5.0 Open Space

Introduction

This chapter assesses the potential impacts of the Proposed Actions on open space resources. Open space is defined in the 2021 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, sport, or serves to protect and enhance the natural environment. Public open space is accessible to the public on a consistent 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; greenways; and plazas designated through regulatory approvals (such as zoning). Private open space is not considered publicly accessible if it is only available to limited users or is not available to the public on a regular or consistent basis. Examples of private open space are natural areas with no public access, front and rear yards, rooftop recreational facilities, stoops, and 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. Passive open space is used for relaxation, such as sitting or strolling. Active and passive open spaces within the study area are further defined the "Existing Conditions" section below.

A proposed project's effects on open space resources 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 introduction of new 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 utility or level of service to the future population of the affected area would be substantially or noticeably diminished. Per the guidance contained in the 2021 *CEQR Technical Manual*, 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 the introduction of a substantial new population that 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 would result in the incremental development of approximately 5,143 dwelling units (DUs), 705,843 square feet (sf) of commercial development (including office, and local and destination retail), and 121,716 sf of community facility space, resulting in a projected population of approximately 12,600 residents introduced to the Project Area compared with the No-Action condition. In addition, the Proposed Actions are anticipated to introduce approximately 2,819 new workers to the Project Area. As discussed in more detail below, this incremental development exceeds CEQR thresholds for a preliminary assessment and a detailed open space analysis has been prepared for the Proposed Actions.

Principal Conclusions

According to the guidance contained in the 2021 *CEQR Technical Manual*, a proposed action may result in a significant impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space. The Proposed Actions would not have a direct impact on open space resources in the study area. The Proposed Actions would not result in the physical loss of existing public open space resources, and would not result in any adverse shadow, air, noise, or other environmental impacts that would affect the usefulness of any study area open space. As the Proposed Actions are expected to introduce 12,600 residents and 2,819 workers under the RWCDS, compared to the No-Action condition, a detailed open space analysis for both a non-residential (¼-mile) study area and residential (½-mile) study area was conducted, pursuant to the 2021 *CEQR Technical Manual*. The detailed analysis determined that the Proposed Actions would result in a significant adverse indirect impact to both passive and active open space in the residential study area.

In the future with the Proposed Actions, while the non-residential study area's passive open space ratio would decrease by more than 5 percent from No-Action conditions (13.6 percent), it would remain well above the City's guideline ratio of 0.15 acres per 1,000 workers, at 0.809~~611~~ acres per 1,000 workers. Therefore, there would be no significant adverse impact in the non-residential study area as a result of the Proposed Actions.

Within the residential study area, in the future with the Proposed Actions, the total, active and passive open space ratios would remain below the City's guideline ratios of 2.5 acres, which includes 2.0 acres of active and 0.5 acres of passive space per 1,000 residents, respectively. The total residential study area open space ratio would decline by 6.29 percent to 0.277~~6~~ acres per 1,000 residents; the active residential study area open space ratio would decline by 6.29 percent to 0.085~~202~~ acres per 1,000 residents; and the passive residential study area open space ratio would decrease 6.29 percent and the open space ratio would be

0.192~~074~~ acres per 1,000 residents. As these decreases would exceed the CEQR impact thresholds, the Proposed Actions would result in a significant adverse indirect impact on total, passive, and active open space in the residential study area.

Methodology

Direct Effects

According to the 2021 *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, air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. Since no open space resources would be physically displaced because of the Proposed Actions, this chapter uses information from **Chapter 6, Shadows**, **Chapter 10, Hazardous Materials**, **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

Preliminary Assessment

According to the 2021 *CEQR Technical Manual*, indirect open space effects may occur when a project would add enough population, either residents or workers, to noticeably diminish the ability of an area's open space to serve the future population. The preliminary screening threshold to determine if an assessment of indirect effects is warranted is if a project would introduce more than 200 residents or 500 workers to an area. The Proposed Actions are anticipated to introduce an incremental increase of approximately 2,819 workers and 12,600 residents to the area by the 2034 analysis year. An analysis of indirect effects on open space resources is warranted as both the residential and non-residential populations anticipated to be introduced by the Proposed Actions exceed the CEQR analysis thresholds.

Detailed Assessment

The 2021 *CEQR Technical Manual* recommends conducting a preliminary assessment to determine whether a more detailed analysis is appropriate but also recognizes that for projects that introduce a large population into an area, it may be clear that a detailed analysis should be conducted. Because the Proposed Actions would introduce sizeable new residential and worker populations to the study area, a detailed analysis was conducted. Additionally, the Proposed Actions would introduce a sizeable residential population to the non-residential study area, and residents in the study area may utilize passive open spaces near their homes, resulting in higher demand for passive open space in the non-residential study area. Therefore, a combined residential and worker assessment is provided to account for this residential population.

Analysis Framework

Based on the 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 open space adequacy 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 considers:

- Characteristics of the two open space user groups: residents and non-residents. To determine the number of residents in the study areas, 2020 U.S. Census data have been compiled for those census tracts defining the non-residential and residential open space study areas. To determine the number of workers in the study areas, worker data provided by the U.S. Census Bureau's *OnTheMap* application, which is based on Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (2021), have been compiled for those census tracts comprising the open space study area.
- An inventory of all publicly accessible passive and active recreational facilities in the study areas.
- An assessment of the quantitative ratio of open space in the study areas, conducted by computing the ratio of open space acreage to the workers, combined workers and residents, and residential populations in the study areas and comparing this ratio with open space adequacy guidelines.
- An assessment of expected changes in future levels of open space supply and demand in the 2034 analysis year both in the No-Action and With-Action conditions. Open space adequacy in the No-Action condition is based on planned development projects within the open space study areas. To estimate the residential population expected in the study areas in the No-Action condition, an average household size of 2.45 persons was applied to the number of new housing units expected in the residential and non-residential study areas. Additional workers introduced in the No-Action condition were calculated based on employment assumptions[1]. Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also taken into account.
- Open space ratios are determined for both the No-Action and With-Action conditions and compared to determine potential changes to open space adequacy in the 2034 Build Year.

[1] Estimate of workers based as follows: 1 employee per 250 sf of office; 1 employee per 875 sf destination retail; 1 employee per 400 sf of local retail; 1 employee per 25 DU; 1 employee per 1,000 sf of industrial/auto; 1 employee per 15,000 sf of warehouse; 1 employee per 400 sf medical office space; 1 employee per 1,000 sf of other community facility space; and 1 employee per 50 parking spaces.

- An evaluation of qualitative factors affecting open space use, including weekend and weekday utilization and the condition of facility equipment. Utilization level is assessed by field observation and is defined in Chapter 7 of the 2021 *CEQR Technical Manual*: low utilization is considered 25 percent capacity utilization or less at the peak hour, meaning that much of the space, facility, or equipment is available for use; moderate utilization is considered 25 to 75 percent capacity utilization at peak hour, meaning that some passive spaces and/or active facilities are available for use; and heavy utilization is considered 75 percent or greater capacity utilization at peak hours, meaning that few or none of the open space facilities are available for use.
- A determination of the adequacy of open spaces in the study areas under the existing, No-Action, and With-Action conditions.

The following sections describe the specific methodology used for the analysis of indirect effects on open space, including establishing the study area, identifying open space user populations, creating an inventory of open space resources, and assessing the adequacy of open space resources.

Study Areas

The 2021 *CEQR Technical Manual* recommends establishing a study area or areas as the first step in an open space analysis. The study areas are generally defined based on the distances that users — both workers and residents — are reasonably likely to walk to reach local open space or recreational resources.

