

A. INTRODUCTION

The *City Environmental Quality Review (CEQR) Technical Manual* guidelines indicate the need for an open space analysis when a proposed action would result in a direct effect on public open space or the introduction of 200 or more residents or 500 or more workers to an area. A direct effect on an open space would occur if the proposed action would cause the physical loss of a 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. An indirect impact would occur if the proposed action would overtax available open spaces by increasing the number of people using local parks. The Proposed Actions would result in the introduction of approximately 1,350 new residential units, and approximately 2,606 new residents and 96 non-residents (workers) to the study area. Therefore, an open space analysis was conducted to determine whether the Proposed Actions would result in any significant adverse open space impacts. This chapter assesses existing conditions (both users and resources), probable conditions in the Future without the Proposed Actions, and potential impacts that would result from the Proposed Actions. The analysis also considers the direct effects of the Proposed Actions on nearby open spaces.

PRINCIPAL CONCLUSIONS

DIRECT EFFECTS

The Proposed Actions would not result in the physical loss of publicly accessible open space. Furthermore, based on information from Chapter 6, “Shadows,” Chapter 17, “Air Quality,” and Chapter 18, “Noise,” the Proposed Actions would not result in any other direct effects on open spaces within the study area.

INDIRECT EFFECTS

The active and passive open space ratios for residents and workers in the Future with the Proposed Actions would be below the New York City Department of City Planning’s (DCP) recommended goals and the change in the active and passive open space ratios for residents as a result of the Proposed Actions are generally considered “substantial changes” in the *CEQR Technical Manual* warranting further analysis. However, the *CEQR Technical Manual* also recognizes that DCP’s goals are not feasible for many areas of the City, and the thresholds provided as guidance are not considered defining factors for a determination of significant adverse impacts to open space. In addition, there are a number of active open space resources located within close proximity of the study area that are well utilized by study area residents that are not accounted for in the quantitative analysis, most notably Central Park and larger portions of Hudson River Park that extend well beyond the study area. Residents of New York City (particularly adults) are likely to travel slightly

further than a half mile for active recreation opportunities. Although the declines in study area open space ratios are considered substantial by the *CEQR Technical Manual* given the study area's existing lack of open space resources, the qualitative assessment concludes that the decrease is not substantial and open space elements and public amenities not included in the quantitative analysis would help alleviate the burden on this study area's open spaces. Thus, the Proposed Actions would not result in a significant adverse impact to open space.

B. METHODOLOGY

DIRECT EFFECTS ANALYSIS

A direct effect on an open space occurs if a proposed action would cause the physical loss of a 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 pollution, odors, or shadows that would temporarily or permanently affect its usefulness.

This analysis uses information from Chapter 6, "Shadows," Chapter 17, "Air Quality," and Chapter 18, "Noise," to determine whether the Proposed Actions would directly affect any of the study area's open spaces. The direct effects analysis is included in the "Future with the Proposed Actions" section only.

INDIRECT EFFECTS ANALYSIS

STUDY AREAS

This analysis of potential open space impacts was conducted based the methodology of the *CEQR Technical Manual*. According to CEQR guidelines, the first step in assessing potential open space impacts is to establish study areas appropriate for the new population(s) to be added as a result of a proposed project. Study areas are based on the distance a person is assumed to walk to reach a neighborhood open space. Workers typically use passive open spaces and are assumed to walk approximately a ¼-mile distance from their places of work. Residents are more likely to travel farther to reach parks and recreational facilities. They are assumed to walk about a ½-mile distance to reach both passive and active neighborhood open spaces.

Because the Proposed Actions would introduce more than 200 residents, a residential study area based on a ½-mile distance from the Project Site was evaluated. As the Proposed Actions would not exceed thresholds for conducting a commercial analysis (500 workers), only a residential study area is analyzed.

As recommended in the *CEQR Technical Manual*, all open spaces, as well as all residents and employees within census tracts that fall at least 50 percent within the ½-mile radius, were included in the study area.

In addition, while not located in a census tract (317.02) that falls within 50 percent of the ½-mile radius, a portion of Hudson River Park—a major open space located one block to the west of the Project Site and likely to be used by many workers and residents within the open space study area—was also included in the open space analysis in order to provide an accurate portrayal of open space resources used by the study area populations. To be conservative, the entire population of the census tract 317.02 is included in the analysis, while only the portion of Hudson River Park located within a ½-mile of the Project Site is considered.

OPEN SPACE USER POPULATIONS

Demographic data were used to identify the residents and workers who comprise the potential open space users within the non-residential and residential study areas. To determine the number of residents, 2000 U.S. Census Bureau population data were compiled for the tracts in each study area.

The 2000 population obtained from the census was then adjusted using an annual background growth rate of 0.5 percent, which was applied to each census tract to achieve existing (2008) conditions. To determine the existing (2008) non-resident (worker) population, data was first compiled from the 2000 Census Bureau's reverse journey-to-work data, which also applied an annual background rate of 0.5 percent to each census tract to determine existing (2008) study area employment.

INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities within the study area were inventoried to determine their size, character, and condition. Public spaces that do not offer usable recreational areas were excluded from the survey, as were open spaces that are not accessible to the general public. The information used for this analysis was gathered through field studies conducted in November 2008; from the New York City Department of Parks and Recreation (DPR); and from other City agencies responsible for public open spaces.

At each open space, active and passive recreational spaces were noted. Active open space facilities are characterized by activities such 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 activities such as strolling, reading, sunbathing, and people-watching. Some spaces, such as lawns and public esplanades, can be both active and passive recreation areas.

As stated above, residents typically walk up to ½ mile to access recreational spaces. Although a relatively small portion of the Hudson River Park located within the ½-mile study area has been included in the quantitative analysis, the vast majority of the park will only be described qualitatively.

ADEQUACY OF OPEN SPACE RESOURCES

Criteria for Quantified Analysis

The adequacy of open space in the study area was quantitatively assessed using a ratio of usable open space acreage to the study area population—referred to as the open space ratio. The determination of the need for a quantified analysis is based on both the adequacy of the quantity of open space and how the Proposed Actions would change the open space ratios in the study area compared with the ratios in the Future without the Proposed Actions. If a potential decrease in an adequate open space ratio exceeds 5 percent, it is generally considered in the *CEQR Technical Manual* to be a substantial change, warranting further analysis. However, if a study area exhibits a low open space ratio (i.e., below the guidelines set forth in the *CEQR Technical Manual*, indicating a shortfall of open space), even a small decrease in that ratio as a result of a proposed action may have an adverse effect and would warrant detailed analysis.

C. INITIAL QUANTITATIVE ASSESSMENT

The *CEQR Technical Manual* suggests that an initial quantitative assessment may be useful in determining if a full, detailed open space analysis is necessary or whether the open space assessment can be targeted to a specific user group. The initial quantitative assessment compares

existing open space ratios in the study area to ratios in the Future with the Proposed Actions. The initial quantitative assessment does not consider changes to population and open space acreage that would occur in the Future without the Proposed Actions.

Currently, the study area has a ratio of 0.44 acres of total open space per 1,000 residents, well below the DCP guideline of 2.5 acres (see **Table 5-1**). The study area has 0.22 acres of active open space per 1,000 residents, which is below the DCP guideline of 2.0 acres. The passive open space ratio for the combined resident and worker population is 0.08, below the weighted DCP guideline of 0.28 acre per 1,000 residents and workers.

Table 5-1

Initial Quantitative Assessment of Adequacy of Open Space Resources

	DCP Guideline	Existing Ratio	Future With Project Ratio	Percent Change
Total/residents	2.50	0.44	0.41	-7
Passive/residents	0.50	0.22	0.21	-5
Active/residents	2.00	0.22	0.20	-9
Passive/total population	0.28/0.28*	0.08	0.08	0
Notes: * DCP Guideline is a weighted average combining 0.15 acre per 1,000 workers and 0.50 acre per 1,000 residents. 0.28 acres is existing conditions, 0.28 represents future with the Proposed Actions. The initial quantitative assessment does not consider changes to population and open space acreage in the future without the Proposed Actions. Sources: U.S. Census of Population and Housing, 2000; Central Transportation Planning Package ("CTPP") 2000—Part 2; NYC Department of Parks & Recreation; AKRF, Inc. field survey 11/12/08.				

