DEPARTMENT OF CITY PLANNING
CITY OF NEW YORK

ENVIRONMENTAL ASSESSMENT AND REVIEW DIVISION

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NOTICE OF COMPLETION OF
THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

East Midtown Rezoning and Related Actions

Project Identification
CEQR No. 13DCP011M
ULURP Nos. N 130247 ZRM and 130248 ZMM

SEQRA Classification: Type I

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Pursuant to City Environmental Quality Review (CEQR), Mayoral Executive Order No. 91 of 1977, CEQR Rules of Procedure of 1991 and the regulations of Article 8 of the State Environmental Conservation Law, State Environmental Quality Review Act (SEQRA) as found in 6 NYCRR Part 617, a Draft Environmental Impact Statement (DEIS) has been prepared for the action described below. Copies of the DEIS are available for public inspection at the office of the undersigned. The proposal involves actions by the City Planning Commission and Council of the City of New York pursuant to Uniform Land Use Review Procedures (ULURP). A public hearing on the DEIS will be held at a later date to be announced, in conjunction with the City Planning Commission's citywide public hearing pursuant to ULURP. Advance notice will be given of the time and place of the hearing. Written comments on the DEIS are requested and would be received and considered by the Lead Agency until the 10th calendar day following the close of the public hearing.

1 INTRODUCTION

The Applicant, the New York City Department of City Planning (DCP), is requesting zoning map and zoning text amendments, and a potential change to the City Map (collectively, the "Proposed Action")

affecting an approximately 70-block area within East Midtown, in Manhattan Community Districts 5 and 6. The rezoning area is generally bounded by East 39th Street to the south, East 57th Street to the north, Second and Third Avenues to the east and a line 150 feet east of Fifth Avenue to the west. The Proposed Action would ensure that East Midtown's stature as a preeminent commercial district and one of the world's best business addresses is retained, while providing for pedestrian network improvements in the area, as described below.

The City Planning Commission (CPC) has determined that an Environmental Impact Statement (EIS) for the Proposed Action should be prepared in conformance with City Environmental Quality Review (CEQR) guidelines, with DCP acting on behalf of the CPC as the lead agency. The environmental analyses in the EIS assume a development period of twenty years for the reasonable worst-case development scenario (RWCDS) for the Proposed Action (i.e., analysis year of 2033), and identify the cumulative impacts of other projects in areas affected by the Proposed Action. DCP has conducted a coordinated review of the Proposed Action with involved and interested agencies.

In response to public comments received during the scoping process, the Proposed Action was modified as reflected below to remove the midblock areas east of Third Avenue between East 43rd and 45th Streets and to expand the proposed Subdistrict along East 42nd Street.

The Proposed Action encompasses the following discretionary actions that are subject to review under the Uniform Land Use Review Procedure (ULURP), as well pursuant to Section 200 of the City Charter.

- **Zoning text amendment** – The East Midtown Subdistrict will be established within the Special Midtown District, superseding the existing Grand Central Subdistrict.
- **Zoning map amendment** – The existing C5-2 designation will be replaced on the block between East 42nd and East 43rd Streets, and Second and Third Avenues with C5-3 and C5-2.5districts. The C5-3 and C5-2.5 districts will be mapped within the Special Midtown District.
- **City Map amendment** – The City may in the future amend the City Map to reflect a 'Public Place' designation over portions of Vanderbilt Avenue between East 42nd and East 47th Streets.

As discussed below, a RWCDS for development associated with the Proposed Action has been identified in order to assess the possible effects of the Proposed Action. The level of development projected for the 2033 analysis year is based on long-term projections of the area's potential to capture a proportionate share of the City's new office development over the next 30 years, taking into account the area's existing built character. For environmental assessment purposes, projected developments, which are considered likely to occur in the foreseeable future, are expected to occur on 19 sites, and potential developments, which are considered less likely, have been identified for 20 additional sites. The incremental difference between the future without the Proposed Action and future with Proposed Action conditions forms the basis of the impact category analyses conducted for the EIS.

This EIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the *CEQR Technical Manual*, June 2012.

The EIS includes review and analysis of all impact categories identified in the *CEQR Technical Manual*. The EIS contains a description and analysis of the Proposed Action and its environmental setting; the environmental impacts of the Proposed Action, including its short- and long-term effects, and typical associated environmental effects; identification of any significant adverse environmental effects that can be avoided through incorporation of measures into the Proposed Action; a discussion of alternatives to the Proposed Action; the identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and a description of any necessary mitigation measures proposed to minimize significant adverse environmental impacts.

2 PURPOSE AND NEED

While East Midtown has historically performed strongly as an office district, and continues to do so, the City has identified a number of long-term challenges that must be addressed in order for East Midtown to remain one of the region's premier job centers. Primarily, this is in relation to the area's aging office building inventory that may not, over time, be able to provide contemporary space and amenities desired by tenants, which are crucial to competing regionally, nationally and globally. Consequently, the area's importance as a premier office district could diminish, and the substantial investment in transit infrastructure (including the ongoing East Side Access and Second Avenue Subway projects) could fail to generate its full potential to create jobs and tax revenue for the City and region. Long-term challenges affecting the East Midtown office district include:

- Aging office building stock
- Limited recent office development
- Pedestrian network challenges
- Challenges of current zoning
- Modernization of core office areas by competitor cities

These challenges are described below.

2.1 Challenges Affecting East Midtown

2.1.1 Aging Office Building Stock

The East Midtown rezoning area contains approximately 400 buildings, of which more than 300 are over 50 years old. The average age of buildings in the rezoning area is upwards of 70 years. For an office district competing for tenants regionally, nationally and globally, this is a relatively old age. For example, buildings in London's City district, a comparable historic office core, have an average age of approximately 40 years.

This high average age makes it more likely that the space in the area's office buildings will increasingly become outdated in relation to tenant needs. Today, office buildings older than 50 years have higher vacancy rates and yield lower rents. Reasons for this include constraints in the ability to provide up-to-date technology infrastructure and other amenities through renovation. Some issues, particularly low

floor-to-floor heights and interior columns, cannot be addressed at all through renovation. Prior to 1961, when the zoning in the East Midtown area was characterized by a restrictive height and setback control but no specified floor area ratio, the design strategy for developers to maximize floor area was to build to the limits of the zoning "envelope," while squeezing in as many floors as possible. The buildings that resulted provide low-ceiling spaces both on the ground floor for retail and the upper office floors, as well as a dense column grid. Today, these spaces are increasingly unattractive to the highest rent-paying tenants.

Tenants looking for office space in Midtown today desire large, column-free space to have flexibility in creating office layouts, which are trending toward more open organization. Columns and low floor-to-floor heights do not work well with these open layouts, and thus buildings with these features are increasingly less competitive with the office building inventory in other global business centers. As a result, East Midtown's less marketable office buildings are converting to other uses, especially to residential or hotel use. Recent conversions include hotel conversions such as the Library Hotel at 299 Madison Avenue and the Marriott Courtyard at 866 Third Avenue, and residential conversions such as the condominiums at 5 East 44th Street. Recently, plans have been announced to convert the Sony Building at 550 Madison Avenue from office to a mix of hotel and residential uses.

Given the concentration of regional rail infrastructure in East Midtown, and ongoing expansion of the transit network, a continued trend of office space conversion to other uses, particularly residential, would not result in optimal economic development gains for the City. While the City has undertaken many initiatives over the last decade to accommodate new office construction, including at Hudson Yards, Downtown Brooklyn, and Long Island City, all of these were predicated on the East Midtown area remaining a center for office jobs and none contemplated the diminution of this area as the City's premier business district.

2.1.2 Limited Recent Office Development

With much of the East Midtown's existing office stock aging, the area has also experienced little new office development. Since 2001, only two office buildings have been constructed in this area, which represents a significant drop from preceding decades. Whereas the area had an overall annual space growth rate of 1 percent between 1982 and 1991, the area's growth rate began to drop off in the next decade, with an annual growth rate of 0.14 percent. Over the last decade, this has continued to fall to an annual growth rate of only 0.06 percent between 2002 and 2011. Since 1982, the area's average age of buildings increased from 52 years to over 70 years.

The area's existing high density, relative to currently allowed zoning floor area, is an impediment to construction of new office stock. As a whole, the area contains approximately 2.3 million sf more than what is permitted under the current zoning (the area-wide maximum allowable floor area ratio [FAR] is 14.1 and the built FAR is approximately 14.3). This is particularly an issue for buildings that were constructed before 1961, when FARs were first instituted under the Zoning Resolution, and contain more floor area than would be permitted today. As discussed, many of these "overbuilt" buildings contain obsolete features that make them less marketable, but the lower amount of square footage that could be constructed in a new building on the site presents a significant disincentive to new construction. Under current zoning, up to 75 percent of the floor area could be removed and reconstructed as modern office space, but this would still leave a building with 25 percent of floor space below contemporary standards.

The area also contains few remaining development sites based on DCP's typical criteria, i.e., sites where built FAR is less than half of the permitted base FAR. Of the possible development sites that do exist, few would accommodate a major new office building. Current plans for development in the area bear this out. Of the sites currently cleared for new development, none are planned for office construction as the sites are considered too small to hold a new office building. One assembled site for a new Class A office building (at 317 Madison Avenue) has been reported in the media;[1] however, this site has not yet been cleared. Another announced development site, at 425 Park Avenue,[2] would retain 25 percent of the existing floor area and rebuild the remainder, in order to retain its current density.

Beyond the difficulty of assembling appropriately-sized sites, there are a number of other challenges to new development. These include the need to vacate existing tenants, which, depending on existing leases, could be a long, multi-year process that is not economically viable for many property owners. Large existing buildings must then be demolished, further extending the period during which the property produces no revenue. These issues have led to very limited new office construction in the area and many owners attempting instead to renovate their buildings, often on a piecemeal basis, to compete in the overall market.

2.1.3 Pedestrian Network Challenges

East Midtown contains some of the City's best-known public and civic spaces, including the Seagram Building Plaza, Park Avenue itself, and Grand Central Terminal's main hall. It also contains a below-grade pedestrian network that connects the Terminal to the Grand Central subway station at 42nd Street, and to surrounding buildings, allowing for a more efficient distribution of pedestrians in the area. Along with the additional subway stations to the north, East Midtown is one of the most transit-rich locations in the City and the pedestrian network is one of the area's unique assets. However, the area faces a number of challenges to creating a pedestrian network fully matching the area's role as one of the premier office districts in the world. These include:

- The Grand Central subway station, a transfer point for regional rail and the 4, 5, 6, 7 and 42nd street shuttle subway lines, is one of the busiest in the entire subway system with nearly half a million daily users. However, this station experiences pedestrian circulation constraints, including platform crowding and long dwell times for the Lexington Avenue line (4, 5, and 6), which limits train through-put, creating a subway system bottleneck.
- The sidewalks of Madison and Lexington Avenues are narrow, approximately 12 to 13 feet wide, given the scale of pedestrian use they handle. The effective widths of these sidewalks are even narrower when subway grates and other sidewalk furniture are included. Side street sidewalks in the area are narrow as well.
- While East Midtown includes a number of privately-owned public spaces, it contains no significant publicly-controlled open spaces. This situation would be somewhat ameliorated by the permanent development of Pershing Square into public open space.
- Vanderbilt Avenue, once the major taxi access point to Grand Central Terminal, has seen its use drop as taxis have been moved away from the building due to security concerns.

[1] Source: http://online.wsj.com/article/SB10001424052702303830204577444741379690350.html
[2] Source: http://www.425parkave.com/

2.1.4 Challenges of the Current Zoning

Existing zoning regulations are not appropriate for East Midtown's current needs and may impede the area's continued status as a premier office district.

In 1961, when the current Zoning Resolution was enacted, East Midtown was zoned with a mix of 15.0 FAR districts. Floor area bonuses for public plazas increased the permitted FAR to 18.0, as-of-right. The 1961 zoning removed the incentive to keep ceilings low (although building practices adjusted gradually) and facilitated the development of many signature corporate towers in the area. However, the height and setback control, which permitted a tower covering a maximum of 40 percent of its lot, and required the tower to be set back from the surrounding streets, worked best on large sites (over 40,000 sf). As such sites became harder to assemble, the CPC permitted towers to be built, by special permit, that covered a higher percentage of the lot and were located closer to the street or even at the street line. Planners and civic groups were dissatisfied with some of the buildings that resulted from these waivers and, by the early-1980s, the City decided that better, as-of-right height and setback rules were necessary. At the same time, the City concluded that development in Midtown should be encouraged to the west beyond Sixth Avenue. In 1982, the Special Midtown District was created to accomplish these and other goals, which included facilitating an improved pedestrian realm. As part of this project, East Midtown was proposed as an area for "Stabilization" while the area west of Sixth Avenue was marked for "Growth." To accomplish this, parts of East Midtown were downzoned. The FAR for several midblock areas was lowered from 15.0 to 12.0. The area around Lexington Avenue in the vicinity of East 55th Street was rezoned to a mix of 10.0 and 12.0 FAR. Approximately 75 percent of the new development within the Special Midtown District since 1982 has occurred outside of the East Midtown area, especially around Times Square.

Since 1982, the major change to the zoning regulations of the area was the creation of the Grand Central Subdistrict of the Special Midtown District in 1992 to allow the transfer of development rights from Grand Central and other area landmarks to surrounding development sites in the vicinity of Grand Central and the creation of an improved pedestrian realm in the area. The borders of the subdistrict were generally drawn around the area where Grand Central Terminal's below-grade pedestrian network exists. In the Core area of the subdistrict (between Madison and Lexington Avenues, from East 41st to East 48th Streets) the maximum permitted FAR by using the transfer is 21.6 and requires a zoning special permit from the CPC that finds that a significant pedestrian improvement is being provided as part of the project. However, only one building, 383 Madison Avenue, has taken advantage of this provision since its adoption and more than 1.2 million sf of development rights remains unused on the Grand Central lot. Additionally, 1.0 FAR transfers are permitted through a certification process in the Core and a larger area, which includes the western side of Madison Avenue and the eastern side of Lexington Avenue. This provision has been used three times but because of the small size of the transfer, has not resulted in significant utilization of unused Grand Central development rights. Concerns have been raised about the complexity of the process required to achieve the full 21.6 maximum FAR, which includes lengthy case-by-case negotiation with the Metropolitan Transportation Authority (MTA) over the scope of the pedestrian network improvements. Beyond this transfer mechanism, three methods exist to obtain higher FARs. First, subway station improvement bonuses of up to 20 percent more than the permitted base FAR are permitted for sites directly adjacent to subway entrances. Existing New York City Landmarks Preservation Commission (LPC)-designated landmarks can transfer their remaining development rights to sites that are adjacent or across streets, with no FAR limits on the receiving site. Both of these bonuses

are only permitted through special permits granted by the CPC. In the portions of the area not within the Grand Central Subdistrict, a 1.0 FAR bonus is permitted through the provision of a public plaza.

Overall, however, these bonus mechanisms do not provide enough incentive to replace existing, obsolete buildings with new construction.

2.1.5 Modernization of Core Office Areas by Competitor Cities

The City has looked at competitor cities with traditional office cores to get a better sense of how East Midtown compares on the world stage. These included London (and its traditional office core in The City), Tokyo (the Marunouchi area around Tokyo Station), and Chicago (the Loop). While East Midtown must also compete against brand new office districts like Pudong in Shanghai, the more relevant comparison is to cities with traditional large office cores that have faced similar challenges of needing to upgrade their office space and meet new market demands.

East Midtown's inventory of contemporary office space lags in comparison to office core districts in competing cities. Many competing cities have made it a major policy focus to encourage new office construction in their traditional office cores in order to replace outdated office space and better compete on the world stage.[1] Comparison with The City (London) and Marunouchi (Tokyo) shows that a significant amount of new development has occurred in these two districts over the last decade compared to the relatively lower level of new construction in East Midtown. In both of these peer districts, outdated office buildings—particularly from the 1950s and 1960s—were replaced with new construction.

East Midtown's existing high density poses a unique challenge. Where London has replaced outdated office buildings of less than 10 stories with a mix of similarly-sized buildings with larger footprints and 30- to 40-story skyscrapers, and Tokyo has replaced smaller (10- to 15-story) office buildings with much larger structures, East Midtown's existing high density makes replacement especially challenging.

2.2 Long-Term Consequences of Current Challenges

The City believes that the long-term consequence of failing to address the aging of the existing office stock and lack of replacement office development in East Midtown would be a breakdown in the integrated and dynamic office market in East Midtown. The needs of the entire range of tenants East Midtown serves today would be unmet if current challenges are not addressed. In particular, tenants of Class A office space, who have been attracted to the area in the past, would begin to look elsewhere for space. This would likely not only affect the top of the market, but also the Class B and C office space since tenants in these buildings would lose proximity to other important businesses in their cluster. As a result, Class B and C buildings would become ripe for conversion to other uses. In sum, East Midtown would become less desirable as a business district and the significant public investment in the area's transit infrastructure would fail to fulfill its full potential to generate jobs and tax revenues for the City.

[1] http://www.ecozzeria.jp/english/; http://www.cityoflondon.gov.uk/services/environment-and-planning/planning/development-and-population-information/development/Pages/default.aspx.

3 THE PROPOSED ACTION

The City's vision for East Midtown is that the area will continue to be a preeminent commercial district. The area would remain largely as is, with most buildings remaining in their current office uses, and only a small amount converting to residential and hotel uses. A handful of major new office buildings would reinforce the area's standing as a premier business district, add to the area's cachet and market dynamism and provide support for the overall continued health of the area. The area's pedestrian network would be improved, befitting its status as one of the world's best business addresses.

3.1 Goals of the Proposed Action

Goals of the Proposed Action include:

- Protect and strengthen East Midtown as one of the world's premier business addresses and key job center for the City and region;
- Seed the area with new modern and sustainable office buildings to maintain its preeminence as a premier office district;
- Improve the area's pedestrian and built environments to make East Midtown a better place to work and visit; and
- Complement ongoing office development in Hudson Yards and Lower Manhattan to facilitate the long-term expansion of the City's overall stock of office space.

To accomplish these goals, the City is proposing a zoning text amendment, a zoning map amendment, and a potential City Map amendment. Each of these actions is described separately below. Table 1 summarizes the blocks and lots that would be affected by the Proposed Action.

3.2 Description of the Proposed Action

3.2.1 Proposed Zoning Text Amendment

The proposed zoning text amendment would establish an East Midtown Subdistrict (the "Subdistrict") within the Special Midtown District. This new Subdistrict would supersede and subsume the existing Grand Central Subdistrict. While most existing zoning would remain in place, the amendment would focus new commercial development with the greatest as-of-right densities on large sites with full block frontage on avenues around Grand Central Terminal, with slightly lower densities allowed along the Park Avenue corridor and elsewhere. The amendment would encourage targeted as-of-right commercial development at appropriate locations. The amendment would generate funding for area-wide pedestrian network improvements and also streamline the process for landmark transfers within the Grand Central area.

