DECISION DOCUMENT

Lot 4 - Austin Ave and Prior Place
Brownfield Cleanup Program
Yonkers, Westchester County
Site No. C360116
February 2013

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Lot 4 - Austin Ave and Prior Place
Brownfield Cleanup Program
Yonkers, Westchester County
Site No. C360116
February 2013

Statement of Purpose and Basis

This document presents the remedy for the Lot 4 - Austin Ave and Prior Place site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Lot 4 - Austin Ave and Prior Place site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. A site cover will be installed to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising any site development,

or a soil cover in areas where the upper one foot of exposed surface soil exceeds commercial soil cleanup objectives (SCOs). Where the soil cover is required, it will be a minimum of one foot in thickness meeting the SCOs for cover material, as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer. The upper six inches of the soil will be of sufficient quality to maintain a vegetative layer. Non-vegetated areas (buildings, roadways, parking lots, etc.) will be covered by a newly installed paving system or concrete at least six inches in thickness. A site cover which consists of shot rock is also permissible. Where shot rock is used as cover, it will be a minimum of one foot in thickness. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Any soil, fill or waste encountered during site grading which meets the definition of "grossly contaminated", as defined by 6 NYCRR 375-1.2(u), will be excavated and properly disposed off-site.

4. Any future buildings constructed on the site will be required to have sub-slab depressurization systems, or similar engineered systems, to prevent the migration of landfill gases into the building.

5. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

• requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);

• allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

• restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH; and

• requires compliance with the Department approved Site Management Plan.

6. A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in bullet 5 above.

Engineering Controls: The cover system discussed in bullet 2 and the sub-slab depressurization system discussed in bullet 4 above.

This plan includes, but may not be limited to:

• an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
• descriptions of the provisions of the environmental easement including any land use and groundwater water use restrictions;
• a provision for implementing actions to address possible exposures related to soil vapor intrusion for any building developed on-site;
• provisions for the management and inspection of the identified engineering controls;
• maintaining site access controls and Department notification; and
• the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
• monitoring of groundwater to assess the performance and effectiveness of the remedy;
• a schedule of monitoring and frequency of submittals to the Department.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

February 27, 2013

Date

George Heitzman, Acting Director
Remedial Bureau C

DECISION DOCUMENT

Lot 4 - Austin Ave and Prior Place
Yonkers, Westchester County
Site No. C360116
February 2013

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Yonkers Public Library, Riverfront Branch
One Larkin Center
Yonkers, NY 10701
Phone: 914-375-7940

NYSDEC Region 3 Office
Attn: Please call for an appointment
21 South Putt Corners Road
New Paltz, NY 12561
Phone: 845-256-3154

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is a portion of the former Austin Avenue landfill located at Prior Place and Austin Avenue in the City of Yonkers, Westchester County.

Site Features: This site is approximately 7 acres in size and is currently vacant. A large shot rock pile is located on the eastern portion of the site. The western portion of the site has been used for illegal dumping. A few abandon cars and garbage piles are located on the western portion of the site.

Current zoning and Land Use: The proposed end use for the lot is retail development, consistent with the adjacent retail uses. Current zoning does not allow for retail use, however, a variance and zone change will be sought from the City of Yonkers as part of the site plan review and approval process. Adjacent land use includes a commercial business (Stew Leonards) to the south; commercial businesses to the southeast (Costco, Home Depot); a residential neighborhood to the west (Prior Place); residential and vacant land to the north (Austin Avenue); and the vacant former Austin Avenue landfill to the east.

Past Use of the Site: The site includes a portion of the former Austin Avenue landfill that was owned and operated by the City of Yonkers until 1979. The landfill material consists of ash, glass, brick, metallic parts, tires and municipal waste.

Site Geology and Hydrogeology: The surface of the site includes a rock pile and wooded areas with vegetated undergrowth. The ground surface has bedrock outcrops throughout the wooded area in the northern and eastern portions of the site. The rock stockpile is greater than 20 feet tall and covers 30 to 40 percent of the site. The stockpile is reportedly a result of construction of the adjacent lots to the south (Lot 2 and Lot 3) and consists of blasted bedrock, or ”shot rock”;. The thickness of landfilled material beneath the rock stockpile ranges from zero to thirty feet.

There are no surface water bodies located on the site. Surface water drainage at the site is generally to the west and northwest. The easternmost portion of the site is a local plateau that drains to the east. Groundwater flow radiates away from the site with primary flow components to the west and northwest. Properties in the City of Yonkers are served by a public water supply.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department 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 this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

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.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the 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 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil

- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

ARSENIC
BARIUM
CHROMIUM
LEAD
MAGNESIUM
MANGANESE
MERCURY
NICKEL
ZINC

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: Based the investigations completed, the primary contaminants of concern at the site are metals (arsenic, barium, chromium, lead, magnesium, manganese, mercury, nickel, and zinc). Contaminants of concern which exceeded the soil cleanup objectives (SCO) for commercial use were the metals arsenic at 33 parts per million (ppm), barium at 920 ppm, lead at 1,000 ppm, and mercury at 7.2 ppm. Most of the soil contamination was located in the top two feet of soil. Contaminants of concern detected above standards, guidance and criteria in groundwater were chromium at 70 parts per billion (ppb), lead at 54 ppb, magnesium at 65,000 ppb, and manganese at 3,040 ppb.

