

**SUPPLEMENTAL WORK PLAN  
OPERABLE UNIT 1 SUBSURFACE EXCAVATION WORK  
PLAN**

TransTechnology Site #1-30-101  
Glen Head, New York

*Submitted to:*

**Breeze-Eastern Corporation, Whippany, New Jersey**

*Submitted by:*

**AMEC Geomatrix, Inc., Amherst, New York**

July 2010

Project 6238

**AMEC Geomatrix**

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**SUPPLEMENTAL WORK PLAN**  
**OPERABLE UNIT 1 SUBSURFACE EXCAVATION WORK PLAN**  
TransTechnology Site #1-30-101  
Glen Head, New York

**1.0 INTRODUCTION**

AMEC-Geomatrix Consultants (AMEC) was retained by Breeze-Eastern Corporation (BEC), formerly known as TransTechnology Corporation (TTC), to prepare this Supplemental Work Plan for excavation of subsurface soil at the above-captioned property (Site). This Work Plan is supplemental to the Remedial Design and Remedial Action (RD/RA) Work Plan dated June 2007.

**1.1 BACKGROUND**

The Site is located at 1 Robert Lane in Glen Head, New York. The Site location is shown on Figure 1. Figure 2 presents a Site Plan showing buildings and structures currently located on and adjacent to the property. The Site encompasses 7.75 acres.

The first known manufacturing facilities at the Site were constructed in the late 1950s by the Lundy Electronics Company (Lundy). The Site was used by Lundy for a machine shop and electronics manufacturing until approximately 1978. Solvents, including trichloroethene (TCE), were reportedly used at the facility during this time. After 1978, machining activities were discontinued and solvent use at the Site was reduced. Lundy was acquired by TTC in the mid 1980s. TTC ceased operations at the facility in 1994. Since that time, the building space at the Site has been leased to a variety of small businesses. In October 2004, TTC/BEC began the process of vacating its tenants at the Site in order to facilitate the soil remediation program. As of September 2005, the Site has been vacant except for one tenant acting as an on-Site agent for BEC.

The primary chemicals of concern in soil at the Site are TCE and its degradation products, semi-volatile organic chemicals (SVOCs), and metals which have been detected in Site cesspool and leaching pool sediments. Surface soil (less than 2 feet) impacts have generally been limited to the presence of metals and SVOCs above background concentrations.

The Site is currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 1-30-101 with a Classification 2. The Site is being investigated and remediated in accordance with Order on Consent Index # W1-0913-02-02 executed between TTC and the New York State Department of Environmental Conservation (NYSDEC).

In a letter dated June 25, 2004, NYSDEC separated the Site remediation work into two Operable Units. Operable Unit 1 (OU-1) was designated by NYSDEC for soil remediation. Operable Unit 2 (OU-2) was designated by NYSDEC for groundwater on and off the Site as it relates or pertains to the Site.

## **1.2 PRIOR SUBMITTALS UNDER THE ORDER ON CONSENT**

To date, the following documents pertaining to OU-1 remediation have been submitted to and approved by NYSDEC:

1. Remedial Investigation/Feasibility Study Work Plan (Geomatrix, July 2002). Approved by NYSDEC (letter dated September 27, 2002).
2. Remedial Investigation Report (Geomatrix, September 2005). Approved by NYSDEC (letter dated September 8, 2005).
3. Feasibility Study Report for Operable Unit 1 (Geomatrix, September 2005). Approved by NYSDEC (letter dated September 8, 2005).
4. Remedial Design/Remedial Action Work Plan (Geomatrix, June 2007). Approved by NYSDEC (letter dated July 10, 2007).
5. OU-1 Remediation Program: September 2009 Subsurface Soils Investigation (AMEC Geomatrix October 9, 2009)

## **1.3 OU-1 REMEDIATION COMPONENTS AND STATUS**

The OU-1 remediation program includes two components;

1. Excavation of surface soils generally intended to address metals concentrations above background conditions; and
2. Removal of sediments from a series of impacted cesspools and leaching pools at the Site

Except as noted below, the surface soil excavations were completed during May-October 2009.