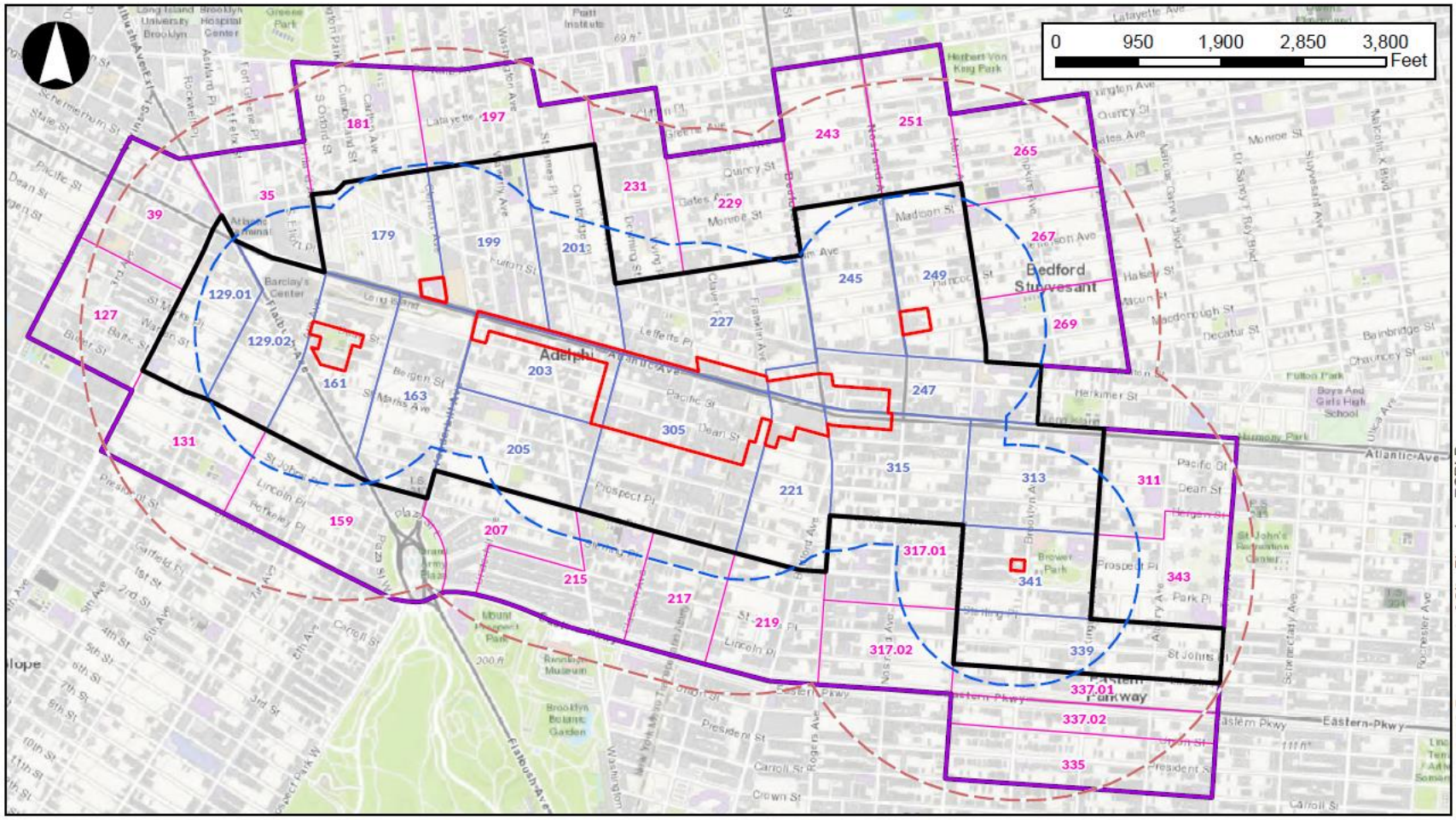
Non-Residential (Worker) ¼-mile Study Area

Workers typically use passive open spaces within a short walking distance of their workplaces. Residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active neighborhood open spaces. Workers are assumed to walk approximately 10 minutes, or a quarter mile, from their place of work to use an open space resource. Therefore, the guidance contained in the 2021 *CEQR Technical Manual* recommends that a ¼-mile study area be used to analyze an action's indirect effects on open space. Consistent with this guidance, the study area was adjusted to include all census tracts with at least 50 percent of their area located within a ¼-mile of the Project Area. As shown in **Figure 5-1**, the non-residential (worker) study area consists of Census Tracts 129.01, 129.02, 161, 163, 179, 199, 201, 203, 205, 221, 227, 245, 247, 249, 305, 313, 315, 339, and 341, and is generally bound by Greene Avenue/Putnam Avenue/Monroe Street to the north; Marcy Avenue/Kingston Avenue/Troy Avenue to the east, Lincoln Place/Park Place/Sterling Place to the south, and 5th Avenue to the west.

Residential 1/2-mile Study Area

Residents are assumed to walk approximately 20 minutes, or a half mile, to an open space. As such, the 2021 *CEQR Technical Manual* recommends that a 1/2-mile study area be used to evaluate an action's indirect effects on open space. Consistent with this guidance, the study area was adjusted to include all census tracts with at least 50 percent of their area located within a ½-mile of the Project Area. As shown in **Figure 5-2**, the residential study

area consists of Census Tracts 35, 39, 127, 129.01, 129.02, 131, 159,161, 163, 179, 181, 197, 199, 201, 203, 205, 207, 215, 217, 219, 221, 227, 229, 231, 243, 245, 247, 249, 251, 265, 267, 269, 305, 311, 313, 315, 317.01, 317.02, 335, 337.01, 337.02, 339, 341 and 343. It is generally bound by DeKalb Avenue/Lafayette Avenue/Lexington Avenue to the north; Marcy Avenue/Throop Avenue/Troy Avenue to the east; Eastern Parkway/Union Street/Douglass Street to the south; and Nevins Street to the west.



Atlantic Avenue Mixed-Use Plan

Figure 5-1
Open Space Study Area

Open Space User Populations

Existing Conditions

Data on the existing worker population within the study area was compiled from U.S. Census worker data for the census tracts that comprise the non-residential study area. Data on the existing residential population within the study area was compiled from the 2020 U.S. Census for the census tracts that comprise the residential study area.

No-Action Condition

The worker population in the non-residential study area in the No-Action condition was projected by adding the number of existing workers to the number of workers anticipated to result from developments that are expected to be completed in the study area by the 2034 analysis year, including No-Action development in the Project Area. The residential population was projected by adding the number of existing residents to the number of residents expected to result from the number of new housing units anticipated in the residential study area in the No-Action condition (using an average household size of 2.45 people). For the combined worker and residential population, the projected residential population was combined with the projected worker population for the ¼-mile study area.

With-Action Condition

The future residential and worker populations in the With-Action condition were determined by adding the number of residents and workers anticipated to result from the Proposed Actions to the existing resident and worker populations as well as the residential and worker populations anticipated to result from developments that are expected to be completed in the study areas by the 2034 analysis year.

Inventory of Open Space Resources

Publicly accessible open spaces and recreational facilities located within the study area were inventoried using information from the New York City Department of Parks and Recreation (NYC Parks). The 2021 *CEQR Technical Manual* defines publicly accessible open space as open space that is regularly open to the public during designated daily periods. Open spaces that do not fit this definition because they are not available to the public on a regular basis or are available only to a limited set of users are considered private open space and are not included in the quantitative open space analysis.

