



175 Park Avenue

CEQR No. 21DCP057M

ULURP Nos: C210412ZSM, C210413ZSM, C210414ZSM, C210415ZSM, N210416ZRM,
C210417PPM, N210418ZCM, N210419ZCM, and N210420LDM

December 14, 2021

Technical Memorandum

Introduction

This Technical Memorandum summarizes the potential environmental effects related to modifications to the 175 Park Avenue project. These potential modifications include changes under consideration by the City Council, and proposed revisions by the applicant. The modifications proposed by the City Council (Proposed Modification) includes a reduction in the maximum height of the building proposed at 175 Park Avenue to 1,575 feet from the 1,646 feet analyzed in the October 7, 2021 Final Environmental Impact Statement (FEIS). The Proposed Modification also includes a change in the hours of public access for the terrace from 5:15 AM-2:00 AM to 6:00 AM-1:00 AM. These changes are reflected in the revised Restrictive Declaration and do not require additional analysis.

Additionally, this Technical Memorandum considers a change of the building program proposed by the applicant to the land use application to allow the proposed hotel use studied in the FEIS to include extended stay units. These units would accommodate business travelers and others for stays that would exceed thirty days. This change requires additional analysis because extended stay units are classified as residential use under zoning. While this is a permitted use under zoning, residential use was not analyzed under the FEIS and this extended stay scenario has become more likely. Accordingly, for conservative analysis purposes this Technical Memorandum considers whether the development of extended stay units would have any new or different adverse impacts than the hotel uses analyzed in the FEIS (the "Extended Stay Option").

As set forth below, this Technical Memorandum concludes that the application as approved by the City Planning Commission (CPC) with the Proposed Modification and the Extended Stay Option would not result in any significant adverse impacts and would not change the conclusions in the October 7, 2021 FEIS.

Background

The Applicant, Commodore Owner, LLC, is seeking several discretionary approvals from the City Planning Commission (CPC)—including special permits and zoning text amendments (the Proposed Actions)—to facilitate approximately 2,992,161 gross square feet (gsf) (2,246,515 zoning square feet) of mixed-use development space, including a hotel, office, and public space (the Proposed Project). The Development Site is located on Block 1280, Lot 30, a 57,292-square-foot (sf) lot that currently contains the Grand Hyatt Hotel, a 26-story, approximately 1,028,120-sf, 295-foot-tall steel and glass building with approximately 1,300 guest rooms and approximately 60,000 square feet of conference/event space. As a result of the

Proposed Actions, the Development Site would contain approximately 2,108,820 gsf of office space; an approximately 452,950-gsf, 500-room hotel; public space; and retail space on the cellar, ground, and second floors of the proposed building. The Proposed Project would also include significant public realm improvements, as well as subway and mass transit improvements to enhance circulation and reduce congestion at Grand Central Terminal (GCT, or the Terminal) and the Grand Central – 42nd Street subway station.

The Department of City Planning (DCP), acting on behalf of CPC as lead agency, issued a Notice of Completion for the FEIS on October 7, 2021. Following the publication of the FEIS, the CPC adopted the Proposed Actions on October 18, 2021 (the “Approved Application”) and referred the application to the City Council.

Since the CPC adoption of the Approved Application, the City Council has proposed a modification to the Approved Application to reduce the maximum height of the building and modify the terrace hours of public access. Furthermore, it has become more likely that the hotel units proposed on the Development Site would be occupied for extended stays, which is classified as residential use and was not analyzed in the FEIS. The applicant has proposed a revision to the land use application to reflect this use. This technical memorandum examines whether these three changes, referred to as the “Proposed Modification” and the “Extended Stay Option,” as applicable, would result in any new or different significant adverse environmental impacts not already identified in the FEIS as pertains to the Approved Application.

Description of the Proposed Modification and Extended Stay Option

The Proposed Modification includes a reduction in the maximum height to 1,575 feet from 1,646 feet, and a modification of the terrace hours of public access to 6:00 AM to 1:00 AM from the Proposed Project’s 5:15 AM to 2:00 AM seven days a week.

The Extended Stay Option would allow hotel units to be occupied for extended stays—i.e., longer than 30 days, the maximum length of occupancy permitted in a Use Group (UG) 5 hotel – which would be categorized as UG 2 under zoning. This option is intended to accommodate business travelers, and others visiting the City and the East Midtown area, whose plans involve visits longer than 30 days. The Applicant has stated that the extended stay units would be operated within a hotel management structure and would have access to, and use of, hotel amenities.

Analysis Framework

For conservative analysis purposes, the FEIS considered two building program options to determine the With-Action reasonable worst-case development scenario (RWCDs) for each density-based technical area: the Proposed Project, consisting of a mix of hotel, commercial office, local retail, and publicly accessible space; and the All Office Scenario, based on the same overall building square footage and building massing as the Proposed Project but comprised of approximately 2,561,770 gsf of office, retail and publicly accessible space, and no hotel. In each chapter, where applicable, the FEIS analyzed the scenario with the greater potential for impacts.

See **Table 1** for the Future No-Action and With-Action comparison, as analyzed in the FEIS.

Table 1 FEIS Future No-Action and With-Action Comparison

	No-Action	Proposed Project	Proposed Project Increment	All Office Scenario	All Office Increment
Commercial Office	1,682,336	2,108,820	426,484	2,561,770	879,434
Hotel	0	452,950	452,950	0	0
Retail	18,300	43,370	25,070	43,370	25,070
MTA Circulation	10,220	16,245	6,025	16,245	6,025
Mechanical	166,991	345,355	178,364	345,355	178,364
Publicly Accessible Space	5,896	25,421	19,525	25,421	19,525
Total	1,886,743	2,992,161	1,108,418	2,992,161	1,108,418
Total Commercial	1,700,636	2,605,140	904,504	2,605,140	904,504
Stories	69 Stories	83 Stories	14 Stories	83 Stories	14 Stories
Height	1,118 Feet	up to 1,646 Feet	528 Feet	up to 1,646 Feet	528 Feet

Note: All floor areas are approximate.

The Proposed Modification, as noted above, would reduce the building in the maximum height to 1,575 feet from 1,646 feet. However, this height reduction would not result in other changes to the building's bulk or design, and the building would still be taller than other surrounding buildings. Therefore, the analysis provided in the FEIS for shadows, urban design, historic resources, and stationary air quality would not meaningfully change, is conservative, and no further analysis is necessary.

The modification of the terrace hours of public access to 6:00 AM to 1:00 AM from the Proposed Project's 5:15 AM to 2:00 AM seven days a week would not alter the analysis framework and does not require further analysis. No further analysis of this modification is necessary.

While it is expected that extended stays within the hotel space would have study characteristics more like those of hotel use than residential use, for purposes of ensuring a conservative analysis, this Technical Memorandum analyzes the extended stay units as a residential use. The analysis also conservatively assumes that all 500 hotel units could be used for extended stays (approximately 900-950 square feet per unit). Consistent with the foregoing, all references to "residential" or "residents" in the analysis which follows refer to extended stay units and their occupants within the hotel space.

In order to identify the technical areas that would be affected by the Extended Stay Option, a preliminary screening was performed for each technical area in the *2020 CEQR Technical Manual*. For the screening as well as the additional transportation analysis, the Extended Stay Option was compared to the With-Action condition as analyzed in the FEIS (see [Table 2](#)). For those areas that the preliminary screening determined further assessment was warranted, an assessment was made, pursuant to methodologies and analysis framework established in the *2020 CEQR Technical Manual*.

However, for the analyses identified below that were not previously performed in the FEIS (residential open space and socioeconomic conditions), the Extended Stay Option was compared to the No-Action condition presented in the FEIS.

As shown in **Table 3**, compared to the RWCDs program analyzed in the FEIS, the Extended Stay Option would result in less commercial floor area and new residential area that was not previously analyzed.

Table 2 Comparison of With-Action Condition and Extended Stay Option

	Proposed Project gsf	Extended Stay Option gsf	Increment gsf
Commercial Office	2,108,820	2,108,820	0
Hotel	452,950	0	(452,950)
Residential		452,950 (500 Units) ¹	452,950 (500 Units)
Retail	43,370	43,370	0
MTA Circulation	16,245	16,245	0
Mechanical	345,355	345,355	0
Publicly Accessible Space	25,421	25,421	0
Total	2,992,161	2,992,161	0
Total Commercial	2,605,140	2,152,190	(452,950)
Stories	83 Stories	83 Stories	0
Height	up to 1,646 Feet	up to 1,575 Feet	(71 Feet)

Note: All floor areas are approximate.

1 A dwelling unit factor of approximately 900-950 square feet per unit was applied

Table 3 Comparison of No-Action Condition and Extended Stay Option

	No-Action gsf	Extended Stay Option gsf	Increment gsf
Commercial Office	1,682,336	2,108,820	426,484
Hotel	0	0	0
Residential	0	452,950 (500 Units)	452,950 (500 Units)
Retail	18,300	43,370	25,070
MTA Circulation	10,220	16,245	6,025
Mechanical	166,991	345,355	178,364
Publicly Accessible Space	5,896	25,421	19,525
Total	1,886,743	2,992,161	1,108,418
Total Commercial	1,700,636	2,152,190	904,504
Stories	69 Stories	83 Stories	14 Stories
Height	1,118 Feet	up to 1,575 Feet	457 Feet

Note: All floor areas are approximate.

Environmental Assessment of the Extended Stay Option

As the overall building massing, publicly accessible open spaces, and transit improvements would not change under the Extended Stay Option, the Extended Stay Option would not affect the FEIS findings for land use, zoning and public policy; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; water and sewer infrastructure; air quality; greenhouse gas emissions; noise; public health; neighborhood character; or construction¹. See the summary below:

- › **Land Use, Zoning, and Public Policy:** The Extended Stay Option would not affect land uses, zoning, or applicable public policies in the surrounding 400-foot study area. There are other mixed use and multifamily residential buildings in the study area. Therefore, the Extended Stay Option would not introduce a new land use, and the findings from the FEIS related to land use, zoning and public policy would not change.
- › **Shadows:** The Extended Stay Option would not result in changes to the building's bulk. Therefore, it would not affect the shadows analysis undertaken in the FEIS.²
- › **Historic and Cultural Resources:** The Extended Stay Option would not result in any change to the proposed building design analyzed in the FEIS as it relates to Historic and Cultural Resources. Therefore, it would not affect the historic and cultural resources analysis undertaken in the FEIS.³
- › **Urban Design and Visual Resources:** The Extended Stay Option would not result in a change to the building size or design analyzed in the FEIS. Therefore, it would not affect the urban design and visual resources analysis undertaken in the FEIS.⁴
- › **Hazardous Materials:** The same Remedial Action Plan and associated Construction Health and Safety Plan identified for the Proposed Project in the FEIS would be warranted under the Extended Stay Option. Therefore, the Extended Stay Option would not affect the hazardous materials analysis undertaken in the FEIS.
- › **Water and Sewer Infrastructure:** As described in the FEIS, the water usage and sewer generation rate associated with hotel use is 120 gallons per day, per room, per occupant. The average hotel occupancy was assumed to be 100 percent for conservative analysis purposes. The FEIS assumed 2 people per occupied hotel room, for a total of 1,000 hotel guests.

As average hotel occupancy for the area is 87.3 percent, with two hotel guests per room, there would be an average of 873 guests per night. Even with the lower average occupancy rate, the

¹ In the May 17, 2021 Final Scope of Work, the following areas were screened out of the need for further analysis in the EIS: community facilities, natural resources, and energy. The change from hotel use to residential use as a result of the Extended Stay Option would not change these conclusions, and these areas would continue to screen out of the need for further analysis. For community facilities, there would be no exceedance of the thresholds in the *CEQR Technical Manual*. The Extended Stay Option would not result in affordable housing units and therefore would not generate early childhood program eligible children; the analysis assumption of 500 units is below the 1,033-unit threshold for libraries analysis, and it would only generate 24 primary and secondary students and 10 high school aged students, below the thresholds for a schools analysis. Furthermore, the Extended Stay Option would not constitute the introduction of a new neighborhood, therefore police, fire, and health care facility analysis is not warranted.

² The Proposed Modification would result in a slight reduction in height from the proposed building design analyzed in the FEIS, but would not result in other changes to the building's bulk. Therefore, the analysis provided in the FEIS is conservative and no further analysis is necessary.

³ The Proposed Modification would not result in any meaningful change to the proposed building design analyzed in the FEIS as it relates to Historic and Cultural Resources. Therefore, it would not affect the historic and cultural resources analysis undertaken in the FEIS.

⁴ The Proposed Modification would result in a slight reduction in height from what was analyzed in the FEIS. Therefore, it would not affect the urban design and visual resources analysis undertaken in the FEIS.

water usage and sewer generation rate for the hotel would exceed the residential demand due to the higher population and the associated water usage and sewer generation rate.

By comparison, there are 1.7 residents per dwelling unit on average in the half mile study-area.⁵ This would result in a total of 850 residents with the Extended Stay Option. The water usage and sewer generation rate identified in the *2020 CEQR Technical Manual* for residential uses is 100 gallons per day per person. Therefore, as the total residential population and the overall water usage and sewer generation rate is lower with residential use, no further assessment is required for water and sewer infrastructure under the Extended Stay Option.

