A. INTRODUCTION

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed development would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidance of the 2020 *City Environmental Quality Review* (CEQR) *Technical Manual*, a project that would add fewer than 200 residents or 500 employees, or a similar number of other users, is typically not considered to have indirect effects on open space.

As discussed in Chapter 1, "Project Description," the Proposed Actions would facilitate new construction on the Stevenson Commons site that would result in an incremental (net) increase compared to No-Action conditions of approximately 1,898 residents and 131 workers, as well as approximately 1.94 acres of publicly accessible open space. As the Proposed Project would introduce an incremental 1,898 residents, an assessment was conducted to determine whether it would significantly reduce the amount of open space available for the area's residential population.[1] However, as the Proposed Project would introduce an incremental 131 workers, it would not exceed the 500 employee CEQR screening threshold for nonresidential users, and therefore an assessment of the effects of the new nonresidential population associated with the Proposed Project is not warranted. Although the number of nonresidential population added by the Proposed Project does not trigger the CEQR threshold for analysis, the open space needs of the nonresidential population within the defined residential study area are accounted for in the analysis, as discussed below.

B. PRINCIPAL CONCLUSIONS

Direct Effects

The Proposed Actions would not result in the physical loss of existing publicly accessible open space resources. The Proposed Actions would also not result in any significant adverse operational air quality, construction, noise, or shadow impacts affecting open space resources.

Indirect Effects

The *CEQR Technical Manual* indicates that a decrease in the open space ratio of five percent or more is generally considered significant for a project located in an area that is currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. For areas that are extremely lacking

[1] Estimate of incremental residential population resulting from the Proposed Actions assumes 2.78 persons per DU for all family units, which is based on the average household size for Bronx CD 9 according to the 2010 Census, and an average of 1.5 per DU for senior housing units.

in open space, a decrease of as little as one percent may be considered significant. Conversely, in areas that are well-served by open space, a greater percentage of change (more than five percent) may be tolerated. An open space impact assessment also considers qualitative factors.

The Proposed Actions would not result in significant adverse open space impacts. In the 2028 With-Action condition, the total open space ratio in the study area would increase by approximately 8.5 percent, the passive open space ratio would increase by approximately 31.51 percent, and the active open space ratio would increase by approximately 2.61 percent, compared to No-Action conditions. The open space ratios in the study area would remain less than the Citywide median in the future with the Proposed Actions, same as under existing and No-Action conditions.

The deficiency of open space resources within the study area would be offset by several factors, including the good condition of the open space resources and their low to moderate utilization levels, which would be able to absorb additional users generated by the Proposed Project. Furthermore, an additional 35.26 acres of open space (including approximately 3.73 acres located within the Project Area) were not included in the quantitative assessment (as they are not fully accessible to the public, have limited hours, or do not include seating or other amenities), although it is likely that they are used by people who~~that~~ live and work in the study area. Moreover, there are several significant open space resources located just beyond the boundaries of the open space study area, including the 205-acre Soundview Park and approximately 75 additional acres of Pugsley Creek Park; each of these open space resources are located within a ~~10-~~ten minute walk of the Project Area. Although these resources were excluded from the quantitative assessment, it is likely that existing and future residents within the study area would take advantage of these additional resources. Lastly, the Proposed Project would include an additional 0.68 acres of private indoor and outdoor recreation space (in addition to the approximately 1.94 acres of publicly accessible open space included in the quantitative analysis) that would be accessible to the residents introduced by the Proposed Project.

Therefore, as the Proposed Actions would increase the total and passive open space ratios, and given the existing good condition and low to moderate utilization of most of the study area's open spaces, the anticipated open spaces, both public and private, planned within the Project Area as part of the Proposed Project, and the availability of additional open spaces within and just outside the study area that were conservatively not included in the quantitative analysis, the Proposed Actions would not result in a significant adverse impact on open space.

C. METHODOLOGY

The analysis of open space resources has been conducted in accordance with the guidance established in the *CEQR Technical Manual*. Using CEQR guidance, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio. This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both without and with the Proposed Actions. In addition, qualitative factors are considered in making an assessment of the Proposed Actions' effects on open space resources.

Open Space Study Area

In accordance with the guidance of the *CEQR Technical Manual*, the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-

mile radius for commercial projects with a worker population. Because the Proposed Actions would not exceed the CEQR threshold for assessment of the new nonresidential population associated with the Proposed Project, an assessment of the nonresidential study area is not warranted. Therefore, a half-mile radius from the boundaries of the Project Area is the appropriate study area boundary for the Proposed Project.

Pursuant to *CEQR Technical Manual* guidance, the residential open space study area includes all census tracts that have at least 50 percent of their area located within a half-mile of the Project Area and all open spaces within it that are publicly accessible. As shown in Figure 5-1, the residential study area is generally bound by Watson and Powell Avenues to the north, Pugsley and Castle Hill Avenues to the east, Lacombe Avenue to the south, and Metcalf Avenue to the west. The residential study area includes census tracts 16, 20, 38, 40.01, 42, 44, 46, 74, and 86.

Analysis Framework

Direct Effects Analysis

According to the *CEQR Technical Manual*, a project would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the 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 causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. As there are currently no publicly accessible open spaces within the Project Area, the Proposed Project would not have any direct effects on open space and no further analysis is warranted.[2] Additionally, as detailed in other chapters of this EIS, the Proposed Project would not result in the imposition of noise, air pollutant emissions, odors, or significant new shadows on existing public open spaces in the study area that may alter their usability.

Indirect Effects Analysis

Indirect effects to an area's open spaces occur when a proposed action would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future population. 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. The Project Area is not located within an underserved or well-served area, as identified in the *CEQR Technical Manual*.

With an inventory of available open space resources and potential users, the adequacy of open space in the study area 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 can 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:

[2] Although Stevenson Commons currently includes approximately 3.1 acres of open space, in the form of tennis/handball courts and grassy areas, those spaces are private, currently fenced off and inaccessible to the general public, and are therefore not included in the CEQR quantitative analysis.

