

Zoning for Coastal Flood Resiliency

Chapter 21: Mitigation

A. INTRODUCTION

In accordance with the ~~2020~~²⁰¹⁴ *City Environmental Quality Review (CEQR) Technical Manual*, where significant adverse impacts are identified, mitigation measures to reduce or eliminate the impacts to the fullest extent practicable are developed and evaluated.

As detailed in **Chapter 1, “Project Description,”** the New York City Department of City Planning (DCP) is proposing a zoning text amendment to update the Special Regulations Applying in Flood Hazard Areas (Article VI, Chapter 4) of the New York City Zoning Resolution (ZR), which includes the [“Flood Resiliency Zoning Text”](#) (the “2013 Flood Text”) and [“Special Regulations for Neighborhood Recovery”](#) (the “2015 Recovery Text”). These temporary zoning rules were adopted on an emergency basis to remove zoning barriers that were hindering the reconstruction and retrofitting of buildings affected by Hurricane Sandy and to help ensure that new construction there would be more resilient. The 2013 Flood Text provisions are set to expire with the adoption of new and final Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), which is anticipated to occur within the next few years. Applicability of the 2015 Recovery Text expired in July 2020. Therefore, DCP is proposing a citywide zoning text amendment, [“Zoning for Coastal Flood Resiliency”](#) (the “Proposed Action”), to improve upon and make permanent the relevant provisions of the existing temporary zoning rules of the 2013 Flood Text and 2015 Recovery Text. In addition, the Proposed Action includes special provisions to help facilitate the city’s long-term recovery from the COVID-19 pandemic and its associated economic effects by providing more time for existing non-conforming uses to reopen and builders to undertake certain construction projects. The Proposed Action also includes updates to other sections of the ZR, including the Special Regulations Applying in the Waterfront Area (Article VI, Chapter 2) and provisions within various Special Purpose Districts. The Proposed Action would mostly affect New York City’s current 1% annual and 0.2% annual chance floodplains. However, select provisions of the Proposed Action would be applicable citywide. To help the City prepare for or respond to other disasters, select provisions in the Proposed Action regarding power systems and other mechanical equipment, ramps and lifts, vulnerable populations, and disaster recovery rules, would be applicable citywide.

Due to the broad applicability of the Proposed Action, it is difficult to predict the sites where development would be facilitated. In addition, the Proposed Action is not in-and-of-itself expected to induce development where it would not otherwise have occurred absent the Proposed Action. Although the Proposed Action may allow developments and existing buildings to retrofit to resilient standards, the overall amount, type, and location of construction within the affected area is not anticipated to change. Owing to the generic nature of this action, there are no known or projected as-of-right development sites identified as part of the Proposed Action’s Reasonable Worst-Case Development Scenario (RWCDS). To produce a reasonable analysis of the likely effects of the Proposed Action, 14 representative Prototypical Analysis Sites containing either new developments, infill, reconstructions, or retrofits of existing buildings in the city’s 1% and 0.2% annual chance floodplains were identified to demonstrate the wide range of proposed regulations for sites that would be able to develop as-of-right in the future with the Proposed Action, as detailed further in **Chapter 1**.

As detailed in **Chapter 7, “Historic & Cultural Resources,”** and **Chapter 10, “Hazardous Materials,”** the Proposed Action would result in potential significant adverse impacts with respect to historic and

cultural resources and hazardous materials. However, no feasible mitigation measures have been identified, as discussed below.

B. PRINCIPAL CONCLUSIONS

Historic & Cultural Resources

Archaeological Resources

As detailed in **Chapter 7, “Historic & Cultural Resources,”** the Proposed Action could potentially result in significant adverse impacts on archaeological resources. The Proposed Action would alter the permitted bulks, footprints, and mechanical, electrical, and plumbing (MEP) equipment location requirements in the city’s floodplains. As such, additional in-ground disturbance may occur where archaeological remains exist in the future with the Proposed Action.

