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September 19, 2011

Tom Woodrum
H & H Builders, LLC
34 Renwick Street, 3rd Floor
New York, NY 10013

Rachel Ataman
Hydro Tech Environmental, CORP.
15 Ocean Avenue
Brooklyn, NY 11225

Re: **Decision Document**
NYC BCP Remedial Action Work Plan Approval
2329 Frederick Douglass Boulevard
Block 1952, Lot 29
BCP Project #12CBCP020M / OER Project # 11EHAN220M

Dear Mr. Woodrum:

The New York City Office of Environmental Remediation (OER), in consultation with the New York City Department of Health and Mental Hygiene (DOHMH), has completed its review of the Remedial Action Work Plan (RAWP) and Stipulation List for the 2329 Frederick Douglass Boulevard, BCP Project #12CBCP020M. The RAWP was submitted to OER under the NYC Brownfield Cleanup Program (BCP), and released to the public for a 30 day comment period as required by program regulations. This comment period ended on September 18, 2011, and there were no public comments registered.

The following remedial action elements will be implemented at the project site:

Statement of Purpose and Basis

This document presents the remedy for the Brownfield Cleanup site known as “2329 Frederick Douglass Boulevard” site, and summarizes the information that can be found in the “Site-related Reports and Documents” section in the document repository at OER’s website www.nyc.gov/oer.

The New York City Office of Environmental Remediation (the Office or OER), in consultation with the

New York City Department of Health and Mental Hygiene (NYC DHMH), has established a remedy for the above-referenced site. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media.

This decision is based on the Administrative Record of the New York City Office of Environmental Remediation (the Office or OER) for the 2329 Frederick Douglass Boulevard site and the public's input to the proposed remedy presented by the Office.

Description of Selected Remedy

The remedy selected for the 2329 Frederick Douglass Boulevard site includes soil excavation, cover system, vapor barrier and sub slab depressurization system, institutional controls, and site management

The elements of the selected remedy are as follows:

1. Preparation of a Community Protection Statement and performance of all required NYC BCP citizen participation activities according to an approved Citizen Participation Plan (CPP).
2. Performance of Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Sampling and analysis of excavated media as required by disposal facilities.
4. Appropriate segregation of excavated media for off-site disposal.
5. Performance of all activities associated with the remedial action, including permitting requirements and pretreatment requirements, will be addressed in accordance with all applicable Federal, State and City laws and regulations.
6. Implementation of storm-water pollution prevention measures.
7. Import of materials to be used for backfill and cover in compliance with OER approved plan and in accordance with all Federal, State and City laws and regulations.
8. Placement of backfill material in excavated areas as needed.
9. Screening for indications of contamination by visual means, odor and monitoring with a Photo Ionization Detector (PID) of excavated soil/fill during all intrusive work.
10. Transportation and off-site disposal of all soil/fill material at permitted facilities in accordance with all Federal, State and city laws and regulations for handling, transport, and disposal.
11. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
12. Establishment of Track 1 Unrestricted Soil Cleanup Objectives (SCOs) for 90% of the site, and Track 2 Restricted Commercial SCOs for the remainder;
13. Excavation and removal of soil/fill to a depth of approximately 16 feet below grade within the majority of the Track 1 SCO portion of the site, excavation and removal of soil/fill to a depth of 16 feet 3 inches to 21 feet for elevator pits beneath the proposed building where Track 1 SCOs are proposed, and excavation and removal of soil/fill to a depth of 3 feet to 4 feet within the Track 2 section of the site;
14. Cover of the property with a composite cover consisting of a concrete slab and foundation sidewalls beneath the buildings;