- › **Air Quality:** The same (E) Designation requirements identified for the Development Site, to eliminate potential impacts associated with the issues described in the FEIS, would be warranted under the Extended Stay Option. Furthermore, the design of HVAC systems would not change, there would be no change to the findings of the industrial sources provided in the FEIS, and there are no large/major source impacts as a result of this contemplated change in use. As described in the transportation discussion below, vehicular traffic under the Extended Stay Option would be similar to that analyzed for the Proposed Project in the FEIS. Therefore, no mobile source impacts would be anticipated.
- › **Greenhouse Gas Emissions:** The Extended Stay Option would result in the same proposed building design and overall floor area as the Proposed Project analyzed in the FEIS. Therefore, the emissions calculations would be the same, and the Extended Stay Option would not affect the greenhouse gas emissions analysis undertaken in the FEIS.
- › **Noise:** The same (E) Designation requirements identified under the Proposed Project analyzed in the FEIS would be warranted under the Extended Stay Option. Therefore, the Extended Stay Option would not affect the noise analysis undertaken in the FEIS.
- › **Public Health:** The analysis areas taken into consideration in the public health analysis would not be affected by the Extended Stay Option. Therefore, further analysis is not necessary.
- › **Neighborhood Character:** The Extended Stay Option would not result in changes to the FEIS findings in the contributing technical areas of land use, zoning, and public policy; socioeconomic conditions; open space; shadows; historic and cultural resources; urban design and visual resources; transportation; or noise. Therefore, the Extended Stay Option would not affect the neighborhood character analysis undertaken in the FEIS.
- › **Construction:** The development program under the Extended Stay Option would have the same proposed building design, build year, and construction schedule as the Proposed Project. Therefore, the Extended Stay Option would not affect the construction analysis undertaken in the FEIS.

The Extended Stay Option has the potential to affect the areas of socioeconomic analysis, open space, and transportation as summarized below⁶:

- › **Socioeconomic Analysis:** The Extended Stay Option would introduce 500 units, analyzed herein as residential use, which exceeds the threshold warranting an indirect residential displacement analysis (see the **Socioeconomic Conditions** assessment below). As described below, the Extended Stay Option would result in a population increase of only 1.5 percent in the study area. The guidance set forth in the *2020 CEQR Technical Manual* indicates that a population increase of less than five

⁵ The half-mile study area is defined as the census tracts with at least 50 percent of their area within a half-mile of the project area (Manhattan census tracts 78, 80, 82, 84, 86.1, 86.2, 88, 90, 92, 94, 96, 98, 100, and 102). Average household size based on U.S. Census Bureau's 2014-2018 5-year ACS.

⁶ As noted above, the Extended Stay Option would not exceed thresholds warranting a community facilities analysis.

percent would not be expected to affect real estate market conditions. Therefore, the Extended Stay Option would not result in significant adverse impacts as a result of indirect residential displacement, and no further analysis is warranted.

- › **Open Space:** The Extended Stay Option would introduce 500 units, analyzed herein as residential use, which would result in a number of new residents that exceeds the threshold warranting a residential open space analysis (see the **Open Space** assessment below). As described below, the Project Area is located in an area that is neither underserved nor well-served by publicly accessible open space, but that has low active open space ratios. With the introduction of new residents to the Project Area with the Extended Stay Option, the passive open space ratio would stay the same at 0.495 acres per 1,000 residents and the active open space ratio would decrease by -0.002 acres, to 0.120 from 0.122, a percentage change of -1.64. Further, as described in the **Open Space** assessment below, it is not expected that the residents staying in the building would overburden active open space resources, the project would add open space to the study area, and the assessment of condition and utilization shows that there is room to absorb new users of study area open space. Therefore, the Extended Stay Option would not change the findings of the FEIS with respect to Open Space.

Further, the introduction of residents would not alter the non-residential analysis presented in the FEIS. The number of non-residents estimated in the All Office Scenario is higher than that under the Extended Stay Option, and the combined residents and non-resident population within the quarter-mile study area is also higher in the All Office Scenario. Therefore, the analysis presented in the FEIS for non-residents within the quarter-mile study area is more conservative than under the Extended Stay Option and the finding of no significant adverse impacts would not be affected. The slight modification of the terrace hours of public access would also not affect the analysis.

- › **Transportation: Chapter 9, Transportation** of the FEIS reported that the Proposed Project would result in significant impacts to traffic, pedestrian, and subway stations. As described in the **Transportation** assessment below, the Extended Stay Option would result in a decrease in vehicle trips during all peak hours analyzed and, therefore, would not have the potential to result in new significant traffic impacts as compared to the Proposed Project. The Extended Stay Option would result in an increase in bus and subway trips during the commuter peak hours. Therefore, further analyses were conducted and determined that the increase in bus and subway trips would not result in new significant impacts to these travel modes. The Extended Stay Option would result in a decrease in pedestrian trips during the midday and PM peak hours, but an increase in pedestrian trips during the AM peak hour. Therefore, a detailed pedestrian analysis was conducted for the AM peak hour and determined that pedestrian impact findings for the Extended Stay Option would not be different from those identified for the Proposed Project. Therefore, the Extended Stay Option would not change the findings of the FEIS with respect to Transportation.

Socioeconomic Conditions

Indirect Residential Displacement Methodology

Per the *2020 CEQR Technical Manual* guidelines, a preliminary assessment of a project's potential to cause indirect residential displacement is necessary to determine whether a proposed project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of a neighborhood would change.

The first step of the preliminary analysis is to determine if a proposed project would add new population with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the study area without the project. If the project would introduce a costlier type of housing compared to existing housing and housing expected to be built in the future No-Action condition, then the new population may be expected to have higher incomes. If the expected average incomes of the new population would exceed the average incomes of the study area populations, then the next step of the analysis is conducted. This preliminary assessment follows the step-by-step preliminary assessment guidelines described in Section 322.1 of the *2020 CEQR Technical Manual*.

Study Area Definition

The *2020 CEQR Technical Manual* states that a quarter-mile socioeconomic study area is appropriate unless the project could increase the population by more than five percent as compared with the population expected to reside in a quarter-mile study area in the future No-Action condition.

The Project Area is located within Manhattan Census Tract 92. A quarter-mile study area would also contain Manhattan Census Tracts 80, 82, and 94.⁷ Combined, these census tracts have a residential population of 9,933.⁸ One new residential development is anticipated in the quarter-mile study area under the future No-Action condition, resulting in the construction of 122 new dwelling units. Using the average household size of 1.58 persons per dwelling unit for the study area, the new residential units would generate approximately 193 residents, for a total population within the quarter-mile study area of 10,126 in the future No-Action condition. The Extended Stay Option would increase the quarter-mile area population by an estimated 790 residents.⁹ This is estimated to result in a residential population increase of 7.8 percent, and therefore the quarter-mile study area is not appropriate per CEQR methodology and a half-mile radius is used. The half-mile radius consists of Manhattan Census Tracts 78, 80, 82, 84, 86.1, 86.2, 88, 90, 92, 94, 96, 98, 100, and 102 (see **Figure 1**).

Data Sources

Information used in the socioeconomic analysis includes data from the U.S. Census Bureau's 2006-2010 American Community Survey (ACS) and the 2014-2018 ACS, compiled through the NYC Population FactFinder. The 2014-2018 data reflects five-year averages of income distribution, mean income, and median rent for the trailing 12 months in 2018 inflation-adjusted dollars. The mean income and median gross rent of each census tract were compiled by the NYC Population FactFinder.

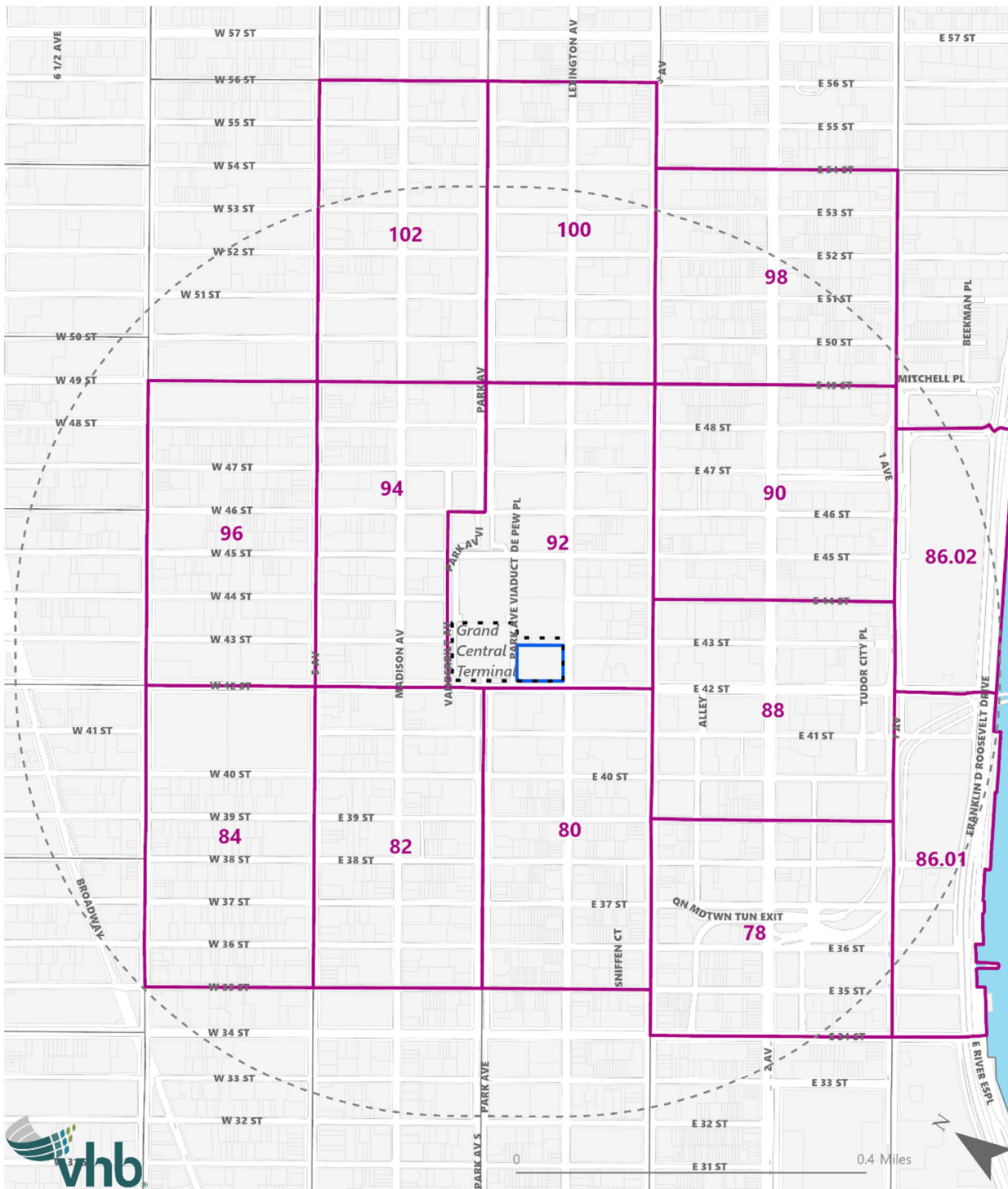
Real estate property listing data was obtained from www.streeteasy.com.

⁷ Census tracts that contain at least 50 percent of their area within the quarter mile radius were included in the study area analysis.

⁸ 2014-2018 ACS, compiled through NYC Population FactFinder.

⁹ 2014-2018 ACS, average household size for the quarter mile study area census tracts (1.58)

Figure 1 Half-Mile Socioeconomic Study Area



- Development Site
- Census Tracts Within a Half Mile
- Project Area
- Census Tracts
- Half-Mile Radius

Preliminary Assessment

Existing Conditions

The existing population of the socioeconomic study area is 47,870, as per the 2014-2018 ACS 5-year estimate, and has increased since 2010 (see [Table 4](#)). The population of both Manhattan and New York City as a whole have increased over the same time period by 3.1 percent and 2.8 percent, respectively.

Table 4 Population

Area	Population 2006-2010	Population 2014-2018	Percent Change
Study Area	44,910	47,870	Increase ¹
Manhattan	1,580,824	1,630,595	3.1%
New York City	8,214,436	8,443,713	2.8%

Source: 2006-2010 ACS 5-year Estimate and 2014-2018 ACS 5-year Estimate

Notes:

¹ The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2014-2018 ACS 5-year Estimates is greater than one-third of the estimated difference but less than the difference itself; therefore, a direction of change, rather than a percentage of change, can be estimated with confidence.

Table 5 demonstrates that Manhattan and New York City showed increases in both the number of households and the number of housing units, corresponding to an increase in population in both areas. However, the data on households and housing unit changes for the study area was not reliable, and therefore, cannot be reported.

Table 5 Household and Housing Data

Area	2006-2010 Households	2014-2018 Households	Households Percent Change	2006-2010 Housing Units	2014- 2018 Housing Units	Housing Units Percent Change
Study Area	27,750	27,833	-- ¹	34,506	34,632	-- ¹
Manhattan	732,190	758,133	3.5%	838,999	874,196	4.2%
New York City	3,020,284	3,154,103	4.4%	3,343,424	3,472,354	3.9%

Source: 2006-2010 ACS 5-year Estimate and 2014-2018 ACS 5-year Estimate

¹ The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2014-2018 ACS 5-year Estimates is greater than the estimated difference. Therefore, a percentage change cannot be estimated with confidence.

The majority of occupied housing units in the study area are rented (61.1 percent) rather than owned (38.9 percent) (see [Table 6](#)). New York City has similar tenure rates compared to the study area—although the City as a whole has a lower ownership rate, with 67.3 percent of housing being renter occupied units and 32.7 percent owner occupied. Manhattan has a 75.9 percent rate of renter occupied units.

Table 6 Housing Tenure (2014-2018)

Area	Percent Renter Occupied Units	Percent Owner Occupied Units
Study Area	61.1%	38.9%
Manhattan	75.9%	24.1%
New York City	67.3%	32.7%

Source: 2014-2018 U.S. ACS 5-year Estimate.

Notes: Percent Vacant, as defined by the U.S. Census, includes vacant housing units for rent or sale, units that are occupied by persons who have a usual residence elsewhere, and vacant units held off the market.

Median gross rent in the study area was reported as \$2,300+ in 2010 and \$2,648 for the study area in 2018 (see [Table 7](#)). Median gross rent in Manhattan is \$1,424, a 18.1 percent increase from 2010, and \$1,396 in New York City, a 20.8 percent increase from 2010. A review of current rental listings in the study area on www.streeteasy.com revealed an average rent of \$2,470 for studios, \$3,170 for one-bedroom units, \$5,540 for two-bedroom units, and \$10,360 for three-bedroom units.¹⁰

Table 7 Median Gross Rent

Area	Years 2006-2010	Years 2014-2018	Change	Percent Change
Study Area	\$2,300+	\$2,648	-- ¹	-- ¹
Manhattan	\$1,424	1,682	\$258	18.1%
New York City	\$1,156	\$1,396	\$240	20.8%

Source: 2006-2010 ACS 5-year Estimate and 2014-2018 ACS 5-year Estimate.