The character, condition, and use of the publicly accessible open spaces and recreational facilities within the study area were determined based on field observations made in April/May 2024 and are supplemented with online research and recent environmental review documents. Active and passive amenities were noted at each open space resource. Active facilities are intended for vigorous activities, such as jogging, field sports, and children's active play. Such facilities might include basketball and handball courts, jogging paths, ball fields, and playground equipment. Passive facilities encourage such activities as strolling, reading, sunbathing, and people watching. Passive open spaces are characterized by picnic areas, walking paths, seating areas, or gardens. Certain areas, such as lawns or public

esplanades, can serve as both active and passive open spaces. The analysis also accounts for any open spaces within the study area that may be created in the No-Action or With-Action conditions.

Adequacy of Open Space Resources

The adequacy of open space in the study area is quantitatively assessed using a ratio of usable open space acreage to the study area population; this is referred to as the open space ratio. As the Proposed Actions are located in an area that is lacking in open space, the differences in open space ratios are numerically small. Therefore, this particular analysis has used three decimal places to show the changes in the open space ratios between the Existing, No-Action and With-Action conditions. To assess the adequacy of open space resources, open space ratios are compared with planning goals set by the City for both non-residential and residential populations as described in the 2021*CEQR Technical Manual*.

For worker populations, 0.150 acres of passive open space per 1,000 workers is typically considered adequate. If an assessment shows that a study area's open space ratio falls below the City guidelines of 0.150 acres of passive open space per 1,000 workers, it could be considered a substantial change warranting a more detailed analysis.

For the combined worker and residential populations, the guideline ratio is determined by creating a weighted average of 0.500 acres of passive open space per 1,000 residents and 0.150 acres of passive open space per 1,000 workers. This weighted average ratio changes depending on the proportion of workers and residents in the study area.

For residential populations, the 2021 *CEQR Technical Manual* guideline for the citywide median ratio at the Community District (CD) level is 1.500 acres of open space per 1,000 residents. In addition to this median ratio, the City has set a planning goal of 2.500 acres per 1,000 residents, which includes 0.500 acres of passive space and 2.000 acres of active space per 1,000 residents. This planning goal is consequently used as an optimal benchmark for residential populations. It should be noted that the City's open space planning goals are often not feasible for many areas of the City, and they are not considered a threshold for a significant adverse effect.

Impact Assessment

The assessment of the potential for significant adverse impacts on open space is both quantitative and qualitative. Quantitatively, Table 7-5 of the 2021 *CEQR Technical Manual* provides percentage change guidance to determine a possible open space impact (refer to Table 5-1). For a project in a study area where the total open space ratio is 0.500 acres per 1,000 residents or less, the active open space ratio is between 0.010 and 0.400, and the passive open space ratio is between 0.010 and 0.100, a decrease in an open space ratio of 1 percent or more compared to the No Action condition is generally considered to be a significant adverse impact.

Table 5-1: Impact Assessment – Guidance for Percentage Change in Open Space Ratio

Total Open Space Ratio Range	Active Open Space Ratio Range	Passive Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50* or greater	1.61 to 2.0* or greater	0.41 to 0.50 or greater	5%
1.51 to 2.0	1.21 to 1.60	0.31 to 0.40	4%
1.01 to 1.50	0.81 to 1.20	0.21 to 0.30	3%
0.51 to 1.00	0.41 to 0.80	0.11 to 0.20	2%
0.50 or less	0.01 to 0.40	0.01 to 0.10	1%

Note: *2.5 OSR is the planning goal in NYC.

In addition to the quantitative factors cited above, the 2021 *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts, including the availability of nearby destination open space, the beneficial effects of new open space resources provided by a project, or other factors. 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, 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.

NYC Parks Walk to a Park Initiative

Additionally, as described in the 2021 *CEQR Technical Manual*, as part of the open space assessment, a project should be reviewed to determine if it is located within a Walk to a Park Service Area. A Walk to a Park Service Area (WtPSA) is a part of the *OneNYC 2050 Building a Strong and Fair City* plan, in which New York City has laid out a goal for 85 percent of New York City residents living within a walking distance of a park by 2030. Existing areas located within a WtPSA are within a walking distance of a park (i.e., 0.5-miles). Areas not located within a WtPSA are considered “walk gaps”; they are areas of the City that are not within a walking distance to a park. As shown in **Figure 5-2**, much of the Project Area is located within a walk gap area (i.e., not within a walk to a park service area).

Existing Conditions

Study Area Population

Based on 2019 Census data, the non-residential study area had a population of approximately 16,090 workers (see **Table 5-2**). The NAICS industrial sectors most represented in the study area are health care and social assistance, educational services, accommodation and food services, and public administration. Typically, these "non-residential" open space users seek leisure in passive open spaces during the lunch hour and midday period.

Table 5-2: Existing Worker Population in the Study Area

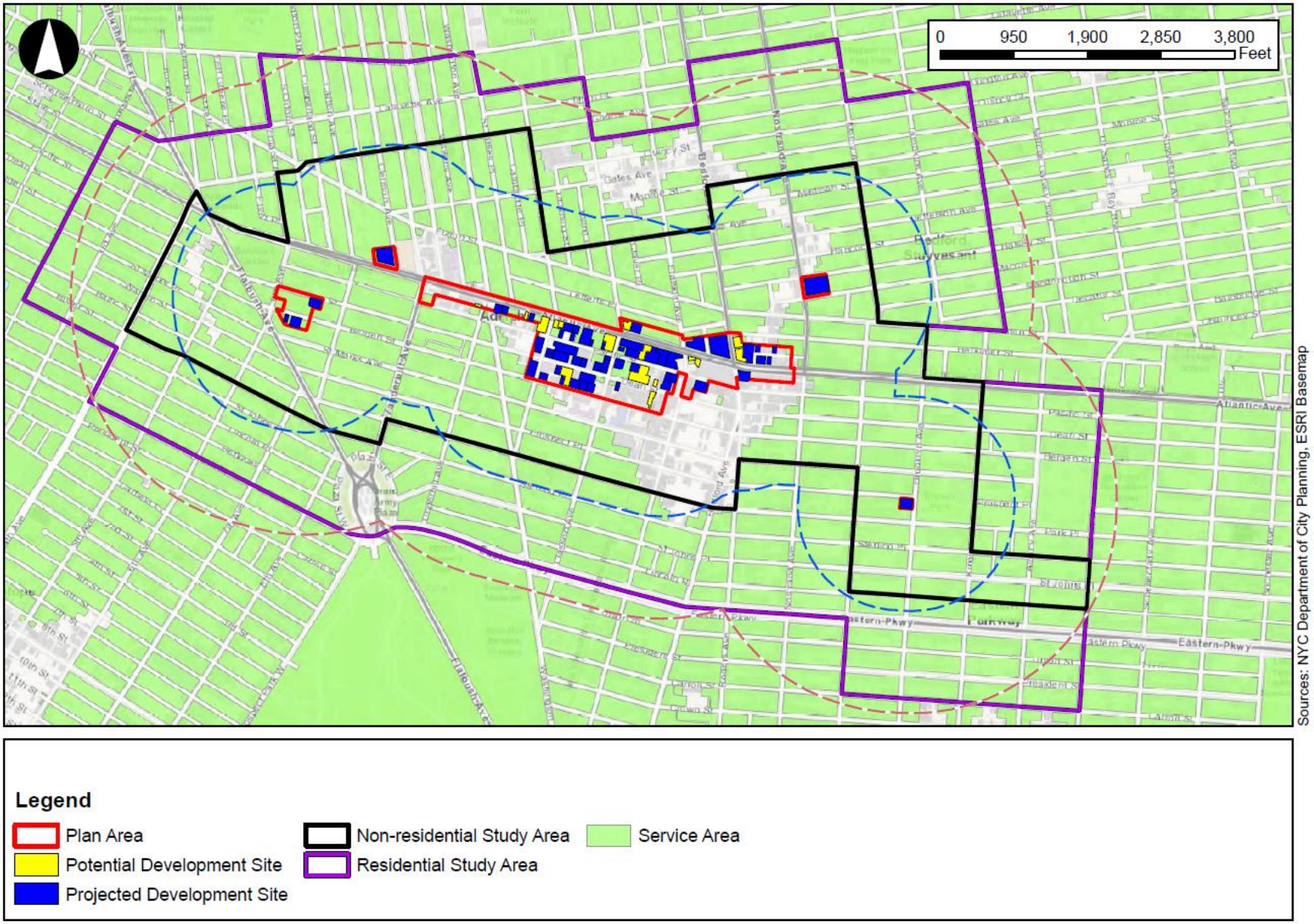
Census Tract	Worker Population
129.01	613
129.02	1,758
161	1,543
163	904
179	490
199	3,048
201	351
203	412
205	864
221	432
227	804
245	374
247	1,537
249	324
305	1,431
313	128
315	364
339	262
341	451
Total:	**16,090**

Source: U.S. Census Bureau LEHD data, 2021.

