# SOUTH TROY INDUSTRIAL PARK SITE (PARCEL 1)

**CITY OF TROY, RENSSELAER COUNTY, NEW YORK**

# Site Management Plan

**NYSDEC Site Number: B00163**

**C.T. Male Associates Project Number 07.7549**

**Prepared for:**

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And

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**Revisions to Final Approved Site Management Plan:**

| Revision # | Submitted Date | Summary of Revision | DEC Approval Date |
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**JANUARY 2016**

CERTIFICATION STATEMENT
SOUTH TROY INDUSTRIAL PARK
PARCEL 1

I JEFFREY A. MARX, P.E. certify that I am currently a NYS registered professional as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).


P.E.

2/23/2016 DATE

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# 1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

## 1.1 INTRODUCTION

This document is required as an element of the remedial program at the South Troy Industrial Park (STIP) under the New York State (NYS) Environmental Restoration Program (ERP), administered by New York State Department of Environmental Conservation (NYSDEC). The STIP Site was remediated in accordance with State Assistance Contract (SAC) #C302575, which was executed on February 25, 2005, and amended on November 2, 2005 (Amendment #1), May 3, 2006 (Amendment #2), December 5, 2007 (Amendment #3), April 14, 2011 (Amendment #4) and January 2013 (No Cost Time Extension).

The STIP Site as investigated and remediated under the above SAC is made up of three (3) noncontiguous parcels identified as Parcel 1, Parcel 2 and Parcel 3 for the purpose of site investigation and remediation. Each of the parcels contains different contaminant characteristics and was assigned as a separate area of concern in the March 2006 NYSDEC Record of Decision. This SMP, however, is specific to Parcel 1, (hereinafter the "Site"). Note that Parcel 1 does not include the portion of the site that was transferred to the County for the purpose of constructing the Rensselaer County Jail Expansion. This portion of Parcel 1 used by the Jail is the southwest area of land immediately south of New Penn and west of East Industrial Park Road and now referred to as "Parcel 1A".

### 1.1.1 General

The Rensselaer County Industrial Development Agency and Department of Engineering and Highways entered into a SAC with the NYSDEC to remediate a 11.02 acre property (Parcel 1) located in the City of Troy, Rensselaer County, New York. This SAC required the Remedial Party, the Rensselaer County Industrial Development

Agency and the Department of Engineering and Highways, to investigate and remediate contaminated media at the Site. A map showing the location and boundaries of this 11.02 acre "area subject to this plan" is provided in Figure 1. The boundaries of the Site are more fully described in the Metes and Bounds site description, and provided as Appendix B.

Following completion of the remedial work described in the Remedial Design Work Plan, contamination remained in the subsurface at this Site, which is hereafter referred to as "remaining contamination". This Site Management Plan (SMP) was prepared to manage the remaining contamination within the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. Reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by C.T. Male Associates Engineering, Surveying, Architecture & Landscape Architecture, D.P.C. (C.T. Male Associates), on behalf of the Rensselaer County Industrial Development Agency (RCIDA) and Department of Engineering and Highways, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the Site.

### 1.1.2 Purpose

The Site contains contamination in soil and/or fill material which was allowed to remain in place after completion of the remedial action. Engineering Controls have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Rensselaer County Clerk, will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on Site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods

necessary to ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) operation and maintenance of any remedial systems; and (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports.

To address these NYSDEC Requirements, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for monitoring the conditions and effectiveness of the surface cover system; and (3) an Operation and Maintenance Plan.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the environmental easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the SAC (Site #C302575) for the Site, and thereby subject to applicable penalties.

### 1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

## 1.2 SITE BACKGROUND

### 1.2.1 Site Location and Description

The Site is located in the City of Troy, Rensselaer County, New York and is identified as Block 1 and Lot 1 on the Rensselaer County Tax Map 111.43. The Site is an approximately 11.02 acre area bound by property owned by Troy Slag Products, Inc. and occupied by CD Perry& Sons, Inc. to the north, New Penn Motor Express to the south on the west side of East Industrial Parkway and ACN Companies to the south on the east side of East Industrial Parkway, Conrail railroad tracks and commercial development to the east, and the Hudson River to the west (see Figure 1). The boundaries of the Site are more fully described in Appendix B – Metes and Bounds.

### 1.2.2 Site History

The STIP Site was used as farmland until 1862, when it began to be developed as the Lower Works of the Burden Iron Works. The STIP site was originally a low-lying element of the Hudson River flood plain, and was filled with iron manufacturing wastes to raise its elevation. These wastes included slag, ash and cinders, as well as rubble from building demolition and structure fires in the City of Troy. A large deposit of this material (primarily slag) was located in the northwest corner of Parcel 1 and was locally referred to as “Slag Mountain”.

Several investigations have been conducted at the STIP site as a whole (Parcels 1, 2 and 3) and neighboring properties since 1986. In 1986 a subsurface investigation was conducted to characterize geotechnical and environmental conditions at the STIP site, inclusive of Parcel 1. Four (4) monitoring wells were installed and two (2) soil borings were advanced on Parcel 1. One (1) monitoring well (MW-8) was installed on Parcel 1A (formerly Parcel 1 at the time). Metals in soil and ground exceeding their cleanup guidelines in were found wells and borings located on Parcel 1.

In 1990 an Environmental Site Assessment was performed at the STIP site (Parcels 1, 2 and 3). Four (4) test borings, seven (7) monitoring wells, and thirty-five (35) test pits were performed at several parcels along East Industrial Parkway. During

this investigation, low levels of benzene were detected and field evidence of petroleum contamination was found. Analytical results of slag samples did not exceed TCLP values and therefore not characterized as hazardous waste.

In 2001, C.T Male conducted a Phase I ESA and Geotechnical Evaluation on the eastern portion of Parcel 1. The studies involved the advancement of test borings and test pits. The Investigation revealed the parcel to be underlain by fill materials to depths of approximately eight (8) to eleven (11) feet below grade. The fill consisted of slag, ash, cinder, and sand and gravel, but did not reveal subjective evidence of contamination or existence of coal tar.

In 2002, Earth Tech performed investigation of Parcel 1 via advancement of twenty (20) test pits, analyses of soil/fill materials from the test pits and analysis of groundwater from an existing well. Although volatile organic compound analytical results were not available to C.T Male, semi-volatile organic compounds and metals exceeded regulatory cleanup values in the test pit TP-2.

In 2003, Erdman Anthony collected samples of the slag mound on Parcel 1. The samples were collected to determine if the material could be removed and re-graded, and also analyzed for the eight (8) RCRA Metals for review by NYSDEC. NYSDEC responded that the metal concentrations in slag were below soil cleanup guidelines and could remain on-site.

### 1.2.3 Geologic Conditions

Surficial geology in the vicinity of the Site is mapped as recent alluvium deposits, consisting of fine sand to gravel, which is generally confined to floodplains within a valley. In larger valleys, the sand and gravel may be overlain by silt. Based on the findings of the Remedial Investigation (RI), native soils beneath overlying fill materials consist primarily of silts with varying percentages of sand and clay over sand and gravel.

Bedrock in the vicinity of the Site is mapped in the category of the Trenton Group, consisting of shale and minor mudstone and sandstone. Bedrock was not encountered during subsurface investigations conducted of the Site. However, shale

bedrock was encountered at depths ranging from 35 feet to 59 feet below ground surface during previous Site investigations conducted to the north of the Site.

Fill material at the Site extends in depth from eight (8) to 30 feet below ground surface, as shown on Figure 2. The fill material consists primarily of slag, ash, cinder, brick, construction and demolition debris, and intermingled sand and gravel. Native soils underlying the fill material are comprised predominantly of silts, with varying percentages of clay, overlying sand and gravel deposits.

Generally, regional groundwater flows in a westerly direction towards the Hudson River. Groundwater beneath Parcel 1 was encountered at the fill material and native soil interface. The direction of groundwater is generally westerly toward the Hudson River, as shown on Figure 3. Groundwater flow in the vicinity of the IRM activity is southwesterly, as shown on Figure 4.

## 1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A RI was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the following reports:

- Remedial Investigation/Alternatives Analysis Report, South Troy Industrial Park, prepared by C.T. Male Associates, dated February 2006.

Generally, the RI determined that contamination was present in the surface soils and subsurface at this Site, primarily within the fill materials and native soils. The contamination was primarily volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals.

A summary of Site conditions when the RI was performed from 2004 to 2006 is presented in the following sections.

### 1.3.1 Soil

The highest levels of SVOCs in surface soil were found in Surface Soil #1 and Surface Soil #6, which are located in the northeastern portion of Parcel 1 in proximity to

where the IRM activity was performed. Although surface soil within Parcel 1 did not show visual evidence of petroleum contamination, the analytical results indicate that surface soil has been impacted by SVOCs and a few metals. SVOCs were specifically detected above Standards, Criteria and Guidance (SCGs) at Surface Soil #1, Surface Soil #3, Surface Soil #5 and Surface Soil #6, which are located generally within the north and eastern side of East Industrial Parkway on Parcel 1. One or more of the detected metals were above SCGs in the surface soil samples collected within Parcel 1 except for Surface Soil #4, #7, #8 and #9. Arsenic was also detected in subsurface soil above its SCG values in CTM #3 (2-4').

Subsurface fill material beneath Parcel 1 ranges from eight (8) to 30 feet thick, and contains similar levels of the contaminants found throughout the Site. The estimated volume of fill material beneath Parcel 1 is on the order of 110,000 cubic yards. Petroleum contaminated subsurface soils (75.76 tons) were found in the localized area of the IRM activity, which were removed and properly disposed off-site.

