A. INTRODUCTION

This section assesses the potential impact of the proposed project on open space resources surrounding the Brooklyn Site. Open space is defined by the 2014 *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. *CEQR Technical Manual* guidelines indicate that an open space analysis should be conducted if an action would result in a direct effect, such as the 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.

The proposed project would result in the development of a new detention facility on the Brooklyn Site, as discussed in Chapter 1, "Project Description." The proposed project's estimated incremental worker and visitor population at the Brooklyn Site would exceed the CEQR threshold of 500 workers and would therefore require an open space analysis of non-residential populations.

The proposed project would introduce additional institutional uses that would alter the non-residential population in the area. Therefore, in accordance with *CEQR Technical Manual* guidelines, an open space assessment was conducted to determine whether the proposed project would result in any potential for significant adverse indirect open space impacts.

PRINCIPAL CONCLUSIONS

The proposed project would not alter or eliminate any public open space resources on the project site. Based on the analyses provided in Brooklyn Site Sections 3.4, "Shadows," 3.10, "Air Quality," 3.11, "Noise," and 3.14, "Construction," study area open spaces would not experience project-related significant adverse shadows, air quality, or noise impacts. Therefore, the proposed project would not result in the potential for significant adverse impacts related to direct effects on open space.

The proposed project would introduce new non-residents (i.e. workers and visitors) to the project site, and therefore increase demand on public open space resources within their respective study areas. Currently the passive open space ratio in the study area for non-residential users is below the City's guidelines as indicated in the *CEQR Technical Manual*, and would remain below the guidelines in both the No Action and With Action conditions. The proposed project would not result in a decrease in the passive open space ratio of more than 5 percent compared with the No Action condition and the resources located within the study area are not currently overburdened by the existing populations using them, as the open spaces have moderate rates of utilization. Several additional open space resources near the project site but outside the study area would further offset the effects of new non-residents. Furthermore, the open space demand of workers and visitors introduced by the proposed project would likely be less than this analysis has conservatively projected due to facility security and strict staff schedules, and the proposed project

would provide on-site recreational spaces for facility staff. Therefore, the proposed project would not result in the potential for any significant adverse impacts on open space resources in the study area.

B. METHODOLOGY

DIRECT EFFECTS ANALYSIS

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. This section uses information from Brooklyn Site Sections 3.4, "Shadows," 3.10, "Air Quality," 3.11, "Noise," and 3.14, "Construction," to determine whether the proposed project would have the potential to directly affect any open spaces near the project site. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The direct effects analysis is included below in "The Future With the Proposed Project."

INDIRECT EFFECTS ANALYSIS

The *CEQR Technical Manual* suggests that a detailed indirect effects analysis is necessary when a project would introduce 200 or more residents or 500 or more workers to an area; however, the thresholds for assessment are slightly different for areas of the City that have been identified as either underserved or well served by open space. The Brooklyn Site is not located within an area that has been identified as either underserved or well served; therefore, the 200 resident and 500 worker thresholds were applied in this analysis. The proposed project would not introduce a new residential population above the 200-resident threshold but would introduce a new worker and visitor population above the 500-worker threshold; therefore, following *CEQR Technical Manual* guidance, a detailed non-residential indirect effects open space analysis was conducted, as described below.

STUDY AREA

The *CEQR Technical Manual* recommends establishing a study area or areas as the first step in an open space assessment. The study areas are based on the distances that the respective users—workers (or non-residents) and residents—are likely to walk to an open space. According to the *CEQR Technical Manual*, workers typically use passive open spaces and are assumed to walk approximately 10 minutes, or ¼ mile from their place of work to an open space. Residents are assumed to walk approximately 20 minutes, or ½ mile to an open space, to reach both passive and active open spaces.

The proposed project would not include any new residential units; therefore, a residential open space assessment was not warranted. However, the proposed project is expected to result in new institutional development that would introduce a new non-residential population to the area. The proposed project would introduce new non-residential population above the 500-worker threshold described in the *CEQR Technical Manual*. Therefore, the effect on the proposed project on open spaces was analyzed following *CEQR Technical Manual* guidelines.

