

A. INTRODUCTION

This chapter assesses the potential impacts of the proposed Cornell NYC Tech project on open space resources. Open space is defined by the June 2012 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that operates or is available for leisure, play, or sport, or serves to protect or enhance the natural environment. According to the *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 when a substantial new population could utilize available open space. The proposed project would result in approximately 2.5 acres of new publicly accessible open space on the project site and would not directly displace any existing public open space.¹ However, the proposed Cornell NYC Tech campus would also introduce new resident, student, and worker populations to the study area that would create new demands for open space. Therefore, an open space assessment was conducted to determine whether the proposed project would result in any significant adverse impacts to open space resources. As detailed in the analysis, the proposed project would not result in any significant adverse open space impacts in the 2018 and 2038 analysis years.

B. METHODOLOGY**STUDY AREAS**

This analysis of potential open space impacts was conducted based on methodologies contained in the *CEQR Technical Manual*. According to *CEQR Technical Manual* guidelines, the first step in assessing potential open space impacts from a proposed project is to establish study areas, which are defined to allow analysis of both the nearby open spaces and the population using those open spaces. Study areas are based on the distance a person is assumed to walk to reach a neighborhood open space. Under *CEQR Technical Manual* guidelines, workers and other daytime users typically use passive open spaces, and are assumed to walk up to a ¼-mile distance from their places of work. Residents are more likely to travel farther to reach parks and recreational facilities and are assumed to walk up to a ½-mile distance to reach both passive and active neighborhood open spaces. In addition to the commercial (¼-mile) study area and the residential (½-mile) study area, this analysis also qualitatively considers open spaces located on the remainder of Roosevelt Island. As shown on **Figure 5-1**, the study areas are limited to Roosevelt Island itself, as the East River acts as a physical barrier that would inhibit residents and workers from accessing open space resources in Manhattan or Queens.

¹ As discussed in Chapter 1, “Project Description,” under the proposed zoning text at least 20 percent of the project site—or 2.5 acres—must be publicly accessible open space. While it is Cornell’s intention to create more than this minimum requirement, for the purposes of a conservative analysis, the EIS assumes the minimum amount of publicly accessible open space.

OPEN SPACE USER POPULATIONS

Open space users consist of residents and workers. The source for the population of the residential (½-mile) study area is 2010 US Census data for New York County Census Tract 238/Block Group 1. The source for the worker population of the non-residential (1/2-mile) study area is the Quarterly Census of Employment and Wages (QCEW), 3rd quarter 2010, compiled by the New York State Department of Labor and provided by the New York City Department of City Planning (DCP).

INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities on the Island were inventoried to determine their size, character, and condition. Public spaces that do not offer useable recreational areas were excluded from the inventory, as were open spaces that are not accessible to the general public. The information used for this analysis was gathered from GIS data, the Roosevelt Island Operating Corporation (RIOC), and through field studies conducted in October 2011.

At each open space, active and passive recreational spaces were noted. Active open space facilities are characterized by such activities as jogging, field sports, and children's active play. Such open space features might include basketball courts, baseball fields, or play equipment. Passive open space facilities are characterized by such activities as strolling, reading, sunbathing, and people-watching. Some spaces, such as lawns and public esplanades, can be both active and passive recreation areas.

ADEQUACY OF OPEN SPACE RESOURCES

The adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population—the open space ratio. The open space ratio provides a measure of open space available per 1,000 residents or workers in the study area.

Local open space ratios vary widely throughout New York City and, therefore, the *CEQR Technical Manual* recommends comparing the study area open space ratios to citywide local norms and open space planning goals to provide benchmarks for analysis. The first comparison is the median ratio at the citywide Community District level, which is 1.5 acres per 1,000 residents. The second comparison is the city's open space planning goals, which define an area well-served by open space as one with 2.5 acres per 1,000 residents, consisting of 2.0 acres of active space and 0.5 acres of passive space, and 0.15 acres of passive open space per 1,000 workers. As stated in the *CEQR Technical Manual*, these ratios do not constitute an impact threshold; rather, they are benchmarks that represent how well an area is served by open space.

A proposed project could result in a significant adverse open space impact if it would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the city. The analysis should consider the type of recreation facilities (passive versus active), the city's median community district open space ratio of 1.5 acres per 1,000 residents, and the city's optimal planning goal of 2.5 acres of open space per 1,000 residents to aid in the determination of a significant quantitative impact on existing open space. Projects that may result in significant quantitative impacts on open space resources are typically further assessed in the qualitative assessment approach, which considers factors such as the type of open space (active or passive), its capacity and conditions, and any additional open space provided by the project.