As previously reported to NYSDEC via e-mail dated June 17, 2009, during the implementation of the surface soil excavations, elevated VOC levels were detected in post excavation samples approximately 10 feet below existing grade in the southern portion of the excavation along the

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east side of the property. The contamination appears to be associated with a rectangular concrete basin (approximately 5 feet by 3 feet by 2 feet) which was apparently covered by fill when the area was brought to the existing grade. The concrete structure was removed during the excavation. Its former location is shown approximately on Figure 3. Approximately 10 feet of soil was excavated at this location. As indicated above, VOCs were present at elevated levels above the site soil cleanup objectives in samples obtained from the base of the excavation.

The 10 foot excavation extended to approximately 30 feet from the Metropolitan Transportation Authority (MTA) Long Island Railroad Tracks located off-Site to the east (as estimated from aerial photographs). Due to the proximity to the railroad tracks and a live underground gas line, it was determined the excavation could not proceed deeper without stabilization measures (including potential involvement of the Long Island Railroad).

In August 2009, a subsurface investigation was conducted to determine the areal and vertical extent of the elevated VOC presence as a basis for determining excavation requirements and/or for developing an alternative remediation method if excavation was indicated to be not feasible. Based on the subsurface investigation results (see Section 2.0), it was determined it would be feasible to remove the impacted soil by a targeted deeper excavation.

#### **1.4 SUPPLEMENTAL WORK PLAN PURPOSE**

As indicated above, the findings of the subsurface investigation indicated it would be feasible to remediate the impacted soil by excavation. The purpose of this Supplemental Work Plan is to specify the excavation requirements such that an appropriate shoring system can be designed by a qualified excavation contractor.

## 2.0 PRE-EXCAVATION SUBSURFACE INVESTIGATION (AUGUST 2009)

NYSDEC and BEC determined that a Geoprobe investigation would be conducted to sample soils in and around the 10-foot excavation for VOC analyses with the objective of determining the areal extent and depth of this contamination. The results of this investigation were presented in a letter report to NYSDEC dated October 9, 2009 and are summarized as follows:

The Geoprobe investigation utilized the soil sampling procedures as presented in the RI Work Plan. The Study Area is shown on Figure 3. Samples were field screened with a PID, and selected samples were submitted to the contracted analytical laboratory for analysis of volatile organic chemicals (VOCs) using USEPA Method 8260. VOC analyses were conducted by American Analytical Laboratories of Farmingdale, New York.

Figure 4 presents a map showing major VOC detections in the soil samples submitted for laboratory analysis. Methylene chloride was detected at similar concentrations in all samples, including the method blank, at concentrations below the site soil cleanup objective of 0.05 mg/kg. It appears the methylene chloride detections are associated with laboratory contamination and this chemical is not considered to be detected in the sample. Only one sample (boring B-5 at a depth of 16 feet) exceeded site soil cleanup objectives. As shown on Figure 4, boring B-5 was drilled directly on the former location of the concrete basin. The sample collected from boring B-5 at a depth of 20 feet was non-detect for all VOCs. No other samples exhibited results exceeding the site soil cleanup objectives.

### **3.0 EXCAVATION PLAN**

#### **3.1 NOTIFICATIONS/SITE PREPARATION**

##### **3.1.1 Gas Line Decommissioning**

Prior to initiating the excavation, a natural gas service pipe which traverses the excavation area will need to be decommissioned. This will entail notification of the gas company to discontinue service and abandon the pipe (either temporarily or permanently) such that excavation can proceed safely.

##### **3.1.2 Railroad Notification**

As indicated in Section 3.2, below, the planned subsurface excavation may extend to within approximately 25 feet +/- from the center line of the MTA Long Island Railroad's western track which runs parallel to the eastern Site property boundary. It is recommended that the MTA be notified prior to initiation of the excavation to determine any special requirements for the excavation or its stabilization. The excavation will occur entirely on BEC-owned property and the property perimeter fence will not be disturbed during or as a result of the excavation activities. No personnel or equipment will cross the BEC property line onto the railroad property at any time during the excavation activities.