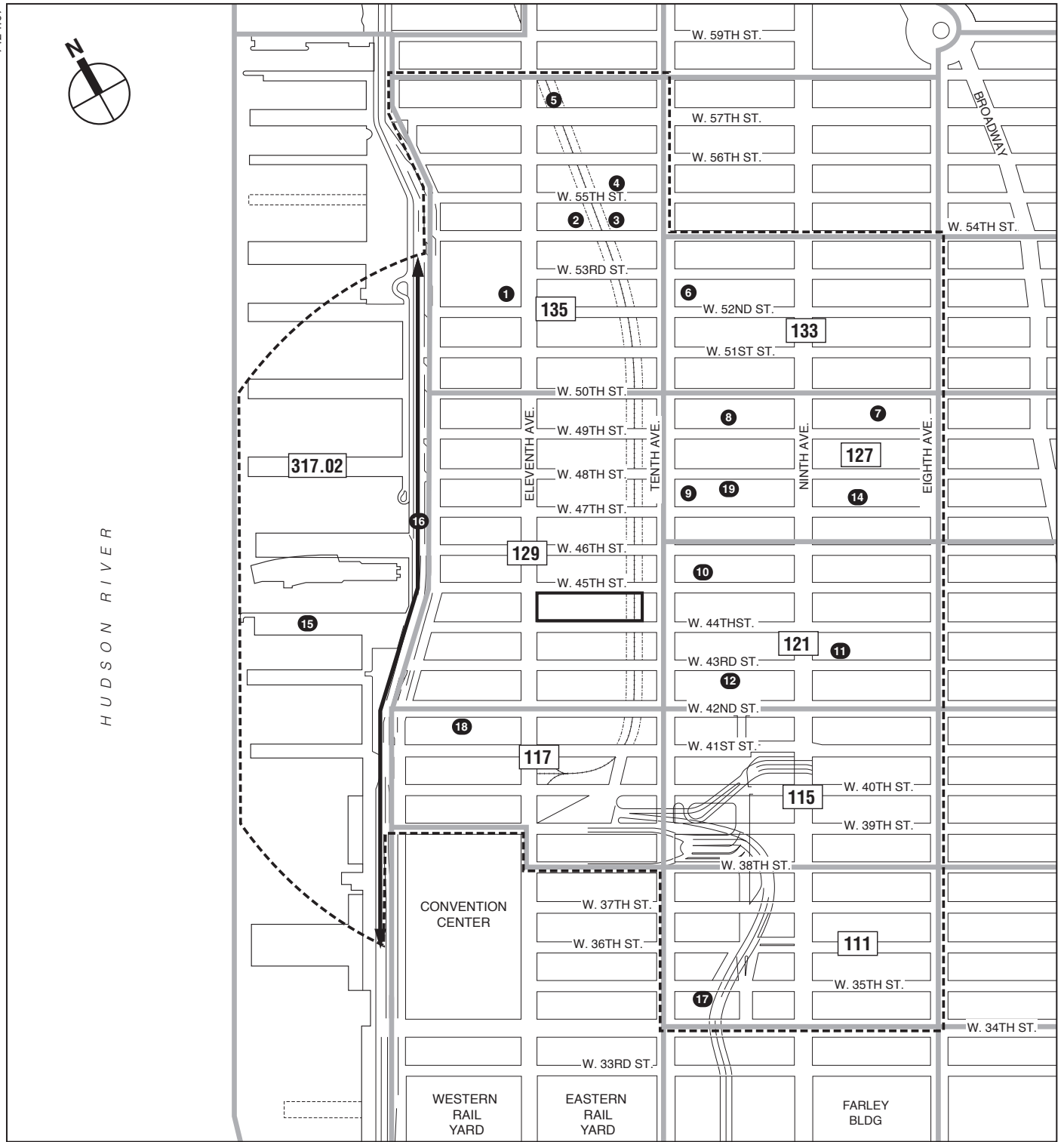
According to the *CEQR Technical Manual*, a detailed assessment is warranted if a proposed project is expected to decrease the open space ratio under the build conditions by 5 percent or more, as this is considered a substantial change. In addition, if a study area exhibits a low open space ratio (i.e., below the community district median of 1.5 acres per 1,000 residents), even a decrease of less than 5 percent in the ratio may have an adverse impact. As a result of the Proposed Actions, the total, passive, and active open space ratios for residents would decline by approximately 7 percent, 5 percent, and 9 percent, respectively. Therefore, a detailed open space assessment is warranted to determine whether the Proposed Actions would result in any significant adverse impacts on open space.

D. EXISTING CONDITIONS

STUDY AREA POPULATION

As shown in **Figure 5-1** and **Table 5-2**, the study area includes Census Tracts 111, 115, 117, 121, 127, 129, 133, 135, and 317.02.¹ The study area is estimated to contain approximately 61,329 workers, and the residential population is estimated to be 35,583, creating a total study area population of 96,912 (see **Table 5-2**). Although this analysis conservatively assumes that

¹ As described in section B, "Methodology," in order to capture the portion of Hudson River Park located in close proximity to the Project Site, Census Tract 317.02 was included in the ½-mile study area even though it did not meet the 50 percent criterion described above. For the purposes of conservative analysis, the population of the Census Tract 317.02, which extends from West 59th Street to just north of Chambers Street, has been included in its entirety, but only portion of Hudson River Park located within the study area has been considered.



- Project Site*
- Census Tract Boundary*
- Open Space Study Area Boundary*
- 135** *Census Tract Number*
- 1** *Open Space Resource (See Table 5-3)*

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SCALE

residents and employees are separate populations, it is possible that some of the residents live near their workplace. As a result, there is likely to be some overlap of residential and non-residential populations in the daily user population count, resulting in a more conservative analysis.

Table 5-2
2008 Existing Resident and Daytime Populations
¹/₂-Mile Study Area

Census Tract	Resident Population	Worker Population	Total Population
111	3,172	13,540	16,712
115	1,527	8,934	10,461
117	354	1,280	1,634
121	8,625	5,412	14,037
127	7,574	8,107	15,681
129	4,638	8,487	13,125
133	6,041	4,673	10,714
135	3,648	9,195	12,842
317.02	3	1,702	1,705
Total Population	35,583	61,329	96,912
Sources: 2008 worker population based on U.S. Census of Population and Housing, 2000; 2000 Census Transportation Planning Package, with 0.5 percent compounded annual growth rate ; 2008 residential totals include 2000 Census populations, with 0.5 percent compounded annual growth rate			

STUDY AREA OPEN SPACES

The residential study area contains 19 publicly accessible open spaces, which total approximately 19.65 total acres. This includes approximately 8.93 acres of passive and 10.72 acres of active open space. However, as discussed in further detail below, a 2.98-acre portion of DeWitt Clinton Park consisting of active open space amenities is under construction (see **Table 5-3** and **Figure 5-1**) and has been excluded from the quantitative analysis for existing conditions. As a result, existing open space resources consist of 16.67 total acres, with 8.93 passive acres, and 7.74 active acres of open space.