C. EXISTING CONDITIONS

This existing conditions assessment of open space consists of calculating total population, tallying the open space acreage within the area, and calculating the existing open space ratios.

OPEN SPACE USER POPULATION

COMMERCIAL (1/4-MILE) STUDY AREA

According to information from the QCEW provided by DCP, the commercial study area has a population of approximately 233 workers.

RESIDENTIAL (1/2-MILE) STUDY AREA

According to US Census data for New York County Census Tract 238/Block Group 1, the population of the residential study area is 9,723.

OPEN SPACE INVENTORY

Open space resources on Roosevelt Island are listed in **Table 5-1** and shown on Figure 5-1. Upkeep of these resources, with the exception of Four Freedoms Park, is the responsibility of RIOC. The most prominent open space resource is the waterfront promenade, which extends along the east and west sides of the Island north of South Point Park, providing a walkway for pedestrians with sweeping views of the East River, the Queens waterfront, and the Manhattan skyline. The promenade totals approximately 10.35 acres of open space, with 4.72 acres in the commercial study area, an additional 2.07 acres in the residential study area, and an additional 3.56 acres on the remainder of the Island. It provides passive uses such as waterfront seating areas, as well as opportunities for active uses including walking, running, bicycling, and rollerblading.

There are ~~five~~ ~~four~~ parks within the commercial study area. The newest of these is the approximately 4-acre Four Freedoms Park, which opened in 2012. The park is located on the southernmost point of the Island, and contains plaza areas with seating, a seawall, a large lawn, and a memorial to President Franklin Delano Roosevelt. Adjacent to Four Freedoms Park to the north is the 6.68-acre South Point Park, which opened in 2011. South Point Park is located immediately south of the Goldwater Hospital site, and immediately north of the future Four Freedoms Park site. South Point Park is a passive open space resource that contains natural areas, pathways, benches, and a restroom facility. Within the park is the ruin of the former Smallpox Hospital, which was built in 1856. This historic resource is currently undergoing renovation and is closed to the public. Immediately north of the Goldwater Hospital site is Sportspark, the Island's primary recreational facility. Sportspark, an approximately 150,000-sf resource, contains numerous active recreational uses, including an Olympic-size swimming pool, gymnasium, basketball courts, ping pong room, and tennis courts. Firefighter Field is an active open space resource located on East Road, along the eastern waterfront of the Island. This park is a convertible playing field with both a baseball diamond and goalposts for soccer. The Commons is an open space resource bounded to the north and south by residential buildings, to the east by East Road, and to the west by Main Street and the Roosevelt Island subway station. The Commons includes a large lawn, a pathway with benches, and landscaped areas.

The residential study area includes two additional parks: Blackwell Park and Capobianco Field. Blackwell Park is located along the eastern waterfront of the Island, immediately south of the Eastwood residential complex. The park contains a variety of active uses, including a playground and basketball courts. There are also passive uses, including a plaza area with

seating located adjacent to Main Street, vegetated areas, and lawns. The park also contains Blackwell House, which was built in 1796 and is the oldest structure on the Island.

**Table 5-1
Roosevelt Island Open Space Inventory**

Map No.	Name	Features	Passive Space	Active Space	Total Space	Condition/Utilization
Commercial (1/4-Mile) Study Area						
1	South Point Park	Natural areas, historic Smallpox Hospital, walkways, benches, restrooms	6.68		6.68	Excellent/Medium
2	Sportspark	Swimming pool, gymnasium, tennis, ping pong		3.44	3.44	Excellent/High
3	Firefighter Field	Baseball and soccer field		2.37	2.37	Excellent/High
4	The Commons	Field, walkway, benches, vegetated areas	0.74		0.74	Excellent/Medium
11	Four Freedoms Park	Monument, walkway, seating areas, lawns	2.67	1.33	4	Excellent/Medium
	Promenade	Waterfront walkway, benches	2.36	2.36	4.72	Moderate/High
<i>Commercial Study Area Total:</i>			<u>12.45</u> 9.78	<u>9.5</u> 8.17	<u>21.95</u> 17.95	
Residential (1/2-Mile) Study Area						
5	Blackwell Park	Playground, playing courts, benches, lawns, plaza, fountain	2.34	0.71	3.05	Excellent/Medium
6	Capobianco Field	Ballfields, playground, playing courts, benches		2.52	2.52	Excellent/High
	Promenade	Waterfront walkway, benches	1.04	1.04	2.07	Moderate/High
<i>Subtotal:</i>			3.38	4.27	7.64	
<i>Residential Study Area Total:</i>			<u>15.83</u> 13.16	<u>13.77</u> 12.44	<u>29.60</u> 25.60	
Remainder of Roosevelt Island						
7	Northtown Plaza	Lawn, trees, path, gardens, benches	1.16		1.16	Excellent/Low
8	Ecological Park	Playing fields, tennis courts, paths, landscaped areas, community gardens, restrooms	3.07	3.91	6.98	Excellent/Medium
9	Octagon Park	Barbeques, benches, playground	0.10	0.87	0.97	Excellent/High
10	Lighthouse Park	Barbeques, benches, historic lighthouse, promenade, fields	2.05	0.87	2.92	Excellent/Medium
	Promenade	Waterfront walkway, piers, benches	1.78	1.78	3.56	Moderate/High
<i>Subtotal:</i>			8.16	7.43	15.59	
<i>Roosevelt Island Total:</i>			<u>23.99</u> 21.32	<u>21.20</u> 19.87	<u>45.19</u> 41.19	
Notes: 1. See Figure 5-1 for open space locations.						
Sources: AKRF Field Surveys (October 2011); AKRF GIS data; Roosevelt Island Operating Corporation.						