TABLE 1: LIST OF BLOCKS AND LOTS AFFECTED BY PROPOSED ACTION

Block	Lot
869	16, 20, 22, 24, 25, 26, 27, 34, 49, 54, 58, 61, 64, 66, 74(p), 7501(p)
895	1(p), 7501(p)
1275	6(p), 8, 11, 12, 14, 16, 23, 27, 44, 50, 59, 60, 61, 63, 64, 66(p), 143
1276	1(p), 22, 23, 24, 33, 42, 51, 58, 65, 66, 999
1277	6(p), 8, 14, 20, 27, 46, 52, 67(p)
1278	1(p), 8, 14, 15, 17, 20, 62, 63, 64, 65
1279	6(p), 9, 17, 23, 24, 25, 28, 45, 48, 57, 63, 65, 7501
1280	all lots
1281	1(p), 9, 21, 30, 56, 59, 61, 62, 64, 65, 66(p), 7501
1282	1(p), 17, 21, 30, 34, 64, 7501(p)
1283	7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 21, 58, 61, 62, 63, 64
1284	6(p), 7, 12, 13, 14, 17, 21, 26, 33, 52, 55, 56, 59, 60, 152, 7501(p)
1285	13, 15, 21, 36, 46, 59, 7501(p)
1286	1(p), 21, 30, 35, 43, 53
1287	8, 9, 10, 14, 21, 27, 28, 33, 52, 58, 61, 62, 63, 7501(p)
1288	6(p), 7(p), 10, 11, 21, 24, 27, 33, 51, 56, 57, 59, 61, 62, 63
1289	6(p), 8, 14, 21, 23, 24, 28, 36, 45, 52, 59, 65, 67(p), 107, 149
1290	6(p), 14, 15, 16, 17, 21, 27, 28, 31, 36, 37, 44, 50, 52, 56, 61, 62, 115, 127, 7501, 7502(p)
1291	1(p), 10, 21, 28, 38, 45, 47, 51, 127, 7501(p)
1292	8, 15, 33, 37, 41, 42, 43, 45, 46, 47, 48, 52, 64, 66(p), 7501(p)
1295	all lots
1296	all lots
1297	all lots
1298	all lots
1299	all lots
1300	all lots
1301	all lots
1302	all lots
1303	all lots
1304	all lots
1305	all lots
1306	all lots
1307	all lots
1308	all lots
1309	1, 5, 6, 7, 8, 23, 32(p), 50(p), 66(p), 69, 72, 107, 7502
1310	1(p)
1311	1, 5(p), 65(p)
1316	all lots
1317	1, 7
1318	1, 43, 44, 143
1319	1, 2, 3, 5, 7, 8, 11(p), 47(p), 103, 104
1320	46, 7503, 7506(p)
1321	1(p), 42(p), 47

Note: Lot #(p) indicates that the lot is only partially within the proposed rezoning area.

a. Main Subdistrict Mechanisms

The Subdistrict would have two new as-of-right zoning mechanisms to permit increases above the base FAR for sites that meet certain site criteria and can accommodate substantial new commercial buildings. Sites within the Subdistrict with full avenue frontage, and a minimum site size of 25,000 sf that provide all their floor area as commercial use and meet certain sustainability standards described below, would be considered Qualifying Sites. These Qualifying Sites would be able to utilize the following zoning mechanisms to permit increases above the applicable base maximum FAR:

- **District Improvement Bonus (DIB)** – Increases in FARs above the as-of-right maximum would be permitted through contribution to a fund dedicated to area-wide pedestrian network improvements. The additional floor area would be granted by CPC Chair ("Chair") certification, similar to the existing Hudson Yards DIB. The DIB is described more fully in the "Public Improvement through the DIB" section below.
- **Landmark Transfer –** Increases in FARs above the as-of-right maximum would also be permitted in the Grand Central Subarea through floor area transfers from landmark buildings. The additional floor area would also be granted by Chair certification. The Landmark Transfer is described more fully in the Grand Central Subarea section below.

b. Subareas in the East Midtown Subdistrict

In order to encourage appropriate development in different areas of the new Subdistrict, it would be divided into three areas, each described more specifically below. These include:

- Grand Central Subarea
- Park Avenue Subarea
- Other areas

Grand Central Subarea

The City believes that, over the long term, most new development and the highest allowances for density in East Midtown should be located around Grand Central Terminal. Given its access to regional rail, the area has the best transportation access in East Midtown and also the largest concentration of its aging office stock.

To accomplish this, the rezoning would redefine the existing Grand Central Subdistrict as a new Grand Central Subarea within the East Midtown Subdistrict. The boundaries would be expanded to accommodate additional portions of the Grand Central neighborhood, which are connected to the Terminal by the existing below-grade transportation network or are within a short walking distance. The Subarea would be generally expanded one block north to East 49th Street, fully across Lexington and Madison Avenues, and south to East 39th Street. Additionally, a Grand Central Core would be included within the Subarea representing the area directly around the Terminal, bounded by East 42nd and East 46th Streets, and Lexington and Madison Avenues.

For Qualifying Sites within the Grand Central Core, floor area increases would be permitted up to 24.0 FAR from the existing base maximum FAR of 15.0. Use of the DIB would be required in order to increase FAR from 15.0 to 18.0; contributions to the District Improvement Fund (DIF) would be used to ensure that development in the area is accompanied by pedestrian network improvements. Above 18.0 FAR, Qualifying Sites could reach the maximum 24.0 FAR through utilization of either or both of the DIB and the new Landmark Transfer mechanism.

For Qualifying Sites within the remainder of the Grand Central Subarea, floor area increases would be permitted up to 21.6 FAR from the existing base maximum FAR of 15.0/12.0. To achieve this maximum FAR would require utilization of the DIB for the first 3.0 FAR (from 15.0 to 18.0 FAR or from 12.0 to 15.0 FAR, respectively). Above the first 3.0 FAR, Qualifying Sites could reach the maximum 21.6 FAR through additional utilization of either or both of the DIB and the new Landmark Transfer mechanism.

Additional Subarea Mechanisms and Requirements

The existing Grand Central Subdistrict contains a number of additional zoning mechanisms and requirements, most of which would be maintained or amended in the new Grand Central Subarea. These include:

- **1.0 FAR as-of-right Landmark Transfer** – The existing Grand Central Subdistrict permits 1.0 FAR as-of-right transfers from the Subdistrict's landmark buildings via Chair certification. This mechanism would be continued within the expanded subarea to allow opportunity for transfer to sites that are not Qualifying Sites.
- **Existing Landmark transfer special permit** – The existing Grand Central Subdistrict permits a transfer of landmark rights within the area bounded by East 41st and East 48th Streets, and Madison and Lexington Avenues, up to a maximum of 21.6 FAR and modification of height and setback requirements by special permit. This permit would be maintained and could be utilized by all sites within the above boundary.
- **Other Zoning Controls** – As in other existing subdistricts within the Special Midtown District, the existing Grand Central Subdistrict contains a series of bulk and urban design requirements tailored to the unique conditions of the Subdistrict. These include special streetwall, pedestrian circulation space, and loading requirements. These requirements would be modified to ensure appropriate as-of-right development in the area, and would include elements such as the following:
  - *Streetwall requirements.* In order to match the high-streetwall character of the area, special streetwall requirements would be required along Madison, Lexington and Park Avenues, as well as along 42nd Street, Vanderbilt Avenue, and the area's side streets. Such streetwall requirements would include provisions for recesses and articulation that allow for greater design flexibility.
  - *Modifications to height and setback controls.* These controls would be modified to allow as-of-right development at the levels permitted through the new mechanisms, taking into account the unique block configurations found in the area and the high-streetwall character found there.
  - *Sidewalk widening requirement.* While existing streetwall requirements for Madison and Lexington Avenues permit sidewalk widenings up to 10 feet along these streets, full-frontage

sites would now be required to provide sidewalk widenings that would translate into sidewalks with a minimum width of 20 feet along these streets. In addition, developments fronting along side streets between East 43rd and 47th Streets, between Vanderbilt and Madison Avenues, would also be required to provide sidewalk widenings that would translate into sidewalks with a minimum width of 15 feet along these streets.

- *Mass transit access*. Developments on sites in the Grand Central Core, where the subway bonus is permitted, or which currently have existing mass transit access, would be required to provide easement volumes to provide access between the street and the below-grade network. Additionally, if such easement is improved as part of the development, such access points would be able to count toward the required pedestrian circulation space calculations.
- *Retail continuity*. Existing retail requirements for Madison and Lexington Avenues would be maintained; however, a minimum retail depth of 30 feet would be added to ensure usable retail spaces. In addition, new retail requirements would be included for Vanderbilt Avenue to further activate the new pedestrian space at that location. Additionally, Qualifying Sites would be required to devote a minimum of 50 percent of their side street frontage to retail uses.
- *Other modifications*. Existing Grand Central Subdistrict provisions for building lobbies would be maintained with maximum lobby widths added for Vanderbilt Avenue and side streets between Vanderbilt and Madison Avenues. The current curb cut requirements would be maintained, but a process to allow for modification due to subsurface conditions would be established. Finally, lighting standards would be added to the Pedestrian Circulation Space requirements.

- **DIB and Landmark Transfer applications** – The current Grand Central Subdistrict regulations require sites that utilize landmark floor area (either through the 1.0 FAR as-of-right transfer or the existing special permit) to demonstrate as part of their application an LPC report concerning the harmonious relationship between the new development and the landmark. Under the proposal, this requirement would be modified to apply to all developments adjacent to Grand Central Terminal utilizing the DIB or the new landmark transfer mechanisms described above.
- **Program for Continuing Maintenance** – As under the current Grand Central Subdistrict zoning text, any transfer of development rights under the Proposed Action from a landmark must include a program for continuing maintenance of the landmark structure. For Grand Central Terminal, this requirement has been met through an agreement to set aside 5 percent of transfer proceeds for continuing maintenance of the Terminal.

Park Avenue Subarea

The proposal recognizes that limited new development on Qualifying Sites that have full block frontage along Park Avenue is appropriate. The avenue's role as New York's most prestigious business address, as well as its overall width—it is the widest avenue in Midtown—make it an appropriate location for high-density development.

To accomplish this, the East Midtown Subdistrict would include a Park Avenue Subarea, which would encompass the frontage along Park Avenue between East 46th and East 57th Streets, for the area within 125 feet of Park Avenue (reflecting the existing 15.0 FAR C5-3 zoning designation).

For Qualifying Sites within the Park Avenue Subarea, floor area increases would be permitted up to 21.6 FAR from the existing base maximum FAR of 15.0. Utilization of the DIB will be required achieve this maximum FAR.

Additional Subarea Zoning Controls

To ensure that as-of-right development takes account of the unique conditions along Park Avenue, the streetwall requirements that apply to Park Avenue in the Grand Central Subarea would also apply along Park Avenue in this Subarea. Other underlying urban design and height and setback controls would continue to apply.

Other Areas

More limited development in East Midtown should occur along the Madison Avenue and Lexington Avenue corridors, north of the Grand Central Subarea, as these areas contain most of East Midtown's more-recent office construction. Because the buildings in these areas are more modern on average, fewer property owners would be willing to undertake the costly multi-year process of emptying, demolishing and reconstructing buildings.

For Qualifying Sites or portions thereof within these areas, floor area increases would be permitted up to 20 percent higher than the existing maximum base FAR of 15.0 or 12.0. To achieve this maximum FAR would require utilization of the DIB.

Underlying urban design and height and setback controls would continue to apply here.

c. Other Subdistrict-Wide Mechanisms

Special Permit

The Proposed Action would create a zoning framework that would allow for additional development on an as-of-right basis, but only to the extent that as-of-right bulk regulations can successfully address the orientation and massing of buildings, both at the ground level and above. In this regard, the existing Special Midtown District's bulk regulations—intended to permit design flexibility for high-density development while limiting the impact of buildings on access of light and air to the streets—can, with limited modifications only, reasonably accommodate contemporary office buildings of up to 24.0 FAR for sites around Grand Central and 21.6 FAR along Park Avenue without triggering the need for case-by-case scrutiny by the CPC.

However, given its extraordinarily transit-rich location, East Midtown can accommodate greater densities than the proposed as-of-right maximums and allowing this would further the City's objective of seeding the district with major new buildings that would help retain the area's standing as the City's premier office district. Since densities above the proposed as-of-right maximums cannot be easily accommodated within the framework of as-of-right bulk regulations, it is appropriate that developers who seek to build more than the Proposed Action's as-of-right maximums FARs be required to undergo a public review process to demonstrate that the building's massing, orientation and other features feasibly accommodate the additional FAR and provide improvements to the public realm, as well as address the potential for significant adverse environmental impacts.

The East Midtown Subdistrict would therefore include a special permit for superior development that would allow an increase in the maximum FAR above that permitted as-of-right in the Grand Central Core (24.0) up to 30.0, and an increase in the maximum FAR above that permitted as-of-right along the Park Avenue frontage north of East 46th Street (21.6) up to 24.0. Additionally, the special permit would allow for the modification of bulk and urban design regulations.

The City believes that the modification of bulk and urban design regulations must not only be done in a way that minimizes negative effects, but that the development must provide significant public benefits. These benefits should take the form of a development that demonstrates superior qualities in terms of: overall design; relationship to the street, and function at street level; the size and caliber of on-site public amenities such as major new public space (indoor and/or outdoor); and, in the case of sites within the Grand Central Core, the size and availability of connections to the underground pedestrian network.

There would also be significant prerequisites to apply for the special permit. Sites would have to meet the Qualifying Site requirements, and, in the Grand Central Core, the minimum site size would be 40,000 sf. Additionally, all floor area above the maximum permitted as-of-right levels (24.0 / 21.6, respectively) would have to be earned by contributions to the DIF or, for buildings located in the Grand Central Subarea, through either or both of contributions to the DIF and transfers from landmarks.

Public Improvements through the DIB

The DIB mechanism would permit as-of-right higher maximum FARs through contribution to a DIF dedicated to area-wide pedestrian network improvements. The DIF would provide the flexibility to fund improvements, where needed, as development occurs in East Midtown, rather than having improvements be tied to specific development sites. The DIF would be focused on City-priority improvements to the pedestrian network, both above- and below-grade. The zoning text would describe the required contribution rate, initially set at $250 per square foot, which would be adjusted annually. It would also include provisions for the use and governance of the DIF. These would include the creation of a DIF committee, consisting of five Mayoral appointees including the Chair of the CPC, who would be responsible for maintaining and adjusting a list of priority district improvements in the East Midtown area over time, and dispersing funds for such projects as contributions to the DIB are made. The text would also include provisions for public participation in the process and standards for what types of projects may be funded through the DIF. The text would also include a 'payment-in-kind' provision that would permit property developers to construct improvements, and receive credit for their expenditure, in lieu of payment into the DIF.

The City has identified certain priority improvements that address the greatest potential needs of the area, as well as those created by the new development, and can most benefit office workers, visitors and residents. The City is also encouraging the public to provide additional ideas for improvements in East Midtown for purposes of the future DIF committee process, described above. Priority improvements that would be implemented in relation to the pace and the level of future development include:

- **Improvements to the Grand Central subway station** – The Grand Central subway station is one of the busiest in the entire system and also has numerous pedestrian circulation issues. In this station, the DIF could be used to construct new connections between the commuter rail facilities and the subway station, a reconfigured mezzanine level, and additional, relocated or reconstructed stair, ramp and

escalator connections to the subway platforms of the Lexington Avenue line and the Flushing line from the mezzanine, with early priority items focused on the Lexington line.

- **Improvements to Vanderbilt Avenue** – Vanderbilt Avenue is a relatively underused and bleak corridor, especially considering its location adjacent to Grand Central Terminal. The DIF could be used to transform Vanderbilt Avenue into a signature pedestrian gateway space while still allowing for uninterrupted crosstown traffic, vehicular access to surrounding buildings and the Terminal, and unrestricted movement for emergency vehicles. It is expected that Vanderbilt would be redesigned as a predominantly hardscape space with high-quality materials and features with ample pedestrian circulation space along its edges. New paving materials would unite the space along its overall length and be chosen to complement its location adjacent to Grand Central Terminal. The new paving would create a level ground plane across the space at the level of the current sidewalks. Permanent design elements in the space would consist of planting, seating and water features interspersed along its five-block length. Generally, the southern portions of Vanderbilt would have fewer elements given the higher pedestrian volumes that would be coming out of the Terminal, while the northern areas would contain a greater amount with the space becoming more green/planted moving north toward Park Avenue. Permanent seating and opportunities for rotating programming and art installations would be interspersed throughout. The permanent design elements would be designed to be low to the ground to give the overall Vanderbilt space an open feeling and focus views on the iconic adjacent Grand Central Terminal.

In addition, the City has identified a series of additional improvements that could be implemented in the area over the long term as additional funding was generated through the DIF. These include:

- **Above-Grade Improvements** – The City has identified a series of other above-grade priority areas for which the DIF could be used to make comprehensive improvements. These include key streets including Madison and Lexington Avenues, as well as East 53rd Street. The DIF could be used to develop improvements to the streetscape on these streets to improve the pedestrian experience, including sidewalk widenings and bumpouts. In addition, the City has identified opportunities for expanding upon the initial Vanderbilt Avenue improvements to create a public space network around Grand Central Terminal, which could be funded through the DIF. Specific plans for both types of improvements would be developed in the future as funding is generated through the DIF. The City would continue studying the remainder of the sidewalk and open space network in the area to identify opportunities for other improvement projects.
- **Improvements to other East Midtown subway stations** – Over the longer term, improvements to the other subway stations in the area (i.e., 53rd Street and Fifth Avenue, and 53rd Street and Lexington Avenue/Lexington Avenue and 51st Street) could be funded by the DIF to improve transfers between lines, and connections between platforms and street level.

Existing Non-Complying Buildings

As discussed above, there are a number of pre- and post-1961 office buildings in East Midtown that do not comply with current zoning regulations, particularly in regard to the amount of floor area permitted. As these buildings age and become outdated, their 'overbuilt' floor area presents a challenge as current zoning offers a strong disincentive to the replacement of the outdated building.

To address this, for pre-1961 non-complying buildings that are part of a Qualifying Site, the East Midtown Subdistrict would permit the amount of floor area that exceeds the as-of-right maximum base FAR to be utilized, in new development on the site, subject to a discounted DIB contribution, set at 50 percent of the base rate. As part of a Qualifying Site, all the floor area in the building would have to be commercial. The retention of this non-complying floor area in the new development would be permitted by Chair certification. Additional floor area could be added to the site through the DIB and, in the Grand Central Subarea, the new landmark transfer mechanism.

To permit limited redevelopment for non-complying buildings that are not part of a Qualifying Site, the Subdistrict would permit all non-complying buildings with avenue frontage and minimum site size of 20,000 sf to utilize their existing floor area in new development, subject to the discounted DIB contribution mechanism. However, such sites would not be able to obtain additional floor area through the DIB or, in the Grand Central Subarea, the new landmark transfer mechanism. The retention of the non-complying floor area in such new development would be granted by Chair certification. To utilize this mechanism, the building would have to be fully commercial and meet the sustainability requirements described below, as well as comply with as-of-right height and setback requirements.

