	14.2	96.4	89.5	3.6	10.5	41.0	33.4	59.0	66.6
Study Area	**5,741**	**6,722**	**17.1**	**95.8**	**89.1**	**4.2**	**10.9**	**20.0**	**17.9**	**80.0**	**82.1**
Queens County	**817,250**	**835,127**	**2.2**	**95.8**	**93.4**	**4.2**	**6.6**	**42.8**	**43.0**	**57.2**	**57.0**
New York City	**3,200,912**	**3,371,062**	**5.3**	**94.4**	**92.2**	**5.6**	**7.8**	**30.2**	**31.0**	**69.8**	**69.0**

Sources: Sources: U.S. Department of Commerce, Bureau of the Census, 2000 Census, Summary File 3; 2010 Census, Summary File 1.

The study area has a higher proportion of vacant units than Queens and New York City as a whole. The vacancy rate in the study area was 10.9 percent in 2010, compared with 6.6 percent in Queens and 7.8 percent in New York City. In all three of these areas, the vacancy rate represents an increase since 2000. Census Tract 81, located along the waterfront south of the project site, had the highest vacancy rate in the study area (23 percent).

The study area had a higher proportion of renters than Queens and New York City, with 82.1 percent of residential units renter-occupied, compared with 57.0 percent and 69.0 percent in Queens and New York City, respectively. The study area experienced a slight increase in renter-occupancy since 2000, whereas Queens and New York City saw home ownership increase slightly during the same time. Renters are most concentrated in Census Tract 87—which includes the Astoria Houses Campus. Renters account for 85.2 percent of occupied units in Census Tract 83, east of the project site. Homeowners are most concentrated in Census Tract 91, in the northern portion of the Halletts Point peninsula and bounded in the north by Astoria Park and the water, where they account for a greater proportion of occupied units than in New York City as a whole.

According to 2007-2011 ACS data, the median home value in the study area was $618,604, higher than in Queens ($494,897) and in New York City as a whole ($537,600) (see **Table 4-9**). Since 2000, median home values increased in all of the study area census tracts. In the study area overall, median home values increased at a higher rate than in Queens and New York City. Median home values were largely similar throughout the study area, ranging from $498,552 in Census Tract 79 (bounded by 30th Avenue, 23rd Street, 31st Avenue, and 12th Street) to $715,095 in Census Tract 77, just south of Census Tract 79.

Table 4-9
Median Home Value and Contract Rent: 2000 and 2007-2011

Census Tract	Median Home Value			Median Contract Rent[1]		
	2000	2007-2011[2]	Percent Change	2000	2007-2011	Percent Change
77	$334,600	$715,095	114%	$1,013	$1,226	21%
79	$358,612	$498,552	39%	$985	$1,295	31%
81	$379,640	$522,044	38%	$1,310	$1,445	10%
83	$403,225	$711,545	76%	$1,009	$1,209	20%
87	$230,881	N/A	N/A	$442	$620	40%
91	$292,118	$682,833	134%	$1,033	$1,346	30%
Total, Study Area	**$332,604**	**$618,604**	**86%**	**$837**	**$1,082**	**29%**
Queens County	**$292,971**	**$494,897**	**69%**	**$1,024**	**$1,185**	**16%**
New York City	**$314,283**	**$537,600**	**71%**	**$918**	**$1,055**	**15%**

Notes: 1. Median contract rent for study area was based on weighted median contract rent for all census tracts for which data was available, using all renter-occupied units for weights (not specified renter-occupied housing units paying cash rent).
2. According to the Census Bureau, statistics may be missing from an ACS table because there are too few cases to produce a reliable estimate.
Sources: U.S. Department of Commerce, Bureau of the Census, 2000 Census, Summary File 3; American Community Survey 2007-2011 5-Year Estimates.

Median contract rent in the study area was $1,082 in 2007-2011, representing an increase of 29 percent since 2000. This was a higher increase than experienced in Queens and New York City as a whole. Within the study area, median contract rent increased by the highest percentage in Census Tract 87, though it was the lowest in the study area in 2000 and 2007-2011.

RECENT RESIDENTIAL TRENDS

Median home value data reported in the census and ACS are based on respondents' estimates of how much their properties would sell for if they were for sale, and the median contract rent data include data for rent-regulated and rent-controlled apartments. Therefore, both of these data sets do not always accurately reflect true market rental rates and sale prices. In order to develop a more accurate picture of the current residential real estate market in the ½-mile study area, data from the census and ACS have been supplemented with information from local brokerage firms and real estate websites.

Reports from local brokerage firms and websites indicate that median sales prices in Northwest Queens, which includes Astoria and overlaps with the ½-mile study area, are higher than median sales prices for Queens a whole. The median sales price in Northwest Queens for the third quarter of 2012 was $510,000, which is higher than the median sales price for Queens as a whole, which was $370,000.[1] These median sales prices are lower than the median home values reported by the ACS. As median home value data reports what respondents estimate their properties would sell for, this discrepancy suggests that homes may be selling for less than homeowners expect in the study area and Queens.

As discussed above, a survey of current market-rate rentals in Astoria found that average rental rates for one-bedroom units generally range from $1,250 to $2,990 per month, rental rates for two-bedroom units range from $1,685 to $2,630 per month, and rental rates for three-bedroom

[1] The Elliman Report: 3Q-2012 Queens Sales. Obtained from Elliman.com. Accessed November 14, 2012.

units range from $3,000 to $4,600 per month.[1] These rentals rates are higher than the ACS median contract rent, which includes rent-regulated and rent-controlled apartments. This may be due in part to the concentration of rent-protected apartments in portions of the study area, discussed in detail below.

