CHALMERS BUILDING

CITY OF AMSTERDAM, MONTGOMERY COUNTY, NEW YORK

Construction Completion Report

NYSDEC Site Number: E429011

C.T. Male Associates Project Number 10.1580

Prepared for:

City Of Amsterdam

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Amsterdam, New York 12010

Prepared by:

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MARCH 2013

CERTIFICATIONS

I, Daniel M. Shearer, PE, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Final Interim Remedial Measures Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Final Interim Remedial Measures Work Plan.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

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, Daniel M. Shearer, PE, of Saratoga Associates, am certifying as Owner's Designated Site Representative for the site.

081118	April 30, 2013	
NYS Professional Engineer #	Date	Signature

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LIST OF ACRONYMS

Acronym	Definition
ACM	Asbestos Containing Material
AECC	Asbestos & Environmental Consulting Corporation
CAMP	Community Air Monitoring Plan
CCR	Construction Completion
CY	Cubic Yards
ECs/ICs	Engineering and Institutional Controls
EPA	Environmental Protection Agency
HASP	Site Specific Health and Safety Plan
ICR	Industrial Code Rule
IRMs	Interim Remedial Measures
MCES	MC Environmental Services, Inc.
MG/KG	Milligrams Per Kilogram
MG/L	Milligrams Per Liter
NYSDEC (or Department)	New York State Department of Environmental Conservation
OSHA	Occupational Safety and Health Administration
PCS	Petroleum Contaminated Soil
PID	Photo Ionization Detector
PPM	Parts Per Million
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
S/MMP	Soil/Materials Management Plan
SAC	State Assistance Contract
SCOs	Soil Cleanup Objectives
SFSI	Supplemental Focused Site Investigation
SMP	Site Management Plan
SOPs	Site Operation Plans
SSI	Supplemental Site Investigation
SVOCs	Semi-volatile Organic Compounds
SWPPP	Storm Water Pollution Prevention Plan
TAL	Target Analyze List
TCL	Target Compound List
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

CONSTRUCTION COMPLETION REPORT

1.0 BACKGROUND AND SITE DESCRIPTION

The City of Amsterdam entered into a State Assistance Contract (SAC) #C303155 with the New York State Department of Environmental Conservation (NYSDEC) in 2006, to investigate and remediate a 3.31-acre property located in City of Amsterdam, Montgomery County, New York. The property was remediated to commercial use. The remediation was conducted in the form of Interim Remedial Measures (IRMs).

The site is located in the County of Montgomery, New York and is identified as Block 1 and Lots 13 (0.77 acres) and 14 (2.54 acres) on City Amsterdam Tax Map # 55.042. The site is situated on an approximately 3.31-acre area bounded by Mohawk River to the north, Gilliland Avenue to the south, Bridge Street to the east, and vacant land (City pump station) and a private storage garage to the west (see Figure 1). The boundaries of the site are fully described in Appendix A: Metes and Bounds.

1.1 PREPARATION AND APPROVALS

C.T. Male Associates Engineering, Surveying, Architecture & Landscape Architecture, P.C. (C.T. Male Associates) has prepared this Construction Completion Report for Saratoga Associates for their submission to the City of Amsterdam and the NYSDEC. C.T. Male Associates was a subcontractor to Saratoga Associates, the design engineer for this project, and managed the field engineering component of this project.

2.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND IRM CONTRACT

2.1 INTERIM REMEDIAL MEASURES

IRMs were completed as part of site investigations that identified sources of environmental impacted media and structures on site. The IRMs were detailed within the Final Interim Remedial Measures Work Plan prepared by Saratoga Associates dated October 29, 2010, which was approved by NYSDEC. Plans and specifications were prepared and presented in a Project Manual dated October 29, 2010, which was also approved by NYSDEC for public release and bidding.

The IRMs were generally categorized as: demolition of the structures, and removal and disposal of hazardous wastes and substances. A breakdown of the sub-tasks for each is as follows:

Demolition

- Asbestos Abatement
- Lead Paint Removal
- Caulk Removal
- Lead Flashing Removal
- Demolition of All Structures

Removal of Hazardous Wastes and Substances

- Mercury Containing Items Removal
- Light Ballast Removal
- Drum Consolidation and Disposal
- Underground Storage Tank Permanent Closure by Removal
- Petroleum Impacted Soil Removal (from tanks)

- Transformer Removal
- PCB Impacted Soil Removal (from transformers)
- Lead Impacted Soil Removal Beneath Structure 2

2.1.1 Asbestos Abatement

Asbestos containing material (ACM) was present in the site structures and documented through a formal asbestos survey by Asbestos & Environmental Consulting Corporation (AECC) of East Syracuse, New York. ACM was abated by Midlantic Environmental, Inc. (Midlantic) of New Hartford, New York, as a subcontractor to Ritter and Paratore Contracting, Inc. (Ritter) in accordance with New York State Industrial Code Rule 56. C.T. Male Associates completed the project monitoring and prepared an asbestos closeout report, which is presented in Appendix B.

2.1.2 Lead Paint Removal

Lead based paint was present in the site structures as determined by Saratoga Associates. Loose paint, where present, was removed from walls, floors and ceilings and contained within 55 gallon drums. Due to the abundance of leftover debris within the building, the lead paint could not be contained separately from the debris and therefore leftover debris was considered to be lead based paint impacted waste. A total of 28 drums of lead paint were containerized for disposal.

2.1.3 Caulk Removal

Caulks, impacted by PCBs and/or lead, were identified around the windows of the structures. The windows were abated by Midlantic as part of the asbestos abatement performed under controlled procedures and applicable variances.

2.1.4 Lead Roof Flashing Removal

Roof flashing was located around the structures. As the flashing was made of lead and tested to contain 64% lead, it could be considered hazardous waste. However, scrap metal is not subject to RCRA Subtitle C regulation when recycled (EPA exemption under 40 CFR 261.4(a)(13) and 40 CFR 261.6(a)(3)(ii)). Midlantic recycled the roof

flashing during their asbestos abatement activities.

2.1.5 Demolition of All Structures

Once the ACM was satisfactorily removed from the seven (7) structures on-site, demolition was performed. Most of the demolition was completed up to the elevator shaft. As non-friable ACM was left in the elevator shaft and the difficulties with abating the black mastic ACM on the inside of the elevator shaft, Ritter and their subcontractor Midlantic elected to take down the elevator shaft by controlled demolition with the asbestos left in place following the applicable New York State Industrial Code Rule 56 (ICR-56). The demolished concrete with black mastic ACM was separated from the rest of the demolished concrete and disposed of as non-friable asbestos containing debris at Fulton County Landfill in Johnstown, New York.

Demolition of the ACM abated portions of the building was performed in a controlled manner, separating the steel beams and rebar from the concrete, and crushing the concrete to six (6) inch minus maximum aggregate size for use as on-site backfill. The steel was disposed of off-site at a steel recycling yard. A significant amount of wood was also generated from the demolition of the structures as the quantity of flooring was greater than estimated. Wood materials were disposed of at Fulton County Landfill.

2.1.6 Mercury Containing Items Removal

Prior to demolition by Ritter, the interiors of all structures were surveyed for mercury containing thermostats and mercury containing fluorescent light bulbs. None of the previously identified thermostats were able to be located and were assumed to be removed by trespassers as the building sat dormant for many years. The light bulbs were collected and disposed of off-site as universal waste.

2.1.7 Light Ballast Removal

At the same time the light bulbs were removed, the fixtures were assessed for ballasts. Whether PCB containing or not, the ballasts were containerized in seven (7) 55-gallon drums for off-site disposal. The light fixture carcasses were recycled as scrap metal.

2.1.8 Drum Consolidation and Disposal

A few pre-existing drums were located on-site, some of which were investigation derived wastes from previous site investigation work performed at the site by others. Additional drums of investigation derived waste were also generated at the site during the "Supplemental Site Investigation (SSI)" and "Supplemental Focused Site Investigation (SFSI)". The results of these investigations are discussed in the Site Investigation Report prepared by Saratoga Associates. At the end of the demolition project, all of the drums were consolidated, characterized and disposed of off-site.

2.1.9 Underground Tank Permanent Closure by Removal

Two underground storage tanks were located northeast of Structure 6 (Tank 1) and north of Structure 5 and 6 (Tank 2). The tanks were 20,000 gallons each in capacity, and were formerly used to store a heavy fuel oil, No. 6. At the time of tank top exposure, a total of 31,016 gallons (16,416 and 14,600, respectively) of No. 6 fuel oil was measured in the tanks.

Mr. Dan Lightsey of NYSDEC, was notified on May 25, 2011 of the planned permanent closure of the tanks prior to start of work using a "PBS Notification for Tank Installation, Closing, Repair or Reconditioning" Form. MC Environmental Services, Inc. (MCES) was subcontracted by Ritter to remove the tank contents and clean the interior of the tanks. This work began on June 28, 2011. Because of the high viscosity of the oil, MCES utilized heating coils to warm the fuel oil to lower its viscosity. The oil was removed over several days utilizing vacuum tank trucks. The tanks contents were completely emptied and cleaned by July 8, 2011.

The tanks were not removed from the ground until November 2011. The amount of time between contents removal and tank excavation was due, in part, to the floodplain permit application and approval process, which was necessary for Tank 2.

During the month of August 2011, Hurricane Irene negatively affected the project site. Although the site was not flooded, rainfall entered the temporarily closed tanks during this storm event. On November 2, 2011, an additional 742 gallons of water,

conservatively presumed contaminated with residual fuel oil, was removed from the tanks and properly disposed before Tank 1 and Tank 2 were excavated. The effective dates of removal were November 2, 2011 for Tank 1 and November 18, 2011 for Tank 2.

During the removal of Tank 1, a buried pipe was unexpectedly encountered and suspected to be asbestos cement pipe. The pipe was approximately 5 feet below grade and located in the extreme northwest corner of the excavation. Work in the area was temporarily halted, but later resumed when the tank carcass was removed without further disturbance to the asbestos cement pipe. A section of the 10" diameter asbestos cement pipe (the pipe is part of a larger piping run of an unknown overall length) measuring approximately 20 linear feet, was disturbed by the bucket of an excavator. Approximately 12 linear feet of the pipe was intact, the remaining eight (8) linear feet of the pipe was split longitudinally. All of the pipe sections remained in the general area where they were originally observed. The overall scope of the asbestos related work did not address the remaining, unexcavated portions of the pipe and therefore, a variance amendment approved by NYSDOL was sought and received. The damaged sections of the pipe and surrounding soil were abated with the necessary controls and the material was disposed of as asbestos containing.

2.1.10 Petroleum Impacted Soil Removal (from tanks)

During the removal of Tank 2, a small amount of petroleum contamination was encountered at one end of the tank. It appeared that the tank leaked to the concrete hold down pad and down along side of the tank in a very localized area. A few excavator buckets of black stained soil were removed, staged on plastic and covered with plastic. Residual vapors -registering up to nine (9) ppm on the a photo-ionization detector (PID)that was used onsite during the IRMs - were present in the soil remaining in-place (but no black staining evident) at the elevation of the tank's underlying concrete pad. No further excavation was performed because of the tank's proximity to the floodwall, the complexity of meeting excavation conservative side sloping requirements of the Article 16 Permit, and the potential to encounter buried drainage piping that may contain asbestos. One of the end point floor soil samples for Tank 2 closure had vapors present

above background and was analyzed to determine the severity of remaining impacts. The analytical results of the sampling are discussed in Section 4.4.