Based on 2020 U.S. Census data and as shown in **Table 5-3**, the ¼-mile study area had a residential population of approximately 75,546. Therefore, the combined worker and residential population in the ¼-mile study area is approximately 91,636. The ½-mile study area had a residential population of approximately 172,332 (**Table 5-3**).

Age Distribution

Table 5-4 summarizes the age distribution of the residential population located within the ½-mile residential study area and compares this distribution to the age distributions of Brooklyn and New York City overall. As shown in the table, the study area's working adult population (residents 20 to 64 years old) comprises a greater proportion of its population (72 percent) when compared with that of Brooklyn (62 percent) and New York City (63 percent). In all other age categories, the study area has lower proportions than that of Brooklyn and New York City.



Atlantic Avenue Mixed-Use Plan

Figure 5-2
Walk to a Park Service Area

Table 5-3: Study Area Residential Populations

Census Tract	Population
¼-mile Residential Population	
129.01	2,333
129.02	3,318
161	3,450
163	4,088
179	3,895
199	3,978
201	3,862
203	2,132
205	3,405
221	3,897
227	4,515
245	4,257
247	2,820
249	4,264
305	7,249
313	5,109
315	5,613
339	4,676
341	2,685
Total:	**75,546**
½-mile Residential Population	
35	2,402
39	2,644
127	4,036
131	3,979
159	5,206
181	4,204
197	3,585
207	4,871
215	5,569
217	4,351
219	4,225
229	3,923
231	3,832
243	4,347
251	4,209
265	4,385
267	4,228
269	3,005
311	3,191
317.01	3,999
317.02	3,714
335	3,231
337.01	2,510
337.02	2,116
343	5,024
Total:	**172~~0~~,332**

Source: U.S. Census Bureau data, 2020.

Table 5-4: Residential Study Area Population Age Distribution

Age Category	Study Area		Brooklyn		New York City	
	Persons	Percent	Persons	Percent	Persons	Percent
Under 5 Years	8,964	5.2	169,016	6.2	475,637	5.4
5 to 9 Years	7,388	4.3	166,390	6.1	479,017	5.4
10 to 14 Years	6,764	3.9	164,899	6.0	491,325	5.6
15 to 19 Years	6,606	3.8	158,117	5.8	505,700	5.7
20 to 64 Years	123,755	71.9	1,705,040	62.3	5,542,287	63.0
65 Years & Over	18,855	10.9	372,612	13.6	1,310,224	14.9
Total	172,332	100.0	2,736,094	100.0	8,804,190	100.0

Source: U.S. Census Bureau data, 2020.

Within a given area, the population's age distribution affects the way open space is used and the need for various types of recreational facilities. Typically, children five 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 10 through 14 typically use playground equipment, court spaces, and ball fields. Teenagers and young adults tend toward court game facilities such as basketball and field sports. Adults (ages 20 to 64) use court game facilities and sports fields, along with more individualized recreation such as rollerblading, biking, and jogging that require bike paths, and vehicle-free roadways. Adults also gather with families for picnicking, active informal sports such as Frisbee, and recreational activities in which all ages can participate. Senior citizens (65 years and older) engage in active recreation such as handball, tennis, gardening, fishing, walking, and swimming, as well as recreational activities that require passive facilities. There is a comparatively greater working adult population within the study area, which indicates a need for open space resources that cater to this age group, such as flexible spaces for individualized recreation or active informal sports or picnicking.

Open Space Inventory

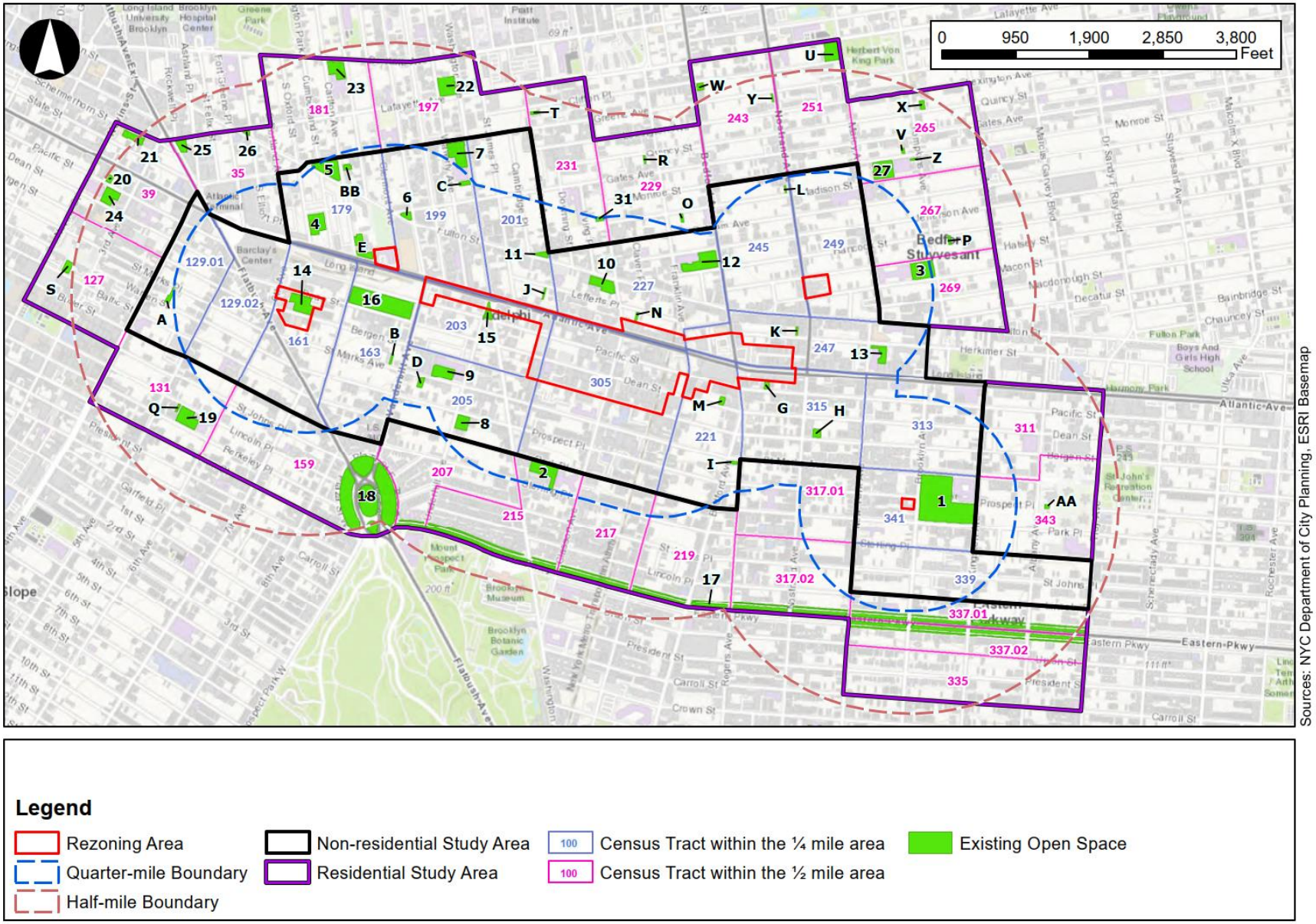
All publicly accessible open space and recreational resources within the two open space study areas are shown in **Table 5-5**. As presented in the table, there are 16 publicly accessible open space resources within the non-residential study area, providing almost 23 acres of public open space. The residential study area contains a total of 27 publicly accessible open space resources (including the 16 located within the non-residential study area), providing approximately 50 acres of publicly accessible open space (**Figure 5-3**).

