A. INTRODUCTION

This chapter discusses the current environmental conditions at the James A. Farley Complex and examines how the proposed action would affect these conditions. In addition, this chapter assesses the potential of encountering hazardous materials in the structures of the Farley Complex during demolition or renovation activities. As currently proposed, one scenario (the Phase Two Overbuild) would potentially require track level work for footings, during which subsurface contamination in the ballast, soil or rock and groundwater beneath the Western Annex could be encountered. This chapter also addresses potential impacts on worker safety, public health, and the environment from potential contaminants or hazardous materials and identifies management practices that would be implemented to preclude significant adverse impacts. The potential for impacts from hazardous materials following redevelopment is also evaluated. This chapter also assesses the potential for impacts related to hazardous materials at the Development Transfer Site, located on the east side of Eighth Avenue between West 33rd and 34th Streets that is currently occupied by three one-story retail buildings, a public open space and an 8-level below grade garage. A review of historic Sanborn maps for the Development Transfer Site indicated that prior to the construction of the current parking facility (which required extensive excavation for the 8-level below grade parking facility), a garage with fuel tanks previously existed on the site and immediately to the east.

The 2001 *City Environmental Quality Review (CEQR) Technical Manual* defines a hazardous material as any substance that poses a threat to human health or to the environment. The hazardous materials that pose a potential concern for this project include substances used in building materials and fixtures, such as asbestos-containing material (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCBs) (usually associated with transformers and electrical equipment) and mercury (in some electrical and plumbing equipment). Hazardous materials that may be encountered in the below-grade track areas include: heavy metals; volatile organic compounds (VOCs), commonly found in petroleum products and solvents; semivolatile organic compounds (SVOCs), typically associated with fuel oil, coal, and ash; and PCBs.

These hazardous materials could present a concern to human health or the environment during construction activities that involve demolition or renovation of structures in the Farley Complex, or excavation of ballast and underlying soil in the below-grade track area. However, these concerns can be mitigated by management measures such as a health and safety plan, a soil management plan, a soil gas management plan, a groundwater management plan, an asbestos-containing building materials management plan, a lead-based paint management plan, and a PCB-containing equipment management plan.

The discussion of current environmental conditions at and beneath the Farley complex is based on information provided in two Phase I Environmental Site Assessments (ESAs): one primarily of the above grade space prepared by AKRF, Inc. of New York, New York updated May 2005, that included review of previous reports prepared by ATC Associates, Inc. in 2000/2001

regarding testing of building materials for asbestos, lead-based paint and polychlorinated biphenyls (PCB) and subsurface soil testing; and the second of subgrade space prepared by Day Environmental Inc. (Day) of Rochester, New York, dated April 14, 2006 that included a detailed site inspection and review of various earlier studies. Both ESAs were prepared in accordance with American Society for Testing and Materials (ASTM) Standard Practice E 1527-00.

PRINCIPAL CONCLUSIONS

FARLEY COMPLEX

With the implementation of appropriate measures, including pre-construction surveys, Health and Safety Plans during demolition and construction (and track-level excavation, if required for the Phase II Overbuild scenario) and standard practices for handling and disposing of hazardous materials, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the proposed action. Although hazardous materials would likely still remain in both the Farley buildings and the subsurface, any contaminated materials from areas disturbed for the Phase II Overbuild would be properly disposed of off site following construction of the proposed development. With the continued implementation of appropriate procedures (to properly manage asbestos, lead paint, etc.), there would be no further potential for adverse impacts.

DEVELOPMENT TRANSFER SITE

Although a garage with fuel tanks previously existed at and immediately east of the Development Transfer Site, any residual soil contamination from that or other previous uses would have been removed during the construction of the eight below grade levels of parking, which extend well into bedrock. Therefore, even if new construction were to require additional excavation, there is a very low potential for encountering subsurface hazardous materials. It is possible that asbestos-containing materials and lead-based paint are present within the existing above ground structures or below grade parking areas. However, with the implementation of appropriate measures, including pre-construction asbestos and lead paint surveys and and Health and Safety Plans during demolition, no significant adverse impacts related to these hazardous materials would be expected to occur as a result of the proposed action.