The non-residential open space study area comprises all Census Tracts with at least 50 percent of their area within a ¼-mile of the project area. As shown in **Figure 3.3-1**, the ¼-mile study area includes the area within Census Tracts 9, 37, and 43.[1] This area of census tracts is bounded approximately by Fulton and Pierrepoint Streets to the north, Flatbush Avenue and Hoyt Street to the east, Schermerhorn and Bergen Streets to the south, and Clinton and Court Streets to the west (see **Figure 3.3-1**). These census tracts are mapped within Brooklyn Community District 2.

STUDY AREA POPULATION

EXISTING CONDITIONS

Information regarding the existing worker population within the non-residential study area was compiled based on data from ESRI Business Analyst, a national provider of geographic planning data.

NO ACTION CONDITION

The non-residential population in the study area in the future without the proposed project (the No Action Condition) was determined by adding the number of non-residents anticipated to result from developments that are expected to be completed in the study area by 2027 to the existing non-residential population.

WITH ACTION CONDITION

The non-residential population in the study area in the future with the proposed project (the With Action Condition) was determined by adding the number of non-residents anticipated from the proposed project to the non-residential populations in the future without the proposed project. It is anticipated that the proposed project would introduce 432 additional workers and 407 additional visitors to the project site, a total increment of 839 additional non-residents.

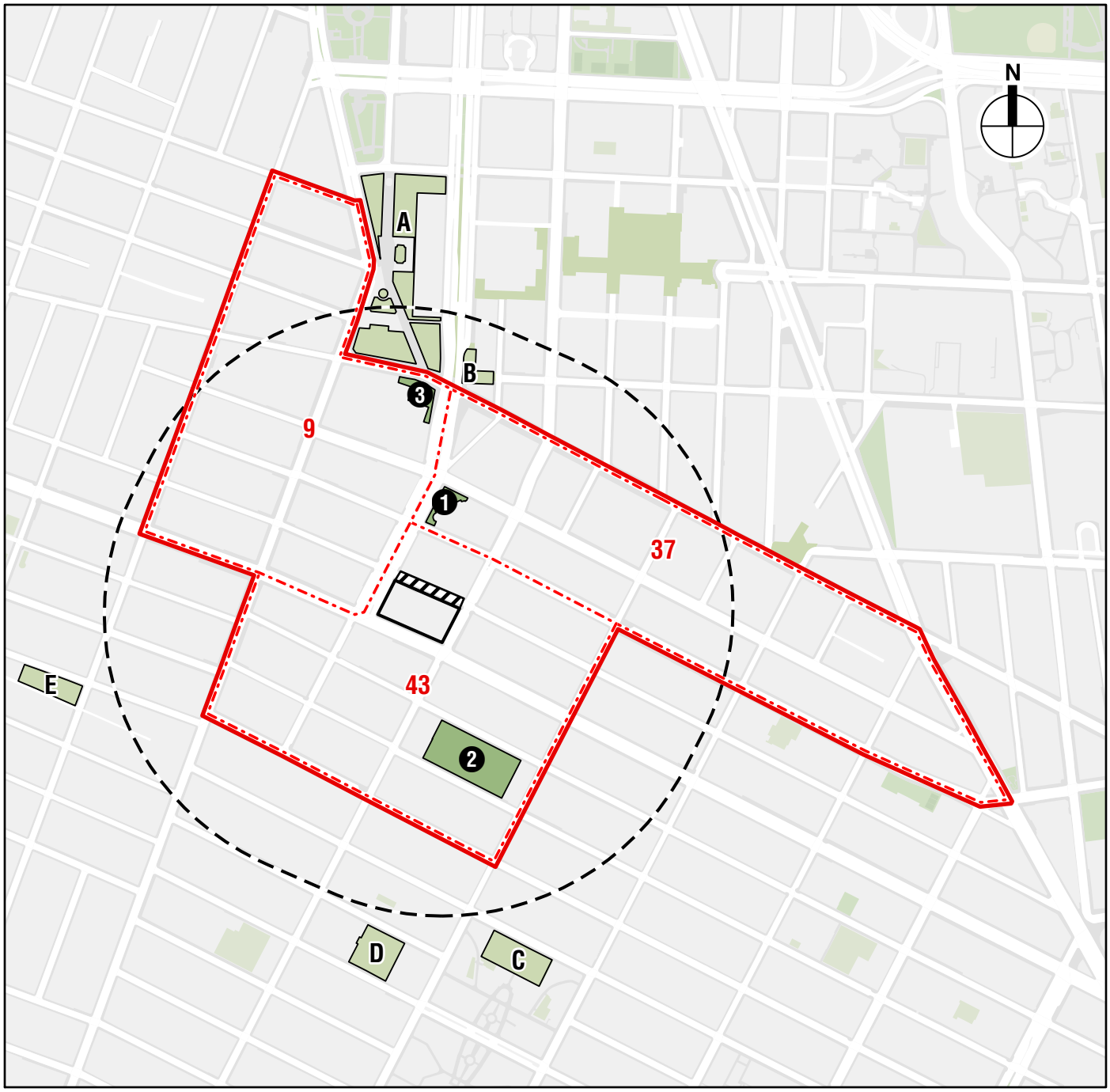
INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities within the study area were inventoried to determine their size, character, utilization, and condition. In accordance with the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Open spaces that are not accessible to the general public or that do not offer usable recreational areas were excluded from the survey. Information on the size of the open spaces was obtained from the New York City Department of Parks and Recreation (NYC Parks) and using Geographic Information System (GIS) measurements. The amenities, condition, and utilization of the resources was determined through field surveys conducted during working hours in July 2018.

