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Hazardous Materials

A hazardous material is any substance that poses a threat to human health or the environment if it creates an exposure pathway. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic), which may create a dermal, inhalation, or vapor exposure pathway if present in the environment and are left uncontrolled.

Introduction

According to the ~~*2021*~~*2025 City Environmental Quality Review (CEQR) Technical Manual*, the potential for significant impacts from hazardous materials can occur when:

- hazardous materials exist on a site and an action would increase pathways to their exposure;
- an action would introduce new activities or processes using hazardous materials; or
- the project would introduce a population to potential human or environmental exposure from off-site sources

This section presents the findings of the hazardous materials assessment and identifies potential issues of concern with respect to workers, the community, and/or the environment during construction and after implementation of the Proposed ~~This section presents the findings of the hazardous materials assessment and identifies potential issues of concern with respect to workers, the community, and/or the environment during construction and after implementation of the~~ Projects, and how such potential issues of concern will be mitigated.

Principal Conclusions

The Proposed Actions would not result in significant adverse impacts with respect to hazardous materials with the placement of an (E-)-Designation (E-869) on Development Sites 1 and 2.

The Phase I Environmental Site Assessments (ESAs) identified a Recognized Environmental Condition (REC) and several Business Environmental Risks (BERs) at the Development Sites. Potential impacts relating to this condition would be reduced or eliminated through subsurface investigation and, if applicable, remediation on Development Site 1 (Manhattan Block 1102, Lot 11) and Development Site 2 (Manhattan Block 1103, Lot 36). A Phase II Environmental Site Investigation (ESI) Work Plan was prepared for each ~~Developmental~~Development Site and approved by the New York City Department of Environmental Protection (DEP) on May 22, 2025.

A subsurface Phase II ESI for Development Site 1 was conducted between October 26 and October 29, 2025, and a subsurface Phase II ESI for Development Site 2 was conducted between June 27 and June 30, 2025, in accordance with the DEP-approved Phase II ESI Work Plan. Based on the findings of the Phase II ~~ESI~~ESIs, it is anticipated that remedial measures would include the proper handling and off-site disposal of historic urban fill materials and soil vapor mitigation. An (E-)-Designation would be placed on Development Site 1 and Development Site 2 (E-869) as the mechanism for managing any future need for hazardous materials remediation. ~~Implementation of the DEP-approved Phase II ESI Work Plan for Development Site 1 has not occurred as of yet since the existing tenant at the site has denied access for further site investigations due to concerns that testing would disrupt and negatively impact business operations. As such, an E-designation would also be placed on Development Site 1 (E-869) as the mechanism for managing any future need for hazardous materials remediation.~~

The subsurface investigation and remedial activities, ~~if required,~~ for both Development Site 1 and Development Site 2 would be under the administration of the New York City Office of Environmental Remediation (OER).

In addition to the above, regulatory requirements pertaining to building materials containing asbestos-containing material (ACM), lead-based paint (LBP), and/or polychlorinated biphenyls (PCBs) would be addressed under standard demolition/~~renovation~~remediation procedures. With the implementation of the above measures, there would be no significant adverse impacts with respect to hazardous materials.

Methodology

The potential for hazardous materials was evaluated based on the following documents: prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB):

- Phase I Environmental Site Assessment (ESA), 629 West 54th Street, dated June 19, 2024~~, prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB).~~;
- Phase I Environmental Site Assessment (ESA), 801 Eleventh Avenue, dated June 7, 2024~~, prepared by VHB.~~;
- Phase II ESI Work Plan, 629 West 54th Street, dated May 6, 2025;
- Phase II ESI Work Plan, 801 Eleventh Avenue, dated May 6, 2025;
- Phase II Remedial Investigation Report, 629 West 54th Street, dated December 16, 2025;

› Phase II Remedial Investigation Report, 801 Eleventh Avenue, dated October 17, 2025~~, prepared by VHB~~.