B. METHODOLOGY

FARLEY COMPLEX

The objective of a Phase I ESA is to identify the presence or likely presence, use, or release of hazardous substances or petroleum products, defined in the ASTM E 1527-00 as Recognized Environmental Conditions (RECs). AKRF's Phase I ESA included preliminary evaluations of other potential environmental issues or conditions that are not required by ASTM E 1527-00, such as radon, ACM, LBP and polychlorinated biphenyl (PCB)-containing equipment.

The Phase I ESAs were conducted to determine past and present uses of the property and to identify potential sources of contamination based on historic and/or current land usage and/or as a result of incidents such as prior release events. This information was obtained through the review of historical maps, regulatory agency databases, other records and previous reports , reconnaissance of the site and adjoining properties, and interviews with persons familiar with property history and usage. Historical information sources for the Phase I ESAs included

Sanborn® Real Estate Atlases and Fire Insurance Maps (Sanborn Maps) from 1890 to 1996, U.S. Geological Survey (USGS) topographic maps dating from 1897 to 1995, and aerial photographs dating from 1943 to 1995. The U.S. Environmental Protection Agency (EPA) and New York State Department of Environmental Conservation (NYSDEC) databases reviewed were:

- National Priority List (NPL)
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list
- CERCLIS No Further Remedial Action Planned (NFRAP)
- Resource Conservation and Recovery Act (RCRA) hazardous waste treatment, storage, and disposal facilities list
- Resource Conservation and Recovery Act Corrective Action
- Emergency Response Notification System (ERNS)
- Major Oil Storage Facilities list (more than 400,000 gallons)
- Hazardous Waste Generators and Transporters list
- Historic Utility Facilities
- Chemical and Petroleum Bulk Storage Facilities list (under 400,000 gallons)
- Hazardous Material Spills, including Leaking Underground Storage Tank (LUST) sites
- Toxic Release Inventory Sites list
- Air and Toxic Wastewater Discharge Sites
- Civil Enforcement Docket Sites (sites involved in environmental litigation)

DEVELOPMENT TRANSFER SITE

The regulatory databases discussed above and historic Sanborn maps were reviewed for the Development Transfer Site and the remainder of the One Penn Plaza block.

C. EXISTING CONDITIONS

FARLEY COMPLEX

LAND USE HISTORY

The Farley Complex consists of two buildings constructed over the Pennsylvania Station Rail Yard; the original structure (Farley Building), including the excavations for the tracks, was constructed between 1910 and 1913 and the Western Annex was constructed in the 1934. The Farley Complex has been used by the United States Postal Service (USPS) as a mail processing and distribution center since its construction.

The site is essentially flat, sloping slightly downwards from north to south and from east to west, at a (street level) elevation of approximately 30 feet above mean sea level. Depth to bedrock is approximately 10 feet below street level, as a result of which, there is likely to be little or no soil

in most areas as the original excavations for the tracks would have necessitated removing all the original soil and some bedrock. Groundwater, if present, would be expected to be first encountered at approximately 20 to 30 feet below grade and to flow towards the Hudson River, but the depth and flow direction may be dependent on subsurface openings such as rail, subway and vehicle tunnels. Groundwater in Manhattan is not used as a source of drinking water.

POTENTIAL FOR SITE CONTAMINATION

The site reconnaissance performed for the AKRF Phase I ESA included an assessment of the following elements: current use of building; type of heating system; current water and sanitary connections; the presence of vent pipes and fill caps associated with petroleum storage tanks; electrical transformers; areas of dumping or filling; potential ACM; potential LBP; chemical storage; groundwater monitoring wells; and fluorescent light fixtures. The site reconnaissance performed for the Day Phase I ESA was limited to the below grade spaces: platforms, tracks, tunnels, etc.

The locations of potential contaminants that could be encountered through the proposed project can be categorized as being either subsurface (e.g., ballast, soil, soil gas, groundwater, bedrock) or above grade (e.g., building materials) contaminants. Potential subsurface contaminants include but are not limited to VOCs; SVOCs; metals, pesticides and PCBs. Potential above grade contaminants include, but are not limited to ACM, LBP, PCB-containing equipment, and mercury.

