A. INTRODUCTION

This chapter presents the findings of the hazardous materials assessment and identifies potential issues of concern that could pose a hazard to workers, the community, and/or the environment during or after development of the proposed project. The project site is currently primarily wooded with some wetland areas. The proposed project would entail excavation of a portion of the project site for the new buildings and associated infrastructure, such as utilities and parking.

According to the 2014 City Environmental Quality Review (CEQR) Technical Manual, a Phase I Environmental Site Assessment (ESA) should be performed when there is development on a vacant or underutilized site or if there is reason to suspect contamination, illegal dumping, or historic/urban fill. As such, an ESA of the project site was performed in April 2011, by Carlin Simpson & Associates, in accordance with ASTM Standard E1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice. The study area for the ESA was the project site and various buffers around the site of a dimension defined in the ASTM Standard (e.g., one mile for Federal Superfund sites). The ESA included a visual inspection; a review of: historical aerial photographs and land use and topographic maps, historical reverse telephone directories; and a review of State and federal regulatory databases relating to use, generation, storage, treatment and/or disposal of hazardous materials. To update the information in the Phase I ESA, in December 2016 AKRF, Inc. conducted a site inspection and reviewed updated environmental records and regulatory databases.

B. EXISTING CONDITIONS

SUBSURFACE CONDITIONS

The project site is approximately 15 feet above sea level, sloping down to the south. Based on surface topography, groundwater would be anticipated to be encountered at less than 10 feet below grade (portions of the project site are wetlands) and to flow south towards the large wetland area. Groundwater in Staten Island is not used as a source of potable water (the municipal water supply uses upstate reservoirs).

HAZARDOUS MATERIALS ASSESSMENT

The Phase I ESA conducted in April 2011 identified "Recognized Environmental Conditions" (RECs). RECs, as defined in the ASTM Standard, are current or historical uses at the project site or nearby (or other findings) which indicate the presence or likely presence of hazardous substances or petroleum in the ground or groundwater at the project site. These RECs were:

• Demolition of the project site's former residential structures could have resulted in buried debris containing asbestos containing materials (ACM), lead-based paint (LBP), or other

hazardous materials or heating oil tanks. Even if there were once tanks that were later removed, soil or groundwater contamination could remain from any past spills.

• A large amount of surface debris was observed throughout the project site, including one partially filled 55-gallon drum, tires, empty gas cylinders, etc. seemingly dumped over many years. It is possible that the debris includes hazardous materials.

The December 2016 site visit also noted surface debris including tires, household garbage, concrete, multiple 55-gallon drums containing unknown material, abandoned car bodies, dimensional lumber and wood piles, and raised areas along the eastern portion which could include dumped material. The December 2016 search of regulatory databases per the ASTM Standard revealed no significant changes from the findings in 2011.

C. THE FUTURE WITHOUT THE PROPOSED PROJECT

Absent the proposed actions (the No Action scenario), the project site would be developed with buildings requiring excavation for foundations as well as soil disturbance for utilities, circulation areas, parking, etc. Unlike in the future with the proposed project (the With Action scenario), development under the No Action scenario would not have the benefit of additional protections and review as there would be no requirement for subsurface testing or implementation of a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP). Applicable regulatory requirements, including New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (EPA) regulations pertaining to ACM, LBP, and potential polychlorinated biphenyls (PCB)-containing equipment would be followed as would requirements for proper disposal of any material transported off-site. Removal of the observed drums and any other drums or tanks encountered during construction would be performed in accordance with applicable regulatory requirements, including NYSDEC requirements relating to spill reporting, tank registration and waste manifesting. If dewatering were to be necessary, water would be discharged to sewers in accordance with New York City Department of Environmental Protection (DEP) requirements or otherwise in accordance with NYSDEC State Pollutant Discharge Elimination System (SPDES) requirements.

D. THE FUTURE WITH THE PROPOSED PROJECT

Similar to the No Action development, the proposed project would require excavation and soil disturbance for foundations, utilities, circulation areas, parking, etc. Although these activities could increase pathways for human exposure, there would be a lower potential for adverse impacts than in the No Action scenario, since with the proposed project there would be additional regulatory oversight requiring impacts be avoided by performing the project in accordance with not only with the regulatory requirements described above (and summarized in bullets 3 through 6 below), but the following two additional measures:

- 1. Prior to construction of the proposed project, a Subsurface (Phase II) Investigation involving the collection of subsurface samples for laboratory analysis would be conducted in accordance with a DEP-approved Work Plan (approved in a letter from DEP to DCP, dated March 3, 2017).
- 2. Based on the findings of the Phase II, a RAP and associated CHASP would be prepared and submitted to DEP for review and approval. The RAP and CHASP would be implemented during the subsurface disturbance associated with the proposed project.

The RAP would address requirements for items such as: drum and debris disposal, soil stockpiling, soil disposal and transportation; dust control; quality assurance; and contingency measures should petroleum storage tanks or contamination be unexpectedly encountered. The RAP would also address any measures required to be incorporated into the new buildings. The CHASP would include measures for worker and community protection, including personal protective equipment, dust control, and air monitoring.

As noted above, construction of the proposed project would implement the measures that would also be implemented in the No Action scenario:

- 3. Removal of any encountered tanks would be performed in accordance with applicable regulatory requirements including NYSDEC requirements relating to spill reporting and tank registration.
- 4. If dewatering is necessary for the proposed construction, water would be discharged to sewers in accordance with DEP requirements or otherwise in accordance with NYSDEC SPDES requirements.
- 5. During debris removal or excavation, any material suspected of containing asbestos would be tested for asbestos content by a NYC-certified asbestos investigator. All material confirmed to be ACM would be removed and disposed of in accordance with local, state, and federal asbestos requirements.
- 6. All debris including any suspect PCB-containing electrical equipment would be disposed of off-site in accordance with applicable federal, state, and local requirements.

With these measures, the proposed development would not result in any significant adverse impacts related to hazardous materials.