Figure 5-1
Open Space Study Area

Legend

Project Area | Half-Mile Radius | Open Space Study Area | 38 Census Tracts | Open Space

- Characteristics of the open space users: residents and workers. To determine the number of residents in the study area, 2014-2018 American Community Survey (ACS) data have been compiled for census tracts comprising the open space study area. Because the study area is characterized by a workforce that may also use open spaces, the number of employees in the study area has also been calculated, based on reverse journey-to-work data provided by Census Transportation Planning Products (CTPP), which is based on 2006-2010 estimates from the American Community Survey (ACS).
- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with certain guidance. For the residential population, there are generally two guidelines that are used to evaluate residential open space ratios. The New York City Department of City Planning (~~NYCDCP~~DCP) generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres per 1,000 residents. However, the *CEQR Technical Manual* planning guideline is 2.5 acres of open space per 1,000 residents, including 2.0 acres of active open space and 0.5 acres of passive open space. According to the *CEQR Technical Manual*, a ratio of 0.15 acres of passive open space per 1,000 workers represents a reasonable amount of open space. The needs of workers and residential populations are also considered together in the study area because it is assumed that both will use the same passive open spaces. A weighted average is also considered for the analysis that balances the amount of open space necessary to meet the guidance of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers. Because this ratio changes depending on the proportion of residents and nonresidents in the study area, the tables summarizing the open space ratios outline the amount of open space needed in each condition in the study area, and calculate the weighted average ratio of passive open space acres per 1,000 combined residents and workers.
- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the residential open space study area.

PRELIMINARY ASSESSMENT

According to the *CEQR Technical Manual*, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential and nonresidential populations to the total open space in the study area. It then compares that ratio with the open space ratio in the future with the Proposed Actions. If there is a decrease in the open space ratio that would approach or exceed five percent, or if the study area exhibits a low open space ratio from the onset (indicating a shortfall of open spaces), a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to residents within the half-mile study area delineated in accordance with the *CEQR Technical Manual*, as outlined above.

Pursuant to these guidelines, a preliminary open space assessment was conducted. As the study area exhibits a low open space ratio (i.e., below the Citywide community district median of 1.5 acres per 1,000 residents and the City's optimal planning goal of 2.5 acres per 1,000 residents) under existing conditions, a detailed open space analysis is warranted and is provided below.

Impact Assessment

As described in the *CEQR Technical Manual*, the significance of a project's effects on an area's open spaces is determined using both quantitative and qualitative factors, as compared to the No-Action condition. The determination of significance is based upon the context of a project, including its location, the quality and quantity of the open space in the future With-Action condition, the types of open space provided, and any new open space provided by the project.

The quantitative assessment considers how a project would change the open space ratios in the study area. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a project would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents, or where there would be a direct displacement or alteration of existing open space within the study area that has a significant adverse effect on existing users. In areas that are extremely lacking in open space, a reduction as small as one percent may be considered significant, depending on the area of the City. Conversely, in areas that are well-served by open space, a greater change in the open space ratio may be tolerated.

The qualitative assessment supplements the quantitative assessment and considers nearby destination resources, the connectivity of open space, the effects of new open space provided by a project, a comparison of projected open space ratios with established City guidelines, and open spaces created by a proposed project not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

D. EXISTING CONDITIONS

Demographic Characteristics of the Study Area

To determine the residential population served by existing open space resources, 2014-2018 5-Year ACS Estimates from the U.S. Census Bureau were compiled for the census tracts comprising the half-mile study area. As mentioned above and shown in Figure 5-1, the open space study area is comprised of nine census tracts. As shown in Table 5-1 below, Census data indicate the study area has a total residential population of approximately 39,172 people. Based on 2006-2010 5-Year ACS Estimates data compiled by Census Transportation Planning Products, the existing worker population for the residential open space study area is estimated at approximately 8,280 workers.

As shown in Table 5-1, within the residential study area, the total population (residents plus workers) is estimated to be 47,452. 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 5-1
Existing Open Space Study Area Population

Census Tract	Residential Population	Non-Residential (Worker) Population	Total
16	5,917	1,830	7,747
20	9,409	1,045	10,454
38	1,434	100	1,534
40.01	1,485	555	2,040
42	7,207	2,330	9,537
44	4,607	1,370	5,977
46	1,817	350	2,167
74	3,314	305	3,619
86	3,982	395	4,377
Total	**39,172**	**8,280**	**47,452**

Sources: U.S. Census Bureau, ACS 2014-2018 Five-Year Estimates, ACS 2006-2010 Five-Year Estimates. Special Tabulation: Census Transportation Planning Products (CTPP).

The residential population of the study area was also broken down by age group. Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine 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 ten through 14 use playground equipment, court spaces, and little league fields, 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 vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as Frisbee®, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

As shown in Table 5-2, people between the ages of 20 and 64 make up the majority (approximately 56 percent) of the residential population. Children and teenagers (0 to 19 years old) account for approximately 30 percent of the entire residential population, and persons 65 years and over account for approximately 14 percent of the residential study area population. As also presented in Table 5-2, the residential study area includes a lower percentage of adults aged 20 to 64 and a higher percentage of children and teenagers as compared to the Bronx and New York City as a whole, and a higher percentage of persons 65 years and over compared to the Bronx.

The median age for the population within the individual census tracts of the residential study area ranges from a low of 28.7 years (Census Tract 44) to a high of 41.3 years (Census Tract 74). The residential study area's weighted median age of 33.7 is comparable to the median age for the Bronx (33.9 years) and younger than the median age for New York City as a whole (36.5 years). These data suggest a need for facilities geared towards the recreational needs of adults, as well as children and teenagers, as the study area exhibits a high percentage of residents in both the 20 to 64 and 0 to 19 age brackets.