Capobianco Field is located on the east side of Main Street, across from PS/IS 217, south of the Roosevelt Island Bridge and north of the Roosevelt Landings residential complex. This park includes active open space uses, such as sports fields, playing courts, and a playground.

The remainder of Roosevelt Island contains four additional parks that could be enjoyed by residents and non-residents of the study areas. Northtown Plaza is a passive open space in the Manhattan Park residential development, across Main Street from the Motorgate parking garage. Ecological Park, located north of Manhattan Park and south of the Octagon, contains playing fields, tennis courts, landscaped areas, pathways, benches, a restroom facility, and a community garden. Octagon Park is located on the west side of the Octagon residential development, and contains barbeque areas and a playground. Lighthouse Park, located on the northernmost point of the Island, contains a boardwalk that is used for fishing, a lawn, benches, and barbeques.

ADEQUACY OF OPEN SPACES

COMMERCIAL (1/4-MILE) STUDY AREA

As described above, the analysis of the commercial study area focuses on passive open spaces that may be used by workers in the area. **Table 5-2** compares the ratio of existing passive open space per 1,000 workers in the study area to the DCP planning goals. The study area has a passive open space ratio of 53.43 ~~41.97~~ acres per 1,000 workers, which greatly exceeds the city’s planning goal of 0.15 acres of passive open space per 1,000 workers.

Table 5-2

Adequacy of Existing Open Space Resources

	Total Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Planning Goal		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Commercial (1/4-Mile) Study Area										
Non-residents	233	<u>21.95</u> 17.95	<u>9.5</u> 8.17	<u>12.45</u> 9.78	N/A	N/A	<u>53.43</u> 41.97	N/A	N/A	0.15
Residential (1/2-Mile) Study Area										
Residents	9,723	<u>29.60</u> 25.60	<u>13.77</u> 12.44	<u>15.83</u> 13.16	<u>3.04</u> 2.63	<u>1.42</u> 1.28	<u>1.63</u> 1.35	2.5	2.0	0.50
Note: Ratios in acres per 1,000 people.										

RESIDENTIAL (1/2-MILE) STUDY AREA

With a total of 29.60 ~~25.60~~ acres of open space (13.77 ~~12.44~~ for active use and 15.83 ~~13.16~~ for passive use) and a total residential population of 9,723, the residential study area has an overall open space ratio of 3.04 ~~2.63~~ acres per 1,000 residents (see Table 5-2). This ratio exceeds the city’s planning goal of 2.5 acres of open space per 1,000 residents, and is well above the citywide community district median ratio of 1.5 acres per 1,000 residents.

The study area’s current residential passive open space ratio is 1.63 ~~1.35~~ acres of passive open space per 1,000 residents, which is more than ~~triple double~~ the city’s planning goal of 0.5 acres per 1,000 residents. The area’s residential active open space ratio is 1.42 ~~1.28~~ acres per 1,000 residents, which is below the city’s planning goal of 2.0 acres per 1,000 residents.

QUALITITATIVE CONSIDERATIONS

Open space resources on the remainder of Roosevelt Island provide an additional 8.16 acres of passive open space and 7.43 ~~7.52~~ acres of active open space that could be used by study area residents and workers. For example, users of the waterfront promenade (such as runners and bicyclers) are likely to make use of a larger area of this open space resource than just the portion that falls within the study area.

