A. INTRODUCTION

This chapter assesses the potential impacts of the Proposed Action 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, or sport or serves to protect or enhance the natural environment. The *CEQR Technical Manual* indicates that an open space analysis should be conducted if a project would result in a direct effect, such as a physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

As described in **Chapter 1, "Project Description"**, the Proposed Action would facilitate the development of 500 Kent Avenue (Block 2023, Lot 10) with a 23-story, 352-foot tall (roof height) commercial building (the "Proposed Project") in the South Williamsburg neighborhood of Brooklyn Community District (CD) 2. The approximately 684,242 gross square feet (gsf) Proposed Project would contain 598,442 gsf of office space and 21,233 gsf of retail space. It would also contain approximately 49,453 sf (1.14 acres) of waterfront public open space, including a shore public walkway and supplemental public access area. There would also be 14,301 sf (0.33 acres) of non-public open space for building occupants. Additionally, there would be 234 public parking spaces (64,567 gsf) and two loading berths. A mixed-method quantitative and qualitative assessment was conducted to determine whether the Proposed Action would significantly reduce the amount of open space available within the study area.

B. PRINCIPAL CONCLUSIONS

According to the *CEQR Technical Manual*, a proposed project may result in a significant adverse 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.

Direct Effects

The Proposed Action would not remove or alter any existing publicly accessible open spaces apart from shadows effects, which are assessed in **Chapter 5**, and as determined therein the Proposed Action would not result in any significant adverse shadows impacts. In addition, the Proposed Action would not result in any significant adverse operational or construction air quality or noise impacts affecting open space resources as discussed in **Chapter 18**. Therefore, the Proposed Action would not result in any significant adverse direct impacts to open space.

Indirect Effects

The Proposed Action would not result in an indirect significant adverse impact on open space. In the future with the Proposed Project, the non-residential study area's passive open space ratio would decrease by approximately 26 percent. However, the study area has a robust inventory of open space. Currently, the amount of publicly accessible passive open space relative to the non-residential population is approximately 1.033 acres per 1,000 non-residents; this is well above the optimal rate (according to the *CEQR Technical Manual*) of 0.15 acres of passive recreation space per 1,000 non-residents. In the No-Action condition, the passive open space ratio is 1.071 is acres per 1,000 non-residents; the With-Action passive open space ratio is 0.796 per 1,000non-residents which remains above the optimal rate. As such, the Proposed Action would result in a significant change to the open space ratio, but the outcome would still provide a ratio well above the optimal rate of 0.15 acres of passive space per 1,000 non-residential users.

Furthermore, while the combined worker and residential population of the study area is expected to increase by the 2026 With-Action condition, the combined passive open space ratio is expected to increase due to the inclusion of additional public passive open space under both No-Action and With-Action conditions. The passive public open space ratio is 0.126 per 1,000 combined workers and residents under the existing conditions, would be 0.132 per 1,000 combined workers and residents under the No-Action conditions, and would be 0.160 per 1,000 combined workers and residents under the With-Action conditions. Although the ratio would remain below the calculated weighted goals, the ratios would increase from the No-Action to With-Action scenario, with an increase of 21.0 percent from No-Action to With-Action due to the inclusion of additional open space provided in the Proposed Project. Accordingly, the Proposed Action would not result in any indirect significant adverse open space impacts.

C. METHODOLOGY

Direct Effects

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. As no open space resources would be physically displaced by the construction or operation of the proposed project it would not directly affect any open spaces within, or in close proximity to the Project Site, except for effects of action-generated shadows on public open space resources located close to the Project Site. The effects of project-generated shadows on nearby open spaces are assessed in **Chapter 5, "Shadows."**

Indirect Effects

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed project if the project would add enough population, either residential or non-residential, to

noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area. The open space analysis and impact assessment is based on the identified RWCDS for the Project Site. As discussed in **Chapter 1, "Project Description,"** the Proposed Action would facilitate the development of Block 2023, Lot 10 which would introduce an estimated net increase of 2,458 workers, i.e., greater than 500, new workers but no new residents. As such, an open space assessment for non-residential populations generated by the Proposed Action is warranted.

Study Areas

The first step in assessing potential open space impacts is to establish the appropriate study area(s) for the new population(s) to be added as a result of a proposed project. The open space study areas are based on the distance a person is assumed to walk to reach a neighborhood open space, which differs by user. Workers typically use passive open spaces within a short walking distance of their workplaces. Workers are assumed to walk up to an approximately a quarter-mile distance to reach neighborhood open spaces.