Figure 5 depicts the locations and concentrations for surface soil samples that exceeded SCGs restricted commercial use sites. Note that the subsurface soil samples which exceeded SCOs within the IRM area were remediated and therefore those soils do not remain on-site and are not depicted in Figure 5. It should also be noted that the location of the soils and fill exceeding SCOs may have changed through implementation of the remedy which in part involved grading of the existing soils and fill.

### 1.3.2 On-Site and Off-Site Groundwater

The VOCs acetone, benzene, ethylbenzene, toluene, xylenes, isopropylbenzene, styrene, and a SVOC naphthalene were detected above groundwater standards at monitoring wells CTM-1 and CTM-1S, which were installed in the IRM area. These exceedances were identified in these wells prior to completion of the IRM activities. CTM-1 and CTM-1S were removed as part of the soil removal activity, however, removal of petroleum impacted soil removal in the area is believed to have resulted in improved groundwater quality.

Monitoring well CTM-2 and CTM-2 are downgradient of the IRM area, and did not identify petroleum related contaminants in groundwater above the limit of laboratory detection.

Groundwater beneath Parcel 1 generally contained elevated levels of iron and manganese above their SCG in the samples collected from CTM-1, CTM-1S and CTM-3, the wells in the eastern portion of Parcel 1. Iron and manganese were also detected at CTM-2 and CTM-13, the wells in the western portion of Parcel 1, but at concentrations below their SCG. Selenium was also detected above its groundwater SCG in samples from monitoring wells CTM-3 and CTM-13. Sodium was detected above its SCG within monitoring well CTM-13.

Figure 6 depicts the locations and concentration ranges for groundwater samples that exceeded regulatory groundwater standard values.

### 1.3.3 On-Site and Off-Site Soil Vapor

A soil vapor intrusion survey was not conducted on the Site during the RI.

### 1.3.4 Underground Storage Tanks

One (1) Underground Storage Tank (UST) and two (2) buried drums were identified on the Site during the RI. In the northeast corner of Parcel 1 a buried obstruction was encountered in October 2004 during a geotechnical investigation being performed by SJB Services Inc./Erdman & Anthony Engineers for the City of Troy. The obstruction was subsequently evaluated through the completion of exploratory test pits. Two (2) drums were encountered at approximately 9 feet below grade; one in a vertical upright position and the other lying horizontally under the vertical drum. Further south of the drums, and approximately 12 feet below grade, a 1,000 gallon steel tank was encountered. The drums and the tank were emptied, cleaned and properly disposed of off-site as part of the IRM.

The drum and tank contents were analytical tested for disposal and a summary is provided for reference.

- Approximately 750 to 800 gallons of product and water was removed from the UST. Testing showed the waste to be non-hazardous.
- The liquid in the vertical drum was pink in color and determined to be hazardous waste on the basis of ignitability.
- The soil in the horizontal drum was determined to be non-hazardous material.

## 1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the NYSDEC-approved Remedial Design Work Plan, dated December 20, 2007 and revised February 11, 2008, and the Remedial Action Plans and Specifications dated January 2009.

The following is a summary of the Remedial Actions performed at the Site:

1. Removal of soil and groundwater in the northeast corner of Parcel 1 where a buried tank and drums were removed as part of a non-emergency IRM conducted during the Remedial Investigation (RI) of the site.
2. Construction and maintenance of a cover system consisting of soil underlain by a demarcation fabric, concrete or asphalt pavement to prevent human exposure to contaminated soil/fill remaining at the Site;
3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site; and
4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.

Remedial activities for Parcel 1 were started in 2009. Remedial activities attained substantial completion in 2010, and final completion in December 2011.

### 1.4.1 Removal of Contaminated Materials from the Site

Petroleum contaminated soil (PCS) was left in-place during the IRM phase of this project in an area where a former tank and drums were located. During the remedial action phase, this area was re-excavated on October 12, 2009 and the PCS was again identified through the use of field instrumentation (i.e., PID meter) and subjective visual observations (sight and smell). The PCS was removed from the northeast corner of Parcel 1 within the horizontal limits shown on Remedial Action Contract Drawings as provided in partial form as Figure 3 of the Final Engineering Report. The PCS was removed from 15.5 feet to approximately 18.5 feet below ground surface. A total of approximately 75.76 tons of PCS was excavated, staged, loaded and transported by Riccelli Enterprises, Inc. of Syracuse, New York to Seneca Meadows, Inc. in Waterloo, New York. Waste profile and disposal documentation are provided in Appendix F3 of the Final Engineering Report.

### 1.4.2 Site-Related Treatment Systems

No long-term treatment systems were installed as part of the Site remedy.

### 1.4.3 Remaining Contamination

Remaining contamination at the Site consists of volatile organic compounds, semi-volatile organic compounds and metal impacted soil/fill, and volatile organic compounds and metals (specifically iron and manganese) impacted groundwater. The thickness of the fill materials, where impacts were detected, is on the order of eight (8) to 30 feet deep beneath the cover system. Regardless, all fill and native soils beneath the cover system are to be considered contaminated unless sampling is performed to document otherwise. A black filter fabric demarcation layer is located between the cover system and existing site fill and/or native soils to show the start of the remaining contamination. The demarcation layer is generally present 12 inches below grade. Refer to the Excavation Work Plan (Appendix A) requirements for guidance for disturbance and handling.

Utilizing data collected as part of the RI, figures showing locations of remaining contamination were prepared. Figure 5 depicts the locations of remaining contaminants in soils at concentrations exceeding SCGs for restricted commercial use. Figure 6 depicts the locations of remaining contaminants groundwater at concentrations exceeding SCGs.

Listed below are those primary contaminants of concern (COC) that remain in soil and/or groundwater above SCGs for restricted commercial use:

| | | |
|---|---|---|
| Arsenic | Cadmium | Copper |
| Iron | Mercury | Manganese |
| Selenium | Sodium | Acetone |
| Benzene | Ethylbenzene | Isopropylbenzene |
| MTBE | Stryene | Toluene |
| Xylenes | Benzo(a)pyrene | Naphthalene |

# 2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

## 2.1 INTRODUCTION

### 2.1.1 General

Since remaining contaminated soil and groundwater exists beneath the Site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the Site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

### 2.1.2 Purpose

This Plan provides:

- A description of all EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and period review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of an Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the NYSDEC.

## 2.2 ENGINEERING CONTROLS

### 2.2.1 Engineering Control Systems

2.2.1.1 Surface Cover System

Exposure to remaining contamination in soil and/or fill at the Site is prevented by a surface cover system placed over the Site. This cover system is comprised of a minimum of twelve (12) inches of clean soil or eight (8) inches of gravel subbase/four (4) inches of asphalt pavement. The Excavation Work Plan that appears in Appendix A of this SMP outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of the cover system are provided in the Monitoring Plan included in Section 3 of this SMP.

### 2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1 Surface Cover System

The surface cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

## 2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to commercial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- Engineering Controls must be operated and maintained as specified in this SMP;
- Engineering Controls must be inspected at a frequency and in a manner defined in the SMP; and
- Data and information pertinent to Site Management for the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for commercial or industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for unrestricted and restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by NYSDEC.
- Vegetable gardens and farming on the property are prohibited;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for the intended purpose;
- Future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP and with implementation of the CAMP during ground intrusive activities that are anticipated to penetrate into the contaminated zone below the site cover system;

- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated;
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and the environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

### 2.3.1 Excavation Work Plan

The Site has been remediated for restricted commercial use. Any future intrusive work that will penetrate the soil cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix A to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. Prior to the commencement of any intrusive work, the contractor shall prepare for DEC approval, a HASP and CAMP that are in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. The HASP and CAMP will be submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The Site owner will ensure that Site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

### 2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining contamination, a soil vapor intrusion (SVI) evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to volatile organic vapors in the proposed structure. Alternatively, an SVI mitigation system will be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system. Any sub-slab depressurization system that is implemented during the building construction must be shown to be effective before occupation of the structure in accordance with NYSDOH guidance documents and/or as specified in the NYSDOH approved work plan.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling and analytical data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up

action, such as mitigation. Validated SVI data will be transmitted to the property owner within 30 days of validation.

SVI sampling results, evaluations, and follow-up actions will be summarized in the Periodic Review Report.

## 2.4 INSPECTIONS AND NOTIFICATIONS

### 2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP and the Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Engineering Controls continue to perform as designed;
- Engineering Controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement; and
- Site records are complete and up to date.

Site inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3), using the Site-Wide Inspection Form included in Appendix C. The reporting requirements are outlined in the Site Management Reporting Plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

### 2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC for the following reasons:

- Written 60-day advance notice of proposed changes in Site use that are required under the terms of the State Assistance Contract (SAC), 6 NYCRR Part 375, and/or Environmental Conservation Law.
- Written 7-day advance notice of any proposed ground-intrusive activities, pursuant to the Excavation Work Plan.
- Written 48-hour notice of damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site with written confirmation within seven (7) days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Within 45 days of actions taken to respond to any emergency event requiring ongoing responsive action, submit status reports to describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the State Assistance Contract and NYSDEC approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

## 2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

Buried drums and underground storage tanks at the subject Site have not been identified nor are expected to be present. If drums or tanks are found, excavation activities must cease and the Site owner and/or remedial party, and NYSDEC will be notified within two hours of discovery. The drums and tanks shall be handled, removed and cleaned by appropriately trained personnel in accordance with all applicable federal, state and local regulations. Soils surrounding the tanks and drums shall be assessed for impacts in accordance with applicable NYSDEC guidance and regulation documents (i.e., PBS, Part 375, CP-51, etc.).

### 2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s), or remedial party, should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to a qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the Site.