¹ According to NYC Population FactFinder, this value is not statistically reliable, therefore no conclusions are drawn from this data. Change over time cannot be estimated with confidence.

Table 8 shows the average household incomes across the comparison geographies. The average household income in the study area is \$187,534, as per the 2014-2018 ACS 5-year Estimate, which is higher than the average income in Manhattan (\$152,001) and in New York City (\$97,647). While the average income in Manhattan increased by 7.4 percent from 2010, the average income in New York City increased by 2.2 percent. Median household income is also provided in [0](#) for reference.

Table 9 shows the distribution of household income. In the study area, approximately 19.2 percent of households earn below \$50,000 and 59.8 percent of households earn \$100,000 or more, compared to 35.1 percent of households in Manhattan and 43.2 percent in New York City who earn less than \$50,000, and 43.6 percent of households in Manhattan and 31.2 percent in New York City who earn \$100,000 or more.

¹⁰ www.streeteasy.com, accessed September 9, 2021.

Table 8 Average and Median Household Income

Area	2006-2010 Average Household Income	2014-2018 Average Household Income	Average Household Income Percent Change	2006-2010 Median Household Income	2014-2018 Median Household Income	Median Household Income Percent Change
Study Area	\$174,617	\$187,534	Increase ¹	\$118,580	\$131,544	— ²
Manhattan	\$141,528	\$152,001	7.4%	\$75,431	\$83,151	10.2%
New York City	\$95,558	\$97,647	2.2%	\$58,109	\$60,762	4.6%

Source: 2006-2010 ACS 5-year Estimate data and 2014-2018 ACS 5-year Estimate data.

Notes: Average, or mean household income, is defined as the aggregate household income divided by total households. Median Household income is calculated through linear interpolation by NYC Population FactFinder.

¹ The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2014-2018 ACS 5-year Estimates is greater than one-third of the estimated difference but less than the difference itself; therefore, a direction of change, rather than a percentage of change, can be estimated with confidence.

² According to NYC Population FactFinder, this value is not statistically reliable, therefore no conclusions are drawn from this data. Change over time cannot be estimated with confidence.

Table 9 Household Income Distribution (2014-2018)

Area	<\$25,000	\$25,000-\$49,999	\$50,000-\$99,999	\$100,000- \$149,999	\$150,000+
Study Area	11.2%	8.0%	21.0%	16.8%	43.1%
Manhattan	21.4%	13.6%	21.3%	14.0%	29.6%
New York City	24.5%	18.7%	25.6%	14.0%	17.2%

Source: 2014-2018 ACS 5-year Estimate.

No-Action Condition

Under the No-Action condition, the Development Site would not be developed with residential use and no residents would be introduced to the study area from the site.

Eight new residential development projects are currently planned or under construction within the half-mile study area (see **Table 10**). These developments are expected to generate approximately 6,109 residents. Therefore, in addition to the 47,870 people that currently live in the study area, the population under the No-Action condition would be 53,979 people. The new population would result in a 12.8 percent increase in population over existing conditions. It is assumed that the all developments would contain only market-rate units, since there are no Mandatory Inclusionary Housing areas mapped within the half-mile study area.

Table 10 No-Action Condition Residential Development

Address	Residential Units	Estimated Residents
131-141 East 47th Street	122	207
232 East 54th Street	130	221
Waldorf-Astoria Hotel	375	638
138 East 50th Street	124	211
516-520 Fifth Avenue	145	247
212-214 East 44th Street	354	602
First Avenue Properties - 700 & 708 1st Ave	2,275	3,868
20 West 40th Street	68	116
Total	3,593	6,109

Sources: Department of Buildings, CEQR Access

Notes: Residents estimated using the average household size of the half mile study area census tracts of 1.70 people per household (2014-2018 ACS 5-year Estimate).

With-Action Condition

The Extended Stay Option would facilitate the development of up to a total of 500 residential units instead of the 500 hotel rooms proposed in the Proposed Project. For analysis purposes only, it is assumed that these units would consist of a mix of studio or one-bedroom units with up to 50 larger units consisting of two, three and four bedrooms as well, and that they would be market rate. As discussed above, these units will be different in character from residential units and would likely be rented on a per day basis, with the potential to rent at a week or a month at a time. However, the analysis below assumes a typical residential unit.

As described in the **Existing Conditions** section above, average market-rate listed rents for the study area are approximately \$2,470 for a studio, \$3,170 for a one-bedroom unit, \$5,544 for a two-bedroom unit and \$10,356 for a three-bedroom unit. The unit mix under the Extended Stay Option would be composed of a mix of unit sizes. A range of average incomes for the new tenants is estimated by assuming that the new households would pay 30 percent of their income on housing. This ratio is based on the HUD definition of cost-burdened families, which states that those paying more than 30 percent of their income on housing may have difficulty affording other necessities. Using these assumptions, it is estimated that households in the market-rate units would have average annual incomes ranging from approximately \$89,000 to \$373,000 (see **Table 11**).

Table 11 Estimated Income for Market Rate Units

Unit Type	Average Rent	Estimated Monthly Income	Estimated Average Annual Income
Studio	\$2,471	\$7,414	\$89,000
1-Bedroom	\$3,176	\$9,529	\$114,000
2-Bedroom	\$5,544	\$16,631	\$200,000
3-Bedroom	\$10,356	\$31,068	\$373,000

Notes: Average rent is based on rental listings as described in the Existing Conditions section. Estimated average monthly income and annual income assumes that the household pays 30 percent of income on rent. Estimated annual incomes are rounded to the nearest thousand.

The average household income in the study area is \$187,534. The estimated average annual income for households renting market-rate studios and one-bedrooms would be lower than the average income in the study area, but higher for those renting larger units. However, the Extended Stay Option would result in a population increase of only 1.5 percent in the study area.

Conclusion

The guidance set forth in the *2020 CEQR Technical Manual* indicates that a population increase of less than five percent would not be expected to affect real estate market conditions. Therefore, the Extended Stay Option would not result in significant adverse impacts as a result of indirect residential displacement, and no further analysis is warranted.

Residential Open Space

Principal Conclusions

With the Extended Stay Option, the total open space ratio would decrease slightly from 0.617 acres per 1,000 residents under the future No-Action condition to 0.615 under the Extended Stay Option—which represents an absolute change of -0.002 acres and a percent change of -0.32. The Project Area is located in an area that is neither underserved nor well-served by publicly accessible open space, but that has a low active open space ratio. With the introduction of new residents to the Project Area with the Extended Stay Option, the passive open space ratio would stay the same at 0.495 acres per 1,000 residents and the active open space ratio would decrease by -0.002 acres, to 0.120 from 0.122, a percentage change of -1.64. Given the age breakdown of the study area and characteristics of expected residents, it is more likely the residents would be adults, use on-site amenities, and be more inclined to use the local area parks for passive recreation as opposed to playgrounds and other active open space resources. Furthermore, as part of the Extended Stay Option as in the Proposed Project, publicly accessible open space would be created on the Development Site, helping to offset some of the new demand that would be generated by the new residents and would also be a new open space resource for the study area population. Furthermore, the condition and utilization of the existing open spaces suggests that they will be able to absorb the expected new residential population resulting from the Extended Stay Option. Therefore, no significant adverse impacts are anticipated and the Extended Stay Option would not change the findings of the FEIS with respect to Open Space.

Methodology

Per guidance in the *2020 CEQR Technical Manual*, an open space analysis is generally conducted if a proposed project would generate more than 200 new residents or 500 new employees. However, the need for an analysis varies in certain areas of the City that have been identified as either well-served or underserved by open space.¹¹ If a project is located in an underserved area, the threshold for an open space analysis is 50 new residents or 125 new employees. If a project is located in a well-served area, the threshold for an open space analysis is 350 new residents or 750 new employees. Maps in the Open Space Appendix

¹¹ The *2020 CEQR Technical Manual* defines underserved areas as areas of high population density in the City that are generally the greatest distance from parkland, where the amount of open space per 1,000 residents is currently less than 2.5 acres. Well-served areas are defined as having an open space ratio above 2.5 accounting for existing parks that contain developed recreational resources, or are located within quarter-mile (i.e., approximately a 10-minute walk) from developed and publicly accessible portions of regional parks.

of the 2020 CEQR Technical Manual indicate that the Development Site is neither well served nor underserved. Thus, the threshold used in this analysis is 200 residents or 500 employees.

As shown in **Table 12**, the Extended Stay Option would introduce a new residential population, and thus a residential open space analysis is warranted. However, as discussed above, the introduction of residents would not alter the non-residential analysis presented in the FEIS. The non-resident numbers in the All Office Scenario are more conservative, and the combined residents and non-resident population would also remain higher in the All Office Scenario. Therefore, the analysis presented in the FEIS for non-residents is more conservative and the finding of no significant adverse impact would not be affected. Furthermore, the direct effects findings from the FEIS still stand. As the Extended Stay Option would result in a net increase of 850 residents compared with the No-Action condition, this exceeds the 2020 CEQR Technical Manual 200-resident threshold and a residential open space analysis is warranted.¹²

Table 12 Comparison of No-Action Condition and Extended Stay Option

	No-Action	Extended Stay Option	Increment
Commercial Office	1,682,336	2,108,820	426,484
Hotel	0	0	0
Long-Term-Stay (Residential)	0	452,950 (500 Units)	452,950 (500 Units)
Retail	18,300	43,370	25,070
MTA Circulation	10,220	16,245	6,025
Mechanical	166,991	345,355	178,364
Publicly Accessible Space	5,896	25,421	19,525
Total	1,886,743	2,992,161	1,108,418
Total Commercial	1,700,636	2,605,140	904,504
Stories	69 Stories	83 Stories	14 Stories
Height	1,118 Feet	up to 1,646 Feet	528 Feet

The open space analysis was conducted in accordance with 2020 CEQR Technical Manual methodology. The analysis provides an evaluation of the residential study area's existing open space conditions, relative to the open space needs of the residential study area's users, and predicts and compares conditions relative to open space needs in the future with the Extended Stay Option on the residential study area's open space resources. The analysis examines the amount of passive, active and total open space available in the future with and without the Extended Stay Option in order to quantify their potential impact.

¹² Estimated residents calculated by multiplying residential units by 1.7, the average household size in the 2014-2018 ACS for the 14 census tracts that comprise the residential study area (Manhattan Tracts 78, 80, 82, 84, 86.01, 86.02, 88, 90, 92, 94, 96, 98, 100, and 102).

Residential Open Space Study Area

Pursuant to *2020 CEQR Technical Manual* guidance, the residential study area comprises all census tracts that have at least 50 percent of their area located within a half-mile radius of the Project Area. The residential study area, therefore, consists of 14 census tracts in New York County: Tracts 78, 80, 82, 84, 86.01, 86.02, 88, 90, 92, 94, 96, 98, 100, and 102. The area is bounded by East 56th Street to the north, the East River to the east, East 34th Street to the south and Sixth Avenue to the west (see **0**).

Indirect Analysis

The *2020 CEQR Technical Manual* states that indirect effects may occur when the population generated by a project would overtax the capacity of open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. As identified above, the Extended Stay Option would result in a net increase of 850 residents compared to the future No-Action condition. Therefore, a residential analysis of indirect effects is warranted, with a residential study area encompassing an approximately half-mile distance around the Project Area. The purpose of the indirect effects analysis is to quantitatively assess the adequacy of open space in the residential study area for existing and potential future users based on an inventory of open space resources and the effect of the residential population increase anticipated with the Extended Stay Option as well as any population increase in the No-Action condition due to other planned or proposed developments.

Specifically, an indirect effects analysis includes:

- › Identification of the open space user groups: residents. To determine the number of residents to be included in the analysis, population data from the 2014-2018 5-year ACS were compiled for census tracts within the residential study area.
- › An inventory of all publicly accessible open spaces in the residential study area, using secondary sources supplemented with field surveys.
- › A quantitative assessment of the open space ratio in the residential study area—calculated as the ratio of open space acreage to user population—compared to benchmarks established in the *2020 CEQR Technical Manual*. These include the optimal ratio for resident populations, which is 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents.

According to the *2020 CEQR Technical Manual*, projects that may result in significant quantitative impacts on open space resources, or projects that would exacerbate an existing underserved area in relation to open space, are typically further assessed in a qualitative assessment to determine the overall significance of the impact.

According to the *2020 CEQR Technical Manual*, a preliminary assessment may be useful when the open space assessment can be targeted to a particular user group, or if it is not clear whether a detailed open space analysis is necessary. However, if a study area is characterized by a low ratio of open space acreage to user population in the existing conditions, which indicates a current quantitative shortfall of open space, a detailed analysis is warranted. A detailed open space analysis within a quarter mile of the Project Area was already conducted as part of **Chapter 5, Open Space** in the FEIS. As detailed below, the residential study area exhibits a low active and overall open space ratio in existing conditions. Therefore, a detailed analysis of the potential impact of the Extended Stay Option to open spaces within a half-mile residential study area is warranted. This technical memo includes a qualitative assessment of the conditions and utilization of open spaces in the residential study area in addition to the quantitative assessment that determines

potential impacts based on the addition of new residents to the Project Area under the Extended Stay Option.

