

**CONSTRUCTION COMPLETION REPORT
REVISION 2**

BMS Syracuse Facility Transformation Project

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**ENVIRONMENTAL REMEDIATION
REGION 7 - SYRACUSE**

**Bristol-Myers Squibb Company
East Syracuse, NY**

October 2018



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BMS Syracuse Facility Transformation Project

East Syracuse, NY

Prepared for:
Bristol-Myers Squibb Company

I, Mark Weeks, certify that as a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Transformation Project components were implemented and that all construction activities were completed in substantial conformance with the DER-approved Soil Management Contingency Plan.



MARK WEEKS, PROJECT MANAGER
O'Brien & Gere Engineers, Inc.



TABLE OF CONTENTS

Table of Contents	i
LIST OF TABLES	ii
LIST OF FIGURES	ii
LIST OF ATTACHMENTS	ii
1.0 BACKGROUND AND SITE DESCRIPTION	1
1.1 Transformation Project Overview	1
2.0 REMEDIAL ACTION OBJECTIVES	2
2.1 DESCRIPTION OF TRANSFORMATION ACTIVITIES	2
3.0 RESPONSE ACTIONS AND AREAS OF CONCERN	3
3.1 RESPONSE ACTIONS	3
3.1.1 Building 52 Caustic Soil	3
3.1.2 Building 52 Transformer Leak	4
3.1.3 Building 20 Investigation	4
3.1.4 Building 55 Petroleum Impacted Soil	4
3.1.5 Purple Dirt	5
3.1.6 Building 4 Tank Vault	5
3.2 AREAS OF CONCERN	6
3.2.1 Hazardous Wastes	6
3.2.2 ST Tank Farm	6
3.2.3 Tank Secondary Containment Dikes	6
3.2.4 Tanks	7
3.2.5 Transformers	7
3.2.6 Pipe Racks, Pipe Chases and Tunnels	7
3.3 REMEDIAL CONTRACTS	8
4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED	9
4.1 GOVERNING DOCUMENTS	9
4.1.1 Site Specific Health & Safety Plan (HASP)	9
4.1.2 Quality Assurance Project Plan (QAPP)	9
4.2 SOIL/MATERIAL MANAGEMENT	9
4.2.1 Planning/Scheduling	9
4.2.2 Soil Management	10
4.2.3 Excavated Soil Characterization and Disposal	11
4.2.4 Excavation Dewatering	11
4.2.5 Restoration of Excavated Areas	11
4.2.6 Storm-Water Pollution Prevention Plan (SWPPP)	12
4.2.7 Community Air Monitoring Plan (CAMP)	12
4.2.8 Community Participation Plan	12
4.3 REMEDIAL PROGRAM ELEMENTS	12
4.3.1 Contractors and Consultants	13
4.3.2 General Site Controls	13

4.3.3 Monitoring Well Abandonment	13
4.3.4 Nuisance controls.....	13
4.3.5 CAMP Results	13
4.4 CONTAMINATED MATERIALS REMOVAL	14
4.4.1 Contaminated Soil	14
4.4.2 Other Materials	14
4.5 IMPORTED BACKFILL	14
4.6 CONTAMINATION REMAINING AT THE SITE.....	14
4.7 SOIL COVER SYSTEM.....	14
4.8 OTHER ENGINEERING CONTROLS	15
4.9 INSTITUTIONAL CONTROLS.....	15

LIST OF TABLES

3-1	Waste Summary
3-2	List of Tanks
3-3	Transformers
4-1	Excavation Permit Summary
4-2	Project Log Summary
4-3	CAMP Monitoring Summary
4-4	Contractor Summary
4-5	Imported Fill Summary

LIST OF FIGURES

1-1	BDA Boundary
3-1	Exterior Tank, Transformer and Pipe Raceway Locations
3-2	Building 52 Caustic Soil
4-1	Site As-built (Sheet 1)
4-2	Site As-built (Sheet 2)
4-3	Imported Fill Location