2.1.11 Transformer Removal

Electrical equipment including transformers, capacitors and drums of what appeared to be dielectric oil were located within the courtyard of the building. On June 20, 2011, this equipment was removed from the site and properly disposed of off-site. The equipment and waste removed included 24 capacitors, 3 transformers with cores, 3 transformers without cores, 6 poles, 1 recloser, and 3 potential transformers. None of the capacitors, recloser and potential transformers had PCB oil within them. The dielectric oil within the transformers and drums contained less than 50 parts per million (ppm) of PCBs. All of the equipment and oil was transported by TCI of NY, LLC, of Hudson, New York, to their own facility.

2.1.12 PCB Impacted Soil Removal (from transformer area)

Soil samples collected during the preliminary site investigative phase of this project identified PCBs in soil within the courtyard. Soils within the courtyard area were excavated to a depth of one foot below ground surface to remove PCB contamination. In addition, where mounds or non-native appearing topographic features (i.e., piles) of soils were present, the entire mound of soil was removed.

Upon removal of the PCB impacted soil from the courtyard, end point soil samples were collected to determine that the quality of soil remaining in-place with respect to PCBs. The analytical results of the sampling are discussed in Section 3.3.2.

PCB impacted soil removal activities were completed early in the project schedule to mitigate the potential for co-mingling the soils with building debris from demolition. After the impacted soil was removed from the courtyard, a demarcation fabric was placed and a layer of crushed brick and concrete was placed over the fabric. Wood and other debris that fell into the building courtyard was removed toward the later stages of the project, but the demarcation fabric and debris remained. Therefore, this demarcation fabric serves as a secondary fabric beneath the surface cover system, which

also has a demarcation fabric across the entire site.

2.1.13 Lead Impacted Soil Removal Beneath Structure 2

Lead impacted soils were identified beneath Structure 2 during the Focused Site Investigation as described in the Site Investigation Report prepared by Saratoga Associates. The lead impacted soils were six (6) to twelve (12) feet below the basement floor slab that was more than eight (8) feet below the site's ground surface. A ramp was made to access the footprint of lead impacted soil whereby the impacted soil had to be excavated/handled twice to be loaded in transportation vehicles for off-site disposal. The impacted soil removal work began on October 20, 2011 and continued until October 28, 2011. No end point soil sampling was required to be performed upon completion of lead impacted soil removal as the pre-excavation investigation was used to delineate area of impacts as approved by NYSDEC.

During the lead impacted soil excavation on October 24, 2011, an isolated "pocket" of petroleum contaminated soil was encountered and NYSDEC Spill #1109309 was assigned to the discovery. A small volume of impacted soil (i.e., couple of excavation buckets) was found, and based on PID screening (maximum PID reading of 40 ppm) the soil was removed to background PID readings in the surrounding soil. Based on input received from NYSDEC, end point soil samples were collected; one from the floor of the excavation ("Lead Spill-Floor"), one from the two excavation side walls ("Lead Spill-SW#1") and one from the other two excavation side walls ("Lead Spill-SW#2"). Analytical results revealed a few semi-volatile organic compounds detections, however the concentrations were below 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives. Because there were no PID readings above background, it was assumed the residual detections were related to the presence of urban fill rather than the presence of petroleum contamination. NYSDEC closed Spill #1109309 on November 28, 2011.

2.2 OPERABLE UNITS

There were no formal operable units established for this site. There were two (2) parcels of land that were remediated, known as Block 1 Lot 13 (0.77 acres) and Lot 14 (2.54 acres) on City Amsterdam Tax Map # 55.042. The larger parcel of land was improved with structures and contained the other environmental features that required clean up (i.e., underground storage tanks). The smaller parcel of land was vegetated undeveloped land. During the completion of the IRMs, this smaller parcel of land was investigated through the collection and analysis of additional surface soil samples with the pre-approval of the NYSDEC. The results of the investigation determined the parcel to be environmentally impacted. This finding required the smaller parcel to be treated in the same manner as the larger parcel; with placement of a surface cover system.

The building complex was made up of multiple structures forming an "O" shape within an open courtyard in the middle. These structures were identified throughout the project as Structures 2 (4½ stories), 3 (4½ stories) and 7 (7 stories). A smaller two-story addition (Structure 1) was present on the northeastern corner of Structure 2. Three (3) smaller two-story building additions known as Structures 4, 5 and 6 were attached to Structure 2. Structures 4, 5 and 6 were in severe stages of deterioration at the start of the IRMs. Figure 2 shows the configuration of the structures on the L100 Existing Conditions Plan taken from the Project Manual.

2.3 IRM CONTRACT

The IRM for this site was performed as a single unit price contract between the City of Amsterdam (Owner) and Ritter and Paratore Contracting, Inc. (Ritter) of 2435 State Route 5, Utica, New York. Ritter subcontracted a large portion of the work (asbestos abatement and related) to Midlantic Environmental, Inc. (Midlantic) of 42 Genesee Street, New Hartford, New York. The IRM work was let for public bid in November 2010.

Sealed bids were received and opened by the City of Amsterdam on December

15, 2010 at the City's Common Council Chambers. After reviewing the bids submitted and gaining authorization to award on January 4, 2011 from the NYSDEC under the NYS Environmental Restoration Program, the contract for the Interim Remedial Measures at 21-41 Bridge Street and Gilliland Avenue was awarded to Ritter & Paratore Contracting Inc. at the Common Council meeting on Tuesday, January 4, 2011 for the contract amount of $1,749,560.00. Final completion was achieved in late 2012.

3.0 DESCRIPTION OF IRMS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC approved IRM Work Plan for the Chalmers Building Environmental Restoration Project site (October 2010). Deviations from the IRM Work Plan are noted below.

3.1 GOVERNING DOCUMENTS

The IRMs were to be performed in accordance with the Site Investigation Health and Safety Plan, Quality Assurance Project Plan, Soil/Materials Management Plan, Stormwater Pollution Prevention Plan, Community Air Monitoring Plan, Contractors Site Operation Plans, and Citizen Participation Plan. The use of these plans is described in the following sections.

3.1.1 Site Specific Health & Safety Plan (HASP)

ENSR Corporation (ENSR) prepared the Site Investigation Health and Safety Plan (HASP), dated November 2006, for the site investigation phase and IRMs at the Site. ENSR's HASP was accepted by NYSDEC prior to start of work. The HASP was provided to Saratoga Associates and C.T. Male Associates' employees that worked on the project, with a copy offered to the Contractors for reference. Each of the Contractors that worked on the site was responsible for preparation and implementation of their own HASP if their work involved handling of existing site soils.

Site workers were responsible for meeting the conditions and requirements outlined in their employers' HASP. In general, workers were responsible for safe conduct and activity while implementing the IRMs in compliance with the governmental requirements, which included site and worker safety requirements mandated by Federal Occupational Safety and Health Administration (OSHA).

The Health and Safety Plans were complied with for all remedial and invasive work performed at the Site.

3.1.2 Quality Assurance Project Plan (QAPP)

The Quality Assurance Project Plan (QAPP) dated October 2007 was prepared by ENSR. The QAPP was approved by NYSDEC prior to start of work. The QAPP specified analytical methods to be used to ensure that the data from the proposed site investigation were precise, accurate, representative, comparable and complete.

3.1.3 Soil/Materials Management Plan (S/MMP)

Site soils were excavated and managed on-site, and ultimately placed beneath the soil cover system. A large amount of concrete from the building demolition activity was crushed and spread across the site prior to placement of the soil cover system. The exception to on-site management of soils and concrete was the off-site disposal of wood and steel from building demolition; off-site disposal of the localized petroleum impacted and/or lead impacted soils removed from beneath Structure 2; and off-site disposal of localized petroleum impacted soil removed during the closure of Tank 2. Materials removed from the site were profiled, manifested, transported, and disposed of in accordance with applicable Federal, State and local laws and regulations.

3.1.4 Storm-Water Pollution Prevention Plan (SWPPP)

The erosion and sediment controls for IRM construction were performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control and the site-specific Storm Water Pollution Prevention (SWPP) Plan dated May 26, 2011 as prepared by Eisenbach and Ruhnke Engineering, P.C. (Ritter Submittal Number 1825). Eisenbach and Ruhnke Engineering, P.C. was responsible for the implementation of the SWPP Plan. Ritter performed the SWPP Plan inspections under the supervision of Eisenbach and Ruhnke Engineering, P.C.

3.1.5 Community Air Monitoring Plan (CAMP)

The Community Air Monitoring Plan (CAMP) dated October 2007 was prepared by ENSR. The ENSR CAMP was approved by the NYSDEC prior to implementing at the site. The CAMP was in effect during disturbance of known or potentially impacted material (existing site soils), during building demolition and while performing

intermediate grading activities prior to placement of soil cover systems. The air monitoring was completed with three (3) units, one (1) operating upwind of the work area, and two (2) operating downwind of the work area. The instruments were TSI DustTrak 8520 Particulate Monitors, as provided by Ashtead Technologies of Rochester, New York.

3.1.6 Contractors Site Operations Plans (SOPs)

C.T. Male Associates reviewed the plans and submittals for this IRM project and confirmed that they were in compliance with the Project Manual dated October 29, 2010. IRM documents were submitted to NYSDEC and NYSDOH prior to the start of field activities.

3.1.7 Community Participation Plan

The Community Participation Plan included the preparation and distribution of a May 2011 Fact Sheet giving notice to the public of the start of the IRMs. A public meeting was also held by the City of Amsterdam, Saratoga Associates and C.T. Male on May 19, 2011 to give the public a summary of the project and to answer questions from the public. This meeting also presented information on other projects in the City that were not related to the Environmental Restoration Program.

3.2 IRM PROGRAM ELEMENTS

3.2.1 Contractors and Consultants

Saratoga Associates of Saratoga Springs, New York (Daniel Shearer, PE) was the Engineer of Record for the design and implementation of the site investigation and IRMs. C.T. Male Associates of Latham, New York was the Field Engineering Operations Manager, Health and Safety Officer (Jeffrey A. Marx, PE) and Hazardous Materials Abatement Project Manager (Michael Sawyer). C.T. Male Associates provided full time observation during completion of work under the direct supervision of Saratoga Associates.

Ritter was responsible for completing the IRMs outlined in the Project Manual, as described in this report. Ritter used the following subcontractors to assist in the completion of work:

- Midlantic Environmental, Inc. (Midlantic) of New Hartford, New York (asbestos and lead abatement)
- MC Environmental Services, Inc. (MCES) of Queensbury, New York (petroleum tank cleaning, waste disposal)
- Dave's Landscaping of Amsterdam, New York (hydroseeding, watering and fertilizing)
- Champagne Trucking of Troy, New York (wood debris transportation to disposal facility)
- Cason, Inc. of Duanesburg, New York (steel transportation to recycling facility)
- Mangiardi Brothers Trucking of Castleton, New York (PCB impacted soil and lead impacted soil transportation to disposal facility)
- Various transportation companies (wastes disposal)

3.2.2 Site Preparation

Site preparation commenced in June 2011 with mobilization of Ritter's construction equipment. The site preparation work is generalized, as follows:

- A pre-construction meeting was held on June 2, 2011 with representatives from Saratoga Associates, C.T. Male Associates, NYSDEC, Ritter, Midlantic and the City of Amsterdam.
- Site was cleared of vegetation, silt fence was installed, stabilized construction entrance was installed and temporary chain link fencing was installed to control access to the job site.
- Cleared vegetation and stumps with adhered soil were staged and properly disposed of at a pre-approved permitted disposal facility.
- This ERP project was exempt from coverage under the NYS General Permit for Stormwater discharges from Construction because it is a NYSDEC approved remediation project. Regardless of its exemption, Ritter prepared a Stormwater

Pollution Prevention Plan (SWPPP) in accordance with contract documents and applicable regulations for erosion and sediment controls and water quantity and water quality controls.