Detailed Assessment

Existing Conditions

Residential Study Area Population

As shown in **Table 13**, based on the 2014-2018 ACS 5-Year Estimates, the 14 census tracts in the residential open space study area contain a total residential population of 47,870. **Table 14** breaks down the population by age brackets provided in the 2014-2018 ACS. Residents between the ages of 25 to 44 make up the largest age cohort (45 percent) of the residential population in the study area with residents between the ages of 45 and 54 accounting for the next largest cohort (12 percent). There is a larger percentage of the population between the ages of 18 and 54 (64 percent) than Manhattan as a whole (58 percent) and a lower number of children as well (8 percent as compared to 15 percent in Manhattan overall). The lower number of children in the study area is also exemplified by the lower average household size of 1.7 people. A population's age distribution affects the way open spaces are used and the need for different types of recreational facilities. According to the *CEQR Technical Manual*:

- › Children four years old or younger typically use traditional playgrounds and “tot lots” that have play equipment for toddlers and preschool children.
- › Children ages five through nine use traditional playgrounds with play equipment suitable for school-age children, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope.
- › Children age 10 through 14 use playground equipment, court spaces, and ball fields. Teenagers and young adults tend to use court facilities such as basketball courts and sports fields.
- › Adults ages 20 through 64 continue to use court facilities and fields for sports, as well as space for more individualized recreation, such as rollerblading, biking, and jogging, activities that require bike paths, esplanades, and vehicle-free roadways. Adults also gather with families for picnicking, and other recreational activities in which all ages can participate.
- › Adults 65 years and older engage in active recreation such as handball, tennis, gardening, and swimming, as well as other passive recreational activities.

Relative to Manhattan, the study area has a high percentage of population between 18 and 54 years old, indicating a need for recreational facilities geared towards this population, which requires a mix of passive and active spaces. The share of children in the study area is very low, indicating less of a need for playground spaces.

Table 13 Existing Population in the Study Area

Census Tract	Residential Population
78	8,965
80	5,013
82	3,264
84	1,956
86.01	3,022
86.02	0
88	7,285
90	7,500
92	1,602
94	54
96	141
98	7,200
100	1,768
102	100
Total	47,870

Source: 2014-2018 US Census ACS

Table 14 Residential Population Age Breakdown

	Under 5		5 to 17		18 to 24		25 to 44		45 to 54		55 to 64		65 to 74		75 +	
	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
Study Area	1,562	3%	2,496	5%	3,444	7%	21,715	45%	5,518	12%	4,726	10%	4,900	10%	3,509	7%
Manhattan	79,897	5%	155,874	10%	149,638	9%	601,090	37%	203,826	12%	184,793	11%	141,583	9%	115,779	7%

Source: 2014-2018 US Census ACS

Residential Study Area Open Space Resources

Open space that is accessible to the public on a constant and regular basis, including for designated daily periods, is defined as publicly accessible and is analyzed as such per *2020 CEQR Technical Manual* guidelines. Publicly accessible open space may be under government or private jurisdiction and includes open space designated through regulatory approvals, such as public plazas. Private open space—that which is not publicly-accessible or is available only to limited users and is not available to the public on a constant and regular basis—is not included in CEQR-compliant quantitative open space analyses.

In addition to the distinction between public and private open spaces, individual spaces may also be classified as either active or passive, according to the types of activities for which the space is primarily used. Open space that is used for sports, exercise, or active play is classified as active and consists mainly of recreational facilities, while open space that is used for relaxation, such as a plaza, is classified as passive. Some types of open space facilities, such as esplanades, may be devoted to both active and passive uses.

In conducting the open space analysis for the Extended Stay Option, an inventory was compiled of all publicly accessible open spaces within the study area. The open space resources were identified by their location, owner, features, hours of access, total acreage, percentage and acreage of passive and active areas, condition, and utilization. The secondary sources for this analysis included land use and geographic PLUTO data at the tax lot level and additional data provided by the New York City Department of Parks and Recreation (DPR). Field surveys were not conducted due to the COVID-19 pandemic, and instead, information from previous Environmental Assessments was used to define open space utilization levels.

The utilization level of each open space resource is categorized as low, moderate, or heavy, based on *2020 CEQR Technical Manual* guidance. The condition of each open space resource was categorized as excellent, good, fair, or poor; these determinations would typically be made based on visual assessment during the field surveys. However, visual assessments were not able to be conducted due to the COVID-19 pandemic. Instead, past surveys were used to inform the categorization of condition and the ratios of passive and active open space. According to the *2020 CEQR Technical Manual*, public open space does not include Greenstreets, malls without seating, or sidewalks.

The publicly accessible open space resources that include passive and active open space within the study area are shown in **Figure 2** and listed in **Table 15**. The residential study area contains 75 open space resources, which include a mix of indoor and outdoor plazas, Publicly Accessible Open Spaces (POPS), playgrounds, basketball courts and ball fields, and comprise 28.44 total acres of open space, of which approximately 4.65 is active and 23.79 is passive.

The majority of the 75 open spaces located within the half-mile study area are POPS that include a variety of indoor and outdoor public plazas, arcades, through-block connections, and seating areas. Most of the POPS are small outdoor plazas located between the associated building and sidewalk, and only two of the POPS are larger than 0.5 acres. The POPS in the study area are 100 percent passive open space and provide a range of amenities for the user populations. Many of the POPS offer limited amenities, although there are often steps or plantings with ledges that can be used informally as seats. Other POPS include some combination of seating, tables, garbage cans, drinking fountains, artwork, vendors, and water features. Most of the POPS were created by developers in exchange for the right to construct additional floor area, in keeping with the concept of incentive zoning, which was introduced in the 1961 New York City Zoning Resolution.

The largest amount of active open space is found at St. Vartan Park in the southeast portion of the residential study area on a block bounded by East 36th Street to the north, First Avenue to the east, East 35th Street to the south and Tunnel Approach Street to the west. There are 2.48 acres of basketball courts and baseball fields among other active amenities.

The largest open space within the half-mile residential study area is Bryant Park, a 4.58-acre park that extends from West 40th Street to West 42nd Street, between Fifth and Sixth Avenues, and is located immediately west of the New York Public Library main branch (Stephen A. Schwarzman Building). In 1974, the New York City Landmarks Preservation Commission designated Bryant Park as a Scenic Landmark. More than 6 million people visit the park annually to enjoy its amenities, which include two restaurant pavilions and four concession kiosks, as well as seasonal attractions such as the ice-skating rink that is constructed for use in the winter.

Table 15 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
1	Fifth Avenue Tower	Fifth Ave Condo—B.H.	Plaza, trees and planters, seating wall/ledges	0.05	--	0.05	Excellent/ Moderate
2	425 Fifth Avenue	425 Fifth Avenue Condominium/AK AM Associates	Plaza, seating wall/ledges, planters and trees	0.1	--	0.1	Excellent/ Moderate
3	Sculpture Court at Phillip Morris International	120 Park Avenue Associates, LLC	Indoor arcade with tables and chairs, plantings, seating wall/ledges; outdoor arcade with seating wall/ledges	0.21	--	0.21	Good/High
4	Tower 49	Kato Kagaku Co., LTC	Plaza/arcade, trees, planters, marble benches, seating wall/ledges, tables and movable chairs	0.27	--	0.27	Excellent/ Low
5	280 Park Avenue	Broadway 280 Park Fee	Plaza, trees, planters with seating ledges, tables and movable chairs	0.4	--	0.4	Good/Low
6	Westvaco, 299 Park Avenue	Fisher-Park Lane Owner LLC	Plaza/arcade, trees, planters, benches	0.36	--	0.36	Good/Low
7	Cosmopolitan Condominiums, 141 East 48th Street	Cosmopolitan Condominiums	Plaza, trees, planters with seating ledges, seating wall/ledges	0.06	--	0.06	Good/Low
8	780 Third Avenue	Teachers Insurance and Annuity Association of America	Plaza, seating wall/ledges, food trucks, restaurant tables and chairs	0.09	--	0.09	Good/ Moderate
9	575 Fifth Avenue	575 Fifth Avenue Condominium	Indoor plaza with tables and movable chairs, garbage cans	0.23	--	0.23	Excellent/ Moderate
10	245 Park Avenue	Brookfield Financial	Plaza/arcade, planters, seating ledges	0.79	--	0.79	Good/ Low
11	425 Lexington Avenue	Hines 425 Lexington Avenue, LLC	Plaza, seating wall/ledges, planters with seating ledges, garbage cans	0.1	--	0.1	Good/Low

Table 15 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
12	Emigrant Savings Bank, 6 East 43rd Street	6 East 43rd Street Corp.	Plaza, planters with seating ledges, statue	0.03	--	0.03	Excellent/ Low
13	101 Park Avenue Plaza	101 Park Avenue Associates, LLC	Plaza/arcade, plantings, seating wall/ledges, seating steps, water feature	0.34	--	0.34	Excellent/ Low
14	Two Grand Central Tower, 140 East 45th Street	2 GCT Partners, LLC	Plaza/arcade, planters, seating ledge garbage cans	0.11	--	0.11	Good/Low
15	600 Third Avenue	Third Avenue Tower Owner, LLC	Plaza/arcade, trees, planters with seating, ledges, lighting	0.2	--	0.2	Good/Low
16	Grand Central Plaza, 622 Third Avenue	622 Third Ave Company, LLC	Outdoor plaza with trees, planters with seating ledges, benches, seating wall/ledges, garbage cans; indoor arcade with benches, seating wall/ledges, lighting, heating; landscaped terrace with trees, planters, benches, tables and movable chairs, lattice, garbage cans	0.62	--	0.62	Excellent/ Moderate
17	275 Park Avenue Plaza	277 Park Avenue LLC	Plaza/arcade, seating ledges, planters	0.13	--	0.13	Good/Low
18	Murray Hill Mews, 160 East 38th Street	Murray Hill Mews Owners, CP	Plaza, trees, planters, benches	0.15	--	0.15	Excellent/ Low
19	Perishing Square West Plaza	NYC DOT	Plaza, trees, café tables and chairs	0.14	--	0.14	Excellent/ Moderate
20	Bryant Park	DPR	Tables and movable chairs, benches, lighting, trees, monuments/fountains, drinking fountains, garbage cans, vendors, carousel, game area, petanque courts, ping pong area, reading area, piano, ice rink (seasonal), subway access (B, D, F, M, 7)	4.58	--	4.58	Excellent/ High

Table 15 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
21	420 Fifth Avenue	Dryland Properties, LLC / CVS Albany, LLC	Plaza, trees, planters, potted plants, seat wall/ledges, lighting, garbage cans, bicycle rack	0.09	--	0.09	Excellent/ Low
22	1114 Sixth Avenue	1114 TrizechahnSwig, LLC	Plaza/arcade, trees, plantings, tables and movable chairs, benches, garbage cans, water fountain, food vendor	0.52	--	0.52	Good/Low
23	1166 Sixth Avenue	A of A Condo	Plaza/arcade, tables and movable chairs, benches, seat walls/ledges, garbage cans, lamps, trees, plantings, sculpture, through-block connection between 45th and 46th Streets	0.63	--	0.63	Excellent, Low
24	437 Madison Avenue	Madison Avenue Leasehold, LLC	Plaza/arcade, seat wall/ledges, seating steps, lighting	0.28	--	0.28	Fair/Low
25	457 Madison Avenue	New York Palace Hotel	Courtyard, plantings	0.14	--	0.14	Good/Low
26	40 East 52nd Street	40 East 52nd Street, LP	Plaza, seat wall/ledges, planters, sculptures, garbage cans, lighting	0.09	--	0.09	Excellent/ Low
27	10 East 53rd Street	Millennium Estates, LTD / 10E53 Owner, LLC	Plaza/arcade with planters; through-block connection to 52nd Street with retail, seat wall/ledges	0.15	--	0.15	Excellent/ Low
28	3 East 53rd Street	Greenpark Foundation, Inc.	Vest-pocket park, trees, plantings, tables and movable chairs, drinking fountain, garbage cans, water feature	0.1	--	0.1	Excellent/ Low
29	520 Madison Avenue	Eli Acquisition, LLC	Plaza, trees, tables and movable chairs	0.06	--	0.06	Good/Low
30	535 Madison Avenue	Madison Tower Association	Plaza/arcade, tables and movable chairs, trees, planters with seating ledges	0.15	--	0.15	Excellent/ Low
31	65 East 55th Street	NY-Midtown Properties	Plaza, planters with seating ledges, garbage cans	0.15	--	0.15	Excellent/ Low

Table 15 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
32	153 East 53rd Street	Citibank N A	Indoor plaza with planters, tables and movable chairs, garbage cans, lighting, heat, piano, WiFi; outdoor plaza with trees, planters, garbage cans, water feature, vendors, lighting	0.45	--	0.45	Excellent/ Heavy
33	375 Park Avenue	375 Park Ave, LP	Plaza, seat wall/ledges, sculpture, water feature	0.37	--	0.37	Excellent/ Low
34	599 Lexington Avenue	BP 599 Lexington Avenue	Plaza, planters, benches, lighting	0.34	--	0.34	Good/Low
35	345 Park Avenue	345 Park Avenue, LP	Plaza, trees, planters with seating ledges, benches, seat wall/ledges, sculpture	0.47	--	0.47	Good/Low
36	217 East 51st Street POPS	Greenacre Foundation	Vest-pocket park, sculptures, trees, plantings, gazebo, tables and movables chairs, marble benches, waterfall	0.15	--	0.15	Excellent/ Low
37	300 East 54th Street POPS	Connaught Tower AKA 3	Plaza/park, trees, planters with seating ledges, garbage cans, sculpture	0.28	--	0.28	Excellent/ Low
38	Sterling Plaza, 255 East 49th Street	Sterling Plaza Condominium	Plaza, trees, planters with seating ledges, benches, seat wall/ledges, lighting, sculpture, bicycle racks	0.11	--	0.11	Good/ Moderate
39	777 Third Avenue	7 Third Ave Leasehold, LLC	Plaza/arcade, benches, seating swing, trees, planters	0.27	--	0.27	Good/ Moderate
40	767 Third Avenue	767 Third Avenue, LLC	Plaza/arcade, seat wall/ledges, seating steps, benches, tables and chairs, garbage cans	0.16	--	0.16	Good/Low
41	747 Third Avenue	4 Third Avenue Fee	Plaza, tables and fixed chairs, seat wall/ledges, lighting, gazebo, artwork	0.1	--	0.1	Good/Low
42	885 Second Avenue	Plaza Tower, LLC	Plaza, trees, planters, benches, seat wall/ledges, garbage cans	0.38	--	0.38	Good/Low
43	240 East 47th Street	Dag Hammarskjold Tower	Plaza, trees, planters with seating ledges, benches, lighting, garbage cans, water feature	0.24	--	0.24	Good/Low