LIST OF ATTACHMENTS

1 – Transformation Documents
1-1 – Recognized Environmental Issues
1-2 – Waste Handling Plan from Project Scope of Work
1-3a – Soil Management Contingency Plan (SMCP)
1-3b – SMCP Exhibits
Exhibit A – Health and Safety Plan (HASP)
Exhibit B – Storm Water Pollution Prevention Plan (SWPPP)
Exhibit C – Excavation Permit
Exhibit D – Project Log
Exhibit E – OCDWEP Approval Letter
1-4a – BMS EHS Work Plan, Rev 4
1-4b – Pike HASP 00000-CM-3.9 Rev 1
1-4c – Cleveland Demolition Plan
1-4d – Cleveland HASP, Rev 1
1-5 – 01732-1.4B-10 Dust Control Plan, Rev 01
2 – Building 52 Caustic Soil Response
2-1 – Analytical Packages
2-1a – J28950-1 UDS level 2 Report Final Report
2-1b – J28952-1 UDS Level 2 Report Final Report
2-1c – J29251-1 UDS Level 2 Report Final Report

- 2-1d – Lab Report_French Drain Water 041713
- 2-2 – Waste Characterization
 - 2-2a – B52 Waste Profile
 - 2-2b – B52 Soil Test Results 07052016100942
- 2-3 - 47616-B61 French Drain Revised 12-17-2012
- 2-4 – B52 Soil pH Letter Final combined 060713
- 2-5 – Landscape West As-Built
- 2-6 – Nov 2012 Sample Summary
- 2-7 – OBG B52 Field Memo 112012 samples
- 2-8 – Table 1 Detection Summary
- 2-9 – DC-B52MEP-AI Post Approved
- 2-10 – French Drain Sample - 022213
- 3– Building 52 Transformer Leak
 - 3-1 – Attachment 4b B52 Transformer Oil Report 15FEB13
 - 3-2 – B52 Transformer Leak Photos Red.
 - 3-3 – Strang-Ward Memo 1-22-13 PCB Management
 - 3-4 – Transformer Leak Report by Jackson 07052016095828
- 4 – Building 20 Vial Investigation and Restoration
 - 4-1 – Bldg. 20 Report 092012
 - 4-2 – C-Y-108 As-Built
 - 4-3 – C-Y- 510 Courtyard Details As-Built
 - 4-4 – RH Law Vial Report
- 5 – Building 55 Petroleum Impacted Soil
 - 5-1 – Bldg. 55 Diesel Smell Final Analytical Report
 - 5-2 – Bldg. 55 Suspect Material 10-7-11
 - 5-3 – DS-55 Tank Failure
 - 5-4 – NYSDEC Spill Record
 - 5-5 – Petro Soil Email – Locke re: Manifest Location
- 6 – Purple Dirt Information
 - 6-1 – 3-B Exhibit B Report of Results of Analysis of Purple Colored Dirt
 - 6-2 – 080211 Purple Dirt Loc.
 - 6-3 – 080411 Purple Dirt
- 7 – ST Tank Farm
 - 7-1 – Mod 38 Signed
 - 7-2 – ST Tank Farm Field Notes revDJC
 - 7-3 – ST Tank Farm Closure Report Final 11.14
 - 7-4 – STFF Closure Plan 042412
- 8 – Sketch of Drains in Building 4-B
- 9 – Excavation Permits – Brownfield Excavation Permits
- 10 – Project Logs
 - 10-1 – Rpt 2011-001
 - 10-1a – Bldg. 55 Diesel Fuel Tank
 - 10-1b – Rpt 20100-001
 - 10 – Rpt 2011-002
 - 10-2a – Rpt 2011-002
 - 10-2b – S-Y-100
 - 10-3 – Rpt 2012-001
 - 10-3a – Accutest Lab Liquid Vials Sample
 - 10-3b – Email, Liquid Vials
 - 10-3c – Liquid Vials Transfer Form
 - 10-3d – Rpt 2012-001 More Vials of Liquid 7-17
 - 10-3e – Rpt 2012-001
 - 10-4 – Rpt 2012-002
 - 10-4a – Rpt 2013-002
 - 10-5 – Rpt 2012-003
 - 10-5a – Rpt 2012-003