**Table 2.5.1-1: Emergency Contact Numbers ***

| | |
|---|---|
| Medical, Fire, and Police: | 911 |
| One Call Center (At least 2 days notice prior to excavation, but no more than 10 days notice): | 811 |
| Poison Control Center: | (800) 222-1222 |
| National Response Center (for reporting oil, chemical, radiological, biological and etiological discharges into the environment anywhere in the United States): | (800) 424-8802 |
| NYSDEC Spills Hotline (report petroleum spill incident within two hours of discovery): | (800) 457-7362 |

**Table 2.5.1-2: Contact Numbers**

| | | |
|---|---|---|
| Property Owner:<br>Rensselaer County Industrial Development Agency (RCIDA)<br>Jack Bonesteel – Deputy Director | jbonesteel@rensco.com | (518) 270-2914 |
| NYSDEC:<br>Ian Beilby | iabeilby@gw.dec.state.ny.us | (518) 402-9767 |
| Qualified Environmental Professional<br>C.T. Male Associates<br>Kirk Moline or Jeffrey A. Marx, PE | k.moline@ctmale.com<br>j.marx@ctmale.com | (518) 786-7400 |

* Note: Contact numbers subject to change and should be updated as necessary.

### 2.5.2 Map and Directions to Emergency Health Facility

| | |
|---|---|
| Site Location: | South Troy Industrial Park<br>East Industrial Boulevard<br>Troy, New York |
| Nearest Hospital Name: | Samaritan Hospital |
| Hospital Location: | 2215 Burdett Avenue<br>Troy, New York 12180 |
| Hospital Telephone: | (518) 271-3424 |

Directions to the Hospital:

1. Go south on East Industrial Parkway
2. Go east on Main Street
3. Turn left at 4th Street
4. Turn right on Ferry Street
5. Continue onto Congress Street
6. Turn left at 15th Street
7. Turn right at Eagle Street

Total Distance: 3.2 miles

Total Estimated Time: 8 minutes

A Map showing the route to Samaritan Hospital is presented in Appendix D.

### 2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group shall be notified immediately by telephone of the emergency. The emergency telephone number

list is found at the beginning of this Contingency Plan (Table 2.5.1-1). Petroleum spills must be reported to NYSDEC unless they meet all of the following criteria:

- The spill quantity is known to be less than 5 gallons; and
- The spill is contained and under the control of the spiller; and
- The spill has not and will not reach the State's water or any land; and
- The spill is cleaned up within 2 hours of discovery.

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable.

### 2.5.4 Erosion of Cover Materials

When erosion of cover materials is observed, the Owner will be notified of this condition and this area will be closely monitored for further breakdown. If after a short period of time no further erosion is observed no action will be taken other to watch for further breakdown. If continued erosion is apparent, corrective measures shall be taken to restore the cover materials to their original design condition.

### 2.5.5 Discovery of Previously Unauthorized Ground Intrusive Activities

Discovery of previously unauthorized ground intrusive activities will include scarring of the ground surface, ruts or tire tracks and lack of established surface vegetation. Upon discovery, the Owner will be notified. Interviews with site occupants shall be performed to identify the cause of the ground intrusive activities. If applicable, the ground intrusive activities shall be repaired to bring the cover materials back to their original design condition.

### 2.5.6 Poorly Draining Stormwater Basins

If storm water is observed draining poorly from the basins, maintenance of the basins may be required. The Owner may need to consult with a design professional to

evaluate the cause of the condition. Routine maintenance of the basins should be performed to keep the basins adequately draining.

### 2.5.7 Damaged or Missing Fences

There is one continuous section of 6 foot tall chain link fence along the entire western property line from the northwest property corner to the southwest corner at the start of Parcel 1A. If identification of damaged or missing fences which controls access to and contact with the remaining contamination along the steep slope of the Hudson River that was not protected with a soil barrier, the current owner of the property shall be contacted and notified that repairs need to be made.

# 3.0 SITE MONITORING PLAN

## 3.1 INTRODUCTION

### 3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to control remaining contamination at the Site, and to document the condition of the cover system. This Monitoring Plan may only be revised with the approval of NYSDEC.

### 3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment;
- Reporting requirements; and
- Annual inspection and periodic certification.

Annual monitoring of the performance of the remedy will be conducted for the first three years after installation of the cover system. The frequency thereafter may be reduced, but will be determined by NYSDEC.

## 3.2 COVER SYSTEM MONITORING

The cover system monitoring will consist of Site visit, traversing the entire Site and observing for a visual breakdown of the vegetative soil cover or asphalt paved surface resulting from erosion by natural elements such as wind and water. Conditions such as stressed vegetation, animal burrows, pavement cracking/heaving/patching, and exposure of demarcation fabric would be the focus of the Site visit. Surface drainage features and steep slopes should also be viewed for erosion or other manmade alterations (utility repair and installation) causing surface condition compromise. Photographs

documenting the conditions at composite cover system are required for reporting. The cover system monitoring will be performed by a Qualified Environmental Professional approved by NYSDEC. The cover system types installed at the Site are identified in Figure 7. A complete list of components to be observed is provided in the Site-Wide Inspection Form, presented in Appendix C.

### 3.3 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections should also be performed after severe weather conditions that may affect Engineering Controls. During these inspections, an inspection form will be completed (blank forms provide in Appendix C). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- The Site management activities being conducted; and
- Confirm that Site records are up to date.

### 3.4 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file and made available for NYSDEC and NYSDOH inspection. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in Section 5.3.

All engineering system monitoring results will be reported to NYSDEC on an annual basis in the Periodic Review Report.

# 4.0 OPERATION AND MAINTENANCE PLAN

## 4.1 INTRODUCTION

The Site remedy does not currently rely on any mechanical systems, such as active sub-slab depressurization systems or air sparge/ soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

# 5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

## 5.1 SITE INSPECTIONS

### 5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

### 5.1.2 Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms which are contained in Appendix C. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (See Appendix C for blank forms). These forms are subject to NYSDEC revision.

Applicable site inspection forms and other records generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

### 5.1.3 Evaluation of Records and Reporting

The results of the inspection and Site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RD and FER.

## 5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a Qualified Environmental Professional (QEP), as defined in NYSDEC DER-10, will prepare the following certification:

For each institutional or engineering control identified for the Site, I certify, that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of

[business address], am certifying as [Owner or Owner's Designated Site Representative] for the Site.

The signed certification will be included in the Periodic Review Report described below.

## 5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every three years, beginning eighteen months after the Certificate of Completion is issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendix B (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual site inspections and if applicable, severe condition inspections;
- All applicable inspections forms and other records generated for the Site during the reporting period in electronic format;
- A Site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific RD, ROD or Decision Document;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
    - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

## 5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

# FIGURES

# FIGURE 1:

## SITE LOCATION MAP

(NEW YORK CENTRAL RAILROAD COMPANY LESSEE)
Tax Map No. 111.59-2-3

RAIL ROAD TRACKS

Lands Now or Formerly of
**TROY SLAG PRODUCTS CO. INC.**
Roll 98 Frame 1641
Tax Map No. 111.44-1-31

**PARCEL 1**
GRASS

ASPHALT

Lands Now or Formerly of
**RENSSELAER COUNTY INDUSTRIAL DEVELOPMENT AGENCY**
Book 1781 Page 242
Tax Map No. 111.43-1-1
**AREA=11.015± ACRES**

Lands Now or Formerly of
**TROY SLAG PRODUCTS CO. INC.**
Book 1235 Page 801
Tax Map No. 111.35-1-1

**PARCEL 1**
GRASS

Lands Now or Formerly of
**RENSSELAER COUNTY INDUSTRIAL DEVELOPMENT AGENCY**
Book 1781 Page 242
Tax Map No. 111.43-1-1
**AREA=11.015± ACRES**

**PARCEL 1**
GRASS

EAST INDUSTRIAL PARKWAY

PARCEL CONVEYED TO NEW PENN MOTOR EXPRESS, INC. BOOK 5973 PAGE 301 AREA=2,575±SQ.FT.

**NOT PART OF SOUTH TROY INDUSTRIAL PARK**

Lands Now or Formerly of
**NEW PENN MOTOR EXPRESS, INC.**
Tax Map No. 111.51-1-1
Roll 215 Frame 485

Lands Now or Formerly of
**RONALD F. ANDERSON**
Book 1775 Page 258
Tax Map No. 111.51-1-3

**PARCEL 1A**

Lands Now or Formerly of
**THE COUNTY OF RENSSELAER**
Book Page
Tax Map No. 111.51-1-4
**AREA=5.940± ACRES**

EAST INDUSTRIAL PARKWAY

POINT OF BEGINNING PARCEL 1

U.S. PIERHEAD & BULKHEAD LINE APPROVED MAY 15, 1934

HUDSON RIVER

BAR SCALE
120 0 60 120 240
1 inch = 120 ft.

NOTE:
1.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1.) BOUNDARY SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG. NO.:05-104, DATED NOV. 30, 2004.