Subsurface Contaminants

Per the ATC Reports reviewed as part of the Phase I ESAs and the records reviewed by Day, subsurface contamination (including PCBs) of yard ballast has been documented, and in at least some areas removed. Although the sampling previously conducted related to specific yard locations in various areas of the site and was generally conducted in areas specific to various railroad projects (e.g., when installation of new signal cable required trenching), it may reasonably be assumed that there is a potential for encountering similar contamination in other areas as well.

There is no evidence that petroleum tanks were ever utilized by the Post Office at the Farley Complex and it appears that at most small oil tanks were present at track level. Day's site reconnaissance identified oily liquid in an elevator shaft in the tunnel area and staining of ballast in many areas. Other contaminants, such as VOCs, SVOCs, metals, (and PCBs, as discussed above) could have resulted from spills on railroad lines. Pesticides and herbicides could have been applied along railroad lines as well.

Non-railroad activities that could have resulted in subsurface contamination include post office printing, silk screening and painting operations and potentially a former dry cleaner and foundry that may historically have been present in the Farley Complex. However, since such activities would likely have occurred well above track level in buildings served by the municipal sewer system, there is a low potential for subsurface contamination associated with these activities.

Asbestos-Containing Materials

Building materials used in the construction of the existing buildings could contain asbestos. Asbestos fibers are potentially harmful if they become airborne and are inhaled. EPA prohibited the use of asbestos in spray-on fireproofing in 1972 and in thermal insulation in 1978. In addition, normally non-friable asbestos-containing products (i.e., those that when dry, cannot be

crumbled, pulverized, or reduced to powder by hand pressure) that are typically stable could be damaged during the abatement process, and would be considered friable ACM thereafter. Three asbestos surveys were conducted at the Farley Complex in February 2000, September 2000, and February 2001. These surveys indicated that ACM is present throughout the structures in the Farley Complex. All exposed asbestos has reportedly been removed. All asbestos that is still in place is maintained under an ACM management plan. Any ACM that would be disturbed by demolition, construction or renovation activities for the proposed project would be managed by an ACM management plan to mitigate potential environmental hazards.

Lead-Based Paint

Buildings and other structures constructed prior to 1960 may contain LBP. It has been determined that dust from LBP may cause learning disabilities and other adverse health effects when inhaled or ingested. Although the use of LBP in residences was banned by the Consumer Products Safety Commission in 1978 and by New York City in 1960, the use of LBP was common in New York City prior to this ban and continued in non-residential structures into the 1970s. Three LBP surveys were conducted at the Farley Complex in February 2000, September 2000, and February 2001. These surveys indicated that LBP is present throughout the structures in the Farley Complex. All LBP that is still in place is maintained under an LBP management plan. Any LBP that would be disturbed by demolition, construction or renovation activities for the proposed project would be managed by an LBP management plan to mitigate potential environmental hazards.

PCB-Containing Equipment

PCBs are frequently present in transformers, electrical feeder cables, hydraulic equipment, and fluorescent light ballasts that were manufactured prior to 1978. Disposal of such items must be in accordance with applicable federal and State regulations, so as to minimize human and environmental contact with PCBs. PCBs do not readily break down in the environment, and thus could remain in place for long periods of time. With regard to construction, PCBs can present risks to workers and public health and safety, through direct contact or ingestion of soil containing PCBs. A limited PCB survey was conducted at the Farley Complex in September 2000. The survey confirmed the potential presence of PCBs at the Farley Complex in the hydraulic equipment, trash compactors, switch gear, and fluorescent lighting ballasts. Any Farley Complex PCBs that would be disturbed by construction or renovation activities would be managed by a PCB management plan to mitigate potential environmental hazards. Numerous transformers and other kinds of electrical equipment are present at track level and staining, possibly associated with releases from transformers, was noted at track level. Historical releases from PCB-containing equipment (potentially including train-mounted equipment) is evidenced by the known subsurface PCB contamination, discussed above.

