Chapter 5: Open Space

A. INTRODUCTION

This chapter assesses the potential impacts of the Proposed Actions on open space resources. Open space is defined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, or sport or serves to protect or enhance the natural environment. Public open space is accessible to the public on a constant and regular basis, including for designated daily periods. Public open space may be under government or private jurisdiction and typically includes city, state and federal parkland, esplanades, and plazas designated through regulatory approvals such as zoning. Private open space is not publicly accessible or is available only to limited users. It is not available to the public on a regular or constant basis. Examples of private open space are natural areas with no public access, front and rear yards, rooftop recreational facilities, and stoops or landscaped grounds used by community facilities, such as public and private educational institutions, where the open space is accessible only to the institution-related population.

Open spaces can be characterized as either active or passive depending on the activities the space allows. In many cases, open space may be used for both active and passive recreation. Open space that is used for sports, exercise, or active play is classified as "active open space," and consists primarily of recreational facilities. Passive open spaces are used for relaxation, such as sitting or strolling. Active and passive open spaces are further defined in Section C, "Existing Conditions."

A proposed project's effects on open space may be either direct or indirect. Direct effects may occur when the proposed project would encroach on, or cause a loss of, open space. Direct effects may also occur if the facilities within an open space would be so changed that the open space no longer serves the same user population. Other direct effects include the imposition of noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability. Indirect effects may occur when the population generated by the proposed project overtaxes the capacity of existing open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. An open space assessment should be conducted if a project would have a direct effect on open space, such as eliminating or altering a public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

As discussed in Chapter 1, "Project Description," under the Reasonable Worst-Case Development Scenario (RWCDS), the Proposed Actions are expected to result in a net increase of approximately 3,500 dwelling units (DU), approximately 164,600 square feet (sf) of commercial space, approximately 105,000 sf of community facility space, and approximately 132,400 sf of industrial space. As discussed in more detail below, the incremental development exceeds CEQR thresholds for a preliminary assessment and a detailed open space analysis has been prepared for the Proposed Actions.

PRINCIPAL CONCLUSIONS

The Proposed Actions would not result in significant adverse open space impacts. As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. A detailed analysis was provided that considered the indirect effects of the population generated by the Proposed Action on open space resources. The analysis finds that the Proposed Actions would not result in significant adverse impacts on open space due to reduced total, active, and passive open space ratios.

An analysis on potential direct effects on open space was also prepared. While the Proposed Actions would result in significant adverse shadow impacts on open spaces, these direct effects would not result in significant adverse open space impacts. No other direct open space effects would result from the Proposed Actions.

DIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action may result in a significant adverse direct impact on open space resources if there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users, or an imposition of noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability.

The Proposed Actions would result in significant adverse impacts related to shadows on three open space resources: Eugene McCabe Field, El Catano Garden, and Jackie Robinson Garden. As discussed in Chapter 6, "Shadows," shadows on these resources would affect the utility of the open spaces. The analysis found that although the significant adverse shadow impacts would reduce the utility of the open spaces, the open spaces would continue to be available and provide for other passive or active open space uses and therefore would not be a direct significant adverse open space impact.

INDIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action may result in a significant indirect direct impact on open space resources if it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space.

As the Proposed Actions would introduce 1,543 new workers and 8,405 residents, an open space analysis was conducted for a non-residential (¼-mile) study area and residential (½-mile) study area. The quantitative assessment finds that the Proposed Actions would increase the residential and worker populations in their respective study areas and place additional demand on open space resources; however, the increased demand would not result in significant adverse impacts.

B. METHODOLOGY

DIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or

permanently affect the usefulness of a public open space. As no open space resources would be physically displaced as a result of the Proposed Actions, this chapter uses information from Chapter 6, "Shadows," Chapter 15, "Air Quality," and Chapter 17, "Noise," to determine whether the Proposed Actions would directly affect any open spaces within, or in close proximity to, the Project Area.

INDIRECT EFFECTS

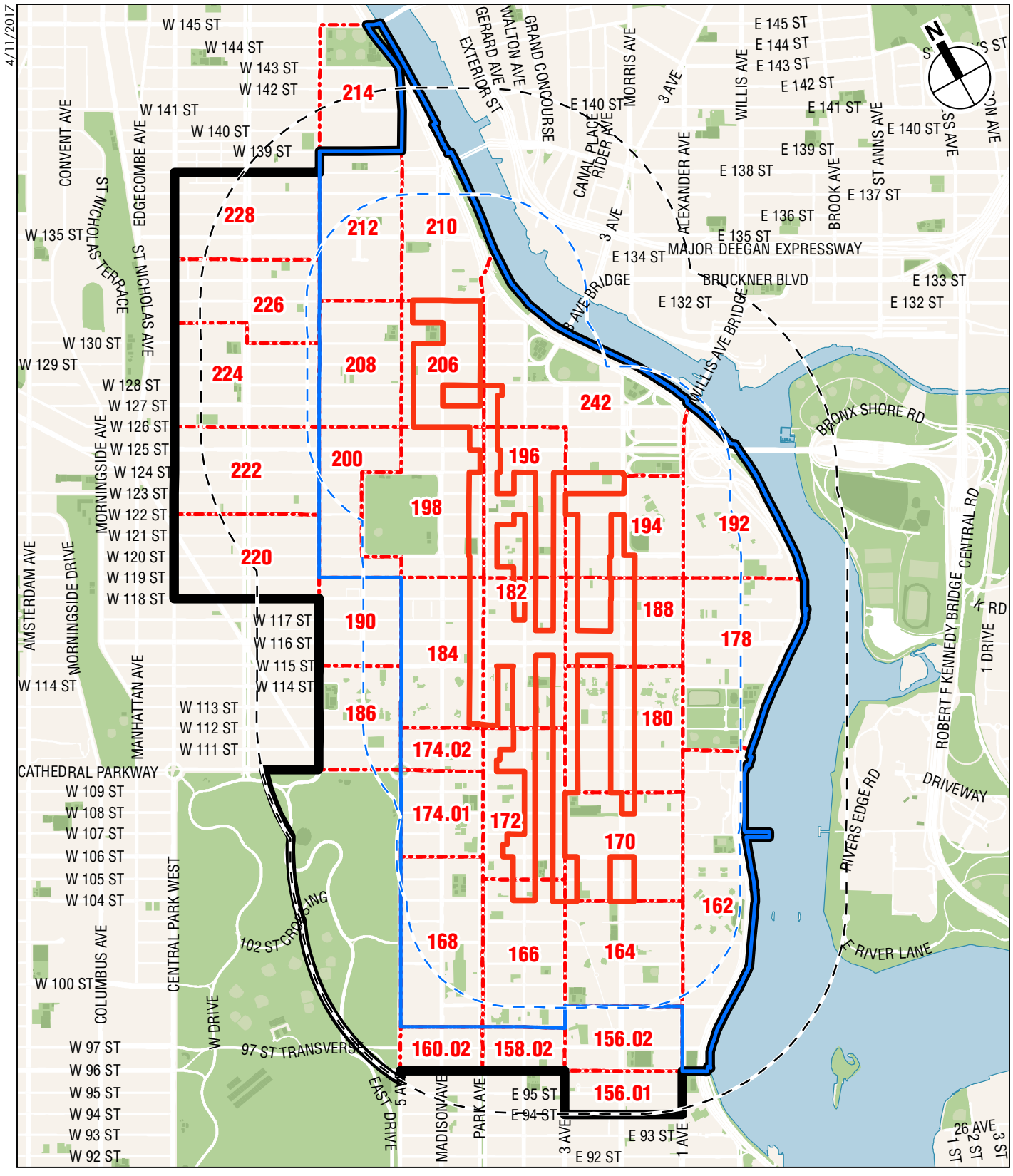
As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area; however, the thresholds for assessment are slightly different for areas of the City that have been identified as either underserved or well-served by open space. For areas underserved by open space, the threshold for assessment is more than 50 residents or 125 workers, and for areas well-served by open space, the threshold for assessment is more than 350 residents or 750 workers. If a project is not located within an underserved or well-served area, an open space assessment should be conducted if that project would generate more than 200 residents or 500 employees. While most of the Project Area is not located within an area that has been identified as either underserved or well-served, a small portion of the Project Area falls within an area defined as well-served.

Per *CEQR Technical Manual* guidelines, the open space analysis and impact assessment is based on the anticipated development from the projected development sites. As discussed in Chapter 1, "Project Description," the Proposed Actions would introduce up to 3,488 incremental residential units, which would introduce an estimated 8,405 residents to the Project Area, compared with the No Action Condition. In addition, the Proposed Actions would introduce approximately 1,543 new workers. As such, an open space assessment for both the residential and non-residential populations generated by the Proposed Actions is warranted.

STUDY AREAS

The *CEQR Technical Manual* recommends establishing a study area or areas as the first step in an open space assessment. The study areas are based on the distances that the respective users—workers and residents—are likely to walk to an open space. According to the *CEQR Technical Manual*, workers are assumed to walk approximately 10 minutes, or ¼ mile from their place of work to an open space, while residents are assumed to walk approximately 20 minutes, or ½ mile to an open space.

Because the Proposed Actions would introduce new worker and residential populations above the 200-resident and 500-worker thresholds, the adequacy of open space resources was assessed for both the ¼-mile (non-residential) and ½-mile (residential) study areas. These two study areas were adjusted to include all Census Tracts with at least 50 percent of their area within the ¼- or ½-mile boundary. In this way, the study areas allow for analysis of both the open spaces in the area as well as population data. As shown in **Figure 5-1**, the ¼-mile non-residential study area includes the area within Census Tracts 162, 164, 166, 168, 170, 172, 174.01, 174.02, 178, 180, 182, 184, 188, 192, 194, 196, 198, 200, 206, 208, 210, 212, and 242. The ½-mile residential study area includes all the Census Tracts identified within the non-residential study area, as well as the area within Census Tracts 156.01, 156.02, 158.02, 160.02, 186, 190, 220, 222, 224, 226, and 228.



EAST HARLEM REZONING

Open Space Study Area

Figure 5-1

As shown in **Figure 5-1**, the non-residential study area is generally bounded by Fifth Avenue and Lenox Avenue to the west, West 138th and West 145th Streets to the north, the East River to the east, and East 98th Street to the south. The residential study area is generally bounded by Frederick Douglass Boulevard to the west, West 138th and West 145th Streets to the north, the East River to the east, and East 94th Street to the south.

ANALYSIS FRAMEWORK

The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full, detailed analysis should be conducted. Because the Proposed Actions would introduce sizeable new residential and non-residential populations to the study area a preliminary analysis was not performed and a detailed analysis was conducted.

With an inventory of available open space resources and potential users, the adequacy of open space in the study areas can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that may affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this chapter includes:

- Characteristics of the two open space user groups: residents and non-residents. To determine the number of residents in the study areas, 2015 American Community Survey (ACS) data have been compiled for census tracts comprising the nonresidential and residential open space study areas. To determine the number of employees in the study area, ESRI Business Analyst was used to compile the number of employees within the census tracts comprising the nonresidential open space study area.
- An inventory of all publicly accessible passive and active recreational facilities in the non-residential and residential open space study areas.
- An assessment of the quantitative ratio of open space in the two study areas is conducted by computing the ratio of open space acreage to the population in each study area and comparing this open space ratio with certain guidelines. In New York City, local open space ratios vary widely, and the median ratio at the Citywide Community District level is 1.5 acres of open space per 1,000 residents. Typically, for the assessment of both direct and indirect effects, citywide local norms have been calculated for comparison and analysis. As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces, and is consequently used as an optimal benchmark for residential populations in large-scale proposals. Ideally, this would comprise 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents. For such large-scale projects (and for planning purposes), the City also seeks to attain its planning goal of a balance of 80 percent active open space and 20 percent passive open space. The City's planning goal is based, in part, on National Recreation and Park Association guidelines of 1.25 to 2.5 acres per 1,000 residents of neighborhood parks within one-half mile, 5 to 8 acres per 1,000 residents of community parks within one to two miles, and 5 to 10 acres per 1,000 residents of regional parks within a one-hour drive of urban areas. Studies have shown that nonresidents, specifically workers, tend to use passive open space. The optimal ratio for worker populations is 0.15 acres of passive open space per 1,000 nonresidents. The needs of

workers and residential populations are also considered together in each study area because it is assumed that both will use the same passive open spaces.

- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the non-residential and residential open space study areas in the Existing, No Action, and With Action conditions.
- An assessment of expected changes in future levels of open space supply and demand in the 2027 Analysis Year, based on other planned development projects within the open space study area. To estimate the population expected in the study areas in the future without the Proposed Actions, an average household size of 2.41 persons is applied to the number of new housing units expected in the study area located within Manhattan CD 11.[1] The worker population is estimated based on standard ratios of one employee per 250 sf of office, three employees per 1,000 sf of retail/supermarket/restaurant uses, one employee per 25 DUs, one employee per 2.67 hotel rooms (and 400 sf per hotel room), one employee per 1,000 sf of auto-related and industrial uses, one employee per 15,000 sf of warehouse uses, one employee per 11.4 students in Pre-K school uses, three employees per 1,000 sf of all other community facility uses, and one employee per 50 parking spaces. The worker population rates are based on rates utilized in the *East New York Rezoning Proposal FEIS* (CEQR No. 15DCP102K). Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also accounted for. Open space ratios are calculated for future No Action and With Action Conditions and compared them to determine changes in future levels of adequacy.

IMPACT ASSESSMENT

Impacts are based in part on how a project would change the open space ratios in the study areas. According to the *CEQR Technical Manual*, an open space ratio decrease is generally considered to be a significant adverse impact, warranting a detailed analysis, if it would approach or exceed 5 percent. If a study area exhibits a low open space ratio, indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidelines. It is recognized that the open space ratios of the City guidelines presented are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space. When assessing the effects of a change in the open space ratio, the assessment should consider the balance of passive and active open space resources appropriate to support the affected population and the condition of existing open spaces within the study area. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations such as the distribution of open space, whether an area is considered "well-served" or "underserved" by open space, the distance to regional parks, the connectivity of open space, and any additional open space provided by the project, should be considered in a determination of significance.

[1] Assumes 2.41 Persons per Household in Manhattan CD 11 (2010 Decennial Census).

C. EXISTING CONDITIONS

STUDY AREA POPULATION

NON-RESIDENTIAL (¼-MILE) STUDY AREA

Non-Residential Population

As shown in **Table 5-1**, based on 2015 census data compiled by ESRI Business Analyst, the existing worker population for the non-residential open space study area is estimated at approximately 40,235 workers.

Residential Population

As also shown in **Table 5-1**, 2015 ACS data indicates that the non-residential study area has a residential population of approximately 125,251 persons.

Total User Population

Within the non-residential study area, the total population (residents plus workers) is estimated at 165,486 (see **Table 5-1**). Although this analysis conservatively assumes that the residents and employees are separate populations, it is possible that some of the residents live near their workplace or work from home. As a result, there is likely to be some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

Table 5-1
Study Area Residential and Non-Residential Populations

Census Tract[1]	Residential Population	Non-Residential (Worker) Population	Total Population
¼-Mile Nonresidential Study Area			
162	9,195	1,309	10,504
164	6,901	1,244	8,145
166	7,313	1,511	8,824
168	4,693	3,800	8,493
170	7,824	2,469	10,293
172	5,655	2,269	7,924
174.01	4,127	901	5,028
174.02	2,309	448	2,757
178	3,825	1,767	5,592
180	8,275	1,435	9,710
182	7,206	1,470	8,676
184	7,796	883	8,679
188	5,452	1,827	7,279
192	4,066	2,177	6,243
194	6,861	4,281	11,142
196	4,327	1,318	5,645
198	2,513	1,976	4,489
200	3,176	605	3,781
206	2,949	1,051	4,000
208	5,320	496	5,816
210	7,084	251	7,335
212	4,412	1,269	5,681
242	3,972	5,478	9,450
Non-Residential Study Area Totals	**125,251**	**40,235**	**165,486**

Source: U.S. Census Bureau, ACS 2011-2015 Five-Year Estimates.

RESIDENTIAL (½-MILE) STUDY AREA

Non-Residential Population

As shown in **Table 5-2**, based on 2015 census data compiled by ESRI Business Analyst, the existing worker population for the residential open space study area is estimated at approximately 60,415 workers.

Residential Population

As also shown in **Table 5-2**, 2015 ACS data indicate that the residential study area has a residential population of approximately 178,229 persons.

Total User Population

As shown in **Table 5-2**, above, within the residential study area, the total population (residents plus workers) is estimated to be 238,644. Although this analysis conservatively assumes that residents and daytime users are separate populations, as noted earlier, it is possible that some of the residents live near their workplace or work from home. As a result, there is likely to be some double-counting of the daily user population in the study area, resulting in a more conservative analysis.

Table 5-2
Study Area Residential and Non-Residential Populations

Census Tract[1]	Residential Population	Non-Residential (Worker) Population	Total Population
½-Mile Residential Study Area			
156.01	5,408	1,847	7,255
156.02	2,217	4,413	6,630
158.02	4,808	1,327	6,135
160.02	3,562	640	4,202
162	9,195	1,309	10,504
164	6,901	1,244	8,145
166	7,313	1,511	8,824
168	4,693	3,800	8,493
170	7,824	2,469	10,293
172	5,655	2,269	7,924
174.01	4,127	901	5,028
174.02	2,309	448	2,757
178	3,825	1,767	5,592
180	8,275	1,435	9,710
182	7,206	1,470	8,676
184	7,796	883	8,679
186	7,310	538	7,848
188	5,452	1,827	7,279
190	3,194	1,354	4,548
192	4,066	2,177	6,243
194	6,861	4,281	11,142
196	4,327	1,318	5,645
198	2,513	1,976	4,489
200	3,176	605	3,781
206	2,949	1,051	4,000
208	5,320	496	5,816
210	7,084	251	7,335
212	4,412	1,269	5,681
220	5,379	869	6,248
222	3,089	4,501	7,590
224	7,962	1,244	9,206
226	4,235	1,157	5,392
228	5,814	2,290	8,104
242	3,972	5,478	9,450
Residential Study Area Totals	**178,229**	**60,415**	**238,644**

Source: U.S. Census Bureau, ACS 2011-2015 Five-Year Estimates.

AGE BREAKDOWN

As shown in **Table 5-3**, people between the ages of 20 and 64 make up most (approximately 65.1 percent) of the residential population in the residential study area. Children and teenagers (0 to 19 years old) account for approximately 24.1 percent of the residential study area population, and persons 65 years and over account for approximately 11.1 percent of the residential study area population. As also presented in **Table 5-3**, the age breakdown of the residential study area includes a higher percentage of children and teenagers (approximately 24 percent), as compared with the Borough of Manhattan (approximately 17 percent) as a whole, but it has approximately the same percentage as New York City (approximately 24 percent) as a whole. For adults aged 20 to 64 the residential study area experiences a percentage lower than that of the Borough of Manhattan as a whole, but is higher than that of New York City as a whole. For the adult population 65 years and over the residential study area experiences a population percentage (approximately 11 percent) lower than that of either the Borough of Manhattan (approximately 14 percent) or New York City (approximately 13 percent).

Table 5-3
Study Area Residential Population Age Breakdown

Census Tract	Total Residential Population	Age Distribution												Median Age
		Under 5		5-9		10-14		15-19		20-64		65+		
		#	%	#	%	#	%	#	%	#	%	#	%	
156.01	5,408	130	2.4%	184	3.4%	87	1.6%	32	0.6%	4613	85.3%	352	6.5%	33.4
156.02	2,217	102	4.6%	100	4.5%	82	3.7%	95	4.3%	1545	69.7%	293	13.2%	37.0
158.02	4,808	250	5.2%	106	2.2%	91	1.9%	683	14.2%	3476	72.3%	212	4.4%	30.1
160.02	3,562	224	6.3%	118	3.3%	160	4.5%	96	2.7%	2511	70.5%	452	12.7%	30.5
162	9,195	616	6.7%	524	5.7%	598	6.5%	625	6.8%	5287	57.5%	1536	16.7%	35.5
164	6,901	345	5.0%	214	3.1%	642	9.3%	386	5.6%	4541	65.8%	787	11.4%	34.5
166	7,313	358	4.9%	373	5.1%	219	3.0%	336	4.6%	5514	75.4%	505	6.9%	32.1
168	4,693	183	3.9%	324	6.9%	286	6.1%	244	5.2%	2853	60.8%	803	17.1%	40.7
170	7,824	360	4.6%	180	2.3%	266	3.4%	469	6.0%	5007	64.0%	1541	19.7%	41.5
172	5,655	124	2.2%	458	8.1%	407	7.2%	322	5.7%	3834	67.8%	515	9.1%	32.8
174.01	4,127	136	3.3%	103	2.5%	235	5.7%	462	11.2%	2427	58.8%	759	18.4%	42.7
174.02	2,309	97	4.2%	127	5.5%	148	6.4%	143	6.2%	1492	64.6%	302	13.1%	31.1
178	3,825	237	6.2%	187	4.9%	138	3.6%	272	7.1%	2666	69.7%	329	8.6%	32.3
180	8,275	546	6.6%	538	6.5%	588	7.1%	629	7.6%	5354	64.7%	612	7.4%	30.4
182	7,206	231	3.2%	339	4.7%	713	9.9%	814	11.3%	4309	59.8%	793	11.0%	30.0
184	7,796	522	6.7%	405	5.2%	717	9.2%	655	8.4%	4537	58.2%	951	12.2%	32.6
186	7,310	819	11.2%	439	6.0%	468	6.4%	548	7.5%	4496	61.5%	548	7.5%	30.2
188	5,452	534	9.8%	300	5.5%	371	6.8%	98	1.8%	3615	66.3%	540	9.9%	30.8
190	3,194	204	6.4%	220	6.9%	185	5.8%	182	5.7%	2041	63.9%	355	11.1%	40.8
192	4,066	337	8.3%	232	5.7%	525	12.9%	427	10.5%	2163	53.2%	386	9.5%	28.5
194	6,861	542	7.9%	439	6.4%	336	4.9%	508	7.4%	4281	62.4%	755	11.0%	35.2
196	4,327	177	4.1%	134	3.1%	238	5.5%	268	6.2%	2553	59.0%	956	22.1%	39.5
198	2,513	176	7.0%	98	3.9%	45	1.8%	80	3.2%	1827	72.7%	284	11.3%	42.7
200	3,176	203	6.4%	175	5.5%	70	2.2%	137	4.3%	2322	73.1%	276	8.7%	42.1
206	2,949	186	6.3%	162	5.5%	218	7.4%	112	3.8%	2050	69.5%	221	7.5%	37.1
208	5,320	234	4.4%	271	5.1%	314	5.9%	197	3.7%	3916	73.6%	399	7.5%	33.8
210	7,084	560	7.9%	475	6.7%	630	8.9%	659	9.3%	3868	54.6%	886	12.5%	32.0
212	4,412	318	7.2%	247	5.6%	93	2.1%	40	0.9%	2837	64.3%	882	20.0%	40.7
220	5,379	463	8.6%	274	5.1%	151	2.8%	280	5.2%	3717	69.1%	484	9.0%	37.0
222	3,089	238	7.7%	130	4.2%	284	9.2%	185	6.0%	2005	64.9%	238	7.7%	35.7
224	7,962	677	8.5%	637	8.0%	557	7.0%	581	7.3%	4992	62.7%	525	6.6%	29.2
226	4,235	326	7.7%	174	4.1%	195	4.6%	267	6.3%	2926	69.1%	343	8.1%	35.5
228	5,814	308	5.3%	320	5.5%	250	4.3%	279	4.8%	4041	69.5%	622	10.7%	37.5
242	3,972	298	7.5%	338	8.5%	381	9.6%	258	6.5%	2359	59.4%	346	8.7%	37.5
Residential Study Area Totals	178,229	11,061	6.2%	9,345	5.2%	10,688	6.0%	11,369	6.4%	115,975	65.1%	19,588	11.1%	35.1
Total for Manhattan	1,629,507	82,898	5.1%	61,563	3.8%	58,992	3.6%	72,223	4.4%	1,123,676	68.9%	230,155	14.1%	36.6[1]
Total for NYC	8,426,743	555,811	6.6%	482,767	5.7%	465,647	5.5%	487,092	5.8%	5,363,721	63.7%	1,071,705	12.7%	35.8

Notes:
1. Average for study area census tracts.
There may be a small discrepancy within the number values above due to rounding.

Source: U.S. Census Bureau, ACS 2011-2015 5-Year Estimates.

