

**Department of City Planning  
City of New York**

**MEMORANDUM**

To: Members of the City Planning Commission

From: Robert Dobruskin, AICP RD

Date: January 27, 2017

Re: **Hudson Yards Rezoning: Section 93-122 Text Amendment – TM007**  
CEQR Nos. 03DCP031M  
ULURP No. N170251 ZRM  
SEQRA Classification: Type I

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Attached is a Technical Memorandum (TM007) submitted by the applicant for the above-referenced project. It was prepared in connection with a proposal by the applicant to redevelop a property located at 451 Tenth Avenue (Block 707, Lots 20, 26, 31, 41 and 45) within the Special Hudson Yards District. The phasing of permitted uses proposed by the applicant is different from what was analyzed in the 2004 Final Generic Environmental Impact Statement (FGEIS) for the Hudson Yards Rezoning and subsequent Technical Memoranda. This Technical Memorandum (TM007) analyzes whether the phasing of permitted uses for the applicant's proposed development would result in any significant adverse environmental impacts not already identified in the FGEIS and subsequent Technical Memoranda for the projected development.

The Environmental Assessment and Review Division has reviewed the Technical Memorandum. Based on our review, pursuant to the City's Environmental Quality Review process and NYCRR 617, we have come to the conclusion that the proposed modifications would not result in any significant adverse environmental impacts not already identified in the FGEIS for the proposed actions.

Attachment

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## **Technical Memorandum 007**

### **CEQR No. 03DCP031M**

#### **Hudson Yards Rezoning—Section 93-122 Text Amendment January 25, 2017**

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#### **A. INTRODUCTION AND OVERVIEW**

On November 8, 2004, a Final Generic Environmental Impact Statement (FGEIS) was completed by the City of New York City Planning Commission (CPC) and the Metropolitan Transportation Authority (MTA), as co-lead agencies for the No. 7 Subway Extension-Hudson Yards Rezoning and Development Program. On November 22, 2004, the City Planning Commission (CPC) approved Application No. N040500(A) ZMM and related actions, which together established the Special Hudson Yards District on the Far West Side of Midtown Manhattan. The approved actions consist of Alternative S, which was analyzed in Chapter 26, "Alternatives," of the FGEIS, together with modifications to Alternative S made by the City Planning Commission and City Council and assessed in Technical Memoranda, dated November 17, 2004, January 14, 2005, August 4, 2005, and September 14, 2005. During the ULURP process, text changes were identified that required subsequent actions and these were assessed in a Technical Memorandum dated December 2, 2005. Since that time, additional text changes were also identified and adopted to clarify the text, eliminate inaccurate references in the text and add new provisions, and these were assessed in a Technical Memorandum dated February 8, 2008.

The Hudson Yards Rezoning component of the project included zoning and related land use actions that would allow approximately 26 million square feet of commercial development, 13.6 million square feet of residential development as well as hotel and retail uses, a new midblock boulevard between Tenth and Eleventh Avenues and substantial new open spaces.

The proposed action analyzed in the 2004 FGEIS and subsequent Technical Memoranda had multiple elements that were assumed to be developed or implemented over a period of 20 years or more. The FGEIS assessed the future conditions for the years 2010 and 2025. The 2025 analysis year was based on long-term projections of the Hudson Yards area's potential to capture a share of regional growth in office space, hotel rooms, and households, with accompanying increases in retail space. These projections were conservatively assumed in the FGEIS to occur by 2025.

As described in the 2004 FGEIS, the sites most likely to be developed over time as a result of the rezoning were identified based on a set of criteria that focused on size of the site, its location, its current utilization and land use, and the opportunity for assemblages and use of development rights from adjacent properties. The sites that were most likely to undergo new development were defined as Projected Development Sites; the development projection on these sites comprised the reasonable worst-case development scenario (RWCDS) for analysis in the FGEIS. A number of other sites with smaller footprints and less potential for redevelopment or conversion were also addressed in the FGEIS and defined as Potential Development Sites. In all, 99 development sites were identified, 46 of which are

considered to be Projected Development Sites, 1 of which could be either projected or potential, and the remaining 52, Potential Development Sites.

Following the 2004 approvals discussed above, the Special Hudson Yards District became effective following City Council approval in January 2005. Within the District, six subdistricts were established and within certain subdistricts, subareas were established.

This technical memorandum addresses the proposed development at 451 Tenth Avenue (Block 707, Lots 20, 26, 31, 41 and 45), which is located within Subarea A3 of the Large-Scale Subdistrict A and was analyzed as part of Projected Development Site 7 in the 2004 FGEIS.

The Applicant, 517 West 35th LLC, is seeking a zoning text amendment to ZR Section 93-122 to address the phasing of permitted uses on the project site (Proposed Action). This action is subject to environmental review under the State Environmental Quality Review Act (“SEQRA”) and the City Environmental Quality Review (“CEQR”). This technical memorandum addresses whether the Proposed Action would result in any new significant adverse impacts not already identified in the 2004 FGEIS.

