



OFFICE OF ENVIRONMENTAL REMEDIATION

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Re: **Decision Document**
NYC VCP Remedial Action Work Plan Approval
612-618 West 47th Street
Block 1094, Lot 44
VCP Project #14CVCP219M

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated January 16 2014 and Stipulation List dated February 4, 2014 for 612-618 West 47th Street, VCP Project #14CVCP219M. The Plan was submitted to OER under the NYC Voluntary Cleanup Program (VCP). The RAWP was released for public comment for 30 days as required by program rule. That comment period ended on February 14, 2014. There were no public comments.

Statement of Purpose and Basis

This document presents the remedy for a Voluntary Cleanup Program site known as “612-618 West 47th Street” site. This document is a summary of the information that can be found in the site-related reports and documents in the document repository at OER’s website www.nyc.gov/oer.

The New York City Office of Environmental Remediation (the Office or OER) 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.

The decision is based on the Administrative Record of the New York City Office of

Environmental Remediation (the Office or OER) for the “612-618 West 47th Street” site and the public's input to the proposed remedy presented by OER.

Description of Selected Remedy

The remedy selected for this “612-618 West 47th Street” site includes soil excavation, an engineered composite cover system, and installation of waterproofing/ vapor barrier.

The elements of the selected remedy are as follows:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establish Track 4 Site Specific Soil Cleanup Objectives (SCOs).
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
5. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
6. Decommission of three (3) on-site monitoring wells by a state licensed driller prior to demolition of on-site buildings and asphalt/concrete slab.
7. Excavation and removal of soil/fill exceeding Track 4 Site Specific SCOs. The basement area of the property (25% site) will be excavated to the depths of 13 feet below grade. The remainder of the property will be excavated for foundation walls, footings and utilities. Approximately 1,800 tons (1,200 cubic yards) of soil is anticipated to be removed during this phase of the development.
8. Excavation and removal of petroleum-contaminated material under the direction of the NYSDEC to the extent practicable (based on structural stability), and non-hazardous material (i.e. historic fill).
9. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
10. Removal of underground storage tanks (if encountered) and closure of petroleum spills (if evidence of a spill/leak is encountered during Site excavation) in compliance with applicable local, State and Federal laws and regulations.

11. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities.
12. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
13. Demarcation of residual soil/fill.
14. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
15. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
16. Installation and operation of an active sub-slab depressurization system (SSDS) in the gravel layer beneath the building slab.
17. Installation of a vapor barrier system beneath the building slab, basement slab and as well as behind outside foundation sidewalls to bottom of footings. The vapor barrier will consist of Raven Industries VaporBlock 20 Plus, which is a seven layer co-extruded barrier made from polyethylene and EVOH resins.
18. Construction and maintenance of an engineered composite cover consisting of 5-inches (minimum) of re-enforced concrete with underlying specified vapor barrier over the entire Site and subbase of certified clean soil/fill cover to prevent human exposure to residual soil/fill remaining under the Site.
19. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations including NYSDEC requirements for closure of Spill Case No. 1303354.
20. Submission of a Remedial Action Report (RAR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAWP.
21. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual contamination, including plans for operation, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
22. The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the

intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.

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.

June 3, 2014



Date

Shaminder Chawla
Deputy Director

SITE BACKGROUND

Site Location and Current Usage:

The Site is located at 612-618 West 47th Street in the West Clinton section in Manhattan, New York and is identified as Block 1094 and Lot 44 on the New York City Tax Map. Figure 1 shows the Site location. The Site is approximately 10,000-square feet and is bounded by West 47th Street to the north, West 46th Street to the south, 11th Avenue to the east, and 12th Avenue to the west. A map of the site boundary is shown in Figure 2. Currently, the Site consists of three (3) parcels of land: 612 West 47th Street: open parking lot formerly utilized by Manhattan Toyota to store vehicles; 614 West 47th Street: one-story building formerly utilized by Manhattan Toyota for car storage; and 618 West 47th Street: one-story building formerly utilized as an auto repair/body shop.

Past Uses and Areas of Concern:

The Site consists of three (3) parcels of land. Portions of the Site have been used as a commercial – automotive repair/ parking lot/ garage since at least 1930. Prior to August 2013, the parcels were used as: 612 West 47th Street: asphalted open parking lot utilized by Manhattan Toyota to store vehicles; 614 West 47th Street: 20 ft high one-story building constructed of cinder block. It was utilized by Manhattan Toyota for car storage; and 618 West 47th Street: 20 ft high one-story building constructed of brick and was utilized as an auto repair/body shop.

The AOCs identified in Executive Environmental Group Inc.'s Phase I for this Site include:

1. Past activities and the automotive repair operation on one parcel of the Site at the time of the assessment; 2. Ten (10) 55 gallon storage drums; and 3. The identification of transmissions, engines and disassembled cars parts on the Site. The AOCs identified in GCI's Phase II for this Site include: 1. The identification of a suspected fill port, feed and return lines and a potential underground storage tank; and 2. Petroleum impacts were identified in five (5) of the twelve (12) soil borings.