The higher percentage of children and teenagers in the study area is also evident when comparing the median age of the residential study area population to that of the Borough of Manhattan or New York

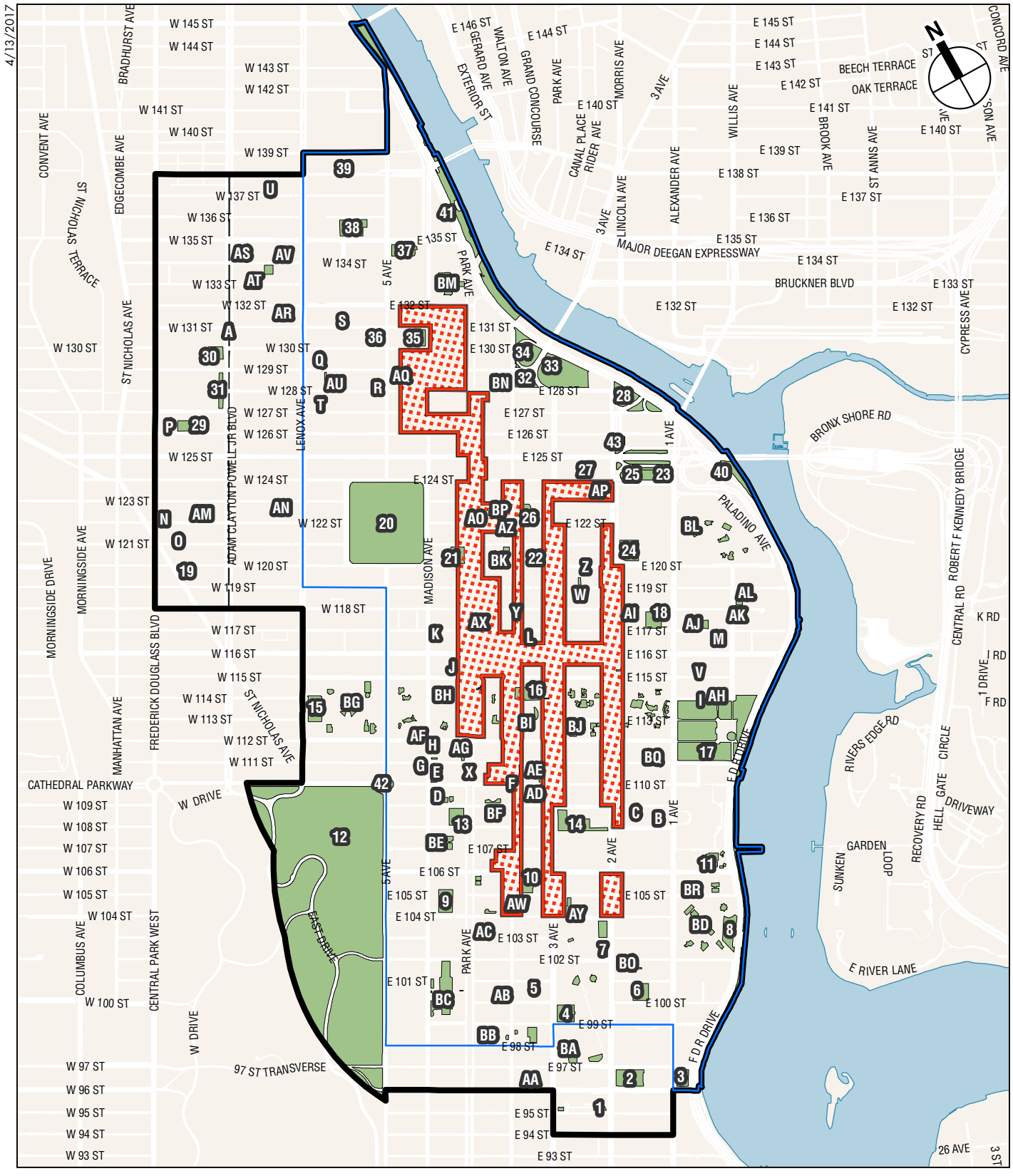
City. As shown in **Table 5-3**, the residential study area's average median age is 35.1, compared with 36.6 and 35.8 in the Borough of Manhattan and New York City as a whole, respectively. The residential study area median ages by census tract range from a high of 42.7 years (Manhattan Census Tract 198 and 174.01) to a low of 28.5 years (Manhattan Census Tract 192).

Within a given area, the age distribution of a population affects the need for various types of recreational facilities and the way open spaces are used. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages 10 through 14 use playground equipment, court spaces, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and roadways. Adults also gather with families for picnicking, ad hoc active sports, and recreational activities in which all ages can participate. Seniors engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

INVENTORY OF PUBLICLY ACCESSIBLE OPEN SPACE

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. In accordance with the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. As shown in **Figure 5-2**, the residential study area contains 18 NYCHA recreational areas. In addition to residential buildings, most NYCHA developments contain ancillary facilities for its residents such as community centers, childcare facilities, and recreational amenities, such as basketball courts and the landscaped grounds between buildings. Some NYCHA developments contain passive seating areas that are available for NYCHA residents and the public. Over time, playgrounds and small parks were carved out of larger NYCHA superblocks. Today, these open spaces are maintained for public use by the Department of Parks and Recreation (NYC Parks). In order to ensure a conservative analysis, open spaces on NYCHA developments that appear publicly accessible are considered in the qualitative assessment. Those resources intended for use by NYCHA residents are discussed qualitatively. Similarly, community gardens located on NYC Parks-controlled property, gardens operating under the City's GreenThumb, or gardens on private property operated by a non-governmental organization such as a foundation or local community development organization are considered in the qualitative assessment. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the non-residential and residential study areas.

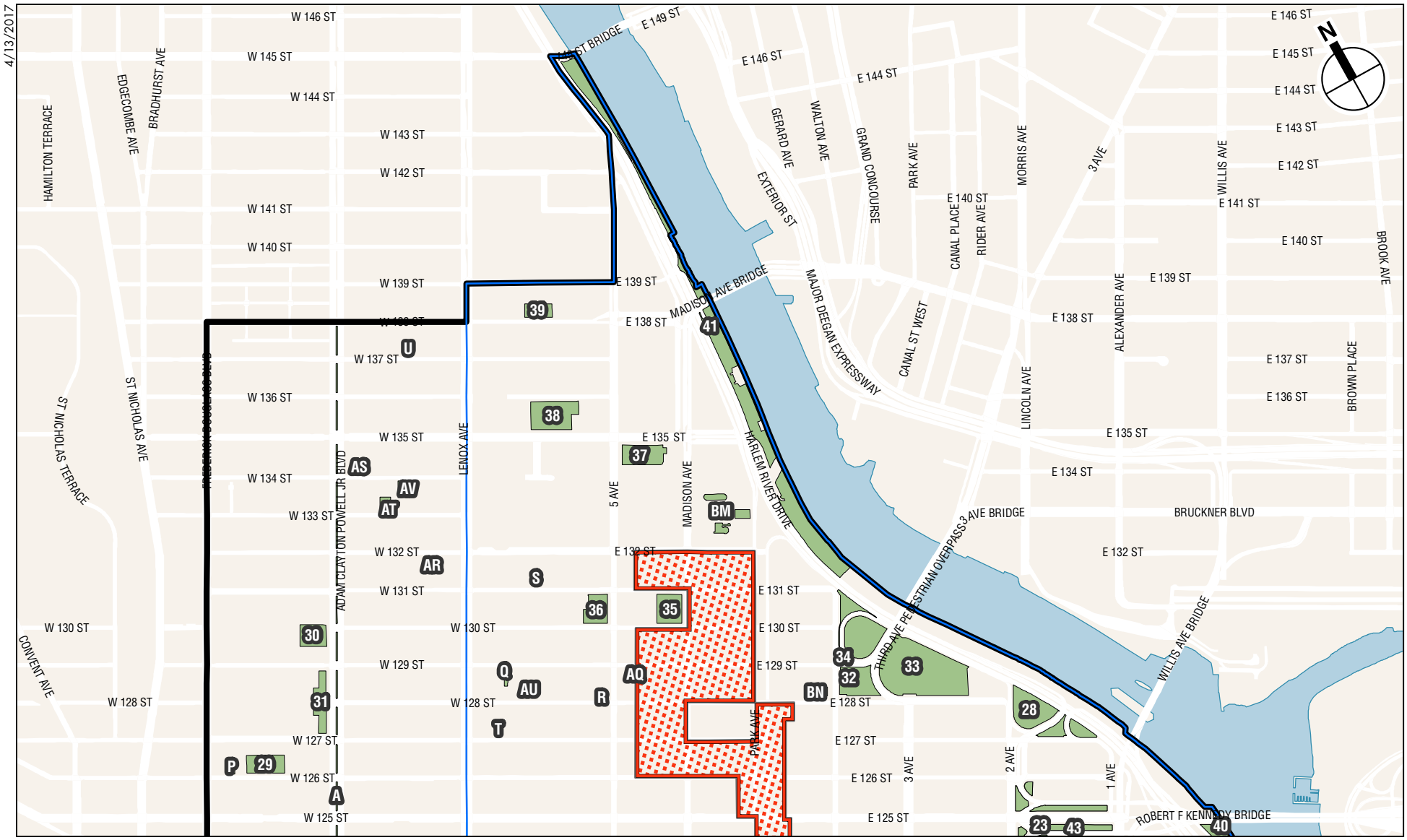
An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation; a green lawn or riverfront walkway, for example, can also be used for ball playing, jogging, or rollerblading.



