



OFFICE OF ENVIRONMENTAL REMEDIATION

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Cheskel Schwimmer
527 Flushing Avenue, LLC
694 Myrtle Avenue, Suite 560
Brooklyn, NY 11205

Charlie Sosik
Environmental Business Consultants
1808 Middle Country Road
Ridge, NY 11961

Re: **NYC VCP Remedial Action Work Plan Approval**
527 Flushing Avenue
Block 530, Lot 13
VCP Project # 13CVCP087K

Dear Mr. Schwimmer:

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 527 Flushing Avenue site, VCP Project # 13CVCP087K, dated October 1, 2012. 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 October 4, 2012. There were no public comments.

Statement of Purpose and Basis

This document presents the remedy for a Voluntary Cleanup site known as “527 Flushing Avenue” 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), in consultation with the New York City Department of Health and Mental Hygiene (DOHMH), 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 527 Flushing Avenue site and the public's input to the proposed remedy presented by the Office.

Description of Selected Remedy

The remedy selected for this 527 Flushing Avenue Site is Track 4 remedy and includes soil excavation, cover system, and installation of a vapor barrier and active sub-slab depressurization system.

The elements of the selected remedy are as follows:

1. Preparation of a Community Protection Statement and implementation of a Citizen Participation Plan.
2. Perform a Community Air Monitoring Program for particulates and volatile organic compounds.
3. Establishment of 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. Excavation and removal of soil/fill exceeding SCOs, including a hotspot for metals identified in the rear yard. Excavation for development purposes to a depth of approximately 6 feet in the area of the proposed building area and approximately 1 foot in the proposed rear yard area.
6. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
7. Removal of underground storage tanks and closure of petroleum spills 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. Appropriate segregation of excavated media on-Site.
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.
11. Demarcation of residual soil/fill.
12. Installation of a vapor barrier system beneath the building slab.
13. Installation and operation of an active sub-slab depressurization system.
14. Capping of entire Site with a 4-inch engineered concrete slab including basement areas, slab on grade areas and rear yard areas.
15. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
16. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
17. Submission of a 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 contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.

19. Recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and a requirement that management of these controls must be in compliance with an approved SMP; and Institutional Controls including 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.

12/14/12

Date



Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:

The Site is located at 527 Flushing Avenue in Brooklyn, New York and is identified as Block 2263, Lot 56 on the New York City Tax Map. Figure 1 shows the Site location.

Site Features:

The Site is 2,500-square feet and is bounded by Block 2263, Lot 48 (developed with a 2-story commercial/office building) to the north, Flushing Avenue to the south, Block 2263, Lot 55 (developed with a 4-story residential building with first floor commercial space) to the east, and Block 2263, Lot 57 (developed with a 3-story residential building with first floor commercial space) to the west. Currently, the Site is undeveloped, vacant and uncapped. The Site is located on the north side of Flushing Avenue between Lee Avenue and Bedford Avenue. The lot consists of approximately 25 feet of frontage on Flushing Avenue and is 100 feet deep for a total of 2,500 square feet (0.057 acres).

Current Zoning/uses:

The current zoning designation is R71 with a C2-4 commercial overlay. The proposed use is consistent with existing zoning for the property. R7-1 is a medium density residence district that has a maximum residential FAR that ranges from 0.87 to 3.44 depending on the width of the street.

Historical Use:

Based on the City Directory Listings, historic Sanborn maps, New York City Department of Building Records, and internet search results, the Site was developed prior to 1887 with a 2-story building utilized by “J. Reeber and Company”, which was a large second hand building material and lumber facility that occupied both the Site and several adjacent properties to the east and north. By 1904, the Site was redeveloped with a new 4-story residential building with a first floor store. The “J. Reeber and Company” lumber yard appeared to continue operations on the adjacent properties to the north, but the Site no longer operated as a portion of the lumber yard. From 1965 to 1993, Sanborn maps noted the 4-story building as vacant and open. This matches the City Directory Listings which recorded no residential or store listings between the years 1949 and 1997. In 1997, a residential listing was recorded for the building, and in 2005, a City Directory search and internet search revealed the building was used by “Chicho French Cleaner”, a laundry service. Internet search results revealed Chicho French Cleaner offered garment pressing and dry cleaning. Between 2006 and 2007 the 4-story building was demolished and the Site has remained undeveloped and vacant since.