Sustainability Requirement

The zoning text would require buildings that utilize the DIB to comply with a higher performance-oriented energy standard than is currently required for such buildings under the New York City Energy Conservation Code. The text would require that such buildings reduce energy cost by a minimum of be 15 percent better than the 2011 energy code requirements. Compliance would be demonstrated to the Department of Buildings at the time of issuance of a building permit.

"Sunrise" Provision

The Hudson Yards Plan, approved in 2005 and 2009, will achieve an important implementation milestone in 2014 with the completion of the extension of the No. 7 subway line extension, and opening of the Hudson Park and Boulevard, both of which would facilitate the development of the area's first major office buildings. In order to allow sequencing of development consistent with planning objectives in the entirety of Midtown, including Hudson Yards, the East Midtown Subdistrict would include a "sunrise" provision under which building permits will not be issued under the new zoning mechanisms (DIB, new Landmark Transfer, and new Special Permit) until July 1, 2017. Until that point, permits could be issued under the existing zoning mechanisms, which would remain in place. The "sunrise" provision would allow developers to begin the long process of assembling sites, emptying buildings, and plan for new construction.

Existing Zoning Provisions

Existing zoning provisions, such as the subway bonus, plaza bonus (except in the Grand Central Subarea, where it is currently not permitted), and the special permit landmark transfer available via zoning section 74-79 would continue to apply. As described above, the current landmark transfer special permit in the Grand Central Subarea would also continue to apply.

3.2.2 Proposed Zoning Map Changes

The rezoning area is currently zoned predominantly as high-density commercial (zoning districts C5 and C6) within the Special Midtown District. The area between Second and Third Avenues along East 42nd

Street is entirely commercial in character, with a number of existing office buildings. The Special Midtown District generally follows the boundary of Midtown's commercial areas and thus this area would more appropriately be located in the Midtown District, and additionally as part of the East Midtown Subdistrict. By incorporating the area into Midtown, the Special District regulations, including height and setback and streetscape requirements, would become applicable. These are more tailored to the needs of the area than the generic 1961 high-density commercial zoning provisions that now apply.

In order to do this, the rezoning would replace the existing C5-2 designations for the block located between East 42nd and East 43rd Streets, and Second and Third Avenues with C5-3 and C5-2.5, districts. The C5-3 and C5-2.5 districts will be mapped within the Special Midtown District, and will be incorporated into the East Midtown Subdistrict.

The C5-3 designation would be mapped along the East 42nd Street and Second Avenue frontages, which are both wide streets and reflect the typical wide street zoning pattern in Midtown. Midblock areas along East 43rdstreet would be mapped to C5-2.5, reflecting the typical midblock Midtown zoning pattern.

3.2.3 Proposed City Map Changes

The City may in the future amend the City Map to reflect a 'Public Place' designation over portions of Vanderbilt Avenue. Such action would provide one of several options for the permanent development of a partially-pedestrianized Vanderbilt Avenue.

These portions could include the non-intersection portions of Vanderbilt Avenue between East 42nd and East 47th Streets. Any City Map amendment or other method for designation of Vanderbilt Avenue for pedestrian use would be structured to allow for phased development of improvements as funding is made available from the DIF, and as surrounding conditions permit.

4 REASONABLE WORST-CASE DEVELOPMENT SCENARIO

In order to assess the possible effects of the Proposed Action, a reasonable worst-case development scenario (RWCDS) was established for conditions under both the current zoning (No-Action) and proposed zoning (With-Action) projected to the 2033 analysis year. The level of development projected for the 2033 analysis year is based on long-term projections of the area's potential to capture a proportionate share of the City's new office development over the next 30 years taking into account the area's existing built character. Development likely to occur beyond 2033 will be conservatively assessed in the EIS as occurring by 2033. The incremental difference between the future No-Action and future With-Action conditions will be the basis of the impact category analyses conducted for the EIS.

To determine the With-Action and No-Action conditions, standard methodologies have been used following the CEQR Technical Manual guidelines employing reasonable assumptions. These methodologies have been used to identify the amount and location of future development. In projecting the amount and location of new development, several factors have been considered in identifying likely development sites. These include known development proposals, past development trends, and development site criteria. Generally, for area-wide rezonings, new development can be expected to occur

on selected, rather than all, sites within the rezoning area. The first step in establishing the development scenario was to identify those sites where new development or conversion could reasonably occur.

To produce a reasonable, conservative estimate of future growth, the development sites were further divided into two categories (i.e., projected development sites and potential development sites). The projected development sites are considered more likely to be developed within the analysis period for the Proposed Action, while potential sites are considered less likely to be developed over the same period.

In total, 39 development sites (19 projected and 20 potential) have been identified in the rezoning area. Table 2 provides a summary of the RWCDS for projected development sites.

The EIS will assess both density-related and site-specific potential impacts from development on all projected development sites. Density-related impacts are dependent on the amount and type of development projected on a site and the resulting impacts on traffic, air quality, community facilities, and open space.

Site-specific impacts relate to individual site conditions and are not dependent on the density of projected development. Site-specific impacts include potential noise impacts from development, the effects on historic resources, and the possible presence of hazardous materials. Development is not anticipated on the potential development sites within the foreseeable future; therefore, these sites have not been included in the density-related impact assessments. However, a number of potential development sites could be developed under the Proposed Action in lieu of one or more of the projected development sites in accommodating the development anticipated during the foreseeable future as the result of the Proposed Action. The potential development sites are therefore addressed in the EIS for site-specific effects in order to ensure a conservative analysis.

4.1 The Future Without the Proposed Action (No-Action Condition)

In the future without the Proposed Action (No-Action), given the existing zoning and land use trends in the area, it is anticipated that the rezoning area would experience limited overall growth over the analysis period, most of it being in non-office uses including hotels and residential buildings. Additionally, as office space in the area becomes less economically viable, it is possible that a number of existing office buildings would convert to other uses, predominantly residential. It is not possible to identify specifically which buildings might experience conversion, but achievable office rents, greater age, small floorplate size, relatively low floor-to-ceiling heights, and a larger number of facades with windows will all influence property owners' decisions to convert. Other portions of development sites would remain in their current, predominantly office uses, but would likely be of lower quality as the overall area would become less desirable as an office district. When coupled with the predominantly, non-office development expected in East Midtown, these conversions would lead to there being less office space in the future than the area has today.

As shown in Table 2, it is anticipated that, in the future without the Proposed Action, there would be a total of approximately 6.5 million gsf of office space, 0.5 million gsf of retail, 2.0 million gsf of hotel space, and 776 residential units on the 19 projected development sites. Qualitatively, this office space is expected to be of lesser quality than the office space in the With-Action condition since much of it is

aging and would have smaller floorplate sizes and relatively low floor-to-ceiling height than new construction.

4.2 The Future With the Proposed Action (With-Action Condition)

In the future with the Proposed Action, new commercial development is expected to occur in the rezoning area on Qualifying Sites, particularly concentrated around Grand Central Terminal and along Park Avenue.

Development under the No-Action condition on the sites that do not meet the Qualifying Site criteria will be considered in the With-Action condition with slight modification since sites in the Grand Central Subarea would be able to utilize the 1.0 FAR as-of-right landmark transfer, increasing their developed FAR. Also, because the overall area would contain new office development that maintains the area as a premier office district, it is expected that some of this development would change from residential to hotel use. Additionally, a limited number of existing buildings would utilize the provisions for non-complying buildings and construct replacement office space that would be of newer and higher quality than the existing buildings.

The total development expected to occur on the 19 projected development sites under the With-Action conditions would consist of approximately 10.3 million gsf of office space, 0.65 million gsf of retail, 2.1 million gsf of hotel, and approximately 208 dwelling units. The projected incremental (net) change between the No-Action and With-Action conditions that would result from the Proposed Action would be an increase of approximately 3.8 million gsf of office space, 0.1 million gsf of retail, 0.1 million gsf of hotel space, and a decrease of residential space (568 units). The total difference between the built square footage in the No-Action and With-Action conditions is approximately 4.4 million gsf. Qualitatively, this office space is expected to be of higher quality than the office space in the No-Action Condition since the new development would be more in keeping with current office trends – including higher floor-to-ceiling heights and larger floorplate sizes.

The projected development sites with projected No-Action and With-Action development are summarized in Table 2.

TABLE 2: RWCDS AND POPULATION SUMMARY FOR PROJECTED DEVELOPMENT SITES

Use	Existing Conditions (gsf)	Future No-Action Condition (gsf)	Future With-Action Condition (gsf)	No-Action to With-Action Increment (gsf)
Office	6,617,617	6,519,633	10,340,972	3,821,339
Retail	469,964	529,328	648,990	119,662
Hotel	1,750,258	2,010,947	2,134,234	123,286
Hotel Rooms	2,693	3,094	3,285	190
Residential	10,725	772,705	207,029	(565,675)
Residential Units	22	776	208	(568)
Parking	113,940	29,400	140,200	110,800
Parking Spaces	570	147	701	554

POPULATION/ EMPLOYMENT[1]	Existing Conditions (gsf)	Future No-Action Condition (gsf)	Future With-Action Condition (gsf)	No-Action to With-Action Increment
Residents	35	1,234	331	(903)
Workers	28,901	28,860	44,563	15,703

(1) Assumes 1.59 persons per residential unit (based on 2010 census data for rezoning area), 200 sf per parking space, 650 sf per hotel room, 1 employee per 250 sf of office, 3 employees per 1000 sf of retail, 1 employee per 2.67 hotel rooms, 1 employee per 25 residential unit, and 1 employee per 10,000 sf of parking floor area.

A total of 20 sites were considered less likely to be developed within the foreseeable future, and were thus considered potential development sites. The potential sites are deemed less likely to be developed because they do not meet the criteria noted above. However, as discussed above, the analysis recognizes that a number of potential sites could be developed under the Proposed Action in lieu of one or more of the projected development sites in accommodating the development anticipated in the RWCDS. The potential sites are therefore also analyzed in the EIS for site-specific effects.

As such, the EIS will analyze the projected developments for all technical areas of concern and also evaluate the effects of the potential developments for site-specific effects such as archaeology, shadows, hazardous materials, stationary air quality, and noise.

4.2.1 Public Improvement through the DIB

The DIB mechanism would generate funding for City-priority improvements to the pedestrian network, both above and below grade. The With-Action analysis will take the priority improvements to the Grand Central subway station and to Vanderbilt Avenue in account.

Furthermore, the EIS will evaluate how and to what extent the priority DIB-funded public improvements in Grand Central subway station avoid pedestrian and transit impacts resulting from the development. This analysis approach will provide the decision-makers with important information concerning the benefits of the improvements, and allow for adjustments to improve their use as project components related to the environment.

5 PROBABLE IMPACTS OF THE PROPOSED ACTION

5.1 Land Use, Zoning, and Public Policy

No significant adverse impacts on land use, zoning, or public policy would occur due to the Proposed Action. The Proposed Action would not directly displace any land use; nor would it generate new land uses that would be incompatible with surrounding land uses, or conflict with existing zoning or public policy. The Proposed Action would not cause a substantial number of existing structures to become non-conforming.

The detailed analysis of land use, zoning, and public policy prepared in conformance to the *CEQR Technical Manual* shows that, compared to the No-Action condition, the Proposed Action would result in a limited, overall increase in office and commercial space throughout the primary study area. Zoning

designations within the primary study area would change in a manner that is intended to protect and strengthen East Midtown's status as one of the world's premier business districts, while preserving and improving the area's existing iconic pedestrian and built environments. The creation of a new East Midtown Subdistrict within the Special Midtown District would encourage new, as-of-right commercial development, particularly around Grand Central Terminal and Park Avenue, through a series of zoning mechanisms available to sites that meet specific size and locational requirements. The proposed zoning map amendment would change zoning designations to encourage new commercial development in a portion of the primary study area, consistent with its existing character and development history. Opportunities for commercial development would expand through District Improvement Bonuses (DIBs), which would require contribution to a fund dedicated to area-wide pedestrian improvements, and through transferable development rights from New York City Landmarks Preservation Commission (LPC)-designated historic buildings. The Proposed Action would not conflict with applicable public policies.

5.2 Socioeconomic Conditions

The Proposed Action would not result in any significant adverse impacts to the five socioeconomic areas of concern, including direct residential displacement, direct business/institutional displacement, indirect residential displacement, indirect business/institutional displacement, and adverse effects on specific industries. The following summarizes the conclusions drawn from the analysis.

5.2.1 Direct and Indirect Residential Displacement

The initial assessment did not warrant further analysis of direct and indirect residential displacement. According to the *CEQR Technical Manual*, direct displacement of fewer than 500 residents would not typically be expected to alter socioeconomic characteristics of a neighborhood. No direct residential displacement would occur under the Proposed Action, and therefore, the Proposed Action would not result in significant adverse impacts due to direct residential displacement. As to indirect residential displacement, the Proposed Action would forestall conversion of office to residential space resulting in a net reduction of residential units compared to the future without the Proposed Action, and would therefore not induce a trend that could potentially result in changing socioeconomic conditions for the residents within the East Midtown rezoning area. Therefore, an assessment of indirect residential displacement is not warranted for the Proposed Action.

5.2.2 Direct Business and Institutional Displacement

The assessment finds that the Proposed Action would not result in significant adverse impacts due to direct business displacement. Some of the businesses and employment located on projected development sites within the proposed rezoning area could be displaced by future development in the No-Action condition. Not including displacement that would occur as a result of development in the No-Action condition, there are approximately 844 existing businesses/institutions that vary in type and size which could be potentially displaced by the Proposed Action on 12 of the 19 projected development sites. These businesses/institutions provide jobs for an estimated 23,857 people, which comprises approximately 11 percent of the total primary study area employment and about 5 percent of the secondary study area employment. By industry sector, Professional Service businesses represent the largest share of potentially displaced businesses (223 businesses, or approximately 26 percent of the total businesses displaced), followed by Finance and Insurance (118 businesses, or approximately 14 percent of total businesses).

Real Estate and Rental and Leasing (86 businesses) and Administrative and Support and Waste Management and Remediation Services (82 businesses) account combined for approximately 20 percent of displaced businesses. The Finance and Insurance and the Management of Companies and Enterprises sectors both employ approximately 25 percent of the potentially displaced workers, while the Professional, Scientific, and Technical Services sector employs approximately 13 percent.

The assessment finds that while these businesses are valuable individually and collectively to the city's economy, according to *CEQR Technical Manual* criteria, the displaced businesses do not provide products or services that would no longer be available to local residents or businesses, nor are they the subject of regulations or publicly adopted plans aimed at preserving, enhancing, or otherwise protecting them in their current location. The displaced businesses are not unique to the ¼-mile secondary study area, nor do they serve a user base that is dependent upon their location within the study area. East Midtown commercial spaces are occupied by a diverse array of businesses and the potentially directly displaced businesses/institutions are found throughout the study area and the broader neighborhoods and borough.

It is expected that the potentially displaced businesses would likely be able to find comparable space within the study area or elsewhere within the city. The Proposed Action would result in a limited and targeted amount of new high-density commercial development that is expected to protect, promote, and strengthen the East Midtown business district and provide support for the overall continued long-term health of the area as an integrated and dynamic office district. The Proposed Action would result in a net increase of approximately 3.8 million gsf of office space, 119,662 gsf of retail space, and 123,286 gsf of hotel use over the No-Action condition, creating new opportunities for existing businesses to expand, and attracting new companies to locate in the City. It is anticipated that the Proposed Action would result in a net increase of an estimated 15,703 employees on the projected development sites compared to the No-Action condition.

5.2.3 Indirect Business and Institutional Displacement

The assessment finds that the Proposed Action would also not result in significant adverse impacts due to indirect business/institutional displacement. The primary and secondary study areas already have well-established commercial markets, and therefore the Proposed Action would not be introducing new economic activities to the projected development sites or to the study areas that would alter existing economic patterns. East Midtown is one of the most sought-after dynamic office markets and central business districts (CBD) in the New York region that is largely defined by a wide variety of office space. The area is a very dense urban center with few vacant properties. The primary study area includes approximately 73 million gsf of office space, and the secondary study area has approximately 96 million gsf of office.

The office, retail and hotel uses introduced by the Proposed Action would not be of an amount that would alter or accelerate commercial market trends within the study area. The Proposed Action would potentially directly displace 844 existing businesses from 12 of the 19 projected development sites. None of the potentially displaced businesses provide substantial direct support to other businesses in the study area, nor do they bring substantial numbers of people to the area that form a customer base for local businesses such that indirect business displacement would result. The goods and services offered by potentially displaced uses can be found elsewhere within the study area, and the Proposed Action would

introduce similar uses. Therefore, according to *CEQR Technical Manual* criteria, the displacement of these businesses would not have adverse indirect effects on the remaining businesses or consumers in the study area. Although the employees of the directly displaced businesses form a portion of the customer base of neighborhood service establishments (e.g., food and drink establishments, retail), the Proposed Action would increase the overall employment in the rezoning area compared to the No-Action condition. The influx of residents and employees to the study area would add to the customer base of existing study area businesses compared to the No-Action condition.

5.2.4 Adverse Effects on Specific Industries

Based on the preliminary assessment, the Proposed Action would not significantly affect business conditions in any specific industry or any category of businesses, nor would it indirectly reduce employment or impair the economic viability of any specific industry or category of business. Therefore, there would be no significant adverse impacts from the Proposed Action due to adverse effects on specific industries.

5.3 Open Space

The Proposed Action would not result in a significant adverse impact on open space.

Open space resources would not be displaced. Construction and operation of the projected developments would not cause the physical loss of public open space, would not change the use of any open space so that it no longer serves the same user population, and would not limit public access to any open space. Incremental shadows on open space resources would not be significant, and the Proposed Action would not cause increased noise that would significantly affect the usefulness of any study area open spaces, whether on a permanent or temporary basis. Therefore, the Proposed Action would not have a direct effect on open space resources.

Since the Proposed Action would introduce additional workers to the area, which would place demands on passive open space resources, the indirect effects analysis focused on passive open space resources. According to the *CEQR Technical Manual*, projects that reduce the open space ratio by more than 5 percent may result in a significant adverse impact. For areas that are currently underserved, a smaller reduction may be considered significant. Based on maps in the Open Space Appendix of the *CEQR Technical Manual*, the open space study area is neither well served nor underserved by open space resources. Although the study area's existing conditions are characterized by a low open space ratio (i.e., below the citywide average of 0.15 acres of passive open space per 1,000 non-residential users), CEQR guidelines recognize that the goals for open space ratios are not feasible for areas such as Midtown Manhattan, and therefore do not constitute an impact threshold. As shown in Table 3, the indirect effects analysis demonstrated that the Proposed Action would decrease passive open space ratios by 1.37 percent for the non-residential population and 1.54 percent for the combined non-residential and residential population. While the acreage of passive open space resources in the study area is and would continue to be deficient in comparison to the CEQR benchmark, the deficiency would not be substantially exacerbated given the small incremental decreases in the open space ratios resulting from the Proposed Action. Therefore, in accordance with the *CEQR Technical Manual*, since the open space study area is neither well served nor underserved by open space resources, these reductions in the open space ratios resulting from the Proposed Action are not considered significant.