TABLE 5-2
Residential Population & Age Distribution in the ½ Half-Mile Study Area

Census Tract	Total Population	Under 5 Years		5 to 9 Years		10 to 14 Years		15 to 19 Years		20 to 64 Years		65 + Years		Median Age
		#	%	#	%	#	%	#	%	#	%	#	%	
16	5,917	313	5.3	437	7.4	443	7.5	437	7.4	3,298	55.7	989	16.7	37.4
20	9,409	936	9.9	403	4.3	681	7.2	770	8.2	5,642	60.0	977	10.4	31.3
38	1,434	98	6.8	75	5.2	129	9.0	68	4.7	853	59.5	211	14.7	34.7
40.01	1,485	63	4.2	85	5.7	87	5.9	126	8.5	919	61.9	205	13.8	39.7
42	7,207	758	10.5	594	8.2	468	6.5	592	8.2	3,696	51.3	1,099	15.2	33.9
44	4,607	383	8.3	301	6.5	412	8.9	406	8.8	2,448	53.1	657	14.3	28.7
46	1,817	104	5.7	180	9.9	167	9.2	104	5.7	1,020	56.1	242	13.3	34.1
74	3,314	157	4.7	259	7.8	175	5.3	189	5.7	1,939	58.5	595	18.0	41.3
86	3,982	169	4.2	349	8.8	324	8.1	387	9.7	2,165	54.4	588	14.8	29.7
Study Area Total	**39,172**	**2,981**	**7.6**	**2,683**	**6.8**	**2,886**	**7.4**	**3,079**	**7.9**	**21,980**	**56.1**	**5,563**	**14.2**	**33.7**
Bronx Total	**1,437,782**	**106,083**	**7.4**	**102,297**	**6.9**	**97,391**	**6.8**	**98,070**	**6.8**	**862,708**	**60.0**	**174,470**	**12.1**	**33.9**
NYC Total	**8,443,713**	**551,869**	**6.5**	**486,318**	**5.6**	**464,704**	**5.5**	**455,674**	**5.4**	**5,305,538**	**62.8**	**1,189,361**	**14.1**	**36.5**

Source: 2014-2018 ACS Five-Year Estimates.

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. Pursuant to the *CEQR Technical Manual*, public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under CEQR guidance, whereas private open space is not accessible to the general public on a regular basis and is, therefore, only considered qualitatively. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the study area.

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, and multi-purpose play areas (open lawns and paved areas for active recreation, such as running games, informal ball-playing, skipping rope, etc.). Passive open space is used for sitting, strolling, and relaxation and typically contains benches, walkways, and picnicking areas.

Within the defined study area, all publicly accessible open spaces were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through field inventories conducted in August 2018, the New York City Department of Parks and Recreation's (NYC Parks') website, the NYC Zoning and Land Use Map (ZoLa), and other secondary sources of information.

The condition of each open space facility was categorized as "Excellent," "Good," "Fair," or "Poor." A facility was considered in excellent condition if the area was clean and attractive and if all equipment was present and in a state of good repair. A good facility had minor problems, such as litter or older but operative equipment. A fair or poor facility was one that was poorly maintained, had broken or missing equipment or lack of security, or other factors that would diminish the facility's attractiveness. Determinations were made subjectively, based on a visual assessment of the facilities.

Likewise, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization on a weekday afternoon, which is considered the weekday peak utilization

period according to the *CEQR Technical Manual*. If a facility seemed to be at or near capacity (i.e. the majority of benches or equipment was in use), then utilization was considered high. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered low. Table 5-3 identifies the address, ownership, features, and acreage of active and passive open spaces in the study area, as well as their condition and utilization. Figure 5-2 maps their location in the study area.

As shown in Table 5-3, there are seven publicly accessible open spaces in the residential open space study area. In addition, there are 17 resources located within the study area (including two within the Project Area) that are not included in the quantitative analysis due to limited hours of operation, limited accessibility, and/or because they do not include seating.

The study area contains a total of approximately 14.11 acres of publicly accessible open space, approximately 78.6 percent of which (11.09 acres) is active open space and approximately 21.4 percent of which (3.02 acres) is passive open space (refer to Table 5-3). The largest open space in the study area is Pugsley Creek Park (Map No. 5), approximately 8.08 acres of which is located within the study area, one block southeast of the Project Area, encompassing a baseball field, benches, and trees. While, only 8.08 acres of Pugsley Creek Park, which is operated by NYC Parks, were accounted for in the quantitative analysis, an additional approximately 75 acres extend beyond the study area boundary, including wetlands and marshes, walking and biking paths, and boat launches. The 2.08-acre Story Playground (Map No. 7) is also a significant open space that is located less than one block north of the Project Area. Story Playground, which is a Jointly Operated Playground (JOP) operated by the New York City Department of Education (DOE) and NYC Parks, includes basketball and handball courts, fitness equipment, playgrounds, benches, and trees.

All of the open space resources in the study area were found to be in good condition. In addition, six of the seven open space resources have only low to moderate utilization levels and could absorb additional users.

As noted above, there are 17 additional open spaces that are conservatively not included in the quantitative analysis because they are not fully accessible to the public, have limited hours, and/or do not include seating. Most notably, there are two open space resources within the Project Area; a plaza at the southwest corner of Lafayette Avenue and White Plains Road and a private courtyard on the eastern portion of the Stevenson Commons site, with a combined acreage of 2.60 acres, and approximately 1.13 acres of private open space, including tennis and handball courts, on the western portion of the Stevenson Commons site.