Additionally, many of the residential and hospital developments on the Island contain private open space that is utilized by residents and patients but not open to the general public. The Rivercross and Westview developments have indoor pools, while Manhattan Park has an outdoor pool and auditorium, and the Octagon development has an outdoor pool and terrace area. Both the Bird S. Coler Memorial and Goldwater Hospital campuses also contain enclosed playgrounds and passive open spaces. Northtown and Southtown also include additional lawns and landscaped areas that were not included in the open space analysis, as they do not contain seating or other programmed features.

D. FUTURE WITHOUT THE PROPOSED PROJECT

In the future No-Action condition, the Goldwater Hospital campus on the project site will be vacant; and 540 new housing units will be built on Roosevelt Island, and Four Freedoms Park will be open.

2018 ANALYSIS YEAR

OPEN SPACE USER POPULATION

Commercial (1/4-Mile) Study Area

The project site will be vacant in the No-Action condition, as the New York City Health and Hospitals Corporation (NYCHHC) will vacate Goldwater Hospital and relocate patients and services elsewhere. The relocation of this facility will decrease the number of workers in the commercial study area by approximately 116. Additionally, three new residential buildings are expected to be constructed in Southtown, providing an additional 540 housing units. These new units are estimated to add approximately 25 new workers in the commercial study area, such as concierge and maintenance staff.² Overall, these changes will decrease the non-residential population of the commercial study area from 233 under existing conditions to approximately 142 workers in the No-Action condition.

Residential (1/2-Mile) Study Area

As noted above, 540 new housing units will be added to the residential study area in the future. These new units will add approximately 1,183 new residents, increasing the total population of the residential study area to approximately 10,906.³

OPEN SPACE INVENTORY

No changes to publicly accessible open space in the study areas are anticipated to occur in the future No-Action condition. In 2012, a new open space resource, Four Freedoms Park, will open within the commercial study area. The park will be located on the southernmost point of the Island, and contain plaza areas with seating, a seawall, a large lawn, and a memorial to President Franklin Delano Roosevelt. It will contain approximately 4 acres of open space. It is assumed that the park will contain some active uses along the seawall and in the large lawn, and will be comprised of approximately one third active open space and two thirds passive open space.

² Assuming 1 new worker per 22 new residential units.

³ Assuming an average of 2.19 persons per unit, the average household size in Census Tract 238/Block Group 1 (US Census, 2010).

ADEQUACY OF OPEN SPACES

Commercial (1/4-Mile) Study Area

The overall decrease in workers in the commercial study area, as well as the addition of Four Freedoms Park, will increase the passive open space ratio to 87.68 acres per 1,000 workers, as shown in Table 5-3.

Table 5-3

2018 No-Action Condition: Adequacy of Open Space Resources

	Total Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Planning Goals		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Commercial (1/4-Mile) Study Area										
Non-residents	142	21.95	9.50	12.45	N/A	N/A	87.68	N/A	N/A	0.15
Residential (1/2-Mile) Study Area										
Residents	10,906	29.60	13.77	15.83	2.71	1.26	1.45	2.5	2.0	0.50
Note: Ratios in acres per 1,000 people.										

Residential (1/2-Mile) Study Area

As with the commercial study area, Due to the additional residents that will be added to the residential study area by development in Southtown, the overall open space ratios in the residential study area will decrease increase in the future With Action condition. due to the addition of Four Freedoms Park. As shown in Table 5-3, the ratio of overall open space will decrease increase to 2.71 acres per 1,000 residents. The ratio of active open space will decrease slightly to 1.26 acres per 1,000 residents, and the ratio of passive open space will decrease increase to 1.45 acres per 1,000 residents. The overall ratio will continue to exceed the citywide community district median ratio of 1.5 acres per 1,000 residents and DCP’s planning goal of 2.5 acres per 1,000 residents and. The passive open space ratio will also continue to exceed the city’s planning goal and the active open space ratio will continue to be below the city’s planning goal.

Qualitative Considerations

As in the existing conditions, study area residents and workers will continue to have access to private open space and open spaces just outside the study area, most notably the portions of the waterfront promenades that extend north of the study area.

2038 ANALYSIS YEAR

Absent the proposed project, no changes in population or open space inventory are currently anticipated between 2018 and 2038. By 2018, ~~Four Freedoms Park would be completed and~~ 540 new residential units in Southtown would be built. Open space conditions are assumed to remain the same as the 2018 No-Action condition, as summarized in Table 5-3.

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

This section describes the open space conditions that would result from the completion of the proposed project by 2018 and 2038, and evaluates the potential for the proposed project to result in significant adverse impacts.