- A field office was established on the adjoining property to the south of the site along Bridge Street.
- An "Application for Permit Under the Environmental Conservation Law Article 16 Flood Control Land Use" was prepared and sent to NYSDEC in July 2011. This permit was required for the removal of one (1) of the petroleum tanks situated within the floodplain easement near the flood wall. Permit #2011-17 was issued by NYSDEC in October 2011.
- Ritter prepared and submitted an Application for the Building Permit prior to start of demolition activities in May 2011. Since the City owned the property, there was no fee for the permit and approval was informally granted.
- For asbestos abatement activities, EPA and NYS Department of Labor Notifications were performed by the abatement contractor in May 2011, and subsequently amended, when changes warranted. There is no approval or acknowledgement received for this notification. Site-specific variances and amendments were sought throughout the course of abatement work and were not implemented until approval was granted from NYS Department of Labor.

Documentation of agency approvals and notifications required by the IRM Work Plan is included in Appendix B. Other non-agency permits relating to the remediation project are provided in Appendix B. A NYSDEC-approved project sign was erected at the project entrance at Gilliland Avenue and remained in place during all phases of the Remedial Action.

3.2.3 General Site Controls

The site access was controlled through the chain link fence surrounding the site, except for along the river where a high (varying 3 to 7 feet) concrete retaining flood wall exists. A construction gate was installed at the construction entrance to Gilliland Avenue, which was kept locked when no work was being performed on-site. A secondary access point to the site was used at the east end of Gilliland Avenue by moving

temporary fence panels. This secondary entrance was used toward the end of the project to allow delivery of imported fill for placement of the surface cover system. This secondary access was kept locked for most of the project.

C.T. Male Associates field staff maintained a daily record of work activities completed. These records are maintained in paper copy within C.T. Male Associates' project files. Each contractor was required to maintain their own job site record keeping in the form of a daily log, however these logs were not obtained by C.T. Male Associates.

Erosion and sediment controls that were installed included one stabilized construction entrance in the western portion of the site accessing Gilliland Avenue, and inlet protection for storm drains present at the site.

Soil screening was generally implemented to identify areas of unknown petroleum impacts during site grading. Soil screening was also used to assess the levels of petroleum impacts found in soil to guide the contractor on satisfactory removal of identified impacts. Due to heavy equipment failure, a number of hydraulic oil leaks were reported to NYSDEC. These spills were cleaned up with the assistance of soil screening to determine adequacy of impacted soil removal.

Stockpiles of wood, steel and concrete were necessary throughout the project. These stockpiles were within the property boundaries and areas surrounded by silt fence. Stockpiles of lead impacted soils, petroleum impacted soils and hydraulic oil impacted soils were staged on and covered with sheeting. The sheeting was maintained until the material was loaded for off-site disposal at a permitted facility.

3.2.4 Nuisance controls

There was not a need to implement nuisance controls during the remedial action work. There were no obvious odors created by disturbance of site soils. No complaints were reported during the completion of work. Dust levels visually appeared to be under control with the assistance of dust suppression (i.e., water spraying).

3.2.5 CAMP results

Air monitoring for particulates was performed during remedial field activities, in accordance with the requirements of the NYSDOH Generic Community Air Monitoring Plan. C.T. Male Associates utilized three (3) real-time particulate monitors capable of continuously measuring concentrations of particulate matter less than 10 micrometers in size (PM-10). The monitors were placed at temporary monitoring stations, based on the prevailing wind direction each day, one (1) upwind and two (2) downwind of the work area. In general, particulate monitoring data documented that action levels were not exceeded. A few short-term exceedances were recorded that prompted dust suppression (watering) or revision to the work procedure. The dust monitoring data was electronically recorded and is filed in electronic format as provided on a CD in Appendix D.

3.2.6 Reporting

Weekly progress meetings were held at the project site to discuss administrative items, safety, coordination, schedule, disposal tracking, new business and priority action items. Meeting minutes were generated after each meeting which document the progress of the work completed. In addition, email progress reports were issued summarizing the progress of the project. All progress meeting minutes and email progress summaries are included in electronic format in Appendix E. The digital pictures taken throughout the course of the work have been included in electronic format in Appendix F. The pictures are in separate folders segregated by periods of time or by a specific work task.

3.3 CONTAMINATED MATERIALS REMOVAL

Contaminated materials removed from the site included tree stumps and C&D wood debris, PCB impacted soil, lead impacted soil, petroleum impacted soil, investigation derived waste, and hydraulic oil impacted soil.

A list of the soil cleanup objectives (SCOs) for the contaminants of concern for various tasks is described in the ensuing sections, where applicable. The location of original sources and areas where excavations were performed are explained below.

3.3.1 Tree Stumps and C&D Wood Debris

Tree stumps that were generated from site clearing and grubbing were not free of adhered potentially contaminated soil. Therefore, the tree stumps were staged and bulked for disposal off-site. The tree stumps were bulked together with wood C&D debris generated from the demolition of the site structures. Over the course of the project a total of approximately 3,657 tons of stumps/wood C&D Debris were transported by Champagne Carriers, Inc. of Castleton, New York to Ontario County Landfill in Stanley, New York. Disposal documentation is provided in Appendix G. Waste characterization was not required by the disposal facility.

3.3.2 PCB Impacted Soil

PCB impacted soil was removed from the courtyard of the building complex from July 15 through 20, 2011. The PCB soil was removed to a depth of 12 inches below grade or deeper if an unnatural mound existed. Prior to excavation, a waste characterization sample was collected on June 10, 2011 and analyzed by Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut for Full TCLP, paint filter test, pH reactivity, and ignitability. The lab results were provided to the disposal facility along with the waste profile. The lab results are presented in Appendix H1 and the waste acceptance letter (along with the completed profile) is provided in Appendix H2.

Per Section 2.3.2.6 of the NYSDEC-approved IRM Work Plan, collection and analysis of confirmatory soil samples following the removal of 12 inches of PCB impacted soil within the courtyard was required, but the sample locations were not identified. A portion of a site plan map showing the courtyard and the existing sampling locations relative to PCBs, the main contaminant of concern as a result of transformer use was provided to NYSDEC. Nine (9) end point soil sample locations were shown. This map is provided as Figure 3.

End point sampling locations EP PCB1 through 6 were selected based on the results of the initial site investigation where detections of PCBs were documented to exist. Additional end point soil sample locations (EP PCB7 through 9) were selected

southeast of the area where PCBs were detected taking into consideration the area where the impacted soil was being loaded out of the courtyard to check for adequate cleanup of potentially spilled or tracked soils from the construction equipment. The soil samples were collected on June 25, 2001 from the 0 to 2" below the grade after soil removal. The loose soil disturbed by the excavation equipment was removed with a clean nitrile gloved hand prior to sample collection. The samples were analyzed for the parameters listed in the work plan, which were Target Compound List (TCL) volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals, and PCBs. The analytical results are summarized in Table 3.3.2-1.

Table 3.3.2-1 – PCB Soil Removal End Point Soil Sampling Summary of Detections													
Compound/Analyte	**EP PCB 1**	**EP PCB 2**	**EP PCB 3**	**EP PCB 4**	**EP PCB 5**	**EP PCB 6**	**EP PCB 7**	**EP PCB 7a**	**EP PCB 8**	**EP PCB 9**	**6 NYCRR Part 375 Commercial Use SCO**	**Protection of Ecological Resources**	**Protection of Groundwater**
Metals													
Aluminum	2,620 B	4,070 B	2,220 B	2,580 B	4,050 B	2,600 B	2,560 B	NA	5,600 B	5,490 B	NS	10,000 *	NS
Antimony	1.1 J	ND	0.81 J	ND	ND	ND	ND	NA	ND	1.9 J	NS	12 *	NS
Arsenic	12	8.4	7.9	7.3	16.4	5.9	9.3	NA	5.3	12.9	16	13	16
Barium	125	130	66.4	122	891	87.5	93.3	NA	87	183	400	433	820
Beryllium	0.44 B	0.5 B	0.36 B	0.33 B	0.89 B	0.34 B	0.37 B	NA	0.49 B	0.58 B	590	10	47
Cadmium	0.43	0.59	0.25	0.41	0.27	0.45	0.54	NA	1.1	0.96	9.3	4	7.5
Calcium	8,780 B	11,900 B	5,750 B	3,130 B	12,000 B	13,500 B	148 B	NA	37,100 B	37,600 B	NS	10,000 *	NS
Chromium, trivalent	6.2	6.4	6.2	5.9	12.1	5.6	5.5	NA	10.1	10.7	1,500	41	NS
Cobalt	3.5	4.8	4	3.7	8	2.8	4.1	NA	6.2	5.7	NS	20 *	NS
Copper	41	42.7	47.2	20.3	39.2	30.2	22.8	NA	26.7	72.6	270	50	1,720
Iron	8,130	7,960	10,500	5,990	24,500	7,770	8,400	NA	13,400	15,700	NS	NS	NS
Lead	570	230	176	105	76.8	206	125	NA	153	679	1,000	63	450
Magnesium	2,290 B	3,250 B	1620 B	720 B	3,010 B	3170 B	31,100 B	NA	7,720 B	6,980 B	NS	NS	NS
Manganese	85.3 B	96.7 B	83.4 B	69.4 B	59.4 B	74.5 B	276 B	NA	313 B	298 B	10,000	1,600	2,000
Mercury	0.23	0.3	0.16	0.2	0.3	0.32	0.51	NA	0.13	0.64	2.8	0.18	0.73
Nickel	11	12.6	9.6	12	24.6	8	10.4	NA	18	19.3	310	30	130
Potassium	349	468	365	279	443	423	517	NA	1,030	722	NS	NS	NS
Selenium	ND	ND	ND	ND	1.4 J	ND	0.78 J	NA	0.87 J	0.76 J	1,500	3.9	4
Silver	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	1,500	2	8.3
Sodium	85.7	243	57.5	81.6 J	175 J	73.1 J	93.4 J	NA	65.4 J	129 J	NS	NS	NS
Vanadium	17.9	15.2	14.6	11.5	24.2	14.4	15.5	NA	33	42.1	NS	39 *	NS
Zinc	213	211	122	149	72.4	178	111	NA	272	416	10,000	109	2,480
PCBs													
Polychlorinated biphenyls	0.29	0.21 J	0.45	ND	0.23 J	0.96	1.01	0.28	0.28	0.82 J	1	1	3.2
Semi-volatile Organic Compounds													
Methylene Chloride	ND	ND	ND	0.0036 J	0.003 J	ND	ND	NA	3.1 J	ND	NS	NS	NS
Tetrachlorethene	ND	ND	ND	0.0023 J	ND	ND	ND	NA	1.4 J	ND	NS	NS	NS
2-Methylnaphthalene	1 J	1.1 J	0.19 J	ND	0.88 J	7.9	0.78 J	NA	0.75 J	9.1 J	NS	NS	36.4 *
4-Methylphenol	ND	ND	ND	ND	ND	0.49 J	ND	NA	ND	ND	NS	NS	NS
Acenaphthene	3.9 J	3.9	0.89 J	0.11 J	1.2 J	22	4.7	NA	4.6 J	38	500	20	98
Acenapthylene	0.18 J	0.26 J	0.1 J	ND	1.7 J	0.44 J	0.18 J	NA	ND	2.2 J	500	NS	107
Anthracene	6.7	10	2	0.37 J	4.7	35	8.5	NA	6 J	73	500	NS	1,000[c]
Benzo(a)anthracene	17	24	5.9	2.1 J	12	63	20	NA	16	180	5.6	NS	1
Benzo(a)pyrene	15	22	5.7	2.1 J	11	60	19	NA	15	160	1	2.6	22
Benzo(b)fluoranthene	17	25	7.2	2.5 J	13	79	24	NA	17	210	5.6	NS	1.7
Benzo(g,h,i)perylene	8.5	11	2.4	1.3 J	4.7	22	7.3	NA	6 J	62	500	NS	1,000