#### **3.2 EXCAVATION DIMENSIONS/ADDITIONAL PRE-EXCAVATION SAMPLING**

The results of the August 2009 pre-excavation sampling program indicate the VOC presence in soils beneath the former concrete structure exceed site cleanup objectives to a depth of between 16 and 20 feet. The results also indicate the VOC presence is not areally widespread. Assuming the contamination extends half the distance to the nearest adjacent unimpacted soil samples, the soil requiring excavation is located within an area of approximately 15 feet square by 18 feet depth. This area is shown approximately on Figure 5.

Due to the requirements for shoring the excavation, it will be more feasible to determine the final limits of the excavation ahead of time, prior to developing the shoring design and beginning the excavation. This will allow for excavation in a single phase rather than as a series of steps involving repeated shoring assembly/disassembly and backfilling.

A Geoprobe sampling program similar to the August 2009 subsurface investigation will be conducted to determine the final limits of the subsurface excavation. Field procedures will be in accordance with the RI Work Plan. Planned soil boring locations are shown on Figure 6. Continuous soil sampling to a depth of 18 feet or to refusal (whichever occurs first) will be performed at each location. All samples will field screened with a PID. Samples from each

four foot interval will be submitted to a contracted analytical laboratory for analysis of volatile organic chemicals (VOCs) using USEPA Method 8260.

If the PID screening indicates additional borings further from the former concrete structure may be needed to define the limits of the excavation, additional borings will be drilled and sampled in consultation with NYSDEC. The results of this sampling will be used to define the limits of the excavation such that indicated exceedances of the project cleanup levels for VOCs are excavated.

### **3.3 EXCAVATION REQUIREMENTS**

As indicated above, the excavation will occur entirely on BEC-owned property and the property perimeter fence will not be disturbed during or as a result of the excavation activities. No personnel or equipment will cross the BEC property line onto the railroad property at any time during the excavation activities.

Shoring from the ground surface to the maximum depth (expected to be approximately 18 feet) will be required due to space limitations (limited area for benching) and (potential) stabilization requirements which may be requested by MTA. Shoring systems potentially applicable for the project will be evaluated based MTA requirements (as appropriate) and determined by a qualified excavation subcontractor.

All other excavation requirements (including Health and Safety, air monitoring, and erosion control measures) will be in accordance with the RD/RA Work Plan for OU-1.

### **3.4 CONFIRMATORY SAMPLING**

Confirmatory samples will be obtained from each sidewall and from the base of the excavation. Confirmatory sampling and analyses will be in accordance with the RD/RA Work Plan for OU-1.

### **3.5 BACKFILL REQUIREMENTS**

The excavation will be backfilled with clean gravelly/sandy soil to mimic the native soils present at the Site. Backfill soils will meet the requirements of 6 NYCRR 375-6.7(d).

### **3.6 SOIL HANDLING AND DISPOSAL**

Soil handling and disposal will be in accordance with the RD/RA Work Plan.

## **4.0 REPORTING**

### **4.1 INTERIM REPORT: DETERMINATION OF EXCAVATION LIMITS**

The results of the additional pre-excavation sampling described in Section 3.2 will be submitted to NYSDEC in an Interim Report. This report will include a description of the work performed, the analytical results and a map of the defined excavation limits.

### **4.2 FINAL DOCUMENTATION**

The deep soil excavation activities will be documented in the Remedial Action Report for OU-1 as described in the RD/RA Work Plan for OU-1.

## 5.0 SCHEDULE

The schedule for implementing the subsurface excavation will depend in large part on the requirements of the MTA Long Island railroad. The task lengths for the work are estimated as follows:

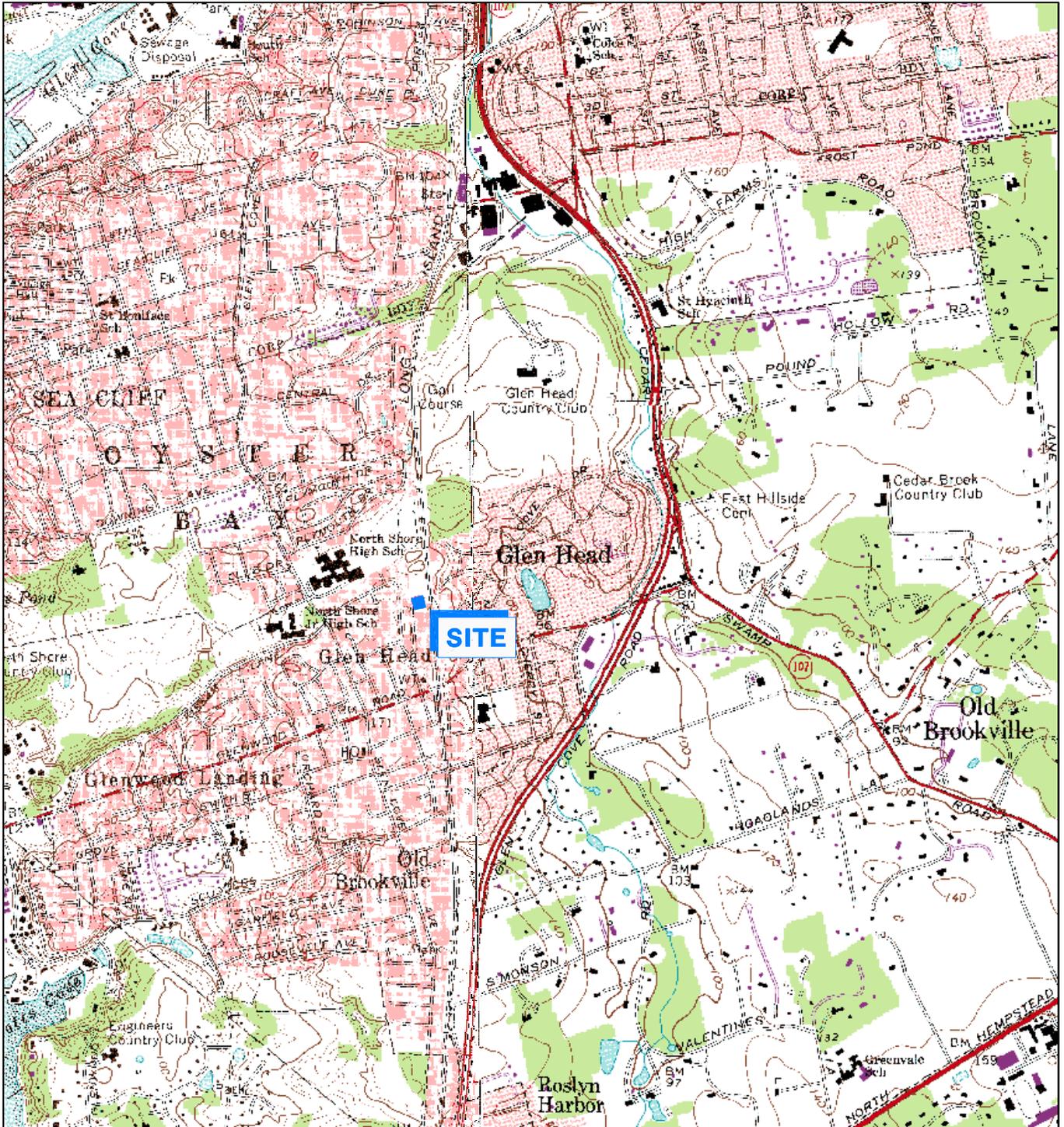
<b>Item</b>	<b><u>Target Completion Date</u> <sup>(1)</sup></b>
Excavation Delineation Sampling	Week 4
Interim Report: Excavation Delineation	Week 6
Subsurface Excavation Implementation	Week 12

<sup>(1)</sup> Weeks after authorization to proceed from all affected parties (including MTA).

It is estimated the project would be completed within 12 weeks after authorization to proceed is received from all parties (including MTA).

## FIGURES

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SOURCE:

USGS HICKSVILLE AND SEA CLIFF, NY QUADRANGLES.