A Phase I ESA for each Development Site (see **Appendix B**) was prepared in general accordance with ASTM Practice E1527-21, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on December 30, 2013. The United States Environmental Protection Agency (EPA) "All Appropriate Inquiry" requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

VHB prepared a Phase II ESI Work Plan for each Site in January 2025. Based on NYC DEP comments addressed in letters dated March 28, 2025, and May 2, 2025, the work plans were revised and reissued on April 2, and May 6, 2025, respectively. The May 6, 2025 work plans were accepted via a final letter dated May 22, 2025, on the condition that the soil samples collected must be discrete samples. Copies of the approval letters are included in **Appendix C**.

As part of the Phase II ESI, sampling activities were conducted, in accordance with the approved work plans to investigate Phase I findings and characterize site conditions. For both Development Site 1 and Development Site 2, this included soil borings, installation of temporary groundwater well points, and soil vapor sampling

~~The sampling activities required under the approved work plans include the following activities to investigate the findings of the Phase I's and for general site characterization:~~

~~Development Site 1:~~

- ~~Completion of ten soil borings for collection of 20 soil samples for laboratory analysis;~~
- ~~Completion of six temporary groundwater monitoring well points (TWs) for the collection of six groundwater samples for laboratory analysis; and~~
- ~~Completion of nine soil vapor sampling points for the collection of nine soil vapor samples.~~

~~Development Site 2:~~

- ~~Completion of nine soil borings for the collection of 18 soil samples for laboratory analysis;~~
- ~~Completion of five temporary groundwater monitoring well points (TWs) for the collection of five groundwater samples for laboratory analysis; and~~
- ~~Completion of eight soil vapor sampling points for the collection of eight soil vapor samples,~~

All soil, groundwater, and soil vapor samples ~~will be~~were submitted to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP~~-~~)-certified laboratory for analysis. Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volitile organic coumpounds (SVOCs), pesticides (PCBs), and metals using standard U.S. Environmental protection Agency (USEPS) methods. Soil vapor samples were analyzed for VOCs (USEPS Method TO-15). ~~the following:~~

- ~~volatile organic compounds (VOCs) by USEPA Method 8260;~~
- ~~), semi-volatile organic compounds (SVOCs) by USEPA Method 8270;~~
- ~~Pesticides by USEPA Method 8081;~~
- ~~Polychlorinated biphenyls), pesticides (PCBs) by USEPA Method 8082; and~~

~~› Target Analyte List (TAL) Metals.~~

~~Groundwater~~

~~› Volatile Organic Compounds (VOCs) by USEPA Method 8260;~~

~~› Semi-volatile Organic Compounds (SVOCs) by USEPA Method 8270;~~

~~› Pesticides by USEPA Method 8081;~~

~~› Polychlorinated biphenyls (PCBs) by USEPA Method 8082; and~~

~~› Target Analyte List (TAL) Metals.~~

~~Soil Vapor~~

~~› VOCs by USEPA Method TO-15).~~

As indicated in **Part I: Project Description**, the Proposed Actions would facilitate the construction of two buildings: ~~one~~ a 44-story, mixed-use residential and commercial building at 629 West 54th Street (Development Site 1) and a 38-story, mixed-use residential and commercial building at 801 Eleventh Avenue (Development Site 2).

Assessment

Existing Conditions

Development Site 1 occupies the western portion of Block 1102, located on 12th Avenue between West 54th and West 55th Streets, and is improved with one six-story building constructed in 1930 and occupied by a car dealership and auto repair facility. Development Site 2 occupies the eastern portion of Block 1103, located on 11th Avenue between West 55th and West 56th Streets, and is improved with one two-story building and one three story building constructed in 1920. Development Site 2 is currently vacant and was formerly occupied by a car dealership.

Phase I Environmental Site Assessment (Development Sites 1 and 2)

Two Phase I ESAs dated June 7, 2024, and June 19, 2024 (see **Appendix B**), were completed for the Development Sites and included analyses as specified in the ASTM Method E1527-21. The goal of the Phase I ESA process is to identify RECs, which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

Per the current ASTM Standard, the Phase I ~~ESA~~ESAs reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. The Phase I ~~ESA~~ESAs also included reconnaissance of the two development sites and observation of surrounding properties.