2018 ANALYSIS YEAR (PHASE 1)

Phase 1 of the proposed project would add new residents, non-residents (i.e., workers and non-resident students), and open space resources to the study areas.

OPEN SPACE USER POPULATION

Commercial (1/4-Mile) Study Area

The proposed project would result in new workers and students on the project site, some of whom would reside off-site. Cornell University estimates that by 2018, the non-residential population of the project site would increase by 805, consisting of: staff, visiting and adjunct faculty, and funded researchers; and the portion of Cornell NYC Tech faculty, Ph.D. candidates, and master's students who would live off-site. This additional population would increase the overall non-residential population of the 1/4-mile study area from 142 in the No-Action condition to 947 in the With Action condition, by 2018.

Residential (1/2-Mile) Study Area

The proposed project would result in the development of 442 residential units on the project site by 2018, consisting of units for Cornell NYC Tech leadership, faculty, visitors, postdoctorate fellows, Ph.D. candidates, and master's students. The estimated on-campus population residing in these units would be 842, including residential partners and children, increasing the overall residential population of the 1/2-mile study area from 10,906 in the No-Action condition to 11,748 in the With Action condition.

OPEN SPACE INVENTORY

Approximately 1.3 acres of new publicly accessible open space would be developed on the project site for Phase 1, consisting of 1 acre of passive open space and 0.3 acres of active open space. These new active and passive open space resources would serve both the 1/4-mile and 1/2-mile study areas. A portion of these spaces would contain underlying geothermal well systems as needed to support the Phase 1 academic building heating and cooling needs. These systems, which would be entirely subsurface, would not impact use of surface space and would preclude near-future intensive development of those areas in order to protect the underlying systems.

In addition, the proposed residential development would contain fitness center space for the use of campus residents. As this resource would not be publicly accessible, it has not been included in the quantitative analysis.

ADEQUACY OF OPEN SPACES

Commercial (1/4-Mile) Study Area

As shown in **Table 5-4**, the introduction of a new non-residential population to the project site would result in an 83.8 percent decrease in the passive open space ratio to 14.2 by 2018, from 87.68 in the No-Action condition. However, the passive open space ratio would remain well above the DCP planning goal of 0.15 acres per 1,000 non-residents.

Table 5-4

2018 With-Action Condition: Adequacy of Open Space Resources

Total Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Population			Percent Change from No-Action Condition			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
Non-residential (1/4-Mile) Study Area										
Non-Residents	947	23.25	9.80	13.45	N/A	N/A	14.20	N/A	N/A	-83.8%
Residential (1/2-Mile Study Area										
Residents	11,748	30.90	14.07	16.83	2.63	1.20	1.43	-3.1%	-5.1%	-1.3%

Residential (1/2-Mile) Study Area

By 2018, the proposed project would result in a 3.1 percent decrease in the overall ratio of open space to residents, from 2.71 in the No-Action condition to 2.63 in the With Action condition (see Table 5-4). The passive ratio would decrease by 1.3 percent, from 1.45 to 1.43. The active ratio would decrease by approximately 5.1 percent, from 1.26 to 1.20. The total open space ratio would continue to be well above the citywide community district median ratio of 1.5. The total and passive ratios would continue to be above the DCP planning goals of 2.5 and 0.5, respectively, while the active ratio would continue to be below the DCP planning goal of 2.0.

Qualitative Considerations

As with the No-Action condition, study area residents and workers would continue to have access to open spaces just outside the study area, most notably the portions of the waterfront promenades that extend north of the study area. Campus residents would also have access to private open space, including amenity fitness center space within the proposed residential development.

IMPACT SIGNIFICANCE

According to the *CEQR Technical Manual*, a project could result in a significant adverse open space impact if it would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the city. The analysis should consider the type of recreation facilities (passive versus active), the city's median community district open space ratio of 1.5 acres per 1,000 residents, and the city's optimal planning goal of 2.5 acres of open space per 1,000 residents to aid in the determination of a significant quantitative impact on existing open space. Projects that may result in significant quantitative impacts on open space resources are typically further assessed in the qualitative assessment approach, which considers factors such as the type of open space (active or passive), its capacity and conditions, and any additional open space provided by the project.