Special Resources Impacted/Threatened: Studies have indicated that this site has not impacted any special resources in the area.

Significant Threat: This site does not pose a significant threat to public health or the environment.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

NYSDEC has reviewed site-specific conditions and concludes that a detailed health assessment is not necessary. If during the course of the remedial program new data indicate that a reevaluation of potential health hazards associated with site contamination is warranted, the NYSDOH will be consulted.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Environmental Protection

- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Track 4 Commercial SCO Cleanup remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

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• provisions for the management and inspection of the identified engineering controls;
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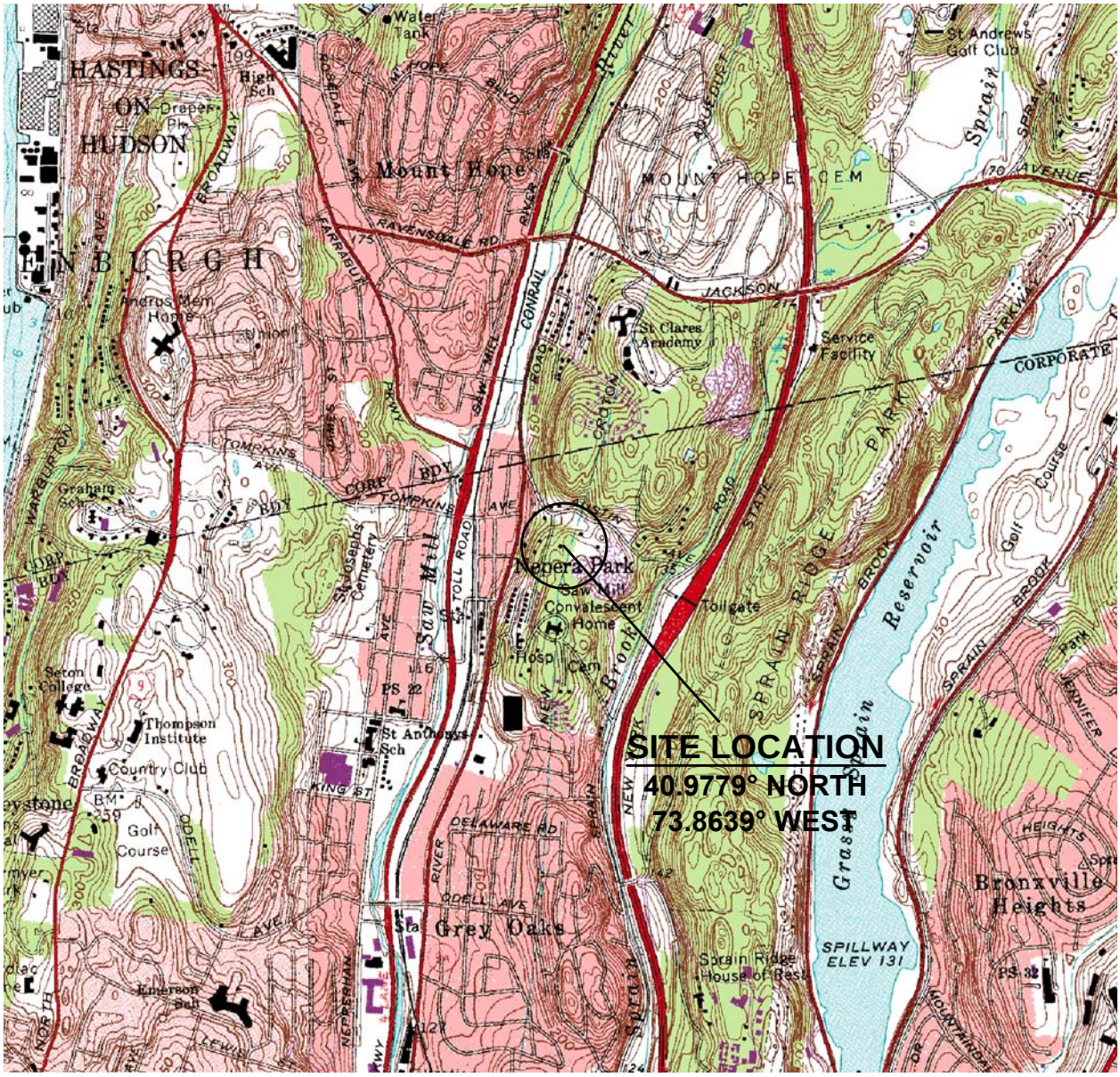
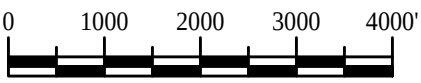
• monitoring of groundwater to assess the performance and effectiveness of the remedy;
• a schedule of monitoring and frequency of submittals to the Department.