At each open space, active and passive recreational spaces were noted. Active open space acreage is used for activities such as jogging, field sports, and children's active play. Passive open space usage includes activities such as strolling, reading, lounging, and people watching. Some spaces, such as lawns and public esplanades, can be considered both active and passive recreation areas

[1] 2010 U.S. Census.

11/21/2018



Project Site
Proposed Demapped Area
1/4-mile Boundary
Open Space Study Area
10 Census Tracts
1 Open Space Resources
A Open Space Resources Outside Study Area

0 1,000 FEET

Open Space Study Area
Brooklyn Site - 275 Atlantic Avenue

BOROUGH-BASED NYC JAIL SYSTEM

Figure 3.3-1

since they can be used for passive uses such as sitting or strolling, as well as active uses, such as jogging. For the purpose of this analysis, special attention was paid to the passive open space resources in the study area, as non-residential users are unlikely to participate in activities that require active space during the day. Based on the methodology in the *CEQR Technical Manual*, the utilization level at each facility was determined based on observations of the amount of open space or equipment seen to be in use. Open spaces with less than 25 percent of space or equipment in use were categorized as low usage; those with 25 to 75 percent utilization were classified as moderate usage; and those with over 75 percent utilization were considered to have heavy usage.

ADEQUACY OF OPEN SPACE RESOURCES

COMPARISON TO GUIDELINES

The adequacy of open space in the study area are quantitatively assessed using a ratio of usable open space acreage to the study area population; this is referred to as the open space ratio. To assess the adequacy of open space resources, open space ratios are compared with planning goals set by the City as described in the *CEQR Technical Manual*. Although these open space ratios are not meant to determine whether a proposed project might have a significant adverse impact on open space resources, they are helpful guidelines in understanding the extent to which user populations are served by open space resources. For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.

C. EXISTING CONDITIONS

STUDY AREA NON-RESIDENTIAL POPULATION

Based on the data compiled from ESRI Business Analyst, the Census Tracts in the open space study area (Census Tracts 9, 37, and 43) contains 1,367 businesses employing 16,069 people (see **Table 3.3-1**).

Table 3.3-1
Existing Non-Residential Population within the Study Area

Census Tract	Non-Residential Population
9	8,054
37	4,494
43	3,521
Total	**16,069**

Source: *ESRI Business Analyst; 2018 Infogroup, Inc.*

STUDY AREA OPEN SPACE RESOURCES

As shown in **Table 3.3-2** and **Figure 3.3-1**, there are three open space resources located within the non-residential study area. These open space resources are well suited for passive recreational use and include two plazas and a schoolyard.

Table 3.3-2
Inventory of Publicly Accessible Open Space in the Non-Residential Study Area

Map No.	Name	Location	Owner/ Agency	Amenities	Total Acres	Active Acres	Passive Acres	Condition	Utilization
1	124 Livingstone Street	Livingston Street, Smith Street, Schermerhorn Street, Boerum Place	DCAS	Plaza area, benches, planters	0.25	0	0.25	Adequate	Medium
2	PS 261 Schoolyard	Pacific Street, Dean Street, Smith Street, Hoyt Street	DOE	Benches, tables hopscotch, tree coverage, playground equipment, small running track, playing field	2.00	1.80	0.20	Excellent	Medium
3	Wilbur A. Levin Plaza	Joralemon Street, Boerum Place, Livingston Street, Court Street	Brooklyn Law School	Plaza area, benches, planters, tables	0.35	0	0.35	Excellent	Low
				Totals	**2.61**	**1.80**	**0.81**		

Notes:
See **Figure 3.3-1** for a map of open space resources.
Sources:
NYC Parks; Field Surveys, July 2018; MapPLUTO.