The study area includes a variety of parks, playgrounds, gardens, and plazas that are accessible for use by the public (see **Table 5-3**). Nearest the Project Site is Hell's Kitchen Park, located along Tenth Avenue between West 48th and West 49th Streets. This 0.57-acre park features a variety of passive and active recreation amenities including benches and walkways for passive enjoyment of the space as well as handball courts, basketball courts, and play equipment that provide the opportunity for active usage. The 0.35-acre Clinton Community Garden is located on the south side of West 48th Street just east of Tenth Avenue and Hell's Kitchen Park.

The Guttenberg Playground is also near the Project Site on West 49th Street between Ninth and Tenth Avenues. This 0.55-acre playground, located adjacent to the High School of Graphic Communication, contains basketball courts and handball courts. This park is devoted entirely to active use and is well-kept and closes daily at dusk. About four blocks north of the Project Site, DeWitt Clinton Park is a 5.8-acre park occupying two blocks between West 52nd and West 54th Streets from Eleventh Avenue to Twelfth Avenue. While it has benches and plantings that make it suitable for passive recreation, most of the park is occupied by facilities for active recreation, including ball fields, basketball courts, handball courts, and a playground. The ball fields, which have lights and bleachers, are the most heavily used facilities. However, as of November 2008, the ball fields and surrounding area (approximately 2.98 acres of active open space) are under

West 44th Street and Eleventh Avenue Rezoning

construction. Therefore, the total and active open space acreages have been reduced to reflect that these sections of the park are not currently available for the public's use (see **Table 5-3**).

Table 5-3
Open Space Resources

Map No.	Name	Owner/ Agency	Features	Total Acres	Passive Acres	Active Acres	Condition	Utilization
1	DeWitt Clinton Park	DPR	Lighted ball fields; basketball courts; benches; and plantings	2.85*	1.13	1.72*	Good / Under Construction	Heavy
2	Clinton Towers Plaza/790 Eleventh Avenue	P&L Management & Consulting	Trees, benches, plantings, children's basketball court, slides	0.40	0.30	0.10	Poor	Low
3	Harborview Terrace Plaza/530 West 55th Street	NYCHA	Seating, plantings, flowers	0.10	0.10	0.00	Fair	Low
4	Amsterdam Plaza at Harborview Terrace	NYCHA	Planting, seating, playgrounds, paved sports courts	2.10	1.30	0.80	Fair	Low
5	555 West 57th Street	555 W. 57th Street Assoc.	Seating, plantings	0.50	0.50	0.00	Fair	Moderate
6	P.S. 111 Playground	DOE	Playground, basketball courts, paved ball field	0.80	0.05	0.75	Good	Low
7	Worldwide Plaza -	EOP - Worldwide Plaza LLC	Food pavilions, fountain, planters, paved paths, trees, tables and chairs	0.84	0.84	0.00	Excellent	Heavy
8	Guttenberg Playground	DPR	Bleachers, basketball and handball courts	0.55	0.00	0.55	Good	Low
9	Hell's Kitchen Park	DPR	Play equipment, trees, plants, basketball and handball courts	0.57	0.40	0.17	Good	Heavy
10	May Matthews Playground	DPR	Play equipment, swings, slides, basketball courts, handball courts, benches	0.48	0.11	0.37	Good	Heavy
11	McCaffrey Playground	DPR	Swings, basketball courts, trees, benches, spray shower, jungle gym, landscaping	0.44	0.09	0.35	Good	Moderate
12	Gregory J.M. Portley Plaza	Manhattan Plaza Apt.	Paved walkways, benches, planters	0.33	0.33	0.00	Good	Moderate
13	640 West 42nd St. Plaza	River Place I LLC	Paved paths, landscaping, seating	0.74	0.74	0.00	Excellent	Low
14	Ramon Aponte Park	DPR	Basketball courts, play equipment, benches, trees, paved walkways	0.17	0.12	0.05	Fair	Moderate
15	Pier 84, Hudson River Park	Hudson River Park Trust	Play area with water features, esplanade, lawn space, dog walk, benches	3.57	1.79	1.78	Excellent	Heavy
16	Route 9A Bikeway	NYS Department of Transportation	Biking and walking path	1.09	0.00	1.09	Excellent	Heavy
17	Bob's Park, 456 West 35th Street	Clinton Housing West 40th Partners LP	Landscaped sitting areas, play equipment	0.05	0.04	0.01	Good	Low
18	River Place Plaza: 640 West 42nd Street	River Place I LLC	Landscaped sitting areas	0.74	0.74	0.00	Excellent	Moderate
19	Clinton Community Garden	DPR	Trees, flowers, plants, paths, benches	0.35	0.35	0.00	Excellent	Low
Totals				16.67	8.93	7.74		

Notes:

See Figure 5-1.