The extent of effects on archaeological resources are unknown because the Proposed Action is generic, and it is therefore not possible to know exactly where and to what extent additional in-ground disturbance may occur in the future with the Proposed Action. As such, the possibility of effects on archaeological resources cannot be eliminated.

On sites owned or controlled by the City, or sites that require discretionary approvals, the New York City Landmarks Preservation Commission (LPC) would review any potential impacts to archaeological resources, and would require that these impacts be mitigated to the fullest extent possible pursuant to the *CEQR Technical Manual*. However, on privately owned sites that do not require discretionary actions, the anticipated in-ground disturbances would occur as-of-right without LPC oversight. It is anticipated that these effects would be limited; however, there is no mechanism for the City to enforce archaeological testing prior to construction. Therefore, these potential archaeological impacts would remain unmitigated in the future with the Proposed Action.

Architectural Resources

Direct (Physical) Impacts

As detailed in **Chapter 7, “Historic & Cultural Resources,”** the Proposed Action could potentially result in significant adverse direct impacts on architectural resources. The Proposed Action in-and-of-itself is not expected to induce development where it would have not occurred absent the Proposed Action. It is possible that Prototypical Analysis Sites may contain privately owned LPC-eligible, State/National Register of Historic Places (S/NR)-listed, or S/NR-eligible historic architectural resources. Therefore, direct impacts to these historic resources through as-of-right alterations or demolitions in the future with the Proposed Action cannot be ruled out. As such, the Proposed Action has the potential to result in significant adverse direct impacts to privately owned NYCL-eligible, S/NR-eligible, or S/NR-listed buildings. As there is no mechanism for the City or State to enforce LPC and/or New York State Historic Preservation Office (SHPO) review of these as-of-right alterations, enlargements, or demolitions prior to construction, these potential impacts would remain unmitigated in the future with the Proposed Action.

Construction-Related Impacts

As detailed in **Chapter 7, “Historic & Cultural Resources”** and **Chapter 20, “Construction,”** the Proposed Action has the potential to result in construction-related impacts to eligible historic resources. The Proposed Action is not expected to induce development as compared to the No-Action scenarios.

However, retrofits/reconstruction of existing buildings are expected to occur on eight of the 14 Prototypical Analysis Sites in the future with the Proposed Action that could be located within 90 linear feet of NYCL-eligible and/or S/NR-eligible historic resources. These eligible resources would continue to be afforded limited protection under New York City Department of Buildings (DOB) regulations applicable to all buildings located adjacent to construction sites. However, as the resources are not S/NR-listed or NYCL-designated, or calendared for designation, they would not be afforded the added special protections under DOB's Technical Policy and Procedure Notice (TPPN) #10/88. Additional protective measures afforded under DOB's TPPN #10/88 would only become applicable if the eligible resources are calendared or designated in the future prior to the initiation of construction work. If the eligible resources are not calendared or designated, however, they would not be subject to TPPN #10/88, and may therefore be adversely impacted by adjacent retrofitting work resulting from the Proposed Action.

On sites located within 90 linear feet of eligible historic resources that are owned or controlled by the City, or that require discretionary approvals, LPC would review any potential construction-related impacts to architectural resources and would require that construction on sites incorporates Construction Protection Plans pursuant to the *CEQR Technical Manual* in order to avoid significant adverse construction-related impacts. However, on privately owned sites that do not require discretionary actions within 90 linear feet of eligible historic resources, there is no mechanism for the City to enforce added special protections under DOB's TPPN #10/88, and potential construction-related impacts would be unmitigated.