## **B. ACTIONS NECESSARY TO FACILITATE THE PROPOSAL**

Currently, as per ZR Section 93-122, within the Large-Scale Plan Subdistrict A, “...residential use shall be permitted only upon certification of the Chairperson of the City Planning Commission that the zoning lot on which such residential use is located contains the minimum amount of commercial floor area required before residential use is allowed...” Pursuant to ZR Section 93-21, the minimum amount of commercial floor area required in Subarea A before residential use is allowed is 18.0 FAR. The maximum amount of residential floor area allowed on sites located in Subarea A3, available through distribution of floor area from the Eastern Rail Yard pursuant to ZR Section 93-34 is 6.0 FAR.

Pursuant to ZR Section 93-122(a), for zoning lots of less than 69,000 square feet of lot area, the CPC Chairperson may allow for phased development, provided that a plan has been submitted demonstrating that the ratio of commercial floor area to residential floor area in buildings in each phase is no smaller than the ratio of the minimum amount of commercial floor area required on the zoning lot before residential use is allowed, to the maximum residential floor area permitted on the zoning lot. Within Subarea A3, this ratio is 3:1, reflective of the 18.0 FAR minimum amount of commercial floor area required before residential floor area is permitted, relative to the 6.0 FAR maximum amount of residential floor area permitted; accordingly, buildings developed under each phase of a phasing plan approved pursuant to Section 93-122(a) must be for predominantly commercial space.

Pursuant to ZR Section 93-122(b), for zoning lots with 69,000 square feet or more of lot area, the CPC Chairperson may allow for one or more buildings to be developed without the minimum amount of commercial floor area required before residential use is allowed as per ZR Section 93-122, upon certification that: (i) a plan has been submitted whereby one or more regularly-shaped portions of the zoning lot with at least 50,000 square feet of area have been reserved for future commercial development and (ii) upon full development of the zoning lot, the ratio of commercial floor area to residential floor area would be no smaller than the ratio of the minimum amount of commercial floor area required before residential use is allowed to the maximum residential floor area permitted on such zoning lot.

The Applicant, 517 West 35th LLC, is seeking a zoning text amendment to amend ZR Section 93-122 to add a new paragraph (c) that would facilitate the development of a primarily residential building and a commercial building (Proposed Project) on the project site (Block 707, Lots 20, 26, 31, 41 and 45), with development of the primarily residential building allowed to precede development of the commercial building. The proposed new ZR Section 93-122 text would be amended as follows (new text is shown as underlined):

93-122

**Certification for residential use in Subdistricts A, B and E**

Within the Large-Scale Plan Subdistrict A, Subareas B1 and B2 of the Farley Corridor Subdistrict B, and the South of Port Authority Subdistrict E, #residential use# shall be permitted only upon certification of the Chairperson of the City Planning Commission that the #zoning lot# on which such #residential use# is located contains the minimum amount of #commercial floor area# required before #residential use# is allowed, as specified in Section 93-21 (Floor Area Regulations in the Large-Scale Plan Subdistrict A) or 93-22 (Floor Area Regulations in Subdistricts B, C, D, E and F), as applicable, and that for #zoning lots# in Subareas A2 through A5 of the Large-Scale Plan Subdistrict A, a certification pursuant to Section 93-34 (Distribution of Floor Area in the Large-Scale Plan Subdistrict A) has been made.

\* \* \*

However, special regulations shall apply to #zoning lots# with phased developments, as follows:

- (a) Except as provided in paragraph (c) of this Section, for #zoning lots# with less than 69,000 square feet of #lot area#, the Chairperson shall allow for phased development, upon certification that a plan has been submitted whereby the ratio of #commercial floor area# to #residential floor area#, in buildings in each phase, is no smaller than the ratio of the minimum amount of #commercial floor area# required on the #zoning lot# before #residential use# is allowed, to the maximum #residential floor area# permitted on the #zoning lot# as specified in Section 93-21 or 93-22, as applicable, ~~and~~;
- (b) For #zoning lots# with at least 69,000 square feet of #lot area#, the Chairperson shall allow for one or more #buildings# containing #residences# to be #developed# or #enlarged# without the minimum amount of #commercial floor area# required before #residential use# is allowed, as specified in Section 93-21 or 93-22, as applicable, upon certification that a plan has been submitted whereby one or more regularly-shaped portions of the #zoning lot# with a minimum area of 50,000 square feet are reserved for future development of not more than two million square feet of #commercial floor area# on each such portion, and that, upon full development of such #zoning lot#, the ratio of #commercial floor area# to #residential floor area# shall be no smaller than the ratio of the minimum amount of #commercial floor area# required on the #zoning lot# before #residential use# is allowed, to the maximum #residential floor area# permitted on the #zoning lot#, as specified in Section 93-21 or 93-22, as applicable.; and
- (c) For #zoning lots# with at least 55,000 square feet but less than 69,000 square feet of #lot area# within Subarea A3 of the Large Scale Subdistrict A, the Chairperson shall allow for one or more #buildings# containing #residences# to be #developed# or #enlarged# without the minimum amount of #commercial floor area# required before #residential use# is allowed, as specified in paragraph (a) Section 93-21, upon certification that a plan has been submitted whereby one or more regularly-shaped portions of the #zoning lot# with a minimum area of 35,000 square feet are reserved for future development, and that, upon full development of such #zoning lot#, the ratio of #commercial floor area# to #residential floor area# shall be no smaller than the ratio of the minimum amount of #commercial floor area# required on the #zoning lot# before #residential use# is allowed, to the maximum #residential floor area# permitted on the #zoning lot#, as specified in Section 93-21.

