



**OFFICE OF ENVIRONMENTAL REMEDIATION**

100 Gold Street - 2nd Floor  
New York, New York 10038

**Daniel Walsh, Ph.D.**  
**Director**

Tel: (212) 788-8841  
Fax: (212) 788-2941

May 30, 2014

Mr. Roger Bittenberger  
59 South 4<sup>th</sup> LLC  
134 Spring Street Suite 305  
New York, NY 10012

Ms. Erica Johnston  
Hydro Tech Environmental, Corp  
77 Arkay Drive, Suite G  
Hauppauge, NY 11788

Re: **Decision Document**  
**NYC VCP Remedial Action Work Plan Approval**  
**1, 2, 3, 4, 5, and 6 Wythe Lane (51-59 South 4<sup>th</sup> Street)**  
**Block 2428, Lot 28, 29, 30, 33, 34, 35**  
**VCP Project #14CVCP312K**

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated March 2014 and Stipulation List dated May 2014 for 51-59 South 4<sup>th</sup> Street, VCP Project #14CVCP312K. 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 April 21, 2014. There were no public comments.

**Statement of Purpose and Basis**

This document presents the remedy for a Voluntary Cleanup Program site known as “51-59 South 4th 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](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.

The decision is based on the Administrative Record of the New York City Office of Environmental Remediation (the Office or OER) for the “51-59 South 4th Street” site and the public's input to the proposed remedy presented by OER.

### **Description of Selected Remedy**

The remedy selected for this “51-59 South 4th 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. Establishment of Unrestricted Use (Track 1) 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 Track 1 Unrestricted Use SCOs. Entire property will be excavated to a depth from 9 feet to 14 feet below grade for development purposes. Approximately 4,950 tons of soil will be removed;
6. 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.
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. 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. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
12. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
13. 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, and if Track 1 SCOs are not achieved, describes all Engineering and Institutional Controls to be implemented at the Site..

If Track 1 SCOs are not achieved, the following construction elements will constitute Engineering and Institutional Controls:

14. As part of development, construction and maintenance of an engineered composite cover consisting of 16” concrete building slab across the footprint of the new building to prevent human exposure to residual soil/fill remaining under the Site.
15. As part of development, installation of a vapor barrier system beneath the building slab and outside foundation sidewalls below grade.
16. Operation of ventilated parking garage per Building Department’s requirements.
17. If Track 1 SCOs are not achieved, 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.
18. If Track 1 SCOs are not achieved, the property will continue to be registered 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.

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.

May 30, 2014

Date



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Shaminder Chawla  
Deputy Director

## **SITE BACKGROUND**

### Site Location and Current Usage:

The Site is located at 51 to 59 South 4<sup>th</sup> Street in Williamsburg section in Brooklyn, New York and is identified as Block 2428 and Lots 28, 29, 30, 33, 34 and 35 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 7,500-square feet and is bounded by a 4-story residential building to the north, a 6-story residential building to the south, a 4-story residential building to the east, and a vacant yard to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is used by a scrap metal recycling company and contains three 1-story warehouses.

### Past Uses and Areas of Concern:

Based upon the review of the Phase I Environmental Site Assessment (ESA) Report prepared by Lawrence Environmental Group, LLC in October 2012, a Site history was established. The Site was historically developed with three 1-story warehouses between 1965 and 1977. The property has been occupied by trucking companies, a sheet metal company, scrap metal companies, grocery store and residential buildings.

The AOCs identified for this site include:

1. The Site in general due to the historical and use for scrap metal recycling

### Summary of Environmental Findings:

1. Elevation of the property ranges from 33 to 38 feet.
2. Depth to groundwater ranges from 34.38 to 35.50 feet at the Site.
3. Groundwater flow is towards west beneath the Site.
4. Bedrock was not encountered during the RI.
5. The stratigraphy of the site, from the surface down, consists of 2 feet of medium coarse sand with traces of urban fill, 6 feet of coarse sand and 7 to 8 feet of medium to fine grained sand with pebbles.

## **PROPOSED DEVELOPMENT PLAN**

The proposed future use of the Site will consist of six 4-story single-family houses with cellars. Each house will be constructed as a 4-story single-family structure with shared party walls. Each house will be developed on a 16'8" by 75' lot. The new addresses of the houses will be defined as 1 to 5 Wythe Lane and 6 Wythe Lane. Proposed houses on 1 to 5 Wythe Lane will have cellars and the bottom of the slab will be at 11 feet below grade. House on 6 Wythe Lane will have a cellar and a sub-cellar and the bottom of the slab will be at 14 feet 6 inches below the adjacent grade. A shared garage will be accessed via driveway under 6 Wythe Lane and 1 to 5 Wythe Lane backyards. The bottom of the garage slab will be approximately at 9 feet below grade surface.