Hazardous Materials

The Proposed Action could potentially result in significant adverse hazardous materials impacts, as the Proposed Action could result in increased in-ground disturbance in areas where hazardous materials may be present. As detailed in **Chapter 10, "Hazardous Materials,"** the extent of the effects of hazardous materials are unknown because of the generic nature of the Proposed Action and because it is not possible to determine exactly where and to what extent additional ground disturbance may occur in the future with the Proposed Action. Without an assessment of specific development sites, the absence of hazardous materials cannot be definitively demonstrated. As such, the possibility of impacts related to hazardous materials cannot be eliminated. The extent of potential impacts is expected to be limited. However, as development resulting from the Proposed Action on the Prototypical Analysis Sites would be as-of-right, there would be no mechanism for the City to conduct or require a program to test for hazardous materials contamination or to mandate the remediation of such materials. Therefore, any such impact would remain unmitigated.

C. HISTORIC & CULTURAL RESOURCES

Archaeological Resources

As described in **Chapter 7, "Historic & Cultural Resources,"** the Proposed Action could potentially result in significant adverse impacts on archaeological resources. Architectural resources usually need to be assessed for actions that would result in any in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated and includes new excavation deeper and/or wider than previous excavations on the same site.

As noted above, the Proposed Action is not expected to induce development on sites where development would not have otherwise been possible. However, the Proposed Action would result in greater in-ground disturbance than the No-Action scenarios on eight Prototypical Analysis Sites (Sites 1, 2, 3, 6, 9, 11, 12, and 13). The increased in-ground disturbance would be permitted as-of-right in the future with the Proposed

Action. However, it could result in the disturbance of previously unknown archaeological resources. Therefore, the possibility of significant impacts on archaeological resources cannot be eliminated.

On sites owned or controlled by the City, or sites that require discretionary approvals, LPC would review any potential impacts to archaeological resources, and would require that these impacts be mitigated to the fullest extent possible pursuant to the *CEQR Technical Manual*. However, on privately owned sites that do not require discretionary actions, the anticipated in-ground disturbances would occur as-of-right without LPC oversight. It is anticipated that these effects would be limited; however, there is no mechanism for the City to conduct or require a program to test for archaeological resources prior to construction. Therefore, any such impact would remain unmitigated in the future with the Proposed Action.

Architectural Resources

Direct (Physical) Impacts

According to the 2020~~14~~ *CEQR Technical Manual*, generally, if a proposed action would impact those characteristics that make a resource eligible for NYCL designation or S/NR listing, this could be a significant adverse impact. Historic resources can be directly impacted by physical destruction, demolition, damage, alteration, or neglect of all or part of a historic resource. For example, alterations, such as the addition of a new wing to a historic building or replacement of the resource's entrance, could result in significant adverse impacts, depending on the design. Direct impacts also include changes to an architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.

In the With-Action conditions, privately owned properties that are NYCLs or in New York City Historic Districts would continue to be protected under the New York City Landmarks Law, which requires LPC review and approval before any new construction, enlargement, alteration, or demolition can occur. Therefore, any as-of-right changes to LPC-designated or calendared resources in the future with the Proposed Action would require approval before changes to the historic structure were made. The Proposed Action would not change this well-established framework. This approval process would ensure that development under the Proposed Action would not have an adverse impact on these resources. However, NYCL-eligible historic resources do not have these same protections.

Similarly, historic resources that are listed on the S/NR are given a measure of protection from the effects of federally-sponsored or federally-assisted projects under Section 106 of the National Historic Preservation Act, and are similarly protected against impacts resulting from state-sponsored or state-assisted projects under the New York State Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. However, privately owned properties using private funds that are S/NR-listed can be altered or demolished without review.

As noted above, it is possible that Prototypical Analysis Sites may contain LPC-eligible or privately-owned S/NR-listed or S/NR-eligible historic architectural resources. Therefore, direct impacts to these historic resources through as-of-right alterations or demolitions, eliminating character-defining details of these historic buildings, in the future with the Proposed Action cannot be ruled out. As such, the Proposed Action has the potential to result in significant adverse direct impacts to NYCL-eligible resources or privately owned S/NR-eligible or S/NR-listed buildings. As there is no mechanism for the City or State to enforce LPC and/or SHPO review of these as-of-right alterations, enlargements, or demolitions prior to construction, these potential impacts would remain unmitigated in the future with the Proposed Action.