EAST HARLEM REZONING

Open Space Study Area Resources

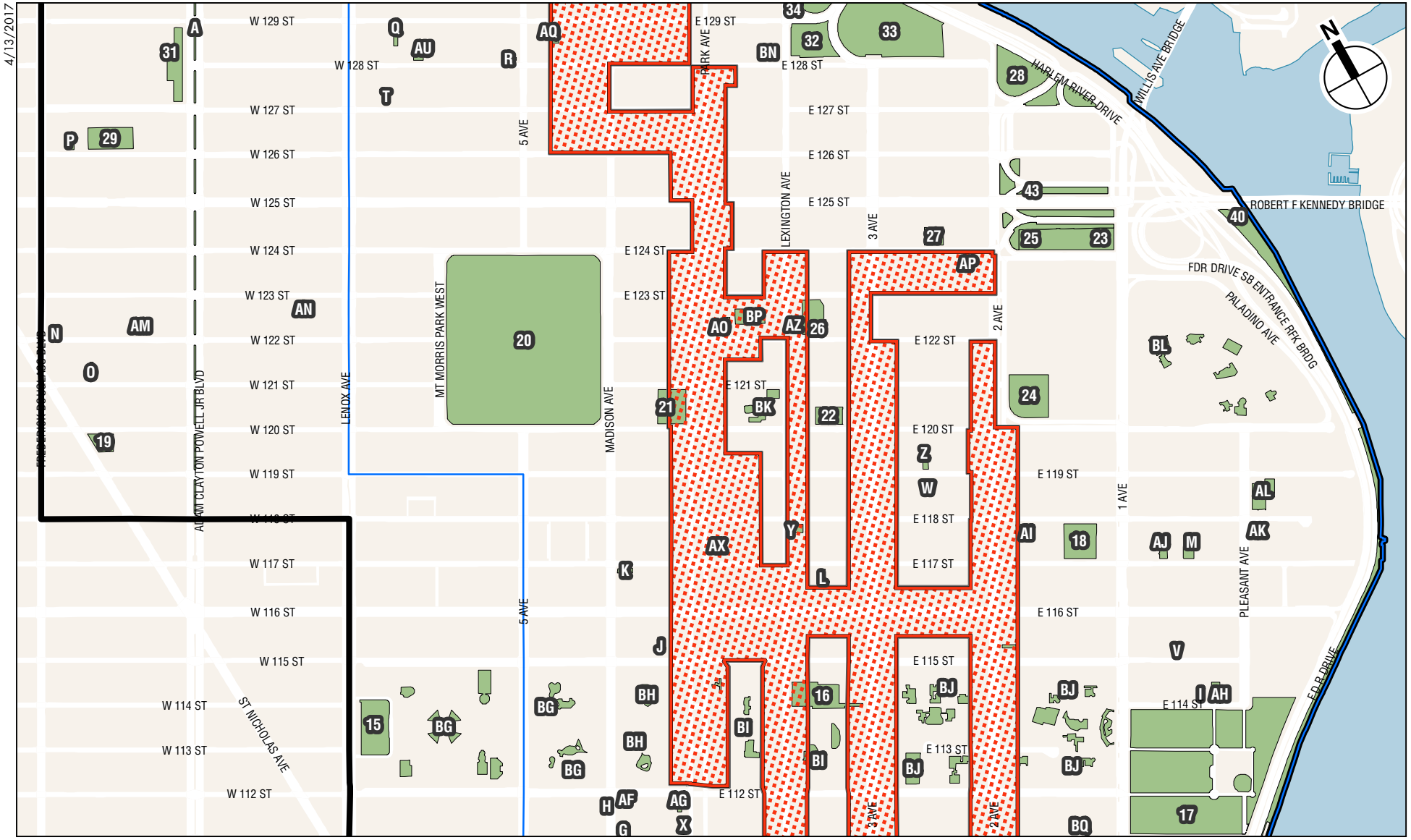
Figure 5-2



Open Space Resources - North of 125th Street Subarea

Figure 5-2a

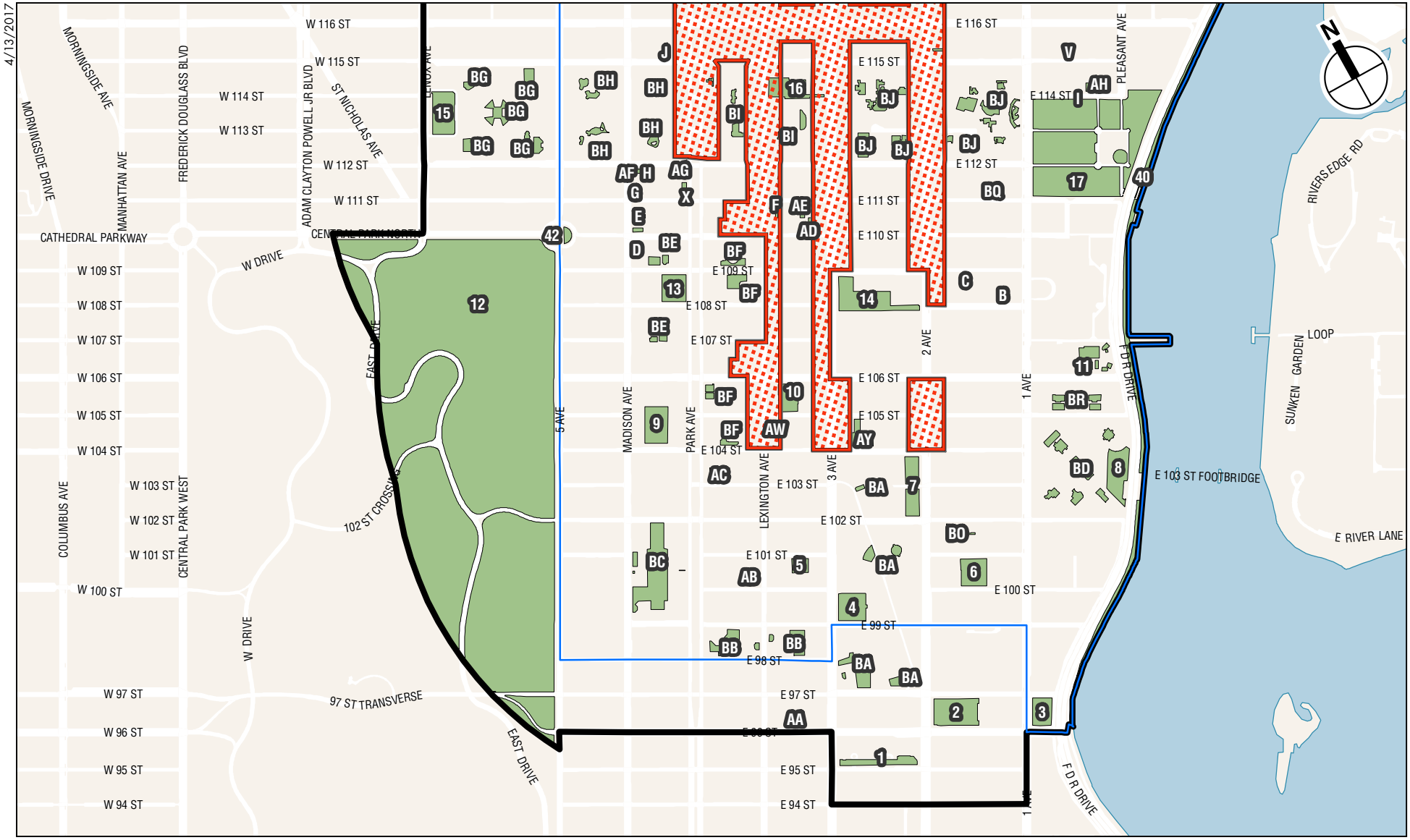
EAST HARLEM REZONING



Open Space Resources - Between East 125th Street and East 116th Street Subarea

EAST HARLEM REZONING

Figure 5-2b



Open Space Resources - South of 116th Street Subarea

Figure 5-2c

EAST HARLEM REZONING

All of the publicly accessible open space and recreational resources within the two defined study areas are shown in **Figure 5-2** and listed in **Table 5-4**.

NON-RESIDENTIAL (¼-MILE) STUDY AREA

As shown in **Table 5-4**, the non-residential study area contains a total of 76.82 acres of open space, of which approximately 19.14 acres (24.9 percent) are used for passive recreation and approximately 57.68 acres (75.1 percent) are used for active recreation. As shown in **Figure 5-2** there are 37 publicly accessible open space and recreational resources located within the non-residential study area.

Within the non-residential study area there are two open space resources that provide at least two acres of passive recreational space each: Marcus Garvey Park and the East River Esplanade. Marcus Garvey Park, the largest of these resources, is located west of the Project Area between Fifth and Madison Avenues and East 120th and East 124th Streets (Open Space Resource 20 in **Figure 5-2**). This 20.16-acre park has 10.08 acres of passive space (approximately 50 percent). Passive space amenities include numerous seating areas, walkways, grassy areas, and a lookout point. Other areas of the park are active and have a variety of amenities including basketball courts, fitness equipment, an outdoor pool, a baseball field, monuments, playgrounds, spray showers, dog-friendly areas, and a recreation center.