All #developments# or #enlargements# so certified shall be permitted only in accordance with the provisions of this Chapter.

\* \* \*

Approvals to be sought in future applications in connection with the Proposed Project include the following:

- Certification by the CPC Chairperson pursuant to ZR Section 93-122 to permit a phasing of the Proposed Project as per the amended text;
- Certification by the CPC Chairperson pursuant to ZR Section 93-31 for the increase of floor area pursuant to the District Improvement Fund Bonus;
- Certification by the CPC Chairperson pursuant to ZR Section 93-34 for the increase of floor area via distribution of floor area from the Eastern Rail Yard; and
- Certification by the CPC Chairperson pursuant to ZR Section 93-82 for off-street parking spaces accessory to office and residential uses.

### **C. DESCRIPTION OF THE PROJECT SITE**

The project site—consisting of Block 707, Lots 20, 26, 31, 41 and 45—is located in the Hudson Yards neighborhood of Manhattan. Lot 20 of the project site is controlled by the Applicant. The Applicant proposes to merge Lot 20 with privately-owned Lots 26, 31, 41 and 45. The project site is located on the eastern portion of Block 707, bounded by West 36th Street to the north, Tenth Avenue to the east, West 35th Street to the south and Hudson Boulevard East to the West. The project site includes full frontage along West 35th Street and Hudson Boulevard East, and partial frontage along West 36th Street and Tenth Avenue (the project site does not include Lot 39 (Outparcel), the north-eastern portion of this block) (see **Figure 1**).

The project site is located within a C6-4 zoning district, and within Subarea A3 of the Large-Scale Subdistrict A in the Special Hudson Yards District (see **Figure 2**). Floor Area regulations in the Large-Scale Plan Subdistrict A are specified in section 93-21. Within Subarea A3, the basic maximum FAR is 10.0, and a maximum FAR of 24.0 (24.0 FAR commercial, 6.0 FAR residential, and 2.0 FAR community facility) may be achieved through specific floor area bonus and distribution provisions. Height and setback regulations for Subdistrict A are specified in Sections 93-42 and 93-50. There are no existing buildings on the project site. Lots 20, 26, 41 and 45 are currently vacant and Lot 31 is currently being leased to parking operator, with approximately 148 unenclosed parking spaces.

The project site is subject to Air Quality, Hazardous Materials and Noise (E) Designations (E-137) established as part of the *Hudson Yards Final Generic Environmental Impact Statement (FGEIS) (CEQR No. 03DCP031M)*. The Air Quality (E) designation requires that fuel for heating, ventilation and air conditioning (HVAC) is limited to natural gas, or the HVAC stack is to be no closer than 10 feet to the wall of an adjacent building. In order to comply with the requirements of the Hazardous Materials (E) Designation, the Proposed Project would require additional investigation and documentation, including a Remedial Investigation Work Plan/Health and Safety Plan that requires approval of the New York City Mayor's Office of Environmental Remediation (OER), a Remedial Investigation (Phase 2 Subsurface Investigation), a Remedial Action Plan (RAP) or Remedial Action Work Plan (RAWP), and a Construction Health and Safety Plan (CHASP). The Noise (E) Designation requires sufficient window/wall attenuation on all facades to maintain an interior noise level of 45 dBA for residential uses and 50 dBA for commercial use as well as an alternate means of ventilation that will allow for the maintenance of a closed-window condition.

### **D. DESCRIPTION OF THE PROPOSED PROJECT**

To facilitate the development of the Proposed Project, the Applicant proposes to merge Lot 20 on Block 707 with privately-owned adjacent Lots 26, 31, 41 and 45. The lot area of the merged zoning lot would be 56,793 square feet.