CONTOUR INTERVAL: 10 Feet

MAP TAKEN FROM: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLES:
MOUNT VERNON(1966, PHOTOREVISED 1979) &
YONKERS (1966, PHOTOREVISED 1979)
(www.nysgis.state.ny.us/quads/usgsdrg.htm)



SCALE 1"=2000' AT ORIGINAL SIZE

Austin Avenue Brownfield Redevelopment II
Lot 4 - Austin Avenue and Prior Place
BCP Site # C360116
Site Location Map

Job Number	86-14908.00
Revision	A
Date	05.10.12

Figure 1-1

One Remington Park Drive, Cazenovia NY 13035 USA **T** 1 315 679 5800 **F** 1 315 679 5853 **E** cazmail@ghd.com **W** www.ghd.com

Plot Date: 9 May 2012 - 11:55 AM Cad File No: L:\Environment\Projects\86-14908 - Lot 4\Remedial Investigation\Figures\86-14908.00-D1-1.cadd.dwg

PRIOR PLACE

STEW LEONARD DRIVE
(CORPORATE DRIVE)

OLD AUSTIN AVENUE

RELOCATED AUSTIN AVENUE

BLOCK 3244
LOT 3

BLOCK 8001
LOT 40

BLOCK 3244
LOT 7

AREA OF SHOT ROCK STOCKPILE
USED FOR COVER
(APPROXIMATELY 15,600 sq. ft.)

COVER AREA 1
(APPROXIMATELY 16,100 sq. ft.)

COVER AREA 2
(APPROXIMATELY 34,000 sq. ft.)

COVER AREA 3
(APPROXIMATELY 9,900 sq. ft.)

COVER AREA 4

COVER AREA 5

EASEMENT

ASPHALT

ASPHALT DRIVE

WOODED

TRAIL

CONC. CURB

6" INC.

4' PARK

BENCHMARK
MAG NAIL IN ASPHALT
ELEVATION: 228.66

MH
TOP 234.37

BENCHMARK
DOGE SPIKE
ELEVATION: 213.93

NO WIRES

UBV

TBV

15" RCP
INV 209.38

RIP RAP SWALE

24" HDPE
INV 217.72

VERT. 15" HDPE
INV 221.79

BENCHMARK
DOCK SPIKE
ELEVATION: 226.63

TOP 256.08

TRAN

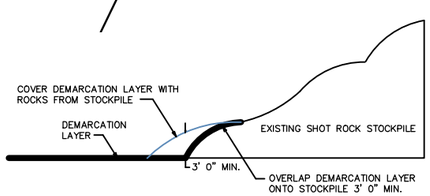
TMH
TOP 256.24

TMH
TOP 254.87

BENCHMARK
"DOCK SPIKE" IN UTILITY POLE
ELEVATION: 256.28

LEGEND

- EXISTING CONTOUR (APPROXIMATE)
- FENCE
- LEDGE STONE
- LIGHT POLE
- OVERHEAD WIRES
- EXTENT OF SHOTROCK STOCK PILE (APPROXIMATE)
- PROPERTY LINE
- UTILITY POLE
- UTILITY POLE WITH LIGHT
- WATER VALVE
- EXTENT OF ASH FILL (APPROXIMATE)
- NEW GRADE CONTOURS (APPROXIMATE)
- LIMITS OF DEMARCATION LAYER AND CRUSHED ROCK SOIL COVER AREAS
- LIMITS OF DEMARCATION LAYER AND ROCK SOIL COVER AREAS (SEE DETAIL 1)
- LIMITS OF ROCK REMOVED FROM SHOT ROCK STOCKPILE



DETAIL 1
NOT TO SCALE

0 17 34 51 68'
SCALE 1"=34' AT ORIGINAL SIZE

N

NOTES:
THE ROCK PILE COVERS APPROXIMATELY 2.6-ACRES (113,256-SQUARE FEET) AND HAS AN APPROXIMATE VOLUME OF 65,683 CUBIC YARDS.

BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.

EXTENT OF FILL FROM EXISTING CONDITIONS, PLATE 1, MORRIS WESTCHESTER CONSTRUCTION COMPANY, L.L.P. HISTORIC AUSTIN AVENUE LANDFILL CLOSURE PLAN, LEGGETTE, BRASHEARS, & GRAHAM ENGINEERING SERVICES, P.C. MARCH 8, 2.

GHD
CLIENTS | PEOPLE | PERFORMANCE

Austin Avenue Brownfield Redevelopment II
Lot 4 - Austin Avenue and Prior Place
BCP Site # C360116
Limits of Demarcation Layer and Soil Cover

Job Number 86-14908
Revision A
Date 08.27.12

Figure 2

One Remington Park Drive, Cazenovia NY 13035 USA **T** 1 315 679 5800 **F** 1 315 679 5853 **E** cazmail@ghd.com **W** www.ghd.com