Figure 5-2
Study Area Open Space

Legend

- Project Area
- Open Space Study Area
- 1 — Study Area Open Space Included in the Quantitative Analysis (Refer to Table 5-3)
- A — Study Area Open Space Included in the Qualitative Analysis (Refer to Table 5-3)
- Open Space Not Included in Analysis

TABLE 5-3
Inventory of Existing Open Space & Recreational Facilities in the Study Area

Map No.[1]	Name	Location	Owner / Agency[2]	Amenities	Total Acres	Passive Acres	Passive (%)	Active Acres	Active (%)	Condition	Utilization
Open Space Resources Included in the Quantitative Analysis											
1	Haviland Playground	Haviland Ave., Watson Ave., btwn. Virginia Ave. & Pugsley Ave.	NYC Parks/DOE	Basketball courts, asphalt baseball field, benches, trees	0.84	0.08	10	0.76	90	Good	Low
2	Black Rock Playground	Watson Ave., Blackrock Ave., btwn. Virginia Ave. & Puglsey Ave.	NYC Parks/DOE	Playground, benches, trees	0.32	0.03	10	0.29	90	Good	Moderate
3	P.S. 138 Playground	Lafayette Ave. & Virgil Pl. btwn. Olmstead Ave. & Pugsley Ave.	DOE	Playground, ball courts, benches, trees	0.51	0.05	10	0.46	90	Good	Low
4	Randall Playground	Randall Ave. btwn. Olmstead Ave. & Castle Hill Ave.	NYC Parks	Basketball courts, bathrooms, handball courts, playgrounds, spray showers, benches	1.00	0.10	10	0.90	90	Good	Low
5	Pugsley Creek Park[3]	Randall Ave., west of Pugsley Ave.	NYC Parks	Baseball field, benches, trees	8.08	2.42	30	5.66	70	Good	Moderate
6	Space Time Playground	Lafayette Ave. btwn. Bolton Ave. & Underhill Ave.	NYC Parks/DOE	Basketball courts, bathrooms, handball courts, playgrounds, spray showers, benches, trees	1.28	0.13	10	1.15	90	Good	Moderate
7	Story Playground	Story Ave. btwn. Taylor Ave. & Thieriot Ave.	NYC Parks/DOE	Basketball courts, handball courts, fitness equipment, playgrounds, benches, trees	2.08	0.21	10	1.87	90	Good	High
				Quantitative Total	***14.11***	***3.02***	***21.4%***	***11.09***	***78.6%***		
Open Space Resources Not Included in the Quantitative Analysis											
A	The Bronx Guild	Bounded by Seward Ave., Pugsley Ave., Randall Ave., & Stickball Blvd.	DOE	Basketball, handball, & tennis courts, asphalt play area, playgrounds, Joel E. Smilow Athletic Field, bleechers, running track, benches, orchard, trees	7.89	1.97	25	5.92	75		
B	Jamie Towers Housing Open Space	633 Olmstead Ave.	Jamie Towers Housing Co.	Grass, trees, benches, paths	2.78	1.39	50	1.39	50		
C	Castle Hill Campus Open Space	Bounded by Seward Ave., Castle Hill Ave., Lacombe Ave., and Olmstead Ave.	NYC Parks	Lawn, playgrounds, seating area, trees	4.84	2.42	50	2.42	50		
D	Randall Community Garden	1834 Randall Ave.	NYC Parks	Event space, community garden	0.21	0.21	100	0.00	0		
E	Thieriot Avenue Plaza	Thieriot Ave. btwn. Randall Ave. & Soundview Ave.	DOT	Plaza	0.22	0.22	100	0.00	0		
F	Senior Housing Plaza	391-401 Bronx River Ave.	HP Soundview HDFC, Inc	Plaza, benches, walking paths, trees	0.32	0.32	100	0.00	0		
G	Soundview Houses Open Space	Bounded by Metcalf Ave., Randall Ave., & Rosedale Ave.	NYCHA	Playgrounds, seating areas, benches, trees	1.04	0.52	50	0.52	50		
H	Sack Wern Houses Basketball Court	Northwestern corner of Seward Ave. & Rosedale Ave.	NYCHA	Basketball court	0.17	0.00	0	0.17	100		
I	Clason Point Gardens Open Space	Story Ave., Noble Ave., Lafayette Ave., & Metcalf Ave.	NYCHA	Playgrounds, seating areas, benches, trees	0.78	0.39	50	0.39	50		

J	Monroe Houses Open Space	Lafayette Ave. & Story Ave. btwn. Rosedale Ave. & Taylor Ave.	NYCHA	Baseball field, basketball courts, playgrounds, seating areas, benches, trees	2.61	1.31	50	1.31	50		
K	Rosedale Gardens	1760 Bruckner Blvd.	Rosedale Gardens Inc.	Playgrounds, trees, benches, walking paths, spray shower	0.86	0.17	20	0.69	80		
L	Sotomayor Houses Open Space	Bounded by Watson Ave., Thieriot Ave., Bruckner Blvd., & Soundview Ave.	NYCHA	Lawn, playgrounds, basketball courts, seating areas, trees	2.77	1.39	50	1.39	50		
M	Greenstreets	Various locations within study area	DOT	Greenstreets	3.69	3.69	100	0.00	0		
N	Bronx River Parkway	Bronx River Pkwy. btwn. Watson Ave. & Bruckner Blvd.	DOT	Landscaping, trees	3.25	3.25	100	0.00	0		
O	Carol Gardens	880 Thieriot Ave.	Carol Housing Company, Inc.	Playground, spray shower, benches	0.10	0.01	10	0.09	90		
P	Stevenson Commons Plaza and Courtyard (east)	Lafayette Ave. & Underhill Ave.	Stevenson Commons Housing Company, Inc.	Plaza, playgrounds, benches, lawns, landscaping, trees	2.60	1.30	50	1.30	50		
Q	Stevenson Commons (west)	Underhill Ave. & Thieriot Ave.	Stevenson Commons Housing Company, Inc.	Handball & tennis courts	1.13	0.00	0	1.13	100		
				Qualitative Total	***35.26***	***18.56***	***52.7%***	***16.72***	***47.4%***		

Sources: NYC OASIS, NYC Parks, August 2018 field visits.

Notes:

[1] Refer to Figure 5-2.

[2] NYC Parks = New York City Department of Parks and Recreation; NYCHA = New York City Housing Authority; DOE = New York City Department of Education; HPD = New York City Department of Housing, Preservation, and Development; DOT = New York City Department of Transportation; DCAS = Department of Citywide Administrative Services.

[3] As Pugsley Creek Park extends beyond the open space study area, only the portion and amenities that fall within the study area are included in the quantitative analysis. The "total acres" refers to the total open space within the study area, only.