Table 3.3.2-1 – PCB Soil Removal End Point Soil Sampling Summary of Detections													
Compound/Analyte	**EP PCB 1**	**EP PCB 2**	**EP PCB 3**	**EP PCB 4**	**EP PCB 5**	**EP PCB 6**	**EP PCB 7**	**EP PCB 7a**	**EP PCB 8**	**EP PCB 9**	**6 NYCRR Part 375 Commercial Use SCO**	**Protection of Ecological Resources**	**Protection of Groundwater**
Benzo(k)fluoranthene	8.5	14	2.8	1.4 J	5.5	31	12	NA	11	96	56	NS	1.7
Biphenyl	0.32 J	0.27 J	0.057 J	ND	ND	2.2 J	0.22 J	NA		2.7 J	NS	60 *	NS
Carbazole	4	5.4	0.91 J	0.18 J	1.9 J	22	3.9	NA	3.4 J	39	NS	NS	NS
Chrysene	17	24	6.1	2.5 J	11	61	20	NA	17	170	56	NS	1
Dibenzofuran	2.3 J	3	0.43 J	ND	1.1 J	16	2	NA	2 J	23 J	NS	6.2 *	NS
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	0.56	NS	1,000
Fluoranthene	31	47	11	3.7 J	20	130 E	37	NA	28	340	500	NS	1,000
Fluorene	2.7 J	3.5 J	0.68 J	0.1 J	1.5 J	18	3.3	NA	2.9 J	29 J	500	30	386
Indeno(1,2,3-cd)pyrene	7.8	9	2.2	2.8 J	5.4	18	6.4	NA	8.3	64	5.6	NS	8.2
Naphthalene	2.2 J	2 J	0.28 J	ND	1.3 J	16	1.6 J	NA	1.8 J	16 J	500	NS	12
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	6.7	0.8	0.8
Phenanthrene	32	49	8.4	2 J	18	160 E	34	NA	27	350	500	NS	1,000
Phenol	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	500	30	0.33
Pyrene	41	57	12	4.3 J	23	140 E	40	NA	35	390	500	NS	1,000
Volatile Organic Compounds	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	NA	None Detected	None Detected			

All soil cleanup objectives (SCOs) are in milligrams per kilogram (mg/kg) or parts per million (ppm).
NA = Not Analyzed
ND = Not Detected above the limit of laboratory detection
NS = No Standard
* = CP-51 Soil Cleanup Guidance
J = Estimated Value

As shown in Table 3.3.2-1, there were no remaining compounds/analytes above their respective soil cleanup objective values (SCOs) for commercial use except for a few SVOCs and two metals (arsenic and barium). Since PCBs were detected close to its SCO, an additional soil sample was collected on August 3, 2011 from EP PCB 7 and denoted EP PCB7A. The concentration of PCBs in sample EP PCB7A was below its SCO at 0.28 mg/kg. On the basis of this laboratory data for the end point samples, no further soil excavation was required considering the courtyard would be covered with a demarcation layer and soil cover.

The impacted soil was temporarily staged in the courtyard and then loaded into transportation vehicles for off-site disposal. A total of 392.35 tons of PCB impacted soil was transported by Mangiardi Brothers Trucking of Castleton, New York to the Oneida-Herkimer Solid Waste Authority in Boonville, New York. Disposal documentation is provided in Appendix H3. It should be noted that two manifests for the PCB disposal are missing. Efforts have been made to solicit the disposal documentation information from Ritter and will be provided when it becomes available.

3.3.3 Lead Impacted Soil

Lead impacted soils were identified beneath the basement of Structure 2. The limits of impacted soil removal were estimated at the time of IRM contract bidding, but were further refined in an addendum to the contract based on the results of a Supplemental Focused Site Investigation (SFSI). The results of the FSI are discussed in the Site Investigation Report prepared by Saratoga Associates. Because the results of the SFSI defined the limits of impacts, post excavation end point soil samples were not required by NYSDEC to be collected and analyzed.

Prior to excavating the lead impacted soil, test pits were completed by Ritter on October 7, 2011 to facilitate soil sample collection for waste characterization required by the disposal facility. Four (4) test pits were advanced and one (1) soil sample was collected from each test pit, identified as Lead-1 through Lead-4. The samples were analyzed for TCLP-Benzene, TCLP- RCRA 8 metals and ignitability as required by the

disposal facility. A copy of the laboratory report from Phoenix Environmental Laboratories, Inc. is presented as Appendix I1. The results were provided to Fulton County Landfill of Johnstown, New York and the soil was accepted for disposal.

The lead impacted soil was excavated and concurrently stockpiled and loaded into transportation vehicles (at times with two machines) for off-site disposal. The lead soil removal began on October 20, 2011 after grading a ramp down to the excavation area and a road to load transportation vehicles. Following the removal of the basement floor slab, the lead excavation progressed until October 28, 2011 at which time further excavation was halted due to the presence of a large stockpile of wood debris pending off-site disposal. Approximately 1,559 tons of lead impacted soil were removed from the site prior to halting the work, and transported by Mangiardi Brothers Trucking of Castleton, New York and MC Environmental Services of Queensbury, New York to Fulton County Landfill in Johnstown, New York. Disposal documentation for the first phase of impacted soil removal is presented in Appendix I2.

Due to Ritter's construction schedule and limited availability of the trucks provided by the hauling company for the wood disposal, the balance of the lead impacted soil removal work was delayed until December 2011. On December 16, 2011 lead excavation activities resumed and the balance of lead impacted soil was excavated and transported off-site on December 19 and 20, 2011, from which another approximately 550 tons of impacted soil was generated. In total, 2,109.15 tons of lead impacted soil was removed from the site and properly disposed of at Fulton County Landfill. Disposal documentation for the second phase of impacted soil removal is presented in Appendix I3.

3.3.4 Petroleum Contaminated Soil (Lead Soil Area)

During the lead impacted soil removal activities, PID screening of the soil (highest reading of 106 ppm) identified a localized pocket of petroleum contaminated soils (PCS) on October 24, 2011. NYSDEC was contacted and Spill #1109309 was assigned to the finding. The PCS was identified in an area approximately four (4) feet wide by four (4) feet long starting about six (6) feet below the basement floor slab and

extending to about 12 feet below the basement floor slab. The PCS was excavated until PID readings were at or below background levels. The impacted soil was staged separately from the lead impacted soils on sheeting for waste characterization prior to off-site disposal. A sample was collected on October 25, 2011 and identified as Spill Waste Char-1. This sample was analyzed by Phoenix Environmental Laboratories for TCLP Benzene, TCLP Lead and ignitability. The results were provided to and accepted by Fulton County Landfill for delivery to their Johnstown, New York facility. A copy of the laboratory report is presented as Appendix J1.

Upon completion of the petroleum impacted soil removal, three (3) end point soil samples were collected to determine the adequacy of soil removal. One (1) soil sample was collected from the floor and identified as Lead Spill – Floor; one (1) soil sample was collected as a composite of the north and east side walls and identified as Lead Spill – SW#1; and one (1) soil sample was collected as a composite of the south and west walls and identified as Lead Spill-SW#2. Table 3.3.4-1 summarizes the detections and lists the 6 NYCRR Part 375 SCOs for Unrestricted Use for comparative purposes.

Table 3.3.4-1 – Summary of Detected Compounds

Compound	Lead Spill – Floor	Lead Spill – SW#1	Lead Spill-SW#2	6 NYCRR Part 375 SCOs (Unrestricted)
Acenaphthene	Non Detect	Non Detect	0.0034 J	20
Acenapthylene	Non Detect	Non Detect	0.051 J	100
Anthracene	Non Detect	Non Detect	0.045 J	100
Benzo(a)anthracene	0.0084 J	0.017 J	0.25	1
Benzo(a)pyrene	Non Detect	0.023 J	0.23 J	1
Benzo(b)fluoranthene	0.0071 J	0.026 J	0.29	1
Benzo(g,h,i)perylene	0.0062 J	0.019 J	0.15 J	100
Benzo(k)fluoranthene	0.0065 J	0.010 J	0.13 J	0.8
Chrysene	0.0048 J	0.019 J	0.26	1
Dibenz(a,h)anthracene	Non Detect	Non Detect	0.044 J	0.33
Fluoranthene	Non Detect	0.022	0.39	100
Indeno(1,2,3-cd) pyrene	Non Detect	0.013	0.13 J	0.5

Table 3.3.4-1 – Summary of Detected Compounds				
Compound	Lead Spill – Floor	Lead Spill – SW#1	Lead Spill-SW#2	6 NYCRR Part 375 SCOs (Unrestricted)
Phenanthrene	Non Detect	0.011	0.28	100
Pyrene	Non Detect	0.020	0.33	100

Notes
All soil cleanup objectives (SCOs) are in milligrams per kilogram (mg/kg) or parts per million (ppm).
NA = Not Analyzed
ND = Not Detected above the limit of laboratory detection
NS = No Standard
* = CP-51 Soil Cleanup Guidance
J = Estimated Value

The analytical results summarized above were presented to NYSDEC Division of Environmental Remediation. On the basis of these results, NYSDEC Spill #1109309 was closed on November 28, 2011, acknowledging that the detections were from the presence of urban fill, rather than the presence of petroleum contamination.

The impacted soil was transported to Fulton County Landfill. The total weight of the soil (two trucks) including the soil discussed in Section 3.3.5, was 61.73 tons. It is estimated that 39 tons of the 61.73 tons was related to the soil removed from the lead soil area. Disposal documentation is presented as Appendix J2.

3.3.5 Petroleum Contaminated Soil (UST Area)

During the permanent closure of Tank #2, the tank closest to the flood wall, PCS was encountered. The quantity of soil visibly impacted by No. 6 fuel oil (i.e., the tank contents) was minimal and localized to the northeast corner of the tank near its bottom. NYSDEC was notified of the findings of the petroleum release in an email dated November 28, 2011 and NYSDEC indicated that since it is being addressed as part of an IRM, there was no need to report it as a petroleum spill.