2.) ALTA/ACSM TITLE BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES, DWG NO.: 10-713, DATED DECEMBER 13, 2010.

| DATE | | REVISIONS RECORD/DESCRIPTION | DRAFTED | CHECK | APPR. |
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DESIGNED :
DRAFTED : J.MARX
CHECKED : S.BIEBER
PROJ. NO: 07.7549
SCALE : 1" = 120'
DATE : DEC. 20, 2013

# FIGURE 1
# PARCEL 1 SITE LOCATION MAP

## SOUTH TROY INDUSTRIAL PARK
## ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NY

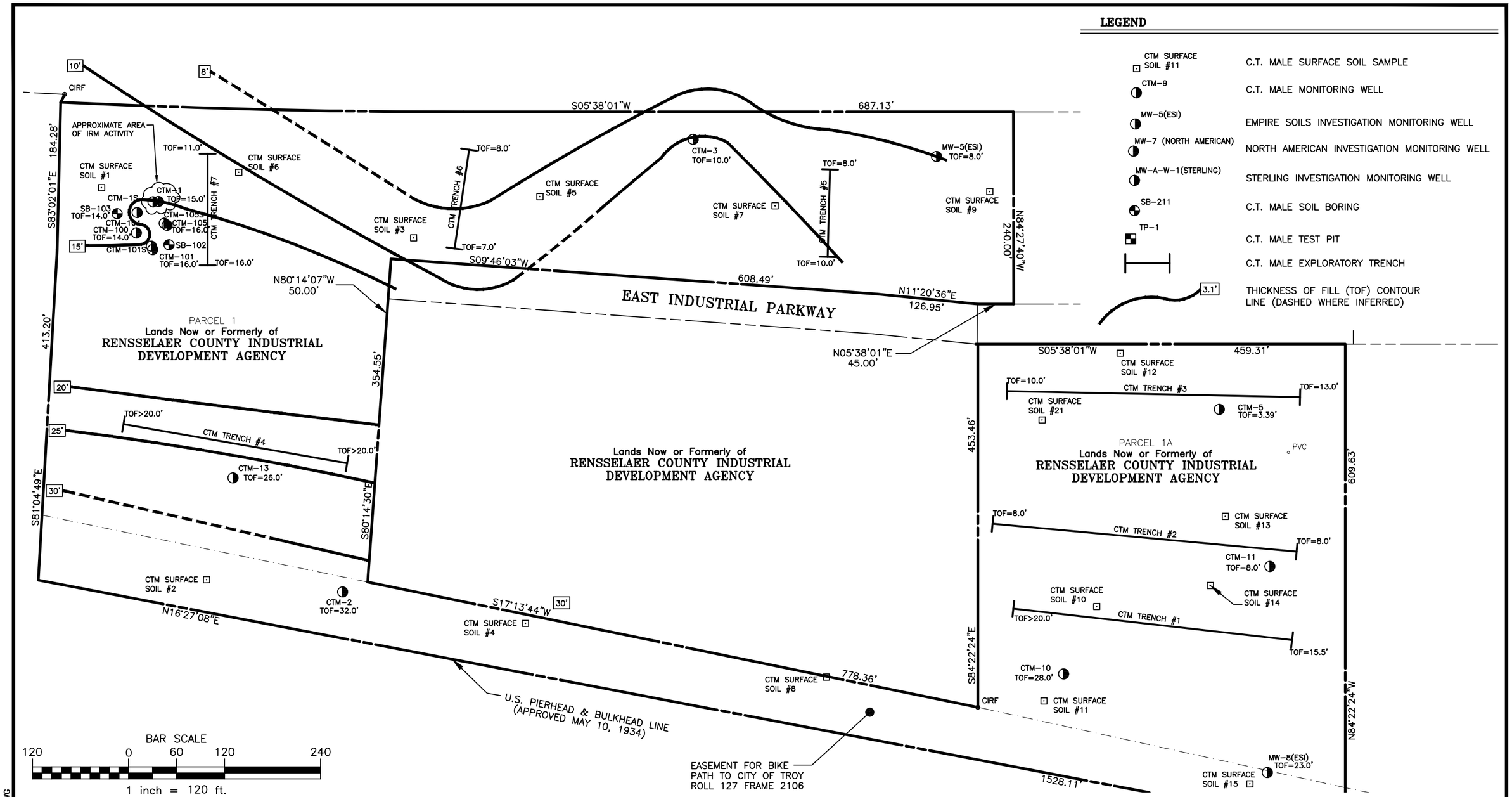
C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SHEET 1 OF 7
DWG. NO: 13-648

CAD DWG. FILE NAME:FIG-1_SITE LOCATION.DWG

# FIGURE 2:

## THICKNESS OF FILL COUNTOUR MAP




NOTE:
1.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1.) BOUNDARY SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG. NO.:05–104, DATED NOV. 30, 2004.

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DESIGNED :
DRAFTED : J.MARX
CHECKED : K.MOLINE
PROJ. NO: 07.7549
SCALE : 1" = 120'
DATE : DEC. 20, 2013

# FIGURE 2
# THICKNESS OF FILL CONTOUR MAP

## SOUTH TROY INDUSTRIAL PARK ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NY

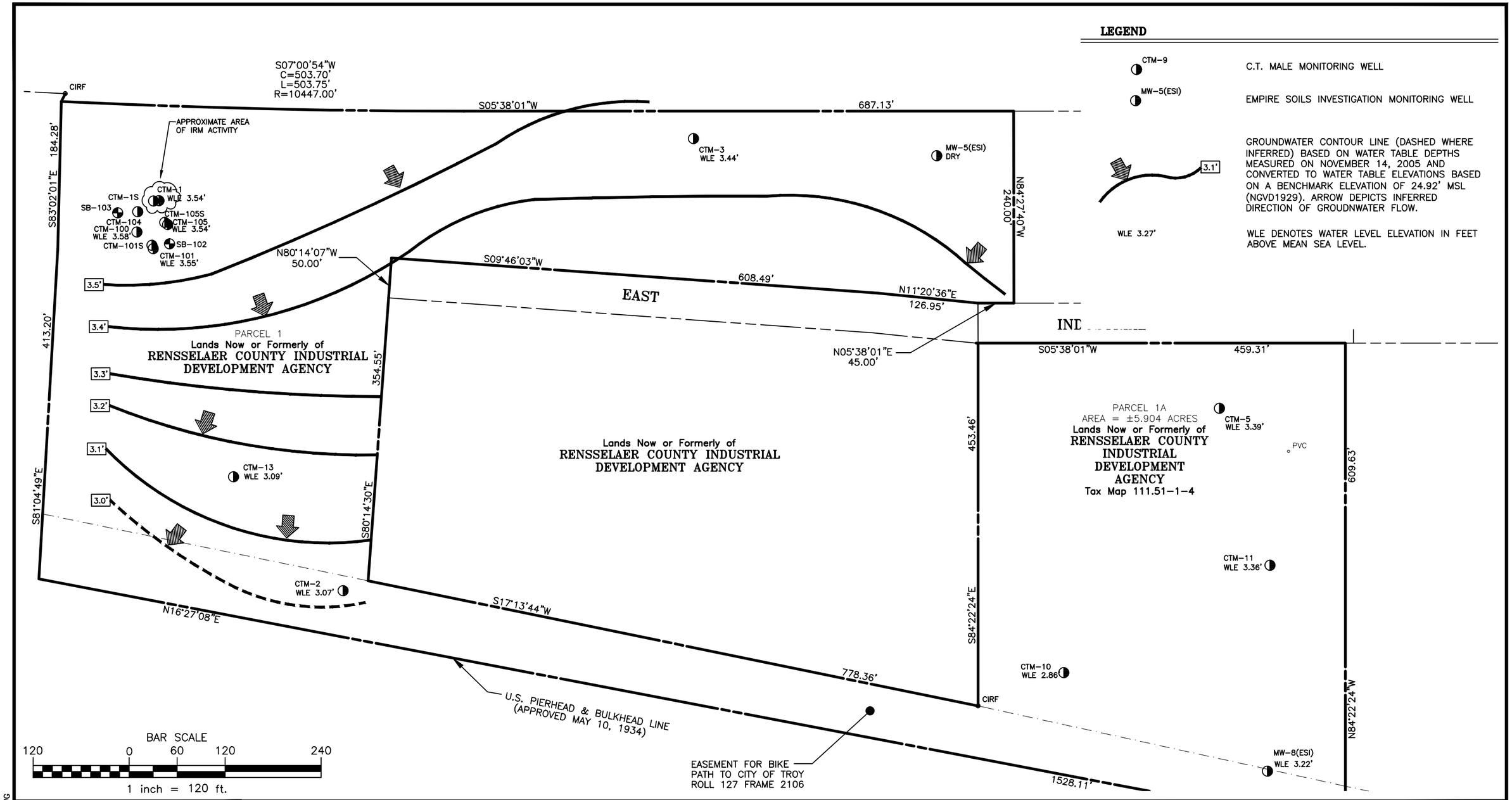
C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SHEET 2 OF 7
DWG. NO: 13–648

CAD DWG. FILE NAME: FIG–2 PARCEL 1 THFCM.DWG

# FIGURE 3:

## SHALLOW GROUNDWATER CONTOUR MAP FOR 11/14/2005




NOTE:
1.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1.) BOUNDARY SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG. NO.:05-104, DATED NOV. 30, 2004.

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DESIGNED :
DRAFTED : J.MARX
CHECKED : K.MOLINE
PROJ. NO: 07.7549
SCALE : 1" = 120'
DATE : DEC. 20, 2013

# FIGURE 3 - SHALLOW GROUNDWATER CONTOUR MAP (NOVEMBER 14, 2005)

## SOUTH TROY INDUSTRIAL PARK ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NY

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SHEET 3 OF 7
DWG. NO: 13-648

CAD DWG. FILE NAME: FIG-3 PARCEL 1 GWC.DWG

# FIGURE 4:

## SHALLOW GROUNDWATER CONTOUR MAP IN IRM AREA FOR 11/21/2005

NO XREFS

PROJECT NUMBER: 07.7549

CAD DWG. FILE NAME: FIG12 SGCM VIRM.DWG

CIRF

CIRF

S05°38'01"W

184.28'

S83°02'01"E

413.20'

S81°04'49"E

CTM-104

CTM-1S
WLE=7.91'

CTM-1

SB-103

CTM-100

CTM-101S
WLE=7.31'

CTM-105S
WLE=7.16'

CTM-105
SB-102

CTM-101

CTM SURFACE
SOIL #1

CTM SURFACE
SOIL #6

7.8'

7.6'

7.3'

7.0'

Lands Now or Formerly of
TROY SLAG
PRODUCTS CO. INC.
Tax Map 111.35-1-1

Lands Now or Formerly of
RENSSELAER COUNTY INDUSTRIAL
DEVELOPMENT AGENCY
Tax Map 111.43-1-1

CTM SURFACE
SOIL #5

CTM SURFACE
SOIL #3

N80°14'07"W
50.00'

S09°46'03"W

EAST

354.55'

S80°14'30"E

CTM-13

Lands Now or Formerly of
RENSSELAER COUNTY INDUSTRIAL
DEVELOPMENT AGENCY
Tax Map 111.51-1-1

CTM SURFACE
SOIL #2

CTM-2

N16°27'08"E

S17°13'44"W

CTM SURFACE
SOIL #4

U.S. PIERHEAD & BULKHEAD LINE
(APPROVED MAY 10, 1934)

CTM SURFACE
SOIL #8

BAR SCALE
100 0 50 100 200
1 inch = 100 ft.