TABLE 3: 2033 FUTURE WITH THE PROPOSED ACTION: PASSIVE OPEN SPACE RATIOS SUMMARY

Ratio	CEQR Open Space Ratio Benchmark	Open Space Ratios per 1,000 People			Change from No-Action to With-Action	
		Existing	No-Action	With-Action	Absolute Change	Percentage Change
Non-Residents	0.15	0.070	0.073	0.072	-0.001	-1.37%
Combined Non-Residents and Residents	Weighted 0.186 / 0.188 / 0.187 (Existing / No-Action / With-Action)(1)	0.063	0.065	0.064	-0.001	-1.54%

(1) Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the CEQR benchmark of 0.5 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents. Since this benchmark depends on the proportion of non-residents and residents in the study area's population, it is different for existing, No-Action, and With-Action conditions.

5.4 Shadows

The redevelopment of the 19 projected development sites and the less likely redevelopment of the 20 potential development sites would cast new shadows at times throughout the year on several open spaces and sunlight-sensitive features of historic architectural resources. In most cases, incremental shadows resulting from the Proposed Action would not be considered significant, as the East Midtown area is densely developed with many mid- and high-rise buildings that already cast shadows on the majority of the area's sunlight-sensitive resources under existing conditions. The detailed shadows analysis identifies significant adverse impacts on three architectural resources with sunlight-sensitive features.

The sunlight-sensitive stained-glass windows of St. Bartholomew's Church and Community House would experience significant adverse shadows impacts on the May 6th and June 21st analysis days. Since the stained-glass windows are all experienced within a single large interior space, as opposed to multiple spaces where each individual space experiences only a portion of the windows, the assessment of the potential impact caused by the incremental shadows considered the cumulative effect on all of the windows together. On the May 6th analysis day, between 8:02 a.m. and 8:40 a.m., the effect of the incremental shadows—cast by Projected Development Site 12 and Potential Development Site 14 on the building's northern and southern façades, respectively—would be to completely eliminate all direct sunlight on the building's stained-glass windows. Incremental shadows from these sites would also affect stained-glass windows between 3:05 p.m. to 3:15 p.m. The incremental shadows that would be cast on these two analysis days would result in a reduction in sunlight available for the enjoyment or appreciation of the building's stained-glass windows, and thus the incremental shadows are being considered significant adverse shadows impacts.

The stained-glass windows of the Lady Chapel of St. Patrick's Cathedral, which is experienced as a distinct space within the Cathedral, would experience significant adverse shadows impacts on the March 21st analysis day. During this analysis day, Projected Development Site 12 would remove sunlight from

the windows on the southern and eastern façades starting at 10:07 a.m. until 10:58 a.m., thereby removing all remaining sunlight for this period. Lady Chapel would continue to experience sunlight at other times of the day—from 11:58 a.m. to 1:24 p.m., and from 1:28 p.m. to 2:40 p.m.; a total two hours and thirty eight minutes. Given that the incremental shadow from Projected Development Site 12 would eliminate remaining sunlight on the resource during the morning, and that the incremental shadow would remove nearly a quarter of the sunlight on this analysis day as a whole, this incremental shadow would be considered a significant adverse impact.

The stained-glass windows of the Christ Church United Methodist building would experience a significant adverse shadows impact on the December 21st analysis day. During this analysis day, the incremental shadow would be cast by Projected Development Site 18 on the eastern façade of Christ Church United Methodist for approximately 21 minutes from 12:59 p.m. to 1:20 p.m., covering the stained-glass windows along the building's Park Avenue frontage. Between 1:04 p.m. and 1:18 p.m., all of the building's stained-glass windows would be completely covered by shadow. Since the incremental shadow would completely eliminate all direct sunlight on the sunlight-sensitive features of this resource, albeit for a brief duration of approximately 14 minutes, it could have the potential to affect the public's enjoyment of these features. The limited duration of the incremental shadow is considered substantial in this case because in the No-Action condition the building's sunlight-sensitive features would only be exposed to sunlight for approximately 53 minutes, from 12:55 p.m. to 1:48 p.m.; thus the incremental shadow would result in a substantial reduction of available sunlight. As such, the incremental shadow is being considered a significant adverse shadows impact.

5.5 Historic and Cultural Resources

The Proposed Action would not result in any significant adverse impacts to archaeological resources, or direct adverse impacts to LPC-designated and S/NR-listed historic districts or individual landmark buildings and structures. Nor would the Proposed Action result in significant adverse indirect or contextual impacts to either designated or eligible historic resources within the project area or study area. The Proposed Action could potentially result in construction-related impacts to 24 eligible resources located within 90 feet of the projected and potential development sites. The Proposed Action would result in significant adverse shadows impacts on sunlight-sensitive features of three historic architectural resources, namely St. Bartholomew's Church and Community House, the Lady Chapel of St. Patrick's Cathedral, and Christ Church United Methodist.

LPC reviewed the identified projected and potential development sites that could experience new/additional in-ground disturbance as a result of the Proposed Action, and concluded that none of the lots comprising those sites have any archaeological significance. As such, the Proposed Action is not expected to result in any significant adverse impacts to archaeological resources. The Historic Resources study area covers a substantial portion of the City's Midtown core, with a number of historic resources, including designated individual landmark buildings and structures, designated districts, as well as buildings and districts determined eligible for designation. The RWCDS projected and potential development sites are not located within any NYCL-designated and/or S/NR-listed historic districts, nor do they contain any NYCL-designated and/or S/NR-listed landmark buildings and structures. Therefore, the Proposed Action would not result in any direct adverse impacts to LPC-designated and S/NR-listed historic districts or individual landmark buildings and structures.

Several of the projected and potential development sites do contain historic resources that have been determined to be eligible for either NYCL designation and/or S/NR listing, and the redevelopment of these sites under the Proposed Action would result in either the partial or complete demolition of these resources. Therefore, the Proposed Action could result in a direct adverse impact to 14 historic resources that have been determined eligible for either NYCL designation and/or S/NR listing. Eleven of these resources have been determined to be either NYCL-eligible or both NYCL- and S/NR-eligible, and 3 of these sites have been determined to be only S/NR-eligible.

The Proposed Action is not expected to result in significant adverse indirect or contextual impacts to either designated or eligible historic resources within the project area or study area. It is anticipated that the introduction of new bulk envelopes for buildings that would be built within the existing City grid would not adversely affect these resources, which are today located in a mixed context of older and shorter structures and newer and taller building. The Proposed Action would also not eliminate or substantially obstruct publicly accessible views of architectural resources.

5.6 Urban Design and Visual Resources

The Proposed Action is not expected to result in a significant adverse impact on urban design or visual resources. Within the primary study area, which is coterminous with the boundaries of the proposed rezoning area, the changes resulting from the Proposed Action would not significantly affect the building and visual resource components of urban design, while it would enhance the street and open space components. The pedestrianization of Vanderbilt Avenue up to East 47th Streets would supplement the pedestrianized portion of Vanderbilt Avenue between East 42nd and 43rd Streets, which would be created in the No-Action condition. It would enhance the urban design of the primary study area by transforming portions of Vanderbilt Avenue into a signature pedestrian gateway—befitting its location next to Grand Central Terminal. The pedestrianization of Vanderbilt Avenue would provide a new, publicly accessible open space resource to residents, visitors, and commuters. Additionally, the zoning regulations of the proposed East Midtown Subdistrict would enhance the pedestrian network within the primary study area by mandating sidewalk widenings on Madison and Lexington Avenues. The regulations would also facilitate qualitative improvements to open space along Vanderbilt Avenue through glazing and active-use requirements. In addition, the DIB could be utilized to fund other improvements that would enhance the street and open space components of the area.

The redevelopment of the 19 projected development sites identified in the RWCDS—as well as the less likely redevelopment of the 20 potential development sites—would be compatible with the built context of the primary study area. The With-Action developments would primarily comprise high-density commercial uses, including offices and hotels with associated retail, consistent with the existing predominant building scale and use. The building bulk of the With-Action developments would not change the built environment's arrangement, appearance, or functionality. The height of the new buildings would be generally consistent with that of existing and planned high-rise buildings. Therefore, the introduction of new skyscrapers would not affect a pedestrian's experience of public space, and the visual character of buildings in the With-Action condition would not be significantly different from that in the No-Action condition.

Most of the visual resources included in the assessment are landmark structures whose important views are confined to a 1- to 2-block radius of their sites. These views would not be significantly affected by the projected and potential developments in the With-Action condition, as the streetwalls of the existing high-rise buildings in the area generally limit visibility of each resource beyond the block on which it is located. Views of a few visual resources, including the Chrysler Building, Helmsley Building, and MetLife Building, are along wider view corridors due to the buildings' height and/or location. Some views of visual resources within or from the proposed rezoning area would be modified—but not obstructed—by the addition of new buildings along the view corridors; other views would be obstructed from certain vantage points, but similar views would continue to be widely available from other locations.

5.7 Hazardous Materials

The Proposed Action would not result in significant adverse impacts related to hazardous materials. A preliminary screening of potential hazardous materials impacts was performed for all of the 19 projected and 20 potential development sites. The hazardous materials assessment identified that each of the projected and potential development sites has some associated concern regarding environmental conditions. As a result, the proposed zoning map actions include (E) designations for all of the projected and potential development sites. The implementation of the preventative and remedial measures required under the (E) designation would avoid the potential for significant adverse hazardous materials impacts due to the Proposed Action.

5.8 Water and Sewer Infrastructure

Based on the methodology set forth in the *CEQR Technical Manual*, the Proposed Action would not result in a significant adverse impact on the City's water and sewer infrastructure.

5.8.1 Water Supply

The incremental additional water usage as a result of the Proposed Action is expected to total 1.06 million gallons per day (mgd), compared to anticipated demand in the future without the Proposed Action. This incremental demand would represent 0.0002 percent of the City's overall water supply and would be distributed over a 70-block area. As changes of this magnitude would not be large enough to have a significant adverse impact on the City's water system, the incremental demand with the Proposed Action would not adversely affect the City's water supply or system water pressure.

5.8.2 Sanitary Sewage

The Newtown Creek water pollution control plant (WPCP), which is designed to treat a dry weather flow of 310 mgd, handled an average of 228.08 mgd of sewage flow between July 2011 and June 2012. Based on rates in the *CEQR Technical Manual*, the Proposed Action has the potential to result in an incremental sanitary sewage discharge of just under 0.37 mgd (or 22.3 percent) over the No-Action condition. This incremental increase in sanitary flow would represent approximately 0.1 percent of the Newtown Creek WPCP's designated State Pollution Discharge Elimination System (SPDES) capacity. Pursuant to CEQR methodology, as the projected increase in sanitary sewage would not cause the Newtown Creek WPCP to exceed its operational capacity or its SPDES-permitted capacity, the Proposed Action would not result in significant adverse impacts to sanitary sewage conveyance and treatment.

5.8.3 Stormwater Drainage and Management

As the proposed rezoning area is served by a combined sewer system, the Proposed Action would result in increases of combined sewer volumes, compared to existing conditions. However, due to the New York City Department of Environmental Protection's (DEP) new stormwater management requirements established in July 2012, stormwater runoff from new developments is expected to substantially decrease as compared to existing conditions. Based on the analysis pursuant to the *CEQR Technical Manual*, with Best Management Practices implemented on each projected development site by their respective developer, it is concluded that the Proposed Action would not result in significant adverse impacts on stormwater conveyance and treatment infrastructure.

5.9 Solid Waste and Sanitation Services

The Proposed Action would not result in a significant adverse impact on solid waste and sanitation services. The net increment of 105 tons of solid waste generated per week under the Proposed Action would be a minimal addition to the City's solid waste stream, representing 0.03 percent of current waste generation. The Proposed Action would not directly affect a solid waste management facility. The net increase in commercial solid waste handled by private carters would represent less than 1.0 percent of the SWMPs projected future commercial waste generation for the City, and the decrease in residential uses would result in a decrease in solid waste handled by the City of New York Department of Sanitation (DSNY), compared to the No-Action condition. The net increase in waste generated due to the Proposed Action would not be significant relative to the total City- and region-wide solid waste management system.

5.10 Energy

The Proposed Action would not result in a significant adverse impact on energy systems. The Proposed Action would create an increased demand on energy systems including electricity and gas. However, relative to the capacity of these systems and the current levels of service within New York City, this increased energy demand would be minor. Moreover, the incremental annual demand expected to result from the Proposed Action would represent a negligible portion of the City's forecasted annual energy requirements. Electrical and gas connections are readily available in the proposed rezoning area. Furthermore, by replacing aging structures, any new development under the Proposed Action would be required to comply with NYCECC. The Proposed Action would not substantially involve energy-intensive uses such as data centers or web hosting facilities. Nor would it remove a source of energy generation. For these reasons, the Proposed Action would not result in a significant adverse impact on energy systems.

5.11 Transportation

5.11.1 Traffic

Weekday AM, Midday, and PM peak-hour traffic conditions were evaluated at 90 intersections in the traffic study area, where additional traffic resulting with the Proposed Action would be most heavily concentrated. As summarized in Table 4, the traffic impact analysis indicates the potential for significant adverse impacts at 53 intersections during one or more analyzed peak hours; specifically, the impact

locations comprise 57 approach movements at 41 intersections during the AM peak hour, 38 approach movements at 29 intersections during the Midday peak hour, and 35 approach movements at 27 intersections during the PM peak hour. The "Mitigation" section below discusses standard traffic engineering measures that could be used to mitigate most of these significant adverse impacts.

TABLE 4: SUMMARY OF SIGNIFICANT ADVERSE TRAFFIC IMPACTS

Intersection	Peak Hour		
	AM	Midday	PM
First Avenue @ East 42nd Street (East Side)	EB-LT		EB-LT
First Avenue @ East 46th Street		EB-L	EB-L
First Avenue @ East 47th Street			NB-T
First Avenue @ East 48th Street	NB-R		NB-R
Second Avenue @ East 42nd Street	WB-DefL	SB-L	SB-L
Second Avenue @ East 44th Street	EB-TR		EB-TR
Second Avenue @ East 45th Street	WB-LT		
Second Avenue @ East 46th Street		EB-TR	EB-TR
Second Avenue @ East 49th Street		WB-LT	
Second Avenue @ East 57th Street	SB-TR	EB-TR, SB-TR	SB-TR
Third Avenue @ East 42nd Street	EB-L, EB-T, WB-T, WB-R, NB-R	EBL, WB-R	WB-R, NB-R
Third Avenue @ East 44th Street		NB-R	
Third Avenue @ East 50th Street	NB-R	NB-R	NB-R
Third Avenue @ East 57th Street			EB-T
Lexington Avenue @ East 39th Street	WB-T		
Lexington Avenue @ East 51st Street		WB-L	
Park Avenue @ East 39th Street	WB-LT, WB-TR	WB-LT, WB-TR	WB-TR, SB-TR
Park Avenue @ East 48th Street		EB-LT	
Park Avenue @ East 56th Street		EB-LT	
Madison Avenue @ East 39th Street	WB-T, WB-R	WB-R	WB-T, WB-R
Madison Avenue @ East 40th Street	EB-L, EB-T		EB-T
Madison Avenue @ East 42nd Street	NB-LT	NB-LT	
Madison Avenue @ East 43rd Street	NB-L, NB-T		
Madison Avenue @ East 44th Street	EB-LT, NB-T, NBR	EB-LT, NB-T	EB-LT
Madison Avenue @ East 45th Street	NB-T	NB-T	NB-T
Madison Avenue @ East 46th Street	EB-LT, NB-T	EB-LT, NB-T	EB-LT, NB-R
Madison Avenue @ East 47th Street	WB-T, NB-LT	WB-T, NB-L	WB-T, WB-R
Madison Avenue @ East 49th Street	WB-TR, NB-T		
Madison Avenue @ East 51st Street	NB-T	NB-T	NB-T
Madison Avenue @ East 53rd Street	NB-T	NB-T	
Madison Avenue @ East 57th Street	NB-T		
Fifth Avenue @ 42nd Street	SB-LT		SB-LT
Fifth Avenue @ 43rd Street	SB-T, SB-R	SB-R	
Fifth Avenue @ 44th Street	SB-LT	SB-LT	SB-LT
Fifth Avenue @ 45th Street	SB-T		
Fifth Avenue @ 46th Street	EB-TR, SB-LT	EB-TR, SB-LT	EB-TR, SB-LT
Fifth Avenue @ 47th Street	WB-L, SB-T	WB-L, SB-T	WB-L
Fifth Avenue @ 48th Street	SB-LT	EB-R, SB-LT	EB-R, SB-LT
Fifth Avenue @ 49th Street	SB-T		
Fifth Avenue @ 50th Street	SB-LT		
Fifth Avenue @ 51st Street	SB-T		
Fifth Avenue @ 52nd Street	SB-LT	SB-LT	
Fifth Avenue @ 53rd Street	SB-T		
Fifth Avenue @ 54th Street	SB-LT		
Fifth Avenue @ 56th Street	SB-LT		
Fifth Avenue @ 57th Street	SB-LT		
Fifth Avenue @ 59th Street	SB-LT	SB-LT	SB-LT
Sixth Avenue @ West 40th Street	NB-TR	EB-LT	
Sixth Avenue @ West 42nd Street	NB-R		
Sixth Avenue @ West 44th Street			NB-R
Sixth Avenue @ West 45th Street		WB-R	
Sixth Avenue @ West 46th Street			NB-R
Route 9A @ West 56th Street	NB-T		

Notes:
NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound
L = Left-Turn; T = Through; R = Right-Turn

Source: Parsons Brinckerhoff, Inc., 2013

5.11.2 Transit

New demand from the proposed rezoning would exceed the 200-trip *CEQR Technical Manual* analysis threshold in the AM and/or PM peak hour at four subway stations/station complexes:

- Grand Central-42nd Street
- 42nd St-Bryant Park/5th Avenue
- 47-50 Streets-Rockefeller Center
- 51st Street/Lexington Avenue-53rd Street

The future with the Proposed Action condition for the Grand Central subway station complex incorporates the priority improvements that would be implemented under the District Improvement Bonus (DIB) mechanism. In addition, an analysis is provided as part of the EIS that evaluates how and to what extent the priority DIB-funded public improvements in Grand Central subway station avoid pedestrian and transit impacts that would otherwise result from the development. Therefore, the Grand Central subway station analysis is presented first as the future with the Proposed Action with Station Improvements (Action-With-Improvements) and then as the future with the Proposed Action without Station Improvements (Action-Without-Improvements). This analysis approach provides the decision-makers with important information concerning the benefits of the improvements, and allow for adjustments to improve their use as project components related to the environment.