- 10-5b – TA Rpt 480-29296-1
- 10-6 – Rpt 2012-004
 - 10-6a – Rpt 2012-004
 - 10-6b – Test America Soil From Roll-off
- 10-7 – Rpt 2012 -005
 - 10-7a – B52 Soil Test Results 07052016100942
 - 10-7b – Rpt 2012-005
 - 10-7c – TA Rpt 480-28950 1 White Precipitate
- 11 – Dewatering Discharge Information
 - 11-1 Analytical Results
 - 11-1a – B9 Groundwater Test Results 07052016095342
 - 11-1b – Groundwater to WWpTP 27-31 Aug 2012 J24446-1 UDS Level 2 Report Final Report
 - 11-1c – Groundwater to WWpTP Aug 2012 J23627-1 UDS Level 2 Report Final Report
 - 11-1d – Groundwater to WWpTP Aug 2012 J23627-1 UDS Level 2 Report Rev (1) Final Report
 - 11-1e – Groundwater to WWpTP Dec 2012 J17106-1 UDS Level 2 Report Final Report
 - 11-1f – Groundwater to WWpTP March 2012 J17106-1 UDS Level 2 Report Final Report
 - 11-2 – GW to Sewer Documents
 - 11-2a – BMS 3-5 to 318-2012 GW SMR
 - 11-2b – BMS 8-6 to 8-19-2012 GW SMR
 - 11-2c – BMS 8-20 to 9-2-2012 GW SMR
 - 11-2d – BMS 12-17 to 12-30-2012 GW SMR
 - 11-3 – 2013 Groundwater Discharge Permit Extension
 - 11-4 – OCDWEP Permits 07052016100704
- 12 – CAMP Daily Logs
 - 12-1 – 2012
 - 12-2 – 2013
 - 12-3 – 2014
 - 12-4 – Met Data
 - 12-5 – Example Daily Log
 - 12-6 – Site Work Activity Log
- 13 – Fact Sheet for Transformation Project
 - 13-1 Attachment 12- BMS BCP Fact Sheet
 - 13-2 – Citizen Participation Plan
 - 13-3 – Fact Sheet – Brownfield Cleanup Program
- 14 – Design Package # 1
 - 14-1 – 45836 BMS DP1 IFB to IFC Final Set 5.17.11
 - 14-2 – BMS SSTP DP-1 IFC Specs 5-16-11_1
 - 14-3 – Perform SOW Attachments Combined
- 15 – Well Abandonment Reports
- 16 – Waste Material and Impacted Soil Disposal Information
 - 16-1 – E-Waste
 - 16-2 – Hazardous Waste
 - 16-3 – Miscellaneous Materials
 - 16-4 – Non-Hazardous and Universal Waste
 - 16-5 – Salvage
 - 16-6 – Shredded Material
- 17 – Imported Backfill Documentation
 - 17-1 – Brickyard Topsoil Submittal
 - 17-2 – Fill Submittals
 - 17-3 – Fly Road Topsoil
 - 17-4 – HW Smith
 - 17-5 – St. Joe's
 - 17-6 – Topsoil Tickets
 - 17-7 – Truck Fill Tickets
- 18 – SWPPP Inspection Forms
 - 17-1 – Attachment 17 - SWPPP

17-2 – SWPPP Reports
19 - DER-10 Certification



1.0 BACKGROUND AND SITE DESCRIPTION

The Bristol-Myers Squibb (BMS) Syracuse facility is a 90-acre facility located at 6000 Thompson Road in the Village of East Syracuse, Town of Dewitt, Onondaga County, New York. Approximately 23.8 acres of the facility were entered into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) as site C734138, which is referred to as the BMS Syracuse North Campus Restoration Area (the BCP site). BMS entered into a Brownfield Cleanup Agreement (BCA) for the BCP site with the NYSDEC on October 18, 2011.

The BMS Syracuse facility was used for the manufacture and packaging of antibiotic pharmaceuticals, including penicillin (PEN) and cephalosporin antibiotics, from the 1940s until 2007, as well as other activities. Buildings in which PEN production occurred cannot be used for other pharmaceutical production without completing and thoroughly documenting expensive and difficult PEN decontamination procedures required by the Food and Drug Administration (FDA). As a result, the BMS Syracuse Facility Transformation Project (Transformation Project) was implemented with the purpose of removing idle equipment, demolishing the vacant obsolete manufacturing buildings, and transforming the BMS Syracuse facility in to a "penicillin-free" biopharmaceutical campus. Many of the buildings and areas affected by the Transformation Project were within the BCP site boundary.

During the course of the Transformation Project certain remedial actions were undertaken, which are documented in this report. The purpose of the report is to document the actions that were taken. This report documents work completed through July 31, 2013, and does not include actions conducted since that date. Those actions will be documented in the final closure report for the BCA or other appropriate reports.

A figure showing the BMS Syracuse facility, the BCP site boundary, and the buildings demolished as part of the Transformation Project is included as Figure 1-1.