## LEGEND

| | |
|---|---|
| CTM SURFACE SOIL #11 | C.T. MALE SURFACE SOIL SAMPLE |
| SB-102 | C.T. MALE TEST BORING |
| CTM-9 WLE=7.16' | C.T. MALE MONITORING WELL. WLE DENOTES WATER LEVEL ELEVATION IN FEET ABOVE MEAN SEA LEVEL. |
| | C.T. MALE EXPLORATORY TRENCH |
| 7.3' | GROUNDWATER CONTOUR LINE (DASHED WHERE INFERRED) BASED ON WATER TABLE DEPTHS MEASURED ON NOVEMBER 21, 2005 AND CONVERTED TO WATER TABLE ELEVATIONS BASED ON A BENCHMARK ELEVATION OF 24.92' MSL (NGVD1929). ARROW DEPICTS INFERRED DIRECTION OF GROUDNWATER FLOW. |

NOTE:
1.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1.) BOUNDARY SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG. NO.:05-104, DATED NOV. 30, 2004.

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DESIGNED :
DRAFTED : J.MARX
CHECKED : K.MOLINE
PROJ. NO: 07.7549
SCALE : 1"=100'
DATE : DEC. 20, 2013

# FIGURE 4
# SHALLOW GROUNDWATER CONTOUR MAP IN IRM AREA (NOVEMBER 21, 2005)

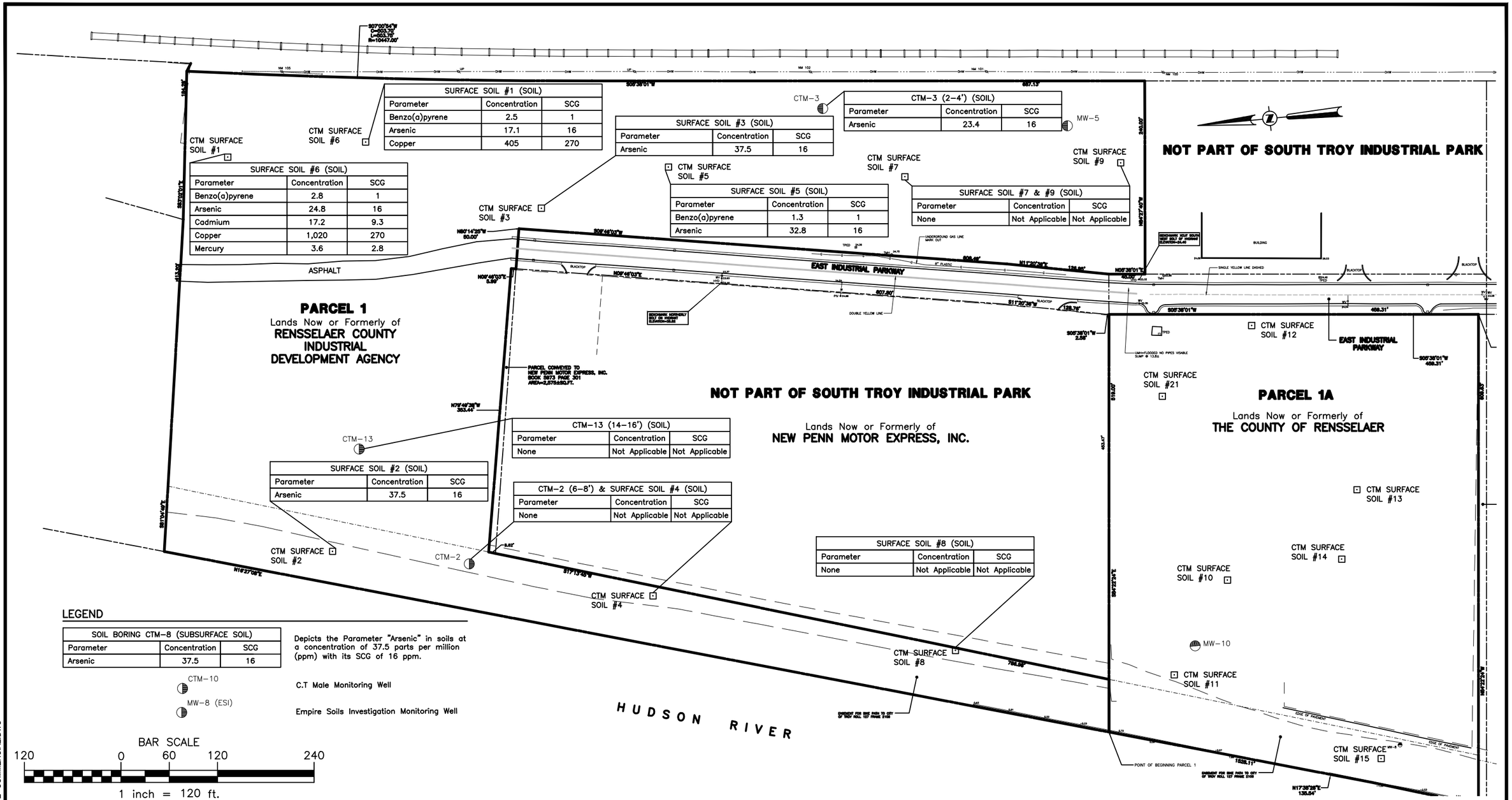
## SOUTH TROY INDUSTRIAL PARK
## ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NY

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

# FIGURE 5:

## SOIL CONTAMINANTS ABOVE SCGS FOR COMMERCIAL USE




NOTE:
1.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1.) BOUNDARY SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG. NO.:05-104, DATED NOV. 30, 2004.

2.) ALTA/ACSM TITLE BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES, DWG NO.: 10-713, DATED DECEMBER 13, 2010.

| DATE | | REVISIONS RECORD/DESCRIPTION | DRAFTED | CHECK | APPR. |
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DESIGNED :
DRAFTED : J.MARX
CHECKED : K.MOLINE
PROJ. NO: 07.7549
SCALE : 1" = 120'
DATE : DEC. 20, 2013

# FIGURE 5
# SOIL CONTAMINANTS ABOVE SCGS FOR COMMERCIAL USE
## SOUTH TROY INDUSTRIAL PARK ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NY

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299



CAD DWG. FILE NAME: FIG-5_REM IMPACTS ABOVE COMMERCIAL.DWG

# FIGURE 6:

## GROUNDWATER CONTAMINANTS ABOVE SCGS

| CTM-1S (GROUNDWATER) | | |
|---|---|---|
| Parameter | Concentration | SCG |
| Acetone | 66 | 50 (GV) |
| MTBE | 27 | 10 |
| Benzene | 9.9 | 1 |
| Ethylbenzene | 110 | 5 |
| Toluene | 110 | 5 |
| Xylenes | 430 | 5 |
| Styrene | 22 | 5 |
| Isopropylbenzene | 38 | 5 |
| Naphthalene | 83 | 10 (GV) |
| Iron | 412 | 300 |
| Manganese | 1,680 | 300 |

| CTM-1 (GROUNDWATER) | | |
|---|---|---|
| Parameter | Concentration | SCG |
| Benzene | 17 | 1 |
| Ethylbenzene | 39 | 5 |
| O-Xylene | 22 | 5 |
| Isopropylbenzene | 6.9 | 5 |
| Iron | 3,690 | 300 |
| Manganese | 2,990 | 300 |

| CTM-3 (GROUNDWATER) | | |
|---|---|---|
| Parameter | Concentration | SCG |
| Iron | 2,230 | 300 |
| Manganese | 303 | 300 |
| Selenium | 10.8 | 10 |

| CTM-13 (GROUNDWATER) | | |
|---|---|---|
| Parameter | Concentration | SCG |
| Selenium | 10.8 | 10 |
| Sodium | 25,600 | 10,000 |

| CTM-2 (GROUNDWATER) | | |
|---|---|---|
| Parameter | Concentration | SCG |
| None | Not Applicable | Not Applicable |

CIRF

CIRF

S05°38'01"W 687.13'

APPROXIMATE AREA OF IRM ACTIVITY

CTM-1S
SB-103
CTM-104
CTM-100
CTM-101S
CTM-1
CTM-105S
CTM-105
SB-102
CTM-101

CTM-3

MW-5(ESI)

Lands Now or Formerly of
ROLAND F. ANDERSON
Book 1775 Page 258
Tax Map 111.51-1-3

N84°27'40"W 240.00'

S83°02'01"E 184.28'

413.20'

S09°46'03"W 608.49'

EAST

N11°20'36"E 126.95'

INDUSTRIAL

S05°38'01"W 459.31'

N05°38'01"E 45.00'

354.55'

Lands Now or Formerly of
RENSSELAER COUNTY INDUSTRIAL
DEVELOPMENT AGENCY
Book 1781 Page 242
Tax Map 111.43-1-1