Table 5-4
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
1	Normandie Court Plaza	205 E. 95th St.	Private	Plaza, seating, planters	0.28	0.28	100%	0.00	0%	Good	Low	Residential
2	Marx Brothers Playground	2 Ave., E. 96th St. to E. 97th St.	NYC PARKS	Bathrooms, playgrounds, spray showers, baseball field	1.49	0.00	0%	1.49	100%	Good	Moderate	Residential
3	Stanley Isaacs Playground	1st Ave., E. 96th to E. 97th St.	NYC PARKS	Basketball courts, handball courts, roller hockey	1.23	0.00	0%	1.23	100%	Fair	Moderate	Non-Residential
4	Cherry Tree Park	E. 99th St. to E. 100th St., 3rd Ave.	NYC PARKS	Basketball courts, bathrooms, handball courts, playgrounds, spray shower	0.95	0.10	10%	0.86	90%	Good	Moderate	Non-Residential
5	Sunshine Playground	E. 101st St between Lexington and 3rd Aves.	NYC PARKS	Playground, seating areas	0.24	0.19	80%	0.05	20%	Poor	Low	Non-Residential
6	Harlem RBI	E. 100th St between 2nd and 1st Aves.	NYC PARKS	Baseball Field	0.90	0.00	0%	0.90	100%	Good	Moderate	Non-Residential
7	Blake Hobbs Playground	E. 102nd St. to E. 104th St. and 2nd Ave.	NYC PARKS	Basketball courts, handball courts, playgrounds	1.00	0.00	0%	1.00	100%	Fair	Moderate	Non-Residential
8	Playground 103	FDR Dr. bet. E. 102nd St. and E. 106th St.	NYC PARKS	Neighborhood park currently under rehabilitation through City's Community Parks Initiative	1.05	0.00	0%	1.05	100%	Under rehabilitation	Under rehabilitation	Non-Residential
9	Mae Grant Playground	E. 104th St., Madison Ave. and Park Ave.	NYC PARKS	Basketball courts, handball courts, playgrounds	0.97	0.10	10%	0.87	90%	Fair	Low	Non-Residential
10	White Playground	E. 105th St. to E. 106th St. bet. Lexington Ave. and 3rd Ave.	NYC PARKS	Basketball courts, handball courts, playgrounds	0.68	0.07	10%	0.61	90%	Excellent (new)	Moderate	Non-Residential
11	East River Playground (PS 146 Playground)	FDR Dr., E. 106th St. to E. 107th St.	NYC PARKS	Basketball courts, bathrooms, handball courts, playgrounds, spray showers	1.28	0.13	10%	1.15	90%	Fair	Moderate	Non-Residential
12	Central Park	Between 96th St. and 110th St., bet. 5th Ave and Lenox Ave.	NYC PARKS	East Meadow, Robert Bendheim Playground, North Meadow, Conservatory Garden, Lasker Rink, Bernard Family Playground, East 110th Street Playground, Charles A. Dana Discovery Center	90.52	66.98	74%	23.53	26%	Excellent	High	Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
13	PS 108 Peter Minuit Playground	Park Ave. bet. E. 108th St. and E. 109th St.	NYC PARKS	Basketball courts, and handball courts, playgrounds	0.94	0.00	0%	0.94	100%	Fair	Moderate	Non-Residential
14	Poor Richard's Playground	E. 109th St. bet. 2nd Ave. and 3rd Ave.	NYC PARKS	Basketball courts, bathrooms, handball courts, playgrounds, spray showers	1.58	0.16	10%	1.42	90%	Fair	Moderate	Non-Residential
15	Martin Luther King Playground	Lenox Ave, W. 113th St. to W. 114th St.	NYC PARKS	Basketball courts, bathrooms, handball courts, playgrounds, spray showers	1.00	0.10	10%	0.90	90%	**Under rehabilitation	**Under rehabilitation	Residential
16	James Weldon Johnson Playground	E. 115th St. bet. 3rd Ave. and Lexington Ave.	NYC PARKS	Basketball courts, playgrounds, handball courts, pathway, seating	1.05	0.26	25%	0.79	75%	**Under rehabilitation	**Under rehabilitation	Non-Residential
17	Thomas Jefferson Park	2180 1st Ave.	NYC PARKS	Barbecue areas, basketball courts, dog-friendly areas, football fields, outdoor pools, recreation centers, soccer fields, Wi-Fi hot spots, baseball fields, bathrooms, fitness equipment, handball courts, playgrounds, running tracks, spray showers	15.52	0.00	0%	15.52	100%	Good	High	Non-Residential
18	PS 155 Playground	E. 117th St. to E. 118th St., 1 Ave. to 2 Ave.	NYC PARKS	Basketball courts, bathrooms, handball courts, playgrounds, benches along side	0.83	0.08	10%	0.75	90%	Fair	Moderate	Non-Residential
19	Spirit Playground (P.S. 76 Community Playground)	240 W. 120th St.	DOE	Playground, benches, track	0.23	0.00	0%	0.23	100%	Good	Low	Residential
20	Marcus Garvey Park	18 Mt Morris Park W.	NYC PARKS	Basketball courts, bathrooms, dog-friendly areas, outdoor pools, recreation centers, Wi-Fi Hot Spots, Fitness equipment, Playgrounds, Spray Showers (*Partly under construction)	20.16	10.08	50%	10.08	50%	Good	High	Non-Residential
21	Eugene McCabe Field	1718 Park Ave.	NYC PARKS	Turf soccer field	0.79	0.00	0%	0.79	100%	Fair	Moderate	Non-Residential
22	Harlem Art Park	E. 120th St. and Sylvan Pl.	NYC PARKS	Seating, monument	0.35	0.35	100%	0.00	0%	Good	Low	Non-Residential
23	Othmar Ammann Playground	2435 1st Ave.	NYC PARKS	Playground, basketball courts, seating	0.86	0.22	25%	0.65	75%	Good	Moderate	Non-Residential
24	Wagner Playground	E. 120th St. bet. 1st and 2nd Aves.	NYC PARKS	Handball courts, playground, soccer field, seating plaza	1.27	0.06	5%	1.21	95%	Good	Moderate	Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
25	Wagner Houses Pool	E. 124th St. bet. 1st and 2nd Aves.	NYC PARKS	Bathrooms, outdoor pools	0.74	0.00	0%	0.74	100%	Fair	Low	Non-Residential
26	Dr. Ronald E. McNair Playground	Lexington Ave. bet. E. 122nd St. and E. 123rd St.	NYC PARKS	Playground, lawn, benches	0.60	0.30	50%	0.30	50%	Very good	Moderate	Non-Residential
27	Dream Street Park	E. 124th St between 3rd and 2nd Aves.	NYC PARKS	Open lawn, pathway, playground	0.27	0.27	100%	0.00	0%	Fair	Low	Non-Residential
28	Crack is Wack Playground	E. 127th St., 2nd Ave., and Harlem River Drive.	NYC PARKS	Basketball, playground, seating, plantings, used for staging	1.37	0.14	10%	1.23	90%	Good	Low	Non-Residential
29	P.S. 154 Playground (Community Playground)	250 W. 127th St.	DOE	Basketball, playground, play court	0.75	0.00	0%	0.75	100%	Fair	Low	Residential
30	St Nicholas Playground North	2190 Adam Clayton Powell Boulevard.	NYC PARKS	Tennis court and comfort station (under construction)	0.66	0.00	0%	0.66	100%	Under renovation	Moderate	Residential
31	St. Nicholas Playground South	2180 Adam Clayton Powell Boulevard.	NYC PARKS	Basketball court, swings, playground	0.67	0.00	0%	0.67	100%	Good	Moderate	Residential
32	Alice Kornegay Triangle	Lexington Ave., E. 128th St. to E. 129th St.	NYC PARKS	Bathrooms, playgrounds, handball courts, spray showers	1.05	0.00	0%	1.05	100%	Good	Low	Non-Residential
33	Harlem River Park	E. 128th St., 2nd Ave., 3rd Ave., Harlem River Drive	NYC PARKS	Soccer fields, basketball, handball	4.62	0.00	0%	4.62	100%	Good	High	Non-Residential
34	Each One Teach One	Lexington Ave., E. 129th St. to E. 130th St.	NYC PARKS	Playground	1.43	0.14	10%	1.29	90%	Good	Moderate	Non-Residential
35	Moore Playground	Madison Ave. bet. E. 130th St. and E. 131st St.	NYC PARKS	Basketball courts, playgrounds, spray showers	0.77	0.08	10%	0.69	90%	Good	Moderate	Non-Residential
36	Courtney Callender Playground	5th Ave., W. 130th St. to W. 131st St.	NYC PARKS	Playground, benches, basketball court, swings, handball courts	0.65	0.10	15%	0.55	85%	Good	Moderate	Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
37	Abraham Lincoln Houses Playground	5th Ave. and E. 135th St.	NYC PARKS	Monument, playgrounds, basketball courts	0.42	0.00	0%	0.42	100%	Fair	High	Non-Residential
38	Howard Bennett Playground (PS 197 Playground)	W. 135th St. to W. 136th St., Lenox Ave. to 5th Ave.	NYC PARKS	Playground benches basketball court tennis courts playground benches basketball court tennis and handball courts	1.23	0.18	15%	1.05	85%	Good	Moderate	Non-Residential
39	William McCray Playground	W. 138th St., bet. Lenox Ave. and 5th Ave.	NYC PARKS	Playgrounds, basketball courts, swings	0.46	0.09	20%	0.37	80%	Fair	Low	Non-Residential
40	East River Esplanade	East River; bet. 96th and 125th St.	NYC PARKS	Greenway	5.86	2.93	50%	2.93	50%	Good	Moderate	Non-Residential
41	Harlem River Drive Park	East River; bet. E. 135th and E. 145th St.	NYC PARKS	Greenway	2.18	1.09	50%	1.09	50%	Good	Low	Non-Residential
42	Duke Ellington Circle	110th St and Fifth Ave.	NYC PARKS	Statue, stairs/seating area	0.27	0.27	100%	0.00	0%	Good	Low	Non-Residential
43	Triboro Plaza	1st Ave. to 2nd Ave, bet. E. 124th St. and E. 126th St.	NYC PARKS	Plaza Area	1.76	1.76	100%	0.00	0%	Good	Low	Non-Residential
Non-residential (¼-Mile) Study Area Totals					**76.82**	**19.14**	**25%**	**57.68**	**75%**			
Residential (½-Mile) Study Area					**170.93**	**86.50**	**51%**	**84.42**	**49%**			
Qualitative Open Space Resources												
A	Seventh Avenue Plots	7th Avenue bet. 117th St. and 138th St.	NYC PARKS	Planted Median (Greenstreets)	0.74	0.74	100%	0.00	0%	Good	Low	Residential
B	Humacao Community Garden	335 E. 108th St.	GreenThumb	Garden, seating area	0.12	0.12	100%	0.00	0%	Fair	Low	Non-Residential
C	Neighbors of Vega Baja	E. 109th St bet. 1st and 2nd Aves.	GreenThumb	Garden	0.07	0.07	100%	0.00	0%	Good	Low	Non-Residential
D	110th Street Block Association	1651 Madison Ave.	GreenThumb	Garden	0.05	0.05	100%	0.00	0%	Poor	Low	Non-Residential
E	Pueblo Unido	1659 Madison Ave.	GreenThumb	Garden	0.05	0.05	100%	0.00	0%	Fair	Low	Non-Residential
F	Family Community Garden	159 E. 111th St.	GreenThumb	Garden	0.02	0.02	100%	0.00	0%	Fair	Low	Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
G	The Little Bluehouse Lot Community Garden	1675 Madison Ave.	GreenThumb	Garden, seating area	0.07	0.07	100%	0.00	0%	Fair	Low	Non-Residential
H	Chenchitas' Group Garden	1693 Madison Ave.	GreenThumb	Garden, seating area	0.22	0.22	100%	0.00	0%	Fair	Low	Non-Residential
I	Family Garden Sponsored by Tiffany & Co.	431 E. 114th St.	NYRP	Planted areas, seating	0.05	0.05	100%	0.00	0%	Good	Low	Non-Residential
J	La Cuevita Community Garden	71 E. 115th St.	GreenThumb	Garden	0.06	0.06	100%	0.00	0%	Fair	Low	Non-Residential
K	Peaceful Valley Community Garden	1781 Madison Ave.	GreenThumb	Garden	0.07	0.07	100%	0.00	0%	Good	Low	Non-Residential
L	Corozal Family Garden	170 E. 117th St.	GreenThumb	Garden, small house, seats	0.05	0.05	100%	0.00	0%	Good	Low	Non-Residential
M	East Harlem Community Garden	429—433 E. 117th St.	NYRP	Garden, seating area	0.14	0.14	100%	0.00	0%	Good	Low	Non-Residential
N	Our Little Green Acre	279 W. 122nd St.	NYC PARKS	Garden	0.05	0.05	100%	0.00	0%	Fair	Low	Residential
O	Five Star Garden	255 W. 121st St.	Manhattan Land Trust (Trust For Public Land)	Gazebo, garden	0.01	0.01	100%	0.00	0%	Good	Low	Residential
P	Harlem Mandela Garden	265 W. 126th St.	GreenThumb	Garden	0.15	0.15	100%	0.00	0%	Good	Low	Residential
Q	Edward P. Bowman Park	52 W. 129th St.	GreenThumb	Garden, seating	0.05	0.05	100%	0.00	0%	Excellent	Low	Non-Residential
R	Collyer Brothers Park	2080 5th Ave.	NYC PARKS	Seating, shubbery	0.03	0.03	100%	0.00	0%	Excellent	Low	Non-Residential
S	United Block Group Association	39 W. 131st St.	Grow NYC	Garden	0.02	0.02	100%	0.00	0%	Good	Low	Non-Residential
T	Harlem Grown Garden 1	75 W. 127th St.	Harlem Grown	Garden	0.04	0.04	100%	0.00	0%	Good	Low	Non-Residential
U	Elizabeth Langley Memorial Garden	123 W. 137th St.	GreenThumb	Gazebo, seating, garden	0.11	0.11	100%	0.00	0%	Good	Low	Residential
V	New Frontiers Community Garden	427 E. 115th St	Hope Community Inc.	Benches, pathway	0.08	0.08	100%	0.00	0%	Good	Low	Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
W	Papo's Garden	220 E. 119th St	Manhattan Land Trust (Trust For Public Land)	Garden	0.09	0.09	100%	0.00	0%	Good	Low	Non-Residential
X	Corner Green Garden (Friendly Garden—El Jardin Simpatico)	95 E. 111th Street	GreenThumb	Garden	0.16	0.16	100%	0.00	0%	Good	Low	Non-Residential
Y	El Gallo	1895 Lexington	NYC PARKS	Garden, benches	0.08	0.08	100%	0.00	0%			Non-Residential
Z	La Casita Community Garden	223 E. 119th St.	NYRP	Community Garden (*Closed until April 2017)	0.06	0.06	100%	0.00	0%	Good	None*	Non-Residential
AA	Monterey Public Garden	E. 96th St. between Lexington and 3rd Aves	Monterey 96 St LLC	Planting, seating	0.20	0.20	100%	0.00	0%	Good	Low	Non-Residential
AB	Maggie's Magic Garden	1574 Lexington Ave.	NYRP	Garden, seating	0.18	0.18	100%	0.00	0%	Good	Low	Non-Residential
AC	103rd St Community Garden	101 East 103rd St.	GreenThumb	Grass area, playground (Construction—closed till April)	0.38	0.19	50%	0.19	50%	Good	Low	Non-Residential
AD	El Cantano Community Garden	171 E. 110th St.	GreenThumb	Garden, chairs, gazebo	0.05	0.05	100%	0.00	0%	Good	Low	Non-Residential
AE	Herb Garden	176 E. 111th St	NYRP	Garden	0.08	0.08	100%	0.00	0%	Good	Low	Non-Residential
AF	Mission Garden	1691 Madison Ave	GreenThumb	Garden	0.16	0.16	100%	0.00	0%	Good	Low	Non-Residential
AG	Villa Santurce/ Villa Santurce Jardina	72 E. 112th St./1546 Park Ave.	GreenThumb	Garden	0.10	0.10	100%	0.00	0%	Good	Low	Non-Residential
AH	Rodale Pleasant Park Community Garden	437 E 114th St.	GreenThumb	Benches, planted gardens	0.11	0.11	100%	0.00	0%	Good	Low	Non-Residential
AI	Diamante Garden	305 E. 118th St.	GreenThumb	Benches, planted gardens	0.19	0.19	100%	0.00	0%	Good	Low	Non-Residential
AJ	Target Community Garden	415 E. 117th St.	GreenThumb	Seating, garden area	0.11	0.11	100%	0.00	0%	Excellent	Low	Non-Residential
AK	Los Amigos Community Garden	326 Pleasant Ave	GreenThumb	Gazebo, garden, seating, plants	0.04	0.04	100%	0.00	0%	Excellent	Low	Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
AL	Pleasant Village Community Garden	Pleasant Ave, bet E. 118 St. and E 119 St.	GreenThumb	Garden, urban farm	0.40	0.40	100%	0.00	0%	Good	Low	Non-Residential
AM	The Joseph Daniel Wilson Garden	219 W. 122nd St.	GreenThumb	Benches, garden	0.06	0.06	100%	0.00	0%	Fair	Low	Residential
AN	West 123rd St. Community Garden	112—116 W. 123rd Street	GreenThumb	Benches, paths, vegetation	0.14	0.14	100%	0.00	0%	Good	Low	Residential
AO	Jackie Robinson Garden	103 E. 122nd St.	NYC PARKS	Garden, seating area	0.05	0.05	100%	0.00	0%	Moderate	Low	Non-Residential
AP	Carver Community Garden	242 E 124th St.	Manhattan Land Trust	Community garden and farm, well maintained	0.30	0.30	100%	0.00	0%	Good	Low	Non-Residential
AQ	Harlem Rose Garden	6 E. 129th St.	GreenThumb	Benches, gardens	0.14	0.14	100%	0.00	0%	Good	Low	Non-Residential
AR	132 St Block Association Park	117 W. 132nd street	GreenThumb	Seating	0.17	0.17	100%	0.00	0%	Moderate	Low	Non-Residential
AS	Harlem Valley Garden	197 W. 134th St.	Living Lots NYC	Community garden	0.10	0.10	100%	0.00	0%	Fair	Moderate	Residential
AT	133rd Street Swing Garden (Margrichantie Memorial Garden)	155 W. 133rd St	NYC PARKS	Seating	0.20	0.20	100%	0.00	0%	Good	Low	Residential
AU	Unity Gardens	53 W. 128th St.	NYC PARKS	Grassy area, plants, benches	0.13	0.13	100%	0.00	0%	Excellent	Low	Non-Residential
AV	Harlem Success Garden	118 W 134th St.	Harlem Grown	Community garden	0.30	0.30	100%	0.00	0%	Good	Low	Residential
AW	Hope Community's Modesto "Tin" Flores Community Garden	1665 Lexington Ave.	Hope Community Inc.	Community Garden, art, stream, benches	0.08	0.08	100%	0.00	0%	Excellent	Low	Non-Residential
AX	Lydia's Magic Garden	1665 Park Ave.	GreenThumb	Community Garden, seating area	0.10	0.10	100%	0.00	0%	Good	Low	Non-Residential
AY	Un Sitio Feliz	203 E. 104th St.	GreenThumb	Garden, playground, amphitheater, and large vine-covered pergola	0.46	0.23	50%	0.23	50%	Good	Low	Non-Residential
AZ	Life Spire Garden	2015 Lexington Ave.	NYC PARKS	Garden, benches	0.02	0.02	100%	0.00	0%	Good	Low	Non-Residential
BA	Washington Houses play area	1773 3rd Ave.	NYCHA	Playgrounds, benches, planted gardens, picnic areas, chess tables	1.34	0.00	0%	1.34	100%	Good	Low	Residential/Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
BB	Lexington Houses (play area 1 and 2, plazas 1 and 2)	110 E. 99th St.	NYCHA	Seating, playground, children's garden	1.11	0.28	25%	0.83	75%	Good	Low	Non-Residential
BC	Carver Houses	Madison Ave., E. 99th St. to E. 104th St.	NYCHA	Playgrounds, seating, basketball court	2.39	0.36	15%	2.03	85%	Good	Low	Non-Residential
BD	East River Houses	1st Ave., E. 102nd St. to E. 105th St.	NYCHA	Playground, chess tables	1.04	0.00	0%	1.04	100%	Good	Low	Non-Residential
BE	Lehman Village Houses	Between Madison and Park Aves., and 107th St. to 110th St.	NYCHA	Basketball courts, playgrounds	0.53	0.00	0%	0.53	100%	Good	Low	Non-Residential
BF	Clinton Houses	Between Park Ave and Madison Ave; E. 104th St. to E. 106th St. and E.108th St. to E. 110th St.	NYCHA	Playground	0.76	0.04	5%	0.72	95%	Good	Low	Non-Residential
BG	King Towers	Between Lenox Ave. and 5th Ave., from W. 112th St. to W. 115th St	NYCHA	Basketball courts, playgrounds	1.18	0.00	0%	1.18	100%	Good	Low	Residential
BH	Taft Houses	Between 5th Ave. and Park Ave., from E. 112th St. to E. 115th St.	NYCHA	Playground	0.71	0.00	0%	0.71	100%	Good	Low	Non-Residential
BI	Johnson Houses	Between Park Ave. and 3rd Ave., from E. 112th St. to E. 115th St.	NYCHA	Playground	0.53	0.00	0%	0.53	100%	Good	Low	Non-Residential
BJ	Jefferson Houses	Between 3rd Ave. and 1st. Ave., from E. 112th St. to E. 115th St.	NYCHA	Seating, playgrounds, planted gardens, basketball courts	2.20	0.00	0%	2.20	100%	Good	Low	Non-Residential