These market-rate rents reflect the changing residential market in the study area, which experienced a building boom before the 2008 downturn of the housing market. Underutilized industrial properties along the waterfront were converted to residential and mixed-use buildings, including the former Sohmer piano factory and the former Eagle Electric Company (just outside of the study area at the northwest corner of 21st Street and 24th Avenue). Other industrial sites were purchased and warehouses were demolished to build new residential towers. These new residential towers were largely built on underutilized industrial lots or on lots that were rezoned to allow higher FAR in the 2010 Astoria Rezoning, which allowed for moderate density increases for residential buildings on blocks fronting Vernon Boulevard, 21st Street, and 31st Street.

As the market could not absorb the new condominiums built before the recession, some of the larger residential projects were converted to rentals after 2008. For example, the former Sohmer Piano Factory, at 31-01 Vernon Boulevard, was planned for a 69-unit condominium and retail conversion in 2008. The units were taken off the market in late 2008 and converted to rentals in 2010.[2] As the new inventory of residential units became occupied and development slowed, prices rose, reflected in the high rental rates listed above. However, according to local residential brokers and market analysts, there are few development sites left, especially the higher value property near the subway. Real estate professionals expect sales prices to rise with inventory reaching a low point.[3] While the area has maintained its character as a community with a high concentration of immigrant families, there is increasing demand for new construction residential units from college-educated young professionals.[4] While development opportunities may be limited, reports from local brokerage firms and websites indicate that residential development trends accelerated throughout 2012, as buyers and renters seeking luxury units in Long Island City have migrated to Astoria. Sites in Astoria have the same advantages of proximity to the waterfront and to midtown Manhattan, but prices are still less expensive relative to Long Island City.[5] Despite the lack of development opportunities, according to brokers, the high demand has resulted in small-scale, new construction where possible as well as renovations of existing properties where development potential is limited. For example, a seven-unit building at 26-07

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[1] Average rental rates were obtained from searches for apartment listings on Streeteasy.com and Elliman.com conducted on September 28, 2012. In order to better reflect the market, these averages exclude the Exo Astoria, a recently constructed luxury rental building described below.

[2] Sources: "Striking a New Chord." *The New York Times online*. October 19, 2008. Accessed October 4, 2012 at nytimes.com. "Astoria's Piano Factory Condos Now Tuned to a new Key." *Curbed New York*. August 23, 2010. Accessed October 4, 2012 at ny.curbed.com.

[3] Sources: "Astoria Euphoria." *The Real Deal online*. September 2012. Accessed October 2, 2012 at therealdeal.com. Elliman Report for Queens 2Q-2012. Accessed October 2, 2012 at www.elliman.com.

[4] Sources: "Queens: the new Brooklyn." *The Real Deal online*. October 18, 2007. Accessed September 28, 2012. "Astoria Euphoria." *The Real Deal online*. September 2012. Accessed October 2, 2012 at therealdeal.com.

[5] Sources: "Astoria Real Estate Market Sees Uptick in Luxury Properties, Report Says." *DNAinfo.com*. January 24, 2013. Accessed January 25, 2013 at dnainfo.com. 2012 End of Year Orange Report. Obtained from modernspacesnyc.com. Accessed January 25, 2013.

18th Street was built in 2007 and a four-unit building at 26-33 14th Street was built in 2009. There have been several recent renovations along Astoria Boulevard, and even along blocks with more modest, low-scale housing along 30th Road and 30th Avenue. As a result, almost all blocks in the study area contain new residential construction or renovation, indicating the extent of this trend.

ESTIMATE OF NON-REGULATED HOUSING

The objective of a detailed analysis of indirect residential displacement is to identify existing populations that may be at risk of displacement. According to the *CEQR Technical Manual*, at-risk populations are defined as people living in privately held units that are not protected by rent regulations, who, based on income or poverty status, may not be able to afford substantial rent increases. This section describes existing conditions in the study area in terms of the status (rent-regulated or non-regulated) of housing stock in the ½-mile study area. The following section identifies where in the study area there may be an at-risk population, and if it is likely that an at-risk population lives in unprotected housing in the study area.

Rental rates in New York City are controlled through several mechanisms. These include rent regulation (either rent control or rent stabilization), direct public subsidies to landlords, and public ownership. In New York City, the rent control program applies to apartments in residential buildings that contain three or more units and were constructed before February 1947. Only apartments in which the tenant has lived continuously since before July 1, 1971 may fall under rent control. When a rent-control apartment becomes vacant, it either becomes rent stabilized or, if it is in a building with fewer than six units, it is removed from regulation. Rent stabilization limits the annual rate at which owners may increase rents. In New York City, rent stabilization generally applies to apartments in buildings containing six or more units that were built between February 1, 1947 and January 1, 1974. An apartment is no longer protected by rent stabilization if it becomes vacant and could be offered at a legal regulated rent of $2,000 or more, or if the legal rent is $2,000 and the apartment is occupied by tenants whose total annual household income exceeded $175,000 for each of the past two years.[1]

Other types of rent-regulated housing includes Section 8 housing, public housing, Mitchell-Lama developments, and other New York City Department of Housing Preservation and Development (HPD)-owned housing. The project site includes the NYCHA Astoria Houses Campus, which contains a total of 1,103 public housing units. The ½-mile study area contains two Mitchell-Lama developments: the 171-unit Bridgeview III development at 810 27th Avenue in Census Tract 83, and 28 units of the 128-unit Bridgeview I development at 421 27th Avenue in Census Tract 87. The Astoria Senior Residence, located at 2112 30th Road, contains 98 low-income senior units and is located in Census Tract 79. In addition, the Goodwill Terrace Apartments, at 421 27th Avenue, includes 208 residential units with supportive service for low-income people and people with disabilities and other needs.

