



OFFICE OF ENVIRONMENTAL REMEDIATION
253 Broadway - 14th Floor
New York, New York 10007

Daniel Walsh, Ph.D.
Director
Tel: (212) 788-8841
Fax: (212) 788-2941

May 10, 2012

Mr. Hercules Argyriou
Queensboro Development, LLC
22-60 46th Street
Astoria, NY 11105

Mr. Paul P. Stewart
Advanced Cleanup Technologies, Inc.
960 South Broadway, Suite 100
Hicksville, NY 11801

Re: **Decision Document**
NYC BCP Remedial Action Work Plan Approval
23-10 Queensboro
Block 413, Lots 20, 22, and 27
BCP Project #12CBCP036Q; OER Project #12EHAZ016Q

Dear Mr. Argyriou:

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 23-10 Queensboro, BCP Project #12CBCP036Q, dated April 12, 2012. The Plan was submitted to OER under the NYC Brownfield Cleanup Program (BCP). The RAWP was released for public comment for 30 days as required by program rule. That comment period ended on March 30, 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 Brownfield Cleanup site known as “23-10 Queensboro” 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), 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 “23-10 Queensboro” site and the public's input to the proposed remedy presented by the Office.

Description of Selected Remedy

The remedy selected for this “23-10 Queensboro” 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. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establishment of Track 2 Restricted-Residential Soil Cleanup Objectives (RRSCOs) for the entire Site.
4. Installation of a watertight, four foot wide secant pile foundation wall around the entire site and into the underlying bedrock surface.
5. Excavation and removal of soil exceeding RRSCOs;
6. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of RRSCOs.
7. Onsite petroleum spill numbers 0412186 and 1103281 will be remediated under the authority of the NYSDEC pursuant to a stipulation agreement executed between the NYSDEC and the enrollee. Remedial action to close the petroleum spills will be managed under the authority of NYSDEC and will be independent of this remedial action. This RAWP does not alter or interfere with the remedial action for the petroleum spills.
8. Import of materials to backfill the excavation pit up to grade level in compliance with this plan and in accordance with applicable laws and regulations;
9. Construction and maintenance of an engineered composite cover consisting of 10-inch thick structural concrete slab on grade beneath both the building to prevent human exposure to residual soil/fill remaining under the Site;
10. Installation of a vapor barrier system beneath the building slab.
11. Installation of an active sub-slab depressurization system beneath the building to the extent not restricted by competent bedrock.
12. Demarcation of residual soil/fill.
13. Transportation and off-Site disposal of all soil 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.
14. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.

15. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
16. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
17. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
18. 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.
19. 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 (only applicable if a complete Track 1 cleanup is not achieved for all or some of the Site).
20. 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.

May 11, 2012 Shaminder Chawla
Date Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:

The 23-10 Queensboro Site (hereafter referred to as the “Site”) is located at 23-10 41st Avenue in the Long Island City section of Queens, New York and is identified as Block 413, Lots 20, 22, and 27 on the New York City Tax Map. Figure 1 shows the Site location.

Site Features:

The Site is approximately 18,535 square feet and is bounded by 41st Avenue to the north, two-story office and one-story warehouse buildings to the south, 24th Street to the east, and 23rd Street to the west. Currently, the Site is under partial construction (installation of secant pile wall).

Current Zoning/Uses:

The current zoning designation is M1-5/R7-3 with no commercial overlay. The proposed use is consistent with existing zoning for the property.

Summary of Environmental Findings:

1. Elevation of the property ranges from 15 feet to 25 feet above mean sea level.
2. Depth to groundwater ranges from 10 to 20 feet at the Site.
3. Groundwater flow is generally from east to west beneath the Site.
4. Depth to bedrock from east to west ranges from 20 to 40 feet at the Site.
5. The stratigraphy of the site consists of fine, silty sand with some clay from the ground surface to the water table followed by fine to medium silty sand to the bedrock surface.
6. Soil samples collected during the RI showed VOCs, SVOCs, Metals, PCBs and Pesticides all below Track 2 Restricted Residential Soil Cleanup Objectives in western portion of the Site and below Track 1 Unrestricted Use Soil Cleanup Objectives in the central and eastern portions of the Site.
7. Groundwater samples collected during the RI showed VOCs and SVOCs above Class GA groundwater standards in the western portion of the Site and SVOCs slightly above Class GA groundwater standards in the southeast portion of the Site.
8. Soil vapor samples collected during the RI showed petroleum-based VOCs above background values in the western portion of the Site and chlorinated VOCs above NYSDOH Matrix 1 and Matrix 2 guidance values in the central and eastern portions of the Site.

A site location map is attached as Figure 1.