1.1 TRANSFORMATION PROJECT OVERVIEW

The Transformation Project included the following general activities:

- Decontamination and demolition of 23 buildings, including removal of interior utilities, tanks and other related materials
- Construction of a pipe rack near Buildings 6 and 20
- Revisions to the North Gate
- Relocations or rework of site utilities as needed to demolish designated buildings
- Site-wide conversion to a VoIP communication/data system
- Site restoration required to stabilize the areas involved for stormwater drainage requirements along with repaving of areas impacted by PEN Building Demolition
- Construction of a decorative courtyard
- Removal, plugging and/or re-routing of subsurface utilities including sanitary sewer, storm water sewer, tower water, chilled water, electric, communication, steam, condensate, natural gas and city water
- Removal of overhead pipe racks and associated utilities
- Removal of unused transformers and substations
- Removal of unused tanks farms and associated containment dikes
- Removal of surface features such as roads and walkways

The Transformation Project work began in May 2011 and the work was substantially completed on July 31, 2013. The Transformation Project included activities that were located outside the boundaries of the BCP site, and activities that were completed prior to the site being accepted into the BCA.

2.0 REMEDIAL ACTION OBJECTIVES

The Site will remain in control of BMS and be used as open space or potentially occupied by drug manufacturing buildings. NYSDEC's DER-10 specifies that NYSDEC's generic Remedial Action Objectives (RAOs) be used where applicable for Site media. Applicable general RAOs used for the Transformation Project are presented below for soil and groundwater at the Site. Final RAOs for the site will be developed as part of the remedial program that is currently being completed as part of the BDA.

Soil

Appropriate management of impacted materials requiring removal during completion of Transformation activities.

Water

Prevent direct discharge of water generated during Transformation activities through Site outfalls.

2.1 DESCRIPTION OF TRANSFORMATION ACTIVITIES

Contaminants encountered during the Transformation Project were located in relatively shallow areas and/or within utility corridors. The objectives of all remedial actions were to permit the completion of the Transformation Project, and not to remove the full extent of the impacted areas. Any contaminants in the immediate area of the work were removed as appropriate, and the area noted with the intention that BMS would address, or fully delineate, any remaining contaminants later as part of the overall site remedial program for the BCA. Additional remediation objectives for specific areas are described in Section 3.1 – Response Actions.

Following completion of the activities detailed in Section 1.1 above, the areas were restored as open areas and were seeded, landscaped, or covered with hard surfaces for use as parking lots, roads or walkways.

Prior to start of the demolition activities, a hazardous materials survey was completed on the structures identified to be demolished. This survey identified tanks and containers of chemicals as well as items that would need to be handled as universal or solid waste. A document summarizing the survey findings was provided to the contractor with the design package. A copy of this document is included with Attachment 1. These materials were subsequently removed and recycled or properly disposed of off site.

Additional materials including asbestos, PCB-containing caulk and hydraulic oils were identified and removed in accordance with associated regulations. The procedures for management of these materials are identified in the Waste Management Plan included in Attachment 1.

As most of the buildings were formerly associated with PEN production, which has the potential to trigger an anaphylaxis reaction, the buildings were decontaminated to neutralize potentially active PEN spores before demolition to avoid the potential for exposure. In general, the decontamination process included spraying down interior surfaces, vessels and HVAC materials with a sodium hypochlorite solution. Particulate debris was removed with a vacuum fitted with a HEPA filter. Items that could not be washed with the solution were bagged and disposed at a permitted landfill.

Removal of the ST Tank Farm is singled out from other tank farms in this report as this was the only tank farm in the Transformation area with "active" underground storage tanks. The Transformation Project was responsible for preparing and submitting the UST closure report prior to demolition.

3.0 RESPONSE ACTIONS AND AREAS OF CONCERN

3.1 RESPONSE ACTIONS

Response actions are defined for this document as areas where impacted soil was identified that needed implementation of additional actions that were beyond the scope of the Transformation Project as designed. These actions occurred on 5 occasions as follows:

3.1.1 Building 52 Caustic Soil

Concrete and surface structures associated with Building 52 and solvent recovery were removed on November 11, 2012. After removal of the concrete surface and surface structures associated with Building 52, on November 13, 2012 an approximate 180 by 120 ft. area encompassing Building 52 and the solvent recovery structures was graded in preparation for completion of a parking area (see Figure 3-2 and Attachment 2-5). The removal activity included as much as 2 ft. of material from the western end of the Building 52 area. On November 19, 2012, a white coating was found to be present on in-place soil that had been under standing water over the previous weekend. The observance was recorded in Subsurface Discovery Log 2012-005. The initial response action completed in November 2012 included removal of water from the surface on two occasions using a vacuum truck followed by removal of approximately 8 inches of soil. Approximately 150 cu. yds. of soil were generated as shown on Table 3-1. Water and soil generated were collected disposed off-site by Clean Harbors at High Acres Landfill. Disposal manifests are included in Attachment 16-4.