Study Area

In accordance with the *CEQR Technical Manual*, the number of unregulated units in the study area was estimated based on census data and data obtained from the New York City Department of Finance's RPAD database. **Table 4-10** shows the calculations and the estimated count of

[1] Rent regulations obtained from the New York State Division of Housing and Community Renewal, Office of Rent Administration and the New York City Rent Guidelines Board.

unregulated units in the study area. As shown in the table, the estimate was based on the number of units in the study area that met the following criteria and was therefore assumed to be unprotected from rent increases:

Table 4-10
Estimated Unprotected Rental Housing Units in the ½-Mile Study Area

Row	Units Identified	Components	Total for Study Area	Notes
1	Base of Unprotected Units: Units in Small Buildings (1-5 Units)	Number of units in buildings with 1-5 units	2,197	Derived from RPAD
2		Estimate of rental units in 1 - 5 unit buildings	1,660	(Row 1) X (Renter occupancy rate by census tract)
3	Additional Unprotected Units: Buildings Built After 1974	Total units (renter and owner occupied) in buildings built after 1974 with more than 5 units	1,765	Derived from RPAD
4		Estimate of rental units in buildings with more than 5 units, built after 1974	1,319	(Row 3) X (Renter occupancy rate by census tract)
5	All Unprotected Rental Units	Estimate of renter-occupied units that are unprotected	2,979	(Row 2) + (Row 4)

Sources: New York City Department of Finance Real Property Assessment Data (RPAD) 2012 database; 2007-2011 American Community Survey 5-Year Estimates, AKRF, Inc.

- The units are in buildings that are privately owned (i.e., not public housing units);
- The units are in buildings not old enough to be subject to rent control or rent stabilization (i.e., built in 1974 or later); and/or
- The units are in buildings too small to be subject to rent control or rent stabilization (i.e., have five units or fewer).

Based on these criteria, the ½-mile study area contains approximately 5,355 renter-occupied units, of which approximately 2,979 are currently unprotected from rent increases. This number of unprotected units represents approximately 56 percent of the total renter-occupied units and 45 percent of all residential units in the study area.

According to this methodology, Census Tract 81, located along the waterfront south of the project site, and Census Tract 77, located east of Tract 81 and bordered by Broadway in the south and 31st Avenue in the north, contain the highest percentage of renter-occupied units that are unprotected. This is largely due to recent residential development close to the waterfront, including residential conversions and new buildings, discussed in detail below. Census Tract 91, located in the northern portion of the study area, along the waterfront south of Astoria Park, also contains a high percentage of renter-occupied units that are unprotected due in large part to the 404-unit Shore Towers development located at 25-40 Shore Boulevard, which contains luxury condominium and rental units. Census Tract 87 in the southern portion of the Halletts Point peninsula has the lowest percentage of renter-occupied units that are unprotected, primarily due to the large concentration of public housing units within Astoria Houses.

POPULATION POTENTIALLY AT RISK OF INDIRECT DISPLACEMENT

Populations potentially at risk of indirect residential displacement are defined as people living in privately held units that are not protected by rent regulations, whose incomes or poverty status indicates that they could not afford to pay substantial rent increases. This section estimates the population potentially at risk of indirect residential displacement in the ½-mile study area.

In order to identify population in the study area potentially at risk of indirect displacement, the population of low-income renters in the study area was estimated, and then adjusted according to the estimated proportion of rental units that were unprotected. The following steps were used to identify population at risk, and the calculations are shown in **Table 4-11**:

1. **Estimate the low-income population in renter-occupied housing units in the study area.** The low-income population in renter-occupied housing units for the study area was estimated using PUMS data, which is available for specific geographies called Public Use Microdata Areas (PUMAs). PUMS data on household income for renter-occupied housing units by household size was collected for the PUMA that most closely approximated the study area.[1] The PUMS data was used to calculate the total number of low-income renters in the PUMA. This number was then adjusted to exclude low-income renters living in large buildings known to contain protected units, such as public housing, Section 202, and other HPD-owned housing. The share of low-income renter households in the PUMA was calculated (45.2 percent).[2] This proportion was applied to the total renter population in the study area, to estimate the low-income renter population in the study area (5,700).
2. **Estimate the low-income population living in unprotected rental units in the study area.** The low-income population living in unprotected rental units—the population potentially vulnerable to indirect residential displacement—was estimated by multiplying the proportion of rental units in the study area that are unprotected (63.2 percent) by the low-income renter population calculated above (5,700).

As shown in **Table 4-11**, based on this methodology there are an estimated 3,605 low-income renters living in unprotected units in the study area.[3]

[1] PUMS data for PUMA 4101 was used for this analysis. PUMA 4101 approximates Queens Community District 1, though the two are not coterminous. PUMA 4101 is roughly bounded by the East River to the north and east; 81st Street, Boody Street, and 51st Street to the east; Northern Boulevard and the Queensboro Bridge entrance to the south.

[2] Low-income households are defined as those that that meet the HUD-defined low (80 percent) income limits, by household size, for Queens county for FY2012.

[3] This methodology assumes the same income distribution for populations living in protected and unprotected rental units. As it is probable that a higher proportion of low-income renters live in protected units relative to unprotected units, this methodology may overestimate the population of low-income renters living in unprotected units in the study area.

Table 4-11
Estimated Population Potentially Vulnerable to Indirect Residential Displacement in the ½-Mile Study Area

Row	Population Identified	Components	Total for Study Area	Notes
1	Low-income population in renter-occupied housing units	Total population in renter-occupied housing units in study area	12,619	ACS 2007-2011 5-Year Estimates
2		Proportion of low-income renter population in PUMA	45.2%[1]	PUMA 4101 – Queens Community District 1, ACS 2007-2011 5-Year Estimates, provided by DCP and adjusted to exclude low-income renters in public housing and other protected housing developments
3		Study Area low-income renters	5,700	(Row 1) X (Row 2)
4	Population potentially at-risk of indirect residential displacement	Total unprotected units	2,979	From **Table 4-10**, above
5		Total rental units in the study area	4,710	ACS 2007-2011 5-Year Estimates
6		Proportion of rental units in the study area that are unprotected	63.2%	(Row 4) / (Row 5)
7		Low-income population living in unprotected rental units in the study area	3,605	(Row 3) X (Row 6)
8	Percentage of study area population potentially vulnerable to indirect residential displacement	Total population	15,589	ACS 2007-2011 5-Year Estimates
9		Proportion of total population who are low-income renters living in unprotected rental units	23.1%	(Row 7) / (Row 8)