Commercial (1/4-Mile) Study Area

As shown in Table 5-4, in the With Action condition, the passive open space ratio would decrease by approximately 83.8 percent as compared to the No-Action condition, to 14.20 acres per 1,000 workers. However, the large decrease in the ratio is due to the fact that the No-Action worker population in the commercial study area is very small (142 workers), resulting in a very high No-Action ratio of passive open space to workers. In the With-Action condition, the passive open space ratio of 14.20 would remain well above the DCP planning goal of 0.15 acres per 1,000 non-residents (i.e., the With Action ratio would be more than 90 times greater than the

DCP planning goal). Therefore, while the decrease in the passive open space ratio would be greater than the *CEQR Technical Manual* guideline of 5 percent, Phase 1 of the proposed project would not result in any significant adverse impacts to open space resources in the commercial study area, as the population would be well-served.

Residential (1/2-Mile) Study Area

As shown in Table 5-4, the With Action total open space ratio would decrease by approximately 3.1 percent, the passive ratio would decrease by approximately 1.3 percent, and the active open space ratio would decrease by approximately 5.1 percent compared to the No-Action condition. The total open space ratio of 2.63 would continue to exceed both the citywide community district median ratio of 1.5 acres and the DCP planning goal of 2.5 acres. The passive ratio of 1.43 would exceed the DCP planning goal of 0.5 acres, and the active ratio would remain below the DCP planning goal of 2.0 acres.

As the small decreases in the total and passive open space ratios would be less than 5 percent, and these ratios would continue to exceed DCP planning goals, the changes in these ratios would not result in a significant adverse impact.

The decrease in the active open space ratio would be approximately 5.1 percent, and the study area active open space ratio would continue to be below the DCP planning goal. However, as stated in the *CEQR Technical Manual*, the DCP planning goals are not appropriate in every situation and do not constitute an impact threshold. The *CEQR Technical Manual* notes that for areas in which there is a substantial worker, student, or visitor population, there is typically a need for more passive open space resources. The proposed project would result in an academic oriented mixed-use development, with a relatively large worker and student population and a limited number of children. Of the overall Cornell NYC Tech population of 1,647 by 2018 (including the academic population that would reside on-site and off-site, and the worker population), 805 (49 percent) would reside off-site. In addition, the proposed project would introduce approximately 41 school-aged children by 2018, which represents approximately 4.9 percent of the total anticipated Phase 1 population of 842 people that would reside on-site. Therefore, the proposed project would require less active open space than in a typical residential development. The proposed project would include approximately 1.3 acres of new publicly accessible open space, and the total open space ratio in the With Action condition would exceed citywide community district median ratio and the DCP planning goals. Due to these factors, the decrease in the active open space ratio would not be considered a significant adverse impact.

2038 ANALYSIS YEAR (FULL BUILD)

In the future 2038 With Action condition, the full build out of the proposed Cornell NYC Tech campus would be complete. This additional development would add new residents, non-residents, and open space resources to the study areas, in addition to what was introduced by 2018.

OPEN SPACE USER POPULATION

Commercial (1/4-Mile) Study Area

Cornell University estimates that between 2018 and 2038, the non-residential population of the project would increase by 2,975, consisting of staff, visiting and adjunct faculty, funded researchers, as well as some faculty, postdoctoral fellows, Ph.D. candidates, and master's students who live off-site. The full build out of the proposed project would increase the overall

non-residential population of the ¼-mile study area by 3,780 workers and non-resident students, to 3,922, over the No-Action condition.

Residential (½-Mile) Study Area

The proposed project would result in the development of an additional 652 residential units on the project site between 2018 and 2038, consisting of units for Cornell NYC Tech leadership, faculty, postdoctoral fellows, Ph.D. candidates, and master’s students. The total on-campus population that would reside in these additional units would be 1,484, including residential partners and children. The full build out of the proposed project would increase the overall residential population of the ½-mile study area by 2,326 residents, to 13,232, over the No-Action condition.

OPEN SPACE INVENTORY

Between 2018 and 2038, 1.2 acres of new publicly accessible open space would be developed on the project site (in addition to the 1.3 acres of publicly accessible open space that would be added by 2018), consisting of approximately 0.91 acres of passive open space and 0.29 acres of active open space. In total, the full build out of the proposed project would introduce approximately 2.5 acres of new publicly accessible open space, which would be comprised of 1.91 acres of passive open space and 0.59 acres of active open space.

As with Phase 1, the proposed residential development would contain fitness center space for the use of campus residents.

ADEQUACY OF OPEN SPACES

Commercial (¼-Mile) Study Area

As shown in **Table 5-5**, the full build out of the Cornell NYC Tech campus by 2038 would result in a 95.8 percent decrease in the ratio of passive open space to workers, from 87.68 in the No-Action condition to 3.66 in the With Action condition. However, the passive open space ratio would remain well above the DCP planning goal of 0.15 acres per 1,000 non-residents.