Summary of Environmental Findings:

A summary of the findings of the RI regarding hydrogeology and the nature and extent of contamination at the Site are as follows:

1. Elevation of the property ranges from approximately 15 to 20 feet (Elevations refer to official datum of the Topographical Bureau, Borough of Manhattan which is 2.75 ft above the U.S.C. & G. Datum at Sandy Hook).
2. Depth to groundwater ranges from approximately 11.91 to 12.75 feet below ground surface (ft bgs.) at the Site.
3. Groundwater flow is generally from east to west across the Site towards the Hudson River.
4. Depth to bedrock ranges from approximately 1 to 15 ft bgs. at the Site.
5. The stratigraphy of the site, from the surface down, consists of 0.5 to 7 feet of historic fill underlain by 2.5 to 11 feet of silty to clayey fine sand underlain by competent bedrock (mica schist, granite and pegmatite).

PROPOSED DEVELOPMENT PLAN

The proposed future use of the Site will consist of the demolition of two (2) existing on site buildings on parcels 614 and 618 West 47th Street and construction of a one story building with mezzanine and basement which will encompass the entire Site, approximately 10,000 square

feet. The new building will act as a transfer center for Prince Lumber presently located at 404 West 15th Street, New York, New York 10011

SUMMARY OF REMEDIAL INVESTIGATION

The Remedial Investigation was conducted July through October 2013. A full Remedial Investigation Report is available online in the document repository and the results are summarized below.

Soil:

Soil/fill samples collected during the investigation showed no detectable concentrations of PCBs or pesticides. VOCs including isopropylbenzene (max. of 2,900 µg/Kg); 1,2- dichloroethane (at 170 µg/Kg); benzene (at 1,300 µg/Kg); ethylbenzene (max. of 3,000 µg/Kg); toluene (at 6,200 µg/Kg); and xylenes (max. of 3,000 µg/Kg) exceeded Track 1 Unrestricted Use SCOs in two soil sampling locations. SVOCs including benzo[a]anthracene (max. of 82,000 µg/Kg); benzo[a]pyrene (69,000 µg/Kg); benzo[b]fluoranthene (96,000 µg/Kg); chrysene (max. of 97,000 µg/Kg); dibenzo(a,h)anthracene (max. of 9,200 µg/Kg); indeno(1, 2, 3-cd)pyrene (max. of 49,000 µg/Kg) exceeded Track 2 Restricted Commercial SCOs in three soil samples. In addition, benzo[k]fluoranthene (46,000 µg/Kg), dibenzofuran (max. of 35,000 µg/Kg), fluoranthene (220,000 µg/Kg), fluorene (36,000 µg/Kg), naphthalene (13,000 µg/Kg), phenanthrene (280,000 µg/Kg) and pyrene (180,000 µg/Kg) also exceeded Track 1 Unrestricted Use SCO. Highest total SVOCs ranged from 97 µg/Kg to 1,334,100 µg/Kg (indicating a hotspot area). Metals including arsenic (16.1 mg/Kg), barium (357 mg/Kg), copper (max. of 62.3 mg/Kg), lead (max. of 538 mg/Kg), manganese (at 1,700 mg/Kg), mercury (1.5 mg/Kg) and zinc (max. of 382 mg/Kg) exceeded Track 1 Unrestricted Use SCOs in one or more soil samples. Of these metals, arsenic also exceeded Track 2 Restricted Commercial Use SCO in one sample. Overall, except for one hotspot location (Boring SB-104), the findings were consistent with observations for shallow historical fill sites in areas throughout NYC.

Groundwater:

Groundwater samples collected during the RI showed no detectable concentrations of any VOCs. SVOCs including benzo[a]anthracene (0.12J µg/L); benzo[a]pyrene (0.053 µg/L); benzo[b]fluoranthene (0.36 µg/L); benzo[k]fluoranthene (0.29 µg/L); chrysene (0.33 µg/L); and indeno(1, 2, 3-cd)pyrene (0.31 µg/L) exceeded the New York State 6NYCRR Part 703.5 Class GA groundwater quality standards (GQS). Several metals were identified but only manganese and sodium exceeded their respective GQS in dissolved groundwater. Pesticides and PCBs were not detected in groundwater.

Soil vapor:

Soil vapor samples collected during the RI showed thirteen (13) volatile organic compounds (VOCs) were detected at concentrations greater than one or more of the background databases provided in the "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York," dated October 2006. Soil vapor samples detected petroleum related and chlorinated VOCs at high concentrations. Petroleum-related VOCs (BTEX) ranged from 52 µg/m³ to 2007 µg/m³. Overall the highest reported concentrations were for acetone (maximum of 910 µg/m³), cyclohexane (maximum of 15,000 µg/m³) and hexane (maximum of 15,000 µg/m³). Chlorinated VOC, tetrachloroethylene (PCE) was identified in all five soil vapor samples and ranged in

concentration from 51 to 2700 µg/m³. Trichloroethylene (TCE) was detected at a maximum concentration of 6.3 µg/m³. Carbon tetrachloride was detected at a concentration of 7.3 µg/m³ and TCA was detected at a maximum concentration of 13 µg/m³. The PCE concentrations in soil vapor samples are above the monitoring level ranges established within the State DOH soil vapor guidance matrix. In addition, concentrations of methylene chloride (dichloromethane) in one (1) sample exceeded the NYSDOH Air Guidance Values (AGV).

Figure 1 – Site Map



Figure 2 – Site Location Map