Soil and water samples were collected from the area on November 20, 2012. The samples were analyzed for VOCs plus TICs, SVOCs plus TICs, alcohols, glycols and pH to help identify what constituents were present. Additional water samples were collected on November 29, 2012 from two ponded locations and analyzed for anions, cations, sulfate, chloride and alkalinity to further assess the precipitation that was occurring. The results of these analyses are included in Attachment 2.

The results of the soil analyses identified pH of 10 to 11 in the areas closest to the wall and low concentrations of SVOCs, primarily polycyclic aromatic hydrocarbons (PAHs). The water was found to contain trihalomethanes and had pH values in the range of 8 to 9.

Based on the analytical results and the continued pooling of water, a french drain system was designed and installed along the western portion of the former Building 52/Solvent Recovery area to intercept shallow groundwater seepage along the western boundary of the former B52 structure to minimize further saturation of near surface soil which could undermine the subbase of the parking surface in this area. This area is located at the base of a 10-foot embankment as shown on Figure 3-2. The collection system is approximately 70 feet long and between 6 and 9 feet deep. It is connected to catch basin CB7-34 which is part of the facility stormwater collection system and which discharges to Outfall #007. Construction of the french drain was completed between January and March 2013. A copy of the record drawing is included in Attachment 2. Subsequent inspection of the manhole identified the presence of water indicating that the french drain is collecting water as intended.

Following construction, a sample of the water within the french drain was collected for analysis. An initial sample was collected on February 22, 2013. This sample was analyzed for metals, phenolics, PCBs, cyanide, asbestos, and priority pollutant list VOCs, SVOCs and pesticides. The results indicated low concentrations of chloroform, PCB-1242, chromium, copper and nickel. A validation review of the PCB results concluded that the detected PCB-1242 concentrations should be non-detect as the concentrations are reflective of background response. A copy of the results and the data validation report are included in Attachment 2. A second sample, collected on April 17, 2013, was analyzed for VOCs plus 10 TICs, SVOCs plus 30 TICS, PCBs, alcohols and glycols. At the time of sample collection, flow was noted to be steady, allowing for a sample to be collected. The only constituent detected in the sample was acetone at an estimated concentration of 4.2 micrograms per liter (µg/l). A copy of the analytical report is included in Attachment 2-1.

On April 4, 2013, during excavation work associated with the french drain, the perimeter foundation of Building 52 was removed. During this excavation, a white, solid material was exposed. Subsequent to removal of the foundation, the soil containing this material was screened for pH. Measurements of pH were taken using pH paper

from a total of 23 locations. The pH values of the soil generally ranged from 8 to 10. Soil in the southwest corner had pH values of between 10 and 12. Soil pH measurements on the north sidewalk were around 10 to 11. This information was summarized in a letter dated June 7, 2013. A copy of this letter is included in Attachment 2. The DEC indicated they did not concur that the data collected fully supported the assertions of this letter.

Approximately 50 cy of material was generated and disposed off-site as non-hazardous material by Waste Management, Inc. (Profile # 111143NY). The removal and disposal of this soil was done directly by BMS, outside of the scope of the Transformation Project. Material characterization records are located in Attachment 2-2, and disposal records in Attachment 16.

On April 18, 2013, there was a dialog held between BMS and DEC personnel regarding potential treatment of this area with citric acid. Treatment of this type was not conducted.

3.1.2 Building 52 Transformer Leak

On October 31, 2012, the demolition contractor reported leakage from a transformer located within a secondary containment berm in the Building 52 area. Based on follow-up evaluation, the contractor responsible for draining the oil failed to remove a high-level plug, creating a vacuum condition which entrained some of the oil in the transformer. When demolition of the transformer was initiated, the vacuum was broken and the oil was released to the surrounding gravel and concrete. Clean Harbors verified that the oil was non-PCB-containing (less than 50 ppm), cleaned up the oil that was spilled, and decontaminated the containment area. Subsequent to this occurrence, procedures for transformer removals were modified to include comparison of the volume of oil contained against the amount removed to minimize the potential for incomplete drainage in the future. A copy of the report documenting the spill and the response is included in Attachment 3.