Assessment of Open Space Adequacy

Quantitative Assessment

In calculating the open space ratio per 1,000 user population for the study area, all of the resources listed in the "Open Space Resources Included in the Quantitative Analysis" section of Table 5-3 were included; resources listed in the "Open Space Resources Not Included in the Quantitative Analysis" section of Table 5-3 were not included in the calculations pursuant to the *CEQR Technical Manual*, for the reasons described above. Table 5-4 shows that, with an existing study area residential population of approximately 39,172 people, the existing total open space ratio in the study area is approximately 0.360 acres of open space per 1,000 residents; the study area has 0.077 acres of passive open space per 1,000 residents and 0.283 acres of active open space per 1,000 residents. With a combined residential and worker population of approximately 47,452, the combined passive open space ratio for the study area is 0.064 acres per 1,000 users. As indicated in Table 5-4, the existing total, active, and passive residential open space ratios are below both the City's open space planning goals of 2.5 acres per 1,000 residents and below the City's median community district open space ratio of 1.5 acres per 1,000 residents. The combined passive open space ratio also falls below the recommended weighted average guideline ratio of 0.439 acres per 1,000 residents and workers.

TABLE 5-4
Adequacy of Open Space Resources in the Study Area – Existing Conditions

		Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	39,172	14.11	3.02	11.09	0.360	0.077	0.283	2.50	0.50	2.0
Combined Residents & Workers	47,452				N.A.	0.064	N.A.	N.A.	0.439*	N.A.

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this analysis.

Qualitative Assessment

As shown in Table 5-3, the study area's open space resources are all in good condition, and most feature low to moderate utilization levels and could absorb additional users. The study area also includes a mix of passive and actively programmed spaces, ranging from playgrounds and ballfields to lawns and seating areas. Moreover, an additional 35.26 acres of open space (including approximately 3.73 acres located within the Project Area) were conservatively not included in the quantitative assessment (as they are not fully accessible to the public, have limited hours, or do not include seating or other amenities), although it is likely that they are used by people that live and work in the study area. In addition, there are several significant open space resources located just beyond the boundaries of the open space study area boundary, including the 205-acre Soundview Park and approximately 75 additional acres of Pugsley Creek Park. Although these resources were excluded from the quantitative assessment, it is likely that existing and future residents within the study area would take advantage of these additional resources. Moreover, as noted above, the quantitative analysis is conservative in scope as it assumes that daytime users (workers) and residents are separate populations, whereas it is possible that some of the workers live near their workplace or work from home, resulting in some double-counting of the daily user population in the study area.

E. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

In the 2028 future without the Proposed Actions, it is expected that no new development would occur within the Project Area. As such, the Project Area would continue to be occupied by 948 DUs, 10,648 gsf of local retail uses, and 36,214 gsf of community facility uses (health center).

Study Area Population

In the future without the Proposed Actions, the study area residential population is expected to increase due to planned and anticipated residential developments in the area, as discussed in Chapter 2, "Land Use, Zoning and Public Policy").

In the 2028 future without the Proposed Actions, five developments that are currently anticipated, being planned, or are under construction, are expected to be completed in the open space study area (listed in Table 5-5 and shown in Figure 5-3). These No-Action developments are expected to introduce a total of approximately 2,255 residents and 194 workers to the defined open space study area by 2028. As shown in Table 5-6, based on these planned and anticipated residential developments, the 2028 open space study area residential population is expected to increase to 41,427, and the combined residential and worker population would increase to 49,901.

TABLE 5-5
No-Action Developments within Open Space Study Area

Map Number*	Address	Number of Residential Units	Retail Space	Community Facility Space	Estimated Residents	Estimated Workers
1	1965 Lafayette Avenue	425	19,938	-	1,182	77
2	Soundview Avenue	-	8,640	-	-	26
3	Casa Celina- Sotomayor Houses: 1090 Rosedale Avenue	201	-	3,350 gsf	559	18
4	1600 Randall Avenue	99	-	-	275	4
5	760 Soundview Avenue	86	-	22,000 gsf	239	69
				Total	***2,255***	***194***

Number of residents estimated based on 2010 Census average household size of 2.78 for Bronx CD 9. Number of workers estimated based on standard ratio of one worker per 333 sf of retail and community facility space and one worker per 25 DUs.

Sources: New York City Department of Buildings ~~NYC~~ (DOB) Building Information System (BIS); ~~,~~ 1965 Lafayette Avenue EAS (ULURP No. 170392ZMX), articles from ~~NY~~ *YIMBY*, other secondary sources.