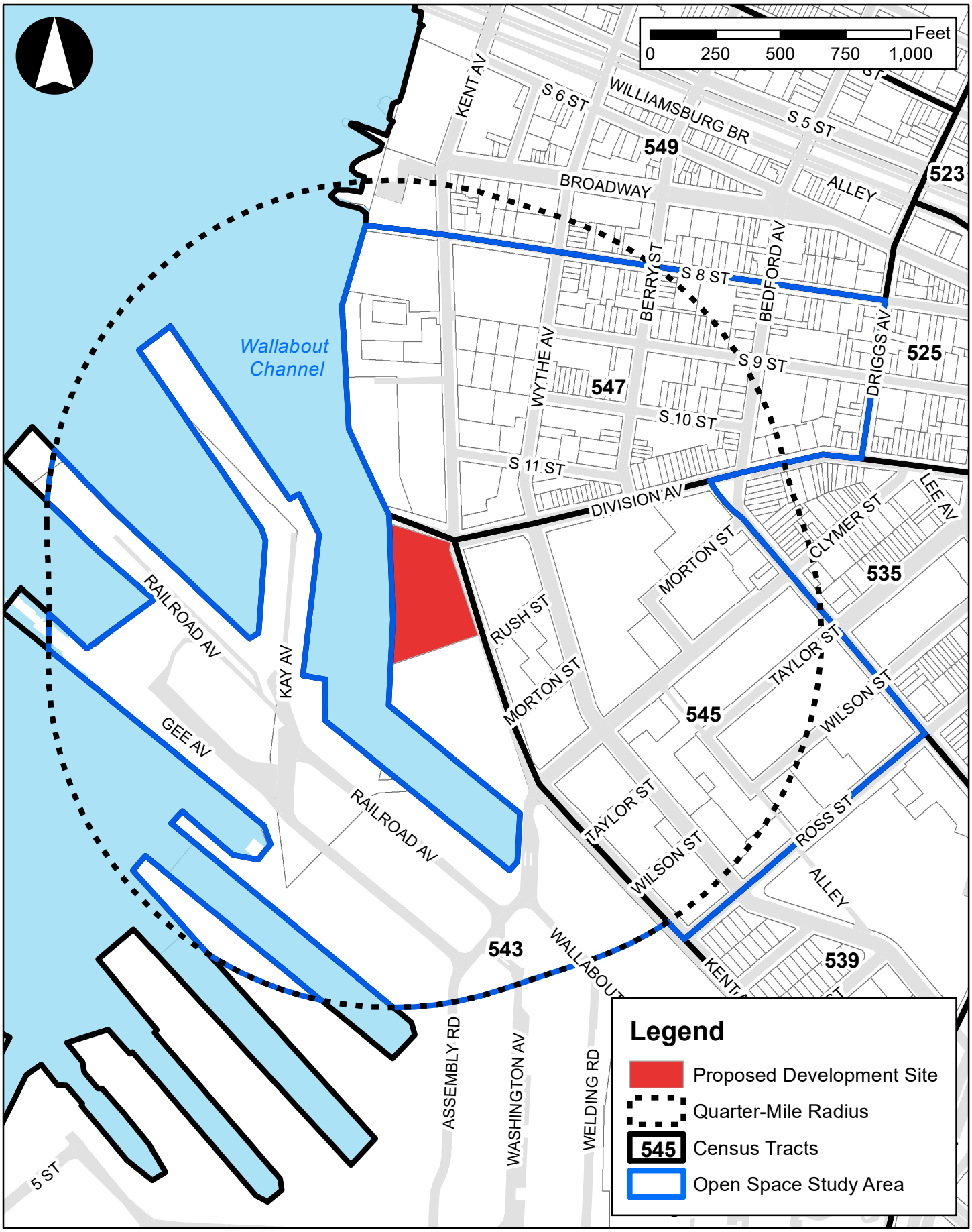
As noted above, the Proposed Action would not generate any residents and therefore an open space assessment for residential populations is not warranted and is not necessary to identify a residential study area. Therefore, one study area is evaluated: a non-residential (worker) study area based on a ¼-mile distance from the Project Site.

Per the *CEQR Technical Manual*, the study area boundary should be adjusted to include all census tracts with at least 50 percent of their area within the quarter-mile radius. As shown in **Figure 4-1**, there are two census tracts with at least 50 percent of their area within the ¼-mile radius, census tracts 545 and 547. Additionally, a small portion of census tract 543 lies within the quarter-mile radius and the inclusion of part of this census tract in the study area is warranted. Even though much less than 50 percent of census tract 543 lies within the quarter-mile radius, given that a majority of the ¼-mile radius area (excluding water) lies within the census tract, including the Project Site, the portion of the census tract within the quarter-mile radius, which encompasses approximately 12 percent portion of the census tract, was included alongside tracts 545 and 547 within the study area.[1]

There are six publicly accessible open spaces located within the study area, including: Roberto Clemente Ballfield, Jacob's Ladder Playground, Schaefer Landing Esplanade, 420 Kent Avenue Waterfront, Epiphany Playground, and Bedford Playground. All of these include both passive and active open space. Accordingly, these six public open space resources have been included in the quantitative analysis. Besides these six resources, there are five open space resources within a quarter-mile radius of the Project Site that do not meet the criteria for inclusion in an open space assessment as described in the *CEQR Technical Manual*. They include Cohn Triangle, La Casita Verde, The Kent Village Apartments, Independence Towers, and Taylor Street-Wythe Avenue apartments.