* As of November 2008, DeWitt Clinton Park's baseball field and surrounding area was under construction. Acreage used for quantitative analysis reflects the open space unaffected by the construction work. The park totals 5.83 acres, of which 2.98 acres are under construction, leaving 2.85 total publicly-accessible acres.

Other parks and playgrounds in the study area include the P.S. 111 Playground, Ramon Aponte Park, May Matthews Playground, Bob's Park, and McCaffrey Playground. These include primarily active recreational amenities such as basketball and handball courts, ball fields, and

play equipment. The study area also includes a number of plazas with amenities such as seating and landscaping that can be used by area residents and workers for passive recreation. The plaza at the River Place development at 640 West 42nd Street provides seating, and the BMW building at 555 West 57th Street has a narrow, rectangular plaza and arcade elevated above West 57th Street, with wood benches and small planters.

Hudson River Park stretches from Battery Park to the south to West 59th Street to the north. A portion of this park is within the study area, including the largest public pier in the Park (Pier 84), located one block west of the Project Site. Pier 84 offers bike rentals, bathrooms, a dog run, a play area with water features, rowing programs for all ages, a waterfront esplanade and benches, a sunbathing lawn with trees, and children's educational programs, which are often focused on waterfront biology and boat building. There is also a restaurant and water taxi service. Excluding the commercial space, it is estimated that Pier 84 includes approximately 3.57 acres of passive and active open space, which is split equally between active (1.78 acres) and passive (1.79 acres) open space.

The Route 9A bikeway provides off-street paths for active recreational activities such as running, biking, and rollerblading. The bikeway runs parallel to Route 9A (the West Side Highway) and is adjacent to the Hudson River Park for most of its length, which allows users to leave the bike and walking paths for waterfront access and resting areas at various points. Nearly one linear mile (0.9 mile) of the Route 9A bikeway is within a ½-mile boundary of the Project Site, providing active recreation opportunities for study area residents.

ADEQUACY OF OPEN SPACES

QUANTITATIVE ANALYSIS

The study area includes 8.93 acres of passive open space and 7.74 acres of active open space, or a total of 16.67 acres of open space. A total of 35,583 residents live within this vicinity, and 61,329 people work within the eight census tracts analyzed. The combined residential and non-residential population is 96,912.

The analysis of the study area considers both on active and passive open space, both of which are expected to be used by residents introduced to the study area as a result of the Proposed Project. To assess the adequacy of the open spaces in the area, the ratio of residents to acres of open space is compared with DCP's guideline of 2.0 acres of active space per 1,000 residents. The passive open space ratio for both workers and residents in the area is compared with the combined passive weighted average ratio¹ for the study area.

The area has an active open space ratio of 0.22 acres per 1,000 residents. This is well below the City's guideline of 2.0 acres per 1,000 residents (see **Table 5-4**). Similarly, the combined passive open space ratio is 0.09 acre per 1,000 residents and workers, which is also lower than the recommended weighted average ratio of 0.28 acre per 1,000 residents and workers.

¹ The calculation is based on the weighted average, combining 0.15 acres per 1,000 workers and 0.50 acres per 1,000 residents.

Table 5-4
Adequacy of Open Space Resources
Existing Conditions

	Population	Open Space Acreage			Open Space Ratios per 1,000 people			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	35,583	16.67	7.74	8.93	0.47	0.22	0.25	2.5	2.0	0.50
Workers	61,329	16.67	7.74	8.93	0.27	0.13	0.15	N/A	N/A	0.15
Combined Workers and Residents	96,912	16.67	7.74	8.93	N/A	N/A	0.09	N/A	N/A	0.28**
Notes: Ratios in acres per 1,000 people. ** Target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.15 acres of passive space per 1,000 non-residents and 0.50 acres of passive space per 1,000 residents. Source: U.S. Census of Population and Housing, 2000; Central Transportation Planning Package ("CTPP") 2000—Part 2; NYC Department of Parks & Recreation; AKRF, Inc. field survey 11/12/08.										

QUALITATIVE ASSESSMENT

While only a portion of Hudson River Park is located within the study area and considered in the quantitative analysis, it is likely that the area's residents and workers take advantage of the remainder of the linear park located beyond the ½-mile study area.

E. THE FUTURE WITHOUT THE PROPOSED ACTIONS

STUDY AREA POPULATION

Several new residential and commercial developments are planned and expected to be completed within the open space study area by 2013. These developments will increase both the residential and worker populations within the open space study area. An analysis of open space conditions in the future without the Proposed Project is described below.

PROJECT SITE

Absent the Proposed Actions, no changes in use will occur to the Project Site.

STUDY AREA

Thirty-nine planned developments are anticipated to be completed in the open space study area by 2013 (see **Table 5-5**). These planned developments will introduce 18,258 new residents and 11,488 new employees to the study area, increasing the number of residents to 53,837 and the worker population to 71,115.¹ By 2013, the combined worker and residential population in the study area will be 126,657.

