



OFFICE OF ENVIRONMENTAL REMEDIATION

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June 25, 2012

Mr. Hernan Galvis
Passiv House Xperimental, LLC
131 Union Street
Brooklyn, NY 11231

Mr. Scott Yanuck
Laurel Environmental Associates, Ltd.
53 West Hills Road
Huntington Station, New York 11746

Re: **Decision Document**
NYC VCP Remedial Action Work Plan Approval
107 Union Street
Block 335, Lot 42
VCP Project #12CVCP054K

Dear Mr. Galvis:

The New York City Office of Environmental Remediation (OER) has completed its review of the May 2012 Remedial Action Work Plan (RAWP) and Stipulation List for 107 Union Street, VCP Project #12CVCP054K, dated May 30, 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 June 2, 2012. There were no public comments.

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 Program site known as “107 Union 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. 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 “107 Union Street” site and the public's input to the proposed remedy presented by OER.

Description of Selected Remedy

The remedy selected for this “107 Union Street” site includes soil excavation, an engineered composite cover system, a vapor barrier, institutional controls, and site management

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 carbon compounds.
3. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
4. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
5. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
6. Establishment of Track 4 Soil Cleanup Objectives (SCOs).
7. Excavation of contaminated soil and fill material exceeding the Track 4 SCOs across the entire site to a depth of two feet below grade. Excavation to a depth of four feet for development purposes.
8. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
9. Removal of underground storage tanks and closure of petroleum spills if any in compliance with applicable local, State and Federal laws and regulations, should they be encountered.
10. 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 onsite.
11. Collection and analysis of confirmatory end-point samples to determine the performance of the remedy with respect to attainment of SCOs.

12. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
13. Installation of a vapor barrier system beneath the building slab.
14. Construction and maintenance of an engineered composite cover consisting of a concrete building slab to prevent human exposure to residual soil/fill remaining under the Site.
15. Submission of a Remedial Action Report (RAR) that describes the remedial activity, 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.
16. 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.
17. 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 are relevant and appropriate and takes into consideration OER guidance, as appropriate. The remedy is protective of public health and the environment.

6/26/12

Date

Shaminder Chawla

Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:

The 107 Union Street Site (hereafter referred to as the “Site”) is located at 107 Union Street in the Carroll Gardens section of Brooklyn, New York and is identified as Block 335, Lot 42 on the New York City Tax Map. Figure 1 shows the Site location.

Site Features:

The Site is approximately 2,300 square feet and is bounded by residential properties to the north, Union Street to the south, mixed-use residential and commercial properties to the east, and industrial, manufacturing, and commercial properties to the west. Currently, the Site is vacant and undeveloped, covered with grass, gravel, and weeds.

Current Zoning/Uses:

The current zoning designation is M1-1, high performance light manufacturing. Although the proposed use (residential) at the property is inconsistent with the existing zoning, a Board of Standards and Appeals (BSA) calendar #134-10-BZ has been issued for the construction of a Group 2 (residential) building within this manufacturing zone.

Summary of Environmental Findings:

1. Elevation of the property ranges from approximately 14 to 15 feet at the Site.
2. Depth to groundwater ranges from 5 to 7 feet at the Site.
3. Groundwater flow is generally east to west beneath the Site.
4. Depth to bedrock is more than 100 feet below grade at the Site.
5. The known stratigraphy of the site consists of 6 to 6.5 feet of fill material, construction debris, cinders, and coal, followed by fine well sorted sands to the end of the soil boring, which is 10 feet. According to a geotechnical boring conducted in December 2007, a fine to medium grained sand extended to the end of the boring at 32 feet below grade.
6. Soil/fill samples collected during the RI showed detections of VOCs at depths of 0-2 feet and 10-12 feet below grade which did not exceed the NYSDEC Part 375 Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs). Several semi volatile organic compounds (SVOCs) were detected in both soil samples collected from 0-2 feet below grade interval, at concentrations slightly exceeding the NYSDEC Restricted Use (Track 2) Restricted-Residential SCOs; these included benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene. The RI showed elevated concentrations of two metals (lead and mercury) slightly exceeding the Track 2 Restricted-Residential SCOs in the both samples collected from 0-2 feet below grade interval. Pesticides were detected at elevated concentrations in both samples in the 0-2 feet below grade interval, with 4,4'-DDT exceeding the Track 2 Restricted-Residential SCOs but below the Track 2 Commercial SCOs and 4,4'-DDE exceeding the Track 2 Residential SCOs but below the Track 2 Restricted-Residential SCOs. SVOCs, metals, or pesticides were not detected at

concentrations exceeding the Track 1 SCOs from the 10-12 foot below grade interval. The RI did not show any detections of PCBs at the site at any depth.