124 Livingston Street contains a privately owned public space on its grounds, which are located to the north of the project site between Livingston, Smith, and Schermerhorn Streets and Boerum Place. The resource is entirely passive in nature, consisting of a plaza area with benches and planters. Well suited for passive recreational use, this open space is currently in adequate condition and experiences medium utilization.

P.S. 261 is a public school located to the southeast of the project site and bounded by Pacific, Dean, Smith, and Hoyt Streets. As part of NYC Park's Schoolyards to Playgrounds program, P.S. 261's schoolyard is open to the public from after school hours until dusk, and from 8 AM until dusk on weekends. Though primarily suited for active recreation, the schoolyard does contain some features that would be suitable for passive use such as benches, tables, and tree coverage. The schoolyard is in excellent condition and experiences medium utilization.

Wilbur A. Levin Plaza is a passive space located on the grounds of the Brooklyn Law School between Joralemon Street, Boerum Place, Livingston Street, and Court Street. A plaza area intended for passive use, features include benches, planters, and tables. The plaza is in excellent condition and experiences low utilization.

Additional public open space resources with passive spaces are located near the project site but outside of the study area, with some being located within ¼-mile of the project site and others located just outside of this radius. These additional resources are listed in **Table 3.3-3** and their locations are shown on **Figure 3.3-1**. They are not considered in this section's quantitative analysis but are considered in the qualitative analysis.

Table 3.3-3
Inventory of Publicly Accessible Open Space near the Non-Residential Study Area

Map No.	Name	Location	Owner/ Agency	Amenities	Total Acres	Active Acres	Passive Acres	Condition	Utilization
A	Columbus Park	Johnson Street, Adams Street, Joralemon Street, Court Street, Cadman Plaza West	NYCParks	Benches, plaza areas, Citibike rack, food and beverage hut, water fountain, bathrooms, statues, landscaped areas, tree coverage	3.23	0	3.23	Good	High
B	Willoughby Plaza	Willoughby Street between Adams Street and Pearl Street	Downtown Brooklyn Partnership, DOT	Plaza area, moveable chairs and tables, Wi-Fi	0.34	0	0.34	Good	High
C	Nicholas Naquan Heyward Jr. Park	Wyckoff Street between Hoyt Street and Bond Street	NYCParks	Benches, spray showers, bathrooms, basketball courts, handball courts, chess tables, playground equipment	1.04	0.78	0.26	Good	Medium
D	Boerum Park	Warren Street and Baltic Street between Smith Street and Hoyt Street	NYCParks	Benches, playground equipment, spray showers, tables, water fountain, basketball courts, swings	0.92	0.46	0.46	Good	Medium
E	Cobble Hill Park	Clinton Street between Verandah Place and Congress Street	NYCParks	Planters, lawn areas, benches, playground equipment, tree coverage, landscaped areas	0.58	0.06	0.52	Good	High
				Totals	**6.11**	**1.30**	**4.81**		

Notes: See **Figure 3.3-1** for a map of open space resources.
Sources: NYC Parks; Field Surveys, July 2018; MapPLUTO

ADEQUACY OF OPEN SPACE RESOURCES

QUANTITATIVE ASSESSMENT

As described above, this analysis focuses on passive open space resources as these are the open space resources that non-residents would be most likely to use. To assess the adequacy of the open space resources in the study area, the ratio of non-residents to acres of passive open space is compared with the City's planning goal of 0.15 acres of passive open space per 1,000 non-

residents. The open space study area has an existing ratio of 0.05 acres of passive open space per 1,000 non-residents, which is below the City's planning goal (see **Table 3.3-4**).

Table 3.3-4
Existing Conditions: Adequacy of Open Space Resources

Total Population		Passive Open Space Acreage	Passive Open Space Ratio per 1,000 People	Passive Open Space Goal
Non-Residents	16,069	0.81	0.050	0.15

Notes:
Ratios in acres per 1,000 people.
The City's open space ratio goals for total and active open spaces are not applicable to the Proposed Project under *CEQR Technical Manual* methodology, as the project would only be introducing a non-residential population to the study area.
Sources: NYC Parks; Field Surveys, July 2018; MapPLUTO.