Construction-Related Impacts

As detailed in **Chapter 7, “Historic & Cultural Resources”** and **Chapter 20, “Construction,”** the Proposed Action has the potential to result in construction-related impacts to eligible historic resources. The Proposed Action is not expected to induce development as compared to the No-Action scenarios. However, retrofits/reconstruction of existing buildings are expected to occur on eight of the 14 Prototypical Analysis Sites in the future with the Proposed Action. Due to their generic nature, it is not known whether any of these sites would be located within close proximity to any NYCL-eligible and/or S/NR-eligible historic resources. For conservative analysis purposes, it was assumed that the Prototypical Analysis Sites would be located within 90 linear feet of NYCL-eligible and/or S/NR-eligible historic resources.

These eligible resources would continue to be afforded limited protection under DOB regulations applicable to all buildings located adjacent to construction sites. However, as the resources are not S/NR-listed or NYCL-designated or calendared, they would not be afforded the added special protections under DOB’s TPPN #10/88. Additional protective measures afforded under DOB’s TPPN #10/88 would only become applicable if the eligible resources are calendared or designated in the future prior to the initiation of construction work. If the eligible resources are not calendared or designated, however, they would not be subject to TPPN #10/88, and may therefore be adversely impacted by adjacent retrofitting work resulting from the Proposed Action.

On sites located within 90 linear feet of eligible historic resources that are owned or controlled by the City, or that require discretionary approvals, LPC would review any potential construction-related impacts to architectural resources and would require that construction on sites incorporates Construction Protection Plans pursuant to the *CEQR Technical Manual* in order to avoid significant adverse construction-related impacts. However, on privately owned sites that do not require discretionary actions within 90 linear feet of eligible historic resources, there is no mechanism for the City to enforce added special protections under DOB’s TPPN #10/88, and potential construction-related impacts would be unmitigated.

D. HAZARDOUS MATERIALS

As detailed in **Chapter 10, “Hazardous Materials,”** hazardous materials usually need to be assessed for actions that would result in additional in-ground disturbance. The Proposed Action is not in-and-of-itself expected to induce development where it would not have occurred absent the Proposed Action. However, the Proposed Action would alter the permitted bulks, footprints, and MEP equipment location requirements in the city’s floodplains. As such, the Proposed Action would increase the amount of lot coverage for eight of the 14 Prototypical Analysis Sites (Sites 1, 2, 3, 6, 9, 11, 12, and 13). The increase in-ground disturbance would be permitted as-of-right in the future with the Proposed Action.

As detailed in **Chapter 2, “Land Use, Zoning, & Public Policy,”** there are parts of the city’s floodplains that were historically and are currently industrial areas. Therefore, it is possible that some of the Prototypical Analysis Sites could be located on areas with contaminated soils, and increased in-ground disturbance on some of the Prototypical Analysis Sites could disturb hazardous materials on the sites, resulting in impacts.

The extent of potential impacts is expected to be limited. However, as development resulting from the Proposed Action on the Prototypical Analysis Sites would be as-of-right, there would be no mechanism for the City to conduct or require a program to test for hazardous materials contamination or to mandate the remediation of such materials. Therefore, any such impact would remain unmitigated.

For developments on sites where commercial or industrial/manufacturing uses are permitted, owners or investors may want to limit their environmental liability by conducting “all appropriate inquiry,” which

may include the preparation of a Phase I Environmental Site Assessment (ESA). The Phase I ESA would identify any Recognized Environmental Conditions (RECs) on a site, with recommendations for further testing or remediation if necessary. Therefore, if contamination is identified and remediated, impacts on commercial or industrial/manufacturing sites would be mitigated. However, there is no mechanism for the City to conduct or require these Phase 1 ESAs and mandate the remediation of such materials, as development would continue to occur as-of-right. Therefore, any such impact would remain unmitigated.