Lead in Water

The results of a previous lead in water survey "Asbestos/Lead-Based Paint/Lead in Water Survey, James A. Farley (JAF) Building, 421 8th Avenue Manhattan, New York (February 2000)" indicated that lead was present at levels that are considered above federal guidelines in 14 of the 738 samples that were taken. This report recommended that the water sources associated with the contaminated samples should not be utilized for potable water.

Mercury-Containing Switching Devices

The steam system control switches located in various mechanical rooms in the Farley Complex may contain mercury.

DEVELOPMENT TRANSFER SITE

Prior to the construction of One Penn Plaza, historic Sanborn maps from 1905 through 1951 indicated that the property was primarily occupied by storefronted residential/hotel buildings. However, the eastern edge of the site fronting West 33rd Street was occupied by an "auto yard" with underground gasoline tanks. Additional underground tanks were located further east on the block associated with a bus garage. The construction of One Penn Plaza and associated 8-level underground parking facilities would have removed any residual contamination from these facilities as construction would have removed all soil from the block and extended many feet into bedrock. A regulatory listing indicates that Central Parking System (located at One Penn Plaza, lower level) generated (and properly sent for offsite disposal) a small volume (325 gallons) of ignitable/corrosive wastes in 1998. It is possible that asbestos-containing materials and lead-based paint are present within the existing above ground structures or below grade parking areas.

D. FUTURE WITHOUT THE PROPOSED ACTION

In the Future Without the Proposed Action, the Farley Complex would remain in use by USPS. Commercial development in the Western Annex, to accommodate new retail and office uses (similar to that which would happen with the proposed action) would require interior demolition/renovation work as well as exterior work. Any ACM, LBP or PCB-containing materials that would be disturbed by this work would be managed, as required by applicable regulations, as described in Section F, "Future With the Proposed Action" below. For the remainder of the Farley Complex, there would be no greater potential for significant adverse impacts related to hazardous materials than exists under existing conditions.

In the Future Without the Proposed Action, the Development Transfer Site would remain in its current usage. As such, there would be no greater potential for significant adverse impacts related to hazardous materials than exists under existing conditions.

E. FUTURE WITH THE PROPOSED ACTION

FARLEY COMPLEX

Construction of the proposed project would involve a variety of activities inside the building and could encounter lead-based paint, asbestos containing materials and primarily electrical equipment containing PCBs and/or mercury, Should footings be required for the Phase II overbuild, removal and off-site disposal of limited areas of subsurface material, potentially including contaminated soil and/or ballast, would be required.

This section describes both the potential impacts that could result during construction of the proposed project and preventative measures that would be taken to avoid significant impacts.

TYPES OF POTENTIAL IMPACTS

The presence of hazardous materials threatens human health or the environment only when exposure to those materials can occur. Even then, the mere presence of or exposure to such materials does not necessarily constitute a risk to human health. Rather, a health risk requires a complete exposure pathway to the contaminants and a sufficient dose to produce adverse health effects. For these reasons, detailed specifications relating to the management of hazardous materials will be incorporated into the project's construction documents to govern activities in known or potentially contaminated areas. For the various contaminated materials, the types of commitments that will be included in the specifications are described below.

For the project, the greatest potential for exposure to any contaminants of concern would be during construction, when demolition and/or construction activities would disturb the building (and the subsurface, if the Phase II overbuild were to be constructed). The measures identified below will manage the potential for direct contact with or inhalation of the contaminants.

PREVENTATIVE MEASURES TO MINIMIZE IMPACTS

Different types of contaminants and media (i.e., whether the contaminants are found in a building, in soil, rock, or groundwater) require different management approaches. Most contaminants are only transmitted when airborne or attached to dust. For this reason, all work with the potential to generate dust (e.g., demolition or excavation) would be performed in accordance with OSHA requirements (e.g., permissible exposure limits — PELs — contained in 29 CFR 1910.1000) to protect workers (who have the greatest potential for exposure because of their close proximity to the work areas), and with New York State Department of Health procedures for dust control (per NYSDOH's Generic Community Air Monitoring Plan) to protect the public. Additional city, state and federal requirements apply to lead-paint and asbestos disturbance.