Summary of Environmental Findings:

1. The elevation of the property is approximately 12 feet.
2. Depth to groundwater is approximately 9 feet at the Site.
3. Groundwater flow is generally from east-southeast to west-northwest beneath the Site.
4. Depth to bedrock is over 100 feet at the Site.
5. The stratigraphy of the Site, from the surface down, consists of 6 to 8 feet of an urban fill layer underlain by a native silt and clayey silt.

A site location map is attached as Figure 1.

PROPOSED DEVELOPMENT PLAN

The proposed future use of the Site will consist of a new 6-story residential apartment building that will occupy the first 65 feet of the 100 foot deep lot. The building will have a full basement. The front portion of the basement will consist of storage rooms for the building's occupants, a sprinkler room, meter room and an elevator. The rear portion of the basement will consist of two bedrooms, a playroom, a laundry closet, a utility closet (boiler and AC units) and a bathroom for use by the 1st floor occupant. Two rear stairwells will provide access to the rear yard from the two bedrooms.

The top of the basement slab will be approximately 5 feet 1 inch below sidewalk grade. Therefore, construction of the buildings foundation will require excavation to a depth of approximately 6 feet below grade. Additional excavation will be required in select areas for installation of concrete pile caps and grade beams. The building's footprint will be 25 feet wide by 65 feet long. Assuming an excavation depth of approximately 6 feet below grade, an estimated 400 yd³ (600 tons) of soil will require excavation for construction of the new building. Groundwater was encountered at approximately 9 feet below grade, therefore groundwater is not expected to be encountered during Site excavation.

A 25 foot wide by 35 foot deep rear yard will be located behind the apartment building. The rear yard will be capped with a 4" thick layer of concrete. No exposed soil areas will be present upon completion of the building.

SUMMARY OF REMEDIAL INVESTIGATION

The Remedial Investigation was conducted on January 2-6, 2012. A full Remedial Investigation Report is available online in the document repository and the results are summarized below.

Soil:

Soil samples collected during the RI showed no PCBs at detectable concentrations. No VOCs were detected above Unrestricted Use SCOs. The only chlorinated VOC detected in soil was tetrachloroethylene, which was detected well below its Unrestricted Use SCO at a concentration of 8.2 ppb in one of the shallow soil samples. Of the petroleum-related VOCs detected in soil, only naphthalene (1.3 ppm) and sec-butylbenzene (0.490 ppm) were detected above trace levels (less than 0.030 ppm). One pesticide (4,4,4-DDT) was detected above Unrestricted Use SCOs in one shallow soil sample. Nine metals were detected above Unrestricted Use SCOs in all three shallow soil samples and one of the deep soil samples, and of these metals, lead (2,730 ppm), copper (844 ppm), and barium (3,030 ppm) also exceeded Restricted Residential SCOs in one shallow sample. Seven SVOCs were detected above their Unrestricted Use and Restricted Residential Use SCOs in shallow soil. These SVOCs are all polycyclic aromatic hydrocarbons (PAHs), and their concentrations and distributions are indicative of historic urban fill material. Overall, these findings are consistent with historic fill material which is present to a depth of approximately 8 feet across the Site.

Groundwater:

No PCBs or pesticides were detected in groundwater. Groundwater samples collected during the RI showed chlorinated VOCs in one of two groundwater samples. Tetrachloroethene was found above its GQS at a concentration of 22 µg/L, and trichloroethene (TCE) was found below its GQS at 1.3 µg/L. Because PCE was identified in soil at a concentration (0.008 ppm) well below its groundwater protection standard of 1.3 ppm, an off-site source is suspected. Four SVOCs, all PAHs, were detected above their

corresponding GQSs in one groundwater sample, and may be associated with turbidity in that sample based on findings in soil. The metals beryllium, iron, magnesium, manganese, and sodium were identified in dissolved groundwater above GQSs, but these metals are not linked with on-Site soil contamination. Overall, soil results were unremarkable and the RI did not reveal any substantial source of contaminants on-Site.

Soil vapor:

Soil vapor samples collected during the RI showed petroleum-related and chlorinated hydrocarbons at trace-to-moderate concentrations. Petroleum-related VOCs were detected at generally trace-to-low levels (total concentrations less than 50 $\mu\text{g}/\text{m}^3$). PCE was detected within both soil vapor samples at a maximum concentration of 346 $\mu\text{g}/\text{m}^3$, which is within the monitor/mitigate range established by NYSDOH, while TCE was also detected in both soil vapor samples at a max concentration of 4.89 $\mu\text{g}/\text{m}^3$, which is below its monitor/mitigate range established by NYSDOH.

Figure 1: Site Map