Notes: 1. The PUMA data gives household income in the past 12 months (in 2011 inflation-adjusted dollars) for renter occupied housing units. PUMA 4101 includes the Astoria Houses Campus, the Ravenswood campus, the Woodside campus, and the Queensbridge North and South campuses—all NYCHA public housing developments. The PUMA also includes the Astoria Senior Residence, the Goodwill Terrace Apartments, the Catherine Sheridan House, Astoria Mac, HANAC Senior Housing, the Hour Apartments, the Monsignor Thomas Campbell Apartments, and the Saint George Senior Residence—all of which are protected housing. The total number of low-income renters in the PUMA was therefore adjusted to exclude low-income renters living in these protected units, based on data obtained from NYCHA and from HUD's Low-Income Housing Tax Credits (LIHTC) on-line database.

Sources: New York City Department of Finance Real Property Assessment Data (RPAD) 2012 database; 2007-2011 American Community Survey 5-Year Estimates; NYCHA, February 2013; HUD's LIHTC on-line database, last accessed on February 14, 2013; AKRF, Inc.

As stated in the *CEQR Technical Manual*, if the analysis described above indicates a low-income population in unregulated rental housing, additional analysis may be necessary to determine whether conditions in the study area, and consequently, the size of the population at risk, have changed since the date of the data used in the analysis. Current rents in the study area indicate that residents living in unprotected market-rate housing, particularly in mid- and high-rise buildings, are already paying high rents, suggesting that the analysis above overestimates the study area's vulnerable population. Therefore, the quantified analysis provided above is supplemented with a discussion of recent trends to determine whether a higher-income population has been introduced in areas with a vulnerable population. If so, it is possible that unprotected units potentially containing a vulnerable population have been turned over to higher-income households. The following characterizes demographics and residential market conditions for each of the census tracts in the study area.

Census Tract 77

Located south and east of the project site, Census Tract 77 is bounded by 31st Avenue to the north, Broadway to the south, 23rd Street to the east, and 12th Street to the west. This census tract experienced the second-highest rate of population growth in the study area, growing by 11.1 percent since 2000. This is likely due to several larger residential developments built since 2000, including the 32-unit Sterling Tower at 21-16 31st Avenue and the 60-unit Tower 21at 14-56 31st Drive. Between 2000 and 2007-2011, median household income increased by 21.1 percent—the second highest increase in the study area. The percentage of population with incomes below the poverty level decreased over this time, to 8.8 percent—the second lowest in the study area.

Reflecting population growth, Census Tract 77 saw the second highest percentage increase in housing units between 2000 and 2010. In terms of tenure, this census tract saw a 7.6 percent shift toward renter-occupied housing units. The vacancy rate increased from 4.7 percent in 2000 to 10.1 percent in 2010. Over half of the buildings in Census Tract 77 contain one to four units, and 78 percent of those were built in 1930 or before. Only nine percent of buildings were built in 2000 or later, but these recently-built buildings account for 45 percent of total units in the census tract.

According to the methodology outlined above for estimating the number of unregulated housing units, approximately 469 units, or 70 percent of total residential units and 93 percent of renter-occupied units in Census Tract 77 are unprotected. While some of these units may contain low-income populations vulnerable to displacement, the increase in median household income indicates that the newer unregulated residential developments contain higher-income populations that would not be vulnerable to rent increases. For example, the 32-unit Sterling Tower mentioned above, and the 35-unit Victoria are both recently-built market rate rental buildings in this census tract. As these households are paying market-rate prices, they are not likely part of a low-income population who would be vulnerable to displacement if rent were to rise.

Census Tract 79

Census Tract 79 is located north of Census Tract 77, and is bounded by 30th Avenue to the north, 31st Avenue to the south, 23rd Street to the east, and 12th Street to the west. Between 2000 and 2010, population remained relatively stable in this census tract, as the number of total households increased and the average household size decreased. This was the only census tract in the study area to experience both a decrease in median household income and an increase in residents living below the poverty level between 1999 and 2007-2011.

The housing stock in Census Tract 79 is similar to Census Tract 77 in terms of age and number of units in buildings, though Census Tract 79 has the highest percentage of buildings built in 1930 or before in the study area. This census tract saw a 19.5 percent increase in total housing units between 2000 and 2010, and had the second lowest vacancy rate in the study area in 2010 (8 percent). In 2010, 79.2 percent of occupied housing units in Census Tract 79 were renter-occupied. Though there is a concentration of older buildings in this tract, there are also examples of new residential development, including the Astor, a 37-unit rental development at 12-26 30th Avenue, the 65-unit Thirty-Fifty apartments, located at 30-50 21st Street, and the Astoria, a 27-unit condominium building at 21-24 30th Avenue.

According to the methodology outlined above for estimating the number of unregulated housing units, approximately 732 units, or 56 percent of all residential units and 72 percent of renter-occupied units in Census Tract 79 are unprotected. Recently-built rental developments, such as

the Astor described above, would not contain a population vulnerable to rent increases. In addition, residents living in the 88-unit Astoria Senior Residence, an affordable housing development for seniors, would be protected from rent increases.

Census Tract 81

Census Tract 81, located south of the project site, is bounded by Astoria Boulevard to the north, Broadway to the South, 12th Street to the east, and the waterfront to the west. This census tract has experienced the highest rate of population growth in the study area, with a 21.5 percent increase in population since 2000, due largely to the industrial uses in the area that have been transitioning to residential and commercial use since 2000. Census Tract 81 also experienced the highest increase in median household income in the study area, reflecting the fact that the demographic moving into the converted industrial space and the new residential units are more affluent households. Between 2007 and 2011, only 2.8 percent of residents in Census Tract 81 were below the poverty level—the lowest percentage in the study area.