The adjacent flood wall and concrete pad for the tank did not permit the impacted soils to be fully excavated to depth. Accordingly, one of the end point soil samples (UST-2 FLOOR-1) was considered representative of residually impacted material left in-place. Table 3.4.2-1 summarizes the numeric values of detections above the limit of laboratory detection. Although VOCs and SVOCs were detected, only three (3)

compounds (benzo(a)pyrene, benzo(b)fluoranthene and dibenz(a,h)anthracene) exceeded their 6 NYCRR Part 375 SCO for Commercial Use. On the basis of the analytical results for this sample, and other end point samples collected and analyzed for this tank, NYSDEC did not require further action.

The impacted soil was delivered to the Fulton County Landfill. The total weight of the soil, including the soil discussed in Section 3.3.4, was 61.73 tons, where it is estimated that 23 tons was related to the soil removed from the area of Tank 2. Disposal documentation is presented as Appendix J2.

3.3.6 On-Site Reuse

Building demolition hard fill (i.e., concrete and brick) was used on-site as general fill in basements and to increase site grades prior to construction of the surface cover system. The hard fill was separated from other demolition debris including steel and wood and periodically tested for TCLP lead at a frequency of 1 sample per 1,000 cubic yard of crushed hard fill. None of the hard fill was intermingled with asbestos as those materials were abated prior to or during demolition. The method for monitoring the frequency of sampling was based on visual observations and approximate measurements of piles of hard fill throughout the course of the project. Each sample consisted of a grab sample from three (3) to four (4) various locations across the stockpile, which were composited into one sample for laboratory analysis. An estimated total of 15,288 cubic yards of hard fill was generated, processed and crushed generally to less than 6 inches in aggregate size.

As per the NYSDEC approved IRM Work Plan, TCLP testing of the hard fill was limited to lead as this was the identified potential contaminant because of residual paint on the concrete surfaces. A total of fifteen (15) composite samples of hard fill were collected and analyzed. Samples results are summarized in Table 3.3.6-1 along with their lab sample delivery group ID, date sampled, and corresponding analytical result.

Table 3.3.6-1 – Hard fill TCLP Lead Testing Summary			
Lab Sample ID	Lab SDG	Date Sampled	TCLP Lead Result (mg/L)
Hard fill 1	480-8085	8/3/11	0.0071
Hard fill 2	480-8085	8/3/11	0.0047
Hard fill 3	480-8169	8/4/11	0.017
Hard fill 4	480-8169	8/4/11	0.0055
Hard fill 5	480-11979	10/27/11	0.071
Hard fill 6	480-11979	10/27/11	Non Detect at 0.005
Hard fill 7	480-11979	10/27/11	0.0053
Hard fill 8	480-11979	10/27/11	0.010
Soil #3	480-20866	6/5/12	0.0035 J
Soil #4	480-20866	6/5/12	0.0052
Soil #5	480-20866	6/5/12	Non Detect at 0.005
Soil #6	480-20866	6/5/12	Non Detect at 0.005
Soil #7	480-20866	6/5/12	Non Detect at 0.005
Soil #8	480-20866	6/5/12	Non Detect at 0.005
Soil #9	480-20866	6/5/12	1.13

As shown in Table 3.3.6-1, the detections of lead were either non-detect or only slightly above the method detection limit with the exception of Soil #9. None of the detected concentrations were above the TCLP Hazardous Waste Regulatory Value of 5 mg/L, and therefore the hard fill was allowed for use as on-site fill. Of additional note, one of the lead detections was qualified with a "J" indicating an estimate value because of quality control issues. Also, there is no significance to the label "Soil" for the samples collected and analyzed in June 2012. Those samples were of the stockpiled crushed concrete, not soil.

3.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

Remedial performance/documentation sampling consisted of laboratory analysis of end point soil sampling. End point soil sampling, performed after contaminated materials were removed, is described in Section 3.3 of this report. The end point soil sampling after permanent tank closure of the Tank 1 and Tank 2 is described below, which was performed in accordance with the NYSDEC-approved IRM Work Plan and minor modifications pre-approved by Dan Lightsey of NYSDEC.

3.4.1 Tank 1

Upon completion of tank removal from the excavation, twelve (12) end point soil samples were collected from the sidewalls and floor of the excavation as per the NYSDEC-approved IRM Work Plan. Six (6) samples were collected from the sidewalls of the Tank 1 excavation, four (4) samples were collected from the floor of the Tank 1 excavation and two (2) were collected from beneath the supply/return piping run from the Tank 1 to the building. The locations of the end point samples are depicted on Figure 4. The samples were laboratory analyzed for VOCs and SVOCs by EPA Methods 8260 and 8270, respectively. Table 3.4.1-1 summarizes those compounds that were detected at concentrations above the limit of laboratory detection.

As shown in Table 3.4.1-1, a few VOCs and SVOCs were detected above the laboratory limit, with some of these detected at concentrations above their 6 NYCRR Part 375 Commercial Use SCOs. At the time of tank closure, the analytical results were provided to NYSDEC and no further action was concluded.

Table 3.4.1-1 – Tank 1 End Point Soil Sampling Summary of Detections

COMPOUND	SCOs	UST-1 SW-1	UST1 SW-2	UST-1 SW-3	UST-1 SW-4	UST-1 SW-5	UST-1 SW-6	UST-1 FLOOR-1	UST-1 FLOOR-2	UST-1 FLOOR-3	UST-1 FLOOR-4	UST-1 PIPE-1	UST-1 PIPE-2
Volatile Organic Compounds by EPA Method 8260 (mg/kg)													
Chloroform	350	U	U	U	U	U	U	U	U	0.0014 J	U	U	U
Ethylbenzene	390	0.00062 J	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	150	U	U	0.0013 J	U	U	U	U	U	U	U	U	U
Toluene	500	0.00051 J	U	U	U	U	U	U	U	U	U	U	U
Xylenes, Total	500	0.0016 J	0.0012 J	0.0011 J	U	U	U	U	U	U	U	U	U
Semi-volatile Organic Compounds by EPA Method 8270 (mg/kg)													
2-Methylnaphthalene	36.4 (PGW CP51)	U	U	U	U	U	0.050 J	U	U	U	U	0.74 J	U
Acenaphthene	500	U	U	U	0.026 J	U	0.12 J	U	U	0.074 J	U	2.3 J	U
Acenaphthylene	500	U	U	U	U	U	0.092 J	U	U	U	U	U	U
Anthracene	500	U	U	U	0.13 J	0.0089 J	0.48 J	U	U	0.13 J	U	4.4 J	0.28 J
Benzo(a)anthracene	5.6	0.0069 J B	0.0074 J B	0.14 J B	1 J B	0.074 J B	2.1 B	0.18 J B	0.020 J B	0.73 J B	0.015 J B	12 J B	1.6 J B
Benzo(a)pyrene	1	U	U	1.1 J	1.8 J	0.15 J	2.3	1.1 J	0.13 J	1.7 J	U	22 J	5.9 J
Benzo(b)fluoranthene	5.6	U	U	0.38 J	1.3 J	0.11 J	2.4	U	0.070 J	1.1 J	0.040 J	16 J	3 J
Benzo(g,h,i)perylene	500	U	U	0.084 J	0.44 J	0.03 J	0.72 J	U	0.031 J	0.3 J	U	4.1 J	0.58 J
Benzo(k)fluoranthene	56	U	U	1 J	1.5 J	0.12 J	1.7 J	U	0.12 J	1.5 J	0.11 J	19 J	5.3 J
Carbazole	No Standard	U	U	U	U	U	0.2 J	U	U	U	U	2.2 J	U
Chrysene	56	0.0035 J B	0.0043 J B	0.092 J B	1.1 J B	0.07 J B	2 B	0.11 J B	0.028 J B	0.67 J B	0.0066 J B	11 J B	1.5 J B
Dibenzofuran	No Standard	U	U	U	U	U	0.091 J	U	U	U	U	U	U
Fluoranthene	500	U	U	U	2.1	0.17 J	3.6	1 J	0.11 J	1.9 J	0.11 J	31	6.3 J
Fluorene	500	U	U	U	U	U	0.17 J	U	U	U	U	1.7 J	U
Indeno(1,2,3-cd)pyrene	5.6	U	U	1 J	1.3 J	0.12 J	1.5 J	0.98 J	0.12 J	1.4 J	U	17 J	5.1 J
Naphthalene	500	U	U	U	U	U	0.12 J	U	U	U	U	1.9 J	U
Phenanthrene	500	U	U	0.052 J	0.61 J	0.043 J	2.1	0.079 J	0.011 J	0.53 J	0.0057 J	20 J	1.3 J
Pyrene	500	U	U	0.1 J	1.5 J	0.1 J	3.4	0.15 J	0.022 J	1.1 J	U	21 J	2.1 J

Notes:

"J" denotes estimated value below the instrument detection limit. "U" denotes not detected.

Commercial SCOs are from 6 NYCRR Part 375 Commercial Use category soil cleanup objectives. Highlights show exceedence of SCO.

3.4.2 Tank 2

Upon completion of tank removal from the excavation, twelve (12) end point soil samples were collected from the side walls and floor of the excavation as per the NYSDEC-approved IRM Work Plan. Four (4) samples were collected from the sidewalls of the Tank 2 excavation, four (4) samples were collected from the floor of the Tank 2 excavation and two (2) were collected from beneath the supply/return piping run from the Tank 2 to the building. The locations of the end point samples are depicted on Figure 4. The samples were laboratory analyzed for VOCs and SVOCs by EPA Methods 8260 and 8270, respectively. Table 3.4.2-1 summarizes those compounds that were detected at concentrations above the limit of laboratory detection.

As shown in Table 3.4.2-1, VOCs and SVOCs were detected above the laboratory limit, but only a few were detected at concentrations above their 6 NYCRR Part 375 Commercial Use SCOs. At the time of tank closure, the analytical results were provided to NYSDEC and no further action was concluded.