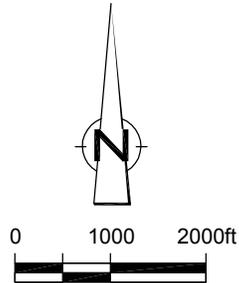
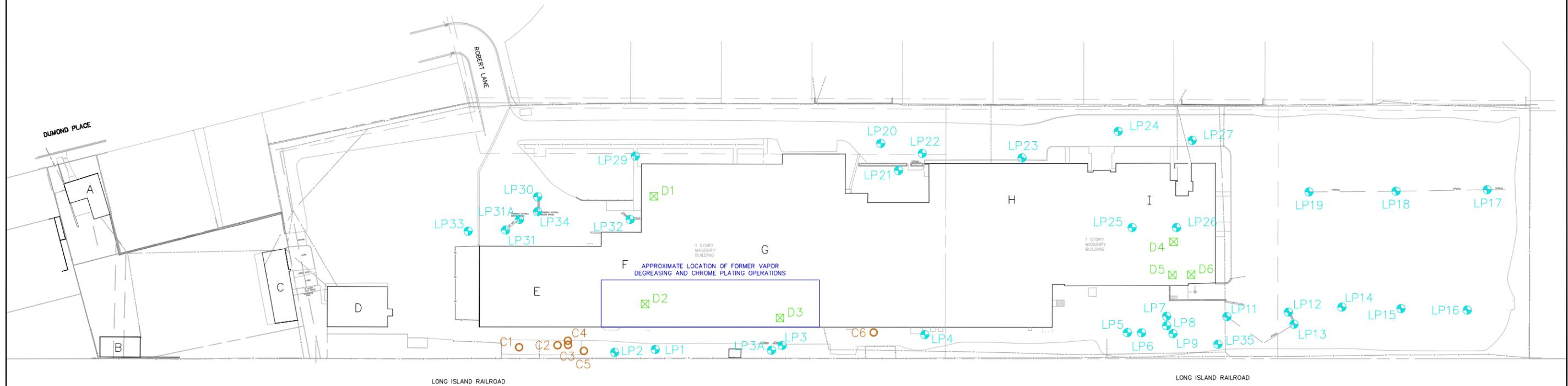
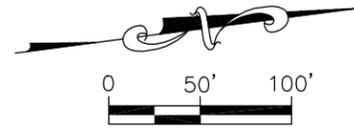


figure 1

SITE LOCATION MAP  
 TRANSTECHNOLOGY GLEN HEAD SITE  
*Glen Head, New York*

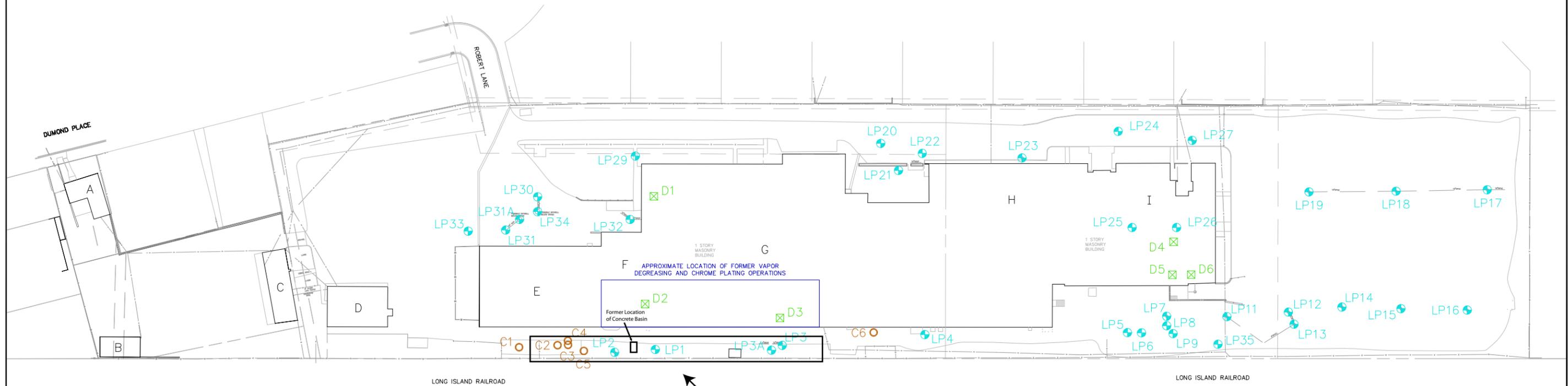
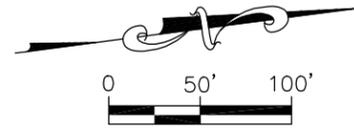