Table 5-4 (cont'd)
Open Space Resources within the Non-Residential and Residential Open Space Study Area

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization	Study Area
						Acres	%	Acres	%			
BK	UPACA Houses seating area	Lexington Ave. 123rd St.	NYCHA	Seating area in small courtyard	0.32	0.32	100%	0.00	0%	Good	Low	Non-Residential
BL	Wagner Houses Open Space	2342 1st Ave.	NYCHA	Chess, seating, playgrounds	0.65	0.00	0%	0.65	100%	Fair	Moderate	Non-Residential
BM	Abraham Lincoln Houses play areas	2161 5th Ave.	NYCHA	Benches, playgrounds, basketball court, rest house	0.50	0.00	0%	0.50	100%	Good	Low	Non-Residential
BN	Jackie Robinson Houses Recreation Area	111 E. 128th St.	NYCHA	Playground, benches	0.13	0.12	95%	0.01	5%	Good	Low	Non-Residential
BO	Metro North Plaza Recreation Area	305 E. 101st St.	NYCHA	Playground	0.27	0.27	100%	0.00	0%	Good	Low	Non-Residential
BP	Park Avenue East Recreation Area	118 E. 123rd St.	NYCHA	Playground, seating	0.33	0.31	95%	0.02	5%	Good	Low	Non-Residential
BQ	335 East 111th Street Recreation Area	335 East 111th Street	NYCHA	Playground	0.09	0.09	100%	0.00	0%	Fair	Low	Non-Residential
BR	Wilson Houses	2040 1st Ave.	NYCHA	Playgrounds, Basketball courts	0.37	0.00	0%	0.37	100%	Good	Low	Non-Residential
Total Qualitative Open Space					**21.17**	**8.18**	**39%**	**12.99**	**61%**			

Notes: NYCHA = New York City Housing Authority
Sources: New York City Parks (NYC Parks), 2015 Primary land Use Tax Output (PLUTO) data, site visits conducted in December, 2016 and January 2017.

In the non-residential study area, the East River Esplanade runs along the FDR Drive between East 96th Street and 125th Street. The East River Esplanade is a greenway offering approximately 2.93 acres (50 percent) of passive recreation space. The next largest passive open space resource in the non-residential study area is Harlem River Drive Park, which provides approximately 1 acre of passive open space (approximately 50 percent of the resource is passive open space). Harlem River Drive Park is also a greenway located along the FDR Drive. Within the non-residential study area this park begins at East 135th Street and ends at East 145th Street. The entire portion of Harlem River Drive Park within the non-residential study area is included in the quantitative assessment.

Outside of the three open space resources mentioned above, the non-residential study area has many open space resources, many of which offer plenty of active recreational space. These include Thomas Jefferson Park, a 15.52-acre park that is located east of the Project Area between First Avenue, the FDR Drive, and East 111th and East 114th Streets. The park is a great resource for active park users with amenities like basketball courts, football fields, outdoor pools, soccer fields, baseball fields, handball courts, a running track, playgrounds, and fitness equipment.

The remaining open space resources within the non-residential study area are less than two acres in size. These resources are primarily programmed with active open space uses, with numerous basketball and handball courts, playgrounds, spray shows, ballfields, and running tracks, as well as an outdoor pool (Wagner Houses Pool).

RESIDENTIAL (½-MILE) STUDY AREA

The residential study area includes all open spaces in the non-residential study area as well as 6 additional resources (refer to **Table 5-4** and **Figure 5-2**). As shown in **Table 5-4**, the residential study area contains a total of approximately 170.93 acres of publicly accessible open space (including all of the open spaces listed in the non-residential study area). Of this total, approximately 86.50 acres (50.6 percent) are passive space and 84.42 acres (49.4 percent) are active space (see **Table 5-4**).

The largest open space resource in the residential study area is Central Park. Although Central Park extends outside of the residential study area, the portion that is within the study area boundary is approximately 90.52 acres. This portion of Central Park is comprised of a mix of passive and active open space features. Approximately 66.98 acres (74 percent) is reserved as passive open space and 23.53 acres (26 percent) is characterized as active open space. Some of the major features of Central Park include the East Meadow, a large, grassy area for passive activities like picnicking as well as organized youth sport activities on weekdays. In the winter, the East Meadow is closed; however, the lawn reopens for winter activities with a snowfall of six inches or more. Other recreational areas in the park include the Robert Bendheim Playground, the North Meadow, the Conservatory Garden, the Bernard Family Playground, Lasker Rink (and swimming pool), the Harlem Meer, and the East 110th Street Playground.

As mentioned in the discussion of the non-residential study area, the other two large open space resources in the residential study area are Marcus Garvey Park and Thomas Jefferson Park. Although other open space resources may not be as large, there are a total of 20 resources that offer one acre or more of recreational open space. These resources include Central Park (90.52 acres), Marcus Garvey Park (20.16 acres), Thomas Jefferson Park (15.52 acres), the East River Esplanade (5.86 acres), Harlem River Park (4.62 acres), Stanley Isaacs Playground (1.23 acres), Playground 103 (1.05 acres), East River Playground (1.28 acres), Poor Richard's Playground

(1.58 acres), Martin Luther King Playground (1.00 acres), James Weldon Johnson Playground (1.05 acres), Wagner Playground (1.27 acres), Crack is Wack Playground (1.37 acres), Howard Bennett Playground (1.23 acres), Blake Hobbs Playground (1.00 acres), Alice Kornegay Triangle (1.05 acres), Each One Teach One (1.43 acres), Triboro Plaza (1.76 acres), Marx Brothers Playground (1.49 acres), and Harlem River Drive Park (2.18 acres). Overall, these additional resources above one acre in size provide 13.86 acres of active recreational space and 10.49 acres of passive recreational space.

The remaining open spaces in the residential study area are a mix of active and passive space. Active uses generally include a mix of playgrounds and a basketball court or handball court, while passive uses are generally gardens, or seating areas (see **Table 5-4**).

ASSESSMENT OF OPEN SPACE ADEQUACY

NON-RESIDENTIAL (¼-MILE) STUDY AREA

As described above, the analysis of the non-residential study area focuses on passive open spaces that may be used by workers in the area. To assess the adequacy of open spaces in the area, the ratio of workers to acres of passive open space is compared with the City's planning guideline of 0.15 acres of passive space per 1,000 workers.

Quantitative Assessment

The non-residential study area includes a total of 76.82 acres of open space, of which approximately 19.14 acres (24.9 percent) are passive space. A total of 125,251 residents live within this study area, and 40,235 people work within the non-residential study area boundary; the combined residential and non-residential population is 165,486.

Based on *CEQR Technical Manual* methodology, the non-residential study area has a passive open space ratio of 0.476 acres per 1,000 workers, which is more than three times the City's guideline of 0.15 acres (see **Table 5-5**). As such, workers in the non-residential study area are well-served by open space under existing conditions. For informational purposes, the combined workers and residents passive open space ratio is 0.116 acres per 1,000 residents and workers, which is slightly lower than the recommended ratio of 0.15 acres per 1,000 combined users (see **Table 5-5**).

Table 5-5
Adequacy of Open Space Resources: Existing Conditions

		Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Workers	40,235	76.82	19.14	57.68	N/A	0.476	N/A	N/A	0.15	N/A
Combined Workers and Residents	165,486					0.116				
Residential (½-Mile) Study Area										
Residents	178,229	170.93	86.50	84.42	0.959	0.474	0.485	2.50	0.50	2.00
Combined Workers and Residents	238,644				N/A	0.362	N/A	N/A	0.50	N/A
Note: There may be a small discrepancy within the number values above due to rounding.										

Qualitative Assessment

As shown in **Table 5-4**, most of the non-residential study area open spaces are in good condition, and use levels are low to moderate at all of these facilities on the weekdays. These open space resources could potentially handle an increase in utilization by the daytime non-

residential population. The non-residential study area also includes several passive open space features, such as community gardens, benches, lawns, and pathways, which are suitable for use by the non-residential population in the area. In total, the non-residential study area contains 42 community gardens, adding an additional 4.63 acres of passively programmed open space. Generally, these community gardens include amenities such as vegetable gardens, flower gardens, seating areas, and gazebos. Four of the largest gardens, each at least 0.30 acres, within the non-residential study area are Un Sitio Feliz (0.46 acres), Pleasant Village Community Garden (0.40 acres), 103rd Street Community Garden (0.38 acres), and Carver Community Garden (0.30 acres).

The non-residential study area also contains numerous NYCHA developments located on large superblocks, including the Wagner and Jefferson Houses. These NYCHA campuses were developed as "towers in the park-in-park," with landscaped open space, trees, walkways, gardens and seating areas located between residential buildings. These areas are solely reserved for the use of NYCHA residents. The 17 NYCHA recreational areas located within the non-residential study area provide a total of 1.79 acres of passively programmed open space. Central Park, an additional resource, is located immediately outside the non-residential study area, and offers residents and workers opportunities for passive open space recreational uses such as sunbathing, boating, picnicking and relaxation.

Moreover, as noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

RESIDENTIAL (½-MILE) STUDY AREA

The following analysis of the adequacy of open space resources within the residential study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents, as well as the ratio of passive open space per 1,000 combined residents and workers.

Quantitative Assessment

With a total of 170.93 acres of open space, of which approximately 86.50 acres are for passive use (approximately 51 percent) and approximately 84.42 acres are for active use (approximately 49 percent), and a total residential population of 178,229, the residential study area has an overall open space ratio of 0.959 acres per 1,000 residents (see **Table 5-5**). This is lower than the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. The study area's residential passive and active open space ratios are 0.485 acres and 0.474 acres per 1,000 residents, respectively, which is just below the *CEQR Technical Manual* guideline of 0.5 acres of passive open space and well below the *CEQR Technical Manual* guideline of 2.0 acres of active open space per 1,000 residents. As such, there is an existing shortfall of both passive and active open space in the residential study area.

When employees who work within the residential study area are added to the population, the passive open space ratio is lower. As described earlier, workers typically use passive open space during the workday, so the passive open space ratio is the relevant ratio for consideration. With a combined worker and residential population of 238,644, the combined passive open space ratio in the residential study area is 0.362 acres per 1,000 users, which is below the recommended guideline of 0.5 acres per 1,000 residents and workers.

Qualitative Assessment

As discussed above under the quantitative assessment, approximately 49 percent of the open space in the residential study area is dedicated to active use and approximately 51 percent is dedicated to passive use. Although the residential study area contains a mix of recreational facilities, the open space ratios per 1,000 residents still fall well below the guideline goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents.

As shown in **Table 5-4**, the residential study area open spaces include a wide variety of actively programmed open spaces appropriate for the residential user groups, including children, teenagers and adults. As noted above, the study area includes a high percentage of children and teenagers, as compared with the borough of New York City as a whole (refer to **Table 5-3**). The percentage of teenagers and young adults is particularly marked, with 15 to 19 year olds comprising over 6 percent of the study area population. As indicated in the *CEQR Technical Manual*, teenagers and young adults tend to use court facilities, such as basketball courts, and sports facilities, such as football or soccer fields. Thirty of the residential study area's 64 open spaces include such facilities (see **Table 5-4**). In addition, and as noted in **Table 5-4**, most are in good condition with low to moderate utilization rates.