[1] Census tract 543 encompasses all of the Brooklyn Navy Yard (BNY), the Project Site, and seven blocks located south of the BNY, an area much larger than a typical NYC census tract.

Figure 4-1
Open Space Study Area



Analysis Framework

The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate. However, given the size of the Proposed Project and the number of workers it would generate, a detailed assessment appeared likely to be warranted and is provided herein without conducting an initial assessment.

As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the City identified as a "Walk to a Park Service Area (WtPSA)." A WtPSA is a component of *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. Areas not located within a WtPSA are considered "walk gaps;" they are areas that are not within walking distance to a park. As shown in **Figure 4-2**, the Project Site is located within an area that has been identified as a WtPSA that is within a walking distance of a park (i.e., not located within a walk gap area).

With the passive open space resources in the study area, the adequacy of open space for workers in the study area can be assessed both quantitatively and qualitatively. The quantitative approach looks at the open space acreage relative to the population in the study area and compares the ratio with the City's guidance. The qualitative assessment examines other factors that may have an impact on conclusions about the adequacy of open space resources in the study area. Specifically, the analysis in this chapter includes:

- Open space study area population. To determine the number of non-residents in the study area, 2019 employment data (the most recent employment data) obtained from the U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics has been compiled for the census tracts comprising the open space study area. Because the study area has a residential population that may also use open space, in accordance with *CEQR Technical Manual* guidance, the number of residents in the study area has also been calculated, based on 2020 Census data.
- An inventory of all publicly accessible passive recreational facilities in the non-residential open space study area. As noted above, this consists of six resources: Roberto Clemente Ballfield, Jacob's Ladder Playground, Schaefer Landing Esplanade, 420 Kent Avenue Waterfront, Epiphany Playground, and Bedford Playground. The study area's five private open spaces are also inventoried; these include Cohn Triangle, La Casita Verde, The Kent Village Apartments, Independence Towers playground, and Taylor-Street Wythe Avenue Apartments playground. Characteristics of these resource's facilities, condition, and utilization have been identified by conducting research and a field visit.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the populations in the study area and comparing these open space ratios with certain guidelines. According to *CEQR Technical Manual* guidance, a ratio of 0.15 acres of passive open space per 1,000 non-residents represents a reasonable amount of open space. The needs of non-residential and residential populations are also considered together in the study area because it is assumed that both use the same passive open space. Therefore, a weighted average is also considered for the analysis that balances the amount of open space

Figure 4-2
Walk to a Park Service Area



Legend

Proposed Development Site

Walk to a Park Service Area

necessary to meet the guideline of 0.5 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents. Because this ratio changes depending on the proportion of residents and non-residents 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 acreage per 1,000 combined residents and non-residents.

- An evaluation of qualitative factors affecting open space use has also been conducted, including the condition of the study area's public open space resource and identification of private open space resources that are available to some or all populations in the study area.
- A determination of the adequacy of open space in the non-residential open space study areas.
- An assessment of expected changes in future levels of open space supply and demand in the 2026 analysis year, based on other planned development projects and anticipated background growth rates within the open space study areas. The daytime population of the proposed project is estimated based on standard ratios of one employee per 250 sf of office and three employees per 1,000 sf of retail. Background growth rate was based on changes in the non-residential populations in census tracts 547, 545, and 543 between the 2010 US Census and 2020 US Census. Open space ratios are calculated for future conditions and compared to determine changes in future levels of adequacy.

Impact Assessment

Impacts are based in part on how a project would change the open space ratios in the study area. According to the *CEQR Technical Manual,* an open space ratio decrease is generally considered to be a significant adverse impact, warranting a detailed analysis, if it would approach or exceed five percent in areas that are currently between the City's ideal ratio of 2.01 to 2.5 or greater acres per 1,000 residents. If a study area exhibits a low open space ratio (e.g., less than 0.15 acres of passive space per 1,000 non-residential users), indicating a shortfall of open space, smaller decreases in that ratio as a result of the project may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidance. It is recognized that the open space ratios of the City guidance described above 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. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations such as the distribution of open space, whether a site is within a WtPSA, the distance to regional parks, the connectivity of existing open space, and any additional open space provided by the proposed project, should be considered in a determination of impact significance.

D. EXISTING CONDITIONS

Study Area Population

Since the Proposed Action includes a rezoning to a manufacturing zoning district that does not permit residential uses, this assessment is only considering the non-residential population in calculating open space ratios. Based on the most recently available US Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, the existing worker population in the study area is estimated at approximately 2,114 workers. Therefore, workers make up a total non-residential study area population of 2,114. As discussed above, because the study area has a residential population that may also use open space, in accordance with *CEQR Technical Manual* guidance, the number of residents in the study area has also been calculated, based on 2020 Census data. The existing residential population in the study area is estimated at approximately 15,164. The total combined existing worker and residential study area population is thus approximately 17,278. Refer to **Table 4-1**.

