10 HAZARDOUS MATERIALS

10.1 Introduction

The 2021 *CEQR Technical Manual* defines hazardous materials as substances that pose a threat to human health or the environment. Substances of concern include, but are not limited to, heavy metals, volatile organic compounds (VOCs) (including petroleum-related VOCs, chlorinated VOCs, and methane), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and hazardous wastes (as defined by 6 NYCRR Part 371).

Significant adverse hazardous materials impacts may occur when hazardous materials exist on a site and a proposed action would have the potential to increase pathways to expose humans or the environment. Significant adverse hazardous materials impacts may also have the potential to occur if a proposed action would introduce new activities or processes using hazardous materials. Potential routes of exposure to hazardous materials can include direct contact, such as contact between contaminated soil and skin (dermal contact), breathing of VOCs or chemicals associated with suspended soil particles (inhalation), or swallowing soil or water (ingestion). Per the *CEQR Technical Manual,* public health may also be threatened when soil vapors migrate through the subsurface or along preferential pathways (such as a building foundation, utility conduit, or duct) and accumulate beneath a concrete slab or inside a basement, thereby resulting in an explosive, oxygen-deficient, or hazardous atmosphere.

New residential uses located on sites previously used for manufacturing have the potential to effect human health and the environment. Projected Developments Sites 1 and 2 contain manufacturing uses which would be rezoned to allow residential and commercial uses with the Proposed Actions. A hazardous materials assessment is required because of the former and current industrial uses and because releases of hazardous substances and petroleum warrant remediation before developing the properties for residential land use.

The Proposed Actions, including rezoning the property for residential use, would facilitate the development of 304 DUs and up to 5,000 gross square foot (gsf) of retail on Projected Development Site 1, and up to 666 DUs and 16,229 gsf of retail on Projected Development Site 2. The Applicant is proposing that all new DUs on the Applicant-owned sites be

affordable DUs. Additionally, 1.38 acres of project-generated open space would be developed along the Bronx River across from Projected Developments 1 and 2. Due to the Proposed Actions on the development sites, a hazardous materials assessment was warranted.

10.2 Principal Conclusions

With an E-Designation in place for the development sites, the Proposed Actions would not result in significant adverse hazardous materials impacts. The December 2018 Phase I Environmental Site Assessment (ESA) identified seven Recognized Environmental Conditions (RECs) on Projected Development Sites 1 and 2. As described in the Phase I ESA, the RECs included historical use, underground and aboveground storage tanks, drainage, hydraulic lifts, vapor intrusion, straining and potentially hazardous material/debris, and potential off-site contamination. A Phase II Environmental Site Investigation (ESI) found fill material as well as SVOCs, metals, and other chemicals over the regulatory criteria. The Applicant is actively seeking to enroll Projected Development Sites 1 and 2 into the Brownfield Cleanup Program (BCP). If accepted in the BCP, the Brownfield Cleanup Agreement (BCA) would provide regulatory oversight by the New York State Department of Environmental Conservation (NYSDEC) and would preclude the potential for significant adverse hazardous materials impacts.

An E-Designation would be mapped across the Projected Development Sites and Potential Development Site A part of the Proposed Actions. If the Applicant is not accepted or withdraws from the voluntary BCP, an E-Designation mapped on the development sites would preclude significant adverse hazardous materials impacts because certain hazardous materials remediation requirements would be in place on the projected and potential development sites. If unacceptable levels of hazardous materials are present, a remedial action plan would require approval from the New York City Mayor's Office of Environmental Remediation (OER) before development can proceed. With the proposed E-Designation (E-714) in place for the development sites, the Proposed Actions would not result in significant adverse hazardous materials impacts, and no further analysis is necessary.

10.3 Methodology

Per the guidelines of the *CEQR Technical Manual*, the first step to evaluate the potential presence of hazardous materials within the Proposed Rezoning Area is to conduct a Phase I ESA. The Proposed Actions would allow development on Projected Development Site 1 (Block 3017, Lot 74) and Projected Development Site 2 (Block 3017, Lot 29), which are under control of the Applicant. Potential Development Site A consists of Block 3017, Lots 60, 65, and 68 and is not owned by the Applicant.