Reflecting population growth, Census Tract 81 saw the highest percent increase in housing units between 2000 and 2010. In 2010, this census tract had the highest vacancy rate in the study area, with many of the vacant units for sale or for rent according to Census 2010 data, which may reflect the fact that recently-completed residential units remained on the market for an extended period of time. The housing stock in this tract is mixed in age, with 50 percent of buildings built in or before 1930. Only eight residential buildings were built in 2000 or after, though these buildings account for 41 percent of residential units in the tract. As described above, the 20-story East River Tower completed in 2007 contains 70 condominium units, the eight-story development at 11-15 Broadway contains 82 rental units, and the seven-story 72-unit development at 30-85 Vernon Boulevard contains condominium and rental units. Other than the new, higher-density residential buildings, most of the housing stock in this tract is in smaller buildings, with 85 percent of buildings containing one to four units. This census tract also contains the former Sohmer Piano Factory, which was converted to condominiums and then to rentals, as discussed above.

According to the methodology outlined above for estimating the number of unregulated housing units, approximately 340 units, or 57 percent of all residential units and 81 percent of all renter-occupied housing units in Census Tract 81 are unprotected. As described above, there are several larger residential developments that have been recently built in the tract, including the 70-unit East River Tower, the 82-unit development at 11-15 Broadway, and the 72-unit development at 30-85 Vernon Boulevard—all relatively close to the waterfront or with views of the waterfront. Blocks with lower-rise, older housing stock further inland have experienced recent development as well, such as the seven-unit RIA Condominium development at 11-42 31st Avenue. The recently-built rental buildings, including 11-15 Broadway and 30-85 Vernon Boulevard, contain market-rate units that rent at the high end of the market, so it is reasonable to assume that they are occupied by more affluent households that could afford rent increases.

Census Tract 83

Census Tract 83 is located east of the project site, and is bounded by 26th Avenue to the north; 30th Avenue and Astoria Boulevard to the south; 21st Street to the east; and 8th Street and 9th Street to the west. This census tract experienced a 5.3 percent decline in population between 2000 and 2010. This was reflected in a decrease in household size during the same time, while total households increased slightly. Median household income increased slightly since 2000, while total residents living below the poverty level decreased at a higher rate. The census tract

experienced a 22.7 percent increase in total housing units, and a slight shift to more renters than owners. Census Tract 83 had the second highest vacancy rate in the study area, which increased from one of the lowest in 2000.

The housing stock in Census Tract 83 is similar to 81 in that they have a similar percentage of small buildings (with one to four units), with the main difference being that a larger proportion (about 72 percent) of residential buildings in Census Tract 83 were built in 1930 or before. Only 8 percent of residential buildings in Census Tract 83 were built in 2000 or after, and these account for 27 percent of the residential units in the tract. The majority of recently built residential buildings in this census tract have been developed north of Astoria Boulevard and along 21st Avenue. These include the 117-unit Exo Astoria, an 18-unit development at 27-16 12th Street, and four recently-built two-family units on the corner of 12th Street and 27th Avenue. Older, unprotected units are located south of Astoria Boulevard and are interspersed with industrial uses.

In Census Tract 83, an estimated 625 units, or 51 percent of all residential units and 67 percent of renter-occupied units are unprotected. However, the 117 market-rate units in the Exo Astoria can be assumed to be occupied by more affluent households.

Census Tract 87

Census Tract 87 occupies the southern portion of the Halletts Point peninsula and contains most of the project site, including the NYCHA Parcel (including the Parks Parcel), the Eastern Parcel, and most of the Waterfront (WF) Parcel. Population in this census tract increased slightly between 2000 and 2010, and average household size decreased. Median household income in Census Tract 87 was the lowest in the study area in both years of analysis. Compared with other tracts in the study area, Census Tract 87 had the largest percentage of residents with incomes below the poverty level between 2007 and 2011 (34.9 percent), although the percentage decreased from 46.5 percent in 2000. In addition, Census Tract 87 had the lowest vacancy rate in the study area in 2010, with just 3.3 percent of housing units vacant.

Other than the project site blocks, which include the Astoria Houses Campus, vacant land and buildings, publicly accessible open space, and underutilized industrial uses, the remaining blocks in this census tract contain primarily industrial uses, as well as some residential and institutional uses. Reflecting the presence of the Astoria Houses Campus and other larger developments, this census tract contains only 41 residential buildings, but a total of 1,600 residential units. Excluding the Astoria Houses, the tract contains 496 residential units, 208 of which are part of the Goodwill Terrace Apartments, which houses low-income people and people with disabilities and other needs; 28 units of the 128-unit Bridgeview I development at 421 27th Avenue are Section 8 housing. These buildings are rent-protected and residents living in these units would not be considered vulnerable populations. The tract also contains RiverPoint Condominiums, a four-story development built in 2007 that fronts 27th Avenue between 2nd and 3rd Streets and contains 52 market-rate units. The RiverPoint Condominiums are owner-occupied and would therefore not contain any vulnerable populations.

Using the methodology above, an estimated 110 units, or 7 percent of all residential units and 7 percent of the renter-occupied units in Census Tract 87 are unprotected. While this census tract contains a significant low-income population, most of this population lives in rent-protected housing.

Census Tract 91

Census Tract 91 is located north and east of the project site, and contains Whitey Ford Field, part of the project site. This tract experienced a 2.4 percent growth in population between 2000 and 2010, a rate slightly higher than the study area and Queens as a whole, but comparable with all of New York City. Census Tract 91 had the highest rate of home ownership in the study area, with 33.4 percent of occupied units owner-occupied.