TABLE 4-1, Existing Non-residential and Residential Populations

Census Tract	Worker population[3]	Residential population[4]	Total population
543 (part)[1]	351	5[2]	356
545	415	7,304	7,719
547	1,348	7,855	9,203
Total:	**2,114**	**15,164**	**17,278**

[1] Only 12 percent of the worker population for US Census Tract 543 is included in the population total.
[2] 12 percent of the residential population would total 0.6, as such for a more conservative assessment, the total population of 5 is included.
[3] Worker population calculated using 2019 employment data.
[4] Residential population calculated using 2020 US Census data.

Only 12 percent of Census Tract 543's land area is within the study area. Given that a disaggregation of the worker population is not available at the sub-tract level, for this assessment estimates the worker population for that portion of the census tract by prorating the entire tract worker population proportionate to the share of the tract area in the study area. However, given the very small existing residential population of Census Tract 543, the entire residential population has been included in the total residential and total population sums.

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. Publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the non-residential and residential study areas.

An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play, such as sports or exercise, and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf

courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation and typically contains benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation, such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging, or rollerblading. For example, per CEQR guidance, waterfront esplanades are often considered to consist of 50 percent passive and 50 percent active open space.

Within the study area, all publicly accessible open space resources 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 April 2021; the New York City Department of Parks and Recreation's ("NYC Parks") website; and the New York City Open Accessible Space Information System (OASIS) database and other secondary sources of information.

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

Likewise, judgments as to the intensity of use of the resources were qualitative, based on an observed degree of activity or utilization on a weekday between 11 AM and 3 PM, which is considered the weekday peak utilization period according to *CEQR Technical Manual* guidance. If a resource 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. The study area contains six publicly accessible open spaces that are included in the quantitative analysis and five open spaces included in the qualitative analysis. Refer to **Table 4-2** and **Figure 4-3**.

Non-Residential (quarter-mile Study Area)

As shown in the table below, the non-residential study area contains a total of 5.97 acres of public open space, comprised of 3.79 acres of active recreational facilities and 2.19 acres which serve as passive recreational facilities. As shown in **Figure 4-3**, there are six open space resources included in the quantitative analysis. Of these, Roberto Clemente Ballfield is the largest open space resource. Roberto Clemente Ballfield is located directly across the street, to the east, from the Project Site. It is bound by Division Avenue to the north, Kent Avenue to the west, and Wythe Avenue to the east. For decades, the park was the site of factories. As part of the federally-funded Williamsburg Urban Renewal Area, the factories and tenements were torn down and replaced with public housing and open space. New York City acquired the site of the park in 1986 and in 1995 began construction of the ballfield. It was completed in 1998 and is operated and managed by the NYC Department of Parks and Recreation (DPR). The majority of the space is an active ballfield but a small minority (ten percent) consists of passive shaded benches and open space.



Legend

- Quarter-Mile Radius
- Open Space Study Area
- Proposed Development Site
- 1 Quantitative Open Space Resources (refer to Table 4-2)
- A Qualitative Open Space Resources (refer to Table 4-2)

TABLE 4-2, Study Area Open Space Resources

Total Included in Quantitative Analysis													
Number	**Name**	**Location**	**Owner/ Agency**	**Amenities**	**User Groups**	**Hours of Operation**	**Acreage**	**Passive**		**Active**		**Condition**	**Utilization**
								Acres	**%**	**Acres**	**%**		
1	Roberto Clemente Ballfield	513 Kent Ave	DPR	Ballfield, Benches, Landscaped Areas	Children, Adults, Seniors	6am - 9pm	1.93	0.19	10%	1.74	90%	Moderate	Low
2	Jacob's Ladder Playground	557 Kent Ave	DPR	Playground, Benches, Landscaped Areas	Children, Adults, Seniors	6am - 9pm	1.08	0.32	30%	0.76	70%	Moderate	Fair
3	Epiphany Playground	437 Berry St	DPR	Playground, Handball, Basketball, Fountain	Children, Adults, Seniors	6am - 9pm	0.50	0.15	30%	0.35	70%	Moderate	High
4	Bedford Playground	449 Bedford Ave &, S 9th St	DPR	Handball, Basketball, Playground, Chess Tables	Children, Adults, Seniors	6am - 9pm	1.00	0.35	35%	0.65	65%	Good	High
5	Schaefer Landing Esplanade	440 Kent Ave	DPR	Ferry terminal, Benches, Landscaped Areas	Children, Adults, Seniors	"This park closes at dusk"	0.89	0.71	80%	0.18	20%	Good	Fair
6	420 Kent Avenue Waterfront	420 Kent Ave	420 Kent Avenue	Boardwalk, Landscaped Areas, Benches	Children, Adults, Seniors	6am - 12am	0.57	0.46	80%	0.11	20%	Excellent	Fair
						Total*	**5.97**	**2.19**	**37%**	**3.79**	**63%**		