QUALITATIVE ASSESSMENT

The three existing open spaces resources within the study area are well suited for passive recreation, with two of them being plaza areas particularly suitable for lunchtime recreation, and in adequate to excellent condition. Utilization varies throughout the resources, with none of them being overburdened; one resource experiences medium utilization and the remaining resources experience low utilization. These factors make the existing open space resources in the study area well suited to providing passive recreation opportunities for existing non-resident population in the study area.

Five additional open space resources containing passive spaces are also located near the project site just outside of the study area, and would be available to and likely used by non-residents within the study area for passive recreation. These resources range from the large Columbus Park to the small Willoughby Plaza, and all are in adequate to excellent condition, with only one experiencing high utilization.

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

STUDY AREA NON-RESIDENTIAL POPULATION

PROJECT SITE

As described in Chapter 1, "Project Description," in the No Action condition, it is expected that no new construction would take place on the project site, and existing conditions would remain in place.

STUDY AREA

Fifteen development projects within the study area are currently planned or underway, and are expected to introduce non-residents by 2027, the proposed project's build year. The location of these projects is shown in Figure 3.1-3 of Section 3.1, "Land Use, Zoning, and Public Policy-Brooklyn." The independent No Action condition projects within the study area are expected to introduce 1,191 additional non-residents to the study area by 2027.

Under the No Action condition, the non-residents from additional No Action projects (1,191) expected to be completed by 2027 in the study area would increase the non-residential population in the study area to 17,260.

STUDY AREA OPEN SPACE RESOURCES

No new open spaces are expected to be completed within the study area by 2027. Therefore, the total amount of open space within the study area would remain at 2.61 acres, with 1.80 acres of active open space and 0.81 acres of passive open space.

ADEQUACY OF OPEN SPACE RESOURCES

As shown on **Table 3.3-5**, with a total non-residential population of 17,260 and 0.81 acres of passive open space, the passive open space ratio within the study area would decrease to 0.047 acres per 1,000 non-residents in the future without the proposed actions. Therefore, it would remain below the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents.

Table 3.3-5
No Action Condition: Adequacy of Open Space Resources

Total Population		Passive Open Space Acreage	Passive Open Space Ratio per 1,000 People	Passive Open Space Goal
Non-Residential (¼-Mile) Study Area				
Non-Residents	17,260	0.81	0.047	0.15

Notes:
Ratios in acres per 1,000 people.
The City's open space ratio goals for total and active open spaces are not applicable to the Proposed Project under CEQR Technical Manual methodology, as the project would only be introducing a non-residential population to the study area.
Sources: NYC Parks; Field Surveys, July 2018; MapPLUTO.

E. THE FUTURE WITH THE PROPOSED PROJECT

The assessment of conditions in the future with the proposed project examines conditions that are expected to occur as a result of the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors. The potential for direct effects on open space is also considered.

DIRECT EFFECTS

As described above in the discussion of methodology, direct adverse effects on an open space occur when a proposed project would cause the physical loss of public open space; change the use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. Based on the analyses provided in Brooklyn Site Sections 3.4, "Shadows," 3.10, "Air Quality," 3.11, "Noise," and 3.14, "Construction," study area open spaces would not experience project-related significant adverse shadows, air quality, or noise impacts. Therefore, the proposed project would not result in significant adverse impacts related to direct effects on open space.

STUDY AREA NON-RESIDENTIAL POPULATION

Under the With Action condition, the proposed project to construct a new City jail in Brooklyn would be completed by 2027 and the non-residential population in the study area would be expected to increase as a result. It is anticipated that the proposed project would introduce 432 additional workers and 407 additional visitors to the project site, a total increment of 839 additional non-residents.

STUDY AREA OPEN SPACE RESOURCES

The proposed project would not have an effect on existing or proposed open space resources on the project site or within the study area. The total amount of public open space within the study area would remain at 2.61 acres, including 1.80 acres of active open space and 0.81 acres of passive open space.

