

22 July 2005
Soils Management Plan
For 78-11 57th Ave, Elmhurst, New York

1. Overview and objectives

The site is an approximately one acre, industrial property currently owned by Mrs. Joyce Kjellgren. The location of the property is shown on Figure 1-1. The site has been partially characterized during the investigation of the adjoining property (78-01 Grand Ave, KeySpan Corporation). The user should refer to the previous investigation reports for more detail, as needed.

The objective of this Soils Management Plan (SMP) is to set guidelines for management of soil material during any future activities which would breach the cover system at the site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC) as shown in Exhibit 1-1.

2. Nature and extent of contamination

Based on data obtained from adjoining and boundary investigations, the constituent of potential concern (COPCs) for soil is lead. Potential exposure pathways for lead include inhalation and ingestion, however these pathways are presently not complete because the site is completely paved.

3. Contemplated use

It is expected that the property will continue in its current use, office and light industrial (specifically, a Verizon service facility). The site is zoned M-3, Heavy Manufacturing.

The zoning specifically prohibits residential uses.

4. Purpose and description of surface cover system

The purpose of the surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover system currently consists of asphalt. Future cover systems may consist of:

- Asphalt: a minimum of 6 inches of material (asphalt and subbase material) in areas that will become roads, sidewalks, and parking lots. Actual cross sections will be determined based on the intended use of the area.
- Concrete: a minimum of 6 inches of material (concrete and subbase material) in areas that will become slab-on-grade structures or for roads, sidewalks, and parking lots in lieu of asphalt. For slab-on-grade structures, an 8-mil polyethylene vapor barrier will be placed beneath the

concrete (for sites impacted by VOC contamination only). Actual cross sections will be determined based on the intended use of the area.

5. Management of soils/fill and long term maintenance of cover system

The purpose of this section is to provide environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the cover system during any future intrusive work which breaches the cover system.

The SMP includes the following conditions:

- Any breach of the cover system, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with impervious product such as concrete or asphalt, as described in Section 4, to prevent erosion in the future.
- Control of surface erosion and run-off of the entire property at all times, including during construction activities. This includes proper maintenance of the vegetative cover established on the property.
- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.
- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and it is placed beneath a cover system component as described in Section 4.
- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. Off-site borrow sources should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals plus cyanide. The soil will be acceptable for use as cover material provided that all parameters meet the NYSDEC recommended soil cleanup objectives included in TAGM 4046.
- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.
- The Owner shall complete and submit to the Department an annual report by January 15th of each year. Such annual report shall contain certification that the institutional controls put in place, pursuant to the environmental easement, are still in place, have not been

altered and are still effective; that the remedy and protective cover have been maintained; and that the conditions at the site are fully protective of public health and the environment.

If the cover system has been breached during the year covered by that Annual Report, the owner of the property shall include the following in that annual report:

- A certification that all work was performed in conformance with this SMP.

In addition, the above referenced environmental easement has been implemented in accordance with the requirements of the New York State Brownfield program, limiting the property to business, commercial, or industrial development.

5.1. Excavated and stockpiled soil/fill disposal

Soil/fill that is excavated as part of development which can not be used as fill below the cover system will be further characterized prior to transportation off-site for disposal at a permitted facility. For excavated soil/fill with visual evidence of contamination (i.e., staining or elevated PID measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil/fill. For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for 2000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2000 cubic yards.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH ELAP-certified laboratory for pH (EPA Method 9045C), Target Compound List (TCL) SVOCs, pesticides, and PCBs, and TAL metals, and cyanide. The grab sample will be analyzed for TCL VOCs.

Soil samples will be composited by placing equal portions of fill/soil from each of the five composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scope or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form will be prepared.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer may also choose to characterize each stockpile individually. If the analytical results indicate that concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste, the

material will be properly disposed off-site at a non-hazardous waste facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received.

5.2. Subgrade material

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

- Excavated on-site soil/fill which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate lead is present at concentrations below 400 ppm, the soil/fill can be used as backfill on-site.
- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

5.6. Erosion control

Any project requiring soil disturbance will conform with all applicable storm water pollution prevention regulations during construction and afterwards.

Proven soil conservation practices will be incorporated in the construction and development plans to mitigate soil erosion, off-site sediment migration, and water pollution from erosion such as the use of hay bales, etc.

Permanent erosion control measures and facilities will be incorporated during cover construction and during any site redevelopment for long-term erosion protection.

5.7. Dust control

If construction requiring soil disturbance occurs, the surface of unvegetated or disturbed soil/fill areas will be wetted with water or other dust suppressive agents to control dust during construction. Any subgrade material left exposed during extended interim periods (greater than 90 days) prior to placement of final cover shall be covered with a temporary cover system (i.e., tarps, spray type cover system, etc.) or planted with vegetation to control fugitive dust to the extent practicable. Dust suppression techniques will be employed at the Site in accordance with NYSDEC DER TAGM 4031.

5.8. Construction water management

Pumping of water (i.e., ground water and/or storm water that has accumulated in an excavation) from excavations, if necessary, will be done in such a manner as to prevent the migration of particulates, soil/fill, or unsolidified concrete materials, and to prevent damage to the existing subgrade. Water pumped from excavations will be managed properly in accordance with all

applicable regulations so as to prevent endangerment of public health, property, or any portion of the construction.

Runoff from surface discharges shall be controlled. No discharges shall enter a surface water body without proper permits.

5.9. Access controls

Access to soil/fill on the property must be controlled until final cover is placed to prevent direct contact with subgrade materials. Excavated subgrade material that is stockpiled on site must be temporarily covered to limit access to that material.