The following REC was identified in the Phase I ESA for Development Site 1:

› According to the findings of the site reconnaissance, historical records review, and the online NYCDOB database, Development Site 1 has been formerly utilized as a coal yard, piano

manufacturer, disinfectant manufacturer, auto repair, auto sales, cigar manufacturing, and printing and binding facility between 1892 and 2024. Database listings indicate historic handling, storage, and/or disposal of hazardous materials and substances utilized during site operations, and historic known releases at Development Site 1 were identified, which may have resulted in inadvertent impacts to onsite soils, groundwater, and soil vapor, ~~constituting~~which constitute a REC.

The following REC was identified in the Phase I ESA for Development Site 2:

› According to the findings of the site reconnaissance, historical records review, and the online NYCDOB database, Development Site 2 has been formerly utilized as an auto repair and auto sales from 1920 through at least 2020. The handling, storage, and/or disposal of materials and substances utilized during site operations is unknown, and may have resulted in inadvertent impacts to onsite soils, groundwater, and soil vapor, which ~~constituting~~constitute a REC.

In addition, the following BERs were identified for both Development Sites:

› According to the historical data review, several adjoining and nearby properties within a 500-foot radius of the Development Sites were identified as auto repair shops, auto sales, manufacturing, and industrial uses from at least 1892 through the present, with documented releases associated with these properties. The handling, storage, and/or disposal of materials and substances used during the historic and current operations at the nearby properties is unknown. Therefore, the historic and current operations at the above-referenced nearby properties represent a potential source of off-site impact to the subsurface.

› Based upon review of historic resources, the presence of historic urban fill material is likely as there were former structures on both Development Sites prior to the construction of the current layouts. As such, the potential presence of historic urban fill material is considered a BER for the Development Sites. If same is determined to be present, disposal should be handled in accordance with all prevailing regulations.

Phase II Environmental Site Investigation (Development Site 1)

A Phase II ESI Work Plan was prepared in January 2025 and submitted to DEP for review. Based on NYC DEP comments addressed in letters dated March 28, 2025 and May 2, 2025, the work plan was revised and reissued on April 2, and May 6, 2025, respectively. The May 6, 2025 work plan was accepted via a final letter dated May 22, 2025 on the condition that the soil samples collected must be discrete samples. Copies of the approval letters are included in **Appendix C**.

VHB conducted the subsurface Phase II ESI for Development Site 1 ~~is currently operated as an automobile showroom, customer service lounge, service center~~between October 26 and ~~associated office spaces. The Phase II is being planned to minimize impacts to the commercial operations and will be completed~~October 29, 2025, in accordance with the DEP-approved Phase II ESI Work Plan ~~once access to the~~. Based on the findings of the Phase II ESI, it's anticipated that remedial measures would include the proper handling and off-site ~~is obtained.~~disposal of historic urban fill materials and soil vapor mitigation. Regulatory compliance for the remediation of hazardous materials at Development Site 1 would be conducted under the administration of OER.

A summary of the Phase II investigation findings at Development Site 1 is as follows:

- Urban Historic Fill: Urban historic fill was encountered directly below the existing foundation slab to as shallow as 3.0 feet below grade surface (bgs) and extending to approximately 9.0 feet bgs in some areas across Development Site 1.
- Bedrock and/or refusal was encountered beneath the fill layer and extended to the terminus of each boring, at depths ranging between 3.0 feet and 9.0 feet bgs.
- Soil Impacts: Soil samples collected within the fill material reported concentrations of VOCs (shallow samples) SVOCs (shallow and deeper samples), pesticides (shallow and deeper samples) and metals (shallow and deeper samples) exceeding the NY-UNRES, NY-RESRR, and/or NY-RESC soil cleanup objectives (SCOs) in select locations.
- Groundwater Detection: Groundwater was not encountered with refusal at shallow depths due to bedrock and/or refusal. As a result, groundwater samples were not collected.
- Soil Vapor Intrusion Potential: Five of the eight soil vapor samples collected onsite reported elevated concentrations of several petroleum-related and chlorinated VOCs, indicating a potential for vapor intrusion that may require mitigation.