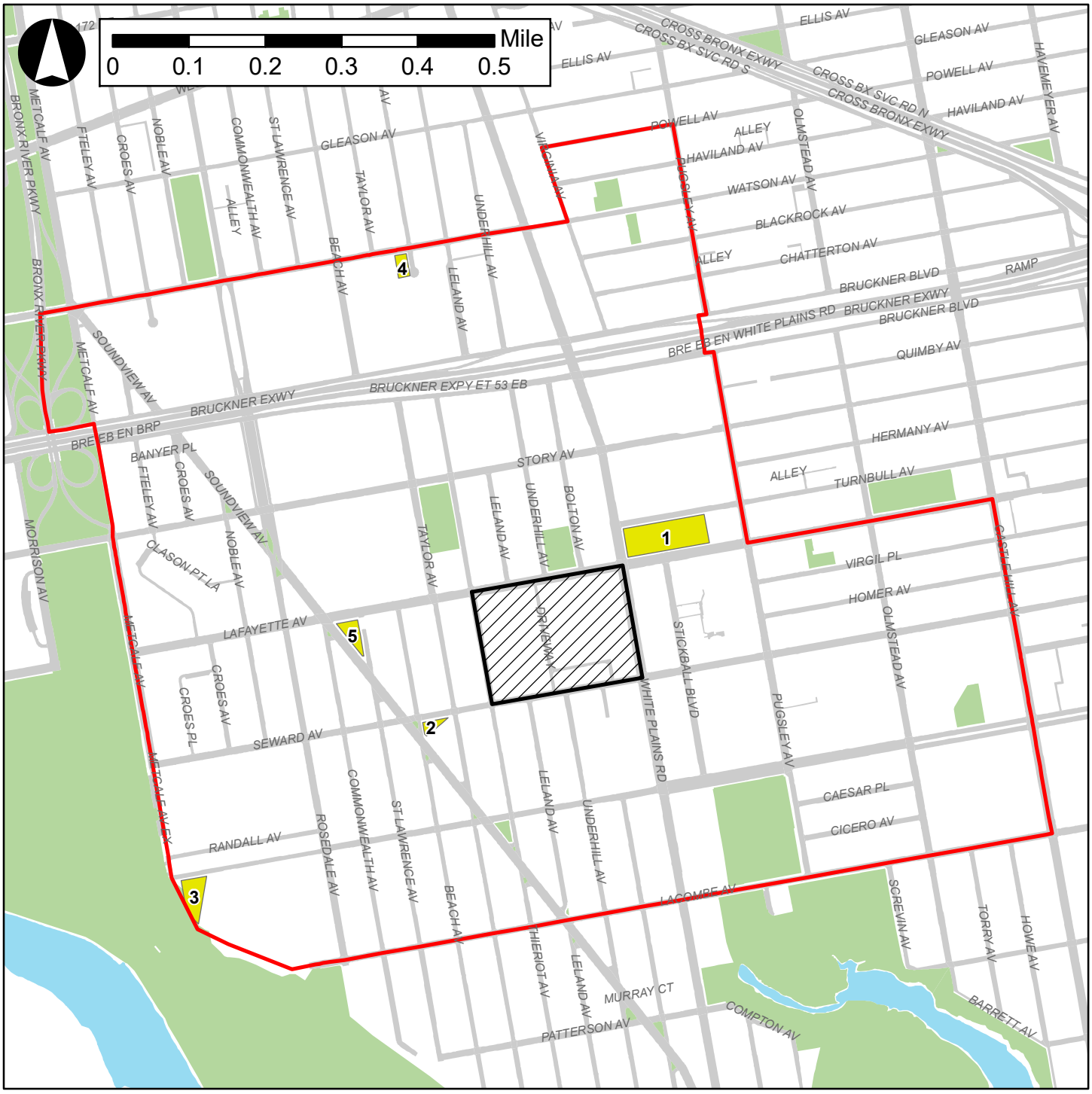
Note:

*Refer to Figure 5-3.

TABLE 5-6
No-Action Open Space Study Area Population

	Existing Population	Additional Population as a Result of No-Action Developments	Future No-Action Population
Residents	39,172	2,255	41,427
Combined Resident and Worker Population	47,452	2,449	49,901

Figure 5-3
Study Area No-Build Developments



Legend

- Project Area
- Open Space Study Area
- 1 No-Build Developments (Refer to Table 5-4)
- Open Space

Open Space Resources

No new open space resources are planned within the study area in the future without the Proposed Actions. NYC Parks has two ongoing projects in the area that aim ~~at~~to improve~~ing~~ the existing open spaces available. Both projects are part of the Bronx Green Infrastructure program, and they consist of constructing green infrastructure in existing open spaces, including Haviland Playground and Space Time Playground (Map No. 1 ~~&~~and Map No. 8) to capture and manage stormwater on-site. Both of these projects are in the Design Phase but they are expected to be completed in 2022.

Open Space Adequacy

Table 5-7~~, below,~~ presents the No-Action open space ratios for the half-mile study area, based on the anticipated population increase outlined above. As indicated in Table 5-7, in the No-Action condition, as under existing conditions, the total, passive, and active open space ratios would be less than the City's open space planning goals of 2.5 acres of open space per 1,000 residents (including 0.5 acres of passive open space and two acres of active open space), as well as the City's median community district open space ratio of 1.5 acres per 1,000 residents. The combined passive open space ratio would also fall below the recommended weighted average guideline ratio per 1,000 residents and workers. Specifically, the residential total open space ratio is expected to decrease to 0.341 acres per 1,000 residents in the No-Action condition, with No-Action passive and active open space ratios of 0.073 and 0.268 acres per 1,000 residents, respectively. The combined passive open space ratio is expected to decease to 0.061 acres per 1,000 users in the No-Action condition.

TABLE 5-7
Adequacy of Open Space Resources in the Study Area – No-Action Condition

		Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	41,427	14.11	3.02	11.09	0.341	0.073	0.268	2.50	0.50	2.0
Combined Residents & Workers	49,901				N.A.	0.061	N.A.	N.A.	0.441*	N.A.

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this analysis.

F. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

Direct Effects

No publicly-accessible open space is currently located within the Project Area. Therefore, the Proposed Project would not result in the physical loss of publicly-accessible open space. In addition, as discussed in other chapters of this EIS, the Proposed Project would not cause increased shadows, 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 Project 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. Therefore, no significant adverse direct effects on existing publicly accessible open space would occur as a result of the Proposed Project.

Indirect Effects Analysis

Project Area Population

As described in Chapter 1, "Project Description," in the future with the Proposed Actions, it is estimated that an additional 735 DUs would be introduced in the Project Area, which are expected to introduce an additional 1,898 residents to the study area.[3] The Proposed Project would also introduce an additional 131 workers to the study area, compared to No-Action conditions. Based on this incremental population growth, the study area's population would increase to a total of 43,325 residents in the 2028 With-Action condition, and the combined residential and worker population would increase to 51,930.