451 Tenth Avenue , Manhattan



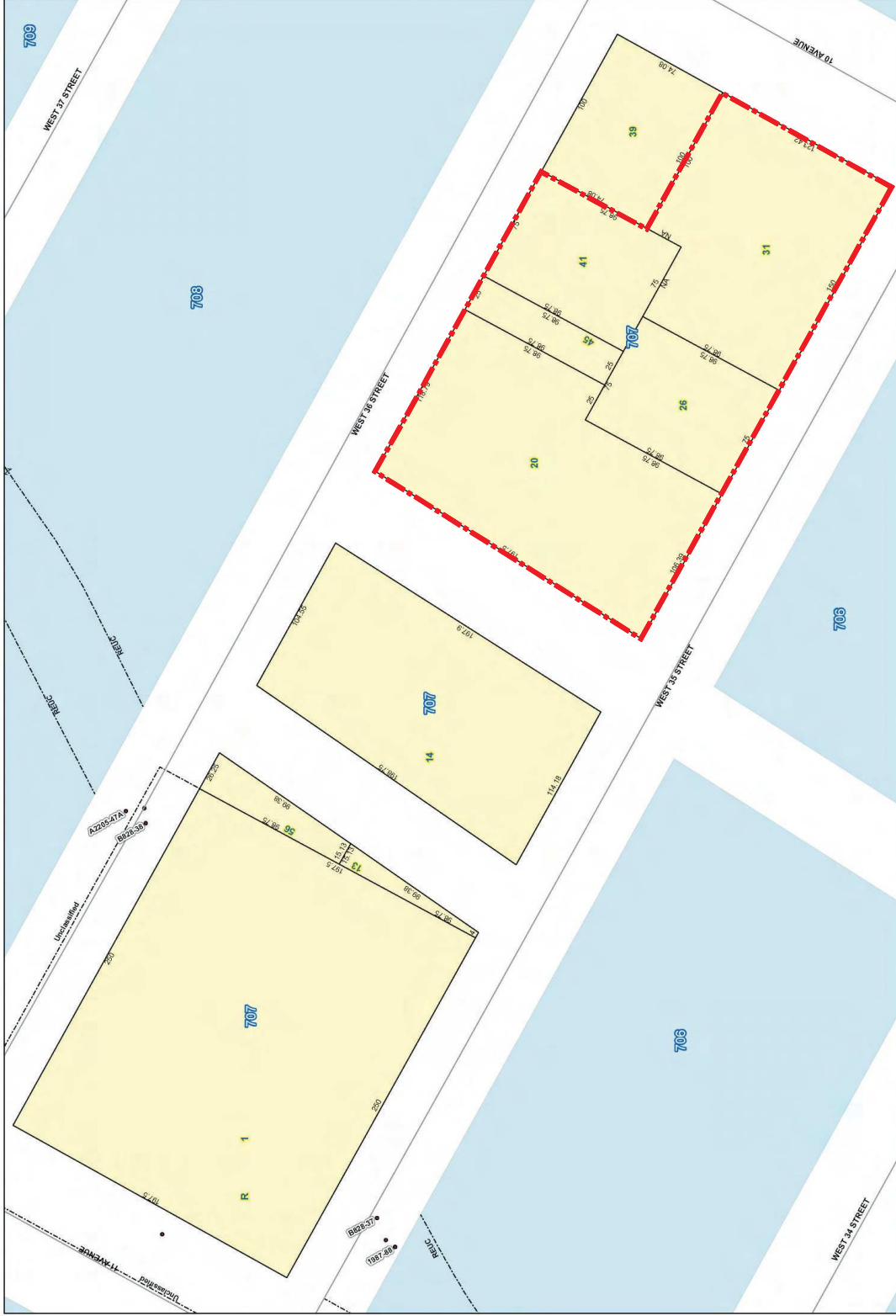
NYC Digital Tax Map

Effective Date : 03-02-2015 16:34:01  
End Date : Current  
Manhattan Block: 707

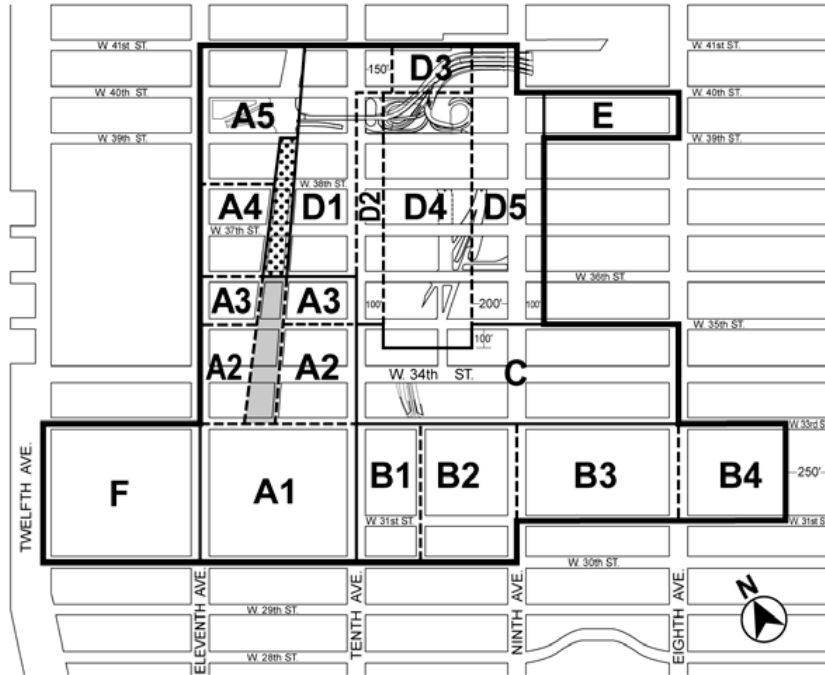


- Legend**
- Streets
  - Miscellaneous Text
  - Point
  - Boundary
  - Lot Face
  - Lot Face Possession Holds
  - Regular
  - Underwater
  - Tax Lot Polygon
  - Condo Number
  - Tax Block Polygon

Development Site



SOURCE: The City of New York Zoning Resolution



- Subdistricts
- Subareas within subdistricts
- Phase 1 Hudson Boulevard and Park
- ▨ Phase 2 Hudson Boulevard and Park

**Large-Scale Plan Subdistrict A**

- Eastern Rail Yards Subarea A1
- Four Corners Subarea A2
- Subareas A3 through A5

**Farley Corridor Subdistrict B**

- Western Blocks Subarea B1
- Central Blocks Subarea B2
- Farley Post Office Subarea B3
- Pennsylvania Station Subarea B4

**34th Street Corridor Subdistrict C**

**Hell's Kitchen Subdistrict D**

- Subareas D1 through D5

**South of Port Authority Subdistrict E**

**Western Rail Yard Subdistrict F**

Special Hudson Yards District,  
Subdistricts and Subareas  
**Figure 2**

At this time, it is anticipated that the Proposed Project would include the development of two buildings; one 37-story (approximately 442 foot tall) primarily residential building containing some retail space; and one 39-story (approximately 556 foot tall) commercial building containing office and retail space (see **Figure 3**). Residential uses would be built out to the allowable 6 FAR and commercial uses would be built out to the allowable 18 FAR. The Proposed Project would also include parking to accommodate the proposed residential, office and retail uses.