The Action-With-Improvements condition would result less crowding in the station, improved sightlines and additional Lexington Line express track capacity, with most station elements experiencing improved conditions. All of the significant adverse impacts identified in the Action-Without Improvements condition would be eliminated. Some stairs would become more congested in the Action-With-Improvements condition and may constitute a significant adverse impact. In most cases however, these stairs would be narrowed relative to the No-Action and the Action-Without-Improvements conditions in order to provide better platform circulation and improved track capacity. In another instant, a planned stair widening in the No-Action and the Action-Without-Improvements conditions would be replaced by another more effective improvement.

The Proposed Action would result in no significant adverse impacts to analyzed stairs, escalators, passageways or fare arrays at the 42nd Street-Bryant Park/5th Avenue, 47-50 Streets-Rockefeller Center and 51st Street/Lexington Avenue-53rd Street subway stations.

a. Subway Line Haul

Line haul is the volume of transit riders passing a defined point on a given transit route. Subway line haul is typically measured at the maximum load point on each route (the point where the trains carry the greatest number of passengers during the peak hour). All subway routes that are projected to exceed guideline capacity in the future are expected to experience fewer than five incremental trips per car in each direction in each peak hour as a result of the Proposed Action, therefore significant adverse impacts to subway line haul conditions are not anticipated based on *CEQR Technical Manual* criteria.

It is anticipated that the platform circulation improvements on Lexington Avenue line platforms at the Grand Central-42nd Street subway station would reduce dwell time on the No. 4 and No. 5 and would

result in additional capacity of one peak-hour train on the northbound PM and southbound AM Lexington Avenue express service. For purposes of the line haul analysis this capacity increase is deemed to be one additional No. 4 train in the Action-With-Improvements condition, but service reliability and capacity improvements would benefit both the No. 4 and 5 riders in Manhattan where the two lines provide the same service.

b. Bus

The proposed rezoning area is served by a total of approximately 16 NYCT local bus routes that operate exclusively within Manhattan, one NYCT local route that connects midtown Manhattan to Queens, and a total of approximately 54 NYCT, MTA Bus, and Bee-Line Bus express routes connecting Manhattan to New York City's outer boroughs and to Westchester County. A preliminary screening assessment concluded that a detailed examination of express bus conditions is not warranted, but that new demand from the proposed rezoning would exceed the 50-trip *CEQR Technical Manual* analysis threshold in the AM and/or PM peak hour at the maximum load points along three NYCT local bus routes – the M1, M4, and M42.

As summarized in Table 5, significant adverse impacts are anticipated on the M42 local bus service as follows:

- In the AM peak hour, the Proposed Action would result in a capacity shortfall of 64 spaces on the eastbound M42 service; and
- In the PM peak hour, the Proposed Action would result in a capacity shortfall of 56 spaces on the westbound M42 service.

TABLE 5: SUMMARY OF SIGNIFICANT ADVERSE LOCAL BUS IMPACTS

Route	Direction	Impacted Time Period
M42	Eastbound	AM
	Westbound	PM

Source: Philip Habib & Associates, 2013

As discussed in the "Mitigation" section below, measures to mitigate these significant adverse impacts to M42 local bus service could include adding two standard buses in the eastbound direction in the AM and two in the westbound direction in the PM, or converting the M42 route to articulated bus service.

The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints. Based on NYCT's ongoing passenger monitoring program and as new development occurs throughout the study area, a comprehensive service plan would be generated to respond to specific, known needs with capital and/or operational improvements where fiscally and operationally practicable. NYCT's capital program is developed on a five-year cycle; through this program, expansion of bus services would be provided as needs are determined. It is therefore anticipated that NYCT would increase service frequency on the M42 route to address its capacity shortfalls.

5.11.3 Pedestrians

Weekday peak period pedestrian conditions were evaluated at a total of 27 sidewalks, 76 crosswalks, and 62 corner reservoir areas in proximity to projected development sites and along key corridors connecting these sites to area transit facilities. As summarized in Table 6, based on *CEQR Technical Manual* criteria, a total of 36 of the 165 pedestrian elements analyzed would be significantly adversely impacted in one or more peak hours. There would be 20 elements with significant adverse impacts in the AM peak hour, 21 in the Midday, and 26 in the PM peak hour.

Two of the 27 analyzed sidewalks would be significantly impacted, both in the AM and PM peak hours and both located along the north side of East 43rd Street between Fifth and Vanderbilt Avenues. Twenty-six of the 76 crosswalks analyzed would be significantly adversely impacted in one or more peak hours. There would be 13 crosswalks with significant adverse impacts in the AM peak hour, 16 in the Midday, and 18 in the PM peak hour. Four of these crosswalks would be located on Fifth Avenue, four on Madison Avenue, two each on Lexington and Third Avenues, and one on Second Avenue. The remaining 13 impacted crosswalks would be located on cross-streets, including three on East 43rd Street, two each on 44th and 46th Streets, and one each on East 40th, East 42nd, East 45th, East 47th, East 49th, and East 50th Streets. Lastly, eight of the 62 corner areas analyzed would be significantly adversely impacted in one or more peak hours. There would be five significantly impacted corner areas at a total of four intersections in the AM peak hour, five impacted corner areas at three intersections in the Midday, and six impacted corner areas at three intersections in the PM peak hour. Three of the corner areas with significant impacts would be located along Madison Avenue, four along Lexington Avenue, and one on Third Avenue.

TABLE 6: SUMMARY OF SIGNIFICANT ADVERSE PEDESTRIAN IMPACTS

Corridor/Intersection	Impacted Element	Impacted Peak Hour		
		AM	Midday	PM
East 43rd Street, Vanderbilt to Madison Aves	North Sidewalk	X		X
East 43rd Street, Madison to Fifth Aves	North Sidewalk	X		X
Second Ave/East 43rd Street	South Crosswalk			X
Third Ave/East 49th Street	North Crosswalk		X	
Third Ave/East 42nd Street	NW Corner	X		
	North Crosswalk	X	X	X
Lexington Ave/East 50th Street	NE Corner		X	X
	NW Corner			X
	SE Corner	X	X	X
	SW Corner	X	X	X
	South Crosswalk		X	
	East Crosswalk		X	X
Lexington Ave/East 49th Street	West Crosswalk	X		X
Lexington Ave/East. 48th Street	South Crosswalk		X	
Madison Ave/East 47th Street	West Crosswalk		X	
Madison Ave/East 46th Street	East Crosswalk	X	X	X
	West Crosswalk		X	
Madison Ave/East 45th Street	NW Corner		X	X
	North Crosswalk	X	X	X
	East Crosswalk	X	X	X
Madison Ave/East 44th Street	East Crosswalk	X		
Madison Ave/East 43rd Street	NE Corner	X	X	
	North Crosswalk	X	X	X
	West Crosswalk	X		X
Madison Ave/East 42nd Street	NW Corner	X		X
	North Crosswalk	X		X
Madison Ave/East 40th Street	North Crosswalk		X	
	West Crosswalk		X	
Fifth Ave/47th Street	South Crosswalk	X	X	X
Fifth Ave/46th Street	South Crosswalk		X	X
Fifth Ave/44th Street	East Crosswalk	X	X	X
Fifth Ave/43rd Street	East Crosswalk			X
	West Crosswalk			X
Fifth Ave/42nd Street	North Crosswalk	X		X
	South Crosswalk	X		X
	East Crosswalk			X

Source: Philip Habib & Associates, 2013

As discussed in the "Mitigation" section below, significant adverse impacts to all but seven of the 36 pedestrian elements impacted in the With-Action condition could be fully mitigated with corner/sidewalk extensions, removal of street furniture, crosswalk widenings, and/or signal timing adjustments. Further measures to mitigate these significant adverse impacts will be explored with the New York City Department of Transportation (DOT) between the DEIS and the FEIS.

5.11.4 Vehicular and Pedestrian Safety

Accident data for the traffic study area intersections were obtained from the New York City Department of Transportation (DOT) for the 3-year reporting period between January 1, 2008, and December 31, 2010. A total of 1,714 reportable and non-reportable accidents, 8 fatalities, and 518 pedestrian/bicyclist-related injury accidents occurred at study area intersections. A review of the accident data identified 21 intersections as high accident locations (defined as those with 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes occurring in any consecutive 12 months of the most recent 3-year period for which data are available); at the following seven of these intersections, significant increases in pedestrian traffic are anticipated with the Proposed Action:

- Second Avenue and East 42nd Street;
- Third Avenue and East 42nd Street;
- Lexington Avenue and East 42nd Street;
- Madison Avenue and East 42nd Street;
- Fifth Avenue and 42nd Street;
- Fifth Avenue and 43rd Street; and
- Fifth Avenue and 46th Street.

All of these intersections have significant existing pedestrian volumes. While the addition of pedestrian trips and vehicle trips at high accident locations could result in increasingly unsafe conditions, a variety of safety upgrades could be employed at those intersections to increase pedestrian safety; such measures may include installation of countdown crosswalk timers, advance stop bars, lead pedestrian phases, and supplemental advance-warning signage (i.e., "Turning Vehicles Yield to Pedestrians").

5.11.5 Parking

The Proposed Action would generate a net incremental parking demand of 591 spaces during the weekday Midday. Also, the Proposed Action includes 701 new public off-street parking spaces and would displace 284 parking spaces at two existing public parking facilities for a net increase of 417 parking spaces. Although the incremental parking demand would exceed the amount of new parking that would be provided, the parking analysis indicates that the surplus demand could be readily accommodated at off-street public parking facilities within a ¼-mile radius of the rezoning area, and there would be no parking shortfall. The Proposed Action would not affect on-street public parking utilization.

5.12 Air Quality

There are no significant impacts from mobile and/or air toxic sources with the Proposed Action. With the proposed (E) designations, the development sites' HVAC's system emissions would not significantly impact either other development sites (project-on-project impacts) or existing land uses (project-on-existing impacts). In addition, the potential impacts from existing HVAC sources on the proposed buildings are not projected to be significant.

5.13 Greenhouse Gas Emissions

Following the methodology provided in the *CEQR Technical Manual*, it is estimated that the Proposed Action would annually result in approximately 34,248 metric tons of GHG emissions from its operations and 32,612 metric tons of GHG emissions from mobile sources—for an annual total of approximately 66,860 metric tons of GHG emissions as compared to New York City's 2011 annual total of 53.36 million metric tons. In addition, according to the PlaNYC *Inventory of New York City Greenhouse Gas Emissions* (December 2012), the total GHG emissions associated with energy used (electricity and heating) by buildings (residential, commercial, industrial, and institutional) was 39.4 million metric tons.

As compared to these values, the contribution of the Proposed Action's GHG emissions to GHG emissions citywide is miniscule; it is approximately 0.13 percent of the total (and 0.17 percent of building-related emissions). Further, the new buildings associated with the Proposed Action would be located in a dense, transit-rich environment, and will be required to comply with the new Energy Conservation Code (NYCECC) that requires greater energy efficiency, consistent with New York City's GHG reduction goals as stated in *PlaNYC*.

The Proposed Action is, therefore, consistent with the City's citywide GHG and climate change goals, and there would be no significant adverse GHG emission or climate change impacts as a result of the Proposed Action.

5.14 Noise

The findings of the noise analysis indicated that the Proposed Action would not generate sufficient traffic to have the potential to cause a significant noise impact (i.e., it would not result in a doubling of the noise passenger car equivalents which would be necessary to cause a three dBA increase in noise levels). Therefore, the noise analysis concludes that the traffic generated by the Proposed Action would not have the potential to produce significant increases to noise levels at any sensitive receptors within the project study area. However, ambient noise levels adjacent the projected and potential development sites were examined to determine if building noise attenuation requirements for maintaining interior noise level would be necessary. That assessment found noise levels would be in the "marginally unacceptable" exterior noise exposure category, resulting in a minimum noise attenuation requirement of 31-35 dBA to ensure noise levels within the proposed development sites would comply with all applicable requirements.

5.15 Public Health

As described in the preceding sections, the Proposed Action would not result in significant adverse impacts in the following technical areas: air quality, water quality, hazardous materials, or operational noise.

While during some periods of construction, the Proposed Action could potentially result in significant adverse impacts related to noise as defined by CEQR thresholds, the predicted overall changes to noise levels would not be large enough to significantly affect public health. Therefore, the proposed project would not result in significant adverse public health impacts.

5.16 Neighborhood Character

The Proposed Action would not result in a significant adverse impact on neighborhood character. The East Midtown area has a varied neighborhood context, and its defining features are the dominance of commercial land uses, the interspersing of older buildings with modern construction, high levels of pedestrian and vehicular activity and associated noise, a primarily high-density built context, and the presence of a number of iconic historic resources, including Grand Central Terminal, the Helmsley Building, the Chrysler Building, St. Bartholomew's Church and Community House, St. Patrick's Cathedral, the Seagram Building, and Lever House. In the future with the Proposed Action, the East Midtown area would continue to be defined by this combination of features.

Using methodologies outlined in the *CEQR Technical Manual*, the preliminary assessment evaluated the expected changes resulting from the Proposed Action in the following technical areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. The assessment used the findings from the respective chapters of the EIS to identify whether the Proposed Action would result in any significant adverse impacts or moderate adverse effects in these technical areas, and whether any such changes would have the potential to affect the defining features of neighborhood character.

Of the relevant technical areas specified in the *CEQR Technical Manual*, the Proposed Action would not cause significant adverse impacts regarding land use, zoning, and public policy; socioeconomic conditions; open space; urban design and visual resources; or noise. The potential significant adverse impacts on transportation would not affect neighborhood character; while there would be increased activity, the resulting conditions would not be out of character with the East Midtown area, and thus the incremental changes would not constitute significant impacts on neighborhood character.

Potential significant adverse impacts on historic resources would not result in a significant adverse impact on neighborhood character. According to the *CEQR Technical Manual*, a significant impact identified in one of the technical areas that contributes to neighborhood character is not automatically equivalent to a significant impact on neighborhood character; while a neighborhood with a uniform and consistent context would typically be sensitive to change, a neighborhood that has a more varied context is typically better able to tolerate greater changes without experiencing significant impacts to its overall character. The significant adverse impact on historic resources would not alter the overall character of East Midtown as an area characterized by a varied context of older buildings interspersed with modern construction. In addition, the iconic historic structures that are defining features of neighborhood character—Grand Central Terminal, the Helmsley Building, St. Patrick's Cathedral, St. Bartholomew's Church and Community House, the Chrysler Building, the Seagram Building, and Lever House—would not be displaced. The potential significant adverse shadow impacts on stained glass windows at St. Bartholomew's Church and Community House, and the Lady Chapel of St. Patrick's Cathedral, would not affect the characteristics of those structures, including their architecture, setting and cultural significance, which make them defining features of neighborhood character.

Just as potential significant adverse impacts in the relevant technical areas would not affect any defining feature of neighborhood character, no moderate adverse effects that would affect such defining features—either singularly or in combination—have been identified.

Therefore, based on the results of the preliminary assessment, a detailed assessment is not warranted, and the Proposed Action would not have a significant adverse neighborhood character impact.

5.17 Construction

5.17.1 Transportation

Construction of the Proposed Action is expected to result in significant adverse traffic impacts, as described below. No significant adverse impacts to parking, transit, or pedestrian conditions are anticipated.

a. Traffic

During construction activities, traffic would be generated by construction workers commuting via autos and trucks and making deliveries to projected development sites. The results of a detailed traffic analysis show that the Proposed Action would have significant adverse impacts to seven intersections during the construction AM peak hour (6:00–7:00 a.m.). Measures to address these impacts are described in the "Mitigation" section below.

b. Parking

During construction activities, the parking demand associated with construction workers commuting via private automobiles and completed projects within the rezoning area would be adequately accommodated by available parking spaces in off-street parking facilities within a ¼-mile radius of the rezoning area.

c. Transit

The construction sites are located in an area that is well served by public transportation. A total of 8 subway stations/complexes, 16 local bus routes, 54 express bus routes, and 1 commuter rail station are located in the vicinity of the rezoning area. Given the magnitude of public transit services in the study area, trips made using transit during the construction peak hours would be spread among several projected development sites within the rezoning area and distributed between numerous subway stations, bus routes and commuter rail at Grand Central Terminal. As this would result in nominal increases in transit demand at individual station entrances and bus routes outside of the typical commuter peak periods, as a consequence it is not expected that peak construction activities would result in a potential for significant adverse impact to transit services.

d. Pedestrians

Incremental pedestrian trips during construction activities would be widely dispersed among sidewalks, corners, and crosswalks in the area and would not coincide with commuter peak hours. No significant adverse impacts to pedestrian conditions would be anticipated to occur during construction. At locations where temporary sidewalk closures are required during construction activities, adequate protection or temporary sidewalks and appropriate signage would be provided in accordance with New York City Department of Transportation (DOT) requirements.

5.17.2 Air Quality

Construction activities could affect local air quality because of engine emissions generated by on-site construction equipment and trucks entering/exiting the site during construction, and because of fugitive

dust emissions generated by construction activities. An analysis of emissions from on-site construction activities and off-site (trucks and vehicles) was undertaken to quantify the potential effects of emissions from the proposed project.

The analysis first estimated the $PM_{2.5}$ emissions generated for each phase of construction for all proposed sites on a quarterly basis from 2016 to 2033. The period with the highest cumulative emissions (second quarter of 2022) was selected as the period with the highest potential for combined $PM_{2.5}$ emissions from all proposed sites. Then an impact assessment was performed for all applicable pollutants (using dispersion models) for the cluster of proposed sites under construction during this peak period. Projected Development Sites 5, 6, 7, 8, and 11 (located between Vanderbilt and Fifth Avenues and East 43rd to East 48th Streets) were included in the modeling impact assessment, which predicted the cumulative effect of the emissions for each one of these sites, including on-site and off-site sources.

This quantitative analysis indicated that the proposed project would not result in any concentrations of NO_2, PM_{10}, and CO that exceed the National Ambient Air Quality Standards (NAAQS). In addition, the maximum predicted incremental concentrations of $PM_{2.5}$ would not exceed the City's applicable interim guidance criteria. Between Draft and Final EIS additional elevated receptors would be analyzed, at sidewalks and adjacent buildings facades in proximity of the construction sites, to confirm those locations would also not exceed the interim guidance criteria. However, based on initial screening it would be very unlikely that this additional analysis would result in a different impact assessment conclusion. Therefore, no significant adverse air quality impacts are expected from the construction-related sources.