Census Tract 91 contains older housing stock than Census Tracts 81 and 87, with 64 percent of buildings built in 1930 or before. Only 9 percent of residential buildings were built in 2000 or later, accounting for 9 percent of residential units. While 87 percent of residential buildings contain one to four units, these only account for 36 percent of the residential units in the tract. This is due to the presence of Shore Towers, located at 25-40 Shore Boulevard. This building was built in 1989 and contains 404 luxury condominium and rental units. Other than Shore Towers, many of the buildings are older, detached, single-family homes that have been converted to multi-family dwellings.

Based on the methodology above, an estimated 703 units, or 56 percent of all residential units and 79 percent of renter-occupied units in Census Tract 91 are not rent-protected. However, this may be skewed by the rental units in Shore Towers, which would not be likely to contain a low-income population vulnerable to rent increases.

CONCLUSION: POPULATION AT RISK

The analysis above suggests that many of the unprotected units in the study area are already occupied by populations that are not likely to be vulnerable to rent increases. For example, renters living in recently built market-rate rental buildings the Astor and the Exo Astoria are paying market rate prices, and would likely be able to afford rent increases. However, based on income data and the estimate of unprotected units, there may still be populations living in certain areas that could not afford rent increases. As shown in **Table 4-11**, there are an estimated 3,605 renters in the study area who may be vulnerable to indirect residential displacement. While the PUMS data cannot be used to identify the specific locations of such populations within the study area, the analysis of individual census tracts above suggests that some unprotected rental units do not contain populations vulnerable to indirect residential displacement. In areas containing these recently-built market rate rental developments, real estate data suggest that there is an existing trend towards residential development, for both new development and industrial conversions, which has introduced a more affluent population to the study area since 2010 and 2011 (the latest years in which the PUMS and ACS data were collected). As discussed above, reports from local brokerage firms and websites indicate that residential development trends accelerated throughout 2012, as buyers and renters seeking luxury units in Long Island City migrated to Astoria, and property owners reacted to the increased demand by renovating existing buildings and building new where possible. This is evident in the new residential development that can be found concentrated along the waterfront and the major commercial corridors, as well as throughout most portions of the study area. Almost all blocks in the study area contain new construction or renovation, indicating the extent of the existing trend. Therefore, while the detailed analysis results in an estimated population at risk of 3,605 residents living in approximately 2,979 units in the study area, it is likely that there are fewer households that would be potentially vulnerable to indirect residential displacement.

Based on the analysis above, Census Tracts 77, 81, and 91 contain the highest percentage of renter-occupied units that are not protected by rent-control or rent-regulation in the study area.

Census Tract 91 has proportionately fewer residential units built since 2000, suggesting that while new development has occurred in the surrounding area, it has occurred at a slower pace or on a smaller scale in this tract. This may be due to the fact that the area is largely built up, leaving little land for new development, especially as this tract has fewer former industrial sites for conversion. In addition, Census Tract 91 was largely unaffected by development following the 2010 Astoria Rezoning, which resulted in modest density increases for areas of Astoria generally east and south of these two tracts, including census tracts 77, 79, and 81. Most of Census Tract 91 was not rezoned as part of the 2010 Astoria Rezoning, with the exception of a portion of 14th Place that was rezoned for three- to five-story apartment buildings, and a few parcels on 18th Street that were rezoned with commercial overlays. The western portion of this tract is still zoned M1-1. As a result, these two census tracts offer few opportunities for development that would introduce a more affluent population.

Census Tracts 77, 79, 81, and 83, which form the mid and southern portions of the study area, were affected by the Astoria Rezoning. In Census Tract 83, areas that were rezoned were kept at a low density, allowing for three-story row houses (between 27th Avenue and Astoria Boulevard) and three- to five-story apartment buildings (along 14th Place), and large portions of the tract were not rezoned. The Exo Astoria rental development, which contains 117 market-rate units, was recently built in a R7X zoning district that was not affected by the Astoria Rezoning. In Census Tract 83, 240 residential units were built between 2000 and 2010, signifying an existing trend towards increased residential development.

Census Tracts 77, 79, and 81 also experienced relatively high increases in residential units since 2000. Census Tract 81 is located along the waterfront, which was rezoned to R7A. Census Tracts 77 and 79 include portions of 21st Street, which was also rezoned to R7A. Census Tracts 77 and 81 experienced the highest increases in total housing units between 2000 and 2010. As discussed above, developments like Sterling Tower, 11-15 Broadway, and 30-85 Vernon Boulevard are recently-built market rate rentals that are not likely to house a vulnerable population. These census tracts also experienced the highest increases in median household income over the same time. For these reasons, it can be assumed that a portion of the unprotected units in these census tracts do not contain populations of renters vulnerable to rent increases. In Census Tract 79, the estimate of unprotected rental units is likely too high due to luxury rental developments like the Astor, as well as the protected units in the Astoria Senior Residence. However, the income characteristics of this census tract suggest that there may be a vulnerable population living in unprotected units.

THE FUTURE WITHOUT THE PROPOSED PROJECT

Since potential impacts of the proposed project are assessed in relation to the future without the proposed project, this section considers trends affecting rents and potential displacement that may occur in the future, absent the proposed project. Absent the proposed project, it is anticipated that the project site will continue to be occupied by existing uses. However, other development projects planned in the study area are expected to add ~~1,941~~ 2,331 housing units by 2022. At least ~~538~~ 643 of these units are expected to be affordable housing.