The proposed program described above could be developed with or without the Proposed Action. The Proposed Project would comply with the allowable floor area, height and setback requirements specified for Subarea A3 of the Large-Scale Subdistrict A in the Special Hudson Yards District. However, as discussed above, ZR Section 93-122 requires that in phased developments on zoning lots with less than 69,000 square feet of lot area, development in each phase must be for predominantly commercial use. The Applicant is seeking a text change to allow for a phasing plan under which the primarily residential building of the Proposed Project could be developed prior to the commercial building.

## **E. PURPOSE AND NEED OF THE PROPOSED ACTION**

As described above, the project site is located within Subarea A3 of the Large-Scale Subdistrict A in the Special Hudson Yards District. The current ZR Section 93-122(a) specifies that for phased developments, on zoning lots with less than 69,000 square feet of lot area, development in each phase must be for predominantly commercial use. The Proposed Action, as described above, would allow for a phasing plan under which the primarily residential building of the Proposed Project could be developed prior to the commercial building. With the successful build-out of commercial space within the Special Hudson Yards District well underway, the Proposed Action would allow for the earlier development of much-needed residential development at a location adjacent to Subarea D2 of Hell's Kitchen Subdistrict D, a portion of the Special District with regulations designed to facilitate predominantly residential or community facility development, while maintaining the predominantly commercial character of Subarea A3 of the Large-Scale Subdistrict A through commercial development fronting on Hudson Boulevard East.

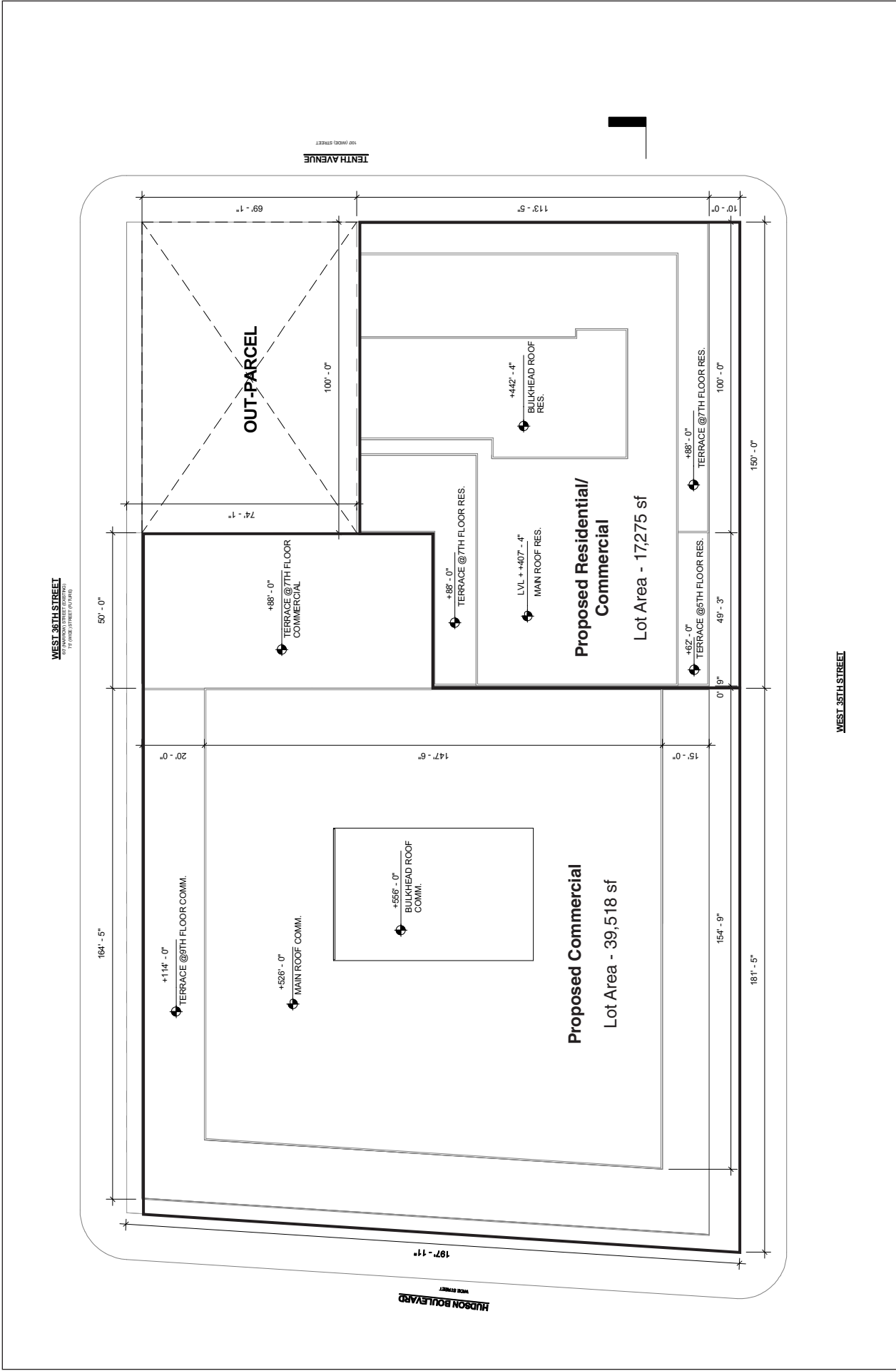
While the Proposed Action would allow for a different phasing of development than provided for under current ZR Section 93-122, the Proposed Project is fully consistent with the floor area, height and setback and other provisions of the Special Hudson Yards District regulations and the goals of those regulations to promote a mix of uses, including residential, commercial and open space, in a formerly primarily manufacturing area.

