



OFFICE OF ENVIRONMENTAL REMEDIATION

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Hernan Galvis
Center for Negative Thinking, LLC
131 Union Street
Brooklyn, New York 11231

Christopher Connolly
Laurel Environmental Associates, Ltd.
53 West Hills Road, Suite 1
Huntington Station, New York 11746

Re: **NYC VCP Remedial Action Work Plan Approval**
33 Carroll Street
Block 347, Lot 50
VCP Project # 13CVCP152K/ OER Project # 11RHAN069K

Dear Mr. Galvis:

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 33 Carroll Street, VCP Project # 13CVCP152K, dated August 7, 2013 and September 16, 2013. 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 September 7, 2013.

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

Statement of Purpose and Basis

This document presents the remedy for a Voluntary Cleanup site known as “33 Carroll 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: <http://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. Contaminants include hazardous substances.

The decision is based on the Administrative Record of the New York City Office of Environmental Remediation (the Office or OER) for the 33 Carroll Street Site and the public's input to the proposed remedy presented by the Office.

Description of Selected Remedy

The remedy selected for this 33 Carroll Street Site is Track 4 remedy and includes soil excavation, cover system, active sub-slab depressurization system and 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. Establishment of Site Specified Track 4 Soil Cleanup Objectives (SCOs).
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
5. Excavation of contaminated soil and fill material exceeding the Track 4 SCOs across the entire site to a depth of at least two feet below grade. Excavation to a depth of four feet for development footings, and a depth of seven feet for development elevator pit. Additional hotspot soil removal action from two areas consisting of 12'x12'x4' and 12'x12'x10'. Approximately 1,055 tons of soil/fill be removed from the Site.
6. Screening of excavated soil and fill material during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID, in accordance with the Soil/Materials Management Plan. Appropriate segregation of excavated media onsite.
7. 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.
8. 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.
9. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
10. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations (see Table 3 for backfill quantities).
11. Installation of demarcation layer.
12. As part of development, installation of a vapor barrier below the concrete slab underneath the building, as well as behind foundation walls of the proposed building. The vapor barrier will consist of a Barrier Bac VBC-350 Vapor Barrier.
13. Installation of an active Sub Slab Depressurization System (SSDS).
14. Construction and maintenance of an engineered composite cover consisting of a concrete building slab to prevent human exposure to residual soil and fill materials remaining under the site. 850 square feet (SF) of front yard area and 2,550 SF of landscaped rear yard areas will be capped by at-least two feet of clean soil.
15. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
16. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
17. Submission of a Remedial Action Report (RAR) that describes the remedial activities certifies that the remedial requirements have been achieved, defines the Site boundaries, and describes all

Engineering and Institutional Controls to be implemented at the Site, and lists any changes from this RAWP.

18. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual historic fill contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
19. Continued registration with an E-Designation at the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls; 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 is relevant and appropriate and takes into consideration OER guidance, as appropriate. The remedy is protective of public health and the environment.

9/20/13

Shaminder Chawla

Date

Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:

The Site is located in the Columbia street waterfront district section in Brooklyn and is identified as a Block 347, Lot 50 on the New York City Tax Map. Figure 1 shows the Site location.

Site Features:

The Site is approximately 8,500-square feet and is bounded by residential properties to the north, Carroll Street to the south, and multi-family properties to the east and west. Currently, the Site maintains a single two-story building with no basement or cellars. The building is divided into multiple units, which are used for the following; the repair and refurbishment of restaurant equipment, woodworking, and offices.

Current Zoning/uses:

On April 29, 2011, Center for Negative Thinking, LLC successfully acquired a zoning map amendment from M1-1 (manufacturing) to R6-B (general residential district) for lots 50 and 54, #C090225ZMK, from the Board of Standards and Appeals (BSA). Therefore, the proposed use is consistent with the new zoning for the property.

Historical Use:

Historically, the site was utilized as a wagon house, stores and dwellings, auto building, medium sized two-story manufacturing and storage, wholesale produce building, and most recently, a gym.

Summary of Environmental Findings:

1. Elevation of the property ranges from 13 to 15 feet.
2. Based on gauging of the groundwater monitoring wells, depth to groundwater was found to be 20 feet at the Site.
3. Groundwater flow is generally from east to west beneath the Site.
4. Depth to bedrock is expected to be over 100 feet at the Site.
5. The known stratigraphy in the area of the site is considered to be ~6 feet of urban fill, followed by fine silty sand up to 12 feet and fine to medium grained sands to 32 feet and up to 100 feet of the Upper Glacial Aquifer, which is likely underlain directly by bedrock.