Table 15 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
44	100 United Nations Plaza	Condominium	Plaza, trees, planters with seating ledges, seat wall/ledges, sculpture, water feature	0.28	--	0.28	Excellent/ Moderate
45	845 First Avenue	Condominium	Plaza, trees, planters with seating ledges, seat wall/ledges, benches, lighting	0.15	--	0.15	Good/Low
46	Dag Hammar skjold Plaza	DPR	Plaza, trees, garden, benches, lighting, garbage cans, sculptures, steel lattice dome	1.59	--	1.59	Good/Low
47	320 East 46th Street	E. 46th Realty, LLC	Plaza, trees, planters, benches, lighting, garbage cans	0.17	--	0.17	Good/Low
48	3 United Nations Plaza	NYC HPD	Small public park	0.08	--	0.08	Good/ Moderate
49	303 East 43rd Street	43 St Second Ave, Corp	Plaza, trees, planters, seats, garbage cans	0.08	--	0.08	Good/Low
50	201 East 42 Street	Staples The Office Superstore East, Inc	Plaza, trees, planters, seat wall/ledges	0.03	--	0.03	Fair/Low
51	Mary O Connor Playground	DPR	Playground equipment	0.23	0.23	--	Good/Low
52	Ralph Bunche Park	DPR	Triangle/Plaza	0.42	--	0.42	Good/ Moderate
53	Tudor Grove Playground	DPR	Playground equipment	0.19	0.19	--	Good/Low
54	Trygve Lie Plaza	DPR	Seating, Art	0.21	--	0.21	Good/Low
55	Robert Moses Playground	DPR	Plaza, trees, planters with seating ledges, benches, lighting	0.1	--	0.1	Good/ Moderate
56	212 East 42 Street	Domestic Properties I, c/o Helmsley Enterprises,	Plaza, trees, plantings, benches	0.07	--	0.07	Excellent/ Heavy

Table 15 Existing Residential Study Area Open Spaces

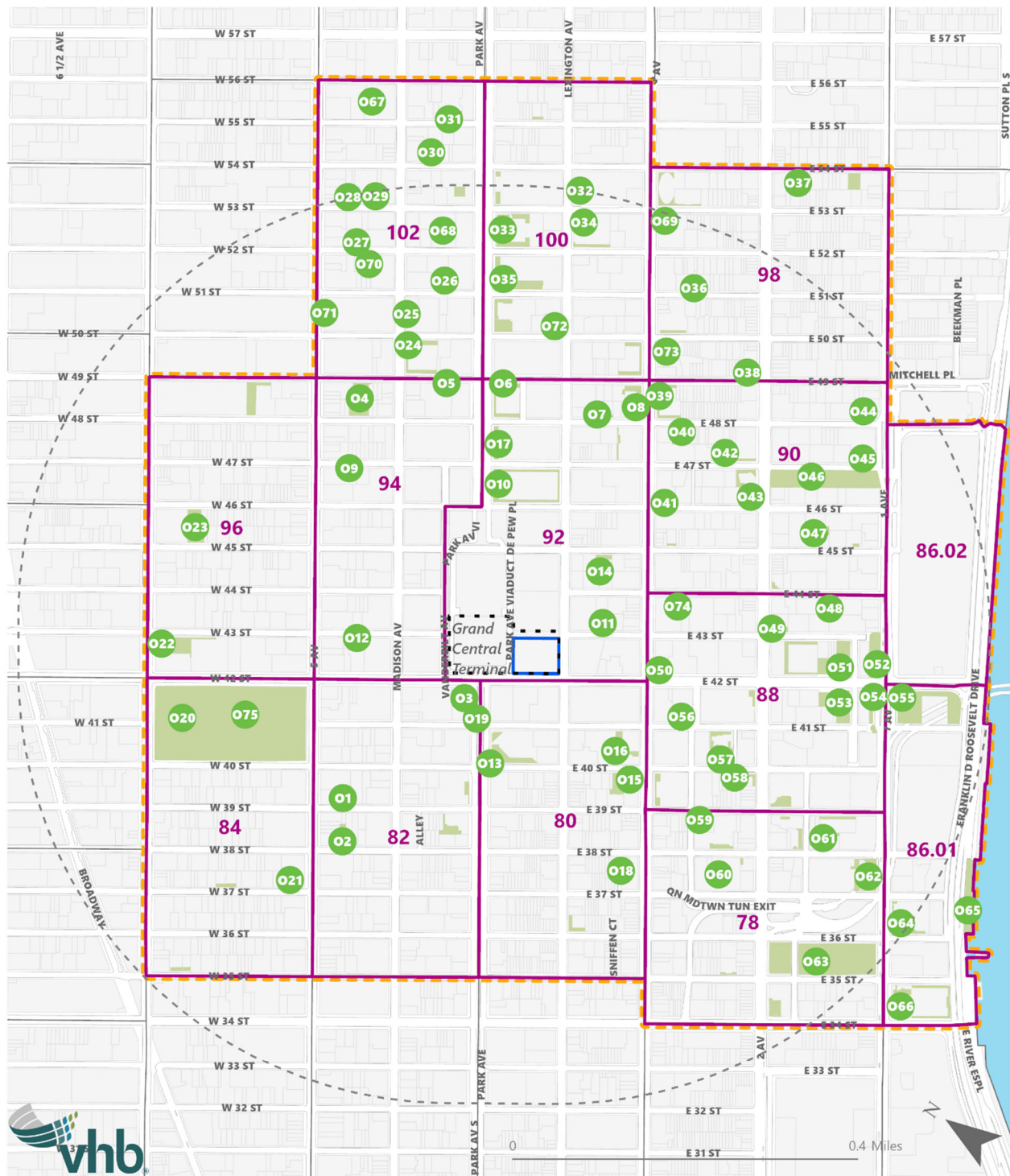
Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
57	235 East 40 Street	Vanderbilt Condominium	Plaza, trees, planters, seat wall/ledges, chairs, lighting, garbage cans, drinking fountain	0.2	--	0.2	Good/Low
58	250 East 40 Street	Highpoint Condominium	Plaza, seat wall/ledges, garbage cans, water feature, bicycle rack	0.15	--	0.15	Good/Low
59	222 East 39 Street	Eastgate Tower Hotel	Plaza, planters, tables and movable chairs, lighting, garbage cans	0.09	--	0.09	Good/Low
60	240 East 38 Street	Condominium	Plaza/arcade, trees, planters with seating ledges, seat wall/ledges, lighting	0.33	--	0.33	Good/ Moderate
61	330 East 39 Street	Jennifer Tower Apartments Co., c/o Pan Am Equities	Plaza, planters, fountain	0.19	--	0.19	Good/Low
62	330 East 38 Street	The Corinthian Condominium	Plaza, trees, planters with seating ledges, seat wall/ledges, benches, lighting, garbage cans, bicycle rack	0.15	--	0.15	Good/Low
63	St Vartan Park	DPR	Baseball fields, handball courts, spray showers, basketball courts, football fields, playgrounds	2.76	2.48	0.28	Good/ Moderate
64	630 First Avenue	Condominium	Fountain, trees, planters with seating ledges	0.38	--	0.38	Good/Low
65	East River Esplanade	DPR	Fitness equipment	1.74	1.57	0.17	Good/ Moderate
66	401 East 34th Street	UDR Rivergate, LLC	Trees, basketball court, bike racks, benches,	0.36	0.18	0.18	Excellent/ Moderate
67	550 Madison Avenue	550 Madison Avenue Trust, LTD	Indoor plaza with tables and movable chairs, benches, garbage cans, plantings, lighting, vendors, exhibition space, through-block connection between 55th and 56th Streets; outdoor arcade with potted plants, garbage cans	0.32	--	0.32	Excellent/ Moderate
68	55 East 52nd Street	Park Avenue Plaza Owner, LLC	Indoor plaza, tables and movable chairs, garbage cans, lighting, heating, vendors, exhibition space, waterfall, piano, artwork	0.3	--	0.3	Excellent/ Heavy

Table 15 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
69	875 Third Avenue	Eli Acquisition, LLC	Indoor plaza with planters, tables and movable chairs, garbage cans, lighting, heat, food court, bathrooms; outdoor plaza/arcade with tables and movable chairs, planters with seating ledges	0.66	--	0.66	Excellent/ Moderate
70	645 Fifth Avenue	Olympic Tower Condominium	Indoor plaza with planters, tables and movable chairs, piano, artwork, restrooms, telephones	0.2	--	0.2	Excellent/ Heavy
71	460 Madison Avenue	Diocese of New York	Plaza, steps	0.74	--	0.74	Good/ Moderate
72	560 Lexington Avenue	Archbishop of New York / 560 Lexco	Indoor plaza with trees, planters, tables and movable chairs, garbage cans, artwork, vendors, heating; outdoor arcade with benches, lighting	0.14	--	0.14	Excellent/ Moderate
73	805 Third Avenue	805 Third New York, LLC	Indoor plaza with tables and movable chairs, piano	0.39	--	0.39	Excellent/ Heavy
74	685 Third Avenue	Pfizer, Inc.	Vest-pocket park, trees, benches	0.09	--	0.09	Good/Low
75	New York Public Library, Fifth Avenue at 42nd Street	New York Public Library	Plaza/terrace, tables and movable chairs, seating steps, statues, trees, plantings	1.01	--	1.01	Excellent/ Moderate
Residential Study Area Total				28.44	4.65	23.79	
Percent of Study Area Open Space				100%	16.25%	83.65%	

Sources: Greater East Midtown FEIS, ZoLA, DPR

Figure 2 Open Space Resources in the Half-Mile Residential Study Area



- Development Site
- Project Area
- Residential Open Space Study Area
- Census Tracts Within a Half Mile
- Census Tracts
- Half-Mile Radius
- O# Open Space Resources

Adequacy of Open Spaces

The residential open space analysis focuses on open space that may be used by residential populations. Using *2020 CEQR Technical Manual* guidelines, the adequacy of open space was evaluated by comparing the ratio of existing active and passive open space acreage in the residential study area per 1,000 residents with the CEQR benchmark of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

The existing residential population of the residential study area was estimated at 47,870 people. The residential study area currently has an overall open space ratio of 0.594 acres per 1,000 residents, which is below the City's goal of 2.5 acres per 1,000 residents and average of 1.5 acres per 1,000 residents (**Table 16**). The study area's active open space ratio is 0.097 acres per 1,000 residents, which is below the City's guideline of 2.0 acres per 1,000 residents, and the passive open space ratio is 0.497 acres per 1,000 residents, which is at the City guideline of 0.5 acres per 1,000 residents. Thus, based on the quantitative analysis, the residential study area is well served by passive open space and open space overall, with a deficit in active open space.

Table 16 Existing Conditions – Adequacy of Open Space Resources

Population	Open Space Acreage		Ratios*	DCP Guidelines
47,870	Active	4.65	0.097	2.00
	Passive	23.79	0.497	0.50
	Total	28.44	0.594	2.50

*Acres per 1,000 people

No-Action Condition

As described in **Methodology**, above, the No-Action condition accounts for population growth and changes expected to the inventory of open space resources.

Study Area Population

New development in the residential study area would result in an additional 3,594 residential units in eight developments, increasing the residential population by 6,110 for a total residential population of 53,980 persons (see **Table 17**).

Table 17 No-Action Condition: No-Build Developments Estimated Population

Development Name/Location	Residential Units	Estimated Residents ¹
131-141 East 47th Street	122	207
232 East 54th Street	130	221
Waldorf-Astoria Hotel	375	638
138 East 50th Street	124	211
516-520 Fifth Avenue	145	247
212-214 East 44th Street	355	604
First Avenue Properties – 700 & 708 1st Avenue	2,275	3,868
20 West 40th Street	68	116
Total	3,594	6,110

¹ Estimated residents calculated by multiplying residential units by 1.7, the average household size in the 2014-2018 ACS for the 14 census tracts that comprise the residential study area.

Study Area Open Spaces

In the No-Action condition, there are eight open spaces planned within the residential study area (see **Table 18**). Altogether, these eight open spaces would add a total of 4.85 acres to the residential study area, including 1.94 active acres and 2.91 passive acres. The largest of those open spaces would be created by the First Avenue Properties development, which would include 3.88 total acres of publicly accessible open space, split evenly between passive and active uses. The remaining seven open spaces that would be created, including the POPS that would be located within the Development Site under the No-Action condition (consisting of an indoor 0.14-acre plaza), would comprise approximately 0.97 acres of passive open space.

Table 18 No-Action Open Spaces

Development Name	Total Acres	Active Acres	Passive Acres
First Avenue Properties - 700 & 708 1st Ave	3.88	1.94	1.94
415 Madison Avenue	0.05	--	0.05
266 Madison Avenue	0.08	--	0.08
270 Park Avenue	0.23	--	0.23
485 Lexington Avenue	0.11	--	0.11
111 East 48 Street	0.09	--	0.09
Vanderbilt Plaza	0.28	--	0.28
175 Park No-Action POPs	0.14	--	0.14
	4.85	1.94	2.91

Adequacy of Open Spaces

In the No-Action condition, the active open space ratio in the residential study area would increase to 0.122 acres per 1,000 residents from 0.097 in the existing conditions. While this is an improvement over existing conditions, the ratio would still be very low. However, the passive open space ratio would decrease slightly

to 0.495 acres per 1,000 residents from 0.497, which would lead to an overall increase in the total open space ratio to 0.617 acres per 1,000 residents, as shown in **Table 19**. Consistent with existing conditions, the active and total open space ratios would remain below the guidelines of 0.50 and 2.50 acres of open space per 1,000 residents, respectively. However, the passive open space ratio would continue to be at the guideline of 0.5 acres of active open space per 1,000 residents.