## **F. ANALYSIS**

The 2004 FGEIS examined in detail the potential for significant adverse impacts consistent with CEQR. Areas of concern included: land use, zoning, and public policy; socioeconomic conditions; community facilities and services; open space and recreational facilities; shadows; architectural historic resources; archaeological resources; urban design and visual resources; neighborhood character; natural resources; hazardous materials; waterfront revitalization program; infrastructure; solid waste and sanitation services; energy; traffic and parking; transit and pedestrians; air quality; noise and vibration; construction; and public health. The 2004 FGEIS also included an assessment of a broad range of 21 alternatives to the Proposed Action. The approved actions are largely described as Alternative S in the 2004 FGEIS, with subsequent CPC and City Council modifications.

As described above, the 2004 FGEIS identified the sites most likely to be developed over time as a result of the rezoning, based on a set of criteria that focused on size of the site, its location, its current utilization and land use, and the opportunity for assemblages and use of development rights from adjacent properties. Forty-six sites were identified as most likely to undergo new development and were defined as Projected Development Sites. The development as a result of the proposed rezoning was conservatively assumed in the FGEIS to occur by 2025.





Illustrative Proposed Development  
Figure 3

Projected Development Site No. 7 in the 2004 FGEIS included Block 707, Lots 20, 26, 31, 39, 41 and 45 in Subarea A3 of the Large-Scale Subdistrict A in the Special Hudson Yards District. Under Alternative S, Projected Development Site 7 was assumed to be built out to the maximum proposed FAR of 24.0, with 18 FAR of commercial use and 6 FAR of residential use.

The project site under consideration in this technical memorandum includes Block 707, Lots 20, 26, 31, 41 and 45. These parcels, along with Lot 39 (Outparcel) comprise what was identified as Projected Development Site 7 in the 2004 FGEIS. As described above, the Applicant proposes to develop commercial and residential buildings on the project site consistent with the allowable floor area analyzed and approved under Alternative S in the FGEIS, within the timeframe analyzed in the FGEIS (2025). The Proposed Action would only change the sequencing of the program elements (within the overall 2025 timeframe) to allow for the primarily residential component of the Proposed Project to be developed without the minimum amount of commercial floor area required before the residential use is permitted. It is also assumed that the Outparcel (Lot 39) would be developed consistent with the allowable floor areas analyzed and approved under Alternative S of the FGEIS.

The change in the proposed sequencing would not affect the conclusions of the analyses presented in the 2004 FGEIS. While the residential use would precede the commercial use on the project site, both buildings would be built within the timeframe analyzed in the FGEIS. The 2004 FGEIS conservatively considered an overall build out of the development assumed under the proposed rezoning by the 2025 build year, and did not base its analysis conclusions upon assumptions regarding the sequencing of various program elements at each of the 99 Projected or Potential Development Sites, including the phasing currently prescribed by ZR Section 93-122. For example, with respect to construction, reasonable worst-case assumptions were applied to account for development sites that would be proximate to other construction projects, sensitive populations, and/or land use, and where potential traffic impacts could occur. Construction activities related to the Proposed Project were considered as part of the conservative assumptions applied in the FGEIS analyses. Further, the Proposed Project would implement current best management practices during construction, which have advanced considerably since the analysis conducted in the 2004 FGEIS. Therefore, the Proposed Action would not alter the conclusions or required mitigation with respect to any identified significant adverse impacts in the 2004 FGEIS.

As described above, the project site is subject to (E) designations (E-137) relating to Hazardous Materials, Noise and Air Quality. The Proposed Action would not affect the requirements of the Hazardous Materials (E) Designation. The Proposed Project would continue to require additional investigation and documentation, including a Remedial Investigation Work Plan/Health and Safety Plan that requires approval of the New York City Mayor's Office of Environmental Remediation (OER), a Remedial Investigation (Phase 2 Subsurface Investigation), a Remedial Action Plan (RAP) or Remedial Action Work Plan (RAWP), and a Construction Health and Safety Plan (CHASP).