5.17.3 Noise and Vibration

A construction noise analysis was performed to quantify the magnitude of construction-related noise exposure for the peak construction time period of the second quarter of 2022. The findings indicate that noise levels above the CEQR 5 dBA impact threshold are expected at several existing adjacent buildings to Projected Development Sites 5, 6, and 7. The highest noise levels are projected to be at ground level and at elevated receptor locations adjacent to existing commercial buildings on West 43rd Street between Madison and Fifth Avenues that border Projected Development Site 5. Although these locations are expected to experience exterior noise levels significantly above CEQR limits, for those buildings with double-paned glazed-glass windows and a closed ventilation system, it would keep interior noise levels for those buildings below or near the CEQR 50-dBA L_{10} impact threshold. The interior noise levels of these adjacent commercial buildings would likely approach or marginally exceed the CEQR 50-dBA L_{10} impact threshold for short periods of time. The potential does exist for similar noise-level increases at these and/or other receptor locations in the immediate vicinity of Project Development Sites 5, 6, and 7 during other construction quarters bordering this peak construction period (i.e., second quarter of 2022). An evaluation of construction noise exposure during the quarters covering the time period of 2021 to 2023 will be completed between Draft and Final EIS. If that analysis finds that a significant adverse construction noise impact would occur, mitigation measures will be explored and presented in the Final EIS.

The buildings of most concern with regard to potential damage from vibration generated during construction are those buildings located immediately adjacent or across the street from a proposed development site. Commercial buildings adjacent to Projected Development Sites 5 and 6 between Madison and Fifth Avenues could experience elevated vibration levels. No pile driving or blasting is

expected as part of construction resulting from the Proposed Action. The types of construction activities expected to occur during the peak construction period are on the lower end of vibration-generating equipment—vibratory roller, hoe ram, bulldozer and loaded trucks—with the largest peak-particle velocity (PPV) of 0.20 inch per second, which is well below the 0.50 inch per second PPV vibration limit for structural damage. However, vibration perception above the 65 VdB annoyance limit could extend outward for approximately 230 feet from the source, but this would be during limited periods of time at a particular location and therefore would not result in any significant adverse impact due to vibration.

5.17.4 Other Technical Areas

a. Land Use and Neighborhood Character

Construction of the 19 projected development sites would be spread out over a period of 16-1/2 years, throughout approximately 70-block rezoning area. Throughout the construction period, access to residences, businesses and institutions in the area surrounding the development sites would be maintained, as required by City regulations. In addition, measures would be implemented to control noise, vibration, emissions and dust on construction sites, including the erection of construction fencing incorporating sound reducing measures and other requirements as dictated by the New York City construction noise code. Since none of these impacts would be continuous or ultimately permanent, they would not create significant impacts on land use patterns or neighborhood character in the area. Therefore, while construction of the new buildings resulting from the Proposed Action would cause temporary impacts, particularly related to noise, it is expected that such impacts in any given area would be relatively short term, even under the worst-case construction sequencing and therefore not create a neighborhood character impact. Therefore, no significant construction impacts to land use and neighborhood character are expected.

b. Socioeconomics

During the construction period, construction activities would be dispersed throughout the 70-block proposed rezoning area and would not affect access to particular businesses over an extended duration. Therefore, construction impacts to socioeconomic conditions are not expected.

c. Open Space

No open space resources would be disrupted during the construction resulting from the Proposed Action, nor would any access to publically accessible open space be impeded during construction within the proposed rezoning area. In addition, measures would be implemented to control noise, vibration, emissions and dust on construction sites, including the erection of construction fencing incorporating sound reducing measures. Since none of these impacts would be continuous or ultimately permanent, they would not create significant impacts on open space in the area. Therefore, while construction of the new buildings due to the Proposed Action would cause temporary impacts, particularly related to noise, it is expected that such impacts in any given area would be relatively short term, even under the worst-case construction sequencing and therefore not create an open space impact. Therefore, no significant construction impacts to open space are expected.

d. Historic and Cultural Resources

The New York City Landmarks Preservation Commission (LPC), at DCP's request, reviewed the identified projected and potential development sites that could experience new/additional in-ground

disturbance as a result of the Proposed Action, and concluded that none of the lots comprising those sites have any archaeological significance. As such, the Proposed Action is not expected to result in any significant adverse impacts to archaeological resources.

The Proposed Action would result in development on both projected and potential development sites that are located within 90 feet of a designated New York City Landmark (NYCL) or a resource that is listed on the State/National Register of Historic Places (S/NR); however, these resources would not be adversely impacted by construction because they would be subject to protection from construction-related damage under the New York City Department of Buildings' (DOB) Technical Policy and Procedure Notice (TPPN) #10/88. However, there are also 24 NYCL- and/or S/NR-eligible resources located within 90 feet of the projected and potential development sites for which TPPN #10/88 would not apply and, therefore, the Proposed Action could potentially result in construction-related impacts to these eligible resources. Possible measures that may address these impacts are discussed in the "Mitigation" section below.

e. Hazardous Materials

A preliminary screening of potential hazardous materials impacts was performed for all of the 19 projected and 20 potential development sites. The hazardous materials assessment identified that each of the projected and potential development sites has some associated concern regarding environmental conditions. As a result, the proposed zoning map actions include (E) designations for all of the projected and potential development sites. Therefore, the Proposed Action is not expected to result in significant adverse impacts related to hazardous materials.

With the requirements of the (E) designation on the projected and potential development sites, there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures required under the (E) designation would serve to avoid the potential that significant adverse hazardous materials impacts would result from construction on the projected and potential development sites resulting from the Proposed Action. Following such construction, there would be no potential for significant adverse impacts.

5.18 Mitigation

In accordance with the *City Environmental Quality Review (CEQR) Technical Manual*, where significant adverse impacts are identified, mitigation to reduce or eliminate the impacts to the fullest extent practicable is developed and evaluated.

Measures to further mitigate adverse impacts may be refined and evaluated between Draft and Final EIS. Therefore, the Final EIS may include more complete information and commitments on all practicable mitigation measures to be implemented with the Proposed Action.

5.18.1 Shadows

As discussed in "Shadows," the Proposed Action would result in significant adverse shadows impacts on three historic architectural resources, namely St. Bartholomew's Church, Lady Chapel of St. Patrick's Cathedral, and Community House and Christ Church United Methodist; there would be no significant adverse shadows impacts on open spaces. These impacts are the result of incremental shadows during

limited time periods on certain analysis days cast by Projected Development Site 12 and Potential Development Site 14 on St. Bartholomew's Church and Community House, incremental shadows cast by Projected Site 12 on Lady Chapel, and incremental shadows cast by Projected Development Site 18 on Christ Church United Methodist.

Relocating the Proposed Action so that it does not cast an incremental shadow on these historic resources (e.g., by removing all or portions of the projected and potential development sites from the rezoning proposal) is not a practical solution from a zoning standpoint. Further, removal of the development sites from the proposal would be inconsistent with the overall purpose and need of the Proposed Action.

Between Draft and Final EIS, the lead agency will explore whether changes to the bulk regulations governing Projected Development Site 12, Potential Development Site 14, and Projected Development Site 16 that would reduce or eliminate the incremental shadow that causes the impact are feasible.

Another measure would be to provide for indirectly mounted lighting that would serve as a substitute for the sunlight on these sun-sensitive features. In order to adopt this measure in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance, since it is not known and cannot be assumed that owners of these properties would voluntarily implement this mitigation. DCP, as lead agency, will explore the viability of this mitigation measure between Draft EIS and Final EIS.

Absent measures that can be implemented to mitigate these impacts, the Proposed Action's significant adverse shadows impacts would therefore remain unmitigated.

5.18.2 Historic and Cultural Resources

As discussed in "Historic and Cultural Resources," the Proposed Action could result in significant adverse impacts due to potential partial or complete demolition of 14 historic resources that are eligible for New York City Landmark (NYCL) designation and/or inclusion on the State and/or National Register of Historic Places (S/NR), located on Projected Development Sites 6, 7, 9, and 16 and Potential Development Sites 2, 5, 9, 12, 13, and 19.

Redesigning or relocating the Proposed Action so that it does not disturb the eligible resources by eliminating those development sites from the rezoning proposal would be inconsistent with the overall purpose and need of the Proposed Action and is considered infeasible and impracticable as it would result in an incoherent zoning plan that would not allow for the establishment of an area-wide East Midtown Subdistrict. Contextual redesign, adaptive reuse and the use of a construction protection plan are not available as mitigation measures, given the nature of the Proposed Action as an area-wide rezoning.

Measures that would partially mitigate these significant adverse impacts could include photographically documenting the eligible structures in accordance with Historic American Buildings Survey (HABS) level II, as per National Park Service standards and/or placement of an interpretive exhibit within the lobby of new construction. In order to adopt these measures in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance since it is not known and cannot be assumed that

owners of these properties would voluntarily implement this partial mitigation. DCP, as lead agency, will explore the viability of these mitigation measures between Draft EIS and Final EIS.

For those structures that are NYCL-eligible, LPC may elect to calendar, and then conduct a hearing and designate the structures, either in whole or in part, as landmark buildings. Should the New York City Department of Buildings (DOB) issue a notice of pending demolition to LPC with respect to a calendared building, LPC would have 40 days to decide whether to designate. During this period, the owners of the property may work with LPC to modify their plans to make them appropriate. In the event that landmark designation is approved, LPC approval would be required for any alteration or demolition of the designated structures. Designation would avoid any impacts with respect to the eligible resources. However, as the potential for use and results of any designation process cannot be assumed or predicted, designation is not considered a mitigation measure.

The above measures, if deemed feasible, would only be considered partial mitigation. Consequently, these impacts would not be completely eliminated and they would constitute unavoidable significant adverse impacts on these historic resources as a result of the Proposed Action.

5.18.3 Transportation

a. Traffic

As described in "Transportation," the Proposed Action would result in significant adverse traffic impacts at 53 intersections during one or more analyzed peak hours; specifically 57 approach movements at 41 intersections would be impacted during the AM peak hour, 38 approach movements at 29 intersections would be impacted during the Midday peak hour, and 35 approach movements at 27 intersections would be impacted during the PM peak hour. Implementation of traffic engineering improvements such as signal timing changes or modifications to curbside parking regulations would provide mitigation for nearly all of the anticipated traffic impacts. Table 7 shows that significant adverse impacts would be fully mitigated at all but 16 approach movements at 9 intersections during the AM peak hour, 3 approach movements at 2 intersections during the Midday peak hour, and 11 approach movements at 8 intersections during the PM peak hour. Table 8 provides a more detailed summary of the intersections and approach movements that would have significant adverse traffic impacts and specifies if the impacts would be fully mitigated.

TABLE 7: SUMMARY OF MOVEMENTS/INTERSECTIONS WITH SIGNIFICANT ADVERSE TRAFFIC IMPACTS

Peak Hour	Movements/ Intersections Analyzed	Movements/ Intersections With No Significant Impacts	Movements/ Intersections With Significant Impacts	Mitigated Movements/ Intersections	Unmitigated Movements/ Intersections
AM	294/90	237/49	57/41	42/32	16/9
Midday	287/90	249/61	38/29	35/27	3/2
PM	299/90	264/63	35/27	25/19	11/8

Source: Parsons Brinckerhoff, Inc., 2013

Between Draft and Final EIS, DOT will review the specific measures proposed for each intersection to confirm adequacy and feasibility of their implementation and recommend changes as necessary. If it is

determined that a specific measure is not feasible at a particular location, DCP in consultation with DOT will explore other mitigation measures to mitigate impacts. However, if it is determined that other measures are not available to mitigate the identified impacts, either in part or in whole, the impact would be identified in the FEIS as unmitigable.

TABLE 8: SUMMARY OF LOCATIONS WITH SIGNIFICANT ADVERSE TRAFFIC IMPACTS

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Significant Impacts	Mitigation	Significant Impacts	Mitigation	Significant Impacts	Mitigation
First Avenue @ East 42nd Street (East Side)	EB-LT	Yes			EB-LT	No
First Avenue @ East 46th Street			EB-L	Yes	EB-L	Yes
First Avenue @ East 47th Street					NB-T	Yes
First Avenue @ East 48th Street	NB-R	Yes			NB-R	Yes
Second Avenue @ East 42nd Street	WB-DefL	Yes	SB-L	Yes	SB-L	Yes
Second Avenue @ East 44th Street	EB-TR	Yes			EB-TR	Yes
Second Avenue @ East 45th Street	WB-LT	Yes				
Second Avenue @ East 46th Street			EB-TR	Yes	EB-TR	Yes
Second Avenue @ East 49th Street			WB-LT	Yes		
Second Avenue @ East 57th Street	SB-TR	Yes	EB-TR, SB-TR	Yes	SB-TR	Yes
Third Avenue @ East 42nd Street	EB-L, EB-T, WB-T, WB-R, NB-R	No	EBL, WB-R	Yes	WB-R, NB-R	No
Third Avenue @ East 44th Street			NB-R	Yes		
Third Avenue @ East 50th Street	NB-R	Yes	NB-R	Yes	NB-R	Yes
Third Avenue @ East 57th Street					EB-T	Yes
Lexington Avenue @ East 39th Street	WB-T	Yes				
Lexington Avenue @ East 51st Street			WB-L	Yes		
Park Avenue @ East 39th Street	WB-LT, WB-TR	Yes	WB-LT, WB-TR	Yes	WB-TR, SB-TR	Yes
Park Avenue @ East 48th Street			EB-LT	Yes		
Park Avenue @ East 56th Street			EB-LT	Yes		
Madison Avenue @ East 39th Street	WB-T, WB-R	Yes	WB-R	Yes	WB-T, WB-R	Yes
Madison Avenue @ East 40th Street	EB-L, EB-T	Yes			EB-T	Yes
Madison Avenue @ East 42nd Street	NB-LT	Yes	NB-LT	Yes		
Madison Avenue @ East 43rd Street	NB-L, NB-T	Yes				
Madison Avenue @ East 44th Street	EB-LT, NB-T, NBR	No	EB-LT, NB-T	Yes	EB-LT	No
Madison Avenue @ East 45th Street	NB-T	Yes	NB-T	Yes	NB-T	Yes
Madison Avenue @ East 46th Street	EB-LT, NB-T	Yes	EB-LT, NB-T	Yes	EB-LT, NB-R	Yes
Madison Avenue @ East 47th Street	WB-T, NB-LT	Yes	WB-T, NB-L	Yes	WB-T, WB-R	Yes
Madison Avenue @ East 49th Street	WB-TR, NB-T	Yes				
Madison Avenue @ East 51st Street	NB-T	Yes	NB-T	Yes	NB-T	No
Madison Avenue @ East 53rd Street	NB-T	Yes	NB-T	Yes		
Madison Avenue @ East 57th Street	NB-T	Yes				
Fifth Avenue @ 42nd Street	SB-LT	No			SB-LT	Yes
Fifth Avenue @ 43rd Street	SB-T, SB-R	Yes	SB-R	Yes		
Fifth Avenue @ 44th Street	SB-LT	Yes	SB-LT	Yes	SB-LT	Yes
Fifth Avenue @ 45th Street	SB-T	Yes				
Fifth Avenue @ 46th Street	EB-TR, SB-LT	Yes	EB-TR, SB-LT	Yes	EB-TR, SB-LT	Yes
Fifth Avenue @ 47th Street	WB-L, SB-T	No	WB-L, SB-T	No	WB-L	No
Fifth Avenue @ 48th Street	SB-LT	No	EB-R, SB-LT	Yes	EB-R, SB-LT	No
Fifth Avenue @ 49th Street	SB-T	Yes				
Fifth Avenue @ 50th Street	SB-LT	Yes				
Fifth Avenue @ 51st Street	SB-T	No				
Fifth Avenue @ 52nd Street	SB-LT	No	SB-LT	Yes		
Fifth Avenue @ 53rd Street	SB-T	Yes				
Fifth Avenue @ 54th Street	SB-LT	Yes				
Fifth Avenue @ 56th Street	SB-LT	Yes				
Fifth Avenue @ 57th Street	SB-LT	No				
Fifth Avenue @ 59th Street	SB-LT	No	SB-LT	No	SB-LT	No
Sixth Avenue @ West 40th Street	NB-TR	Yes	EB-LT	Yes		
Sixth Avenue @ West 42nd Street	NB-R	Yes				
Sixth Avenue @ West 44th Street					NB-R	Yes
Sixth Avenue @ West 45th Street			WB-R	Yes		
Sixth Avenue @ West 46th Street					NB-R	No
Route 9A @ West 56th Street	NB-T	Yes				

Notes:
NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound
L = Left-Turn; T = Through; R = Right-Turn
Mitigation = Mitigation Provided; Unmitigatable Impacts are highlighted

Source: Parsons Brinckerhoff, Inc., 2013

b. Transit

Bus

The Proposed Action would result in capacity shortfalls of 64 spaces on eastbound M42 service in the AM peak hour and 56 spaces on westbound M42 service in the PM peak hour. These significant adverse impacts to M42 local bus service could be fully mitigated by the addition of two standard buses in the eastbound direction in the AM peak hour and two in the westbound direction in the PM. Alternatively, conversion of the M42 route to articulated bus service could be another option for providing needed capacity.

The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints. Based on NYCT's ongoing passenger monitoring program and as new development occurs throughout the study area, a comprehensive service plan would be generated to respond to specific, known needs with capital and/or operational improvements where fiscally and operationally practicable. NYCT's capital program is developed on a five-year cycle; through this program, expansion of bus services would be provided as needs are determined. It is therefore anticipated that NYCT would increase service frequency on the M42 route to address its capacity shortfalls.

c. Pedestrians

Incremental demand from the Proposed Action would significantly adversely impact a total of two sidewalks, 26 crosswalks and eight corner areas in one or more peak hours.

Sidewalks

Two of the 27 analyzed sidewalks are expected to be significantly adversely impacted during the AM and PM peak hours – the north sidewalk on East 43rd Street between Vanderbilt and Madison Avenues, and the north sidewalk on East 43rd Street between Madison and Fifth Avenues. Widening the segment of the north sidewalk between Vanderbilt and Madison Avenues by 1.5 feet adjacent to the location of security bollards at a Metro-North entrance would fully mitigate all significant impacts to this sidewalk. The significant impacts to the north sidewalk between Madison and Fifth Avenues would be fully mitigated by relocating the single tree pit located along this sidewalk. No unmitigated significant adverse sidewalk impacts would remain upon incorporation of these recommended mitigation measures.

Crosswalks

Twenty-six of the 76 crosswalks analyzed would be significantly adversely impacted by new pedestrian demand generated by the Proposed Action in one or more peak hours. Some of these impacts would be worsened, and additional impacts created, by signal timing changes recommended as traffic mitigation and sidewalk extensions recommended as corner mitigation. Measures recommended to mitigate these crosswalk impacts generally consist of crosswalk widening and/or minor signal timing adjustments. With the recommended mitigation measures, the significant crosswalk impacts at 22 of the 26 impacted crosswalks would be fully mitigated. However, as shown in Table 9, no practicable mitigation was identified for impacts at a total of four crosswalks, and impacts in one or more peak hours at these locations would remain unmitigated.