In order to ensure a conservative analysis, open spaces on New York City Housing Authority (NYCHA) developments are considered only in the qualitative assessment. These open space resources are intended for use by NYCHA residents and not the general public. Similarly, community gardens located on NYC Parks-controlled property, gardens operating under the City's GreenThumb program, 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. These resources are shown in **Table 5-5**.

Table 5-5: Study Area Open Space Inventory (Table revised for FEIS)

Map No.	Name	Location	Owner	Total Acres	Active	Passive	Amenities	Condition/ Utilization	Users
1/4-mile Study Area									
1	Brower Park	St. Mark's Avenue, Park Pl. between Brooklyn and Kingston Avenues	NYC Parks	7.05	2.47	4.58	Basketball courts, dog-friendly areas, handball courts, playground, public restrooms, skate parks, and spray showers	Good/ Low	Children/Adults/ Teenagers
2	Stroud Playground	500 Park Place	NYC Parks/ DOE	1.19	0.83	0.36	Basketball courts, handball courts, playgrounds, public restrooms, spray showers	Excellent/ Moderate	Children/ Teenagers
3	Potomac Playground	446 Tompkins Avenue	NYC Parks/ DOE	1.32	0.86	0.46	Handball courts, playground, public restrooms, spray showers	Fair/ Moderate	Children/ Teenagers
4	South Oxford Park	177-201 South Oxford Street	NYC Parks	1.20	0.6	0.6	Playground, tennis courts	Excellent/ Moderate	Children/Adults/ Teenagers
5	Cuyler Gore Park	809 Fulton Street	NYC Parks	1.16	0.12	1.04	Playground, spray showers	Good/ Moderate	Children/Adults/ Teenagers
6	Gateway Triangle/Gates Plaza	879 Fulton Street	NYC Parks/ DOT	0.33	0.05	0.28	Triangle	Excellent/ Low	Children/Adults/ Teenagers
7	Greene Playground	431 Waverly Avenue	NYC Parks/ DOE	1.26	1.76	0.50	Basketball courts, handball courts, playground, public restrooms, spray showers	Good/ Moderate	Children/Adults/ Teenagers
8	James Forten Playground	121 Underhill Avenue	NYC Parks	0.59	0.50	0.09	Handball courts, playground, public restrooms, spray showers	Excellent/ High	Children/Adults/ Teenagers
9	P.S. 9 The Sarah Smith Garnet School	80 Underhill Avenue	DOE	0.96	0.91	0.05	Basketball courts, handball courts, tennis courts, running track, playground, public restrooms	Good/Low	Children/ Teenagers
10	Crispus Attucks Playground	1030 Fulton Street	NYC Parks	0.93	0.68	0.25	Basketball courts, handball courts, playground, public restrooms, spray showers	Good/ Moderate	Children/Adults/ Teenagers
11	Putnam Triangle/Jitu Weusi Plaza	Putnam Avenue and Grand Avenue	NYC Parks/ DOT	0.21	0.00	0.21	Pedestrian Triangle	Good/Low	Children/Adults/ Teenagers
12	John Hancock Playground	90 Jefferson Avenue	NYC Parks/ DOE	1.55	1.16	0.39	Basketball courts, handball courts, playground, spray showers	Fair/ Moderate	Children/ Teenagers
13	P.S. 93 William H. Prescott	29 New York Avenue	DOE	0.50	0.35	0.15	Basketball courts, handball courts, tennis courts, running track, playground, public restrooms	Good/Low	Children/ Teenagers
14	Dean Playground	500 Dean Street	NYC Parks	1.30	1.11	0.19	Basketball courts, handball courts, playground, public restrooms, spray showers	Excellent/ Low	Children/Adults/ Teenagers
15	Lowry Triangle/Underhill Plaza	Underhill Avenue, Pacific Street, and Washington Avenue	NYC Parks/ DOT	0.42	0.00	0.42	Pedestrian Triangle	Fair/Low	Children/Adults/ Teenagers

Map No.	Name	Location	Owner	Total Acres	Active	Passive	Amenities	Condition/ Utilization	Users
16	Pacific Park Open Space	Dean Street, Pacific Street, 6th Avenue, Vanderbilt Avenue	NYSESD	3.00	0.30	2.70	Playground, seating, landscaping, dog run	Excellent/ Moderate	Children/Adults/ Teenagers
¼-mile Study Area Total				**22.97**	**10.70**	**12.27**			
1/2-mile Study Area									
17	Eastern Parkway	Eastern Pkwy. between Grand Army Plaza and Troy Avenue	NYC Parks	12.26	1.23	11.03	Bicycling and Greenway	Excellent/ Moderate	Children/Adults/ Teenagers
18	Grand Army Plaza	Flatbush Avenue, Eastern Pkwy. and Prospect Park	NYC Parks	8.90	0.44	8.56	Seating areas, planters, fountain, historic structure	Excellent/ Moderate	Children/Adults/ Teenagers
19	Park Slope Playground	40 Lincoln Place	NYC Parks/ DOE	0.96	0.72	0.24	Playground, basketball courts, running track, public restrooms, spray showers	Excellent/ High	Children/Adults/ Teenagers
20	North Pacific Playground	473 Pacific Street	NYC Parks	0.16	0.07	0.09	Playground, seating areas, planters	Excellent/ Low	Children/Adults/ Teenagers
21	Sixteen Sycamores Playground	358 Schermerhorn Street	NYC Parks	0.57	0.40	0.17	Basketball courts, handball courts, playground, public restrooms, spray showers	Excellent/ High	Children/Adults/ Teenagers
22	Underwood Park	336 Waverly Avenue	NYC Parks	1.19	0.43	0.76	Eateries, playground, public restroom, spray showers	Excellent/ Moderate	Children/Adults/ Teenagers
23	Edmonds Playground	319 Carlton Avenue	NYC Parks/ DOE	0.92	0.74	0.18	Basketball courts, playground, public restrooms, spray showers	Excellent/ High	Children/Adults/ Teenagers
24	P.S. 38 Community Playground	480 Pacific Street	NYC Parks/ DOE	0.82	0.74	0.08	Basketball courts, handball courts, playground, running track	Good/Low	Children/ Teenagers
25	BAM Plaza	300 Ashland Place	20 Lafayette LLC	0.38	0.00	0.38	Stepped topography of the plaza can be used for outdoor programming, such as film screenings and dance performances or farmer's markets.	Good/Low	Children/Adults/ Teenagers
26	Fowler Square Plaza	South Elliott Place	NYCDOT	0.06	0.00	0.06	Seating, landscaping	Good/Low	Children/Adults/ Teenagers
27	Hattie Carthan Playground	308 Monroe Street	NYC Parks/DOE	1.20	1.08	0.12	Basketball courts, handball courts, playground, public restrooms, spray showers	Good/ Moderate	Children/Adults/ Teenagers
½-mile Study Area Total				**50.49**	**16.55**	**33.94**			



