

A. INTRODUCTION

This chapter presents the findings of the hazardous materials assessment for the proposed projects and identifies potential issues of concern that could pose a hazard to workers and residents of the new buildings, the community, and/or the environment during or after development of the proposed projects. The proposed projects would all require excavation for the proposed new buildings, foundations, and utilities, as well as some subsurface disturbance in certain areas between the new buildings and around the existing buildings on the project sites. In addition, on Site 4 (4A/4B) the proposed building would require renovation and demolition of limited portions of the existing 10-story residential building at 80 Rutgers Slip on Lot 70. On Site 5, the ground floor retail of the two existing 26-story apartment buildings at 265 and 275 Cherry Street would be enlarged in one-story expansions and would involve limited ground disturbance and limited disturbance to the existing buildings. No disturbance to the existing 19-story residential building on Site 6A at 275 South Street (Lot 1) would be anticipated. The potential for hazardous material concerns (both within the buildings to be demolished and in the subsurface areas of each project site) was evaluated based on a review of existing studies and reports for the three project sites.

B. PRINCIPAL CONCLUSIONS

The proposed projects would not result in any significant adverse impacts related to hazardous materials. All three project sites are approximately 10 feet above sea level. The original shoreline in the vicinity of the project sites roughly extended east–west across the middle of the current project sites, so all three project sites contain fill (of unknown origin). Additionally, the three project sites historically included automotive repair facilities and petroleum storage tanks. Although these site histories indicate the potential for subsurface contamination (and such contamination was found at Site 5, the only one of the sites where a subsurface investigation has been performed), the hazardous materials assessment concluded that no significant adverse impacts related to hazardous materials would be expected to occur, either during or following the construction of the proposed projects, given the construction requirements associated with the Hazardous Materials (E) Designations which would be applied to each of the project sites (Lot 2 of Site 5 was already given this designation during a prior environmental review).

C. EXISTING CONDITIONS

The following reports were reviewed:

Site 4 (4A/4B)—March 2016 Phase I Environmental Site Assessment (ESA) 235-247 Cherry Street, prepared by AKRF, Inc.

Site 5—Multiple existing studies and reports, including Phase I ESAs from 2003, 2008, and 2010; a June 2008 Phase II Site Investigation Report prepared by GZA GeoEnvironmental, Inc.;

Two Bridges LSRD

and various reports documenting the removal of tanks/contaminated soil and subsequent treatment and monitoring.

Site 6A—March 2017 Phase I ESA, Two Bridges Large Scale Residential District (LSRD), Site 6A, prepared by AKRF, Inc.

SUBSURFACE CONDITIONS

Based on U.S. Geological Survey mapping (Brooklyn Quadrangle), the project sites are approximately 10 feet above sea level and relatively flat, though the surrounding area generally slopes towards the East River (to the south-southeast). The original shoreline in the vicinity of the project sites roughly extended east–west across the middle of the current project sites (i.e., the southern portions of Site 4 [4A/4B], Site 5, and most of Site 6A would historically have been within the East River). All three project sites therefore contain fill. The subsurface investigations of Site 5 encountered fill material containing brick, wood, and concrete, possibly related to former buildings that had occupied Site 5. The fill material on Site 5 is overlying primarily sand. Groundwater is likely to be first encountered on the three project sites at approximately 7 to 12 feet below grade and likely flows toward the East River. Groundwater is not a source of drinking water in New York City.

SITE 4 (4A/4B)

The Phase I ESA for Site 4 (4A/4B) was performed in conformance with American Society for Testing and Materials (ASTM) Standard E1527-13 and assessed the potential for the presence of hazardous materials, based on reconnaissance of the project site and surrounding area, review of data on geology and hydrology of the area, examination of historical Sanborn Fire Insurance maps and aerial photographs and prior reports, and review of pertinent federal and state databases. The Phase I ESA identified “Recognized Environmental Conditions” (RECs), meaning the presence or likely presence of any hazardous substances or petroleum products in, on, or at the project site, specifically:

- Historical fire insurance maps indicated that Site 4 (4A/4B) formerly included: a bus garage with three gasoline tanks; a repair and paint shop; and an iron works and scrap metal facility. Earlier uses include an iron foundry, as shown on the 1894 map, and a lumber yard and wagon factory as shown on the 1905 map. Other records identified an apparent metals facility in 1920, a lumber yard on maps from 1920 and 1927, a scrap metal facility and wrecking company in 1938, a junk yard in 1955, a motor vehicle shop in 1948, and from approximately the 1950s until 1980s, a bus garage with three gasoline tanks; a repair and paint shop; and an iron works and scrap metal facility.
- The project site was listed in the New York State Petroleum Bulk Storage database with six 550-gallon closed-removed underground storage tank (USTs). The tank contents were not provided. Buildings Department records identified an undated oil burner application and Fire Department records indicated gasoline tank and fuel oil approvals in 1948.

Historical maps and other records indicated commercial buildings (and earlier dwellings) prior to the current structures. Buried demolition debris associated with these former structures may be present (as is historical fill of unknown origin).

The three existing buildings on Site 4 (4A/4B) were constructed after 1980; therefore, extensive asbestos-containing materials (ACM) would not be expected in building materials. However,

there is the potential that some ACM may be present, especially in roofing and flashing materials. Similarly, lead-based paint (LBP) would not be expected.