In the No Build condition, based on the No Build projects presented in Table 2-1 and Figure 2-1 in Chapter 2, "Analytical Framework," throughout the study area there is a planned residential development. Census Tract 77 will gain 256 residential units by 2022, including a 190-unit rental building in the western portion of the tract, closest to the waterfront. Census Tract 79 will gain ~~173~~ 210 residential units, including two sites that are expected to be developed pursuant to

the zoning introduced by the 2010 Astoria Rezoning, and a 65-unit luxury rental development. Census Tract 81 will gain ~~277~~ 630 residential units by 2022, including three sites that are expected to be developed pursuant to the 2010 Astoria Rezoning, and are projected to add a total of ~~191~~ 544 residential units. By the 2022 Build year, 50 residential units will be added to Census Tract 83, as well as 30 supportive housing units. Census Tract 87, in the southern portion of the Halletts Point peninsula, will gain an additional 28 residential units on two sites, as well as 50 units of supportive housing. Census Tract 91 will gain 22 residential units. Census Tracts 87 and 91 will also gain a total of 1,135 housing units as part of the Astoria Cove planned mixed-use development that spans the two tracts.

As shown in **Table 4-12**, the dwelling units planned for the study area in the future without the proposed project would increase the study area population by an estimated ~~4,622~~ 5,535 residents, or ~~28.0~~ 33.6 percent.

Table 4-12
Population and Housing Growth: Future Without the Proposed Project

	Housing Units				Population			
	Existing Conditions	Additional by 2022	Total, 2022	Percent Change	Existing Conditions	Additional by 2022	Total, 2022	Percent Change
1/2-Mile Study Area	6,722	2,331	9,053	34.7%	16,487	5,535[1]	22,022	33.6%

Note: 1. The population added in the No Build condition includes 5,455 residents living in 2,331 residential units (assuming the average household size for Queens Community District 1 based on 2010 Census data of 2.34 persons) as well as residents living in 80 units of supportive housing.

These planned developments will continue the trend of increased residential development that has already occurred ~~in most parts of~~ throughout the study area. While more dense residential development will be concentrated along the waterfront and inland along 21st Street and 23rd Street due to zoning, new residential development has, and will continue to affect all portions of the study area. This broader study area trend is driven in large part by excess demand from buyers and renters seeking luxury units in Long Island City, the study area's similar proximity to midtown Manhattan and the waterfront, and relatively cheaper prices.

PROBABLE IMPACTS OF THE PROPOSED PROJECT

This section considers the effects of the proposed project along with conditions expected in the future without the proposed project, in order to determine whether the identified vulnerable population would be at risk of displacement under the proposed project. According to the *CEQR Technical Manual*, the assessment of the effects of the proposed project should consider how the real estate market conditions in the study area would change as a result of the proposed project, including whether land use or real estate market conditions would reduce the likelihood that a vulnerable population would be at risk of indirect displacement.

The project site includes the NYCHA Astoria Houses Campus, with 1,103 units that are protected from rent increases and therefore not subject to indirect residential displacement pressures. Moreover, the proposed disposition of the land for Buildings 6 and 7 to the Applicant and the anticipated future disposition of the land for Building 8 would provide revenue to support NYCHA's mission. Specifically, these dispositions and developments are part of NYCHA's plan for capitalizing its campus assets to generate revenue to maintain, improve, and preserve the Astoria Houses Campus and building stock.

The proposed project would result in the development of an additional 2,644 residential units in the study area, increasing the housing stock to ~~11,307~~ 11,697 residential units by 2022 and representing a ~~30.5~~ 29.2 percent unit increase over the No Build condition. Based on the 2010 average household size for Queens Community District 1 (2.34 persons per household), the proposed project would add up to 6,187 residents in the study area. As shown in **Table 4-13**, when compared with the population expected to reside in the study area in the No Build condition, the proposed project would result in a ~~29.3~~ 28.1 percent population increase in the ½-mile study area.

Table 4-13
Population and Housing Growth: Future With Proposed Project Condition

	Housing Units				Population			
	2022 No Build Condition Total	Build Additional	Total, 2022	Percent Change	2022 No Build Condition Total	Build Additional	Total, 2022	Percent Change
1/2-Mile Study Area	9,053	2,644	11,697	29.2%	22,022	6,187	28,209	28.1%

Note: Population growth was calculated by applying the average household size in Queens Community District 1 (2.34 persons) to the number of housing units anticipated to be added by the proposed project.

Generally, if the detailed assessment identified a vulnerable population potentially subject to indirect displacement that exceeds 5 percent of the study area—or relevant sub-areas, if the vulnerable population is located within the subarea identified—it may substantially affect the socioeconomic character of the study area and a significant adverse impact may occur. However, if it is determined that a project would not cause drastic changes in the real estate market (because of its mixed-income composition or due to land use or real estate market conditions in an area), the project may not affect rents for some or all of the existing vulnerable units.

As described above, there may be a population potentially at risk of indirect residential displacement in some portions of the study area, particularly areas that were not affected by the 2010 Astoria Rezoning and where new development is not expected to occur in the future. However, for the following reasons the proposed project would not be expected to initiate a trend toward increased rents that could generate significant adverse indirect residential displacement impacts:

- **The proposed project is geographically separated from a majority of the population potentially vulnerable to indirect displacement**. While the immediate proximity of the proposed project could lead to increased rents in Census Tract 87, the scale of any potential displacement of a vulnerable population would be relatively small, since only 7 percent of all housing units are estimated to be unprotected in this tract (most of the housing units in this census tract are located within the NYCHA Astoria Houses Campus and are therefore rent-protected). The potential scale of the proposed project's influence on rents in the remaining census tracts would be in large part a function of the project site's visibility from, and connectivity to, surrounding neighborhoods. In this respect, the proposed project's influence would be limited by the project site's relatively isolated location, bordered by the East River to the north, south, and west, and separated from the surrounding neighborhoods by the Astoria Houses Campus, the Bridgeview residential developments, and low-rise industrial uses in the portion of Census Tract 91 nearest to the project site. In addition, the topography of the peninsula separates the downhill slope west of 8th and 9th Streets and the upland portion to the east. Astoria Boulevard provides another topographical separation, as areas to the south (Census Tracts 77, 79, 81, and portions of 83) are downhill from the upland areas to the north (most of

Census Tract 83 and the eastern portion of 91). Astoria Boulevard is also lined with industrial uses as well as mixed and residential uses, further separating the residential markets to the north and south. The new development introduced by the proposed project may shift the focus of residential demand to other waterfront sites to the west, away from census tracts containing populations potentially at risk, which are generally located east of 9th Street in areas more influenced by trends in Astoria. As described above, waterfront development has increased in recent years and would be expected to continue with or without the proposed project. New inland development would generally be smaller in scale than waterfront development due to zoning and would be a clear continuation of existing development trends in areas surrounding 21st and 23rd Streets, discussed below.