Atlantic Avenue Mixed-Use Plan

Figure 5-3
Open Space Resources in the Study Area

Table 5-6: Qualitative Open Space Resources

Map ID	Name	Location	Owner	Type
A	Warren – St. Marks Community Garden	619 Warren Street	Brooklyn Alliance of Neighborhood Gardens	Community Garden
B	St. Marks Avenue – Prospect Heights Community Garden	207 St. Marks Avenue	Brooklyn Queens Land Trust	Community Garden
C	Hollenback Community Garden	460 Washington Avenue	Brooklyn Queens Land Trust	Community Garden
D	Prospect Heights Community Farm	252 St. Marks Avenue	Brooklyn Alliance of Neighborhood Gardens	Community Garden
E	Atlantic Terminal Playground	761 Atlantic Avenue	NYCHA	Playground
F	Classon Fulgate Block Association Garden	474 Classon Avenue	NYC Parks	Community Garden
G	Westbrook Memorial Garden	1233 Pacific Street	NYC Parks	Community Garden
H	1100 Block Bergen Association Garden	1107 Bergen Street	NYC Parks	Community Garden
I	Mama Dee's Garden	42 Rogers Avenue	NYC Parks	Community Garden
J	Brooklyn's Finest Garden	48 Lefferts Place	NYC Parks	Community Garden
K	United Herkimer Garden Club	97 Herkimer Street	NYC Parks	Community Garden
L	Stars of Hope Community Garden	213 Madison Street	NYC Parks	Community Garden
M	Walt L. Shamal Garden	1097 Dean Street	NYC Parks	Community Garden
N	Lefferts Place Block Association	162 Lefferts Place	NYC Parks	Community Garden
O	Madison Hill Community Garden	88 Madison Street	NYC Parks	Community Garden
P	Hancock Community Backyard Garden Park	324 Hancock Street	NYC Parks	Community Garden
Q	Lincoln-Berkeley Community Garden	20 Lincoln Place	NYC Parks	Community Garden
R	100 Quincy Community Garden	100 Quincy Street	NYC Parks	Community Garden
S	Wyckoff Gardens	120 3rd Avenue	NYCHA	Landscaped grounds, playground equipment, basketball court
T	Clifton Place Garden	289 Grand Avenue	Brooklyn Queens Land Trust	Community Garden
U	Hattie Carthan Community Garden	700 Marcy Avenue	NYC Parks	Community Garden
V	Shiloh Garden	323 Monroe Street	NYC Parks	Community Garden
W	Clifton Place Memorial Garden & Park	1031 Bedford Ave	NYC Parks	Community Garden
X	First Quincy Street Community Garden	397-401 Quincy Street	NYC Parks	Community Garden
Y	Greene Avenue United Neighbors Community Garden	490 Greene Avenue	NYC Parks	Community Garden
Z	The Feeding Tree Garden	340 Tompkins Avenue	NYC Parks	Community Garden

Map ID	Name	Location	Owner	Type
AA	Albany Houses	193 Albany Avenue	NYCHA	Landscaped grounds, playground equipment, basketball court
BB	Brooklyn Bears Carlton Avenue Garden	401 Carlton Avenue	NYC Parks	Community Garden

Non-Residential (1/4-mile) Study Area

As shown in **Table 5-5**, the non-residential study area contains 16 open space resources comprising approximately 22.97~~23.03~~ acres. Of this total, approximately 10.7~~14.87~~ acres (~~64~~46.6 percent) are used for active recreational uses and 8~~.16~~12.27 acres (~~35.4~~53.4 percent) are used for passive recreation. Three resources provide more than 1.5 acres of open space: Brower Park, Pacific Park, and John Hancock Playground.

Brower Park is located on the block bound by St. Mark's Avenue, Brooklyn Avenue, Kingston Avenue and Park Place and has been an outstanding educational and recreational resource for children for over a century. The site of the Brooklyn Children's Museum, the park also contains basketball courts, dog-friendly areas, handball courts, a playground, a skate park, spray showers and public restrooms.

South Oxford Park is located at 177 South Oxford Street. One of the most striking parks in the city, it features a playground, a large multi-purpose synthetic turf lawn, gardens, and tennis courts, as well as a large cat-tail themed spray shower.

John Hancock Playground is located at 90 Jefferson Avenue. It contains a playground, basketball courts, handball courts, a multi-purpose play area and spray showers.

The remaining open space resources within the nonresidential study area are less than 1.5 acres in size. These resources are primarily programmed with active open space uses, including basketball and handball courts, playgrounds, spray showers, and multi-purpose play areas (MPPA).

In addition to the open spaces outlined above, the non-residential study area includes other open space resources that are not included in the quantitative assessment, including community gardens – such as the Hollenback Community Garden and the Warren-St. Marks Community Garden and the Atlantic Terminal Playground, which is operated by NYCHA.

Residential (1/2-mile) Study Area

The residential study area includes all open space resources identified in the non-residential study area above, as well as an additional 11 open space resources (**Table 5-5**). Under existing conditions, the residential study area includes approximately 50.49~~39~~ acres of public open space (including the 22.97~~23.03~~ acres within the non-residential study area). Of this total, approximately 33.94~~10.5~~ acres (67.2~~20.8~~ percent) is utilized for passive recreation and

16.5539.89 acres (32.879.2 percent) is utilized for active recreation. Notable resources within the residential study area include Eastern Parkway and Grand Army Plaza.

Eastern Parkway, the world's first parkway, runs between Grand Army Plaza and Ralph Avenue. It was constructed between 1870 and 1874 and consist of a bikeway and a greenway. Of the park's 63.64 total acres, 12.26 are located within the residential study area.

Grand Army Plaza provides a wide and picturesque approach to Prospect Park, and as such, is considered a vital design element of the park. The approximately 10-acre plaza is primarily used for passive recreation and includes large statues and monuments, as well as seating areas, planted areas, and bikeways that provide access to and from the adjacent Prospect Park and surrounding residential neighborhoods. The plaza also marks the beginning of the Eastern Parkway.

In addition to the open spaces outlined above, the residential study area includes other open space resources that are not included in the quantitative assessment, including community gardens and a playground which is operated by NYCHA.

Assessment of Open Space Adequacy

Non-Residential (1/4-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 within the study 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

As noted in the 2021 *CEQR Technical Manual*, non-residential or worker populations typically use passive open space during the workday/school day, while residents are more likely to travel farther to reach parks and recreational facilities and use both passive and active open spaces. Consequently, the passive open space ratio is the relevant ratio for consideration. The non-residential study area has a total of 12.278.16 acres of passive open space. With an estimated worker population of 16,090, the non-residential study area has a passive open space ratio of 0.763507 acres per 1,000 workers (**Table 5-7**). This is above the City's goal of 0.150 acres of passive space per 1,000 workers. The combined passive open space ratio of 0.134089 acres per 1,000 workers and residents is below the goal of 0.44 acres of passive space per 1,000 workers and residents.

Qualitative Assessment

As shown in **Table 5-5**, of the 16 open space resources located within the non-residential study area, all 16 are in excellent to fair condition. Ten of these have moderate to high utilization, including all of the major recreational open spaces found within the study area. The remaining open areas are smaller triangle parks and other open spaces in proximity to major thoroughfares. These open spaces were observed to have low utilization during both weekday and weekend field visits.