**** Note: passive acreage (2.19) and active acreage (3.79) sum to 5.97; this is due rounding of reported acreage values to two decimal places.***

Table continues on following page

TABLE 4-2, Study Area Open Space Resources (continued)

Total Not Included in Quantitative Analysis

Number	Name	Location	Owner/ Agency	Amenities	User Groups	Hours of Operation	Acreage	Passive		Active	
								Acres	%	Acres	%
A	Cohn Triangle	Division Ave, Bedford Ave	DPR	Plantings	Children, Adults, Seniors	No publicly listed hours	0.07	0.07	100%	0.00	0%
B	La Casita Verde	451 Bedford Ave	DPR	Community Garden	Children, Adults, Seniors	20 hours a week April 1 - October 31	0.12	0.12	100%	0.00	0%
C	The Kent Village Apartments	Wythe Ave., Clymer St	The Kent Village Apartments	Plantings, Benches	Children, Adults, Seniors	No publicly listed hours	0.05	0.05	100%	0.00	0%
D	Taylor Street-Wythe Avenue	Wythe Ave, Wythe Pl, Clymer St, Ross St	NYCHA	Playground, Landscaped Areas, Benches	NYCHA residents only	No publicly listed hours	0.20	0.12	60%	0.08	40%
E	Independence Towers	Taylor St, Wilson Ave bet. Wythe Pl and Bedford Ave	NYCHA	Playground, Landscaped Areas, Benches	Children, Adults, Seniors	No publicly listed hours	020	0.10	50%	0.10	50%
						Total	**0.64**	**0.46**	**72%**	**0.18**	**28%**

Notes:
Site survey conducted by PHA in April 2021.
[1] Keyed to **Figure 4-3**

Jacob's Ladder Playground, located southeast of the Project Site, is bound by Kent Avenue to the west, Clymer Street to the southeast, and Wythe Avenue to the northeast. Much like Roberto Clemente Ballfield, the playground was formerly the site of factories. New York City also acquired the site in 1986 with the intention of turning the site into passive open space. Construction began in 1996 and it was completed in 1999. It is operated and managed by DPR. The majority of the space is active with a playground, with a small minority of shaded benches and landscaped greenery.

Epiphany Playground, located to the northeast of the Project Site, is on Berry Street between S. 9th and S. 10th Streets. It is named after the nearby Epiphany Roman Catholic Church located on S. 9th Street. In 1993, DPR entered into a maintenance and management agreement with Arriba Juntos "Forward Together Inc.," a local Catholic service organization. In 1997, the park was transferred to the jurisdiction of DPR, which works in coordination with Arriba Juntos. The majority of the space is active with a handball court and basketball court but there is also a passive area featuring a public fountain in the center of the park.

Bedford Playground, also located to the northeast of the Project Site, is bound by Bedford Avenue to the west, S. 9th Street to the north, and Division Avenue to the south. Named after the avenue for which the park now fronts, the original location for the park was on the Brooklyn waterfront. In 1910, New York City acquired parcels along the waterfront for ferry service and the park remained undeveloped. In 1951, Schaefer Brewing Company reached an agreement with the City to transfer its site on the corner of S. 9th Street and Bedford Avenue for the waterfront sites DPR controlled. In 1956, the former brewery site became a playground. It remained nameless until 1987 when it was named Bedford Playground. It underwent a $1.25 million reconstruction in 1999; it is operated and managed by DPR. The majority of the space is active with a handball and basketball court as well as playground, while passive area includes shaded chess tables.

Schaefer Landing, located on the waterfront to the north of the Project Site, is bound by the East River to the west, S. 10th Street to the south, Kent Avenue to the east, and S. 9th Street to the north. It is operated and managed by DPR. Per *CEQR* guidance, waterfront lots where zoning requirements for new development include the creation of privately owned and maintained waterfront public access areas, can be assumed to be 80 percent passive and 20 percent active. Although Schaefer Landing is operated by DPR, given that it was developed in tandem with the adjoining development of the same name, 80 percent of the space is categorized as passive with benches and 20 percent of the space as active, including a walkway used for running and other recreational activities. Schaefer Landing also houses the South Williamsburg ferry terminal of the NYC Ferry. Although signage indicates that the park closes at dusk, it remains publicly accessible later, given that ferry service operates with the last scheduled departure at 10:13 PM.

The 420 Kent Avenue esplanade, located on the waterfront further to the north of Schaefer Landing, is bound by Kent Avenue to the east and 416 Kent Avenue to the north. Much like Schaefer Landing, 80 percent of the space is passive with benches and 20 percent of the space is active including a shore public walkway. It is a publicly accessible open space operated and managed by 420 Kent Avenue. It was created pursuant to the City's waterfront zoning

requirements in connection with the 420 Kent Avenue development and is part of a larger waterfront network of open space created with new developments on the Brooklyn waterfront (refer to **Chapter 2, "Land Use, Zoning, and Public Policy,"** for more information).