TABLE 9: UNMITIGATED PEDESTRIAN IMPACTS

Intersection	Impacted Element	Peak Hour With Unmitigated Impacts		
		AM	Midday	PM
Third Ave/East 42nd Street	NW Corner	X		
Lexington Ave/East 50th Street	NW Corner			X
Madison Ave/East 45th Street	North Crosswalk	X	X	
Madison Ave/East 43rd Street	NE Corner	X	X	
Madison Ave/East 42nd Street	NW Corner	X		X
Fifth Ave/ East 46th Street	South Crosswalk	X*	X	
Fifth Ave/ East 44th Street	South Crosswalk	X*	X*	
Fifth Ave/ East 42nd Street	South Crosswalk			X

Notes:
*- No significant adverse impact for the With-Action condition. Significant adverse impact is due to changes in traffic signal timing as part of traffic mitigation measures.

Corner Areas

Eight of the 62 analyzed corner areas would be significantly adversely impacted in one or more peak hours as a result of new demand generated by the Proposed Action. Additional significant corner impacts would be created by signal timing changes recommended as traffic mitigation. The proposed mitigation measures generally consist of relocating sidewalk furniture out of the corner area and installing six-foot sidewalk extensions (bulb outs) to increase the available pedestrian space. (Bulb outs were found to be infeasible at some locations due to their effects on traffic flow or the presence of curbside bus lanes.) With the recommended mitigation measures, the significant impacts at three of eight impacted corner areas would be fully mitigated. However, as shown in Table 9, no practicable mitigation was identified for impacts at a total of four corner areas, and impacts in one or more peak hours at these locations would remain unmitigated.

5.18.4 Construction

a. Historic and Cultural Resources

As discussed in "Construction," development under the Proposed Action—specifically, on Projected Development Sites 3, 6, 9, 10, 12, and 16, and Potential Development Sites 2-7, 12, 13, 15, and 20—could result in inadvertent construction-related damage to 24 NYCL- and/or S/NR-eligible historic resources, as they are located within 90 feet of projected and/or potential development sites. If these eligible resources are designated in the future prior to the initiation of construction, the protective measures of New York City Department of Buildings (DOB) Technical Policy and Procedure Notice (TPPN) #10/88 would apply and indirect significant adverse impacts resulting from construction would be avoided. Should they remain undesignated, however, the additional protective measures of TPPN #10/88 would not apply, and the potential for significant adverse construction-related impacts would not be mitigated.

In order to make TPPN #10/88 applicable to eligible historic resources in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance, since it is not known and cannot be

assumed that owners of these properties would voluntarily implement this mitigation. DCP, as lead agency, will explore the viability of this mitigation measure between Draft EIS and Final EIS.

Absent measures that can be implemented to mitigate these impacts, the Proposed Action's significant adverse construction-related impacts would therefore remain unmitigated.

b. Traffic

As described in "Construction," construction-related traffic would have significant adverse impacts to seven intersections during the 6:00-7:00 am peak hour. Implementation of traffic engineering improvements such as signal timing changes or modifications to curbside parking regulations would provide mitigation for all of the anticipated traffic impacts.

c. Construction Noise

As discussed in "Construction," construction activities associated with the Proposed Action would occur on multiple development sites within the same geographic area and, as the result, has the potential to increase interior noise levels of existing adjacent commercial buildings. These increases would likely approach or marginally exceed the impact threshold for short periods of time and has the potential during other construction quarters bordering the peak construction period.

According to the *CEQR Technical Manual*, mitigation for construction noise impacts may include noise barriers, use of low noise emission equipment, locating stationary equipment as far as feasible away from receptors, enclosing areas, limiting the duration of activities, specifying quiet equipment, scheduling of activities to minimize impacts (either time of day or seasonal considerations), and locating noisy equipment near natural or existing barriers that would shield sensitive receptors.

An evaluation of construction noise exposure during the quarters covering the time period of 2021 to 2023 will be completed between Draft and Final EIS. If that analysis finds that a significant adverse construction noise impact would occur, consideration of potential mitigation measures to reduce the severity and duration of the noise from on-site equipment, will be carried out between the Draft and Final EIS. If the further analysis confirms that a significant adverse construction noise impact would occur, and if no suitable, implementable measures that would successfully mitigate the significant adverse impact are identified, then the Proposed Action would cause an unmitigated significant adverse construction noise impact.

5.19 Alternatives

5.19.1 No-Action Alternative

The No-Action Alternative examines future conditions without the Proposed Action. This includes no amendments to the zoning map, no new zoning text amendments to establish the proposed East Midtown Subdistrict of the Special Midtown District, and no City Map amendment to reflect a Public Place designation along portions of Vanderbilt Avenue. Under the No-Action Alternative, it is anticipated that new development would occur on 10 of the Proposed Action's 19 projected development sites. In total, on the 19 projected development sites, there would be approximately 776 dwelling units (DUs), 529,328 gsf of retail, 6,519,633 gsf of commercial office, and 2,010,947 gsf of hotel space.

The technical chapters of this EIS have described the No-Action Alternative as "the Future Without the Proposed Action." The significant adverse impacts anticipated for the Proposed Action would not occur with the No-Action Alternative. However, the No-Action Alternative would not achieve the goals of the Proposed Action, and the benefits expected to result from the Proposed Action—including protecting, promoting, and strengthening East Midtown as a premier business district; directing higher densities to areas that can accommodate future growth; and improving the area's pedestrian network—would not be realized under the No-Action Alternative. Without the Proposed Action, the trend toward the conversion of East Midtown's existing office buildings to other uses would continue, and the percentage of the area's square footage devoted to office uses under the No-Action Alternative would be lower compared to existing conditions. As a result, the area's distinction as one of the world's premier business addresses and key job centers for the City and the region would be at risk under this alternative.

5.19.2 No Unmitigated Significant Adverse Impact Alternative

The No Unmitigated Significant Adverse Impacts Alternative considers an alternative to the Proposed Action whereby new development would not result in any unmitigated significant adverse impacts that could not be fully mitigated. There is the potential for the Proposed Action to result in a number of significant adverse impacts for which no practicable mitigation has been identified to fully mitigate the impacts. Specifically, unmitigated impacts were identified with respect to shadows, historic and cultural resources (architectural resources only), transportation (traffic and pedestrians), and construction.

Several ways in which shadow impacts on the identified architectural resources can be mitigated were identified by DCP including relocating the action, reducing or eliminating the incremental shadows by modifying building bulk regulations, and providing indirectly mounted artificial lighting on affected resources. Relocating the Proposed Action so that it does not cast an incremental shadow on these historic resources (e.g., by removing all or portions of the projected and potential development sites from the rezoning proposal) is not a practical solution from a zoning standpoint. Further, removal of the development sites from the proposal would be inconsistent with the overall purpose and need of the Proposed Action.

Changes to the bulk regulations governing the development sites would reduce or eliminate the incremental shadow that causes the significant adverse shadow impacts are feasible. Another measure that would reduce or eliminate the significant adverse shadow impacts would be to provide for indirectly mounted lighting that would serve as a substitute for the sunlight on the sun-sensitive features of these resources. In order to adopt this measure in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance, since it is not known and cannot be assumed that owners of these properties would voluntarily implement this mitigation.

Between Draft and Final EIS, the lead agency will consider whether modifications to the height and other bulk regulations governing Projected Development Site 12, Potential Development Site 14 and Projected Development Site 18 are feasible, consistent with the goals and purposes of the Proposed Action that would serve to eliminate the significant adverse shadow impacts.

There are several ways in which impacts on architectural resources can be mitigated, including: redesigning the action so that it does not disturb the resource; relocating the action to avoid the resource

altogether; contextual redesign of a project that does not actually physically affect an architectural resource but would alter its setting; adaptive reuse to incorporate the resource into the project rather than demolishing it; or a construction protection plan to protect historic resources that may be affected by construction activities related to a proposed action. Redesigning or relocating the Proposed Action so that it does not disturb the eligible resources located on the above-mentioned development sites by eliminating these development sites from the rezoning proposal would be inconsistent with the overall purpose and need of the Proposed Action and is considered infeasible and impracticable as it would result in an incoherent zoning plan that would not allow for the establishment of an area-wide East Midtown Subdistrict. Contextual redesign, adaptive reuse and the use of a construction protection plan are not available as mitigation measures, given the nature of the Proposed Action as an area-wide rezoning. There are no mitigation measures available that would eliminate, and thus fully mitigate, the significant adverse impacts, in a way that would be consistent with the goals and purposes of the Proposed Action.

With respect to transportation, small increases in incremental project-generated traffic volumes at some of the congested intersection approach movements would result in significant adverse impacts that could not be fully mitigated during one or more analysis peak hour, and almost any new development in the rezoning area could result in unmitigated traffic impacts. Furthermore, small incremental increases in project-generated pedestrian volumes at some of the congested crosswalks and corners would result in significant adverse impacts that could not be fully mitigated during one or more analysis peak hour, and almost any new development in the rezoning area could result in unmitigated pedestrian impacts. Therefore, no reasonable alternative could be developed to completely avoid such traffic impacts, as well as pedestrian impacts, without substantially compromising the Proposed Action's stated goals. Similarly, no reasonable alternative could be developed

In order to entirely avoid the potential unmitigated adverse construction-related impacts, this alternative would need to require that that TPPN #10/88 be applicable to eligible historic resources or eliminate the development sites containing the eligible resources from the rezoning proposal. The latter would be inconsistent with the overall purpose and need of the Proposed Action. As to the former, in order to make TPPN #10/88 applicable to eligible historic resources in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance, since it is not known and cannot be assumed that owners of these properties would voluntarily implement this mitigation.

Between Draft and Final EIS, the lead agency will consider whether modifications to the rezoning proposal to make TPPN #10/88 applicable to eligible historic resources are feasible, consistent with the goals and purposes of the Proposed Action that would serve to eliminate the significant adverse construction-related impacts to these eligible historic resources.

To eliminate the potential unmitigated significant adverse impacts due to construction noise, the Proposed Action would have to be modified to prohibit construction occurring concurrently for multiple development sites within the same geographic area during the construction phasing contributing so the construction peak period so to reduce construction noise to acceptable noise levels (less than 5 dBA) at sensitive receptors adjacent to these sites. However, this would be inconsistent with the overall purpose and need of the Proposed Action.

Overall, in order to eliminate all unmitigated significant adverse impacts, the Proposed Action would have to be modified to a point where its principal goals and objectives would not be realized.

5.19.3 Smaller Rezoning Area/Lesser Density Alternative

The Smaller Rezoning Area/Lesser Density (SRA/LD) Alternative was developed for the purpose of assessing whether reducing the affected area of the proposed rezoning to the Grand Central Subarea would eliminate or reduce the significant adverse impacts of the Proposed Action while also meeting the goals and objectives of the Proposed Action. As under the Proposed Action, a new East Midtown Subdistrict would be mapped within the existing Special Midtown District. However, in the SRA/LD Alternative, the Park Avenue Subarea and Other Areas would not be included in the rezoning area, in effect reducing the affected rezoning area to the approximately 35-block area generally bounded by East 39th Street to the south, East 49th Street to the north, a line approximately 150 feet east of Fifth Avenue to the west, and a line a line approximately 125 feet west of Third Avenue to the east. As such, the RWCDS for the SRA/LD Alternative would be limited to the 14 of the 19 projected development sites and the 9 of the 20 potential development sites located within the proposed Grand Central Subarea.

The SRA/LD Alternative would result in an equivalent amount of residential development as the Proposed Action, and would reduce the amount of commercial development, including office, retail and hotel uses, in the study area as compared to the Proposed Action. Overall, the SRA/LD Alternative would represent an approximate 11.8 percent reduction in the increment of commercial space over the No-Action condition, compared to the Proposed Action.

The same development mechanisms would apply in the SRA/LD Alternative, including the ability for Qualifying Sites to utilize the new District Improvement Bonus (DIB) and as-of-right landmark transfer mechanism, the ability for buildings with non-complying floor area that meet certain site criteria to be rebuilt to their existing density through a discounted DIB contribution, and the ability to transfer 1.0 FAR from Landmarks to Non-Qualifying sites. The SRA/LD Alternative would result in a lower overall contribution to the District Improvement Fund (DIF) of approximately 27 percent below what would be realized under the RWCDS for the Proposed Action. However, it would continue to be sufficient to fund the City-priority improvements to the pedestrian network, both above and below grade, for the Grand Central subway station and Vanderbilt Avenue.

As with the Proposed Action, the SRA/LD Alternative would not result in significant adverse impacts with respect to: land use, zoning, and public policy; socioeconomic conditions; open space; urban design and visual resources; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; energy; air quality; greenhouse gas emissions; noise; public health; and neighborhood character. Unlike the Proposed Action, which would result in significant adverse shadows impacts on the sunlight-sensitive features of St. Bartholomew's Church and Community House, the Lady Chapel of St. Patrick's Cathedral, and Christ United Methodist Church, the SRA/LD Alternative would not result in any significant adverse shadows impacts. Compared to the Proposed Action, the SRA/LD Alternative would reduce but not entirely eliminate the significant adverse impacts related to historic resources, transportation, and construction.

The SRA/LD Alternative would support, to a lesser degree, the Proposed Action's intent of focusing future development around Grand Central Terminal (given its access to regional rail and large

concentration of aging office stock) and preserving and promoting office uses in East Midtown. However, by reducing the area of the proposed East Midtown Subdistrict, the benefits of protecting and strengthening East Midtown as one of the world's premier business addresses would be limited to a smaller 35-block area.

5.19.4 Other Suggested Alternatives

The Department considered a number of possible alternatives and modifications to the Proposed Action which were proposed by members of the public in response to the Draft Scope of Work (DSOW) and concluded that they would not meet the Proposed Action's goals and objectives, or would not have the potential to reduce, eliminate or avoid adverse impacts of the Proposed Action. These are addressed in the Response to DSOW Comments document. Several of these are also discussed more fully below.

a. Hotel Special Permit

This suggested alternative would require a special permit for new Use Group 5 transient hotel uses in the East Midtown Subdistrict, which may be developed today on an as-of-right basis without discretionary review. As is the case today, hotels are a key component of the vibrant business district envisioned under the Proposed Action. Hotels provide accommodations for visitors, space for meetings, conferences and entertainment, foot traffic for businesses in the area and jobs for New Yorkers. East Midtown is, in fact, an ideal location for hotels—it is centrally located with excellent access to mass transit, and is home to some of the City's best business, landmark and tourist destinations. From the opening of Grand Central Station's predecessor terminal in 1871, the area has been characterized by the presence of hotels. Indeed, East Midtown's office cluster grew along with and amidst the addition of new hotels. Today, there are over 25 hotels in East Midtown. Hotels in East Midtown are key to the continuing growth of New York City's tourism industry, and they continue to be integral to Midtown's identity and commercial success.

Special permits are utilized under the Zoning Resolution where a use should be permitted only where it meets findings and conditions necessary to avoid potential land use impacts which have been identified as associated with the use. There are no potential adverse land use impacts which have been identified with existing hotels in Midtown and no land-use based rationale for making this as-of-right use subject to a special permit has been documented or proffered. Non-land use considerations are not a legitimate basis for requiring a special permit. Further, requiring a lengthy and costly special permit process for the development of hotels could serve to discourage the development of hotels, contrary to the goals and objectives of the Proposed Action.

For all of the foregoing reasons, analysis of this special permit alternative is therefore not warranted.

b. Permitting Residential Use on Qualifying Sites

This suggested alternative would permit a portion of the floor area in a new, predominantly commercial building in the East Midtown Subarea on a Qualifying Site to be residential. The purpose of the Proposed Action is to promote the creation of modern commercial space that would allow East Midtown to offer a range of commercial space options needed for an economically healthy business district. The rezoning therefore includes provisions for increased commercial density through a simplified review process to encourage a handful of new commercial buildings in the area over time.

Residential use plays a part in the City's vibrant commercial districts, including East Midtown. East Midtown already contains over 2,000 residences. In recent years, a number of buildings in the area have converted to other uses including residential and the media reports that additional buildings, such as the AT&T/Sony Building, will be partially converted to residential use. New residential buildings have or are being constructed on sites that were determined to not be appropriately sized for office development such as The Gotham at 16 East 46th Street and at 432 Park Avenue. The City anticipates the trend toward residential growth in the area on smaller, midblock sites, as well as through the conversion of existing commercial buildings to continue, alongside growth in new office space on qualifying sites. Residential development is thus occurring today and is likely to continue in the future. This contrasts with the development of new commercial space, which has slowed dramatically since the 1980's. Permitting residential use on the Qualifying Sites, which provide the best opportunity for the creation of the new Class 'A' office space that the area lacks and is not currently producing, would not be consistent with the goals and objectives of the Proposed Action.

For all of the foregoing reasons, analysis of this alternative is therefore not warranted.

c. Expanding Landmark Transfers for Landmarks Located Outside the Grand Central Subarea

This suggested alternative would allow expanded transfers of development rights from landmarked buildings located outside the Grand Central Subdistrict in a manner comparable to landmark transfers from Grand Central Terminal. The Proposed Action would continue in effect a planning framework for the transfer of development rights from Grand Central Terminal which has been in effect for over 20 years. This framework recognizes the unique position of the Terminal as the centerpiece of a transportation hub that connects to the surrounding area-- the Grand Central Subdistrict-- through an underground pedestrian network. The buildings in the area are linked to the Terminal through direct or close access to this network and derive special benefit from their proximity to the subway and commuter rail lines which converge at Grand Central. Transfers of Terminal floor area to sites within the Subdistrict therefore fulfill an essential requirement of landmark transfers under the Zoning Resolution in reflecting a close 'nexus' between the granting and receiving sites -- the locations which receive additional floor area through transfer are in one sense 'burdened' by the additional density, but correspondingly 'benefit' from the continued preservation of the nearby Terminal facilitated by the sale of development rights.

This type of broad geographical 'nexus' between granting sites and receiving sites exists in only a few other areas in the City. In the Special West Chelsea District, for example, transfers of floor area are allowed from sites located along the High Line to locations on 10th and 11th Avenues, on the edges of the District. The transfers help preserve the High Line from development that could diminish the openness and broad vistas that characterize the High Line, and thereby help to preserve its unique character. While the transfers result in additional density on the avenues, these areas derive strong benefit from the continued success of the High Line as the centerpiece of the District.

The portion of the proposed East Midtown Subdistrict outside of the new Grand Central Subarea contains a number of important landmark buildings, but they do not have a special physical connection or other relationship to the Grand Central Subarea which justifies the transfer of their development rights to sites in that area. Like other landmark buildings throughout the City, they are allowed to transfer their unused development rights to sites that are immediately across the street or cater corner to their zoning lots ("adjacent sites"). This reflects a policy, in effect since 1968, which recognizes that while the transfer

of landmark development rights should be encouraged, the benefits and burdens of landmark transfer should – absent a special circumstance such as Grand Central Terminal – be based on a close geographic proximity and 'nexus' between the granting and receiving site. Allowing landmark buildings in the Park Avenue Subarea to transfer development rights to sites within the Subarea that do not qualify as adjacent sites would represent a departure from City-wide policy.

It should also be noted that the ability to transfer landmark development rights outside of the Grand Central Subarea would lower the amount of possible funds that the District Improvement Bonus would be able to generate for pedestrian network improvements in the East Midtown area.