3.1.3 Building 20 Investigation

Building 20 was located in an area of the Site that was targeted to be redeveloped as a courtyard area during the Transformation Project. During removal of the building slab, glass vials were observed to be present in an area with dimension of approximately 3 feet by 3 feet, in soil that was greyish in color and contained ash. Inspection of the vials revealed that they were filled with a clear liquid. The liquid in the vials was analyzed and found to contain one or more of the following:

- Saline solution
- Water
- Glycerol liquid and a modified polyethylene solid
- Thiamine HCL
- Polysaccharide (i.e. corn syrup)
- Calcium
- Ester based aliphatic hydrocarbon (natural oil, i.e. palm oil)
- » Soil mixed with the vials was analyzed and found to be non-hazardous.

Excavations completed to remove the vials encompassed an area approximately 13 feet by 15 feet. After finding that the vials did not contain constituents of concern, excavation for the purpose of removing any remaining vials was discontinued. There is no record of the NYSDEC approving this decision – additional remedial actions may be necessary at a later date. As part of the redevelopment activities, the mixture of soil and vials removed from the area were placed into roll-off containers, transported to Clean Harbors of Connecticut in Bristol, CT for processing and subsequently disposed of off-site at the Model City Landfill in Niagara Falls, NY. All available reports documenting the Building 20 investigation and findings are included in Attachment 4. Disposal records are in Attachment 16.

3.1.4 Building 55 Petroleum Impacted Soil

On September 12, 2011, a petroleum-impacted oily sheen was observed on water entering an excavation being conducted to the east of Building 55 as part of a waterline installation. This discovery was recorded as Project Log 2011-001. NYSDEC was contacted and Spill number 1107630 was issued. Additional petroleum-impacted soil was observed on October 6, 2011 while drilling for caisson installation in the same general areas as part of the

Transformation Project. Project Log 2011-002 was prepared to track this discovery. The project logs are found in Attachment 10, and a copy of the spill number information from the NYSDEC website is provided in Attachment 5. Upon review of files and further discussion, it was determined that the petroleum-impacted soil and water encountered at these locations was likely related to a former diesel underground storage tank (UST) that was removed in 1986. A copy of the spill record from the NYSDEC files that documents this incident is also included in Attachment 5.

Response actions for each discovery included excavation of petroleum-impacted soil based on field observation of odors, staining or sheens. The excavated soil from the first discovery was placed into 19 drums for later disposal off-site. Impacted soil from the second discovery was staged at the former Fulton Iron and Steel Scrapyard (the Fulton site). A figure depicting the location of these discoveries can be found in Attachment 5, in the B55 Spill Notice 091211. The soil was placed on and covered with plastic pending characterization and off-site disposal at the Clean Harbors Environmental Services El Dorado, Arkansas facility. The test report for this material can be found in Attachment 5. These response actions occurred after the site's BCP application was accepted (September 6, 2011), but before the BCA was executed (October 18, 2011). BMS advised the Transformation Project that any contaminants discovered during the project would be noted but not be fully delineated at that time. Therefore, there was no post-excavation sampling to verify that all contaminated soil was removed. The true extent of this contamination was not determined at the time of this excavation.

3.1.5 Purple Dirt

Historically, areas of purple-colored dirt and rocks were observed in various areas of the BDA. Two potential sources of the purple staining were identified by BMS: 1) a purple dye (described as gentian violet, crystal violet or methyl violet) was used as an indicator color in a methanol-acetone solution used for temperature control systems; and 2) there are reports that dimethylaniline used in the splitting/extraction process for 6-APA and 7-ACA production would exhibit a purple color when it contacted air and soil. A potential mechanism for this reaction was described by B.K.G. Theng in a paper entitled "Mechanisms of Formation of Colored Clay-Organic Complexes. A Review" (Clay and Clay Minerals, 1971, Vol. 19, pp 383-390).

To better characterize the nature of the "purple dirt," BMS collected and analyzed several samples of purple-colored soil from an excavation between Buildings 6 and 32. Based on the results of these analyses, no hazardous substances were identified in the "purple dirt" samples, and the purple color did not leach from the soil. A copy of the report summarizing the results of the analyses is included in Attachment 6.