Table 3.4.2-1 – Tank 2 End Point Soil Sampling Summary of Detections

COMPOUND	SCOs	UST-2 PIPE-1	UST-2 PIPE-2	UST-2 SW-1	UST-2 SW-2	UST-2 SW-3	UST-2 SW-4	UST-2 FLOOR-1	UST-2 FLOOR-2	UST-2 FLOOR-3	UST-2 FLOOR-4
Volatile Organic Compounds by EPA Method 8260 (mg/kg)											
Ethylbenzene	390	0.00081 J B	0.00045 J B	U	0.00044 J B	0.00046 J B	0.00048 J B	U	0.00053 J B	U	U
Toluene	500	0.0026 J B	0.0013 J B	0.0012 J B	0.0012 J B	0.0011 J B	0.0016 J B	U	0.001 J B	U	U
Xylenes, Total	500	0.0032 J B	0.0018 J B	0.0015 J B	0.0017 J B	0.0017 J B	0.0017 J B	0.0014 J B	0.0016 J B	U	U
Semi-volatile Organic Compounds by EPA Method 8270 (mg/kg)											
2-Methylnaphthalene	36.4 (PGW CP51)	0.17 J	0.082 J	U	U	U	0.041 J	0.038 J	0.066 J	U	U
Acenaphthene	500	0.18 J	0.22 J	U	U	U	0.27 J	0.035 J	0.075 J	U	U
Acenaphthylene	500	0.16 J	U	U	U	U	0.22 J	0.86 J	0.090 J	U	U
Anthracene	500	0.51 J	0.38 J	U	U	U	1.2 J	0.47 J	U	U	U
Benzo(a)anthracene	5.6	3	1.3 J	0.0076 J	U	0.0066 J	4.3	4.8	1.2	0.018 J	0.025 J
Benzo(a)pyrene	1	2.8	1.1 J	U	U	U	4.3	6.2	1.6	0.013 J	0.021 J
Benzo(b)fluoranthene	5.6	3.3	1.4 J	U	U	U	5.1	8.2	1.8	U	0.035 J
Benzo(g,h,i)perylene	500	1.5	0.55 J	U	U	U	1.7 J	2.5	0.82 J	U	0.015 J
Benzo(k)fluoranthene	56	1.6	0.65 J	U	0.0028 J	U	2.5	3.5	1.2	U	U
Carbazole	No Standard	0.27 J	0.19 J	U	U	U	0.32 J	0.23 J	0.038 J	U	U
Chrysene	56	3	1.3 J	U	U	U	4.4	5.8	1.1	0.015 J	0.021 J
Dibenz(a,h)anthracene	0.56	0.43 J	0.18 J	U	U	U	0.43 J	0.76 J	0.25 J	U	U
Dibenzofuran	No Standard	0.2 J	U	U	U	U	0.18 J	0.072 J	U	U	U
Diethyl phthalate	No Standard	U	U	U	U	U	U	U	U	0.011 J	U
Fluoranthene	500	4.6	2.3	U	U	U	9.4	9.4	0.8 J	0.014 J	0.035 J
Fluorene	500	0.19 J	0.14 J	U	U	U	0.38 J	0.12 J	U	U	U
Indeno(1,2,3-cd)pyrene	5.6	1.2	0.56 J	U	U	U	1.5 J	2.3	0.7 J	U	0.011 J
Naphthalene	500	0.2 J	U	U	U	U	U	U	0.062 J	U	U
Phenanthrene	500	2.9	1.6 J	U	U	U	5.9	2.2	0.48 J	0.0052 J	0.016 J
Pyrene	500	4.4	2	U	U	U	7.8	8.5	0.76 J	0.014 J	0.031 J

Notes:

"J" denotes estimated value below the instrument detection limit. "U" denotes not detected.

Commercial SCOs are from 6 NYCRR Part 375 Commercial Use category soil cleanup objectives. Highlights show exceedence of SCO.

3.5 IMPORTED BACKFILL

There were four (4) types of imported backfill used at the Chalmers site. Prior to the start of demolition activities along Gilliland Avenue, Ritter proposed the use of a layer of sand to protect the roadway from falling building debris. Because of the small quantity required and the sand being placed below the demarcation layer and surface cover material, no laboratory testing was performed as pre-approved by NYSDEC. The remaining three imported fill sources were subjected to analytical testing to document the materials met the requirements of the ERP prior to use. Table 3.5-1 summarizes the types of materials used, their source and where they were placed on-site.

Table 3.5-1
Imported Fill/Soil Sources

Source Name and Address	Type of Fill/Soil	Where Placed
Puthaven Farm Sand Pit State Highway 29 Gloversville, New York (Supplied by Santos Construction Company)	Sand	Soil cushion over Gilliland Avenue to protect from falling debris
CFI Contracting, Inc. Black Street Mayfield, New York NYSDEC Permit 5-1730-00030/00001	General Fill	Surface Cover
CFI Construction Johnstown Pit 286 Sacandaga Road Johnstown, New York	Topsoil	Surface Cover
Puthaven Farm Sand Pit State Highway 29 Gloversville, New York (Supplied by Santos Construction Company)	Sand and Gravel	Tank 2 Backfill

General fill and topsoil used for the surface cover system was obtained from a virgin source. An estimated 6,184 cubic yards (CY) of general fill was placed on-site and

an estimated 4,393 CY of topsoil was placed on top of the general fill. Prior to delivery to the site, one (1) representative sample was collected from each source on April 19, 2012 by C.T. Male Associates. The samples were analyzed for TCL VOCs, SVOCs, Pesticides, Herbicides, PCBs and TAL Metals by Test America of Buffalo, New York. The laboratory results of the detections above the limit of laboratory detection are summarized in Table 3.5-2.

Table 3.5-2
Imported Fill Summary of Detections (Surface Cover)

Parameter	SCOs Unrestricted	SCOs Commercial	Topsoil	General Fill
	MG/KG	MG/KG	MG/KG	MG/KG
Aluminum	10,000 per CP51	10,000 per CP51	6,990	1,670
Arsenic	13	16	2.3	1 J
Barium	350	400	29.7	6.7
Beryllium	7.2	47	0.43	0.14 J
Cadmium	2.5	7.5	0.12 J	0.13 J
Calcium	10,000 per CP51	10,000 per CP51	4,810 B	23,900 B
Chromium, total	30	1,500	5.9	2
Cobalt	20 per CP51	20 per CP51	Non Detect	1.5
Copper	50	270	4.3	3.1
Iron	No Standard	No Standard	10,800 B	5,500 B
Lead	63	450	4.4	1
Magnesium	No Standard	No Standard	2,010 B	8,620 B
Manganese	1,600	2,000	245 B	126 B
Nickel	30	130	7.4	2.7 J
Potassium	No Standard	No Standard	707	261
Sodium	No Standard	No Standard	87 J	52.5 J
Vanadium	39 per CP51	39 per CP51	Non Detect	5.2
Zinc	109	2,480	14.8	11.9
Butyl benzyl phthalate	122 per CP51	122 per CP51	Non Detect	0.048 J
Chrysene	1	1	Non Detect	0.0073 J
Endrin Ketone	No Standard	No Standard	Non Detect	0.00058 J

As shown in Table 3.5-2, the detections of parameters were below their Allowable Constitute Levels for Imported Fill or Soil, Subdivision 5.4e per Appendix 5 of DER-10. Therefore, the NYSDEC approved the use of these fill sources for surface cover material.

Imported backfill was required to fill the void left from removal of petroleum storage tanks (Tank 1 and Tank 2). Imported fill (#1) was obtained from Santos Construction's Puthaven Farm Sand Pit on September 1, 2011 and subject to laboratory analyses only to later find out that due to its geotechnical properties, it could not be used for backfill of Tank 2 per Flood Plain Permit requirements. A second type of imported fill (#2) was obtained from the same yard and one (1) representative sample was collected on November 1, 2011 by C.T. Male Associates. The samples were analyzed for TCL VOCs, SVOCs, Pesticides, Herbicides, PCBs and TAL Metals by Test America of Buffalo, New York. The laboratory results of the detections above the limit of laboratory detection are summarized in Table 3.5-3.

Table 3.5-3
Imported Fill Summary of Detections (Tank 2 Backfill)

Parameter	SCOs Unrestricted	SCOs Commercial	Imported Fill #2
	MG/KG	MG/KG	MG/KG
Aluminum	10,000 per CP51	10,000 per CP51	7,390 B
Arsenic	13	16	6.2 B
Barium	350	400	29.3
Beryllium	7.2	47	0.5
Cadmium	2.5	7.5	0.13 J
Calcium	10,000 per CP51	10,000 per CP51	28,000 B
Chromium, total	30	1,500	8.6
Cobalt	20 per CP51	20 per CP51	5.2
Copper	50	270	16.3
Iron	No Standard	No Standard	14,900 B
Lead	63	450	8.7
Magnesium	No Standard	No Standard	6,100 B
Manganese	1,600	2,000	497 B
Nickel	30	130	14
Potassium	No Standard	No Standard	912
Sodium	No Standard	No Standard	49.4 J
Vanadium	39 per CP51	39 per CP51	16.6
Zinc	109	2,480	38.7 B
Mercury	0.18	0.73	0.068
4,4' - DDE	0.0033	17	0.00064 J

Table 3.5-3 Imported Fill Summary of Detections (Tank 2 Backfill)			
Parameter	SCOs Unrestricted	SCOs Commercial	Imported Fill #2
	MG/KG	MG/KG	MG/KG
Benzo(a)anthracene	1	1	0.012 JB
Chrysene	1	1	0.0075 JB
Fluoranthene	100	500	0.1 J
Indeno(1,2,3-cd)pyrene	0.5	5.6	0.1 J
Phenanthrene	100	500	0.0048 J
Pyrene	100	500	0.0099 J

As shown in Table 3.5-3, the detections of parameters were below their Allowable Constitute Levels for Imported Fill or Soil, Subdivision 5.4e per Appendix 5 of DER-10. Therefore, the NYSDEC approved the use of this fill source for backfill of Tank 2. Approximately 100 to 200 CY of this material was used on site, and was placed below the demarcation layer and surface cover system.

Certification letters on the origin of the imported fill materials and associated laboratory testing are provided in Appendix K.

3.6 CONTAMINATION REMAINING AT THE SITE

Since none of the historic fill was removed from the site as part of the IRMs, the investigative soil sampling analytical results generated as part of the remedial investigation would be representative of the soil remaining; however, due to implementation of the remedial action, the location of the some of the shallower sample locations may no longer be representative of where they currently exist. In general, all of the existing soils remain in the area from which they originated. Tables and Figures summarizing the results of soil sampling performed during the remedial investigation were presented in the Site Investigation Report prepared by Saratoga Associates.

Because contaminated soil remains beneath the site after completion of the IRMs, Institutional and Engineering Controls are required to protect human health and the environment. These Engineering and Institutional Controls (ECs/ICs) are described in

the following sections. Long-term management of these EC/ICs and residual contamination will be performed under the Site Management Plan (SMP) to be prepared and approved by the NYSDEC.

3.7 PRIMARY ENGINEERING CONTROL - SOIL COVER SYSTEM

Exposure to remaining contamination in soil/fill at the site is controlled by a soil cover system placed over the site. This cover system is comprised of a minimum of 12 inches of clean soil underlain by a demarcation layer. The demarcation layer consisted of a woven filter fabric FW®-44 by Carthage Mills

3.8 OTHER ENGINEERING CONTROLS

The anticipated remedy for the site does not require the construction of any other engineering control systems.

3.9 INSTITUTIONAL CONTROLS

The anticipated site remedy requires that an environmental easement be placed on the property to: (1) implement, maintain and monitor the Engineering Controls; (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.

The environmental easement for the site will be prepared by City of Amsterdam and executed by the NYSDEC as part of the Final Engineering Report preparation and Certificate of Completion process.

3.10 DEVIATIONS FROM THE IRM WORK PLAN

Deviations to IRM work were documented through contract change orders. Other minor work scope deviations have been explained throughout this report. Listed below is a summary of the change orders.

3.10.1 Change Order Summary

Change Order 001 (6/30/11): This change order was issued and approved for additional electrical equipment beyond what was listed in contract documents that required removal from the site and proper disposal as PCB containing equipment. Specifically, it was for the removal, transportation and disposal of additional 23 capacitors & one oil filled insulator including the pole mounted current meter. The change order also included providing an overpack drum to accommodate the leaking barrel of oil found in the transformer yard.

Change Order 002 (8/4/11): This change order was issued and approved for additional fuel oil that was present in the underground petroleum storage tanks beyond what was estimated in contract documents. Specifically, it included disposal of an additional 21,016 gallons of non-aqueous phase liquids in the tanks.

Change Order 003 (8/31/11): This change order was issued and approved for a reduction in the volume of concrete debris crushed and buried on-site in an effort to reduce the overall final grade of the site upon completion. This was a no cost change order allowing off-site disposal of crushed concrete in a legal manner provided the concrete was free of adhered site soils, recognizably uncontaminated and did not contain rebar sticking out of the fragments. After execution of this change order, it was determined this action was no longer needed and it was not implemented.