The objective of a Phase I ESA is to identify the presence or likely presence, use, or release of hazardous substances or petroleum products, as defined in American Society for Testing and Materials (ASTM) E1527-13 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) as an REC. A Phase I ESA also identifies historical recognized environmental concerns (HREC). An HREC is defined by ASTM E1527-13 as a past release of hazardous substance or petroleum product that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meets unrestricted use (UNRES) criteria established by a regulatory authority without subjecting the property to any regulatory

controls. Typically, a Phase I ESA qualitatively evaluates environmental conditions within a particular area.

This hazardous materials assessment summarizes the findings of ESAs available for Projected Development Sites 1 and 2, which are under control of the Applicants. In December 2018, a Phase I ESA was prepared by CDM Smith (CDM) for Projected Development Sites 1 and 2, and in November 2021, a Phase II ESI was prepared by Environmental Engineering Compliance Control, D.P.C. (EECC) for both projected development sites.

10.4 Existing Conditions

The Project Area contains three development sites (Projected Development Site 1, Projected Development Site 2, and Potential Development Site A). Projected Development Site 1 comprises Block 3017, Lot 74 and contains 41,408 gross square feet (gsf) of lot area and is improved with a one-story, approximately 14,000-gsf automobile mechanic training facility. Projected Development Site 2 is a 97,892 sf lot in the south of the Proposed Rezoning Area and contains an open parking facility with four connected one-story accessory office buildings and one garage totaling approximately 25,197 gsf of building area. Potential Development Site A, which is not owned by the applicant, is comprised of Lots 60, 65, and 68, which could reasonably be merged into one zoning lot and redeveloped. Lot 68 is improved with a 14,411-sf open truck parking lot. Lot 65 is an approximately 19,070-sf lot improved with a 26,353-gsf three-story hotel that was developed in 2007. Lot 60 is an approximately 23,495-sf lot improved with a 16,398-gsf one-story vacant industrial building.

Projected Development Sites 1 and 2 currently contain seven RECs and other items of environmental concern based on the findings of the Phase I ESA and Phase II ESI. Contaminants and other items of environmental concern within Potential Development Site A are unknown at this time.

Projected Development Sites 1 and 2

Phase I ESA (December 2018)

The Phase I ESA for Projected Development Sites 1 and 2 was conducted in December 2018 in accordance with the ASTM Practice E1527-13 and the U.S. Environmental Protection Agency's All Appropriate Inquiry Rule. The Phase I ESA identified seven RECs and other items of environmental concern:

- REC 1 – Historical Use: Projected Development Site 1 historically was used as a coal and lumberyard, railway company, including a powerhouse, garage, bus repair, and paint shop since at least 1896 and is currently occupied by Garage Gurus, Federal-Mogul Motoparts (an automotive parts store), and Moncon, Inc (a construction drilling and foundation company that utilizes the property as an equipment yard). Projected Development Site 2 historically was used as an iron yard, concrete manufacturing, and an automotive maintenance and demolition facility since the 1890s. Currently, the property is used for commercial parking and an office building. Similar industrial uses have been located on properties adjacent to Projected Development Sites 1 and 2 since the 1950s. Hazardous materials used or generated at Projected Development Sites 1 and 2 would likely have included solvents, cleaners, waste oil, coolants, and petroleum products.

- REC 2 – Underground and Aboveground Storage Tanks: Three gasoline/diesel fuel underground storage tanks (USTs) were closed and removed from Projected Development Site 2, however no documentation of post-excavation sampling at these locations was available at the time of the Phase I ESA. Additionally, four aboveground storage tanks (ASTs), including two 1,000-gallon diesel and waste oil and two 249-gallon gasoline tanks at Projected Development Site 2, were closed in March 2014. According to the Phase I ESA, 1,000-gallon diesel fuel AST was reportedly removed from the site in 2017.
- REC 3 – Drainage: Hazardous materials used at automotive repair and demolition shops may have been removed off-site at Projected Development Site 2 through the drainage system. Trench drains were observed near the former location of a UST. Interior floor drainage systems and external storm drains located near historic car maintenance areas are additional potential locations for contamination associated with former site operations.
- REC 4 – Hydraulic Lifts: An in-ground hydraulic lift was observed in the garage warehouse at Projected Development Site 2. Hydraulic oil and fluids to operate the lift are a potential source of contamination at the site through leaks in the lines or hoses.
- REC 5 – Vapor Intrusion: Potential vapor intrusion issues that are associated with historical operations and neighboring commercial and light industrial properties may be present at the site.
- REC 6 – Staining and Potentially Hazardous Material/Debris: Stained concrete was observed at Projected Development Site 2 due to reddish fluid. This may be indicative of contamination related to site operations. Empty and partially full containers, spray paint cans, cleaning agents, and 5-gallon buckets were observed at Projected Development Site 2, with debris piles in the rear portion of the site.
- REC 7 – Potential Off-site Contamination: Several upgradient or nearby properties were identified for their potential to impact groundwater on Projected Development Sites 1 and 2. These properties include dry cleaners, Voluntary Cleanup Program (VCP) sites, a New York Brownfield site, and historical auto stations.
- Other Items of Environmental Concern include lead-based paint, asbestos containing materials, and light ballasts at both projected development sites.