Table 19 No-Action Condition – Adequacy of Open Space Resources

Population	Open Space Acreage		Ratios*	DCP Guidelines
53,980	Active	6.59	0.122	2.00
	Passive	26.70	0.495	0.50
	Total	33.29	0.617	2.50

*Acres per 1,000 people

Extended Stay Option Condition

Study Area Population

With the Extended Stay Option, 500 residential units would be introduced to the Project Area, which is estimated to introduce approximately 850 residents and result in a total residential population of 54,830 in the half-mile residential open space study area.¹³

Study Area Open Spaces

As part of the Extended Stay Option, 25,421 gsf of publicly accessible open space would be created, an increment of 19,525 gsf or 0.45 acres over the No-Action condition. The open space would be located on the second floor of the Proposed Project and would wrap around the eastern, northern and western facades of the building. The eastern and western terraces would run the length of the site from north to south while the northern terrace would connect the eastern and western terraces and would run the entire width of the site along the northern property line. The open space would be accessed by two grand staircases located on East 42nd Street or by elevators. Each of the north-south terraces would be elevated at a height of approximately 30 feet to align with the datum of the Park Avenue Viaduct, while the east-west terrace would be elevated at a height of approximately 45 feet.

The “Chrysler Terrace” would provide an overlook onto Lexington Avenue and East 42nd Street, and a unique vantage point for viewing the Chrysler Building and other surrounding landmarks. It would be reachable by one of the two grand staircases along East 42nd Street, by a staircase along Lexington Avenue, and by elevator. The Chrysler Terrace would feature trees, plantings, multiple types of seating, and a larger clearing.

The “Grand Central Terrace” would provide new visibility for the currently obstructed southeast corner of Grand Central. It would be reached by one of the two grand staircases along East 42nd Street, as well as by elevator. The grand staircases would be a key architectural feature of the building. The plaza would provide trees, planting, seating, and skylights that would bring light to the transit hall below. It would provide a

¹³ Estimated residents calculated by multiplying residential units by 1.7, the average household size in the 2014-2018 ACS for the 14 census tracts that comprise the residential study area (Manhattan Tracts 78, 80, 82, 84, 86.01, 86.02, 88, 90, 92, 94, 96, 98, 100, and 102).

destination for commuters and visitors alike and would open up views of many landmarks along East 42nd Street, such as the Bowery Savings Bank and Pershing Square, in addition to Grand Central Terminal itself.

The open space proposed on the north side of the building, the “Graybar Terrace,” would provide a critical connection between the Grand Central Terrace and Chrysler Terrace. This terrace would feature retail use, fixed and movable seating, and flexible use space. The proposed terrace would be approximately 274 feet long by 25 feet wide. This terrace would be accessed by stairs and ADA elevators to provide additional ADA access for inter-terrace travel.

Though the hours of operation are not known at this time, the proposed terraces would be programed to maximize the utility and functionality of the space.

With the addition of 0.45 acres of public space, the passive open space within the residential study would increase to 27.15 acres and the total open space would increase to 33.74 acres.

Adequacy of Open Spaces

Quantitative Assessment

With the Extended Stay Option, the active open space ratio would decrease to 0.120 acres per 1,000 residents from 0.122 in the No-Action condition. The passive open space ratio would stay the same at 0.495 acres per 1,000 residents. There would be an overall decrease in the total open space ratio to 0.615 acres per 1,000 residents from 0.617 in the No-Action condition, as shown in **Table 20**. As in existing conditions, the active and total open space ratios would remain below the guidelines of 2.0 and 2.50 acres of open space per 1,000 residents, respectively. However, the passive open space ratio would continue to be at the guideline of 0.5 acres of active open space per 1,000 residents.

Table 20 Extended Stay Option – Adequacy of Open Space Resources

Population	Open Space Acreage	Ratios*	DCP Guidelines	Percent Change from No-Action
54,830	Active 6.59	0.120	2.0	-1.64%
	Passive 27.15	0.495	0.5	0.00%
	Total 33.74	0.615	2.5	-0.32%

*Acres per 1,000 residents

Under the Extended Stay Option, the total open space ratio for the residential population would change by -0.32 percent compared to the No-Action condition open space ratio: 0.617 to 0.615 acres per 1,000 residents (a raw change of -0.002 acres). The active open space ratio would also decrease (see **Table 20**), and the passive open space ratio would stay the same. The residential study area would continue to have a total open space ratio below the City guideline of 2.50 acres per 1,000 residents and the Citywide median of 1.50 acres per 1,000 residents as well as an active open space ratio below the City guideline of 2.00 acres per 1,000 residents. The passive open space ratio would continue to be equal to the City guideline of 0.5 acres per 1,000 residents as a result of the addition of passive open space to the development site under the Proposed Actions.

Qualitative Assessment

According to the *CEQR Technical Manual*, the planning goal of 2.5 acres per 1,000 residents is often not feasible for many areas of the City, and the City does not consider these ratios as its open space policy for

every neighborhood. The study area is part of East Midtown, part of the central business district of Manhattan and geared primarily toward its working population with passive open space. In the With-Action Condition, approximately 80 percent of the Study Area's open space acreage would be dedicated to passive uses and 20 percent would be dedicated to active uses.

As shown in **Table 15** above, 73 of the 75 open spaces in the residential study area are in good or excellent condition. Furthermore, 70 out of the 75 have either moderate or low utilization while the remaining five have heavy utilization. This suggests that the existing open spaces in the residential study area should be able to absorb the anticipated residential population as a result of the Extended Stay Option while still remaining in good condition. Furthermore, eight new open spaces will be introduced to the study area under the No-Action condition, including one new open space that would be developed on the Development Site itself.

The majority of the study area population is between the ages of 20 and 64 (73 percent), a user group that seeks a mix of passive and active open spaces. The open spaces in the study area reflect this through active open spaces such as playgrounds and esplanades and the many passive plazas. While the active open space ratio is low, this reflects the lower share of children in the study area and less of a demand of active open spaces than other areas of the City.

The conditions of public space access in the study area are reflective of those of East Midtown as a whole. The Greater East Midtown Rezoning identified a lack of significant, publicly controlled open spaces and mandated the creation of new publicly accessible spaces on large sites in order to help address the issues. As described above, 25,421 gsf of publicly accessible open space would be created on the Development Site.

Determining Impact Significance

A proposed project would result in a significant adverse open space impact if it would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.50 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. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space.

This residential open space analysis seeks to determine whether an Extended Stay Option that would result in up to 850 new residents would have a significant adverse impact to open space resources. As shown in **Table 21**, under both future conditions, the active and overall open space ratios in the residential study area would be below DCP's citywide guidelines of 2.00 acres per 1,000 residents and 2.5 acres per 1,000 residents, respectively. The active open space ratio would decrease by 1.64 percent over the No-Action condition and the overall ratio would decrease less than one percent as a result of the Extended Stay Option, and the absolute change would be less than one tenth of an acre per 1,000 residents. The passive open space ratio would be equal to the DCP guideline of 0.5 acres per 1,000 residents under both future conditions and would not change from the No-Action to the Extended Stay Option condition.

Overall, the Extended Stay Option would not result in a greater-than one percent decrease in the total open space ratio and passive open space ratios would remain the same. The active open space ratio would decrease by 1.64 percent, as a result of the Extended Stay Option. However, the new units would be primarily occupied adults as demonstrated by the age breakdown and average household size of the study area. Therefore, the 850 residents are less likely to seek active recreational space such as playgrounds and more likely to seek local area parks and plazas for their recreation needs. Considering that occupants of the

extended stay units will likely be business travelers, they will also likely use on-site amenities, and will not overburden existing facilities.

Furthermore, as part of the Extended Stay Option, as with the Proposed Project, 25,421 gsf of publicly accessible open space would be created, an increment of 19,525 gsf or 0.45 acres over the No-Action condition. This new open space would help to offset some of the new demand that would be generated by the new residents and would also be a new open space resource for the study area population. Furthermore, the condition and utilization of the existing open spaces suggests that they will be able to absorb the expected new residential population resulting from the Extended Stay Option. Therefore, no significant adverse impacts are anticipated.

Table 21 Open Space Ratio Summary

	No-Action*	Extended Stay Option*	Percent Change	Absolute Change
Active	0.122	0.120	-1.64%	-0.002
Passive	0.495	0.495	0.00%	-0.000
Total	0.617	0.615	-0.32%	-0.002

Transportation

Principal Conclusions

Chapter 9, Transportation of the FEIS reported that the Proposed Project would result in significant impacts to traffic, pedestrian, and subway stations. The Extended Stay Option would result in a decrease in vehicle trips during all peak hours analyzed, and therefore would not have the potential to result in new significant traffic impacts compared to the Proposed Project. The Extended Stay Option would result in an increase in bus and subway trips during the commuter peak hours. Therefore, further analyses were conducted and determined that the increase in bus and subway trips would not result in new significant impacts to these travel modes. The Extended Stay Option would result in a decrease in pedestrian trips during the midday and PM peak hours, but an increase in pedestrian trips during the AM peak hour. Therefore, a detailed pedestrian analysis was conducted for the AM peak hour and determined that pedestrian impact findings for the Extended Stay Option would not be different from those identified for the Proposed Project. Therefore, the Extended Stay Option would not change the findings of the FEIS with respect to Transportation.

Travel Demand Analysis

As described above in **Introduction**, the Extended Stay Option would result in extended stays within the hotel space that is analyzed herein as residential use. Travel demand projections were prepared for the weekday AM, midday, and PM peak hours to estimate the volume of person and vehicle trips generated by the Extended Stay Option. These trips were then compared to trips generated by the Proposed Project assessed in the FEIS to determine if additional detailed transportation analyses were needed, and the potential for additional transportation impacts. **Table 22** shows the transportation planning assumptions used in estimating the number of person and vehicle trips. Assumptions used for office, local retail, and passive open space are consistent with the travel demand assumptions used in the FEIS. Travel demand factors used for residential use were obtained primarily from the *2020 CEQR Technical Manual*, US census journey-to-work data, and the *M1 Hotel Zoning Text Amendment FEIS (2018)*.

Table 22 Travel Demand Characteristics

Rates	Office	Residential	Local Retail	Passive Open Space
Weekday Person Trip Generation Rate	18.0 ¹ per 1,000 SF	8.075 ¹ per DU	205 ¹ per 1,000 SF	44 ¹ per acre
Linked Trip Credit	0%	0%	25%	0%
Temporal Distribution				
AM Peak Hour	12% ¹	10% ¹	3% ¹	3% ¹
Midday Peak Hour	15% ¹	5% ¹	19% ¹	5% ¹
PM Peak Hour	14% ¹	11% ¹	10% ¹	6% ¹
Modal Split (AM, PM / Midday)				
Auto	8.4%/2% ^{2,3}	6.9% ⁸	6% ⁵	5% ⁶
Taxi	2.0%/2% ^{2,3}	4.3% ⁸	1% ⁵	1% ⁶
Bus	13.8%/6% ^{2,3}	3.7% ⁸	1% ⁵	3% ⁶
Subway	47.1%/6% ^{2,3}	31.6% ⁸	1% ⁵	4% ⁶
Rail	19.3%/0% ^{2,3}	3.4% ⁸	0% ⁵	0% ⁶
Walk	9.4%/83% ^{2,3}	50.1% ⁸	91% ⁵	87% ⁶
Vehicle Occupancy				
Auto	1.13 ²	1.34 ⁸	1.65 ⁴	2.90 ⁷
Taxi	1.40 ³	1.40 ⁴	1.40 ⁴	3.00 ⁷
Directional Split (In/Out)				
AM Peak Hour	96%/4% ³	15%/85% ⁴	50% ⁴	55%/45% ⁷
Midday Peak Hour	48%/52% ³	50%/50% ⁴	50% ⁴	50%/50% ⁷
PM Peak Hour	5%/95% ³	70%/30% ⁴	50% ⁴	45%/55% ⁷
Weekday Delivery Trip Generation Rate	0.32 ¹ per 1,000 SF	0.06 ¹ per DU	0.35 ¹ per 1,000 SF	0.01 ⁷ per acre
Delivery Temporal Distribution				
AM Peak Hour	10% ¹	12% ¹	8% ¹	6% ⁷
Midday Peak Hour	11% ¹	9% ¹	11% ¹	6% ⁷
PM Peak Hour	2% ¹	1% ¹	2% ¹	1% ⁷

Delivery trip directional distribution: 50% in / 50% out

Source:

¹ 2020 CEQR Technical Manual

² 2012-2016 ACS reverse journey-to-work data for Manhattan Census Tracts 78, 80, 82, 88, 90, 94, 98, 100, and 102

³ Greater East Midtown Rezoning FEIS (2017)

⁴ M1 Hotel Zoning Text Amendment FEIS (2018) – Manhattan below 59th Street site

⁵ NYCDOT survey of local retail in Manhattan transit zone

⁶ Special West Chelsea District Rezoning and High Line Open Space EIS (2005)

⁷ Brooklyn Bridge Park FEIS (2005)

⁸ 2015-2019 ACS journey-to-work data for Manhattan Census Tracts 78, 80, 82, 88, 90, 94, 98, 100, and 102

Residential

Trip generation rates and temporal distributions for the residential use were obtained from the *2020 CEQR Technical Manual*. The trip generation rate of 8.075 person trips per dwelling unit for the weekday and temporal distributions of 10 percent, 5 percent, and 11 percent during the AM, midday, and PM peak hours were also obtained from the *2020 CEQR Technical Manual*. The weekday modal splits used—6.9 percent by auto, 4.3 percent by taxi, 3.7 percent by bus, 31.6 percent by subway, 3.4 percent by rail, and 50.1 percent by walking—were obtained from the 2015–2019 ACS journey-to-work data for Manhattan Census Tracts 78, 80, 82, 88, 90, 92, 94, 98, 100, and 102. Vehicle occupancies of 1.34 persons by auto and 1.40 by taxi were obtained from the ACS journey-to-work data and the *M1 Hotel Zoning Text Amendment FEIS (2018)* for the Manhattan below 59th Street site, respectively. The directional distributions of 15 percent “in,” 50 percent “in,” and 70 percent “in” were used for the AM, midday, and PM peak hours, respectively, and were based on the *M1 Hotel Zoning Text Amendment FEIS (2018)* for the Manhattan below 59th Street site.