While the existence of the purple color does indicate a historical release, it is not known if the release was significant or if any residual of the release other than the purple color remains. Gentian violet nor its breakdown products are listed or characterized as hazardous wastes. Based on data obtained during the subsequent remedial investigation, it appears aniline is likely a breakdown product of *n,n*-dimethylaniline (DMA). DMA and aniline are included in the list of hazardous substances in 6 NYCRR 597.

Purple-colored dirt was encountered in several locations within the BCP during the transformation activities including:

- Within a utility trench behind Building 20 (August 2, 2012)
- Within a utility trench behind Building 6 (August 4, 2012)
- Within a utility trench north of Building 25A (August 6, 2012) – Syracuse Utilities (Non-Transformation project)

In all cases, Purple Dirt, when identified within a Brownfield excavation, was identified by location and returned to the source excavation for potential remediation at a later date. Discoveries of Purple Dirt outside the Brownfield, outside the scope of the Transformation Project, or previous to or post Transformation activities are not included in this report.

3.1.6 Building 4 Tank Vault

The removal of the tanks in the B4-B "wine cellar" and subsequent slab cracking on March 8, 2013 revealed a black stained area approximately 15 feet long by 6 feet wide which was identified as residual from pen/ceph production

(separation column bottoms, sludge in pipe lines, etc.). BMS EHS, with DEC on site, determined the stain was PEN and not hazardous. The area was sprayed with "orange crush", bleached, scrubbed, soaked up and the residual removed and containerized with other PEN waste for removal off site. A sketch and photos showing four floor drains within this cellar area indicate the drains were abandoned by filling with concrete. This sketch can be found in Attachment 8.

3.2 AREAS OF CONCERN

3.2.1 Hazardous Wastes

A Waste Survey was conducted within each of the buildings as part of the Transformation Project design activities. The result of this survey was a compilation of material within each building organized by floor, and in some instance by room, in which it was located. The materials were categorized as Solid Waste, Universal Waste and/or Potentially Hazardous Waste. A copy of the list is included in Attachment 1.

A Waste Management Plan (WMP) was prepared as part of the Transformation Project. This plan identified general procedures for management of materials encountered during completion of the program. In addition to specific information pertaining to previously identified waste materials, the WMP (Attachment 1) included a process for the assessment of unknown wastes that might be encountered during demolition. This assessment process includes three steps as follows: 1) Notification, 2) Initial Response, and 3) Waste Characterization.

Hazardous wastes are those defined in 6 NYCRR part 371 as meeting one or more of the following:

1. The waste exhibits any of the four characteristics of a hazardous waste: ignitability, corrosivity, reactivity, or toxicity.
2. The waste is a listed hazardous waste in Part 371.
3. The waste is a mixture of a listed hazardous waste and a non-hazardous waste.

The following types of hazardous wastes were managed during the process:

- Containerized Material, including laboratory reagent bottles, drums and process vessels.
- Residues contained in vessels pipes, sumps and pits.

A table summarizing the materials removed from the site is included as Table 3-1, including the date of shipment, manifest or Bill of Lading number, disposal facility and the type and volume of waste. Included in this listing are small shipments of hazardous waste such as mercury, fluorescents, lead, etc. that were containerized and combined with other site waste, as appropriate. One small spill of mercury, inside a building designated for demolition, was cleaned with no contamination to surrounding soil. The manifest for this spill can be found in Attachment 16.

3.2.2 ST Tank Farm

The ST Tank Farm was located on the west side of the BDA immediately north of Building 41. This tank farm included six horizontally-seated tanks within a gravel-filled concrete vault. The tanks in the ST Tank Farm were installed in 1995 to replace the original tanks installed in 1970. The vault was constructed in 1968. The replacement tanks were removed from service between 2003 and 2007, and were physically removed as part of the Transformation Project under a NYSDEC-approved closure plan (OBG, April 2012). As required by NYSDEC Chemical Bulk Storage regulations (6NYCRR Part 598.10 - Closure and Change-In-Service) and the New York State hazardous waste management facility rules (6 NYCRR 373-2.7), a UST closure plan and UST Closure Report were submitted to the NYSDEC on April 24, 2012, and November 14, 2012, respectively. Copies of these documents are included as Attachment 7.

3.2.3 Tank Secondary Containment Dikes

Secondary containment dikes were in place for most of exterior tanks. These dikes were generally constructed of concrete. As part of the demolition activities the sidewalls of the dikes were removed and the floors cracked to facilitate site drainage. The materials were left in place or partially removed as needed to accommodate the final side grades.