ADEQUACY OF OPEN SPACE RESOURCES

QUANTITATIVE ASSESSMENT

As shown on **Tables 3.3-6 and 3.3-7**, with a total non-residential population of 18,099 and 0.81 acres of passive open space, the passive open space ratio within the study area would decrease in the With Action condition compared with the No Action condition by approximately 4 percent. Additionally, the With Action condition passive open space ratio of 0.045 would remain below above the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents.

Table 3.3-6
With Action Condition: Adequacy of Open Space Resources

Total Population		Passive Open Space Acreage	Passive Open Space Ratio per 1,000 People	Passive Open Space Goal
Non-Residential (¼-Mile) Study Area				
Non-Residents	18,099	0.81	0.045	0.15

Notes:
Ratios in acres per 1,000 people.
The City's open space ratio goals for total and active open spaces are not applicable to the proposed project under *CEQR Technical Manual* methodology, as the project would only be introducing a non-residential population to the study area.
Sources: NYC Parks; Field Surveys, July 2018; MapPLUTO.

Table 3.3-7
Passive Open Space Ratios Summary

Ratio	City Goal (acres per 1,000 non-residents)	No Action Condition	With Action Condition	Percent Change
Passive	0.15	0.047	0.045	-4.26%

The *CEQR Technical Manual* indicates that a decrease in the open space ratio of 5 percent or more in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents would generally be considered a substantial change that requires a more detailed analysis. Therefore, as a quantitative assessment, the proposed project would not result in

a significant impact resulting from an approximately 4 percent decrease in the passive open space ratio. The anticipated effects of the proposed project on open space resources in the study area are discussed below in the qualitative assessment.

QUALITATIVE ASSESSMENT

The passive open space ratio with the proposed project of 0.045 would remain below the ratio of 0.15 acres per 1,000 non-residents recommended by the City as it is in existing conditions and in the No Action condition. The public open space resources available to non-residents within the study area include both small- and medium-sized resources, and as noted above, the field survey of open spaces suggested that all of the existing open space resources in the study area were not overcrowded by non-residents during the daytime. They are also entirely in adequate to excellent condition, and would likely not be overburdened by the additional non-residential population that would be introduced to the study by the proposed project. Moreover, there are several additional passive open space resources located just outside of the study area within a reasonable walk such as Columbus Park, a large open space resource with many amenities only three blocks north of the project site (within ¼ mile), the small-sized Willoughby Plaza also located three blocks north of the project site (also within ¼ mile), the medium-sized Nicholas Naquan Heyward Jr. Park just over a ¼ mile south of the project site, the medium-sized Boerum Park located ¼-mile south of the project site, and the medium-sized Cobble Hill Park located ¼ mile southwest of the project site. These additional resources would likely be patronized by the new non-resident population introduced to the study area by the proposed project, thereby ameliorating the impacts on the open spaces within the study area.

In addition, this analysis conservatively assumes that all workers and visitors to the proposed project at the Brooklyn site would generate open space demand. However, it is likely that open space demand from project-generated workers and visitors would be substantially lower than projected in this analysis. Visitors to the proposed project would include lawyers, third-party contracted programming staff, medical deliveries, and other service providers. Family and friends of people in detention would also make up a portion of the visitor population. Many of these visitors would be visiting the project site as part of their occupational duties, and would be likely to move on to a subsequent work appointment rather than utilizing nearby public open space resources.

The proposed project would also include recreational and respite areas, including rooftop spaces, for correctional staff. These spaces would have a mix of active and passive programing, including ball courts, seating and places to read, eat, or talk on the phone. The proposed project would also provide a staff dining area. Together these on-site recreational and respite areas would reduce the proposed project's incremental demand for passive recreational open space within the study area.

A sufficient amount of passive open space would remain in the study area and nearby to support the new non-residential population. Furthermore, the proposed project would not directly impact any open space resources and would not substantially burden nearby open spaces resources through the introduction of a new non-residential population.

F. CONCLUSION

Currently, the passive open space ratio in the study area for non-residential users is below the City's guidelines as indicated in the *CEQR Technical Manual*, and would remain below the guidelines in both the No Action and With Action conditions. The proposed project would not

have the potential to result in a decrease in the passive open space ratio of more than 5 percent compared with the No Action condition. In addition, the resources located within the study area are not currently overburdened by the existing populations using them, as the open spaces have moderate rates of utilization. Several additional open space resources near the project site but outside the study area would further offset the potential effects of new non-residents. Therefore, the proposed project would not have the potential to result in any significant adverse impacts on open space resources in the study area. ✷