For all of the foregoing reasons, analysis of this alternative is therefore not warranted.

d. Permit Smaller Sites to Meet the Qualifying Site Definition

This suggested alternative would reduce the size of a "Qualifying Site." The "Qualifying Site" requirements are designed to promote the goals and objectives of the rezoning, which are to encourage the development a handful of large, new commercial buildings in the area over the long term. DCP believes the requirements (a minimum of 25,000 square feet of lot area and full avenue frontage) are appropriate to the development of significant contemporary commercial buildings at the proposed densities, taking into account the practical needs of commercial design, as well as the height and setback regulations of the Special Midtown District. A reduction in the minimum size or configuration requirements of a "Qualifying Site" would result in sites with floor area allowances that could not be accommodated under the as-of-right height and setback controls in the Special Midtown District, which would likely result in the need for variances from the Board of Standards and Appeals , creating a conflict with one of the District's General Purposes of "providing freedom of architectural design within limit … without the need for special development permissions." Permitting Qualifying Sites on midblock locations would also result in higher densities in the midblock areas which would conflict with one of the District's General Purposes of continuing "the historic pattern of relatively low building bulk in midblock locations compared to avenue frontages."

For all of the foregoing reasons, analysis of this alternative is therefore not warranted.

e. Different Sunrise Triggers

These suggested alternatives would make the "sunrise" occur at earlier or later dates. The 2017 effective date – or 'sunrise' – for the new regulations is designed to provide sufficient time for initial development to proceed in both Lower Manhattan and Hudson Yards, in order to lay the groundwork for the continued success of the City's plans for these areas. A significantly shorter sunrise period would not be consistent with this objective. Significantly longer sunrise provisions, such as 10 or 15 years, would have the effect of making the Proposed Action ineffective in meeting the objective of spurring the development of modern office space in East Midtown over future real estate cycles, and would exacerbate the risk of long term decline for the area. This length of time is also not considered, necessary for Lower Manhattan and Hudson Yards, given the scheduled opening of the Number 7 Line in 2014 and the opening of 1 and 4 World Trade Center buildings in Late 2013.

For all of the foregoing reasons, analysis of this alternative is therefore not warranted.

5.20 Conceptual Analysis

The proposed East Midtown Subdistrict zoning text would include a provision to allow a Special Permit for superior development upon approval by the CPC. For most technical areas, development under the Special Permit scenario would not result in any additional significant adverse impacts as compared with the RWCDS analyzed for the Proposed Action. With respect to transportation, as compared with the total trip generation associated with the RWCDS, the Special Permit scenario would result in increases in the number of vehicles, parking demand, transit and pedestrian trips within the rezoning area during the AM, Midday, and PM peak hours. With respect to traffic, the total number of intersections with significant adverse impacts during the AM peak hour under the Special Permit scenario would be the same as the Proposed Action. During the Midday peak hour, the Special Permit scenario would have significant adverse traffic impacts at two additional intersections: an unmitigated impact at Madison Avenue and East 43rd Street, and a mitigated impact at Fifth Avenue and 45th Street. During the PM peak hour, the Special Permit scenario would have an additional intersection with an unmitigated significant adverse impact at Madison Avenue and East 49th Street. With respect to parking, there would be a higher demand for parking compared to the Proposed Action, although no additional off-street parking would be provided on the three development sites analyzed under the Special Permit scenario. As with the Proposed Action, the Special Permit scenario would not result in a shortfall of parking spaces within a ¼-mile radius of the rezoning area. With respect to transit, under the Special Permit scenario, new significant adverse impacts would occur at pedestrian elements of the following subway stations: Grand Central-42nd Street, 47th-50th Street-Rockefeller Center, 51st Street, and Lexington Avenue-53rd Street. The project-specific environmental review conducted for each Special Permit, as applications are made to the CPC, would consider the extent to which connections to the underground pedestrian network (in the Grand Central Subarea), would address transit impacts, as well as identify potential mitigation measures not addressed by those improvements.

5.21 Unavoidable Adverse Impacts

According to the *CEQR Technical Manual*, unavoidable significant adverse impacts are those that would occur if a proposed action is implemented regardless of the mitigation employed, or if mitigation is impossible. Unavoidable significant adverse impacts resulting from the Proposed Action have been identified with respect to shadows, historic and cultural resources, transportation (traffic and pedestrians), and construction.

5.21.1 Shadows

The Proposed Action would result in significant adverse shadows impacts on three historic architectural resources, namely St. Bartholomew's Church and Community House, the Lady Chapel of St. Patrick's Cathedral, and Christ Church United Methodist.

The sunlight-sensitive stained-glass windows of St. Bartholomew's Church and Community House would experience significant adverse shadows impacts on the May 6th and June 21st analysis days due to incremental shadows cast by Potential Development Site 14 and Projected Development Site 12. The sunlight-sensitive windows of the Lady Chapel of St. Patrick's Cathedral would experience a significant adverse shadows impact on the March 21st analysis day from Projected Site 12. The sunlight-sensitive stained-glass windows of the Christ Church United Methodist building would experience a significant

adverse shadows impact on the December 21st analysis day due to incremental shadow cast by Projected Development Site 18. The incremental shadows that would be cast on these three historic architectural resources would result in a substantial reduction in sunlight available for the enjoyment or appreciation of the buildings' sunlight-sensitive features, and thus the incremental shadows are being considered significant adverse shadows impacts.

The Proposed Action was assessed for possible mitigation measures in accordance with CEQR guidelines. Several ways in which shadows impacts on architectural resources can be mitigated were identified by the Department of City Planning (DCP), including:

- Redesigning and/or relocating the action (i.e., avoiding the incremental shadows cast on the sunlight-sensitive features altogether by moving the proposed development sites away from the features).
- Providing indirectly mounted artificial lighting on St. Bartholomew's Church and Community House, the Lady Chapel of St. Patrick's Cathedral, and Christ Church United Methodist.

Redesigning or relocating the Proposed Action so that it does not cast an incremental shadow on these historic resources (e.g., by removing portions of the projected and potential development sites from the rezoning proposal) is not a practical solution from a zoning standpoint. Furthermore, removal of the entirety of the development sites would be inconsistent with the overall purpose and need of the Proposed Action, and is considered infeasible and impracticable. Between the Draft and Final EIS, DCP will explore whether changes to the bulk regulations governing Projected Development Site 12, Potential Development Site 14, and Projected Development Site 16 would reduce or eliminate the incremental shadow that causes the impact are feasible.

Another measure would be to provide for indirectly mounted lighting that would serve as a substitute for the sunlight on these sunlight-sensitive features. In order to adopt this measure in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance, since it is not known and cannot be assumed that owners of these properties would voluntarily implement this mitigation. DCP, as lead agency, will explore the viability of this mitigation measure between Draft EIS and Final EIS.

Absent measures that can be implemented to mitigate these impacts, the Proposed Action's significant adverse shadows impacts would therefore remain unmitigated.

5.21.2 Historic and Cultural Resources

a. Architectural Resources

Direct Impacts

The Proposed Action could result in significant adverse impacts due to potential partial or complete demolition of 14 (New York City Landmarks-) NYCL- and/or (State/National Registers of Historic Places-) S/NR-eligible historic resources located on Projected Development Sites 6, 7, 9, and 16 and Potential Development Sites 2, 5, 9, 12, 13, and 19. As the RWCDS for the Proposed Action anticipates that the existing structures on these sites would be demolished, either partially or entirely, as a

consequence of the Proposed Action, this would result in significant adverse direct impacts to these NYCL- and S/NR-eligible resources.

The *CEQR Technical Manual* identifies several ways in which impacts on architectural resources can be mitigated, including: redesigning the action so that it does not disturb the resource; relocating the action to avoid the resource altogether; contextual redesign of a project that does not actually physically affect an architectural resource but would alter its setting; adaptive reuse to incorporate the resource into the project rather than demolishing it; or a construction protection plan to protect historic resources that may be affected by construction activities related to a proposed action. Redesigning or relocating the Proposed Action so that it does not disturb the eligible resources located on Projected Development Sites 6, 7, 9, and 16 and Potential Development Sites 2, 5, 9, 12, 13, and 19 (e.g., by eliminating these development sites from the rezoning proposal) would be inconsistent with the overall purpose and need of the Proposed Action and therefore is considered infeasible and impracticable. Contextual redesign, adaptive reuse, and the use of a construction protection plan are not available as mitigation measures, given the nature of the Proposed Action as an area-wide rezoning.

Other mitigation measures identified in the *CEQR Technical Manual* that could minimize or reduce these impacts include photographically documenting the eligible structures in accordance with Historic American Buildings Survey (HABS) level II, as per National Park Service standards. With implementation of the HABS documentation measure, and the related measure to create an interpretive exhibit within the lobby of new construction, the identified significant adverse direct impacts to historic architectural resources would be partially mitigated, but would not be completely eliminated, and thus would constitute unavoidable significant adverse impacts. In order to adopt these partial mitigation measures in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance since it is not known and cannot be assumed that owners of these properties would voluntarily implement this partial mitigation. DCP, as lead agency, will explore the viability of these mitigation measures between the Draft EIS and Final EIS. Of the 9 development sites that qualify for the Special Permit for superior development under the Proposed Action, only three sites—Projected Development Sites 4, 7, and 9—contain an eligible resource, and it is not known if the redevelopment of Projected Development Sites 4, 7, or 9 under the Proposed Action would seek to utilize the Special Permit or that the Special Permit would be granted by the City Planning Commission (CPC).

For those structures that are NYCL-eligible—which include all but the Barclay Hotel, the 346 Madison Avenue Building, and the 52 Vanderbilt Avenue Building—the New York City Landmarks Preservation Commission (LPC) may elect to calendar, and then conduct a hearing and designate the structures, either in whole or in part, as landmark buildings. Should the New York City Department of Buildings (DOB) issue a notice of pending demolition to LPC with respect to a calendared building, LPC would have 40 days to decide whether to designate. During this period, the owners of the property may work with LPC to modify their plans to make them appropriate. In the event that landmark designation is approved, LPC approval would be required for any alteration or demolition of the designated structures. Designation would avoid the potential for impacts to the eligible resources. However, as the potential for use and results of any designation process cannot be assumed or predicted, designation is not considered a mitigation measure herein.

In addition, those structures that are S/NR-eligible are given a measure of protection under Section 106 of the National Historic Preservation Act from the impacts of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. Additionally, the Office of Parks, Recreation and Historic Preservation (OPRHP) could elect to designate these structures as S/NR-listed properties. Properties listed on the Registers are similarly protected against impacts resulting from projects sponsored, assisted, or approved by state agencies under the State Historic Preservation Act. However, private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their properties without such a review process. Redevelopment under the Proposed Action of the sites containing S/NR-eligible structures is expected to be privately sponsored. Further, the potential for use and results of any designation process cannot be assumed or predicted, and S/NR designation is therefore not considered a mitigation measure herein.

The above measures, if deemed feasible, would only be considered partial mitigation. Consequentially, these impacts would not be completely eliminated and they would constitute unavoidable significant adverse impacts on these historic resources as a result of the Proposed Action.

5.21.3 Transportation

a. Traffic

The Proposed Action would result in significant adverse traffic impacts at 53 study area intersections during one or more analyzed peak hours. Most of these impacts could be mitigated through the implementation of traffic engineering improvements, including modification of traffic signal phasing and/or timing; elimination of on-street parking within 150 feet of intersections to add a limited travel lane, known as “daylighting”; and channelization and lane designation changes to make more efficient use of available street widths.

However, 16 approach movements at 9 intersections would have unmitigated significant adverse impacts during the AM peak hour, 3 approach movements at 2 intersections would have unmitigated significant adverse impacts during the Midday peak hour, and 11 approach movements at 8 intersections would have unmitigated significant adverse impacts during the PM peak hour. Consequently, unavoidable significant adverse traffic impacts would occur due to the Proposed Action.

b. Pedestrians

The Proposed Action would result in significant adverse impacts on pedestrian conditions at a total of two sidewalks, 26 crosswalks, and eight corner areas in one or more analyzed peak hours. Most of these impacts could be mitigated through the proposed mitigation measures, including relocation or removal of obstacles on sidewalks, construction of wider sidewalks and corners, crosswalk widening, and signal timing adjustments. However, no practicable mitigation was identified for impacts at a total of four crosswalks and four corner areas, and impacts in one or more peak hours at these locations would remain unmitigated; no unmitigated significant adverse sidewalk impacts would remain upon incorporation of the recommended mitigation measures. Therefore, unavoidable significant adverse impacts on pedestrian conditions would occur due to the Proposed Action.

5.21.4 Construction

a. Historic and Cultural Resources

Development under the Proposed Action—specifically, on Projected Development Sites 3, 6, 9, 10, 12, and 16, and Potential Development Sites 2-7, 12, 13, 15, and 20—could result in inadvertent construction-related damage to 24 NYCL- and/or S/NR-eligible historic resources, as they are located within 90 feet of projected and/or potential development sites.

The New York City Building Code, under section C26-112.4, provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. For designated NYC Landmarks and S/NR-listed historic buildings located within 90 feet of a proposed construction site, additional protective measures under the DOB Technical Policy and Procedure Notice (TPPN) #10/88 supplement the procedures of C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage and to detect at an early stage the beginnings of damage so that construction procedures can be changed. For the 24 non-designated resources that are within 90 feet of one or more projected and/or potential development sites, construction under the Proposed Action could potentially result in construction-related impacts to the resources, and the protective measures under TPPN #10/88 would only apply if the resources become designated. Without the protective measures described above, significant adverse construction-related impacts would not be mitigated.

In order to make TPPN #10/88 applicable to eligible historic resources in the absence of a site-specific approval, such as a Special Permit with an accompanying restrictive declaration, a mechanism would have to be developed to ensure implementation and compliance. Since it is not known and cannot be assumed that owners of these properties would voluntarily implement this mitigation, DCP, as lead agency, will explore the viability of this mitigation measure between Draft EIS and Final EIS.

Absent measures that can be implemented to mitigate these impacts, the Proposed Action's significant adverse construction-related impacts would therefore remain unmitigated.

b. Construction Noise

Construction activities associated with the Proposed Action would occur on multiple development sites within the same geographic area and, as the result, has the potential to increase interior noise levels of existing adjacent commercial buildings. These increases would likely approach or marginally exceed the impact threshold for short periods of time and has the potential during other construction quarters bordering the peak construction period.

According to the *CEQR Technical Manual*, mitigation for construction noise impacts may include noise barriers, use of low noise emission equipment, locating stationary equipment as far as feasible away from receptors, enclosing areas, limiting the duration of activities, specifying quiet equipment, scheduling of activities to minimize impacts (either time of day or seasonal considerations), and locating noisy equipment near natural or existing barriers that would shield sensitive receptors.

An evaluation of construction noise exposure during the quarters covering the time period of 2021 to 2023 will be completed between Draft and Final EIS. If that analysis finds that a significant adverse

construction noise impact would occur, consideration of potential mitigation measures to reduce the severity and duration of the noise from on-site equipment will be carried out between the Draft and Final EIS. If the further analysis confirms that a significant adverse construction noise impact would occur, and if no suitable, implementable measures that would successfully mitigate the significant adverse impact are identified, then the Proposed Action would cause an unmitigated significant adverse construction noise impact.

5.22 Growth-Inducing Aspects of the Proposed Action

The term "growth-inducing aspects" generally refers to the potential for a proposed action to trigger additional development in areas outside of the project site (i.e., directly affected area) that would not experience such development without the proposed action. The *CEQR Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed action is appropriate when the action:

- Adds substantial new land use, new residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or
- Introduces or greatly expands infrastructure capacity (e.g., sewers, central water supply).

The purpose of the Proposed Action is to protect and strengthen East Midtown as one of the world's premier business addresses and key job center for the City and region; seed the area with new modern and sustainable office buildings to maintain its preeminence as a premier office district; improve the area's pedestrian and built environments to make East Midtown a better place to work and visit; and complement ongoing office development in Hudson Yards and Lower Manhattan to facilitate the long-term expansion of the City's overall stock of office space.

The Proposed Action would result in a limited and targeted amount of new high-density commercial development that is expected to reinforce East Midtown's standing as a premier business district, add to the area's cachet and market dynamism and provide support for the overall continued health of the area. The increased commercial density resulting from the Proposed Action would be compatible with the existing concentration of commercial office use in this area of East Midtown. While this increased development would contribute to growth in the City and State economies, primarily due to employment and fiscal effects during construction on the project-generated developments and operation of these developments after their completion, it would not be expected to induce additional notable growth outside the rezoning area.

The Proposed Action would result in more intensive land uses within the rezoning area. However, it is not anticipated that the Proposed Action would generate significant secondary impacts resulting in substantial new development in nearby areas. The rezoning area and surrounding study area already have well-established commercial markets, and therefore the Proposed Action would not be introducing new economic activities to the projected development sites or to the surrounding area that would alter existing economic patterns. The Proposed Action would increase the overall employment in the rezoning area compared to the No-Action condition, and therefore the influx of employees to the study area would add to the customer base of existing study area businesses compared to the No-Action condition.

The Proposed Action would encourage increased development in a transit-rich area of Manhattan, with the densest development focused around Grand Central Terminal—a major transportation hub serving the Long Island Rail Road, Metro-North Railroad lines, and the 4, 5, 6, 7, and 42nd Street Shuttle subway lines. The proposed District Improvement Fund (DIF) would improve the pedestrian network, both above- and below-grade, therefore enhancing accessibility to and encouraging the use of these existing transit lines. While the Proposed Action would provide for significant pedestrian network improvements through the DIF, the infrastructure in the study area is already well developed such that improvements associated with the Proposed Action would not induce additional growth.

Therefore, the Proposed Action would not induce significant new growth in the surrounding area.

5.23 Irreversible and Irretriavable Commitment of resources

Resources, both natural and man-made, would be expended in the construction and operation of developments projected to occur as a result of the Proposed Action. These resources include the building materials used in construction; energy in the form of gas and electricity consumed during construction and operation of project-generated development by various mechanical and processing systems; and the human effort (time and labor) required to develop, construct, and operate various components of project-generated development. These are considered irretrievably committed because their reuse for some purpose would be highly unlikely.

The projected and potential development under the Proposed Action also constitutes a long-term commitment of land resources, thereby rendering land use for other purposes highly unlikely in the foreseeable future. Furthermore, funds committed to the design, construction/renovation, and operation of projected or potential developments under the Proposed Action are not available for other projects.

These commitments of resources and materials are weighed against the Proposed Action's goals of protecting and strengthening East Midtown as one of the world's premier business addresses and key job center for the City and region. Furthermore, by seeding the area with new modern and sustainable office buildings, and improving the area's pedestrian and built environments, the Proposed Action seeks to maintain East Midtown's preeminence as an integrated and dynamic office district, make it a better place to work and visit, and complement ongoing office development in Hudson Yards and Lower Manhattan to facilitate the long-term expansion and competitiveness of the City's overall stock of office space. This will contribute to the city's economy for decades to come.

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