

A. INTRODUCTION

This section presents the findings of the hazardous materials assessment. The Proposed Project would include median mall reconstruction, landscaping, and the installation of street improvements along Allen and Pike Streets between Delancey and Hester Streets and between Madison and South Streets. Similar work would also be performed in the potential second phase area between Hester and Madison Streets.

PROJECT SITE AREA

The project site currently consists of a series of paved pedestrian malls with benches and trees and the adjacent street beds, located on Allen Street between Delancey Street and East Broadway and on Pike Street between East Broadway and South Streets. Environmental conditions resulting from previous and existing uses, both onsite and in the surrounding area, were assessed by review of the *Phase I Environmental Site Assessment (ESA) Report – Allen and Pike Street Malls* (AKRF, Inc., February 2010).

B. EXISTING CONDITIONS**SUBSURFACE CONDITIONS**

The Allen Street portion of the project site is generally level and located approximately 40 feet above mean sea level. Pike Street slopes gently down to the south, to approximately 5 feet above mean sea level in the southern portion of the project site. The approximate depth to bedrock is 110 to 140 feet. Based on a geotechnical study (Tectonic Engineering & Surveying, January 2010), the project site is underlain by urban fill (primarily brown or gray sand with silt, brick, gravel, and ash) ranging in thickness from three to over 37 feet, with the greatest fill thickness in the area near Division Street. The fill is underlain by brown sand with silt, clay and/or gravel.

The geotechnical study indicated that the depth to groundwater ranges between approximately 22 and 30 feet below surface grade in the locations where monitoring wells were installed (between Broome and Monroe Streets). Groundwater is likely closer to the surface in the southern portion of the project site, which is at a lower elevation. Groundwater most likely flows in a southeasterly or southerly direction toward the East River. However, actual groundwater flow is likely affected by many factors including past filling activities, underground utilities, subsurface openings or obstructions such as basements, subway lines (including the F line passing east of the project site beneath Essex and Rutgers Streets and the J/M/Z line north-adjacent to the project site beneath Delancey Street), tidal fluctuations, and other factors beyond the scope of this study. Groundwater in Manhattan is not used as a source of potable water.

PHASE I STUDY

The Phase I ESA scope included both the project site and potential second phase site. The Phase I ESA reviewed a variety of information sources including: Sanborn™ Fire Insurance maps; environmental regulatory agency databases identifying state and/or federally listed sites; and city databases and records—the New York City Department of Buildings (DOB) and Fire Department (FDNY)—to assist in identifying prior uses. In addition, the Phase I ESA included reconnaissance of the project site and the surrounding neighborhood.

PROJECT SITE AREA

The Phase I research indicated that the project site was developed prior to 1894 with residential-commercial buildings. Commercial usages of potential environmental concern on-site included: printers, Chinese laundries, drugstores, a push cart shop, junk shops and unspecified light industrial uses. In 1931, many structures in the northern portion of the project site were demolished to accommodate the widening of Allen Street and installation of medians containing pedestrian malls. Similar demolition, street widening and mall construction occurred in the southern portion of the project site in the 1940s and 1950s.

The Phase I identified potential sources of contamination on-site or in the surrounding area, including the following:

- A closed-status spill reported on the southern portion of the project site involved petroleum contamination in an excavation.
- Some historical buildings on-site contained basements; it is not known whether any fuel tanks were associated with the buildings and whether such tanks were removed prior to or during demolition. However, no evidence of past or present petroleum storage tanks was visible on-site, NYC Department of Parks and Recreation (DPR) representatives were not aware of any tanks, and no tanks were identified on-site in State regulatory records or computerized FDNY and DOB records.
- Past and present uses in the surrounding area included auto repair, dry cleaning, filling stations, Chinese laundries, paint shops, scrap metal shops, iron works, maintenance garages, parking garages, coal and lumber yards, a brass foundry, a chemical lab, properties with buried gasoline storage tanks, and potentially a carpet cleaning facility. A former filling station was observed west-adjacent to the potential second phase site area. Petroleum storage tanks and active and closed petroleum spills, some with known impact to soil and groundwater, were identified in the vicinity of the project site.
- Lead-based paint may be used on outdoor surfaces and may be present on painted structures on the Project Site, such as fences, benches, and light fixtures.
- Historical fill, including ash and demolition debris, was identified beneath the project site by the geotechnical investigation.

C. FUTURE WITHOUT THE PROPOSED PROJECT

Absent the Proposed Project, the project site would remain in its current condition and subsurface disturbance would not occur. Currently, there are no known significant health risks associated with the project site. Likewise, there would be no significant health risks in the future without the Proposed Project.

D. PROBABLE IMPACTS OF THE PROPOSED PROJECT

PROJECT SITE AREA

There is limited potential for adverse impacts during construction activities resulting from the potential presence of subsurface contamination, as disturbance is anticipated to be generally limited to shallow excavation. Although excavation and construction activities could increase pathways for human exposure, impacts would be avoided by performing construction activities in accordance with the following:

- A Phase II Subsurface Investigation would be conducted prior to soil disturbance. This investigation would target areas where more extensive subsurface disturbance is proposed. If the Phase II indicates the presence of subsurface contamination, all activities involving disturbance of existing soils would be conducted in accordance with a Health and Safety Plan (HASP) that would detail measures to reduce the potential for exposure (e.g., dust control) and measures to identify and manage known contamination (e.g., contaminated soil) and unexpectedly encountered contamination.
- If dewatering is required during construction activities, water would be discharged in accordance with New York City Department of Environmental Protection requirements.
- If historical tanks are encountered during excavation, they would be properly registered, if required, with the New York State Department of Environmental Conservation and/or the FDNY, and closed in place or removed (along with any associated contaminated soil) in accordance with applicable regulatory requirements.
- All material that needs to be disposed of (e.g., both any contaminated soil and excess fill including demolition debris) would be properly handled and disposed of off-site in accordance with all applicable federal, state and local regulations.
- If construction requires disturbing on-site electrical manholes, these manholes would be assessed for the presence of asbestos-containing materials (ACMs), lead waste and polychlorinated biphenyls (PCBs) and any such materials would be managed and disposed of in accordance with applicable federal, state and local regulations.
- Any suspect PCB or mercury-containing fluorescent lighting fixtures that would be disturbed by construction would be removed and disposed of in accordance with applicable requirements prior to disturbance.
- Unless information or test results exist to indicate that suspect lead-based paint on painted structures does not contain lead, any renovation or demolition activities with the potential to disturb lead-based paint would be performed in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62—*Lead Exposure in Construction*).

With the implementation of these measures, no significant adverse impacts related to hazardous materials would result from construction activities on the project site. Following construction, there would be no potential for significant adverse impacts. *