Steps would be undertaken to protect the safety of the public, community residents, construction workers, and the larger environment. As described in this section, these include further investigations to better determine the nature and extent of contamination in areas where the project might encounter it, and prescribed construction measures to manage contaminated materials during construction. All of these measures will be set out in the project's specifications, both to meet all applicable legal requirements and to minimize potential impacts.

FURTHER INVESTIGATIONS

As ongoing engineering work advances, the specific areas where excavation (for the Phase II overbuild) or building disturbance would be needed will be identified, and additional investigation will be undertaken to determine the potential for contamination at these locations. This investigation may include additional documentary research as well as possible physical testing of building materials and soil. Where testing is to be performed, detailed protocols will be developed including field and laboratory methods, quality control sampling, sample custody procedures, field decontamination procedures and site-specific Health and Safety Program (HASP) plans.

After completion of any testing, a detailed report will be prepared that: summarizes the findings of field activities and compares the analytical results with the appropriate federal, state, and city standards and guidelines. Although the need for and level of cleanup is frequently determined on a case-by-case basis since the Phase II overbuild would require the removal of ballast and soil

from only those limited areas where footings would be constructed, widespread remediation would not be required. Rather, management procedures would be limited to proper handling and disposal of these potentially contaminated materials under appropriate health and safety measures so that the work would be performed safely.

MEASURES TO MANAGE CONTAMINATED MATERIALS DURING CONSTRUCTION

Once contamination is known or suspected to exist in areas where excavation or disturbance would be required, appropriate measures would be followed to safely manage these areas. For the limited subsurface disturbance required for the Phase II overbuild, this would include health and safety procedures to minimize exposure to workers and the public, including monitoring for dust, and potentially other compounds such as volatile organic compounds (VOCs), both inside and outside of the work zone, as well as procedures for stockpiling, testing, loading, transporting, and properly disposing of the material. Health and Safety Plans (HASPs) specific to the work being performed would address both the known contamination issues and contingency items. HASPs would be developed in accordance with OSHA regulations and guidelines. The HASP would define the appropriate designated personnel to ensure that all requirements of the HASP plans are implemented and the training and qualifications required for on-site personnel. The training would enable personnel to recognize and understand the potential hazards to health and safety, provide them with the knowledge and skills necessary to perform the work with minimal risk to health and safety, and ensure that they can safely avoid or escape from emergencies. It would also define site work zones and the monitoring necessary to identify potential exposure of the field personnel or the public to potential environmental hazards.

Waste (e.g., excavated soil/ballast under the Phase II overbuild or building materials removed during building demolition or renovation activities) can be classified as "hazardous waste" if it contains one of the federally "listed wastes" in the EPA's Code of Federal Regulations (40 CFR Part 261) or if it possesses one of four hazardous characteristics: ignitability, reactivity, corrosivity, or toxicity. New York state has similar regulations for identification and management of hazardous wastes (6 NYCRR Parts 370 – 376) but includes PCBs above 50 parts per million as a hazardous waste, whereas PCBs are regulated under TSCA on the federal level. Wastes containing hazardous materials require special handling, storage, transportation, and disposal methods to prevent releases that could impact human health or the environment. The NYSDEC requires the implementation of fugitive dust control measures at sites that contain elevated concentrations of SVOCs and metals (TAGM 4031, Fugitive Dust Suppression and Particulate Monitoring Program). To confirm the effectiveness of the dust control measures, Community Air Monitoring Plans that are approved by the New York State Department of Health are implemented, if applicable. Depending on the nature of the material, federal, State, and local regulations require the use of special containers or stockpiling practices for on-site storage of the material to prevent the release of hazardous materials to the environment. The federal, State, and local Departments of Transportation (DOT) have requirements for transportation of wastes containing hazardous materials. Facilities that receive hazardous materials require federal, State, and local permits to accept the waste. The waste facilities require representative waste sampling and laboratory analysis prior to accepting material for disposal.