**Table 5-5
2038 With-Action Condition: Adequacy of Open Space Resources**

Total Population		Open Space Acreage			Open Space Ratios Acres per 1,000 Population			Percent Change from No-Action Condition		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Non-residential (1/4-Mile) Study Area										
Non-Residents	3,922	24.45	10.09	14.36	N/A	N/A	3.66	N/A	N/A	-95.8%
Residential (1/2-Mile Study Area										
Residents	13,232	32.10	14.36	17.74	2.43	1.09	1.34	10.6%	-14.0%	-7.6%

Residential (½-Mile) Study Area

The proposed project would result in a 10.6 percent decrease in the overall ratio of open space to residents, from 2.71 in the No-Action condition to 2.43 in the With-Action condition (see Table 5-5). The passive ratio would decrease by 7.6 percent, from 1.45 to 1.34. The active ratio would decrease by 14.0 percent, from 1.26 to 1.09 acres of active open space per 1,000 residents.

Qualitative Considerations

As with the No-Action condition, study area residents and workers would continue to have access to open spaces just outside the study area, most notably the portions of the waterfront promenades that extend north of the study area. Campus residents would also have access to private open space, including amenity fitness center space within the proposed residential buildings.

IMPACT SIGNIFICANCE

According to the *CEQR Technical Manual*, a project could result in a significant adverse open space impact if it would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the city. The analysis should consider the type of recreation facilities (passive versus active), the city's median community district open space ratio of 1.5 acres per 1,000 residents, and the city's optimal planning goal of 2.5 acres of open space per 1,000 residents to aid in the determination of a significant quantitative impact on existing open space. Projects that may result in significant quantitative impacts on open space resources are typically further assessed in the qualitative assessment approach, which considers factors such as the type of open space (active or passive), its capacity and conditions, and any additional open space provided by the project.

Commercial (¼-Mile) Study Area

As shown in Table 5-5, in the With Action condition, the passive open space ratio would decrease by approximately 95.8 percent as compared to the No-Action condition, to 3.66 acres per 1,000 workers. However, the large decrease in the ratio is due to the fact that the No-Action worker population in the commercial study area is very small (142 workers), resulting in a very high No-Action ratio of passive open space to workers. In the With Action condition, the passive open space ratio of 3.66 would remain greatly above the DCP planning goal of 0.15 acres per 1,000 non-residents (i.e., the With Action ratio would be more than 20 times greater than the DCP planning goal). Therefore, while the decrease in the passive open space ratio would be greater than the *CEQR Technical Manual* guideline of 5 percent, the proposed project would not result in any significant adverse impacts to open space resources in the commercial study area.

Residential (½-Mile) Study Area

As shown in Table 5-5, the With Action total open space ratio would decrease by approximately 10.6 percent, the passive open space ratio would decrease by approximately 7.6 percent, and the active open space ratio would decrease by approximately 14.0 percent, compared to the No-Action condition. The total open space ratio of 2.43 would continue to exceed the citywide community district median ratio of 1.5 acres, and would be slightly below the DCP planning goal of 2.5 acres. The passive ratio of 1.34 would exceed the DCP planning goal of 0.5 acres, and the active ratio of 1.09 would remain below the DCP planning goal of 2.0 acres.

Although these decreases in the residential open space ratios exceed the *CEQR Technical Manual* guideline of 5 percent, the total open space ratio of 2.43 would remain well above the city's median community district open space ratio of 1.5 acres per 1,000 residents. As the proposed project would not result in a 5 percent decrease in an open space ratio in an area currently below the city's median community district open space ratio of 1.5, the changes in these ratios would not result in a significant adverse impact.

While the decrease in the passive open space ratio would be 7.6 percent, the passive open space ratio of 1.34 would be well above the DCP planning goal of 0.5. The decrease in the active open space ratio would be approximately 14.0 percent, and the study area active open space ratio would continue to be below the DCP planning goal. However, as with Phase 1, the DCP planning goals are not appropriate in every situation and do not constitute an impact threshold. The *CEQR Technical Manual* notes that for areas in which there is a substantial worker, student, or visitor population, there is typically a need for more passive open space resources. The proposed project would result in an academic oriented mixed-use development, with a relatively large worker and student population and a limited number of children. Of the overall Cornell NYC Tech population of 6,106 by 2038 (including the academic population that would reside on-site and off-site, and the worker population), 3,780 (62 percent) would reside off-site. In addition, the proposed project would introduce approximately 89 school-aged children, which represents approximately 3.8 percent of the total anticipated full build out population of 2,326 people who would reside on-site. Therefore, as with Phase 1, the full build out of the proposed project would require less active open space than in a typical residential development. By 2038, the proposed project would include approximately 2.5 acres of new publicly accessible open space, and the total open space ratio in the With Action condition would exceed the citywide community district median ratio. Due to these factors, the decrease in the active open space ratio would not be considered a significant adverse impact.