7. A groundwater sample collected at the site during the RI indicated that VOCs, SVOCs, pesticides, and PCBs did not exceed their respective NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Groundwater Quality Standards (GWQS). Several metals (arsenic, beryllium, manganese, selenium, and iron) were detected in the unfiltered groundwater sample collected from B-1W at concentrations exceeding their respective GWQS. In the filtered sample collected at the same location, only selenium slightly exceeded the GQWS.
8. Soil vapor samples collected during the RI showed a wide variety of VOCs at low concentrations consisting mainly of BTEX and associated compounds. These compounds are most commonly associated with a spill of automotive fuel or heating oil. The absence of MTBE in vapor suggests an older spill, possibly located off-site. Past uses of the property do not indicate automotive fueling activities or other automotive fuel sources, but may have included the use of heating oil. Carbon tetrachloride, 1,1,1-trichloroethane, tetrachloroethylene, and trichloroethylene were not detected in either of the soil vapor samples. Soil samples (both deep and shallow) did not contain any VOCs in excess of Track 1 SCOs. Groundwater did not contain any VOCs. Together, these observations suggest an offsite source area. While no standards exist for soil vapor, no compounds exceed the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (Final October 2006).

A site location map is attached as Figure 1.

PROPOSED DEVELOPMENT PLAN

Detailed construction plans for the Site have been finalized. The proposed redevelopment plan will consist of a four-story slab-on-grade residential building with a concrete paver patio and grassy open space in the rear yard area. The plan includes the construction of one 4,600 square foot four-story building that will occupy 58% of the lot. The remaining 42% of the lot will be consist of a concrete paver patio and grassy open space.

The approximate soil volume that will be excavated during development of the Site is 290 cubic yards.

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

Figure 1

Site Map

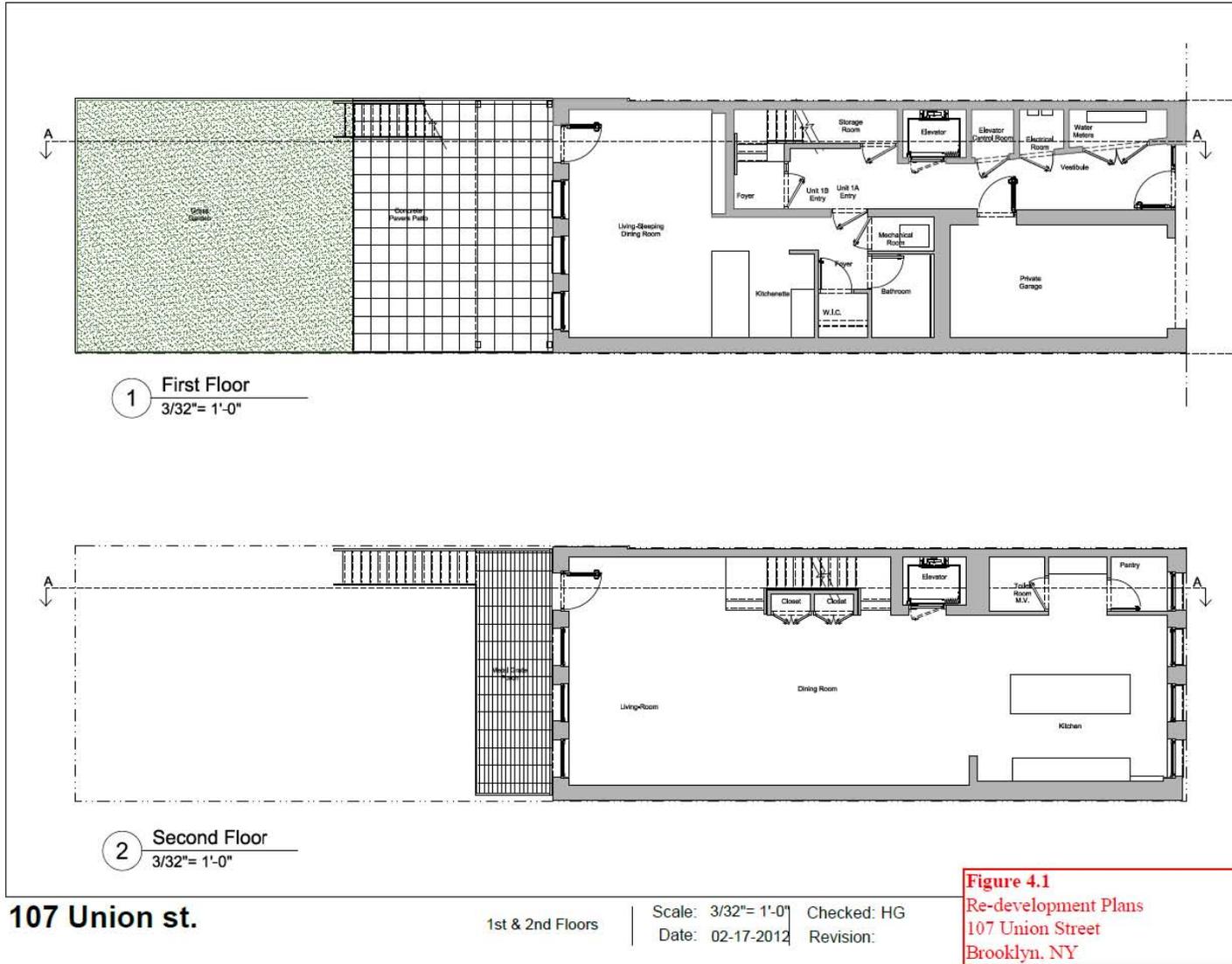


Figure 2

Proposed Remedy (Excavation of Areas of Concern)