The Proposed Action would also not affect the (E) designation relating to Noise, which requires sufficient window/wall attenuation on all facades to maintain an interior noise level of 45 dBA for residential uses and 50 dBA for commercial use as well as an alternate means of ventilation that will allow for the maintenance of a closed-window condition (during operational conditions). If the residential building is completed and occupied prior to the construction of the commercial building, the noise (E) designation requirements would ensure that interior noise levels would be within the 45 dBA L<sub>10</sub> acceptable threshold for residential use throughout most of the construction period. However, as with any construction activity occurring immediately adjacent to residential receptors, there may be times during the temporary construction period when interior noise levels at the completed and occupied residential building would exceed the 45 dBA L<sub>10</sub> acceptable threshold.

To account for the two separate buildings that would result from the proposed phasing under the Proposed Action (and therefore separate HVAC systems in each building), an analysis was conducted to update the existing Air Quality (E) designation that would be applicable to Block 707, Lots 20, 26, 31, 41 and 45.

This analysis and updated Air Quality (E) designation are presented in Attachment A. Attachment A also includes an analysis of conditions with potential development on the Outparcel,

## **G. CONCLUSION**

The Proposed Action would not affect the conclusions of the analyses presented in the 2004 FGEIS. While the primarily residential building would precede the commercial building under the phasing plan permitted under the zoning text amendment, both buildings would be built within the timeframe analyzed in the FGEIS. The 2004 FGEIS conservatively considered an overall build out of the development assumed under the proposed rezoning by the 2025 build year (i.e., the analyses did not consider the individual sequencing of various program elements at the various Projected and Potential Development Sites). The existing Hazardous Materials and Noise (E) designations and the updated Air Quality (E) designation for Block 707, Lots 20, 26, 31, 41 and 45 would continue to ensure no significant adverse impacts in those technical areas. Therefore, the Proposed Action would not alter the conclusions or required mitigation with respect to any identified significant adverse impacts in the 2004 FGEIS. \*

## **Attachment A – AQ (E) Designation**

**A. INTRODUCTION**

As was concluded in the 2005 No. 7 Subway Extension - Hudson Yards Rezoning and Development Program Final Generic Environmental Impact Statement (FGEIS), the proposed development at 70 Hudson Boulevard would not result in any significant adverse air quality impacts.

The project site (Block 707, Lots 20, 26, 31, 41 and 45), is subject to Air Quality (E) Designation E-137 established as part of the FGEIS. These restrictions require that any new development on the property must either locate the exhaust stacks for heating and hot water systems no closer than 10 feet to the wall of an adjacent building, or utilize natural gas as the type of fuel in heating and hot water systems.

This technical memorandum proposes updates to the (E) designation requirements on the project site to account for changes to assumptions in the phasing of development on the project site, and the separate heating and hot water systems that would be utilized with the project's phasing. In addition, this technical attachment provides an analysis of conditions with potential development on the adjacent Outparcel property (Block 707, Lot 39).

**B. METHODOLOGY FOR PREDICTING POLLUTANT CONCENTRATIONS****DEVELOPMENT SITES**

The project site would consist of two proposed buildings; one 37-story (approximately 442 foot tall) building with primarily residential uses, and one 39-story commercial building (approximately 556 foot tall). The buildings were assumed to include natural gas-fired heating and hot water systems. The emissions from the proposed heating and hot water systems were evaluated for their potential impact on air quality.

A screening analysis was performed using the methodology as described in the *CEQR Technical Manual* for each of the development sites. Emissions from heating and hot water systems were estimated and plotted using Figures 17-7 and 17-8 in the Air Quality Appendix for residential and commercial developments, respectively. This methodology determines the threshold of development size below which the proposed development would not have a significant impact. The screening procedure utilizes information on the type of fuel to be burned, the maximum development size, the type of development, and the stack exhaust height. Based on the distance to the nearest building of similar or greater height, if the maximum development size is greater than the threshold size in the *CEQR Technical Manual*, then there is the potential for significant air quality impacts and a refined dispersion modeling analysis would be required. Otherwise, the source passes the screening analysis.

Table A-1 summarizes the assumptions used in the screening analysis.

**Table A-1**  
**Screening Analysis Assumptions for the Development Sites**

	<b>Residential Development</b>	<b>Commercial Development</b>
Building Size (gross square feet)	464,982	998,021
Building Bulkhead Height (ft)	442	556
Stack Height (ft)	445	559
Fuel Type	Natural Gas	Natural Gas

The screening analysis evaluated the potential for impacts on existing and future no build developments in the vicinity of the project site, as well as potential impacts on the proposed development itself (Project-on-Project impacts).

## **OUTPARCEL**

The property on the northeastern portion of Block 707 (Lot 39) is currently occupied by a 6-story commercial building. It was conservatively assumed for the purpose of evaluating air quality impacts that development would occur on this site within the timeframe analyzed in the FGEIS (i.e., 2025). It was assumed for the purpose of this technical memorandum that a commercial building would be constructed on this lot, with a height of approximately 317 feet (not including bulkhead).