F. CONCLUSIONS

This analysis finds that the proposed project would not result in any significant adverse open space impacts in the 2018 and 2038 analysis years.

By 2018, the ratio of passive open space per 1,000 non-residents in the ¼-mile (commercial) study area would be 14.20 acres, which represents a decrease of 83.8 percent from the No-Action condition (see **Table 5-6**). By 2038 this ratio would be 3.66, which represents a decrease of 95.8 percent from the No-Action condition. However the large decreases in the ratio are due to the fact that the No-Action worker population in the commercial study area is very small (142 workers), resulting in a very high No-Action ratio of passive open space to workers. The With-Action passive open space ratios would remain greatly above the DCP planning goal of 0.15 acres per 1,000 non-residents. Therefore, while the decrease in the passive open space ratio would be greater than the *CEQR Technical Manual* guideline of 5 percent, the proposed project would not result in any significant adverse impacts to open space resources in the commercial study area by 2018 and 2038, as the commercial study area would remain well-served.

**Table 5-6
With-Action Condition: Open Space Ratios Summary**

Ratio	DCP Planning Goal	Open Space Ratios (acres per 1,000 people)			Percent Change No-Action to With-Action Condition (2018/ 2038)
		Existing Conditions	No-Action Condition (2018 and 2038)	With-Action Condition (2018/ 2038)	
Non-Residential (¼-Mile) Study Area					
Passive/Workers	0.15	53.43/41.97	87.68	14.20/ 3.66	-83.8%/ -95.8%
Residential (½-Mile) Study Area					
Total/Residents	2.5	3.04/2.63	2.71	2.63/ 2.43	-3.1%/ -10.6%
Active/Residents	2.0	1.42/1.28	1.26	1.20/ 1.09	-5.1%/ -14.0%
Passive/Residents	0.5	1.63/1.35	1.45	1.43/ 1.34	-1.3%/ -7.6%

By 2018, the ratio of total, active, and passive open space per 1,000 residents in the ½-mile (residential) study area would be 2.63, 1.20, and 1.43, respectively. The total open space ratio would continue to exceed the city's median community district open space ratio of 1.5 acres per 1,000 residents. The total and passive ratios would exceed the DCP planning goals of 2.5, and 0.5, respectively, and the active ratio would be below the DCP planning goal of 2.0. Compared to the No-Action condition, the total ratio would decrease by 3.1 percent, the active ratio would decrease by 5.1 percent, and the passive ratio would decrease by 1.3 percent. As the small decreases in the total and passive open space ratios would be less than five percent, and these ratios would continue to exceed DCP planning goals, the changes in these ratios would not result in a significant adverse impact. Although the active ratio would decline, and would continue to be below the DCP planning goal, the study area would continue to be well-served by open space overall, and the proposed project would require less active open space than a typical residential development project, due to the relatively high daytime population and low proportion of school-aged children that would be introduced. Therefore, Phase 1 of the proposed project would not result in any significant open space impacts in the residential study area.

By 2038, the ratio of total, active, and passive open space per 1,000 residents in the residential study area would be 2.43, 1.09, and 1.34, respectively. The total ratio would exceed the city's median community district open space ratio of 1.5, and would be slightly below the DCP planning goal of 2.5. The passive ratio would exceed the DCP planning goal of 0.5, and the active ratio would be below the DCP planning goal of 2.0. Compared to the No-Action condition, the total ratio would decrease by 10.6 percent, the active ratio would decrease by 14.0 percent, and the passive ratio would decrease by 7.6 percent. Although these decreases in the open space ratios exceed the *CEQR Technical Manual* guideline of 5 percent, the total open space ratio of 2.43 would remain well above the city's median community district open space ratio of 1.5 acres per 1,000 residents. As the proposed project would not result in a 5 percent decrease in an open space ratio in an area currently below the city's median community district open space ratio of 1.5, the changes in these ratios would not result in a significant adverse impact. Although the active ratio would decline, and would continue to be below the DCP planning goal, the study area would continue to be well-served by open space overall, and the proposed project would require less active open space than a typical residential development project, due to the relatively high daytime population and the low proportion of school-aged children that would be introduced. Therefore, the full build out of the proposed project would not result in any significant open space impacts in the residential study area. *