TABLE 5-8
With-Action Open Space Study Area Population

	No-Action Population	Additional Population as a Result of the Proposed Project	Future With-Action Population
Residents	41,427	1,898	43,325
Combined Resident and Worker Population	49,901	2,029	51,930

Open Space Resources

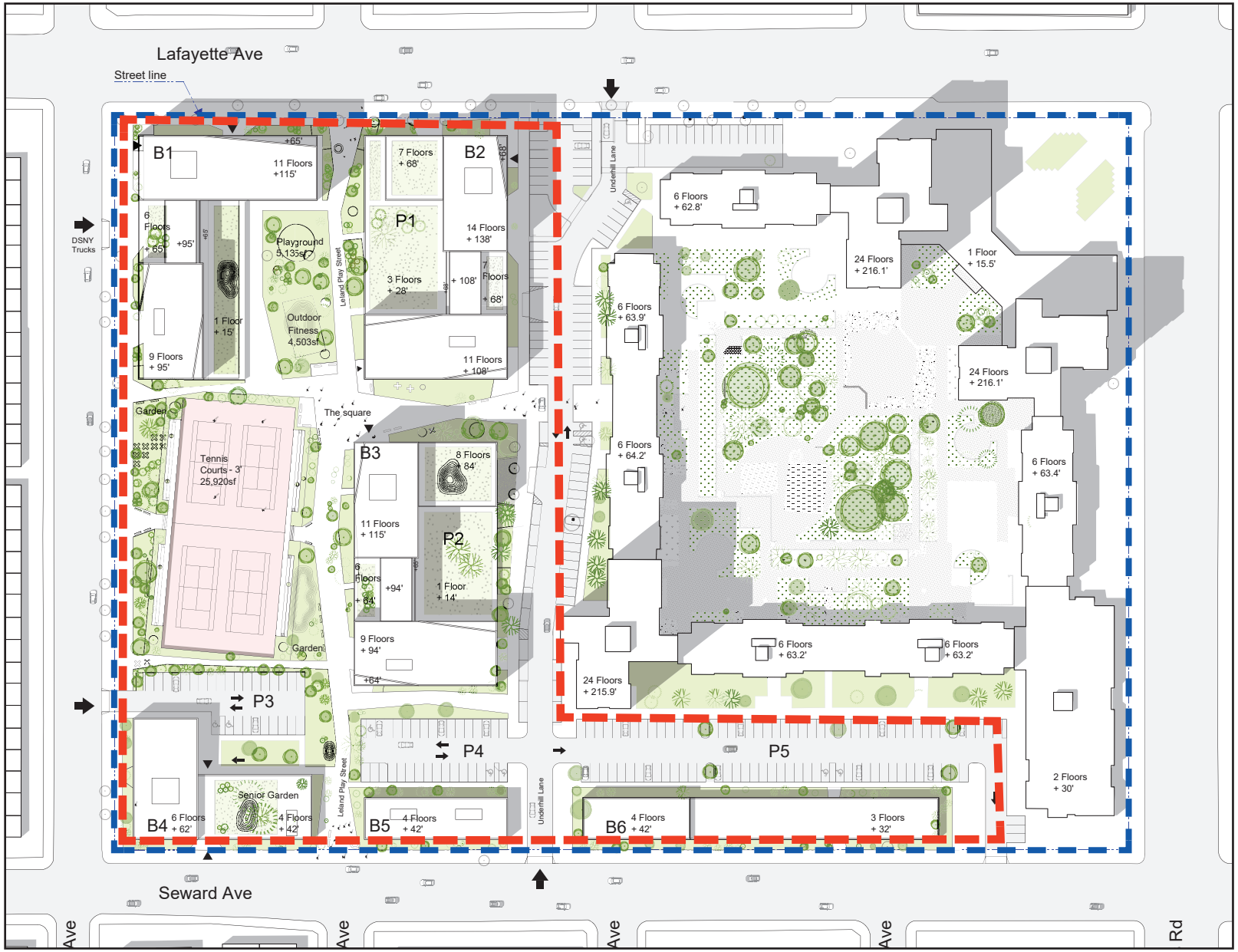
As described in Chapter 1, "Project Description," the Proposed Project is expected to include approximately 1.94 acres of publicly accessible open space and an additional 0.68 acres of private open space. The newly created publicly accessible open space is expected to include approximately 0.60 acres of tennis courts, a 0.23-acre day care play area, and 1.12 acres of grassy areas (refer to Figure 5-4). As shown in Figure 5-4, the grassy areas comprise landscaped areas along the "Leland Play Street" and adjacent to "The square," serving as a buffer between the Proposed Project's buildings and internal network of walkways. The grassy areas would also be flanked by seating areas and bench-style seating, providing passive open space use within the Project Area. It is estimated that approximately 1.12 acres of the total publicly accessible open space added on the Development Site would be for passive use and approximately 0.82 acres would be for active uses.

In addition to the proposed 1.94 acres of open space that would be publicly accessible, the Proposed Project would also include approximately 0.68 acres of private open space that would be available exclusively to the residents of the Proposed Project. This private open space would consist mostly of rooftop terraces, gardens, and grassy areas.

Assessment of Open Space Adequacy

As noted above, the open space impact analysis consists of both a quantitative assessment and a qualitative assessment. The quantitative assessment considers how a project would change the open space ratios in the study area. As the study area open space ratios are less than both the City's optimal benchmark of 2.5 acres of open space per 1,000 residents and the City's median community district open space ratio of 1.5 acres of open space per 1,000 residents, a reduction in the open space ratio of as little as one percent may be considered significant, depending on the area of the City, and in consideration of qualitative factors, including proximity to nearby destination resources, the connectivity of open space, the effects of new open space provided by the Proposed Project, and open spaces created by the Proposed

[3] Estimate of incremental residential population resulting from the Proposed Actions assumes 2.78 persons per DU for all family units, which is based on the average household size for Bronx CD 9 according to the 2010 Census, and an average of 1.5 per DU for senior housing units.