A site location map is attached as Figure 1.

PROPOSED DEVELOPMENT PLAN

The proposed future use of the Site will consist of six (6) single-family dwellings, each maintaining 3-stories, a mezzanine and a bulkhead. The structures will have combined footprint of approximately 5,100 square feet.

The entire proposed redevelopment is residential, with no commercial units. Each of the six buildings will be constructed slab-on-grade, with no basements, and with footings no deeper than -4.0' feet below grade. There will be three house traps, each shared between two units, that will be no deeper than -6.50' below grade. The buildings will be between 13' 8" and 14' wide, will be 60 feet deep, and will not exceed 50 feet in height. The six buildings will have a combined gross floor area of 17,586 square feet. The entire 2,550 square foot area at the rear of the six buildings will be comprised of grass yards with partial walkways, associated with each individual residence, whilst the 844 square foot area in front of the buildings will be utilized as entrance walkways, with individual recess alcoves for garbage and recycling storage.

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

SUMMARY OF REMEDIAL INVESTIGATION

The Remedial Investigation was conducted on between February 4, 2011 and March 4, 2011. A full Remedial Investigation Report is available online in the document repository and the results are summarized below.

Nature and Extent of Contamination:

Soil: Several VOCs were detected in soil samples, but all at concentrations below their respective NYSDEC Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs). Tetrachloroethylene (PCE) was detected at a maximum of 3 ppb. Trichloroethylene (TCE) was detected at a maximum concentration of 120 ppb. Several SVOCs were detected exceeding Restricted Residential (Track 2) SCOs and included benzo(a)anthracene (maximum 8,890 ppb), benzo(a)pyrene (maximum 5,510 ppb), benzo(b)fluoranthene (maximum 5,180 ppb), benzo(k)fluoranthene (maximum 4,470 ppb), chrysene (maximum 8,180 ppb), dibenzo(a,h)anthracene (maximum 730 ppb), indeno(1,2,3-cd)pyrene (maximum 1,720 ppb). Metals including arsenic (maximum 23.8 ppm), barium (maximum 2,150 ppm), chromium (maximum 238 ppm), copper (maximum 163 ppm), lead (maximum 51,300 ppm), mercury (maximum 1.87 ppm), nickel (maximum 221 ppm) and zinc (maximum 1,070 ppm) exceeded Restricted Residential SCOs in all shallow soils and one deep soil location. Lead was detected in all samples below 3,000 ppm except at one location at 51,000 ppm. Three pesticides including 4,4'-DDD (at 4 ppb); 4,4'-DDE (at 16.9 ppb); and 4,4'-DDT (maximum 163 ppb) were detected in two shallow soil samples exceeding Unrestricted Use (Track 1) SCOs.

Two metals hotspot areas identified during remedial investigation were further investigated by additional soil sampling. This sampling delineated two areas each 12 feet by 12 feet, one four feet deep and another 10 feet deep.

Groundwater: Groundwater samples collected during the RI detected one VOC, methylene chloride in all three groundwater samples, at concentrations (maximum 4 ppb), below the NYSDEC 6NYCRR Part 703.5 Class GA Groundwater Standards (GQS). SVOCs, pesticides and PCBs were not detected in groundwater samples. Metals including manganese and sodium were detected above GQS.

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 were found in all soil vapor samples and included a wide number of compounds. These compounds were not identified in soil or groundwater on the property. PCE was detected in all vapor samples at concentrations of 140 ug/m³, 1,400 ug/m³ and 1,600 ug/m³. TCE was detected in 2 of 3 vapor samples at a concentration of 9.5 ug/m³ and 15 ug/m³. TCA and carbon tetrachloride was not detected in any sample. Other chlorinated hydrocarbon compounds included chloroform (18 ug/m³), methylene chloride (maximum 29 ug/m³) and acetone (maximum 900 ug/m³). PCE (NYSDOH AGV of 100 µg/m³) and TCE (AGV of 5 µg/m³) concentrations detected in soil vapor at the site are above the NYSDOH guidance matrix.

Figure 1: Site Map