In addition to the quantified open spaces described in **Table 5-5**, the non-residential study area includes several passive open spaces, such as community gardens and other small areas that are open to the public during daytime hours (**Table 5-6***)*. These spaces may be suitable for use by the nonresidential population in the area, but because public access may be restricted*,* they are not included in the quantitative assessment. Furthermore, additional public open space – such as Grand Army Plaza, located just outside of the non-residential study area (discussed above) – could be utilized by the non-residential population. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by a portion of the population who live and work in the non-residential study area.

Residential (1/2-mile) Study Area

The assessment 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. According to the 2020 U.S. Census, the residential study area had a population of approximately ~~170,204~~172,332.

Quantitative Assessment

As shown in Table 5-4, the residential study area has a total of 50.~~39~~ 49 acres of open space, of which approximately ~~39.89~~16.55 acres (~~80~~ 33 percent) are utilized for active recreation and ~~10.5~~33.94 acres (~~20~~ 66 percent) are utilized for passive recreation.

Based on the methodology contained in the 2021 *CEQR Technical Manual*, the residential study area has a total open space ratio of 0.29~~3~~2 acres per 1,000 residents, a passive open space ratio of 0.197~~061~~ acres per 1,000 residents, and an active open space ratio of 0.096~~231~~ acres per 1,000 residents (**Table 5-8**). These are lower than the City's recommended guidelines of 2.5 acres of total open space per 1,000 residents, as well as the City-recommended 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive 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.

Qualitative Assessment

As discussed above, approximately 33~~80~~ percent of the open space in the residential study area is dedicated to active recreation and approximately 66~~20~~ percent is dedicated to passive recreation. Although the residential study area contains a mix of recreational facilities, the open space ratios still fall below the CEQR goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents. Furthermore, both the active and passive open space ratios fall below the CEQR recommended 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents, respectively.

As shown in **Table 5-5**, the open space in the residential study area includes a wide variety of actively programmed spaces appropriate for all age groups, including children, teenagers, adults, and seniors. As noted in **Table 5-4**, the study area includes a higher percentage of working-age adults (ages 20 to 64), as compared with Brooklyn and New York City overall (72 percent in the study area compared with 62 percent in Brooklyn and 63 percent in New

York City). As indicated in the 2021 *CEQR Technical Manual*, adults tend to utilize active recreational amenities (such as handball and basketball courts) as well as open lawns and other passive recreational amenities, and the open space within the residential study area includes such facilities (see **Table 5-4**). 24 of the 27 open space resources shown in the table are in excellent or good condition. Eleven resources were observed to have low utilization; the majority of these are small triangle parks along major roadways.

As shown in **Table 5-4**, approximately 17 percent of the residential study area population consists of children and persons below the age of 20. As noted in the 2021 *CEQR Technical Manual*, children require a variety of active recreational amenities including playgrounds and sports facilities, such as basketball and handball courts, similar to the adult population. The residential study area's open space resources serving this population include 20 parks with playground/jungle gym equipment, 13 parks with basketball courts, and 14 parks with other age-appropriate recreational amenities, such as handball courts, baseball fields, and tennis courts.

Table 5-7: Adequacy of Open Space Resources in the Non-Residential Study Area: Existing Conditions (Table revised for FEIS)

		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
Workers	16,090	22.97	12.27	10.70	N/A	0.763	N/A	N/A	0.15	N/A
Combined Workers and Residents	91,636					0.134			0.44	

Table 5-8: Adequacy of Open Space Resources in the Residential Study Area: Existing Conditions (Table revised for FEIS)

		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
Residents	170,204	50.49	34.01	16.48	0.293	0.197	0.096	2.5	0.5	2.0

In addition to the quantified open space resources within the residential study area, there are additional open spaces including community gardens, and other athletic fields, which are accessible to the public during specified hours (see **Table 5-6**).

No-Action Condition

Study Area Population

In the No-Action Condition, it is expected that current land use trends and general development patterns in the Project Area will continue. These trends and patterns are characterized by the development of a mix of uses including mixed-use, commercial, light industrial, automotive, and storage uses, community facility, and some residential. As

detailed in **Chapter 1, Project Description**, it is anticipated that in the No-Action condition, absent the Proposed Actions, the projected development sites would be developed with 136 DUs, 161,466 sf of commercial space, 267,686 sf of community facility space, and 237,371 sf of industrial space.

In total, the combined as-of-right development on the projected development sites would introduce approximately 333 residents and 740 workers.

Non-Residential Study Area

In addition to as-of-right development on the projected development sites, an additional 66 development projects are anticipated to be constructed within the non-residential study area in the No-Action condition. As a result of these additional projects, the non-residential study area population is expected to increase by 1,083 workers, and by 9,552 residents. When added to the incremental increase attributable to the projected development sites (740 workers and 333 residents), the total No-Action increment is 1,823 workers and 9,885 residents. When added to the existing non-residential study area population (16,090 workers and 75,546 residents), the 2034 non-residential study area population is anticipated to be approximately 17,913 workers and 103,344 residents.

Residential Study Area

In addition to as-of-right development on the projected development sites, an additional 138 development projects are anticipated to be constructed in the residential study area in the No-Action condition (including those within the ¼-mile non-residential study area discussed above). As a result of these additional projects, the residential study area population is expected to increase by approximately 1,646 workers, and 15,497 residents to a total of 187,829 residents.

Open Space Resources

In the No-Action condition, it is assumed that the remaining 5 acres of open space proposed at the Pacific Park development would be completed, with the same active to passive acreage ratio (10 percent to 90 percent) that was assumed in the 2006 Atlantic Yards FEIS. This additional acreage (0.5 acres active and 4.5 acres passive) would bring the non-residential study area total acreage to 27.97~~28.03~~ acres, of which 16.77~~12.66~~ acres would be for passive use and 11.2~~15.37~~ acres would be for active use. In the residential study area, the resulting total acreage would be 55.49~~39~~ acres, of which 38.441~~15.0~~ acres would be for passive use and 17.05~~40.39~~ acres would be for active use.

Assessment of Open Space Adequacy

Non-Residential (1/4-mile) Study Area

As shown in **Table 5-9**, with a total worker population of 17,913 and 16.77~~12.66~~ acres of passive open space, the passive open space ratio would increase to 0.936~~707~~ acres per 1,000 workers in the No-Action condition, which would exceed the City's goal of 0.150 acres per 1,000 workers. The non-residential study area would have a combined worker and residential population of 103,344. The combined passive open space ratio of 0.162~~23~~ acres

per 1,000 workers and residents would be an increase from existing conditions but would remain below the City's goal of 0.44 acres of passive space per 1,000 workers and residents.

Residential (1/2-mile) Study Area

As shown in **Table 5-10**, the residential study area has a total open space ratio of 0.295 acres per 1,000 residents, a passive open space ratio of 0.205~~080~~ acres per 1,000 residents, and an active open space ratio of 0.090~~215~~ acres per 1,000 residents. These are lower than the City's recommended guidelines of 2.5 acres of total open space per 1,000 residents, as well as the City-recommended 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive 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.

Table 5-9: Adequacy of Open Space Resources in the Non-Residential Study Area: No-Action Condition (Table revised for FEIS)

		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**
Workers	17,913	27.97	16.77	11.20	N/A	0.936	N/A	N/A	0.15	N/A
Combined Workers and Residents	103,344					0.162			0.44	

Table 5-10: Adequacy of Open Space Resources in the Residential Study Area: No-Action Condition (Table revised for FEIS)

		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**
Residents	187,829	55.49	38.44	17.05	0.295	0.205	0.090	2.5	0.5	2.0

With-Action Condition

Direct Effects

The Proposed Actions would not result in any direct effects related to encroachments or loss of open space, or changes in open space such that it no longer serves the same user population, and there are no anticipated direct effects related to air quality or operational noise on open space resources from the Proposed Actions.