Other open space resources in the non-residential study, but not in the quantitative analysis include: Cohn Triangle, a small plaza; La Casita Verde, a community garden; Kent Village Apartments' open space consisting of plantings and benches; Independence Towers NYCHA complex's open space consisting of playgrounds, landscaped areas, and benches, and the Taylor Street-Wythe Avenue NYCHA complex's open space consisting of playground, landscaped areas, and benches. These resources were not included in the quantitative analysis given their limited accessibility and/or hours of operation, but are nonetheless within the study area.

Assessment of Open Space Adequacy

Study Area

The analysis of the study area focuses on passive open spaces that may be used by non-residents in the area. To assess the adequacy of open spaces in the area, the ratio of non-residents to acres of passive open space is compared to the City's planning guidance of acres of passive open space per 1,000 workers. In addition, the combined passive open space ratio for both non-residents and residents in the study area is compared with the recommended weighted average ratio.

Quantitative Assessment

The non-residential study area includes a total of 2.19 acres of passive open space. A total of 2,114 workers are present in the study area, i.e., census tracts 543 (part), 545, and 547. The quarter-mile study area has a passive open space ratio of 1.033 acres per 1,000 workers, which is more than 1,300 percent higher than the aforementioned optimal rate of 0.15 acres. Therefore, non-residents in the study area have adequate access to passive open space resources under existing conditions. The combined non-residents and residents passive open space ratio is 0.126 acres per 1,000 non-residents and residents, less than the recommended weighted average ratio of 0.46 acres per 1,000 combined users. Refer to **Table 4-3**.

TABLE 4-3, Existing Passive Open Space Ratio

Existing Population		**Open Space Acreage**			**Open Space Ratios per 1,000 People**			***CEQR Technical Manual* Open Space Optimal Planning Goal**		
		Total	**Passive**	**Active**	**Total**	**Passive**	**Active**	**Total**	**Passive**	**Active**
Quarter-Mile Non-Residential Study Area										
Non-residents	2,114	5.97	2.19	3.79	N/A	1.033	N/A	N/A	0.15	N/A
Combined Non-residents and Residents	17,278				N/A	0.126	N/A	N/A	0.46	N/A

Qualitative Assessment

The passive spaces in the non-residential study area exhibit a range of moderate to excellent conditions, and low to high use levels. There are features such as benches, landscaped areas, plantings and chess tables in the passive space. In addition to public passive open space resources, non-publicly-accessible passive open space resources include the primary playgrounds open spaces of the NYCHA Taylor Wythe Houses along the two-block long section of Wythe Place between Taylor Street and Ross Street and, a half-block to its east, the NYCHA Independence Towers along Wilson and Taylor streets midblock between Wythe Place and Bedford Street. There is also the affordable Kent Village apartment complex located on the southeast corner of the Wythe Avenue and Clymer Street superblock. Buildings in these complexes are set back from the sidewalk, providing space for seating areas including benches and picnic tables which also have significant playgrounds. These buildings do not provide a formally designated publicly accessible open space but do act as open space resources for their tenants and may be used informally by others. The open space at the Kent Village apartments covers approximately 0.05 acres, at the Taylor Wythe Houses covers approximately 0.07 acres, and at the Independence Towers covers 0.20 acres. Cohn Triangle, although not within the study area boundary, is located within a quarter-mile radius of the Project Site. The 0.07-acre triangle has plantings and a statue to the park's namesake, Harold W. Cohn. Within the quarter-mile study area there is only community garden, La Casita Verde. Located at the corner of Bedford Avenue and Division Avenue, the community garden is open 20 hours a week during the months between April and October, and offers 0.12 acres of passive space. In total, these five open spaces total 0.64 acres, comprised of 0.46 acres of passive space and 0.18 acres of active space.

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

Study Area Population

In addition to the as-of-right No-Action development on the Project Site, which would add 413 employees, as discussed in **Chapter 2, "Land Use, Zoning, and Public Policy,"** there are two other study area No-Action developments with anticipated employee generation. The development of 75 S. 8th Street will introduce 17 additional workers.[2] The Phase 1 development of 470 Kent Avenue would introduce approximately 55 additional workers.[3] There is one other study area No-Action development, 491 Bedford Avenue, but it would have no expected employee generation as it would be a residential development of 6 DUs. However, it will add approximately 25 new residents to the residential population.[4] Additionally, the Phase 1 development of 470 Kent Avenue will introduce 571 dwelling units, which would total approximately 2,021 new residents.[5]

[2] According to plans filed with DOB, the development will introduce 7,484 sf of community facility space. Worker population assumes one employee per 450 sf of community facility space.
[3] According to plans, 470 Kent Avenue will be developed in two separate phases. Phase 1 is expected to be completed by 2024; Phase 2 is still in development and plans have not yet been finalized. Phase 1 is expected to introduce 18,363 sf of local retail space and 571 dwelling units. Worker population assumes one worker per 333 sf of retail space.
[4] Based on the average household size of 4.08 persons per household in the South Williamsburg Neighborhood Tabulation Area (where 491 Bedford Avenue is located).
[5] Based on the average household size of 3.54 persons per household calculated in the 470 Kent Avenue EAS.