¹ Residential population estimated based on the 2000 Census average household size (1.93 persons per household). Worker population estimated based on *CEQR Technical Manual* ratios for the square footages planned in each anticipated development: 1 employee per 400 square feet of retail space; 1 employee per 1,000 community facilities or other space; and 1 employee per 250 square feet of office space.

Table 5-5
Planned Developments in the ½-mile Study Area

Site Description	Office	Hotel	Hotel Rooms	Retail	Dwelling Units	Community Facility	Other	Build Year
700 Eleventh Avenue (Con Edison)							42,655	2009
Red Cross Project (West 48th and West 49th Streets and Tenth and Eleventh Avenues)					148			2009
City Water Tunnel No. 3, 705 Tenth Avenue								2010
Centro 505, 505 W. 47th Street					109			2009
548 West 48th Street, Sam Chang			90					2012
Vu Hotel, 653 Eleventh Avenue			222					2008
Hudson Yards Site 18 Verizon West 43rd St Rezoning, south side of W. 43rd St between Eleventh Av & Twelfth Av, Moinian Group				37,950	1,000			2010
Hudson Yards Site 19, Theater Row II, east side of Tenth Av between W 41st St and W 42nd St, Related Companies		230,000	250	12,500	774			2010
River Place II, Eleventh Avenue between West 41st and West 42nd Streets					1,349			2009
750 Eleventh Avenue , Two Trees				8,000	900	36,000	350,000	2011
Pier 92/94							112,000	2011
533-541 W. 52nd St					100			2011
530-548 W. 53rd St					100			2011
501-505 W. 51st St. Phase I				1,315	12			2008
Archstone Clinton : 510 West 52nd Street,				23,000	627			2008
501-505 W. 51st St. Phase II					10			2009
460 W. 54th Street Former SONY/BMG					96			2011
The Dillon, 405-425 West 53rd Street					85			2009
306 W 44th St, 691-699 Eighth Avenue. Tishman Hotel			621	9,640				2010
345 West 44th Street Sam Chang project			60					2008
785 Eighth Avenue The Esplanade					120			2010
Port Authority Bus Terminal Office tower, west side of Eighth Avenue between West 42nd and West 41st Streets	1,300,000							2012
Hudson Yards Site 23, east side of Tenth Av between West 37th and West 38th Streets, Rockrose				20,900	388			2009

West 44th Street and Eleventh Avenue Rezoning

Table 5-5 (cont'd)
Planned Developments in the 1/2-mile Study Area

Site Description	Office	Hotel	Hotel Rooms	Retail	Dwelling Units	Community Facility	Other	Build Year
Hudson Yards Site 24, Hudson Mews I (North), Dyer Avenue between West 37th and West 38th Streets, Demott Co.				0	448	7,460		2011
339 West 36th Street, Wyndham Garden Inn, Metropolis Group			224					2008
Hudson Yards Site 28, Hudson Mews II (South), Dyer Avenue between West 36th and West 37 Streets, Demott Co.				16,100	361			2011
310-328 West 38th St. Glenwood Management				10,600	569			2010
585 8th Avenue, Sam Chang Hotels		82,906	169					2009
340-342 West 40th Street, Fairfield Inn and Four Points Hotel			500					2008
334 West 40th Street, Staybridge Suites Time Square			310					2009
Hudson Yards Potential Sites 68,70, Sam Chang, bounded by West 39th and West 40th Streets, and Eighth & Ninth Avenues			1,061					2008
Hudson Yards Site 37, midblock on West 38th & West 39th Streets between Eighth and Ninth Avenues	381,990			8,520				2010
Helena II Twelfth Avenue and West 57th Street (Durst)				118,000	450			2010
West 57th to West 58th Streets between Eleventh and Twelfth Avenues (Durst)				165,000				2010
DSNY Garage 800 Joe DiMaggio Highway	206,497							2008
Avalon West 57th Street				86,962	700		200,000	2013
525 West 55th Street					259			2009
Hudson Yards Site 11, west side of Tenth Avenue between West 37th And West 38th Streets				65,320	855			2010
345 West 35th Street between Eighth and Ninth Aves		100,500	200					2008
Totals	1,888,487	413,406	3,707	621,845	9,460	43,460	687,000	—
Sources: Department of Buildings' <i>Buildings Information System (BIS)</i> , accessed December 2008.								

STUDY AREA OPEN SPACES

It is anticipated that renovation of the baseball fields and surrounding areas (2.98 acres) of DeWitt Clinton Park will be completed by 2013. Therefore, the total amount of public open space in the study area will increase to 19.65 acres, consisting of 8.93 acres of active space and 10.72 acres of passive space.

ADEQUACY OF OPEN SPACE RESOURCES

QUANTITATIVE ANALYSIS

In the Future without the Proposed Actions, open space resources remain lower than the DCP guidelines. The total open space ratio is expected to decrease from 0.47 to 0.36 acres per 1,000 residents (see **Table 5-6**). Similarly, the active open space ratio will decrease from 0.22 to 0.20 acres per 1,000 residents. The combined passive open space ratio is expected to decrease from 0.08 to 0.07 acres per 1,000 residents and non-residents, and will remain well below the recommended weighted average ratio of 0.29 acres.