Phase II Environmental Site Investigation (November 2021)

A Phase II ESI was prepared for Projected Development Sites 1 and 2 in November 2021 that summarized the subsurface investigation, environmental sampling, and laboratory analyses services performed. The Phase II ESI focused on areas identified as RECs in the Phase I ESA. The following conclusions are based on field observations and results of the laboratory analyses:

- Projected Development Site 1
  - Fill material, including anthracite coal, was identified in the borings collected;
  - SVOCs and metals were detected above regulatory criteria in both the soil and groundwater on site; and
  - Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected, however there is no indication that per- and polyfluoroalkyl substances (PFAS) originated from an on-site source or historic property use.

- Projected Development Site 2
  - The conclusions reported above on Projected Development Site 1 were also observed for Projected Development Site 2;
  - The volume and status of the UST on site should be confirmed prior to its removal. The tank may need to be registered and tank closure may need to be reported to NYSDEC depending on the volume of the tank;
  - Benzene, ethylbenzene, toluene, and xylenes (BTEX) and gasoline/diesel constituents were detected above regulatory criteria in the soil and groundwater. The presence of these contaminants is presumed to be from incidental spills from the buses and trucks parked atop a brick paved area; and
  - PCBs were detected outside the garage containing the former hydraulic lift and above UNRES criteria in three other locations on site.

Potential Development Site A

Potential Development Site A is not under the Applicant's control, and historic environmental reports completed for this site were not available.

10.5 No-Action Condition

In the No-Action Condition, existing conditions in the Project Area would remain. A one-story, approximately 14,000-gsf automobile mechanic training facility would remain on Projected Development Site 1, and an open parking facility with four connected one-story accessory office buildings and one garage would remain on Projected Development Site 2. Potential Development Site A would remain improved as a hotel, an open truck parking facility, and a vacant industrial building.

The conditions of the bulkhead would remain and hazardous materials would continue to have the potential to flow into the Bronx River. Remediation actions to combat hazardous materials across the development sites would not be pursued. Additionally, the development sites would not contain a BCA, E-Designation, or require NYSDEC oversight.

10.6 With-Action Condition

In the With-Action Condition, the Proposed Actions would be adopted and Projected Development Site 1 would be developed with an approximately 24-story, 240-foot-tall (225 feet plus a 15-foot-tall mechanical bulkhead), 263,862-gsf building. Projected Development Site 1 would contain 258,862 gsf of residential space containing approximately 304 DUs, all of which would be affordable units. Up to 5,000 gsf of retail uses would be developed across the ground and cellar levels. Projected Development Site 2 would be developed with two approximately 24-story, 240-foot-tall (225 feet plus 15-foot-tall mechanical bulkhead) buildings totaling 602,155 gsf. Combined, the two buildings would contain up to 16,229 gsf of ground floor retail and 666 affordable DU (565,926 residential gsf). A Construction Safety Work Plan will be incorporated into the project design to ensure safety of construction workers and surrounding properties during construction. Additionally, the With-Action Condition would seal the bulkhead and prevent hazardous materials from flowing into the Bronx River or surrounding area.