**LEGEND**

- C1 ○ CESSPOOL LOCATION
- LP20 ⊕ LEACHING POOL LOCATION
- D2 ☒ DRAIN LOCATION

SITE PLAN TRANSTECHNOLOGY CORPORATION GLEN HEAD, NEW YORK		
<b>AMEC Geomatrix</b>	Project No. 6238	Figure 2

DATE: 05/07/2002  
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 DRAFTED BY: JM

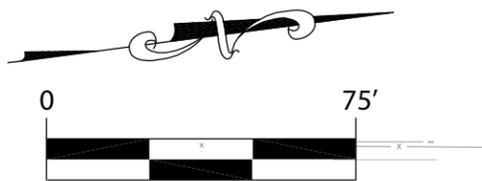


August 2006  
Study Area

LEGEND

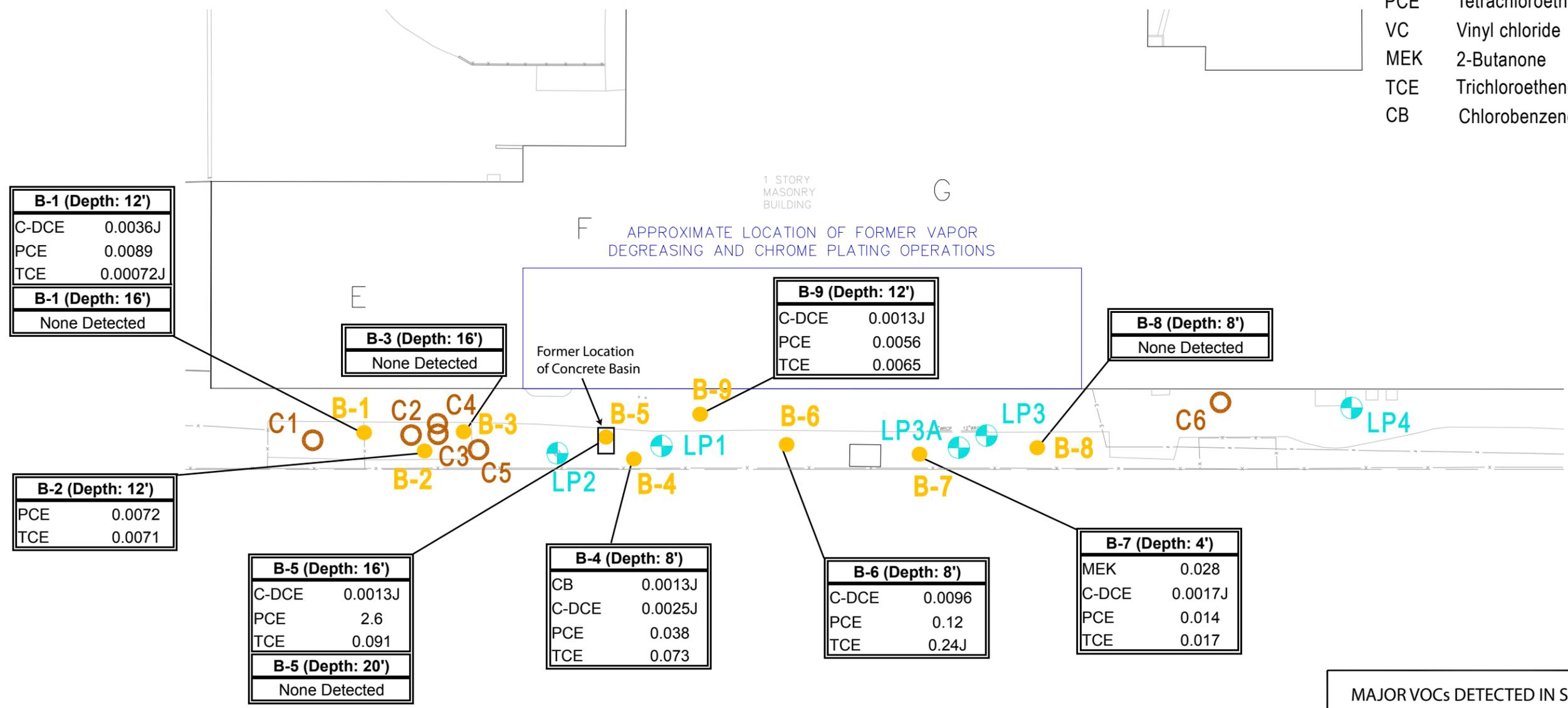
- C1 ○ CESSPOOL LOCATION
- LP20 ⊕ LEACHING POOL LOCATION
- D2 ☒ DRAIN LOCATION

<b>AUGUST 2009 SUBSURFACE INVESTIGATION STUDY AREA TRANSTECHNOLOGY CORPORATION GLEN HEAD, NEW YORK</b>		
<b>AMEC Geomatrix</b>	Project No. 6238	Figure 3



- LEGEND**
- C6 ○ CESSPOOL LOCATION
  - LP3 ⊕ LEACHING POOL LOCATION
  - B-6 ● SOIL BORING LOCATION

- KEY**
- C-DCE cis-1,2-Dichloroethene
  - PCE Tetrachloroethene
  - VC Vinyl chloride
  - MEK 2-Butanone
  - TCE Trichloroethene
  - CB Chlorobenzene



MAJOR VOCs DETECTED IN SUBSURFACE SOILS  
 SUBSURFACE SOIL INVESTIGATION - AUGUST 2009  
 TransTechnology Glen Head Site  
 Glen Head, New York