Should above ground or underground petroleum storage tanks be encountered and need to be removed to complete the proposed project, the removal is regulated by NYSDEC (6 NYCRR Part 613.9), which requires that tanks no longer in use be closed in place or removed according to specific requirements. Contaminated soils surrounding the tanks, separate phase product on the water table, or contaminants dissolved in the groundwater must also be removed (6 NYCRR

Part 611.6). Article 12 of the New York Navigation Law provides notification and management requirements for spills to the waters of the State.

Although it is not anticipated, it is possible that contaminated groundwater could be encountered during excavation activities for the Phase II overbuild. The NYSDEC has promulgated drinking water standards and uses them as reference values for groundwater. Although these (Class GA Standards) standards are intended for public drinking water supplies, they are generally applied by the NYSDEC to groundwater and are also used to evaluate overall water quality. The New York City Department of Environmental Protection (DEP) Bureau of Wastewater Pollution Control has established regulations limiting the concentrations of certain constituents in effluent discharged to the municipal sewer system. The DEP's regulations are based, for the most part, on the effect of the contaminants on the receiving waters or treatment plant. Prior to discharging to the sewer, a permit from DEP is required which would require testing of the water (with pre-treatment if levels were above the DEP's allowable limits) prior to discharge to the sewer system.

Once any footings and foundations for the Phase II overbuild are completed, the disturbed areas would be covered and potential pathways for exposure would be eliminated.

ACM MANAGEMENT PLAN

Building demolition/renovation has the potential to disturb ACM. Proper removal, disposal, and handling of ACM is required under State of New York Article 30-Labor Law, Asbestos or Products Containing Asbestos Licensing, 12 NYCRR-Part 56 Asbestos Regulations (i.e., ICR #56), and the requirements of DEP Title 15. Handling and disposal of asbestos would conform to OSHA (29 CFR 1926.1101), Department of Transportation (49 CFR 171, 172 and 173) and EPA (40 CFR Part 61) requirements. Appropriate engineering controls (e.g., dust control) can minimize asbestos exposure and would be implemented prior to demolition/renovation.

LBP MANAGEMENT PLAN

Surfaces coated with LBP require proper abatement of the lead paint prior to disturbance that would generate lead-containing dust or vapors (lead vapors could be generated through the cutting or welding of lead painted materials, such as structural steel). If lead-coated surfaces are present, an exposure assessment would be performed to determine whether lead exposure would occur during the demolition. If the exposure assessment were to indicate the potential to generate airborne dust or fume lead levels exceeding health-based standards, a higher personal protection equipment standard would be employed to counteract the exposure. In all cases, appropriate methods to control dust and air monitoring, as required by OSHA, would be implemented during demolition activities.

PCB-CONTAINING EQUIPMENT MANAGEMENT PLANT

Suspected PCB-containing equipment (e.g., transformers, electrical feeder cables, hydraulic equipment, and fluorescent light ballasts) would be surveyed and evaluated prior to building demolition or utility relocation. PCB-containing equipment that would be disturbed by the work would be removed and disposed of in accordance with applicable Federal (40 CFR Part 761), State (6 NYCRR Parts 360 – 376), and local regulations.

MERCURY-CONTAINING SWITCHING DEVICES

If demolition or renovation activities will require the removal of these switches, qualified and knowledgeable personnel would confirm whether mercury is present prior to their removal. Recycling or disposal of the mercury and equipment would be performed in accordance with applicable federal and state solid and hazardous waste regulations.

DEVELOPMENT TRANSFER SITE

Although a garage with fuel tanks previously existed at and immediately east of the Development Transfer Site, any residual soil contamination from that or other previous uses would have been removed during the construction of the eight below grade levels of parking, which extend well into bedrock. As such, even if new construction were to require additional excavation, there is a very low potential for encountering subsurface hazardous materials. Should asbestos-containing materials or lead-based paint be present within the existing above ground structures or below grade parking areas, their removal or disturbance would be addressed in conformance with applicable federal, state and city requirements.

CONCLUSIONS

With the implementation of the measures set out above, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the proposed action. Following construction of the proposed redevelopment, although hazardous materials would likely still remain in both the Farley Complex buildings and the subsurface, with the continued implementation of appropriate procedures (to properly manage asbestos, lead paint, etc.), there would be no further potential for adverse impacts. ✷