Proposed E-Designation (E-714) and Brownfield Cleanup Program (BCP)

The Phase I ESA completed for Projected Development Sites 1 and 2 identified seven RECs and other items of environmental concern. The Phase II ESI found fill material in the boring samples, SVOCs and metals above regulatory criteria in both soil and groundwater for both Projected Development Sites 1 and 2. Additionally, BTEX and PCBs were detected above regulatory criteria at Projected Development Site 2. Accordingly, significant adverse hazardous materials impacts could not be ruled out without additional oversight.

The Applicant plans to enter the NYSDEC Brownfield Cleanup Program (BCP). The BCP – which is a voluntary program overseen by NYSDEC that provides incentives for participation – would require remediation in accordance with a BCA that would be executed between the Applicant and NYSDEC.

The BCP involves investigating areas of concern, evaluating the investigation results, and, if warranted, preparing and implementing a Remedial Action Work Plan (RAWP), with oversight from NYSDEC throughout the process.With this oversight from NYSDEC, there would be no significant adverse hazardous materials impact.

A Citizen Participation Plan will be prepared in accordance with the Division of Environmental Remediation (DER-23) / Citizen Participation Handbook for Remedial Programs as part of the NYSDEC BCA. Section 3.1 of this handbook describes the extent of public participation, including document availability, public comment period for the Remedial Action Work Plan, and the following fact sheets: before NYSDEC approves the Remedial Investigation Report; before the Applicant initiates remedial actions; and after the remediation is completed but before NYSDEC approves the Final Engineering Report.

In the event the Applicant withdraws their voluntary participation in the BCP or is not accepted into the program, an E-Designation would ensure that testing is completed before construction permits are issued for development within the Proposed Rezoning Area. An E-Designation would be mapped across the projected and potential development sites as a part of the Proposed Actions, which will require approval by OER prior to obtaining DOB permits pursuant Zoning Resolution (ZR) Section 11-15. If testing reveals unacceptable conditions, the Applicant would be required to undertake remediation measures deemed appropriate by OER. To determine if contamination exists and to perform the appropriate remediation, the following tasks must be undertaken by the fee owners of the lots restricted by this E-Designation prior to any demolition or disturbance of soil on the lots.

The specific requirements of the E-Designation (E-714) would be as follows:

Projected Development Site 1 (Block 3017, Lot 74), Projected Development Site 2 (Block 3017, Lot 29) and Potential Development Site A (Block 3017, Lots 60, 65, and 68)

Task 1

The Applicant submits to OER, for review and approval, a Phase I Environmental Site Assessment (ESA) of the site along with a soil, groundwater, and soil vapor sampling protocol (i.e. a Remedial Investigation Work Plan), including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples must be selected to adequately evaluate the nature and extent of contamination in soil, groundwater, or soil vapor at the site, characterize the site, specify sources of suspected contamination, and to inform the Remedial Action Work Plan (RAWP).

The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2

A written report with findings and a summary of the data (a Remedial Investigation Report) must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice will be given by OER. If analytical results indicate that remediation is necessary, a RAWP must be submitted to OER for review and approval. The Applicant must complete such remediation as determined necessary by OER. The Applicant must provide proper documentation (i.e. a Remedial Action Report) that the work has been satisfactorily completed. A construction-related health and safety plan must be submitted to OER and must be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater, and/or soil vapor. This plan must be submitted to OER prior to implementation.

In a letter dated August 10, 2022, the New York City Department of Environmental Protection (DEP) found that enrollment in the BCP and a mapped E-designation across the development sites would ensure adequate testing and oversight prior to future development or soil disturbance (Appendix E – Agency Correspondence). With this E-Designation in place across the Proposed Rezoning Area and a BCA in place for Projected Development Sites 1 and 2, there would be no significant adverse hazardous materials impacts, and no further analysis is warranted.

If the Applicant is accepted in the BCP, the BCA would provide regulatory oversight by NYSDEC and would preclude the potential for significant adverse hazardous materials impacts. An E-Designation will be mapped on the development sites as part of the Proposed Actions. The implementation of the preventative and remedial measures outlined in the(E) designation would preclude the potential for significant adverse hazardous materials impacts from Proposed Actions. With the proposed E-Designation (E-714) in place and the bulkhead improvements for the development sites, the Proposed Actions would not result in significant adverse hazardous materials impacts, and no further analysis is necessary.