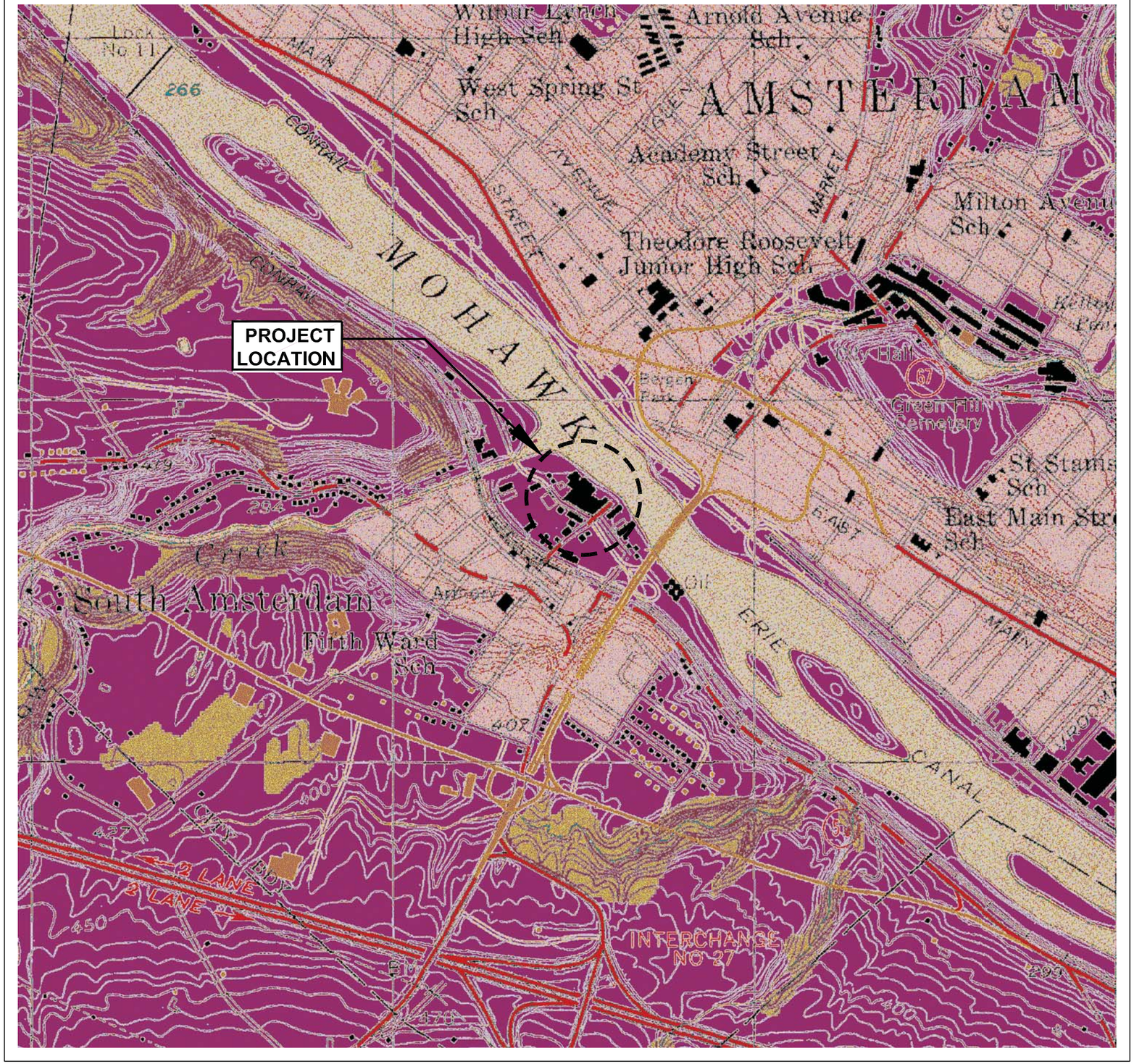
Change Order 004 (9/22/11): This change order was issued and approved for adjusting the estimated quantity of lead paint to the actual quantity of lead paint removed. The quantity of lead paint removed was more than estimated as the condition of the paint deteriorated from the time of design until the time of removal and also had been intermingled with debris left within the site building. Specifically, this change order included removal and disposal of 28 55-gallon drums of lead paint hazardous waste (less the original estimate of 200 gallons).

Change Order 005 (12/13/11): This change order was issued and approved for the additional requirements from the Article 16 Flood Plain Permit conditions that applied to the permanent closure by removal of Tank 2. This change order was mainly for imported backfill, additional soil compaction and complete excavation backfill to grade at the end of each work day as per the special conditions of the Article 16 Permit.

Change Order 006 (12/14/11): This change order was issued and approved for labor and equipment to remove & dispose of 742 gallons of water from Tanks 1 and 2. The tanks had been previously cleaned, but because of the delay in the Article 16 Permit approval the tanks remained in the ground for an extended period of time. During this time high rainfall rates associated with Hurricane Irene resulted in water entering the tanks. The water in the tanks was subsequently removed and disposed of as petroleum contaminated.

Change Order 007 (9/17/12): This change order was issued and approved for labor, equipment and materials to provide and install a surface cover system over the entire site. A credit was negotiated and issued to compensate for the overlap in the time and materials for site restoration.

Change Order 008 (9/28/12): This change order was issued and approved for the final adjustment of contract quantities. This documented the actual quantities used and recorded the final contract price at $1,945,138.87.



SITE LOCATION

0 30 60 120

N

SARATOGA ASSOCIATES

Landscape Architects, Architects, Engineers, and Planners, P.C.
NEW YORK CITY > SARATOGA SPRINGS > SYRACUSE

CHALMERS BUILDING

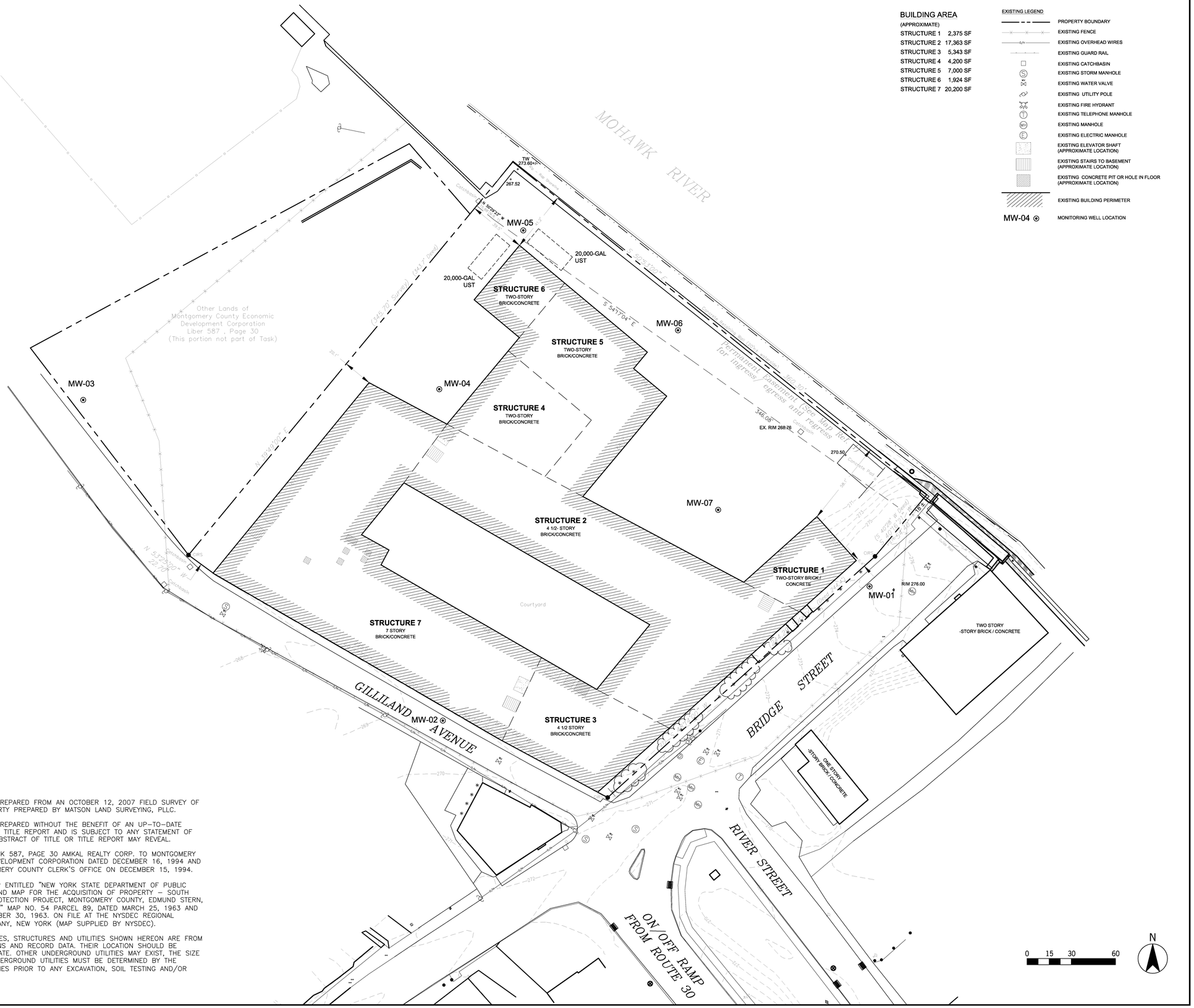
21-41 Bridge Street/32 Gilliland AVenue
Amsterdam, New York

SARATOGA ASSOCIATES PROJECT # 06083.10M

DATE: 02-01-10
DRAWN BY: SRD
CHECKED BY: DMS

SITE LOCATION MAP

FIG. 1



BUILDING AREA
(APPROXIMATE)

STRUCTURE 1	2,375 SF
STRUCTURE 2	17,363 SF
STRUCTURE 3	5,343 SF
STRUCTURE 4	4,200 SF
STRUCTURE 5	7,000 SF
STRUCTURE 6	1,924 SF
STRUCTURE 7	20,200 SF

EXISTING LEGEND

- PROPERTY BOUNDARY
- EXISTING FENCE
- EXISTING OVERHEAD WIRES
- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING FIRE HYDRANT
- EXISTING TELEPHONE MANHOLE
- EXISTING MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING ELEVATOR SHAFT (APPROXIMATE LOCATION)
- EXISTING STAIRS TO BASEMENT (APPROXIMATE LOCATION)
- EXISTING CONCRETE PIT OR HOLE IN FLOOR (APPROXIMATE LOCATION)
- EXISTING BUILDING PERIMETER
- MW-04 MONITORING WELL LOCATION

NOTES:

1. SURVEY SHOWN WAS PREPARED FROM AN OCTOBER 12, 2007 FIELD SURVEY OF THE CHALMERS PROPERTY PREPARED BY MATSON LAND SURVEYING, PLLC.
2. SURVEY SHOWN WAS PREPARED WITHOUT THE BENEFIT OF AN UP–TO–DATE ABSTRACT OF TITLE OR TITLE REPORT AND IS SUBJECT TO ANY STATEMENT OF FACT THAT SUCH AN ABSTRACT OF TITLE OR TITLE REPORT MAY REVEAL.
3. DEED REFERENCE: BOOK 587, PAGE 30 AMKAL REALTY CORP. TO MONTGOMERY COUNTY ECONOMIC DEVELOPMENT CORPORATION DATED DECEMBER 16, 1994 AND FILED IN THE MONTGOMERY COUNTY CLERK'S OFFICE ON DECEMBER 15, 1994.
4. MAP REFERENCES: MAP ENTITLED "NEW YORK STATE DEPARTMENT OF PUBLIC WORKS DESCRIPTION AND MAP FOR THE ACQUISITION OF PROPERTY – SOUTH AMSTERDAM FLOOD PROTECTION PROJECT, MONTGOMERY COUNTY, EDMUND STERN, INC. (REPUTED OWNER)" MAP NO. 54 PARCEL 89, DATED MARCH 25, 1963 AND APPROVED ON SEPTEMBER 30, 1963. ON FILE AT THE NYSDEC REGIONAL HEADQUARTERS IN ALBANY, NEW YORK (MAP SUPPLIED BY NYSDEC).
5. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHOWN HEREON ARE FROM ACTUAL FIELD LOCATIONS AND RECORD DATA. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST, THE SIZE AND TYPE OF ALL UNDERGROUND UTILITIES MUST BE DETERMINED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY EXCAVATION, SOIL TESTING AND/OR CONSTRUCTION.