Indirect Effects

As discussed in **Chapter 1, Project Description**, by the 2034 Build Year, the Proposed Actions are expected to introduce an estimated total of 12,933 new residents and 3,559 workers to the Project Area.

The Proposed Actions would introduce an increment of 12,600 new residents and 2,819 new workers to the Project Area compared with the No-Action condition. As indicated in **Table 5-11**, the additional population is expected to increase the non-residential study area's worker population to 20,732 and the combined worker and residential population to 118,763. The study area's residential population is expected to increase to 200,429 by the 2034 Build Year.

Open Space Resources

The Proposed Actions would not introduce any new publicly accessible open space.

Table 5-11: With-Action Open Space Study Area Population

	No-Action Population	Incremental Population Introduced by the Proposed Actions	With-Action Population
	Non-Residential (1/4-mile) Study Area		
Workers	17,913	2,819	20,732
Combined Workers and Residents	103,344	15,162	118,763
	Residential (1/2-mile) Study Area		
Residents	187,829	12,600	200,429

Assessment of Open Space Adequacy

Non-Residential (1/4-mile) Study Area

Quantitative Assessment

As shown in **Table 5-12**, with a total worker population of 20,732 and 16.77~~12.66~~ acres of passive open space, the passive open space ratio would ~~increase slightly~~decrease to 0.809~~611~~ acres per 1,000 workers in the With-Action condition. The open space ratio would remain above the City's goal of 0.150 acres per 1,000 workers. The non-residential study area would have a combined worker and residential population of 118,763. The combined passive open space ratio of 0.141~~107~~ acres per 1,000 workers and residents would be an increase from existing conditions but remain below the goal of 0.44 acres of passive space per 1,000 workers and residents.

Qualitative Assessment

In the future With-Action condition, 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 ¼-mile radius would be less than the recommended weighted ratio, the non-residential study area residents would likely make use of additional open space resources outside of the ¼-mile study area. Moreover, 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 (1/2-mile) Study Area

Quantitative Assessment

As shown in **Table 5-13**, in the With-Action condition, the residential study area would have a total open space ratio of 0.277~~6~~ acres per 1,000 residents, a passive open space ratio of 0.192~~074~~ acres per 1,000 residents, and an active open space ratio of 0.085~~202~~ acres per 1,000 residents. These are lower than the City's recommended guidelines of 2.5 acres of total open space per 1,000 residents, as well as the City-recommended 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents. As such, there would continue to be a shortfall of both passive and active open space in the residential study area.

Qualitative Assessment

In the future With-Action condition, ratios of open space would continue to be lower than the City's measure of open space adequacy and the guideline planning goals. The population to be generated by the Proposed Actions under the RWCDS 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.

Table 5-12: Adequacy of Open Space Resources in the Non-Residential Study Area: With-Action Condition (Table revised for FEIS)

		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
Workers	20,732	27.07	16.77	11.20	N/A	0.809	N/A	N/A	0.15	N/A
Combined Workers and Residents	118,763					0.141			0.44	

Table 5-13: Adequacy of Open Space Resources in the Residential Study Area: With-Action Condition (Table revised for FEIS)

		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
Residents	200,429	55.49	38.44	17.05	0.277	0.192	0.085	2.5	0.5	2.0

It should also be noted that, as described above, an additional 28 open space resources are located within the ½-mile study area. Active open space amenities include several playgrounds and ball courts. Passive open space amenities include community gardens. 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 ½-mile study area.

In addition, the availability of open space located just outside of the study area (St. Andrew's Playground), and nearby high quality regional open space (Prospect Park and Fort Greene Park), could help to partially offset this quantitative deficit.

St. Andrew's Playground is located on Atlantic Avenue just east of the study area. This 3.4-acre facility is currently undergoing a complete reconstruction. When complete, the playground will contain lighted baseball fields, basketball courts, handball courts, a playground, spray showers and public restrooms.

Prospect Park, located south of the study area, is one of the City's premier regional parks. It contains a manmade watercourse (wetlands) and the bulk of Brooklyn's remaining indigenous forest. At 526 acres, Prospect Park includes a zoo, ice rink, band shell, carousel, and dozens of athletic and recreational facilities. Prospect Park draws visitors from surrounding neighborhoods and other parts of the City, and it is expected that residents in the City will continue to visit in the future as it is a resource that is in good condition and has a high capacity for visitors throughout the year.

Fort Greene Park, located northwest of the study area, contains sloping hills and open lawns and includes a basketball court, playgrounds, and tennis courts, all of which are in good condition.

Prospect Park and Fort Greene Park were both designed by Frederick Law Olmsted and Calvert Vaux. These premier park spaces offer exceptional amenities to neighborhood residents and New York City. These resources are geographically distributed to the south and northwest of the residential study area and provide residents access to additional open space resources. Both are also easily accessible by bicycle.

Determining Impact Significance

Table 7-5 of the 2021 *CEQR Technical Manual* indicates that a decrease in the open space ratio of 5 percent in areas with a total open space ratio range of 2.01 to 2.50 or greater, an active open space ratio range between 1.61 and 2.00 or greater, and a passive open space ratio range between 0.41 and 0.50, could result in an open space impact. It is important to note that the City's optimal open space ratios and percentage reductions do not constitute an absolute impact threshold; but rather projects are further assessed qualitatively to determine the overall significance of the impact.

Non-Residential (1/4-mile) Study Area

As shown in **Table 5-14**, in the With-Action condition the non-residential study area's passive open space ratio would decrease by approximately 13.6 percent between the No-Action condition and the With-Action condition (from 0.936~~707~~ acres per 1,000 residents to 0.809~~611~~ acres per 1,000 residents, respectively), however it would remain above the City's guideline ratio of 0.15 acres per 1,000 workers.

Table 5-14: Open Space Ratio Summary (Table revised for FEIS)

Ratio	*CEQR Technical Manual* Open Space Guideline	Open Space Ratio per 1,000			Percent Change (No-Action to With-Action)
		Existing	No-Action	With-Action	
Non-Residential Study Area					
Passive	0.15	0.763	0.936	0.809	-13.6%
Residential Study Area					
Total	2.5	0.293	0.295	0.277	-6.29%
Passive	0.5	0.197	0.205	0.192	-6.29%
Active	2.0	0.096	0.090	0.085	-6.29%

Residential (1/2-mile) Study Area

In the With-Action condition the total, active, and passive open space ratios would remain below the City's guideline ratios of 2.5 acres, 2.0 acres, and 0.5 acres per 1,000 residents, respectively. The majority of the Project Area is located in a Walk To Park Service Gap. The majority of the ½-mile study area is located in a Walk to Park Service Area (refer to **Figure 5-2**). As shown in **Table 5-14**, in the With Action condition total open space ratio would decrease by 6.29 percent as compared with the No-Action condition. The passive open space ratio would decrease by approximately 6.29 percent, and the active open space ratio would decrease by approximately 6.29 percent relative to the No-Action condition. Therefore, the Proposed Actions would result in a significant adverse impact to open space primarily due to the low active open space ratio and decreases between the No-Action and With-Action conditions. Potential mitigation measures to address the significant adverse impact are discussed in **Chapter 20, Mitigation.**

According to the 2021 *CEQR Technical Manual*, open space ratios are often not feasible for many areas of the City and do not constitute an absolute impact threshold. Rather, they are benchmarks that represent how well an area is served by its open space. For large-scale land use proposals, such as area-wide rezonings that could introduce a large population and increased demand on open space, qualitative considerations should be taken into account when assessing the effects of a change in the open space ratio, and a determination of impact significance should consider the balance of passive and active open space resources appropriate to support the affected population.