The entire lot will be excavated to varying depths from 9 feet to 14 feet and 6 inches. Approximately 3,300 cubic yards of soil is to be removed during the construction. Heating and air conditioning for the houses will be provided by air source heat pumps with condensers on the roof and air handlers throughout each house. Each house will have its own HRV ventilation system located on the 3<sup>rd</sup> floors and hot water heater located in the cellar mechanical room. All units will contain their individual electric washer and dryer. The project also contains common elements that include a shared driveway, parking garage and a shared Mews walkway that constitutes Wythe Lane. Layout of the proposed site development is presented in Figure 3. The current zoning designation is M1-2/R6. The proposed use is consistent with existing zoning for the property.

### **SUMMARY OF REMEDIAL INVESTIGATION**

The Remedial Investigation was conducted in March 2014. 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 RI were compared to 6 NYCRR Part 375-6.8 Track 1 Unrestricted Soil Cleanup Objectives (SCOs) and Track 2 Restricted Residential SCOS. Soil sampling results showed no VOCs or PCBs were found above Unrestricted Use SCOs. Trace levels of four VOCs; acetone (max. of 0.037 ppm), 2-butanone (0.0059 ppm), naphthalene (max. of 0.015 ppm) and tetrachloroethylene (PCE) (0.007 ppm) were detected in one or more soil samples. Seven (7) Polycyclic Aromatic Hydrocarbon (PAH) SVOCs including Benzo(a)anthracene (max. of 8.82 ppm), Benzo(a)pyrene (max. of 6.45 ppm), Benzo(b)fluoranthene (max. of 7.18 ppm), Benzo(k)fluoranthene (6.01 ppm), Chrysene (max. of 9.09 ppm), Dibenzo(a,h)anthracene (max. of 0.517 ppm) and Indeno(1,2,3-cd)pyrene (max. of 1.44 ppm) were detected above their respective Restricted Residential Use SCOs in two of the five shallow soil samples. SVOCs were not detected above Unrestricted Use SCOs in any of deep soil samples. Pesticides including 4,4'-DDD (max. of 11.8 ppb); 4,4'-DDE (max. of 17.2 ppb); 4,4'-DDT (max. of 9 ppb); chlordane (max. of 3.4 ppb) and dieldrin (5.6 ppb) were identified at a concentration slightly exceeding their Track 1 Unrestricted Use SCOs in shallow soil samples. Six (6) metals, Barium (max. of 1620 ppm), Chromium Hexavalent (1.73 ppm), Copper (max. of 101 ppm), Lead (max. of 4700 ppm), Zinc (max. of 851 ppm), Mercury (max. of 2.7 ppm) and were identified above Track 1 Unrestricted SCOs in six of the soil samples. Of these metals, Barium, Lead and Mercury also exceed their Track 2 Restricted Residential SCOs. Overall, the findings were consistent with observations for historic fill sites in areas throughout NYC.

#### **Groundwater:**

Groundwater sample collected during Remedial Investigation were compared to NYSDEC 6NYCRR Part 703.5 Groundwater Quality Standards (GQS). Groundwater results showed no SVOCs, PCBs or Pesticides at concentrations exceeding Groundwater Quality Standards (GQSs). One VOC, PCE, was detected in one groundwater sample at a concentration of 9 ug/L, which exceeds its GQS of 5 ug/L. Several metals were identified in groundwater samples, but no metals were detected in any of the groundwater samples exceeding their respective GQSs.

#### **Soil vapor:**

Soil vapor samples collected during the RI were compared to the compounds listed in Table 3.1 Air Guideline Values Derived by the NYSDOH located in the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion. Soil vapor samples collected during the RI showed petroleum and chlorinated VOCs were detected in soil vapor samples collected during the RI. Petroleum related VOCs (BTEX) were detected at a maximum concentration of 94 ug/m<sup>3</sup>. Most contaminant concentrations were below 55 ug/m<sup>3</sup> except for PCE detected in three of the soil vapor samples, at a concentration ranging from 17 ug/m<sup>3</sup> to 170 ug/m<sup>3</sup>. Trichloroethylene and TCA were also detected in two of the soil vapor samples, both at a maximum concentration of 3 ug/m<sup>3</sup>. Carbon tetrachloride was not detected in any of the soil vapor samples. PCE Concentrations are above the monitoring level range established by NYSDOH Final Guidance on Soil Vapor Intrusion (October 2006) and require further action.

**Figure 1 – Site Map**



**Figure 2 – Site Location Map**