The deficiency of open space resources within the residential study area is partially ameliorated by several factors. Approximately 14.46 acres of open space is contained within the boundaries of 18 NYCHA recreational areas, ranging in size from 0.13 acres to 2.39 acres. Of this number, approximately 12.67 acres are reserved for active open space and recreation. The open spaces within these NYCHA housing complexes generally offer access to playgrounds and basketball courts, with some benches for seating. These facilities are conservatively excluded from the quantitative analysis because they are for the sole use of NYCHA residents; however, NYCHA developments are a significant presence in the residential study area and house thousands of New Yorkers.

As noted above, a significant number of active open spaces are available to NYCHA residents in the residential study area. These active recreational open spaces are not included in the quantitative analysis. As presented in **Table 5-4**, the 70 open space resources total approximately 21.17 acres, including approximately 8.18 acres of passively programmed open space and approximately 12.99 acres of actively programmed open space. Active open space amenities include a number of playgrounds and ball courts. Passive open space amenities include 51 community gardens and NYCHA gardens, walkways, and seating areas. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by people that live and work in the residential study area.

It should also be noted that a significant portion of Central Park is located in the vicinity of the Project Area and provides additional active and passive open space resources. Approximately 90.52 acres of Central Park's 843 total acres is located within a ½ mile of the Project Area, and includes hiking trails, bike paths, meadows, barbecuing areas, playgrounds, fitness equipment, historic houses, ice skating rinks, outdoor pools, eateries, spray showers, nature centers, and numerous programmed athletic fields, including softball, baseball, and football fields, tennis, basketball, and handball courts. As Central Park is considered a "destination park," residents would be expected to travel farther than the extent of the residential study area (either by vehicle, transit, or bike) to enjoy its open space and recreational amenities.

Moreover, as noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size

of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO ACTION CONDITION)

STUDY AREA POPULATION

In the No Action Condition, it is expected that current land use trends and general development patterns will continue. These trends and patterns are characterized by a mix of uses and primarily include residential, commercial, and community facility development. As detailed in Chapter 1, "Project Description," it is anticipated that, in the No Action Condition, the projected development sites would contain 2,472 DUs, 385,009 square feet of retail space, 76,559 square feet of office space, 32,974 square feet of hotel space, 10,592 square feet of auto-oriented commercial uses, 57,614 square feet of commercial storage space, 7,395 square feet of community facility uses, and 22,777 square feet of industrial space.

In total, the combined as-of-right development on the projected development sites is expected to introduce approximately 5,959 residents and 1,723 workers.[2] In addition to as-of-right development on projected development sites, there are a total of 63 anticipated development projects within the non-residential study area and 83 anticipated development projects within the residential study area. As indicated in in **Table 5-6**, the anticipated No Action development is expected to increase the non-residential study area population to 48,489 workers and 195,234 combined workers and residents. The residential study area population is expected to increase to 205,309 residents and 275,805 combined workers and residents. [3] [4]

OPEN SPACE RESOURCES

Two open spaces are expected in the No Action Condition, however, only one of the resources is included in the quantitative assessment. An approximately 0.28-acre open space resource is anticipated in connection with a planned mixed-use project spanning all or portions of three blocks between East 124th and East 127th Streets and Second and Third Avenues (Blocks 1790,

[2] The total residential population of 5,959 was determined by multiplying the total number of No Action dwelling units (2,472 DUs) on the 60 projected development sites by the average number of persons per household (2.41) for Manhattan Community District 11. The total worker population of 1,723 was determined by multiplying the total No Action square footage on the 60 projected development sites by the standard worker generation rates utilized in the *East New York Rezoning Proposal FEIS* (CEQR No. 15DCP102K) and described in Section B. "Methodology".

[3] The No Action non-residential study area worker population is the sum of the existing worker population (40,235), the worker population (8,254) associated with No Action developments on the projected development sites and planned No Build projects within the study areas. The combined user (workers and residents) population is the sum of the existing non-residential study area user population (165,486) and the user populations (29,748) introduced to the non-residential study area in the No Action condition.

[4] The No Action residential population is the sum of the existing residential population (178,229), the residential population (27,080) associated with known No Build and the No Action square footage on the projected development sites. The combined user population is the sum of the existing residential study area population (238,644) and the user population (37,161) introduced to the residential study area in the No Action condition.

1791, and Block 1789) (see Table 2-7). With the additional 0.28 acres of passive open space, the total passive acreage in the non-residential would increase to 19.42 acres. The passive acreage in the residential study area would increase to 86.78 acres.

Table 5-6
Adequacy of Open Space Resources: No Action Condition

	Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Workers	48,489	77.10	19.42	57.68	N/A	0.401	N/A	N/A	0.15	N/A
Combined Workers & Residents	195,234					0.099				
Residential (½-Mile) Study Area										
Residents	205,309	171.21	86.78	84.42	0.834	0.423	0.411	2.50	0.50	2.00
Combined Workers & Residents	275,805				N/A	0.315	N/A	N/A	0.50	N/A
Note: There may be a small discrepancy within the number values above due to rounding.										

In addition, an approximately 0.41-acre passive open space is planned for the block bounded by East 126th and East 127th Streets and the FDR Drive and Second Avenue (see Table 2-7). The planned open space would serve as a memorial for the African Burial Ground. However, the memorial has not been assumed in the quantitative open space assessment as the access/hours of operation have not been determined. The projects are anticipated to be complete by the 2027 Analysis Year. Outside of these known planned projects, no other changes to the non-residential and residential study areas are anticipated by the 2027 analysis year. It should be noted that in the No Action Condition, it is possible that the Hope Community's Modesto "Tin" Flores community garden, located on Potential Development Site AD at Lexington Avenue near East 104th Street, could be developed under existing zoning with a new residential building containing ground floor retail space. The garden contains ornamental plantings, a water feature, seating areas and a small stage. The Modesto "Tin" Flores Community Garden is owned by Hope Community Inc., a long-time East Harlem community development organization. Hope Community Inc. has operated the garden since 1981. The displacement of the Modesto "Tin" Flores Community Garden is unlikely.

ASSESSMENT OF OPEN SPACE ADEQUACY

NON-RESIDENTIAL (¼-MILE) STUDY AREA

As described above, the analysis of the non-residential study area focuses on passive open spaces that may be used by workers in the area. To assess the adequacy of open spaces in the area, the ratio of workers to acres of passive open space is compared with the City's planning guideline of 0.15 acres of passive space per 1,000 workers.

Quantitative Assessment

The non-residential study area includes a total of 77.10 acres of open space, of which approximately 19.42 acres are passive space. A total of 146,745 residents live within the study area, and 48,489 people work within the non-residential study area boundary; the combined residential and non-residential population is 195,234.

Based on *CEQR Technical Manual* methodology, the non-residential study area has a passive open space ratio of 0.401 acres per 1,000 workers, which is more than the City's guideline of

0.15 acres (see **Table 5-6**). As such, workers in the non-residential study area are well-served by open space under existing conditions. The combined workers and residents passive open space ratio is 0.099 per 1,000 residents and workers, which is lower than the City's guideline of 0.15 acres (see **Table 5-6**). However, as noted in the *CEQR Technical Manual*, residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces.

Qualitative Assessment

As shown in **Table 5-6**, most of the non-residential study area open spaces are in good condition, and use levels are low to moderate at all of these facilities on the weekdays and on weekends. As mentioned in Section C, "Existing Conditions," the non-residential study area includes several passive open space features, such as community gardens, benches, lawns, and pathways, which are suitable for use by the non-residential population in the area.

Moreover, as noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

RESIDENTIAL (½-MILE) STUDY AREA

The following analysis of the adequacy of open space resources within the residential study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents, as well as the ratio of passive open space per 1,000 combined residents and workers.

Quantitative Assessment

With a total of 171.21 acres of open space, of which 86.78 acres are for passive use and approximately 84.42 acres are for active use, and a total residential population of 205,309, the residential study area has an overall open space ratio of 0.834 acres per 1,000 residents (see **Table 5-6**). This is less than the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. The residential study area's passive and active open space ratios are 0.423 and 0.411, respectively, which are below the *CEQR Technical Manual* guidelines of 0.5 acres of passive open space and 2.0 acres of active open space per 1,000 residents. As such, there is an existing shortfall of both passive and active open space in the residential study area.

When the employees who work within the residential study area are added to the population, the passive open space ratio is lower. As described earlier, workers typically use passive open space during the workday, so the passive open space ratio is the relevant ratio for consideration. With a combined worker and residential population of 275,805, the combined passive open space ratio in the residential study area is 0.315 acres per 1,000 users, which is below the City's guideline of 0.5 acres of passive open space.

Qualitative Assessment

As referenced in Section C. "Existing Conditions," the quantitative assessment of open space in the residential study area contains a mix of recreational facilities, with approximately 49 percent of open space reserved for active uses and approximately 51 percent dedicated to passive uses, the open space ratios per 1,000 residents still falls well below the guideline goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents.

As shown in **Table 5-4**, the residential study area open spaces include a wide variety of actively programmed open spaces appropriate for the residential user groups. As noted in Section C, "Existing Conditions," the deficiency of open resources within the residential study area is partially ameliorated by several factors, including the open spaces found in 18 NYCHA recreation areas, which NYCHA residents are more likely to use due to proximity and are utilized by a high percentage of children and teenagers within the study area who tend to use more active open space resources. Another factor is the presence of 51 community gardens and the presence of Central Park, a significant destination open space resource.

Moreover, as noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

E. THE FUTURE WITH THE PROPOSED ACTIONS (WITH ACTION CONDITION)

By the 2027 Build Year, the Proposed Actions are expected to result in a net increase of approximately 3,488 DUs; 164,575 square feet of commercial space; 105,042 square feet of community facility space; and 132,394 square feet of manufacturing space. The RWCDS associated with the Propose Actions would introduce an estimated 8,405 new residents and 1,543 new workers, compared with the No Action Condition.

DIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action may result in a significant direct impact on open space resources if there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users, or an imposition of noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability.

The Proposed Actions would not cause increased noise, or air pollutant emissions that would affect the usefulness of any study area open space, whether on a permanent or temporary basis. Furthermore, the Proposed Actions would not change the use of a publicly accessible open space so that it no longer serves the same user population, nor would it limit public access to any open spaces. However, as discussed in Chapter 6, "Shadows," the Proposed Actions would result in significant adverse shadow impacts to three open space resources: Eugene McCabe Field, El Catano Garden, and Jackie Robinson Garden. The reduced sunlight as a result of the Proposed Actions would impact the usability of the soccer field at Eugene McCabe Field and threaten the viability of vegetation contained at the two gardens. Although the significant adverse shadow impacts would reduce the utility of the open spaces, the open spaces would continue to be available and provide for other passive or active open space uses. Therefore, the significant adverse shadow impacts would not result in direct significant adverse open space impacts.

INDIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action may result in a significant indirect impact on open space resources if it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space.

STUDY AREA POPULATION

Under the With Action Condition, the RWCDS associated with the Proposed Actions would introduce an estimated 8,405 new residents and 1,543 new workers over the No Action Condition. As indicated in **Table 5-7**, the additional population is expected to increase the ¼-mile non-residential study area's worker population to 50,033 and the combined worker and residential population to 205,183. The ½-mile residential study area's residential population is expected to increase to 213,715, and the residential study area's combined worker and residential population is expected to increase to 285,755.

Table 5-7
With Action Open Space Study Area Population

	No Action Population	Additional Population on Projected Development Sites	2027 With Action Population
Non-Residential (¼-Mile) Study Area			
Workers	48,489	1,544	50,033
Combined Workers and Residents	195,234	9,949	205,183
Residential (½-Mile) Study Area			
Residents	205,309	8,405	213,715
Combined Workers and Residents	275,805	9,949	285,755
Note: There may be a small discrepancy within the number values above due to rounding.			

OPEN SPACE RESOURCES

The Proposed Actions would not result in any new publicly accessible open spaces. As such, the non-residential study area would be served by 77.10 acres of open space (including 19.42 acres of passive space and 57.68 acres of active space), and the residential study area would be served by approximately 171.21 acres of open space (including approximately 86.78 acres of passive space and 84.42 acres of active space) in the 2027 With Action Condition.

ASSESSMENT OF OPEN SPACE ADEQUACY

Non-Residential (¼-Mile) Study Area

Quantitative Assessment

As presented in **Table 5-8**, in the With Action Condition, while the ratio of passive open space per 1,000 workers would decrease to 0.388 (from 0.401), it would continue to exceed the City's guideline ratio of 0.15 acres (see **Table 5-8**). The passive open space ratio for the combined population of residents and workers would decrease to 0.095 (from 0.099 under the No Action Condition) and would continue to fall short of the City's guideline of 0.15 acres of passive space per 1,000 workers and residents. However, as noted in the *CEQR Technical Manual*, residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces.