Overall, with increased workers on the Project Site, the No-Action development, and due to background growth, the study area non-residential population would increase by 485 workers between existing and No-Action conditions, from 2,114 to 2,599. Based on the incremental residential population generated by the No-Action developments and future background growth (1,271 additional residents), the study area residential population would increase by 3,317 to 18,481. The combined non-residential and residential population would increase by 3,802 from 17,278 to 21,080 Refer to **Table 4-4**.

Open Space Resources

Plans for 470 Kent Avenue Phase I indicate that the development will introduce approximately 0.75 acres of publicly accessible open space. This open space will be in the form of waterfront esplanades and upland connections. Plans for the specific use of such open space is not available, but to be conservative and consistent with CEQR guidance, it is assumed that the 0.75 acres of open space would be 80 percent passive and 20 percent active.[6] Therefore, approximately 0.60 acres of passive open space are expected to be added to the study area under the No-Action condition. As such, the new study area open space acreage is expected to increase from 5.97 acres of total open space under the existing conditions to 6.72 acres of total open space and from 2.19 acres of passive open space under existing conditions to 2.79 acres of passive open space under the No-Action conditions.

TABLE 4-4, No-Action Study Area Population

No-Action Population		**Open Space Acreage**			**Open Space Ratios per 1,000 People**			***CEQR Technical Manual* Open Space Optimal Planning Goal**		
		Total	**Passive**	**Active**	**Total**	**Passive**	**Active**	**Total**	**Passive**	**Active**
Quarter-Mile Non-Residential Study Area										
Non-residents	2,599	6.72	2.79	3.94	N/A	1.071	N/A	N/A	0.15	N/A
Combined Non-residents and Residents	21,080				N/A	0.132	N/A	N/A	0.46	N/A

Assessment of Open Space Adequacy

Non-Residential (quarter-mile Study Area)

As described above, the non-residential and residential populations of the study area are expected to increase and there is an expected increase in the amount of public open space in the 2026 No-Action condition. As a result, the passive open space ratio is expected to improve. The passive open space would increase to 2.79 acres whereas the non-residential population would be approximately 2,599 with the background growth and No-Action developments' employees and current non-residential population combined. Additionally, the residential population is also expected to increase, for a combined non-residential and residential population of 21,080. As a

[6] According to Chapter 7, "Open Space" in the *CEQR Technical Manual*.

result, the study area passive open space ratio for non-residents would increase by 0.038 from 1.033 under the existing condition to 1.071 under the No-Action condition, an approximately 3.7 percent increase, still substantially above the 0.15 optimal rate. The study area weighted passive open space ratio for combined residents and non-residents would increase by 0.006 from 0.126 under the existing condition to 0.132 under the No-Action condition, an approximately 4.5 percent increase, but still below the weighted optimal rate of 0.46.

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

Under With-Action conditions, the Proposed Action would facilitate the development of the Project Site with offices, retail, parking, and open space.

Direct Effects

Direct effects occur when a project results in 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.

The Proposed Action would not remove or alter any existing publicly accessible open spaces, and would not cause any significant adverse direct impacts to open space, apart from incremental shadows, which are assessed in **Chapter 5, "Shadows."**. However, the Proposed Action would add approximately 1.14 acres of publicly accessible open space. Waterfront public open space would be provided, including a 20,466-sf shore public walkway along Wallabout Channel, 2,714-sf supplemental public access area linking the shore public walkway to a covered corridor between two wings of the building extending up to Kent Avenue, for a total of 23,180 sf of publicly accessible open space. It is anticipated that the project's 1.14 acres of public open space would include 0.228 acres of active open space, comprising 20 percent of the shore public walkway while the remaining 0.912 acres would be passive open space. As discussed in **Chapter 1, "Project Description,"** there also would be 14,301 sf (0.33 acres) of open areas not formally accessible to the public. In total, the Proposed Action would introduce 1.47 acres of combined publicly accessible and not formally publicly accessible open space.

Indirect Effects

Study Area Population

The Proposed Action would introduce a net increment of approximately 2,045 workers (refer to **Table 2-4** in **Chapter 2**. With these 2,045 workers added to the 2,599 non-residential population in the study area under the No-Action condition, the non-residential population under With-Action conditions would be 4,644. The residential population is expected to remain the same from the No-Action to With-Action condition. As such, the residential population would remain at 18,481 residents in the future With-Action conditions. In total, the combined non-residential and residential study area population would increase by 2,045 from 21,080 to 23,125. Refer to **Table 4-5**.