SARATOGA ASSOCIATES

Landscape Architects, Architects, Engineers, and Planners, P.C.
NEW YORK CITY > SARATOGA SPRINGS > SYRACUSE

CHALMERS BUILDING

IMPLEMENTATION OF INTERIM REMEDIAL MEASURES

CITY OF AMSTERDAM
NEW YORK, 12010

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	CHK
0	10-29-10	FINAL BID SET	SRD	DMS

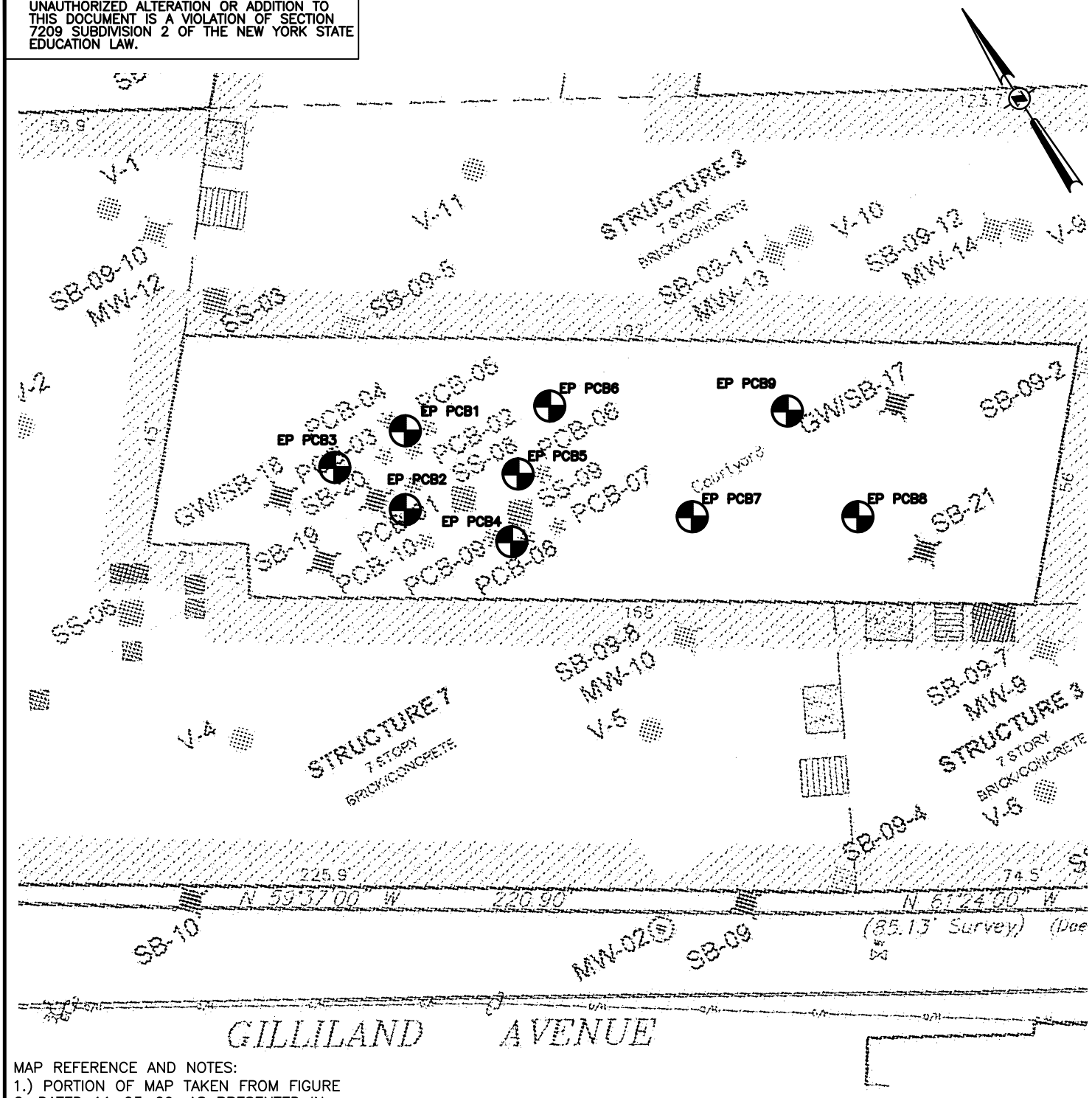
SARATOGA ASSOCIATES PROJECT # 06083

DATE: 10-29-10
DRAWN BY: SRD
CHECKED BY: DMS
REVISION: 0

EXISTING CONDITIONS PLAN

L100

NONE :XREFS



MAP REFERENCE AND NOTES:
1.) PORTION OF MAP TAKEN FROM FIGURE 2, DATED 11-03-09, AS PRESENTED IN THE DRAFT SITE INVESTIGATION REPORT
2.) SCALE SHOWN IS APPROX. 1" = 20'
3.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

LEGEND:

EP PCB1 — END POINT SOIL SAMPLE COLLECTED FROM THE 0" TO 2" INTERVAL BELOW GRADE AFTER PCB SOIL REMOVAL ACTIVITY.

Date	RECORD OF WORK	Appr.

Drafter: J.MARX	Checker: D.SHEARER
Appr. by:	Proj. No. 10.1580

FIGURE 3
PCB END POINT SAMPLING LOCATIONS
CHALMERS BUILDING ERP

CITY OF AMSTERDAM | MONTGOMERY COUNTY, NY

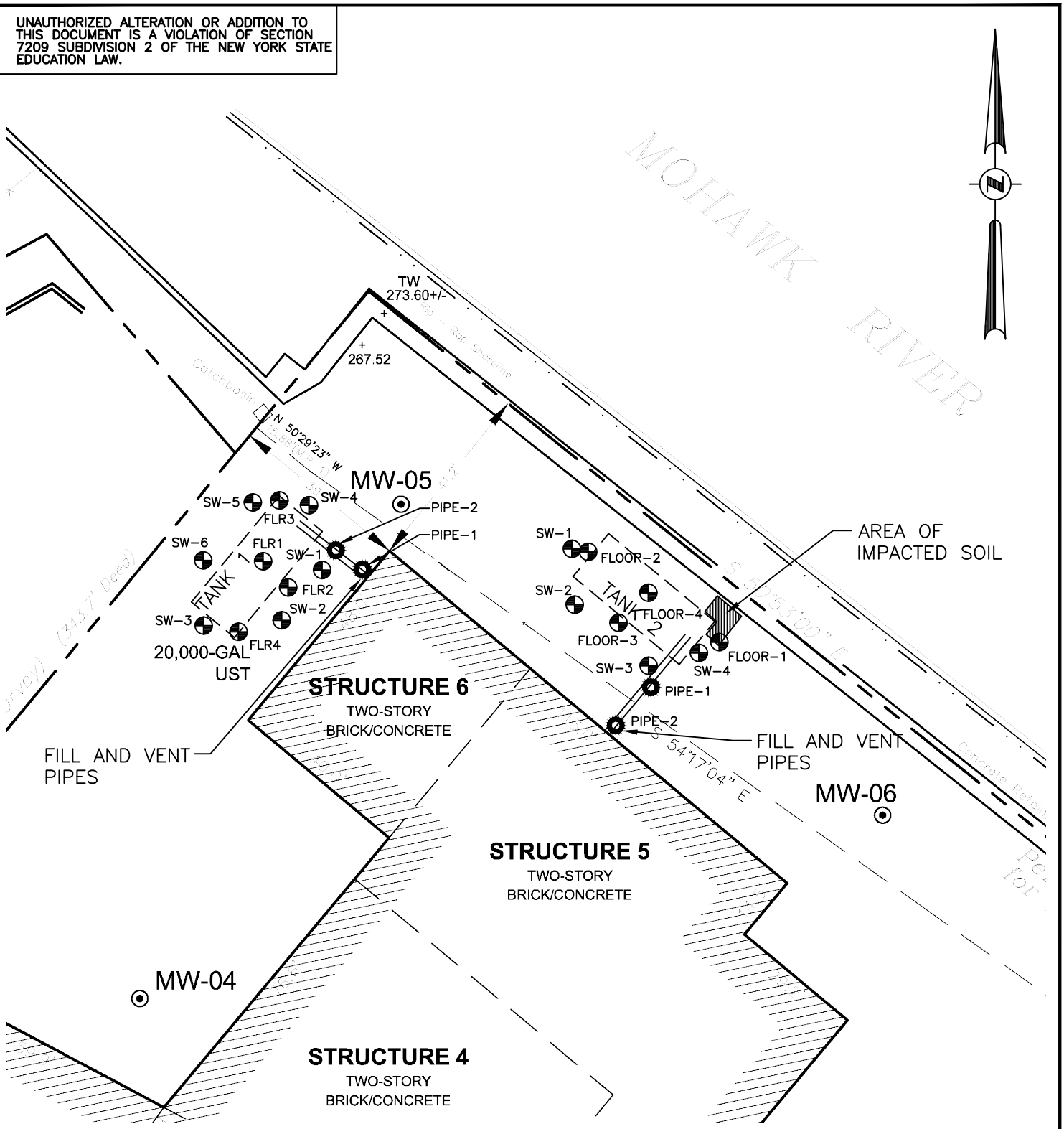
C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SCALE: NOT TO SCALE | DATE: DEC. 6, 2012

CAD DWG. FILE NAME: COURTYARD SAMPLING PLAN

NONE :XREFS

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.



MAP REFERENCE:
1.) EXISTING CONDITIONS PLAN, SHEET L100, PREPARED BY SARATOGA ASSOCIATES OF SARATOGA, NY, DATED 10-29-10.

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

Date	RECORD OF WORK	Appr.

Drafter: J.MARX	Checker: D.SHEARER
Appr. by:	Proj. No. 10.1580

FIGURE 4
TANK CLOSURE END POINT SOIL SAMPLE LOCATIONS
CHALMERS BUILDING ERP

CITY OF AMSTERDAM	MONTGOMERY COUNTY, NY

C.T. MALE ASSOCIATES
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50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SCALE: NOT TO SCALE	DATE: DEC. 6, 2012

CAD DWG. FILE NAME: TANK CLOSURE SAMPLE LOCATIONS.DWG