- **There is already an existing trend in the study area toward residential development and the introduction of a more affluent population.** The portions of the study area along the waterfront (Census Tract 81) and east of 14th Street are experiencing varying degrees of new residential development that would be expected to continue in the future with or without the proposed project. Census Tract 81, south of the project site along the waterfront, received moderate density increases for residential buildings on blocks fronting Vernon Boulevard, adding to an already existing trend of high-density residential development with waterfront views. As described above, reports from local brokerage firms and websites indicate that buyers and renters seeking luxury units with proximity to Manhattan have migrated from Long Island City to Astoria, where sites are less expensive.[1] This has spurred new development along the waterfront. For example, the East River Tower, a 20-story, 70-unit luxury tower at 11-24 31st Avenue, ~~was~~ completed in 2007; the 82-unit development at 11-15 Broadway; and the 72-unit development at 30-85 Vernon Boulevard are all relatively close to the waterfront or provide views of the waterfront. This residential development would be expected to have an influence on areas directly east of the waterfront more than the proposed project, as evidenced by planned and under construction buildings like the 190-unit building under construction at the corner of Broadway and 12th Street.

  East of 14th Street, Census Tracts 77 and 79 also experienced modest increases in allowable FAR in the 2010 Astoria Rezoning, adding to the existing trend of higher density residential and mixed use development in this area. For example, the Livelle development, located at 30-11 21st Street, contains 33 luxury condominium units, built in 2007. In addition, the 32-unit Sterling Tower at 21-16 31st Avenue, the 60-unit Tower 21at 14-56 31st Drive, the 37-unit Astor rental development at 12-26 30th Avenue, and the 27-unit Astoria condominium building at 21-24 30th Avenue were all built since 2000 in these two census tracts. While there are areas in the western portions of these tracts where older housing stock was not affected by the rezoning, these areas would be more likely to be affected by increased residential development along the waterfront in Census Tract 81 and the general trends in the Astoria residential market than the proposed project.

  Though there are factors driving more dense residential development along the waterfront and the corridors of 14th, 21st, and 23rd Streets, new residential development is expected to continue in all portions of the study area irrespective of the proposed project, due to an increase in residential development in Astoria driven in part by excess demand from buyers and renters seeking luxury units in nearby Long Island City. As discussed below, these

[1] Sources: "Astoria Real Estate Market Sees Uptick in Luxury Properties, Report Says." *DNAinfo.com*. January 24, 2013. Accessed January 25, 2013 at dnainfo.com. 2012 End of Year Orange Report. Obtained from modernspacesnyc.com. Accessed January 25, 2013.

buyers and renters are looking to Astoria due to its proximity to midtown Manhattan and the waterfront, and its relatively less expensive prices compared to Long Island City. This demand for new, market-rate housing is expected to continue in the future with or without the proposed project.

Because of this clear pre-existing trend, it can be concluded that the proposed project would not be the catalyst triggering displacement pressures. Because the proposed project would not be creating a new development trend in the study area or adding a population group that will not already exist in the study area, it is also reasonable to conclude that its influence on ongoing displacement pressures within the overall study area would not be significant. While the proposed project may be expected to contribute to displacement pressures in areas nearest the project site, as described above, those areas nearest the project site have fewer lower-income residents living in unprotected rental housing relative to the study area as a whole.

- **Many of the study area's vulnerable populations live in housing stock that differs from newer residential uses.** Census Tracts 77, 79, 83 and 91 contain older, low-rise residential buildings that cater to a different demographic than the households attracted by the new residential towers, luxury apartments and condominiums, and residential conversions in the area. As redevelopment opportunities generally are limited to locations with commercial overlays in these neighborhoods, it is less likely that the proposed project would spur new residential development that could affect real estate trends outside of commercial overlays in these areas. In addition, the existing housing stock appeals to a different market than the households moving into the new residential units in the area, accounting for the fact that less turnover has occurred to more affluent households despite development in adjacent areas. The households added by the project site's market-rate units would likely reflect the newer demographic that has moved into recently-constructed residential buildings in Astoria. According to real estate professionals, these households are looking for residential units that compare to those in Manhattan, specifically new construction one-bedroom condominiums with amenities, many with waterfront views. These households would therefore be less interested in the housing stock, concentrated farther inland in Census Tracts 83 and 91, which consists primarily of pre-war, one- to three-family buildings with few amenities and limited retail and services. It is therefore less likely that the residential population added by the proposed project would affect real estate trends in these areas.
- **The proposed project would add affordable housing to the study area.** The proposed project would add 483 affordable housing units to the project site. It is expected that the proposed project would give preference for the sale or rental of 50 percent of the affordable units to current residents of Queens Community Board 1, thus providing an opportunity for long-term residents to remain in the area. Combined with the affordable units expected to be built in the study area in the No Build condition, the affordable units added to the study area by the proposed project would help ensure housing opportunities for lower-income households in the study area, and would help to maintain a more diverse demographic composition within the study area. Moreover, the proposed disposition of the land to the Applicant for Buildings 6 and 7 and the anticipated future disposition of the land for Building 8 would provide revenue to support NYCHA's mission. Specifically, these dispositions and developments are part of NYCHA's plan for capitalizing on its campus assets to generate the revenue to maintain, improve, and preserve the Astoria Houses Campus and building stock. ✷