For residential delivery trips, daily trip generation rates of 0.06 per dwelling unit and a temporal distribution of 12 percent, 9 percent, and 2 percent for the AM, midday, and PM peak hours, respectively, were obtained from the *2020 CEQR Technical Manual*.

Trip Generation Results

The total number of person and vehicle trips generated by the Extended Stay Option are summarized in **Table 23** and **Table 24**. The Extended Stay Option would generate 144 bus trips, 562 subway trips, and 192 rail trips in the AM peak hour; 85 bus trips, 141 subway trips, and six rail trips in the midday peak hour; and 169 bus trips, 650 subway trips, and 223 rail trips during the PM peak hour. The Extended Stay Option would generate 649, 1,889, and 989 pedestrian trips (auto, walk, bus and walk-only trips) during the AM, midday, and PM peak hours, respectively, and 161, 121, and 167 vehicle trips during the AM, midday, and PM peak hours, respectively.

Table 23 Difference in Person Trips between the Extended Stay Option and Proposed Project

Development Scenario	Auto		Taxi		Bus		Subway		Rail		Walk		Total		
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM Peak Hour															
Extended Stay Option	81	30	22	17	125	19	437	125	173	19	166	228	1,004	438	1,442
Proposed Project	86	20	66	75	126	11	444	58	174	12	195	148	1,091	324	1,415
Difference	-5	10	-44	-58	-1	8	-7	67	-1	7	-29	80	-87	114	27
Midday Peak Hour															
Extended Stay Option	40	41	25	26	41	44	69	72	3	3	842	881	1,020	1,067	2,087
Proposed Project	54	52	135	119	44	46	101	94	7	6	933	951	1,274	1,268	2,542
Difference	-14	-11	-110	-93	-3	-2	-32	-22	-4	-3	-91	-70	-254	-201	-455
PM Peak Hour															
Extended Stay Option	38	107	16	28	21	148	125	525	21	202	336	339	557	1,349	1,906
Proposed Project	41	111	130	90	17	147	98	521	18	201	339	358	643	1,428	2,071
Difference	-3	-4	-114	-62	4	1	27	4	3	1	-3	-19	-86	-79	-165

Table 24 Difference in Vehicle Trips between the Extended Stay Option and the Proposed Project

Development Scenario	Auto		Taxi		Bus		Total		
	In	Out	In	Out	In	Out	In	Out	Total
AM Peak Hour									
Extended Stay Option	70	23	25	25	9	9	104	57	161
Proposed Project	72	13	57	57	9	9	138	79	217
Difference	-2	10	-32	-32	0	0	-34	-22	-56
Midday Peak Hour									
Extended Stay Option	28	29	24	24	8	8	60	61	121
Proposed Project	35	34	83	83	8	8	126	125	251
Difference	-7	-5	-59	-59	0	0	-66	-64	-130
PM Peak Hour									
Extended Stay Option	27	90	24	24	1	1	52	115	167
Proposed Project	24	90	79	79	1	1	104	170	274
Difference	3	0	-55	-55	0	0	-52	-55	-107

Traffic

As summarized in **Table 23**, the Extended Stay Option would result in a decrease of 56, 130, and 107 vehicles per hour (vph), during the AM, midday, and PM peak hours, respectively, as compared to the Proposed Project. Therefore, the Extended Stay Option would not have the potential to result in new traffic impacts compared to the Proposed Project.

Parking

The Proposed Project would result in a parking shortfall in the No-Action and With-Action conditions. Since the Proposed Project is located in Parking Zone 1, this shortfall is not considered a significant impact due to the magnitude of available alternative modes of transportation in the area. As the parking shortfall would be expected even without the project, the Extended Stay Option would be expected to result in a parking shortfall similar to the Proposed Project.

Transit

Subway

As detailed in **Table 23**, the Extended Stay Option would result in an increase of 60 subway trips during the AM peak hour and 31 subway trips during the PM peak hour, as compared to the Proposed Project. A subway station analysis was prepared to determine whether the Extended Stay Option would result in new significant subway station impacts as compared the Proposed Project.

The Extended Stay Option subway trips would be distributed across various station elements (stairs, escalators, passageways, and fare control areas), similar to the travel patterns assumed for the Proposed Project. Similar to the FEIS, significant adverse impacts were identified at five stairways along the

northbound and southbound Lexington line platform during the AM peak hour, one northbound Lexington line platform stairway during the PM peak hour, and at two escalators—ES208 and ES210 located at the west end of the Flushing line platform—during both the AM and PM peak hours.

Similar to the Proposed Project, the stairway and escalator impacts would remain unmitigated. The impact to the escalators could potentially be mitigated by increasing the escalator operating speed from 90 feet per minute to 100 feet per minute. Replacement of the escalators as part of MTA's Capital Program is expected to be completed by 2025 and would allow for the increase of the escalator operating speed to 100 feet per minute. However, if in the future it is determined that there is crowding in the immediate switchback landing as passengers transfer between escalators, then NYCT would have to potentially lower the escalator operating speed back to 90 feet per minute, in which case, the impact would remain unmitigated.

Bus

As shown in **Table 23**, the Extended Stay Option would result in an increase of seven bus trips during the AM peak hour and five bus trips during the PM peak hour. Similar to the Proposed Project, the number of project-generated bus trips under the Extended Stay Option, 144 bus trips in the AM peak hour and 169 bus trips in the PM peak hour, would not exceed the Level 1 screening thresholds of 200 pedestrian trips per hour riders and significant bus impacts are not anticipated.

Pedestrian

As presented in **Table 23**, the Extended Stay Option would result in an increase of 63 pedestrian trips (auto, walk, bus plus walk-only) during the AM peak hour as compared the Proposed Project, and a decrease of 191 and 24 pedestrian trips during the midday, and PM peak hours, respectively. Therefore, the Extended Stay Option would not have the potential to result in new pedestrian impacts during the midday and PM peak hours as compared to the Proposed Project. A pedestrian analysis was conducted for the AM peak hour to determine whether the Extended Stay Option would result in new significant pedestrian impacts as compared the Proposed Project. Pedestrian trip distribution and assignments were prepared following similar assumptions to those used for the FEIS.

A summary of level of service findings for the sidewalks, crosswalks, and corner reservoir elements is presented in **Table 25**. The analysis of pedestrian conditions for the Extended Stay Option during the AM peak hour indicates that:

- › Two sidewalk and corner elements would be expected to operate at mid-LOS D or worse with the Extended Stay Option, similar to the Proposed Project;
- › Six crosswalk elements would be expected to operate at mid-LOS D or worse with the Extended Stay Option, similar to the Proposed Project;
- › Of the 15 pedestrian elements analyzed, the Extended Stay Option would result in significant adverse impacts at one pedestrian element during the AM peak hour—the west crosswalk at the intersection of Lexington Avenue and East 42nd Street—similar to the Proposed Project.

Similar to the Proposed Project, this impact could be mitigated by restriping the crosswalk from 12 feet to 14 feet in width.

Thus, the overall findings resulting from the Extended Stay Option would not be different from those identified in the FEIS.

Table 25 Pedestrian Levels of Service Summary – Weekday AM Peak Hour

Sidewalk Elements	AM Peak Hour	
	Extended Stay Option	Proposed Project
Sidewalks at LOS A/B/C and Acceptable LOS D	2	2
Sidewalks at Unacceptable LOS D	1	1
Sidewalks at LOS E	1	1
Sidewalks at LOS F	0	0
Pedestrian Elements Analyzed	4	4
Pedestrian Elements with No Significant Impacts	4	4
Pedestrian Elements with Significant Impacts	0	0
Unmitigated Pedestrian Elements	0	0

Crosswalk Elements	Extended Stay Option	Proposed Project
Crosswalks at LOS A/B/C and Acceptable LOS D	0	0
Crosswalks at Unacceptable LOS D	1	1
Crosswalks at LOS E	3	3
Crosswalks at LOS F	2	2
Pedestrian Elements Analyzed	6	6
Pedestrian Elements with No Significant Impacts	5	5
Pedestrian Elements with Significant Impacts	1	1
Unmitigated Pedestrian Elements	0	0

Corner Elements	Extended Stay Option	Proposed Project
Corners at LOS A/B/C and Acceptable LOS D	3	3
Corners at Unacceptable LOS D	1	1
Corners at LOS E	1	1
Corners at LOS F	0	0
Pedestrian Elements Analyzed	5	5
Pedestrian Elements with No Significant Impacts	5	5
Pedestrian Elements with Significant Impacts	0	0
Unmitigated Pedestrian Elements	0	0

Note: Includes four sidewalk, six crosswalk, and five corner analysis locations

Vehicle and Pedestrian Safety

As discussed in the FEIS, four high-crash intersections were identified along 42nd Street at its intersections with Second Avenue, Lexington Avenue, Park Avenue, and Sixth Avenue. The 42nd Street Transit Improvement Project was implemented in the study area in the fall of 2019 and would be expected to

improve the overall level of pedestrian safety at these intersections, and the total amount of crashes and pedestrian injuries would be expected to decrease. The Extended Stay Option would result in a decrease in vehicle traffic and turning vehicles conflicting with pedestrians as compared the Proposed Project during the peak hours analyzed, and a decrease in pedestrian volumes during midday and PM peak hours. Therefore, the conditions under the Extended Stay Option would be expected to be no worse than those identified for the Proposed Project in the FEIS.

Appendix: Transportation Data

Table 26 Subway Station Level of Service Comparison– Stairway

Peak Hour	Stairway	Proposed Program With-Action Condition							Extended Stay Option With-Action Condition						
		Effective Width	Ped Vol Up	Ped Vol Down (15- min)	Friction Factor	Surging Factor	v/c Ratio	LOS	Effective Width	Ped Vol Up (15-min)	Ped Vol Down (15- min)	Friction Factor	Surging Factor	v/c Ratio	LOS
AM	P10	6.42	542	364	0.90	0.75/1.00	1.25	D	6.42	542	364	0.90	0.75/1.00	1.25	D
	P12	7.50	271	793	0.90	0.75/1.00	1.14	D	7.50	271	793	0.90	0.75/1.00	1.14	D
	P14	7.50	375	1,040	0.90	0.75/1.00	1.52	E	7.50	375	1040	0.90	0.75/1.00	1.52	E
	P16	7.50	387	1,158	0.90	0.75/1.00	1.65	E	7.50	387	1159	0.90	0.75/1.00	1.65	E
	P18	7.50	486	809	0.90	0.75/1.00	1.44	E	7.50	485	813	0.90	0.75/1.00	1.44	E
	P20	6.50	441	149	0.90	0.75/1.00	0.84	C	6.50	441	151	0.90	0.75/1.00	0.84	C
	P22	6.50	432	160	0.90	0.75/1.00	0.84	C	6.50	432	162	0.90	0.75/1.00	0.84	C
	P24	6.50	492	249	0.90	0.75/1.00	1.03	D	6.50	492	252	0.90	0.75/1.00	1.03	D
	P26	6.00	254	55	0.90	0.75/1.00	0.49	B	6.00	254	55	0.90	0.75/1.00	0.49	B
	P13	7.50	847	361	0.90	0.75/1.00	1.47	E	7.50	847	363	0.90	0.75/1.00	1.47	E
	P15	7.50	562	446	0.90	0.75/1.00	1.18	D	7.50	562	448	0.90	0.75/1.00	1.18	D
	P17	7.50	662	387	0.90	0.75/1.00	1.25	D	7.50	662	389	0.90	0.75/1.00	1.26	D
	P19	7.50	645	345	0.90	0.75/1.00	1.19	D	7.50	644	348	0.90	0.75/1.00	1.19	D
	P21	6.50	715	209	0.90	0.75/1.00	1.32	D	6.50	715	210	0.90	0.75/1.00	1.33	D
	P23	6.50	763	60	0.90	0.75/1.00	1.23	D	6.50	763	62	0.90	0.75/1.00	1.23	D
	P25	6.50	754	86	0.90	0.75/1.00	1.24	D	6.50	754	87	0.90	0.75/1.00	1.24	D
	P27	5.00	402	46	0.90	0.75/1.00	0.86	C	5.00	402	42	0.90	0.75/1.00	0.86	C
	U1/U3	5.00	323	336	0.90	0.90/0.75	1.20	D	5.00	323	337	0.90	0.90/0.75	1.20	D
	U5/U7	5.00	267	291	0.90	0.90/0.75	1.01	D	5.00	267	292	0.90	0.90/0.75	1.02	D
	U2/U4	6.25	262	521	0.90	0.90/0.75	1.17	D	6.25	262	522	0.90	0.90/0.75	1.17	D
	U6/U8	6.25	219	478	0.90	0.90/0.75	1.04	D	6.25	219	480	0.90	0.90/0.75	1.05	D
	PL2	6.50	539	620	0.90	0.75/0.95	1.56	E	6.50	539	621	0.90	0.75/0.95	1.56	E
	PL3	6.50	313	692	0.90	0.75/0.95	1.30	D	6.50	313	692	0.90	0.75/0.95	1.31	D
	PL5	6.00	438	132	0.90	0.75/0.95	0.89	C	6.00	438	133	0.90	0.75/0.95	0.89	C
	PL6	6.00	498	183	0.90	0.75/0.95	1.06	D	6.00	498	184	0.90	0.75/0.95	1.06	D
	PL7	4.00	287	0	0.90	0.75/0.95	0.71	C	4.00	287	0	0.90	0.75/0.95	0.71	C
	PL8	4.00	525	0	0.90	0.75/0.95	1.30	D	4.00	525	0	0.90	0.75/0.95	1.30	D
	PL9	13.50	1,265	215	0.90	0.75/0.95	1.05	D	13.50	1265	215	0.90	0.75/0.95	1.05	D
	ML1	5.00	0	215	0.90	0.75/1.00	0.32	A	5.00	0	215	0.90	0.75/1.00	0.32	A
	P10S	14.00	291	729	0.90	0.75/1.00	0.59	B	14.00	291	729	0.90	0.75/1.00	0.59	B
	P11	8.00	125	182	0.90	0.75/1.00	0.32	A	8.00	125	182	0.90	0.75/1.00	0.32	A
	P3-P4	13.50	238	43	0.90	0.75/1.00	0.20	A	13.50	238	43	0.90	0.75/1.00	0.20	A
PM	P10	6.42	258	192	0.90	0.75/1.00	0.62	B	6.42	258	192	0.90	0.75/1.00	0.62	B
	P12	7.50	153	523	0.90	0.75/1.00	0.72	C	7.50	153	523	0.90	0.75/1.00	0.72	C
	P14	7.50	156	642	0.90	0.75/1.00	0.84	C	7.50	156	642	0.90	0.75/1.00	0.84	C
	P16	7.50	133	657	0.90	0.75/1.00	0.82	C	7.50	133	657	0.90	0.75/1.00	0.82	C
	P18	7.50	92	953	0.90	0.75/1.00	1.06	D	7.50	93	953	0.90	0.75/1.00	1.06	D
	P20	6.50	79	229	0.90	0.75/1.00	0.38	A	6.50	80	229	0.90	0.75/1.00	0.38	A
	P22	6.50	69	426	0.90	0.75/1.00	0.59	B	6.50	69	426	0.90	0.75/1.00	0.59	B
	P24	6.50	69	668	0.90	0.75/1.00	0.87	C	6.50	70	668	0.90	0.75/1.00	0.87	C