Lands Now or Formerly of
TROY SLAG
PRODUCTS CO. INC.
Book 1235 Page 801
Tax Map 111.35-1-1

S81°04'49"E

S80°14'30"E

CTM-13

Lands Now or Formerly of
RENSSELAER COUNTY INDUSTRIAL
DEVELOPMENT AGENCY
Tax Map 111.51-1-1
Roll 215 Frame 485

453.46'

PARCEL 1a
AREA = ±5.940 ACRES
CTM-5

Lands Now or Formerly of
RENSSELAER COUNTY
INDUSTRIAL
DEVELOPMENT
AGENCY
Book 1781 Page 242
Tax Map 111.51-1-4

CTM-11

CTM-2

N16°27'08"E

S17°13'44"W

S84°22'24"E

778.36'

CTM-10

CIRF

U.S. PIERHEAD & BULKHEAD LINE
(APPROVED MAY 10, 1934)

EASEMENT FOR BIKE
PATH TO CITY OF TROY
ROLL 127 FRAME 2106

1528.11'

N

## LEGEND

| CTM-3 (GROUNDWATER) | | |
|---|---|---|
| Parameter | Concentration | SCG |
| Iron | 2,230 | 300 |
| Manganese | 303 | 300 |
| Selenium | 10.8 | 10 |

Depicts the Parameter "Iron" in groundwater at a concentration of 2,230 parts per billion (ppb) with its SCG of 300 ppb. Other parameters are similarly listed, as necessary.

CTM-13 — C.T Male Monitoring Well

MW-5(ESI) — Empire Soils Investigation Monitoring Well

BAR SCALE

100 0 50 100 200

1 inch = 100 ft.

NOTE:
1.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1.) BOUNDARY SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG. NO.:05-104, DATED NOV. 30, 2004.

| DATE | REVISIONS RECORD/DESCRIPTION | DRAFTED | CHECK | APPR. |
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DESIGNED :
DRAFTED : J.MARX
CHECKED : K.MOLINE
PROJ. NO: 07.7549
SCALE : 1" = 120'
DATE : DEC. 20, 2013

# FIGURE 6
# GROUNDWATER CONTAMINANTS ABOVE SCGS

## SOUTH TROY INDUSTRIAL PARK
## ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NY

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SHEET 6 OF 7

DWG. NO: 13-648

CAD DWG. FILE NAME:FIG-6_REM IMPACTS ABOVE SCGS.DWG

CAD DWG. FILE NAME:FIG-6_REM IMPACTS

# FIGURE 7:

## LOCATION OF COVER SYSTEM TYPES

XREFS: NONE

PROJECT NUMBER:07.7549

MATCH LINE SHEET 2

CAD DWG. FILE NAME: J:\07549\Env\Site Management Plan Drawings\Parcel 1\FIGURE 7_Location of Surface Cover Types.dwg

Lands Now or Formerly of
**TROY AND GREENBUSH RAILROAD ASSOCIATION**
**(NEW YORK CENTRAL RAILROAD COMPANY LESSEE)**
Tax Map No. 111.59-2-3

RAIL ROAD TRACKS

Lands Now or Formerly of
**TROY SLAG PRODUCTS CO. INC.**
Roll 98 Frame 1641
Tax Map No. 111.44-1-31

Lands Now or Formerly of
**TROY SLAG PRODUCTS CO. INC.**
Book 1235 Page 801
Tax Map No. 111.35-1-1

**PARCEL 1**

PARCEL 1
Lands Now or Formerly of
**RENSSELAER COUNTY INDUSTRIAL DEVELOPMENT AGENCY**
Book 1781 Page 242
Tax Map No. 111.43-1-1

**AREA=11.015± ACRES**

EAST INDUSTRIAL PARKWAY

Lands Now or Formerly of
**RONALD F. ANDERSON**
Book 1775 Page 258
Tax Map No. 111.51-1-3

BENCHMARK NORTHERLY BOLT ON HYDRANT ELEVATION=25.82

BENCHMARK XCUT SOUTH WEST BOLT OF HYDRANT ELEVATION=24.40

N09°46'03"E 5.99

N09°46'03"E

N79°49'38"W 353.44'

S11°20'36"W 607.80'

128.76'

PARCEL CONVEYED TO NEW PENN MOTOR EXPRESS, INC. BOOK 5973 PAGE 301 AREA=2,575±SQ.FT.

8' HIGH CHAIN LINK FENCE

6' HIGH CHAIN LINK FENCE

NEW PENN TRUCKING

Lands Now or Formerly of
**NEW PENN MOTOR EXPRESS, INC.**
Tax Map No. 111.51-1-1
Roll 215 Frame 485

453.47'

8.62'

278.36'

1195.45'

665.53'

332.66'

STEEP SLOPE

U.S. PIERHEAD & BULKHEAD LINE APPROVED MAY 10, 1934

H U D S O N  R I V E R

EASEMENT FOR BIKE PATH TO CITY OF TROY ROLL 127 FRAME 2106

P.O.B. PARCEL 1

POINT OF BEGINNING PARCEL 1

YORF LABERG GROUP

RETAINING WALL

4' HIGH PLASTIC CONSTRUCTION FENCE

12' HIGH CHAIN LINK FENCE

EDGE OF PAVEMENT

BUILDING

SINGLE YELLOW LINE DASHED

DOUBLE YELLOW LINE

ASPHALT CURBING

CONCRETE CURBING

BLACKTOP

ASPHALT WEDGE

BLUE STAKE POSSIBLE WATER SERVICE

UMH=FLOODED NO PIPES VISABLE SUMP @ 13.8±

UMH=NO PIPES VISABLE SUMP @ 12.1±

SEE MAP REFERENCE NO. 3

Lands Now or Formerly of
**THE COUNTY OF RENSSELAER**
Book Page
Tax Map No. 111.51-1-4

**AREA=5.940± ACRES**

**PARCEL 1A**
**(SEE FIGURE 6 OF FINAL ENGINEERING REPORT)**

**Map Notes:**

1. Vertical datum established from N.G.V.D. 1929.
2. Contour lines shown are at one half foot intervals.
3. The locations and features depicted in this map are approximate and do not represent an actual field survey.

**Map Reference:**

1. Preliminary "ALTA/ACSM Land Title Boundary & Topographic Survey" City of Troy, Rensselaer County, New York, dated December 13, 2012, last revised November 21, 2012, prepared by C.T. Male Associates, Dwg No. 10-713.

**Legend:**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BOL | Bollard | EM | Electric Marker | MFP | Metal Fence Post | TRANS | Transformer | UPER | Utility Pole With Electric Riser |
| CPED | Cable Pedestal | | Guy Wire | MW-8 | Monitoring Well | TMH | Telephone Manhole | UMH | Unknown Manhole |
| CIRF | Capped Iron Rod Found | GM | Gas Marker | OHW | Overhead Wires | ELEV=28.12 | Top Of Spoil Pile Elevation | WV | Water Valve |
| CBR | Catch Basin Round | GV | Gas Valve | PIV | Post Indicator Valve | E | Underground Electric Mark Out | | Water Edge |
| CBCI | Catch Basin Curb Inlet | GPOST | Gate Post | PVC | Poly-Vinyl-Chloride | T | Underground Telephone Mark Out | | Depicts area of the site containing vegatated soil cover system and geotextile fabric demarcation layer covering contaminated soil |
| CBS | Catch Basin Square | HDPE | High Density Polyethylene | RCIRF | Red Capped Iron Rod Found | CTV | Underground Cable Television Mark Out | | |
| DMH | Drainage Manhole | HYD | Hydrant | SB-211A | Soil Boring | G | Underground Gas Mark Out | | |
| ES | Drainage End Section | HH | Hand Hole | SMH | Sanitary Manhole | W | Underground Water Mark Out | | Depicts area of the site containing asphalt cover system with no demarcation layer covering covering contaminated soil |
| DIP | Ductile Iron Pipe | IRF | Iron Rod Found | | Top And Bottom Of Curb Elevations | | Utility Pole | | |
| EPOST | Electric Post | LP | Light Pole | TPED | Telephone Pedestal | UPTR | Utility Pole With Telephone Riser | | |

BAR SCALE
40 0 20 40 80
1 inch = 40 ft.

| DATE | | REVISIONS RECORD/DESCRIPTION | DRAFTER | CHECK | APPR. |
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DESIGNED:
DRAFTED : J.MARX
CHECKED : K.MOLINE
PROJ. NO: 07.7549
SCALE : 1"=40'
DATE : DEC. 20, 2013

# FIGURE 7
# LOCTION OF COVER SYSTEM TYPES

## SOUTH TROY INDUSTRIAL PARK
## NEW YORK STATE ENVIRONMENTAL RESTORATION PROGRAM

CITY OF TROY — RENSSELAER COUNTY, NEW YORK

**C.T. MALE ASSOCIATES**
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 • FAX 518.786.7299

SHEET 7 OF 7
DWG. NO: 13-648

MATCH LINE SHEET 2

# APPENDIX A: EXCAVATION WORK PLAN

## A-1 Notification

At least 15 days prior to the start of any activity that is reasonably anticipated to encounter remaining contamination, the Site Owner or their representative will notify the Department. This notification will be made to:

Ian Beilby, P.E.
Environmental Engineer 2
New York State Department of Environmental Conservation
Remedial Bureau B
625 Broadway, 12th Floor
Albany, NY 12233-7016
Ian.deilby@dec.ny.gov

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for Site re-grading, intrusive elements or utilities to be installed below the soil cover, or any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this Excavation Work Plan (EWP) including the implementation of the CAMP if the excavation is planned to breach the site cover and contact with contaminated materials,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format,
- Identification of disposal facilities for potential waste streams,

- Identification of sources of any anticipated backfill, along with all required chemical testing results.