FOR ILLUSTRATIVE PURPOSES ONLY

Source: WXY

Stevenson Commons

This Figure has been updated for the FEIS

Figure 5-4

Proposed Site Plan - Open Spaces Added by Proposed Project

Project not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

QUANTITATIVE ASSESSMENT

As presented in Table 5-9, in the 2028 With-Action condition, the total open space ratio for residents is expected to increase from 0.341 acres per 1,000 residents in the No-Action condition to 0.370 acres of open space per 1,000 residents in the With-Action condition. The passive open space residential ratio would increase as compared to the No-Action condition, from 0.073 in the No-Action condition to 0.096 acres per 1,000 residents in the With-Action condition, and the active open space residential ratio would also increase from 0.268 acres per 1,000 residents in the No-Action condition to 0.275 acres per 1,000 residents in the With-Action condition. Similar to the existing condition and 2028 No-Action condition, the open space ratios all would fall below City guidelines of 2.5 acres of total open space per 1,000 residents, 0.5 acres of passive open space per 1,000 residents, and 2.0 acres of active open space per 1,000 residents, as well as the City's median community district open space ratio of 1.5 acres of open space per 1,000 residents. The combined passive open space ratio for residents and workers is expected to increase in the future with the Proposed Actions, from 0.061 per 1,000 users in the No-Action condition to 0.080 acres per 1,000 users in the With-Action condition.

TABLE 5-9
Adequacy of Open Space Resources in the Study Area – With-Action Condition

Population	Population	Open Space Acreage			Open Space per 1,000 Residents (acres)			City Open Space Planning Goals		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	43,325	16.05	4.14	11.91	0.370	0.096	0.275	2.50	0.50	2.0
Combined Residents & Workers	51,930				N.A.	0.080	N.A.	N.A.	0.442*	N.A.

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers is considered in this analysis.

Table 5-10 compares the No-Action and With-Action conditions open space ratios for the study area. As noted above, *CEQR Technical Manual* guidance indicates that a significant adverse impact is usually identified when the study area open space ratio between the No-Action and With-Action conditions decreases by more than ~~5~~five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents and 0.15 acres per 1,000 nonresidents. In areas that are extremely lacking in open space, a reduction as little as one percent may be considered significant, depending on the area of the City. Conversely, in areas that are well-served by open space, a greater percentage of change (more than five percent) may be tolerated. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space.

As shown in Table 5-10, in the 2028 With-Action condition, the open space ratio for total open space would increase by approximately 8.5 percent, the passive open space ratio would increase by approximately 31.51 percent, and the active space ratio would increase by approximately 2.61 percent. Although the study area open space ratios would continue to be below the City's median community district ratio, there are a number of factors that serve to offset the demand for publicly accessible open space resources, as discussed in the qualitative assessment below.

TABLE 5-10
Study Area Open Space Ratios Summary

Ratio	*CEQR Technical Manual* Open Space Optimal Planning Goal (acres per 1,000)	Open Space Ratios Per 1,000			Percent Change
		Existing	No-Action	With-Action	Future No-Action to Future With-Action
Total – Residents	2.50	0.360	0.341	0.370	8.50%
Passive – Residents	0.50	0.077	0.073	0.096	31.51%
Active – Residents	2.0	0.283	0.268	0.275	2.61%

Note:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

QUALITATIVE ASSESSMENT

In the future with the Proposed Actions, the study area's ratios of open space would continue to be lower than the measure of open space adequacy and the guideline planning goals, however, this would be ameliorated by several factors. The population to be generated by the Proposed Project is not expected to have any special characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to specific groups. It should also be noted that, while the amounts of total and active open space resources in the study area are, and would continue to be, deficient in comparison to City guidelines, the majority of the study area open spaces have low to moderate utilization levels, and all are in good condition (refer to Table 5-3), and would therefore be able to absorb additional users generated by the Proposed Project. Moreover, a wide variety of options are available, ranging from sitting areas and walking paths to playgrounds, basketball and handball courts, and ball fields, providing a balance of passively programmed and actively programmed spaces.

Furthermore, as described above, an additional 17 open space resources totaling approximately 35.26 acres (including approximately 18.56 acres of passively programmed open space and approximately 16.72 acres of actively programmed open space) are located within the study area. These facilities include numerous Greenstreets, a community garden, several private open spaces within the grounds of private housing developments, six NYCHA campuses, and Bronx Guild, a publicly-owned open space that may only be utilized by permit. While these facilities are excluded from the quantitative analysis, it is likely that they are used by people that live and work in the study area. For example, the six NYCHA campuses located within the study area each contain landscaped grounds; these grounds comprise a mixture of active and passive open space uses that are utilized by NYCHA residents and their guests. It is likely the presence of these six NYCHA campuses accommodates significant demand for open space in the study area, lessening the overall burden placed on open space resources included in the quantitative analysis.

Moreover, the availability of high quality regional open space resources located just outside of the study area could help to partially offset this quantitative deficit. The 205-acre Soundview Park and approximately 75 additional acres of Pugsley Creek Park are both located just outside the study area boundary, and were not included in the quantitative assessment. Although these resources were excluded from the quantitative assessment, it is likely that existing and future residents within the study area would take advantage of these additional resources, as each of these open space resources are located within a ~~10~~ ten minute walk of the Project Area. Soundview Park's Seward Avenue egress/ingress point is located approximately nine blocks to the west of the Project Area's southwestern corner. The remaining acreage

of Pugsley Creek Park contains an egress/ingress point located along White Plains Road, approximately three blocks to the south of the Project Area's southeastern corner.

In addition, as noted above, the quantitative analysis is conservative in scope as it assumes that daytime users (workers) and residents are separate populations, whereas it is possible that some of the workers live near their workplace or work from home, resulting in some double-counting of the daily user population in the study area. Lastly, it should be noted that the Proposed Project would include an additional 0.68 acres of private indoor and outdoor recreation space (in addition to the approximately 1.94 acres of publicly accessible open space included in the quantitative analysis) that would be accessible to the residents introduced by the Proposed Project. This new private open space, which was not included in the quantitative analysis, would be accessible to new residents of the Proposed Project and their guests, and would help to meet their open space needs.

Therefore, given the existing good condition and low to moderate utilization of most of the study area's open spaces, the anticipated open spaces, both public and private, planned within the Project Area as part of the Proposed Project, and the availability of additional open spaces within and just outside the study area that were conservatively not included in the quantitative analysis, the Proposed Actions would not result in a significant adverse impact on open space.