Table 26 Subway Station Level of Service Comparison– Stairway

Peak Hour	Stairway	Proposed Program With-Action Condition							Extended Stay Option With-Action Condition						
		Effective Width	Ped Vol Up	Ped Vol Down (15- Factor	Friction Factor	Surging Factor	v/c Ratio	LOS	Effective Width	Ped Vol Up (15-min)	Ped Vol Down (15- Factor	Friction Factor	Surging Factor	v/c Ratio	LOS
	P26	6.00	56	752	0.90	0.75/1.00	1.02	D	6.00	56	752	0.90	0.75/1.00	1.02	D
	P13	7.50	916	402	0.90	0.75/1.00	1.60	E	7.50	916	402	0.90	0.75/1.00	1.60	E
	P15	7.50	490	460	0.90	0.75/1.00	1.10	D	7.50	490	460	0.90	0.75/1.00	1.10	D
	P17	7.50	581	551	0.90	0.75/1.00	1.31	D	7.50	581	551	0.90	0.75/1.00	1.31	D
	P19	7.50	495	521	0.90	0.75/1.00	1.17	D	7.50	496	521	0.90	0.75/1.00	1.17	D
	P21	6.50	338	521	0.90	0.75/1.00	1.11	D	6.50	338	521	0.90	0.75/1.00	1.11	D
	P23	6.50	323	275	0.90	0.75/1.00	0.80	C	6.50	324	275	0.90	0.75/1.00	0.81	C
	P25	6.50	242	427	0.90	0.75/1.00	0.85	C	6.50	243	427	0.90	0.75/1.00	0.86	C
	P27	5.00	145	464	0.90	0.75/1.00	0.97	C	5.00	145	464	0.90	0.75/1.00	0.97	C
	U1/U3	5.00	107	298	0.90	0.90/0.75	0.76	C	5.00	108	298	0.90	0.90/0.75	0.77	C
	U5/U7	5.00	87	244	0.90	0.90/0.75	0.63	B	5.00	88	245	0.90	0.90/0.75	0.63	B
	U2/U4	6.25	103	666	0.90	0.90/0.75	1.19	D	6.25	103	666	0.90	0.90/0.75	1.19	D
	U6/U8	6.25	85	556	0.90	0.90/0.75	0.99	C	6.25	85	556	0.90	0.90/0.75	0.99	C
	PL2	6.50	167	748	0.90	0.75/0.95	1.15	D	6.50	167	748	0.90	0.75/0.95	1.15	D
	PL3	6.50	71	635	0.90	0.75/0.95	0.87	C	6.50	71	635	0.90	0.75/0.95	0.87	C
	PL5	6.00	104	526	0.90	0.75/0.95	0.85	C	6.00	104	526	0.90	0.75/0.95	0.86	C
	PL6	6.00	142	715	0.90	0.75/0.95	1.16	D	6.00	142	715	0.90	0.75/0.95	1.16	D
	PL7	4.00	140	43	0.90	0.75/0.95	0.43	A	4.00	141	43	0.90	0.75/0.95	0.43	A
	PL8	4.00	172	43	0.90	0.75/0.95	0.51	B	4.00	173	43	0.90	0.75/0.95	0.51	B
	PL9	13.50	163	1151	0.90	0.75/0.95	0.78	C	13.50	163	1151	0.90	0.75/0.95	0.78	C
	ML1	5.00	0	115	0.90	0.75/1.00	0.17	A	5.00	0	115	0.90	0.75/1.00	0.17	A
	P10S	14.00	535	235	0.90	0.75/1.00	0.50	B	14.00	535	235	0.90	0.75/1.00	0.50	B
	P11	8.00	223	59	0.90	0.75/1.00	0.33	A	8.00	223	59	0.90	0.75/1.00	0.33	A
	P3-P4	13.50	30	178	0.90	0.75/1.00	0.12	A	13.50	30	178	0.90	0.75/1.00	0.12	A

Note: Methodology based on 2020 CEQR Technical Manual guidelines

Table 27 Subway Station Level of Service Comparison – Escalators

Peak Hour	Stairway	Proposed Program With-Action Condition							Extended Stay Option With-Action Condition						
		Tread Width	Pedestrian Volume Up	Pedestrian Volume Down	Surging Factor	Capacity	v/c Ratio	LOS	Tread Width	Pedestrian Volume Up	Pedestrian Volume	Surging Factor	Capacity	v/c Ratio	LOS
AM	ES203	32	632	0	0.80	750	1.05	D	32	632	0	0.80	750	1.05	D
	ES204	32	632	0	0.80	750	1.05	D	32	632	0	0.80	750	1.05	D
	ES205	40	764	0	0.80	1,170	0.82	C	40	764	0	0.80	1,170	0.82	C
	ES206	40	764	0	0.80	1,170	0.82	C	40	764	0	0.80	1,170	0.82	C
	ES208	40	840	0	0.75	945	1.18	D	40	840	0	0.75	945	1.18	D
	ES210	40	840	0	0.75	945	1.18	D	40	840	0	0.75	945	1.18	D
	ES255	40	1,186	0	0.95	1,050	1.19	D	40	1,186	0	0.95	1,050	1.19	D
	ES256	40	1,186	0	0.95	1,050	1.19	D	40	1,186	0	0.95	1,050	1.19	D
PM	ES203	32	0	1,036	1.00	750	1.38	E	32	0	1,036	1.00	750	1.38	E
	ES204	32	163	0	0.80	750	0.27	A	32	163	0	0.80	750	0.27	A
	ES205	40	0	946	1.00	1,170	0.81	C	40	0	946	1.00	1,170	0.81	C
	ES206	40	413	0	0.80	1,170	0.44	A	40	413	0	0.80	1,170	0.44	A
	ES208	40	0	1,230	1.00	945	1.30	D	40	0	1,230	1.00	945	1.30	D
	ES210	40	723	0	0.75	945	1.02	D	40	724	0	0.75	945	1.02	D
	ES255	40	0	1,014	1.00	1,050	0.97	C	40	0	1,014	1.00	1,050	0.97	C
	ES256	40	952	0	0.95	1,050	0.95	C	40	952	0	0.95	1,050	0.95	C

Note: Methodology based on 2020 CEQR Technical Manual guidelines

Table 28 Subway Station Level of Service Comparison – Passageway

Passageway	Peak Hour	Proposed Program With-Action Condition							Extended Stay Option With-Action Condition						
		Effective Width	Pedestrian Volume	Pedestrian Volume	Surging Friction	Factor	v/c Ratio	LOS	Effective Width	Pedestrian Volume	Pedestrian Volume	Surging Friction	Factor	v/c Ratio	LOS
		(ft)	West (15-	East (15-	Factor	(West/East)			(ft)	West (15-	East (15-	Factor	(West/East)		
Passageway between Mezzanine A and	AM	15	1,122	609	0.90	0.95/0.95	0.60	B	15	1,124	609	0.90	0.95/0.95	0.60	B
	PM	15	621	798	0.90	0.95/0.95	0.49	B	15	613	799	0.90	0.95/0.95	0.49	B

Note: Methodology based on 2020 CEQR Technical Manual guidelines

Table 29 Subway Station Level of Service Comparison – Fare Control Area

Peak Hour	Fare Contr	With Action Control	Proposed Program With-Action Condition						Extended Stay Option With-Action Condition					
			Pedestrian Volume In	Pedestrian Volume Out	Friction Factor	Surging Factor	v/c Ratio	LOS	Pedestrian Volume In	Pedestrian Volume Out	Friction Factor	Surgin g	v/c Ratio	LOS
AM	R241A	5 turnstiles	215	1,265	0.90/0.90	0.90	0.60	B	215	1265	0.90/0.90	0.90	0.60	B
	R240	11 turnstiles	651	3,257	0.90/0.90	0.90	0.72	C	670	3254	0.90/0.90	0.90	0.73	C
	R240A	5 turnstiles	27	71	0.90/0.90	0.90	0.04	A	27	71	0.90/0.90	0.90	0.04	A
	R240B	4 turnstiles	71	586	0.90/0.90	0.90	0.33	A	71	586	0.90/0.90	0.90	0.33	A
	R238	17 turnstiles	1,401	2,545	0.90/0.90	0.90	0.50	B	1401	2545	0.90/0.90	0.90	0.50	B
	R238A	13 turnstiles	2,603	825	0.90/0.90	0.90	0.65	B	2607	825	0.90/0.90	0.90	0.65	B
	R238C	3 turnstiles	49	834	0.90/0.90	0.90	0.58	B	51	834	0.90/0.90	0.90	0.58	B
	R237	7 turnstiles	109	862	0.90/0.90	0.90	0.28	A	109	862	0.00/0.90	0.90	0.28	A
	R237A	1 HXT	0	177	0.00/0.90	0.90	0.39	A	0	177	0.90/0.90	0.90	0.39	A
	R237B	4 turnstiles	144	938	0.90/0.90	0.90	0.54	B	144	938	0.90/0.90	0.80	0.54	B
	R236	12 turnstiles	911	415	0.90/0.90	0.80	0.28	A	911	415	0.90/0.90	0.90	0.28	A
	R235	9 turnstiles	31	442	0.90/0.90	0.90	0.10	A	31	442	0.90/0.90	0.80	0.10	A
	R233	2 HEETs, 1	43	238	0.90/0.90	0.80	0.30	A	43	238	0.90/0.90	0.80	0.30	A
PM	R241A	5 turnstiles	1,151	163	0.90/0.90	0.90	0.67	B	1,151	163	0.90/0.90	0.90	0.67	B
	R240	11 turnstiles	2,380	730	0.90/0.90	0.90	0.70	B	2,380	730	0.90/0.90	0.90	0.70	B
	R240A	5 turnstiles	360	80	0.90/0.90	0.90	0.22	A	360	80	0.90/0.90	0.90	0.22	A
	R240B	4 turnstiles	970	131	0.90/0.90	0.90	0.70	C	970	131	0.90/0.90	0.90	0.70	C
	R238	17 turnstiles	1,840	1,460	0.90/0.90	0.90	0.45	B	1,840	1,460	0.90/0.90	0.90	0.45	B
	R238A	13 turnstiles	1,260	2,065	0.90/0.90	0.90	0.56	B	1,260	2,065	0.90/0.90	0.90	0.56	B
	R238C	3 turnstiles	1,022	53	0.90/0.90	0.90	0.93	C	1,022	53	0.90/0.90	0.90	0.94	C
	R237	7 turnstiles	778	96	0.90/0.90	0.90	0.32	A	778	96	0.90/0.90	0.90	0.32	A
	R237A	1 HXT	0	13	0.00/0.90	0.90	0.03	A	0	13	0.00/0.90	0.90	0.03	A
	R237B	4 turnstiles	764	97	0.90/0.90	0.90	0.55	B	764	97	0.90/0.90	0.90	0.55	B
	R236	12 turnstiles	293	759	0.90/0.90	0.80	0.20	A	293	759	0.90/0.90	0.80	0.20	A
	R235	9 turnstiles	500	48	0.90/0.90	0.90	0.16	A	500	48	0.90/0.90	0.90	0.16	A
	R233	2 HEETs, 1	178	30	0.90/0.90	0.80	0.41	A	178	3	0.90/0.90	0.80	0.41	A

Notes:

Methodology based on 2020 CEQR Technical Manual guidelines

HEET = High entry/exit turnstile, HXT = high exit turnstile

Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Table 30 Extended Stay Option With-Action Condition Pedestrian Levels of Service –AM Peak Hour

Sidewalk	Effective Width, ft	Volume, ped/hr	Avg Ped Space, SF/P	Platoon LOS
Lexington Avenue between East 42nd Street and East 43rd Street (west side)	20.5	5,926	41.0	C
East 42nd Street between Park Avenue and Lexington Avenue (north side)	17.5	4,347	45.9	C
East 42nd Street between Vanderbilt Avenue and Park Avenue (north side)	12.0	4,962	25.2	D
East 42nd Street between Madison Avenue and Vanderbilt Avenue (north side)	12.0	7,606	15.7	E
Crosswalk	Crosswalk	Volume, ped/hr	Avg Ped Space, SF/P	Platoon LOS
Lexington Avenue at East 42nd Street	North	3,374	12.5	E
	East	1,773	6.8	F
	South	2,337	18.1	D
	West	2,945	2.5	F
Madison Avenue at East 42nd Street	North	4,245	10.0	E
	East	2,696	14.6	E
Corner	Corner	Volume, ped/hr	Avg Ped Space, SF/P	Platoon LOS
Lexington Avenue at East 42nd Street	Northeast	138	19.3	D
	Southeast	352	25.2	C
	Northwest	447	52.6	B
	Southwest	694	10.2	E
Madison Avenue at East 42nd Street	Northeast	710	35.8	C