Table 5-6
Adequacy of Open Space Resources in the Future Without the Proposed Actions

	Population	Open Space Acreage			Open Space Ratios per 1,000 people			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	53,841	19.65	10.72	8.93	0.36	0.20	0.17	2.5	2.0	0.50
Workers	72,817	19.65	10.72	8.93	0.27	0.15	0.12	N/A	N/A	0.15
Combined Workers and Residents	126,657	19.65	10.72	8.93	N/A	N/A	0.07	N/A	N/A	0.29
Notes: Ratios in acres per 1,000 people. ** Combined open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.15 acres of passive space per 1,000 non-residents and 0.50 acres of passive space per 1,000 residents. Source: U.S. Census of Population and Housing, 2000; Central Transportation Planning Package ("CTPP") 2000—Part 2; NYC Department of Parks & Recreation; AKRF, Inc. field survey 11/12/08.										

QUALITATIVE ASSESSMENT

The City is planning to construct a 4.0-acre park and boulevard system in the midblocks between Tenth and Eleventh Avenues from West 33rd Street to West 39th Street with a pedestrian bridge connecting to West 42nd Street. This is located within ½ mile of the Project Site, but is not located in a census tract included in the study area. Therefore, this open space has been excluded from the quantitative analysis, but it will likely be visited by the residents and workers of the study area. The open space will be built in two phases. The first segment will be completed by 2013, and consists of approximately 2.12 acres of passive space, running from West 33rd to West 36th Streets. It will contain a variety of amenities, including but not limited to benches, plantings, and walkways. In addition, the remainder of Hudson River Park located beyond the study area boundary will also continue to be available to the study area population.

F. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

DIRECT EFFECTS

No publicly-accessible open space is currently located on the Project Site. Therefore, the Proposed Actions would not cause the physical loss of publicly-accessible open space. As described in Chapter 6, “Shadows,” the Proposed Actions would result in an incremental increase in shadows on a portion of Hudson River Park and the adjacent Route 9A walkway/bikeway. However, the incremental increase would be of limited extent and short duration and would not result in significant adverse impacts on these open space resources. Furthermore, based on the conclusions from Chapter 17 “Air Quality,” and Chapter 18, “Noise,” the Proposed Actions would not cause increased noise or air pollutant emissions or odors that would affect the usefulness of open spaces in the area, whether on a permanent or temporary basis. Finally, the Proposed Actions would not change the use of a publicly-accessible open space so that it no longer serves the same user population or limits public access. Therefore, no significant adverse direct effects on open space would occur as a result of the Proposed Actions.

INDIRECT EFFECTS

STUDY AREA POPULATION

The Proposed Actions would introduce an estimated 2,606 residents, and 96 employees to the study area. These new residents and workers would increase the residential population in the study area to 56,447, the worker population to 72,913, and the total population to 129,359.

STUDY AREA OPEN SPACE

No new publicly accessible open space is expected to be added to the study area as a result of the Proposed Actions. However, the Proposed Actions would be designed with an interior courtyard that would be for use by residents only.

ADEQUACY OF OPEN SPACE RESOURCES

Quantitative Analysis

In the Future with the Proposed Actions, the combined resident and nonresident population in the study area is expected to increase to 129,359, and open space will remain at 19.65 total acres, 10.72 active acres, and 8.93 passive acres. The active open space ratio would decline slightly from 0.20 to 0.19 acres per 1,000 residents and the total open space ratio would decline slightly from 0.36 to 0.35. Both of the active and total ratios are well below the respective DCP guidelines of 2.0 and 2.50 acres. The Proposed Actions would not result in a change to the combined resident and nonresident passive ratio. The ratio would remain at 0.07 acres, well below the weighted DCP guideline of 0.29 acres per 1,000 residents and non-residents (see **Table 5-7**).

As discussed above, the combined resident and nonresident passive open space ratio would not change as a result of the Proposed Actions (see **Table 5-8**). While this passive open space ratio would remain below DCP guidelines, the Proposed Actions would not exacerbate the shortfall. Therefore, no significant adverse passive open space impacts for combined residents and workers would occur as a result of the Proposed Actions.

Table 5-7
Adequacy of Open Space Resources
in the Future With the Proposed Project

	Population	Open Space Acreage			Open Space Ratios per 1,000 people			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	56,447	19.65	10.72	8.93	0.35	0.19	0.16	2.5	2.0	0.50
Workers	72,913	19.65	10.72	8.93	0.27	0.15	0.12	N/A	N/A	0.15
Combined Workers and Residents	129,359	19.65	10.72	8.93	N/A	N/A	0.07	N/A	N/A	0.29

Notes:
Ratios in acres per 1,000 people.
** Combined open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.15 acres of passive space per 1,000 non-residents and 0.50 acres of passive space per 1,000 residents.
Source: U.S. Census of Population and Housing, 2000; Central Transportation Planning Package ("CTPP") 2000—Part 2; NYC Department of Parks & Recreation; AKRF, Inc. field survey 11/12/08.