15. Placement of a vapor barrier beneath the proposed building slabs and outside the sub-grade foundation walls to address the potential impact of soil vapors derived from offsite. The vapor barrier planned for this project includes a GSE 30 mil High Density Polyethylene (HDPE) Geomembrane (to be installed beneath the building slab) and a Grace 60 mil (1.5 mm) Bithutene 4000 membrane (to be installed below grade along the foundation sidewalls);
16. Installation of an active sub-slab depressurization system beneath the proposed building slabs to address the potential impact of soil vapors;
17. Injection of Hydrogen Releasing Compounds (HRCs) into the groundwater to reduce levels of chlorinated solvents. Groundwater will be monitored through two sidewalk wells. Groundwater quality will be evaluated for five years to confirm Track 1 cleanup;
18. Collection and analysis of endpoint samples to evaluate the performance of the remedy with respect to attainment of Track 1 and Track 2 SCOs;
19. Submission of a RAR which describes the remedial activities including any changes from this RAWP, certifies that the remedial requirements have or will be achieved, defines the Site boundaries, and describes any Engineering and Institutional Controls to be implemented at the Site; and
20. Site Management Plan is not required for Track 1 clean-up. If Track 1 cleanup is not achieved, a Site Management Plan (SMP) will be required for long-term management of residual contamination.

Remedial activities will be performed at the Site in accordance with this OER-approved RAWP. All deviations from the RAWP will be promptly reported to OER. Changes will be documented in the RAR.

This remedy conforms to the promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration OER guidance, as appropriate. The remedy is protective of public health and the environment.

9/19/11

Date



Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:

The Site is located at 2329 Frederick Douglass Boulevard in Manhattan, New York, and is identified as Block 1952 and Lot 29 on the New York City Department of Finance Tax Map. Figure 1 shows the Site location.

Site Features:

The 2329 Frederick Douglass Boulevard site is approximately 20,000-square feet and is bounded by West 126th Street to the north, West 125th Street to the south, Frederick Douglass Boulevard to the east, and two commercial buildings (1-story and 4-story) to the west. Currently, the site is developed with 11 multi-story buildings with basements that have historical commercial and residential uses. Most of the former commercial buildings have been vacant for approximately twenty five (25) years, while the former residential buildings have only been recently vacated. Most of these buildings are interconnected. The northwest portion of the property consists of a parking lot. The topography of the combine Site and its vicinity is generally level. The surrounding property uses are predominantly residential and commercial.

Current Zoning/uses:

The current zoning designation is C4-4D, General Retail District. The proposed use is consistent with existing zoning for the property.

Historical Use:

A review of historic records revealed that Lot 29 had been developed with several features, including a parking lot, residences, hotels, community facilities, entertainment facilities, retail shops, a printing shop, office space, storage facilities, a drycleaner, restaurants, factories, and a photo development laboratory. The printing shop was located on the second floor of a building located in the northeastern portion of the Site from 1951 to 2005. Two manufacturing facilities and a photo development lab were located in the southern portion of the Site between 1927 and 2000. The drycleaner was located in the western-southwestern portion of the Site from 1983 to 1988. As previously stated, all buildings on-site are currently vacant.

Summary of Environmental Findings:

1. Elevation of the property ranges from 20 feet at the buildings' basement floors to 28 feet at grade.
2. Depth to groundwater ranges from 10.7 feet below basement floors to 21.78 feet below grade surfaces.
3. Groundwater flow is generally from southwest to southeast beneath the Site.
4. Bedrock was not encountered during geotechnical or environmental subsurface investigations. During geotechnical investigations, a boring was installed 100 feet below grade, a depth at which bedrock was not identified.
5. The stratigraphy of the site, from grade down, consists of 8 to 13 feet of fill material underlain by natural glacial alluvium.

A site location map is attached as **Figure 1**.

PROPOSED DEVELOPMENT PLAN

The proposed future use of the Site will consist of a 19,983 square foot 4-story commercial with a partial basement encompassing approximately 17,858 square feet of the site. The partial basement, developed over an area of 17,858 square feet, will be excavated to a total depth of 16 feet below grade and the elevator pits will be excavated to 16 feet 3 inches to 21 feet below grade. The commercial building will completely cover the site and there will be no open spaces. The current zoning designation is C4-4D, General Retail District. The proposed use is consistent with existing zoning for the property.