Phase II Environmental Site Investigation (Development Site 2)

VHB conducted the subsurface Phase II ESI for Development Site 2 between June 27 and June 30, 2025, in accordance with the DEP-approved Phase II ESI Work Plan. Based on the findings of the Phase II ESI, it's anticipated that remedial measures would include the proper handling and off-site disposal of historic urban fill materials and soil vapor mitigation. Regulatory compliance for the remediation of hazardous materials at Development Site 2 would be conducted under the administration of OER.

A summary of the Phase II investigation findings at Development Site 2 follows:

The soil, groundwater, and soil vapor investigations conducted as part of this Phase II Remedial Investigation at Development Site 2 identified following:

- Urban Historic Fill: Urban historic fill material was encountered from approximately existing grade to as shallow as four feet bgs and extending to approximately 17.5 feet bgs across the Development Site 2.
- Bedrock and/or refusal was encountered beneath the fill layer and extended to the terminus of each boring, averaging approximately 9.5 feet bgs across the development site.
- Soil Impacts: Soil samples collected within the fill material reported concentrations of VOCs (deeper samples), SVOCs (shallow and deeper samples), pesticides (shallow samples) and metals (shallow and deeper samples) exceeding the NY-UNRES, NY-RESRR, and/or NY-RESC SCOs in select locations.
- Groundwater Detection: Groundwater was not encountered with refusal at shallow depths due to bedrock. As a result, groundwater samples were not collected.
- Soil Vapor Intrusion Potential: Four of the eight soil vapor samples collected onsite reported elevated concentrations of several petroleum-related and chlorinated VOCs, indicating a potential for vapor intrusion that may require mitigation.

Future No-Action Condition

Absent the approval of the Proposed Actions, Development Site 1 would be occupied by a car dealership and auto repair facility and Development Site 2 is expected to be re-tenanted by another automotive related use, such as storage of inventory, repair, or sales. Under the No-Action condition, the RECs identified in the Phase I ESAs would not be investigated or mitigated.

Future With-Action Condition

In the future With-Action condition, the Applicant would construct two new buildings: one 44-story, mixed-use residential and commercial building on Development Site 1, and one 38-story, mixed-use residential and commercial building on Development Site 2. To address any concerns relating to hazardous materials on the Development Sites, Phase II ~~Environmental Site Investigations (ESI) are~~ESIs were required to identify potential subsurface contamination relating to the RECs identified in the Phase I ESAs. The Phase II ESIs ~~will characterize~~characterized the Development Sites for contaminants relating to soil, groundwater, and soil vapor conditions in accordance with the *CEQR Technical Manual*. Subsurface contaminants ~~would~~will subsequently be dealt with through the development and implementation of a Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP), which ~~would~~will be prepared to mitigate potential risk and exposure relating to the presence of hazardous materials in the subsurface.

An (E)-Designation for hazardous materials ~~would~~will be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for Development Site 1~~.~~ and Development Site 2. The (E)-Designation ~~would~~will ensure that testing and mitigation would be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be conducted in coordination with OER.

The (E-869) designation requirements applicable to Development Site 1 and Development Site 2 (Block 1102, Lot 11 and Block 1103, Lot 36) for hazardous materials would apply as follows:

Task 1 -~~Development Site 1~~ Sampling Protocol

The Applicant submits to OER, for review and approval, a Phase I ESA of the site along with a soil, groundwater and soil vapor testing protocol, 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 should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. 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- ~~Development Site 1~~ Remediation Determination and Protocol

A written report with findings and a summary of the data 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 shall be given by OER. If

remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The Applicant must complete such remediation as determined necessary by OER. The Applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would 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 would be submitted to OER prior to implementation.

In addition to the above, regulatory requirements relating to ACM, LBP, and/or PCB-containing building materials would be followed as part of standard demolition and site redevelopment practices in accordance with all applicable federal, state, and local regulations.

Conclusion

With ~~this~~the (E)-Designation (E-869) ~~designation~~ in place for Development Site 1 and Development Site 2, and with existing regulatory requirements pertaining to building materials containing ACM, LBP, and/or PCBs addressed through standard demolition and remediation practices, no significant adverse impacts related to hazardous materials would result~~, and no further analysis is warranted~~. Therefore, there is no potential for the Proposed Actions to result in significant adverse impacts related to hazardous materials.