**A-2 Soil Screening Methods**

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional or person under their supervision during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil. Existing fill soils will not be allowed to be used as part of the cover system.

**A-3 Stockpile Methods**

Stockpiles of imported clean soil (i.e., soil from above the demarcation layer) will be continuously encircled with a berm and/or silt fence to mitigate stormwater runoff/sediment transport. Hay bales or other acceptable erosion and sediment control devices/methods will be used as needed near catch basins, surface waters and other discharge points in accordance with applicable stormwater regulations.

Stockpiles of existing soil/fill will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles of existing soil/fill will be inspected at a minimum once each week and after every storm event for evidence of erosion/sediment runoff. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

### A-4 Materials Excavation and Load Out

A qualified environmental professional or person under their supervision will observe and record all invasive work and the excavation and load-out of all excavated material.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this EWP.

The presence of utilities and easements on the Site will be investigated by the owner of the property and/or its contractor. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

### A-5 Materials Transport Off-Site

Transport of existing soil materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Existing soil material transported by trucks or by roll-off containers exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks or components thereof that come into contact with existing site soils beneath the cover system will be washed prior to leaving the site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Truck transport routes are to be considered prior to future development. The most appropriate route takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) using city-mapped truck routes; (c) minimizing off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Minimal off-site queuing of trucks along East Industrial Parkway only, will be permitted.

**A-6 Materials Disposal Off-Site**

Soil/fill/solid waste excavated from below the cover system, if removed from the Site, will be treated as contaminated/regulated material and will be transported and disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class

of disposal facility if appropriate (i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste pursuant to 6 NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility).

**A-7 Materials Reuse On-Site**

Soils used for the cover system (i.e., above the demarcation layer) may be reused on-site or off without restriction. Historic fill and other Site soils with no evidence of contamination is acceptable for re-use on-site below the demarcation layer, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. Historic fill and other Site soils with evidence of petroleum impacts as determined by a qualified environmental professional approved by NYSDEC will not be allowed to be re-used on-site unless PID screening results and chemical testing is reviewed and allowed by NYSDEC. The frequency and chemical parameters of analytical testing may vary depending on the type of reuse but should be discussed with NYSDEC after reporting the evidence of a petroleum release and prior to implementing sampling. The following guidelines are also provided:

- Sampling may be omitted for soils which are not obviously petroleum contaminated and which will be reused below the demarcation layer or for soils which will be disposed of off-site. Any sampling required by the disposal facility would still need to be conducted.
- In order for the soil to be reused off-site, it would have to meet the requirements of 6 NYCRR 375-6.7(d) (i.e., not comprised of solid waste)

and meet the unrestricted soil cleanup objectives (SCOs) defined by 6 NYCRR 375-6.8(a).

- In order for the soil to be used as part of the cover system, it would have to meet the requirements of 375-6.7(d) and the lower of the SCOs for the protection of human health for restricted residential use and the SCOs for the protection of groundwater defined by 6 NYCRR 375-6.8(b).
- Soil which is sampled, but does not meet the requirements of the previous two bullets and is not obviously petroleum contaminated, may be reused below the demarcation layer or disposed off-site.
- Soils which are obviously petroleum contaminated must be treated and/or disposed of off-site. If treated soils are to be reused, sampling would be necessary to determine appropriate reuse.

**A-8 Fluids Management**

Liquids to be removed from the Site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will be sampled, and depending on the analytical results, may be recharged back to the land surface or subsurface of the Site.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

**A-9 Cover System Restoration**

If the cover system is breached for soil removal or other invasive activities, the cover system will be restored in a manner that complies with the Record of Decision. The demarcation layer, consisting of a geotextile filter fabric or equivalent material will be replaced to provide a visual reference to the top of the remaining contamination that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that

which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy. A figure showing the modified surface will be included in the subsequent Periodic Review Report and will be updated in the SMP.

**A-10 Backfill from Off-Site Sources**

Imported backfill proposed for use at the Site will be approved by the qualified environmental professional and/or NYSDEC. Imported backfill will be in compliance with provisions in this SMP prior to delivery to the Site.

The source of imported backfill will be documented. Backfill from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site. Solid waste will not be imported to the Site.

Imported backfill will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards for imported backfill are listed in Appendix 5 of DER-10, Technical Guidance for Site Investigation and Remediation (May 2010), under the commercial use column. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC.

Imported backfill shall be deemed clean by analytical testing. Imported backfill will be analyzed according to the following schedule on the next page:

<table>
<tr><td colspan="4">Recommended Number of Soil Samples for Soil Imported to the Site</td></tr>
<tr><td>Contaminant</td><td>Volatile Organic Compounds</td><td colspan="2">Semi-volatile Organic Compounds, Inorganics & PCBs/Pesticides</td></tr>
<tr><td>Imported Backfill Quantity in Cubic Yards</td><td>Discrete Samples</td><td>Composite Samples</td><td>Discrete Samples/Composites</td></tr>
<tr><td>0 – 50</td><td>1</td><td>1</td><td rowspan="8">3-5 Discrete samples from different locations in the fill being provided will compromise a composite sample for analysis</td></tr>
<tr><td>51 – 100</td><td>2</td><td>1</td></tr>
<tr><td>101 – 200</td><td>3</td><td>1</td></tr>
<tr><td>201 – 300</td><td>4</td><td>1</td></tr>
<tr><td>301 – 400</td><td>4</td><td>2</td></tr>
<tr><td>401 – 500</td><td>5</td><td>2</td></tr>
<tr><td>501 – 800</td><td>6</td><td>2</td></tr>
<tr><td>801 – 1,000</td><td>7</td><td>2</td></tr>
<tr><td>> 1,000</td><td colspan="3">Add an additional two volatile organic compound discrete samples and one composite sample for each additional 1,000 cubic yards or consult with NYSDEC</td></tr>
</table>

**A-11 Stormwater Pollution Prevention**

Prior to implementing any Site disturbance greater than one acre, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared in accordance with the regulations for erosion and sediment controls and water quantity/quality controls. This will provide guidance to the contractor doing the construction activities. With the preparation of the SWPPP comes a requirement for submitting a Notice of Intent to NYSDEC upon completion of the SWPPP to document the project exists and gain permit coverage. The NOI will be completed with direction and input from the Site owner and/or remedial party. In addition to the SWPPP, Erosion and Sediment Control (ESC) plans will be

designed and prepared as applicable for implementing the construction activity in accordance with the stormwater regulations.

For implementing construction activities with disturbance with less than one acre, erosion and sediment controls (i.e., silt fencing, hay bales, etc.) will be installed around the down gradient perimeter of the work areas and around temporary stockpiles of excavated soil and imported backfill. Erosion and sediment controls will be observed once a week, and repaired within 24 hours of discovery of deficiencies.

**A-12 Contingency Plan**

If underground tanks, buried drums or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until properly trained personnel and equipment are mobilized to address the condition.

Sampling will be performed on tank or drum contents and surrounding soils, etc., as necessary, to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), or by the disposal facility's requirements, unless the Site history and previous sampling results provide a sufficient justification to reduce the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will also be included in the Periodic Review Reports prepared pursuant to Section 5 of this SMP.

**A-13 Community Air Monitoring Plan**

A Community Air Monitoring Plan (CAMP) will be prepared and submitted to the NYSDEC for approval prior to any planned Site disturbance. The CAMP will be

followed for any ground intrusive work in general accordance with the New York State Department of Health Generic CAMP dated June 2000, which is appended as Appendix E of this SMP.

Monitoring for particulate dust will be conducted during all ground intrusive activities based on generally prevailing wind conditions. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

All readings must be recorded and be available for State (DEC and DOH) personnel to review. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH.

**A-14 Odor Control Plan**

Nuisance odors were not encountered during the implementation of the remedy and during the disturbance of existing Site soils. Therefore, an odor control plan is not needed for future excavation at the Site. If nuisance odors are observed during future Site excavation work, actions should be implemented to mitigate off-site impacts from odors.

If needed, the odor control plan should be capable of controlling emissions of nuisance odors off-site (and on-site, if there are residents or tenants on the property). Specific odor control methods to be used could include (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors cannot be controlled by the previous means, additional measures to control the odor may include (a) direct load-out of soils for off-site disposal; (b) use of chemical odorants in spray or misting systems; and (c) implement monitoring of odors in surrounding neighborhoods.

If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until nuisance odors have been abated. NYSDEC and NYSDOH will be notified of odor complaints about the project. Implementation of odor controls, including

the halt of work, is the responsibility of the Site owner and/or remedial party's QEP, and any measures that are implemented will be discussed in the Periodic Review Report.