## **C. ANALYSIS RESULTS**

### **DEVELOPMENT SITES**

#### *PROPOSED RESIDENTIAL BUILDING*

The analysis was based on the proposed size of the building (464,982 gross square feet), exhaust stack height of 445 feet (3 feet above the bulkhead rooftop), and the use of natural gas as the fuel. The proposed development would be primarily residential, with some commercial space. The analysis assumes residential use for the total floor area, which results in a conservative air pollutant emissions estimate, as residential uses consume more fuel for heating and hot water than commercial uses. The closest building of a similar or greater height would be the proposed adjacent commercial development on the development site. Based on Figure 17-7 of the *CEQR Technical Manual Air Quality Appendix*, there would be no significant adverse air quality impact beyond the minimum allowable stack set back distance of 157 feet. Since the Proposed Action would permit development of the primarily residential building prior to development of the commercial building on the project site, the stack set back requirement was incorporated into the proposed (E) designation description for the commercial development, as described below.

Potential air quality impacts on existing or other proposed developments were also evaluated. The nearest off-site development of a similar or greater height is the proposed development at 66 Hudson Boulevard (directly south of the proposed development), which is a proposed 1,005 foot tall commercial development. The nearest distance from the Proposed Project's residential building to the proposed off-site building was estimated to be 75 feet.

Based on Figure 17-7 of the *CEQR Technical Manual Air Quality Appendix*, there would be no significant adverse air quality impact beyond a minimum allowable stack set back distance of 157 feet. To ensure that there are no significant adverse impacts from heating and hot water system emissions associated with the proposed residential building, restrictions would be required regarding fuel type and stack set back. The text of the (E) designations would be as follows:

Block 707, Lot 31 (Proposed Residential Development):

Any new development on the above-referenced property must ensure that the fossil fuel-fired heating and hot water equipment utilize natural gas exclusively, and that the stack(s) shall be located at the highest rooftop of the building and at least 82 feet away from the lot line facing West 35th Street.

#### ***PROPOSED COMMERCIAL BUILDING***

The analysis was based on the proposed size of the building (approximately 998,021 gsf), exhaust stack height of 559 feet (3 feet above the bulkhead rooftop), and the use of natural gas as the fuel. The proposed development would have commercial office and retail space. The closest building of a similar or greater height is the proposed development at 66 Hudson Boulevard (directly south of the proposed development).

Based on Figure 17-8 of the *CEQR Technical Manual Air Quality Appendix*, there would be no significant adverse air quality impact beyond the minimum allowable stack set back distance of 205 feet. In addition, based on the analysis of the proposed residential building previously described, operable windows and air intakes on the proposed commercial building would be designed to avoid potential air quality impacts identified with the Proposed Project's residential building.

To ensure that there are no significant adverse impacts from heating and hot water system emissions associated with the proposed commercial building, restrictions would be required regarding fuel type and stack set back. The text of the (E) designations would be as follows:

Block 707, Lots 20, 26, 41 and 45 (Proposed Commercial Development)

Any new development on the above-referenced property must ensure that the fossil fuel-fired heating and hot water equipment utilize natural gas exclusively, and that the stack(s) shall be located at the highest rooftop of the building and at least 130 feet away from the lot line facing West 35th Street.

Any operable windows or air intakes on the above-referenced property must be located on the western façade.

To the extent permitted under Section 11-15 of the Zoning Resolution, the requirements of the (E) designations may be modified, or determined to be unnecessary, based on new information or technology, additional facts (including a detailed building design) or updated standards that are relevant at the time the site is ultimately developed.

#### **OUTPARCEL**

Potential air quality impacts from the potential commercial development on Block 707, Lot 39 were evaluated on the Proposed Project. The analysis was based on the maximum development potential for the building (184,912 gross square feet), exhaust stack height of 320 feet (3 feet

above the rooftop), and the use of No. 2 oil or natural gas as the fuel. The closest buildings of a similar or greater height would be the two development sites under the Proposed Project, which are both adjacent to the Outparcel. Based on Figures 17-6 and 17-8 of the *CEQR Technical Manual Air Quality Appendix* for No. 2 oil and natural gas, respectively, there would be no significant adverse air quality impact beyond the minimum allowable stack set back distance of 97 feet, assuming No. 2 oil, and 86 feet assuming natural gas.

Since the above minimum stack set back distances are both greater than the maximum distance to both of the Proposed Project's development sites, further analysis was performed using the refined EPA AERMOD dispersion model.<sup>1</sup> The analysis of potential impacts from the exhaust stack was conducted assuming stack tip downwash, urban dispersion and surface roughness length, with and without building downwash, and with elimination of calms. Hourly meteorological data collected at the LaGuardia Airport station from 2011 to 2015 and concurrent upper air from Brookhaven, NY were used in the analysis.

The results of the refined modeling analysis determined that maximum pollutant concentrations have the potential to exceed air quality standards. To avoid any potential air quality impacts, fossil fuel-fired exhaust stacks would need to be at a higher elevation than receptors on the proposed residential building (potential air quality impacts from the Outparcel on the proposed commercial development would not be anticipated with the restrictions on operable windows and air intakes that are proposed for the proposed commercial development).

New York City Mayor's Office of Environmental Remediation (NYCOER) is the City agency currently responsible for ensuring compliance with (E) Designation requirements. In the event that development is planned for this parcel, the existing (E) Designation requirements with respect to Air Quality may be modified or replaced. \*

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<sup>1</sup> EPA, AERMOD: Description of Model Formulation, 454/R-03-004, September 2004; and EPA, User's Guide for the AMS/EPA Regulatory Model AERMOD, 454/B-03-001, September 2004 and Addendum December 2006.