Table 5-8
Open Space Summary

	DCP Guideline	Existing Ratio	Future Without Project Ratio	Future With the Project Ratio	Percent Change
Total/residents	2.50	0.47	0.36	0.35	-2.7
Passive/residents	0.50	0.25	0.17	0.16	-5.9
Active/residents	2.00	0.22	0.20	0.19	-5.0
Passive/total population	0.28/0.29/0.29*	0.09	0.07	0.07	0.0

Notes: *DCP Guideline is a weighted average combining 0.15 acre per 1,000 workers and 0.50 acre per 1,000 residents. 0.28 acres is existing conditions, 0.29 represents the future without the Proposed Project, and 0.29 represents the future with the Proposed Project.
Sources: U.S. Census of Population and Housing, 2000; Central Transportation Planning Package ("CTPP") 2000—Part 2; NYC Department of Parks & Recreation; AKRF, Inc. field survey 11/12/08.

As with the existing conditions and the Future without the Proposed Actions, the total open space ratio in the Future with the Proposed Actions for the residential populations would not meet DCP guidelines. However, as mentioned above, it is recognized that these goals are not feasible for many areas of the City, and they are not considered impact thresholds. As a result of the Proposed Actions, the total residential open space ratio would decline by 3 percent, which does not meet the threshold of a substantial change. Therefore, the Proposed Actions would not result in a significant adverse impact to the total open space within the study area.

In the Future with the Proposed Actions, similar to many areas in Manhattan, the active and passive open space ratio for residents would continue to be below DCP guidelines. However, these are not considered impact thresholds in that it is recognized that these goals are not feasible for many areas of the City. The active and passive open space ratios for residents would decline by 5.9 percent and 5 percent, respectively, which represent substantial changes in these open space ratios based on *CEQR Technical Manual* guidelines. The changes in the open space ratios would be partially offset by the proposed development's private open space and other publicly accessible amenities not included in the quantitative analysis, most notably Central Park and the northward and southward extensions of Hudson River Park, which are located just outside of the study area and are well utilized by the study area population. As discussed in "Qualitative Assessment" below, no significant adverse impacts to open spaces in the study area are anticipated as a result of the Proposed Actions.

Qualitative Assessment

As noted in the *CEQR Technical Manual*, actions that may result in quantitative impacts on open space resources are typically further assessed in the qualitative assessment approach to determine overall significance of the impact. Residents of New York City (particularly adults) are likely to travel slightly further than a half mile for active recreation opportunities. With respect to the Proposed Actions, there are additional opportunities for active recreation just outside the study area for different age groups, and these facilities are determined to be in generally good to excellent condition.

Hudson River Park extends both northward—to West 59th Street—and southward—to Battery Park—and provides a continuous walkway/bikeway. Immediately north of the study area, Hudson River Park features Clinton Cove. Located at Piers 95 and 96, Clinton Cove is an approximately two-acre open space that includes waterfront recreational activities, an education center, and lawns for passive recreation. Pier 76, which is located just south of the study area will also be developed with both passive and active recreational facilities.

The southwest corner of Central Park (843 acres) is located only one block north and two blocks east of the study area boundary. Also immediately north of the study area is the West 59th Street Recreation Center, an entirely active recreation space with a multi-use gymnasium, indoor sports courts, an indoor pool, an outdoor pool, and an outdoor water fountain. The P.S. 191 playground is located on Amsterdam Avenue between West 60th and West 61st Streets. Riverside South Park begins at West 59th Street and extends to 72nd Street. Amenities in this 16-acre park include soccer and baseball fields, basketball and tennis courts, seating areas, fishing piers, a café and the Little Engine playground, which features children's play equipment and benches.

Furthermore, this analysis did not consider the future P.S. 51 school yard on the Project Site as publicly accessible open space as this is not currently planned, but the New York City Department of Education could decide to make the playground publicly accessible in the future. The residential components of the Proposed Project would also provide approximately 16,800 square feet (0.38 acres) of passive open space on the Project Site in the form of two gardens for residents (see Chapter 1, "Project Description").

Although the declines in study area open space ratios for residents are considered substantial according to *CEQR Technical Manual* guidance for the quantitative assessment, the subsequent qualitative assessment concludes that the Proposed Actions would not result in a significant adverse impact to open space resources.

CONCLUSION

Based on the quantitative and qualitative factors discussed above, the Proposed Actions would not result in any direct or indirect significant adverse impacts on open space. As noted in the *CEQR Technical Manual*, actions that may result in quantitative impacts on open space resources are typically further assessed in the qualitative assessment approach to determine overall significance of the impact. As discussed above, the declines in study area open space ratios for residents are considered substantial according to *CEQR Technical Manual* guidance for the quantitative assessment. However, the subsequent qualitative assessment concludes that the Proposed Actions would not result in a significant adverse impact to open space resources. *