The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

SUMMARY OF REMEDIAL INVESTIGATION

A remedial investigation (RI) serves as the mechanism for collecting data in order to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present on-site, and the extent of that contamination in the environment present on-site or leaving the site. The RI reports on data gathered to determine if the overall quality of soil, groundwater, soil vapor, indoor air, surface water or sediments may have been impacted by any contaminants. Monitoring wells are installed to assess groundwater, and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available in the site document repository, and its results are summarized in section 5.0.

Nature and Extent of Contamination:

Soil: Soil/fill samples collected during the remedial investigation (RI) indicated that no shallow or deep sample exceeded Track 2 Restricted Commercial SCOs for any metal. Metals in several shallow soil samples (0-2 feet depth intervals) exceeded Track 1 Unrestricted SCOs for copper, lead, mercury, trivalent chromium and zinc. Only one deep soil sample exceeded Track 1 Unrestricted SCOs for lead and for zinc. These findings are consistent with observations of historical fill material in the soil beneath the property. No PCBs were detected in shallow or deep samples. All pesticide detections were below Track 2 Restricted Commercial SCOs. However, several pesticides including DDT, DDE and DDD exceeded Track 1 Unrestricted SCOs in shallow soil samples. The maximum observed pesticide concentration was 35µg/kg. Only one pesticide marginally exceeded Track 1 Unrestricted SCOs (in a single sample only). No VOCs exceeded Track 2 Restricted Commercial SCOs. No VOCs were detected

in any deep soil sample. Only one VOC (acetone) exceeded Track 1 Unrestricted SCOs, and manifested in two shallow soil samples from the property. Other detections for VOCs were minimal, and include detections of PCE and naphthalene each in a single sample at concentrations well below Track 1 Unrestricted SCOs. There are no detections of SVOCs above Track 1 Unrestricted SCOs in deep samples. SVOCs are below Track 1 Unrestricted SCOs for all except one shallow sample, in which concentrations are relatively high and exceed Track 2 Restricted Commercial SCOs too.

Groundwater: Groundwater samples collected during the RI revealed no metal detections above 6NYCRR Part 703.5 Class GA Groundwater Quality Standards (GQS) in filtered and unfiltered samples with the exception of aluminum, iron and manganese. No PCBs were detected in groundwater samples. One pesticide (dieldrin) was detected in one sample slightly above GQS. Several chlorinated VOCs were detected in groundwater including PCE and TCE, which were present in most samples. PCE and TCE exceeded GQS, with the highest registered concentrations at 63µg/l and 9.8 µg/l, respectively. The only other VOC that exceeded GQS was chloroform, at a level marginally above GQS in a single sample. Two other VOCs were also detected, but below GQS standards. Five PAHs were identified above GQS, with most exceedences occurring in a single sample, none occurring in hydraulically-downgradient samples. The highest concentrations of PCE and TCE are found on the western portion of the property and are attributed to the former dry cleaning operations on-site.

Soil vapor: Soil vapor samples collected during the RI showed a wide range of compounds throughout the property including BTEX and associated derivative compounds, and chlorinated hydrocarbons. BTEX and associated derivatives were found in all soil vapor samples, and include a wide range of compounds. Concentrations of these rarely exceeded 100µg/m³. Chlorinated hydrocarbons were also observed to be present in soil vapor. Of note, PCE was detected in all samples at moderate to high concentrations, up to a maximum value of 700µg/m³. TCE was detected in two-thirds of the soil vapor samples at moderate to high concentrations, up to a maximum value of 23µg/m³. Apart from these, a variety of other chlorinated hydrocarbon compounds were identified in several soil vapor samples, mostly at relatively low concentrations (mostly below 10µg/m³); some however registered at elevated levels, including cis-1,2-dichloroethylene (77 µg/m³), chloroform (90µg/m³), and acetone (290µg/m³).

Figure 1: Site Map