Table 5-8
Adequacy of Open Space Resources: With Action Condition

	Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Workers	50,033	77.10	19.42	57.68	N/A	0.388	N/A	N/A	0.15	N/A
Combined Workers and Residents	205,183					0.095				
Residential (½-Mile) Study Area										
Residents	213,715	171.21	86.78	84.42	0.801	0.406	0.395	2.50	0.50	2.00
Combined Workers and Residents	285,755				N/A	0.304	N/A	N/A	0.50	N/A
Note: There may be a small discrepancy within the number values above due to rounding.										

Qualitative Assessment

In the future with the Proposed Actions, the worker passive open space ratio would remain above the City's guideline ratio. While the passive open space ratio for combined residents and workers within the non-residential study area would be less than the City's guideline ratio, the decrease would be less than 5 percent (a decrease of 4.04 percent).

The study area contains a prevalence of public housing owned and operated by NYCHA. As discussed, these NYCHA developments contain substantial amounts of passive open space, including landscaped grounds between NYCHA buildings and passive open space features like walkways, seating, and gardens. These NYCHA open spaces were not considered in the quantitative analysis, but use of these open spaces by NYCHA residents could offset demand placed on other passive open spaces which could then be utilized by workers. Other resources such as community gardens located within the study area were also not included in the quantitative analysis. Community gardens primarily provide passive open space. It is likely that residents living within the study area, regardless of whether they live in NYCHA housing, would utilize community gardens during the day for passive uses, and may be more likely to utilize community gardens than workers who may not reside in the neighborhood. In total, there are over six acres of open space within the non-residential study area inclusive of NYCHA seating areas and community gardens. This acreage does not include the landscaped, tree-canopied grounds between NYCHA buildings. Overall, it is expected that both the worker and the combined user population that uses passive open space would be well-served by the resources available in the study area.

As described in the No Action Condition, a new resource would be introduced; an approximately 0.41-acre passive open space is planned for the block bounded by East 126th and East 127th Streets and the FDR Drive and Second Avenue. The planned open space would serve as a memorial for the African Burial Ground. Because access and hours of operation have not been determined, the memorial has not been assumed in the quantitative open space assessment. In addition, Central Park, the largest park in Manhattan is located just outside the boundary of the non-residential study area. It is anticipated that the residential population within the non-residential study area would most likely utilize these resources.

Residential (½-Mile) Study Area

Quantitative Assessment

Under With Action Conditions, total open space ratios in the residential study area would decrease—from 0.834 acres in the No Action Condition to 0.801 acres per 1,000 residents in the

With Action Condition (see **Table 5-8**). The active open space ratio would decrease compared with the No Action Condition, from 0.411 to 0.395 acres per 1,000 residents, which would continue to be below the City's guideline ratio of 2.0 acres of active open space per 1,000 residents. The passive open space ratio per 1,000 residents would also decrease compared with the No Action Condition, from 0.423 to 0.406 acres per 1,000 residents, and would also remain below the City's guideline of 0.5 acres of passive space per 1,000 residents. The passive open space ratio for combined residential and worker populations would decrease from 0.315 under No Action Conditions to 0.304 acres per 1,000 users, and would continue to be below the City's guideline of 0.5 acres.

Qualitative Assessment

In the future with the Proposed Actions, ratios of open space would continue to be lower than the measure of open space adequacy and the guideline planning goals. Based on the age distribution found in the existing residential study area, the population anticipated to be generated by the Proposed Actions under the RWCDS is expected to have a somewhat higher percentage of younger people than Manhattan and New York City as a whole. Young people tend to utilize open space for passive and active recreational pursuits. Teenagers may use open space to gather and interact with one another outside of the classroom. Children ages 10 to 14 make up approximately 6 percent of the residential study area population, while in Manhattan and New York City, this age group accounts for approximately 3.6 percent and 5.5 percent respectively. Teenagers ages 15 to 19 make up approximately 6.4 percent of the residential study area, while in Manhattan and New York City this age group accounts for approximately 4.4 and 5.8 percent, respectively.

By understanding the age distribution, the study area population's open space needs can be determined. A larger population of pre-teens and teenagers would place a higher demand on both active and passive open space resources. Active open spaces appropriate to this age group would feature playgrounds, basketball courts, and ball fields for field sports. Within the residential study area, just over approximately 88 percent of the open space resources are programmed with active open space features.

The largest open space resources in the study area are Central Park, Marcus Garvey Park, and Thomas Jefferson Park. Central Park features approximately 23 acres of active open space resources within the residential study area, including multiple playground areas like the Robert Bendheim Playground. Central Park also offers extensive passive recreational space. Young people are likely to utilize these areas as well, as landscaped areas and seating areas provide gathering spaces. Marcus Garvey Park offers approximately 15.12 acres of active space including basketball courts, an outdoor pool, a baseball field, fitness equipment, and dog-friendly areas. Active recreational areas as well as seating located throughout the park are likely to attract young visitors. Thomas Jefferson Park offers approximately 15.52 acres of active space including basketball courts, dog-friendly areas, sports fields used for soccer, football and baseball, handball courts, a running track, playgrounds, and fitness equipment.

In total, there are 36 open space resources programmed with primarily active recreational features including some major parks like Thomas Jefferson Park and Harlem River Park, as well as smaller open spaces like James Weldon Johnson Playground, Wagner Playground, Alice Kornegay Triangle, Marx Brothers Playground, Playground 103, Blake Hobbs Playground, Poor Richard's Playground and Martin Luther King Playground. There is also a variety of active resources within the residential study area like swimming pools (seasonal swimming pools include Lasker Rink in Central Park, and pools at Marcus Garvey and Thomas Jefferson Parks)

and community centers (Thomas Jefferson Park, Marcus Garvey Park, and Central Park), which would continue to be utilized by all age groups within the residential study area.

Furthermore, there is approximately 14 acres of additional open space contained within 18 recreation areas associated with NYCHA housing developments located within the residential study area. In total, there are 19 NYCHA housing developments within the study area housing approximately 35,551 people in 16,466 apartment units (see **Table 5-9**).

Table 5-9
NYCHA Housing Developments

NYCHA Housing Developments	Units	Population Total	Open Space Acreage	Amenities
Washington Houses	1,515	3,490	1.34	Playgrounds, benches, planted gardens, picnic areas, chess tables
Lexington Houses	448	848	1.11	Seating, playground, children's garden
Carver Houses	1,246	1,246	2.39	Playgrounds, seating, basketball court
East River Houses	1,170	2,429	1.04	Playground, chess tables
Lehman Village Houses	622	1,464	0.53	Basketball courts, playgrounds
Clinton Houses	749	1,768	0.76	Playground
King Towers	1,379	3,084	1.18	Basketball courts, playgrounds
Taft Houses	1,470	3,240	0.71	Playground
Johnson Houses	1,310	3,163	0.53	Playground
Jefferson Houses	1,493	3,493	2.20	Seating, playgrounds, planted gardens, basketball courts
UPACA Houses (Sites 5 and 6)	350	355	0.32	Seating area in small courtyard
Wagner Houses	2,162	5,074	0.65	Chess, seating, playgrounds
Abraham Lincoln Houses	1,286	3,018	0.50	Benches, playgrounds, basketball court, rest house
White Houses	248	252	N/A	N/A
Jackie Robinson Houses	189	406	0.13	Playground, benches
Metro North Plaza	275	629	0.27	Playground
Park Avenue East	90	207	0.33	Playground, seating
335 East 111th Street	66	120	0.09	Playground
Wilson Houses	398	1,265	0.37	Basketball Courts, Playgrounds
Total	**16,466**	**35,551**	**14.46**	

Sources: New York City Housing Authority (NYCHA) Development Data Book (2015)

The NYCHA population residing within the residential study area represents approximately 20 percent of the existing residential population and approximately 17 percent of the future with the Proposed Actions residential population. In particular, the open spaces within these NYCHA housing developments provide 14.46 acres of open space (12.67 acres of active space). These open space resources are solely for the use of NYCHA residents. With approximately 13 of the 18 NYCHA resources within the residential study area programmed with mostly active open space features, young people living in NYCHA developments would continue to have access to active open space facilities such as the Wagner Houses Pool and the playgrounds and basketball courts located at the Washington and Carver Houses, Lehman Village and other NYCHA developments (see **Table 5-9**). In addition, most NYCHA developments offer seating areas, such as those found at the UPACA Houses, Jackie Robinson Houses, and Lexington Houses, which can be used as a gathering place for young people, and more generally a place for all residents to

relax. The prevalence of active recreational features at these NYCHA developments for use by NYCHA residents lessens the demand placed upon publicly accessible open space resources within the residential study area.

Future residents would also have access to 52 community gardens (totaling approximately 6 acres), and access to the remaining portions of Central Park (approximately 733 acres) located just outside of the residential study area. Although these resources have not been assessed quantitatively, they provide essential additional resources that residents are expected to utilize. Recreation areas in Central Park include passive amenities like The Great Lawn and Conservatory Garden of Central Park, and gardens, gazebos, and seating areas within community gardens, as well as active amenities like the ball fields of Central Park's North Meadow. These recreation areas would meet the needs of a significant population of the East Harlem community, and would help to relieve any additional strains put on parks within the residential study area. In addition, the 0.41-acre passive open space memorial for the African Burial Ground is planned for the block bounded by East 126th and East 127th Streets and the FDR Drive and Second Avenue. These additional qualitative considerations could help to offset the quantitative deficiencies.

While the amounts of total and active open space resources in the residential study area are, and would continue to be, deficient in comparison with City guidelines, most of the residential study area open spaces have low to moderate utilization levels, and most are in good condition (refer to **Table 5-4**). The majority of active resources mentioned above are in good condition and during site visits were observed to have low utilization rates. In anticipation of the Proposed Actions resources would not need additional maintenance or care to facilities and with an existing low utilization rate would have the capacity to handle a greater level of visitation.

DETERMINING IMPACT SIGNIFICANCE

A significant adverse open space impact may occur if a proposed action would reduce the open space ratio by more than 5 percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction of as little as 1 percent may be considered significant, depending on the area of the City. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. **Table 5-10** expresses the percentage change from the No Action Condition to the With Action Condition for both the non-residential and residential study areas.

Non-Residential (¼-Mile) Study Area

In the future with the Proposed Actions, the non-residential study area's passive open space ratio would decrease by less than 5 percent from No Action Conditions (a decrease of 3.24 percent), and it would remain above the City's guideline ratio of 0.15 acres per 1,000 workers, at 0.388 acres per 1,000 workers (refer to **Table 5-10**). Similarly the passive open space ratio for combined residents and workers would decrease by less than 5 percent (a decrease of 4.04 percent); however, it would remain below the City's guideline ratio at 0.15 acres per 1,000 workers, at 0.095 acres per 1,000 workers (refer to **Table 5-10**). Approximately 76 percent of the user population (155,150 residents) is comprised of residents and approximately 24 percent is comprised of workers (50,033 workers). Because most of the combined user population includes residents that can use passive open spaces such as community gardens and NYCHA open spaces, leaving publicly accessible passive open spaces to be used by workers, passive open spaces are available for the use and enjoyment of both populations. Furthermore, it is

anticipated that the residential population would likely make use of additional open space resources not included in the non-residential study area. Therefore, workers in the non-residential study area would continue to be well-served by passive open space resources and no significant adverse impact would occur in the non-residential study area as a result of the Proposed Actions.

Table 5-10
Open Space Ratio Summary

Ratio	CEQR Technical Manual Open Space Guideline	Open Space Ratios per 1,000			Percent Change (Future No Action to Future With Action)
		Existing	No Action	With Action	
Non-Residential (¼-Mile) Study Area					
Passive—Workers	0.15	0.4766	0.401	0.388	-3.24%
Residential (½-Mile) Study Area					
Total—Residents	2.5	0.959	0.834	0.801	-3.96%
Passive—Residents	0.5	0.485	0.423	0.406	-4.02%
Active—Residents	2.0	0.474	0.411	0.395	-3.89%

Residential (½-Mile) Study Area

With respect to the reductions in open space within the residential study area, the total, active, and passive open space ratios would remain below the City's guideline ratios of 2.5 acres, 2.0 acres, 0.5 acres per 1,000 residents, respectively, in the future with the Proposed Actions. The total residential study area open space ratio would decline by 3.96 percent to 0.801 acres per 1,000 residents; the active residential study area open space ratio would decline by 3.89 percent to 0.395 acres per 1,000 residents; and the passive residential study area open space ratio would decline by 4.02 percent to 0.406 acres per 1,000 residents. As none of these decreases would exceed the 5 percent impact threshold in the With Action Condition and for the reasons provided in the qualitative assessment above, the Proposed Actions would not result in indirect significant adverse impacts on open space within the residential study area. ✶