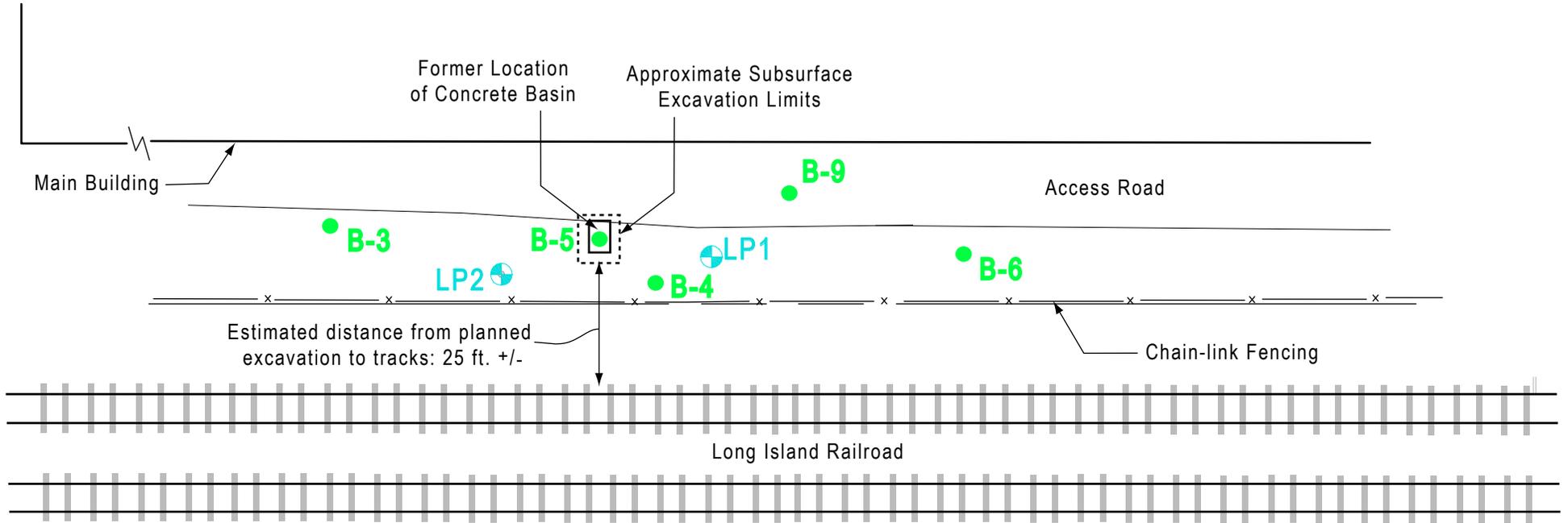


NTS

LEGEND

LP3 LEACHING POOL LOCATION

B-6 SOIL BORING LOCATION



APPROXIMATE AREA OF SUBSURFACE EXCAVATION TransTechnology Glen Head Site Glen Head, New York		
<b>AMEC Geomatrix</b>	Project No. 6238	Figure 5



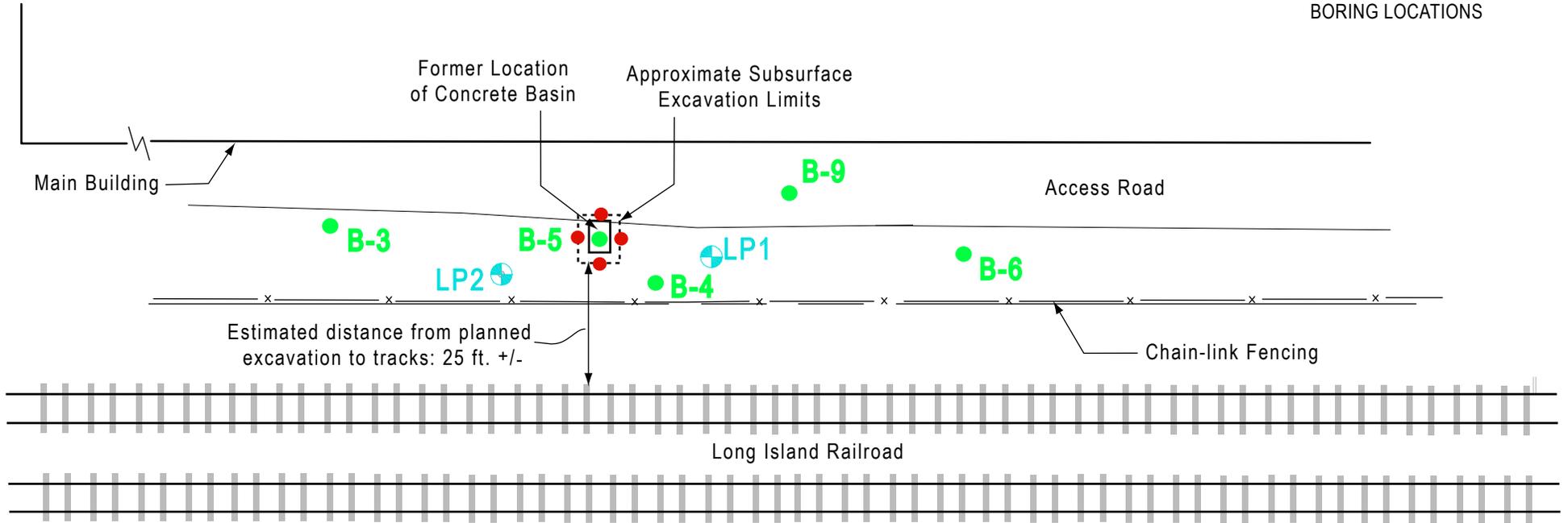
NTS

LEGEND

LP3  LEACHING POOL LOCATION

B-6  SOIL BORING LOCATION

 PLANNED ADDITIONAL PRE-EXCAVATION SOIL BORING LOCATIONS



PLANNED ADDITIONAL PRE-EXCAVATION  
 SOIL BORING LOCATIONS  
 TransTechnology Glen Head Site  
 Glen Head, New York

<b>AMEC Geomatrix</b>	Project No. 6238	Figure 6
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