**A-15 Dust Control Plan**

A dust suppression plan that addresses dust management during invasive on-site work below the cover system will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use water trucks for road wetting. The trucks will be equipped with water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

# APPENDIX B: METES AND BOUNDS

**DESCRIPTION**
**PARCEL 1**
**PORTION OF LANDS OF**
**RENSSELAER COUNTY INDUSTRIAL DEVELOPMENT AGENCY**
**CITY OF TROY, COUNTY OF RENSSELAER, STATE OF NEW YORK**

All that certain tract, piece or parcel of land situate in the City of Troy, County of Rensselaer, State of New York, lying East of the Hudson River, North and South of Main Street, and being more particularly bounded and described as follows:

COMMENCING at the point of intersection of the division line between the lands now or formerly of Rensselaer County Industrial Development Agency as described in Book 1578 of Deeds at Page 198 on the South and the lands now or formerly of New Penn Motor Express, Inc. as described in Roll 215 of Deeds at Frame 485 on the North with the Westerly street boundary of East Industrial Parkway; thence from said point of commencement along said division line North 84 deg. 22 min. 24 sec. West 453.47 feet to a point; thence continuing through the said lands now or formerly of Rensselaer County Industrial Development Agency North 84 deg. 22 min. 24 sec. West 65.53 feet to a point on the Easterly U.S. Pierhead and Bulkhead line of the Hudson River (approved May 10, 1934), said point also being the point of beginning of the herein described parcel and runs thence from said point of beginning along said Easterly U.S. Pierhead and Bulkhead line North 16 deg. 27 min. 08 sec. East 1,195.45 feet to its point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency on the South and the lands now or formerly of Troy Slag Products Company, Inc. as described in Book 1235 of Deeds at Page 801 on the North; thence along said division line South 81 deg. 04 min. 49 sec. East 413.20 feet to its

point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency on the South and other lands now or formerly of Troy Slag Products Company, Inc. as described in Roll 98 of Deeds at Frame 1641 on the North; thence along said division line South 83 deg. 02 min. 01 sec. East 184.28 feet to its point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency on the West and the lands now or formerly of Troy and Greenbush Railroad Association (New York Central Railroad Company, Lessee) on the East; thence along said division line the following two (2) courses: 1) Southerly along a curve to the left having a radius 10,447.00 feet, an arc length of 503.75 feet and a chord bearing of South 07 deg. 00 min. 54 sec. West 503.70 feet to a point of tangency; and 2) South 05 deg. 38 min. 01 sec. West 687.13 feet to its point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency on the North and the lands now or formerly of Ronald F. Anderson as described in Book 1775 of Deeds at Page 258 on the South; thence along said division line North 84 deg. 27 min. 40 sec. West 240.00 feet to its intersection with the Easterly street boundary of East Industrial Parkway; thence along said Easterly street boundary the following three (3) courses: 1) North 05 deg. 38 min. 01 sec. East 45.00 feet to a point; 2) North 11 deg. 20 min. 36 sec. East 126.95 feet to a point; and 3) North 09 deg. 46 min. 03 sec. East 608.49 feet to the

Northeasterly terminus of East Industrial Parkway; thence along the Northerly terminus of East Industrial Parkway North 80 deg. 14 min. 25 sec. West 50.00 feet to the Northwesterly terminus of East Industrial Parkway at its point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency on the East and the lands now or formerly of New Penn Motor Express, Inc. as described in Book 5973 of Deeds at Page 301 on the West; thence along said division line North 09 deg. 46 min. 03 sec. West 5.99 feet to its point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency as described in Book 1578 of Deeds at Page 198 on the North and the said lands now or formerly of New Penn Motor Express, Inc. as described in Book 5973 of Deeds at Page 301 on the South; thence along said division line North 79 deg. 49 min. 38 sec. West 353.44 feet to its point of intersection with the division line between the said lands now or formerly of Rensselaer County Industrial Development Agency on the West and the said lands now or formerly of New Penn Motor Express, Inc. and other lands now or formerly of New Penn Motor Express, Inc. as described in Roll 215 of Deeds at Frame 485 on the East; thence along said division line South 17 deg. 13 min. 45 sec. West 786.98 feet to a point; thence through the said lands now or formerly of Rensselaer County Industrial Development Agency North 84

deg. 22 min. 24 sec. West 65.53 feet to the point or place of beginning and containing 11.015± acres of land.

Subject to any easements, restrictions or covenants of record.

C.T. MALE ASSOCIATES

James F. Cook, P.L.S.

September 27, 2001
Revised August 5, 2014
JFC/am/jc/jfc/amb
C.T. Male Project No. 01.7300 (ref. 07.7549)

# APPENDIX C: SITE-WIDE INSPECTION FORM

**SOUTH TROY INDUSTRIAL PARK (STIP) ERP SITE**
**SMP Parcel 1 Inspection Form**



Date:_____

Inspection Personnel:_____

Weather Conditions:_____

Surface soil on Parcel 1 is contaminated by volatile organic compounds, semi-volatile organic compounds and metals at levels exceeding restricted commercial SCOs. Currently, protection of public health and the environment to contaminated media is provided by an engineered cover system consisting of a one-foot thick soil cover system underlain by geotextile filter fabric or an asphalt and gravel sub-base cover system. The locations of the soil and asphalt cover systems are depicted on the attached site plan.

This SMP Inspection Form will be utilized to observe Parcel 1 of the STIP site to document that the Engineering Controls are intact and are protective of human health and the environment from underlying contamination.

Attachments to this Inspection Form shall include a Site Plan for Parcel 1 of STIP.

**Cover System Inspection**

Has the overall condition of the cover system changed from the previous inspection (if first inspection, respond with N/A). Yes____ No___

If Yes, provide detail and identify on Site Plan

Is soil cover system adequately vegetated to prevent erosion. Yes____ No___

If No, identify locations and provide detail on attached Site Plan

**SOUTH TROY INDUSTRIAL PARK ERP SITE**
**SMP Parcel 1 Inspection Form**



Is there evidence that the soil cover system has been eroded by wind and/or water. Yes____ No___

If Yes, identify locations and provide detail on attached Site Plan

Is there evidence that the soil cover system has been breached (i.e., areas where surface appears patched, signs of excavation). Yes____ No___

If Yes, identify locations and provide detail on attached Site Plan

Is there evidence that the asphalt cover systems has been breached (i.e., areas where surface appears patched, signs of excavation). Yes____ No___

If Yes, identify locations and provide detail on attached Site Plan

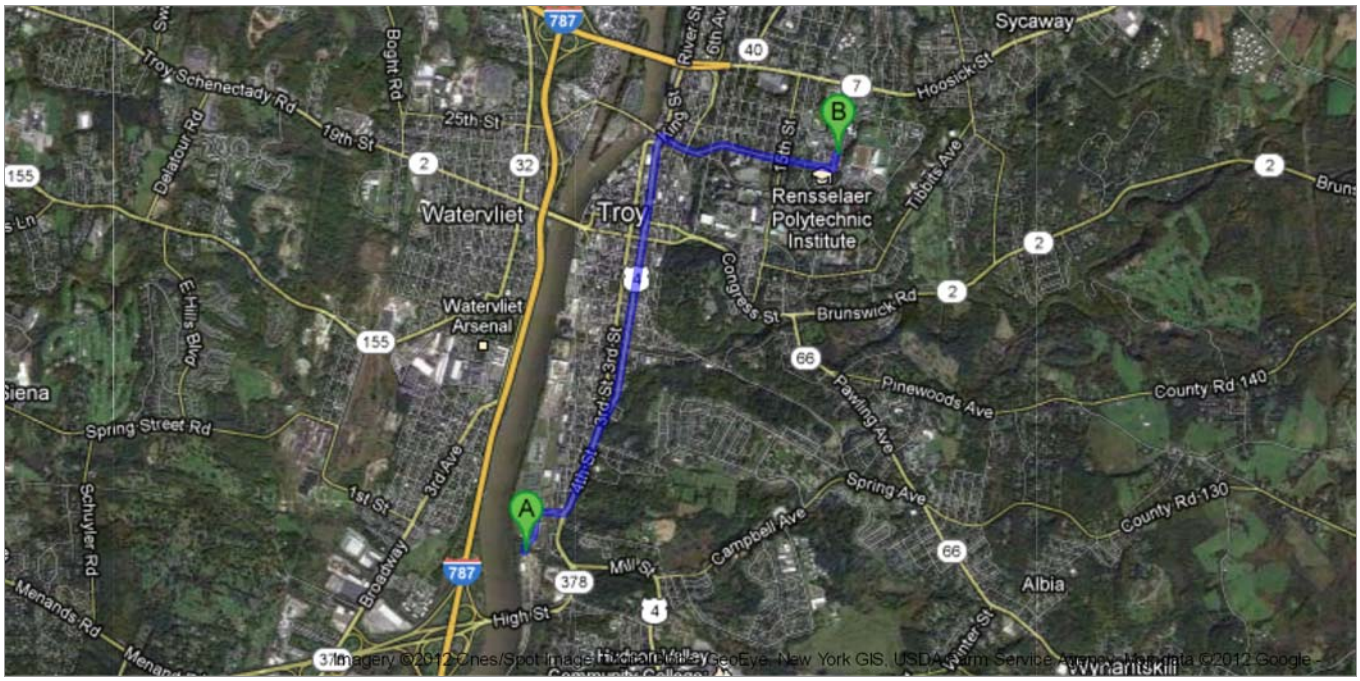
Have photographs been taken of the cover system for inclusion in the site inspection report. Yes____ No___

If No, give reason

# APPENDIX D: MAP SHOWING ROUTE TO SAMARITAN HOSPITAL

Google

To see all the details that are visible on the screen, use the "Print" link next to the map.




## Driving directions to 2215 Burdett Ave, Troy, NY 12180

3D

**King Rd**
Troy, NY 12180

| | |
|---|---|
| **1.** Head **north** on **King Rd** toward **Main St** | 0.2 mi |
| **2.** Turn right onto **Main St** | 0.1 mi |
| **3.** Turn left onto **4th St** | 1.9 mi |
| **4.** Turn right onto **Federal St** | 0.2 mi |
| **5.** Slight left onto **Peoples Ave** | 0.7 mi |
| **6.** Turn left onto **Burdett Ave**<br>Destination will be on the left | 367 ft |

**2215 Burdett Ave**
Troy, NY 12180

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

# APPENDIX E: NEW YORK STATE DEPARTMENT OF HEALTH GENERIC COMMUNITY AIR MONITORING PLAN

**New York State Department of Health**
**Generic Community Air Monitoring Plan**

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/$m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/$m^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/$m^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/$m^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009