SITE 5

The Phase I ESAs for Site 5 indicated that Lot 2 historically included automotive facilities with USTs. The June 2008 Phase II was performed to investigate this concern. Ground penetrating radar (GPR) identified five potential USTs. Soil and groundwater samples revealed petroleum-related contamination (volatile and semivolatile organic compounds—VOCs and SVOCs), and a spill (#0802596) was reported to the New York State Department of Environmental Conservation (DEC). In May 2009, TRC Engineers, Inc. oversaw the removal—in accordance with a DEC-approved plan—of ultimately seven 550-gallon USTs from the eastern end of Lot 2, along with 400-gallons of oil/water and three 55-gallon drums of associated oil/sludge. Petroleum impacted soils also were removed and disposed of off-site, and Oxygen Release Compound Advanced (ORCA ®) was injected to assist with the breakdown of remaining contamination. Quarterly groundwater sampling continued, and although VOCs above drinking water standards were found in some wells, the levels were generally decreasing, as were the levels of SVOCs in the one well where elevated levels were detected. As part of the report documenting the March 2011 quarterly sampling event, approval was sought to cease monitoring and to close the spill listing. On September 8, 2011, DEC gave the spill a closed status.

As a part of the environmental review for the Two Bridges/HealthCare Chaplaincy project (City Environmental Quality Review [CEQR] no. 12DCP157M) formerly proposed for Site 5, Lot 2 was given (E) Designation E-312 for hazardous materials. This designation requires that prior to any new construction entailing subsurface disturbance, the applicant submit to the New York City Office of Environmental Remediation (OER), for review and approval, a Phase I ESA and sampling protocol (for any additional subsurface investigation). A report documenting the subsurface investigation findings along with a Remedial Action Plan (RAP) setting out procedures to be followed prior to, during, and following construction (e.g., for soil management, dust control, air monitoring, health and safety, and vapor controls for the new building) is then submitted for OER review and approval. Documentation that the RAP procedures were properly implemented is required by OER before New York City building permits allowing occupancy can be issued.

SITE 6A

As with Site 4 (4A/4B), the Phase I ESA for Site 6A was performed in conformance with ASTM Standard E1527-13, assessed the potential for hazardous materials to be present, based on reconnaissance of Site 6A and the surrounding area, review of data on geology and hydrology of the area, examination of historical Sanborn Fire Insurance maps, and review of pertinent federal and state databases. It identified RECs related to:

- Historical site uses included coal storage, automotive repair, and a gas station.
- The existing building on Lot 1 was historically heated by No. 4 fuel oil; the 20,000-gallon UST remains (closed in place).

The portion of Site 6A that would be redeveloped is Lot 5, a vacant paved and unpaved parcel. The existing building at 275 South Street and the existing UST are on Lot 1; they are not within the portion of Site 6A that would be redeveloped. However, any releases from the UST, or from the former auto repair and gas station or other on-site or nearby historical uses (including

historical fill) could have resulted in subsurface contamination of the area to be redeveloped. Buried demolition debris associated with former structures on Site 6A may also be present.

D. THE FUTURE WITHOUT THE PROPOSED PROJECTS

This analysis assumes that in the future without the proposed projects, no new buildings would be constructed on any of the three project sites. Although all three project sites have a potential for subsurface contamination, without the subsurface disturbance associated with construction-related activities, there would be no potential for exposure and thus no potential for significant adverse hazardous materials impacts.

E. THE FUTURE WITH THE PROPOSED PROJECTS

With the proposed projects, the greatest potential for exposure to contaminated materials would occur during subsurface disturbance associated with construction of the proposed buildings. The potential for adverse impacts would be avoided, per the approach detailed by DEP in a July 21, 2017 comment letter to DCP (see **Appendix I**), by placing Hazardous Materials (E) Designations (E-489) on each of the three project sites (Lot 2 of Site 5 already has an [E] Designation) and performing construction activities in accordance with the following measures:

- Complying with the Hazardous Materials (E) Designation requirements, i.e., prior to any new construction entailing subsurface disturbance, the applicants would submit to OER, for review and approval, a Phase I ESA and sampling protocol (for any additional subsurface investigation) for each of the three project sites. A report documenting the subsurface investigation findings along with a RAP setting out procedures to be followed prior to, during, and following construction (e.g., for soil management, dust control, air monitoring for workers and the community, health and safety, and vapor controls for each new building) is then submitted for OER review and approval. For each project site, documentation that the RAP procedures were properly implemented is required by OER before New York City building permits allowing occupancy can be issued.
- During excavation for the proposed projects on each project site, any known or unexpectedly encountered tanks would be properly closed and removed along with any contaminated soil and would be registered with DEC and/or the New York City Fire Department, if applicable. Any evidence of a petroleum spill would be reported to DEC and addressed in accordance with applicable requirements.
- If dewatering were to be required for construction at any of the three project sites, testing would be performed to ensure that the groundwater would meet New York City Department of Environmental Protection (DEP) sewer discharge requirements. If necessary, the water would be pretreated prior to discharge to the City's sewer system, as required by DEP permit/approval requirements.
- Prior to and during any demolition or renovation of any structures on the project sites, City, State, and Federal requirements relating to ACM and LBP would be followed. The existing one-story community room on the eastern portion of Lot 70 of Site 4 (4A/4B), which was constructed in approximately 2004, would not be expected to include LBP or significant quantities of ACM, although ACM can sometimes be present in recent roofing components.

With these measures, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the proposed projects. *