Open Space Resources

As discussed above, under the With-Action conditions, the proposed project would add approximately 1.14 acres of publicly accessible open space to the study area. This open space would include an approximately 528-foot-long waterfront esplanade from Division Avenue on the north to the southern edge of the Project Site. Several active and passive recreation areas would be located along the esplanade including several seating and gathering areas and a shore public walkway that could be used for activities such as biking and running but also would providing seating, and would connect to other off-site open spaces. According to the *CEQR Technical Manual*, the open space ratio for esplanades is typically 20 percent active open space and 80 percent passive open space. As such, it is assumed that the With-Action open space would be 20 percent active and 80 percent passive, resulting in an addition of 0.91 acres of passive public open space. As such, the total open space acreage is expected to increase under the With-Action scenario from 6.72 acres of total open space to 7.86 acres of total open space, and the passive open space acreage would increase by 0.91 acres from 2.79 acres under the No-Action condition to 3.70 acres under the With-Action condition.

TABLE 4-5, With-Action Study Area Population and Open Space Ratios

With-Action 2026 Population		**Open Space Acreage**			**Open Space Ratios per 1,000 People**			***CEQR Technical Manual* Open Space Optimal Planning Goal**		
		Total	**Passive**	**Active**	**Total**	**Passive**	**Active**	**Total**	**Passive**	**Active**
Quarter-Mile Non-Residential Study Area										
Non-residents	4,644	7.86	3.70	4.16	N/A	0.796	N/A	N/A	0.15	N/A
Combined Non-residents and Residents	23,125				N/A	0.160	N/A	N/A	0.43	N/A

Assessment of Open Space Adequacy

Non-Residential (quarter-mile) Study Area

As described above, under With-Action conditions the non-residential population of the study area is expected to increase and there would be an increase in the amount of public open space in the 2026 With-Action condition as well. The passive open space ratio is expected to decrease, but not as significantly as it would without the inclusion of additional public open space. The passive public open space would be 3.70 acres whereas the non-residential population would be approximately 4,644. As a result, the study area non-residential passive open space ratio would change by 0.275 from 1.071 under the No-Action condition to 0.796 under the With-Action condition, an approximately 26 percent decrease. However, it would be more than five times higher than the 0.15 optimal rate.

Determining Impact Significance

There would be no direct displacement or alteration of existing open space within the study area as a result of the Proposed Action, apart from shadows effects that are assessed in **Chapter 5** and as discussed therein, the Proposed Action would not result in any significant adverse shadows impacts. The optimal ratio for worker populations is 0.15 acres of passive open space per 1,000 non-residents. **Table 4-6** expresses the percentage change from No-Action to With-Action conditions in the non-residential study area.

TABLE 4-6, Passive Open Space Ratios Summary

Ratio	*CEQR Technical Manual* Open Space Guidance	Passive Open Space Ratios per 1,000			Percent Change (No-Action to With-Action Condition)
		Existing	No-Action	With-Action	
Non-Residential (quarter-Mile Study Area)					
Passive – Workers	0.15	1.03	1.07	0.796	-25.70%
Passive – Combined worker and residents (weighted)	0.15 for Workers; 0.5 for Residents 0.46 combined (Existing & No-Action); 0.43 combined (With-Action)[1]	0.126	0.132	0.160	+21.01%

[1] Based on calculated weighted ratios of passive acres under existing conditions, No-Action scenario, and With-Action scenario.

Non-residential (quarter-mile) Study Area

The *CEQR Technical Manual* states that a proposed project may result in a significant adverse open space impact if it would reduce the open space ratio by more than five percent in areas that are currently below the *CEQR Technical Manual's* optimal open space ratio of 2.5 acres per 1,000 residents and 0.15 per 1,000 non-residents. 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. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space.

In the future with the Proposed Action, the non-residential study area's passive open space ratio would decrease by approximately 26 percent. However, the study area is extremely abundant in public passive recreation open space. Given the high amount of publicly accessible passive open space relative to the non-residential population, the study area's open space ratio is already extremely high in comparison to the optimal planning goal of 0.15 acres of passive recreation space per 1,000 non-residents. The existing open space ratio of 1.033 acres per 1,000 non-residents is well above optimal rate (according to the *CEQR Technical Manual*) of 0.15 acres of passive recreation space per 1,000 non-residents. In the No-Action condition, the passivee open space ratio is 1.071 acres per 1,000 non-residents; the With-Action open space ratio is 0.796 acres per 1,000 non-residents which remains above the optimal level. As such, with or without the Proposed Action, the existing facility is already well served with above average passive open space relative to the size of the study area's non-residential population. As for the combined passive open space ratio for workers and residents, the With-Action ratio would be 0.160, below the applicable 0.43 weighted optimal ratio. However, with the increase in public passive recreation open space, which

is relatively substantial compared to the modest increase in the size of the combined worker and residential population, the combined population passive open space ratio would improve by 21 percent and therefore public passive recreation open space conditions would improve for the combined worker-resident populations in the study area.

In conclusion, while the Proposed Action would result in a sizable decrease of the non-residential passive open space ratio, given that the open space ratio would remain well above the optimal rate of 0.15 acres per 1,000 non-residents, the Proposed Action would not result in an indirect significant adverse impact on surrounding open space due to the introduction of new workers.