LAND USE AND PHYSICAL SETTING

The Office may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For the 23-10 Queensboro, a Remedial Alternative #1 (Track 1 Unrestricted Use SCOs) and a Remedial Alternative #2 (Track 2 Restricted Residential SCO's) were considered in alternative analysis. Alternative #1 involves the removal of all soil down to 20 feet bgs (into the shallow bedrock on the eastern portion of the site) above Track 1 SCOs for the entire site Alternative #2 involves establishment of Track 2 Restricted Residential SCOs, removal of soil/fill down to a depth of 15 feet bgs (into the shallow bedrock) the entire site. Both alternatives action require collection of

end-point samples to verify attainment of either the Track 1 SCOs or Track 2 Restricted Residential SCOs and the excavation and removal of approximately 10,000 cubic yards of soil/fill material.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

PROPOSED DEVELOPMENT PLAN

Detailed construction plans for the Site have been finalized. The proposed redevelopment plan will consist of a 17-story mixed use commercial retail and residential building with a parking garage. The plan includes the construction of one 18,535 square foot 17 floor residential building that will occupy the entire site and achieve build-out to the property boundary. The ground floor and cellar will contain 16,481 square feet of commercial space and the sub-cellar will contain storage and mechanical space. The 2nd and 3rd floors will contain 16,347 square feet of parking. The 4th through the 17th floors will contain a total of 102,220 square feet of residential space, including 108 middle income affordable rental units, 8 market value residential condominiums and 1 superintendent's unit.

The approximate soil volume that will be excavated during development of the Site is 10,000 cubic yards.

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

SUMMARY OF REMEDIAL INVESTIGATION

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 5.4.

Nature and Extent of Contamination:

Soil: Soil analytical results from the December 2007 subsurface investigation for Lot 22 indicated VOC and SVOC contamination in the deep soil samples collected (8-9 feet bgs). The VOC contamination is attributed to the leaking gasoline, waste oil, and solvents in the USTs at the site and did not exceed the NYSDEC Part 375 Restricted Use (Track 2) Commercial SCOs. The SVOCs contamination slightly exceeded the Track 2 Restricted-Residential and Commercial SCOs and was indicative of historic fill material. Pesticides, PCBs, and metals were detected throughout the soil borings, but did not exceed the Unrestricted Use (Track 1) SCOs. A February 2008 subsurface investigation for Lot 27 indicated that VOCs, SVOCs, pesticides, and PCBs were not detected in the soil samples collected. Metals were detected in the soil samples, but did not exceed Track 1 SCOs. An April 2011 subsurface investigation for Lot 20 indicated that SVOCs, pesticides, and PCBs were not detected in the soil samples collected. VOCs and metals were detected in the soil samples, but did not exceed Track 1 SCOs. A November 2011 subsurface investigation for Lots 22 and 27 indicated that PCBs were not detected in the soil samples collected. VOCs, SVOCs, and pesticides were detected in the soil samples, but did not exceed Track 1 SCOs. Metals were detected in the soil samples but did not exceed the Track 2 Restricted-Residential SCOs.

Groundwater: Groundwater analytical results from February 2005 indicated VOC groundwater contamination were detected above the NYSDEC TOGS 1.1.1 Groundwater Quality Standard (GQS). SVOCs and metals were detected in the groundwater samples, but did not exceed the GQS. In August 2006, another round of groundwater sampling occurred, which indicated VOC contamination which exceeded the GQS. In November 2006, an additional round of groundwater sampling occurred, which indicated VOC contamination which exceeded the GQS. In February 2008, another round of groundwater sampling occurred, which indicated that VOCs, SVOCs, and metals were detected at concentrations which did not exceed the GQS. Pesticides and PCBs were not detected in the groundwater samples. In March 2011, a round of groundwater samples collected from across the street indicated that VOCs were not detected. In August 2011, additional groundwater samples were collected, which indicated that VOCs, SVOCs, and metals were detected at concentrations which did not exceed the GQS. Pesticides and PCBs were not detected in the groundwater samples.

Soil Vapor: Soil gas analytical results indicated that VOCs were detected in the soil gas samples at concentrations above their respective Health Effects Institute (HEI), United States Environmental Protection Agency (USEPA) and New York State Department of Health (NYSDOH) air guidance values (AGVs). Extremely high VOCs were detected at the site in the vicinity of the leaking USTs at the site ($>900,000$ mcg/m³). Carbon tetrachloride was not detected in any of the soil vapor samples. 1,1,1-trichloroethane (TCA) was detected in four samples at concentrations ranging from 36.58 mcg/m³ to 256.57 mcg/m³. TCA was not detected in remaining soil vapor samples. Tetrachloroethene (PCE) was detected in four samples at concentrations ranging from 196.8 mcg/m³ to 6,785.0 mcg/m³, exceeding the NYSDOH guidance value. PCE was not detected in remaining soil vapor samples. Trichloroethene (TCE) was detected in two soil vapor samples at concentrations of 64.48 mcg/m³ and 247.16 mcg/m³, respectively, exceeding the NYSDOH guidance value. TCE was not detected in remaining 4 soil vapor samples. The PCE and TCE detected in the soil vapor samples are attributed to a leaking solvent tank found at the site.

Figure 1

Site Map

Figure 3

41ST AVENUE