3.2.4 Tanks

Multiple petroleum bulk storage tanks, chemical bulk storage tanks, and process tanks and vessels were removed during the Transformation Project. The contents of active tanks were drained and all the tanks were cleaned by BMS prior to initiation of the Transformation Project. The removal process included verification that the tanks were empty and cleaned, followed by disassembly, removal and disposal at a BMS-approved scrap metal facility.

A list of the tanks removed during the Transformation Project is provided as Table 3-2. A map showing the locations of exterior tanks is provided as Figure 3-1. Disposal of scrap metal is documented in salvage tickets, included in Attachment 16.

3.2.5 Transformers

Transformers were located inside buildings, on building rooftops and outside of buildings. The locations of the rooftop and outdoor locations are provided on Table 3-3. This table lists the locations and size of each the identified transformers. Each of the transformers was labeled as non-PCB containing either with a retro-fit label stating the unit had been filled with non-PCB fluids or a manufacturers' labels stating the unit contained non-PCB fluid. Oil within the transformers was removed prior to initiation of the Transformation Project and disposed of off-site in accordance with applicable regulations. All transformers were removed and disposed of as scrap, as they were all documented as non-PCB containing.

3.2.6 Pipe Racks, Pipe Chases and Tunnels

A variety of structures were formally used by BMS as part of their operations to provide chemical and utility transfer pathways throughout the site, including:

- overhead pipe racks,
- tunnels,
- below-grade concrete chases, and
- at-grade concrete trenches.

The following utilities and chemicals were transferred through these structures:

- steam and condensate
- liquid nutrients and feedstock for the fermentation processes (including, but not limited to, corn steep and lard oil)
- acids and caustics (including, but not limited to, sulfuric acid, acetic acid, sodium hydroxide)
- ethylene glycol for heat transfer
- solvents (including, but not limited to, acetone, butyl acetate, methanol, methylene chloride, acetonitrile, toluene)
- ammonia and ammonium hydroxide
- waste solvent

The locations of these structures are shown on Figure 3-1.

The piping was drained of contents by BMS prior to starting the Transformation Project. Contractors physically verified the lines were empty prior to removal. Where necessary, ACM was removed prior to dismantling. The overhead pipe racks and associated utility lines were dismantled and disposed of off-site as scrap metal where possible. The remaining materials were disposed of as C&D, ACM, or solid waste.

Subsurface pipe chases were identified at two locations as shown on Figure 3-1. One pipe chase ran from Building 4 complex, beneath Building 8, to the Upper Main Tank Farm (UMTF). The second pipe chase ran from Building 8 to Building 9. The pipe chases were constructed as shallow, below-grade concrete channels with steel or wooden covers for access. Following removal of the piping, the concrete was broken up and left in place.

Utility lines and chemical transfer lines were also located within a tunnel located between Buildings 24 and 25. This tunnel was constructed of concrete and was large enough to walk through. Building 25 was not demolished as part of the transformation. Due to the presence of an underground fire-water line traversing through this tunnel, the

tunnel was not demolished as part of the Transformation. Internal piping that was out-of-service was capped, and the north end of the tunnel near Building 24 was sealed off with concrete and covered with fill as part of the final site covering. The south end of the tunnel near Building 25 was fitted with a locking fence to limit access from the basement of that building.

Sanitary and storm sewers were cut and capped as indicated in the contract documents (Drawing notes 1-6 on M-Y-190 – in Attachment 1). Manholes were filled with controlled low-strength material (flowable fill). For manholes being taken out of service, without direct lines to buildings, the manholes were filled directly with flowable fill. For manholes remaining in service, plugging and grouting of abandoned piping was done per the contract documents. Additionally, piping over 4 inches in diameter that was abandoned in place was filled with flowable fill so as not to provide any conduit for sub-grade material transfer.

3.3 REMEDIAL CONTRACTS

In addition to activities presented above, BMS remedial contracts included material removal by Clean Harbors Environmental Services (caustic at Building 52 and transformers), Action Technical Services, and Asbestos and Environmental Consulting Corporation (AECC) (soil). These contracts were managed by BMS. Several excavations were performed on site by Syracuse Utilities associated with the repair or installation of fire water lines. Any spoils generated by Syracuse Utilities was transferred to the Fulton site and segregated from other piles. These contracts were outside of the Transformation Project scope of work.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Primary remedial action performed was removal of contaminated materials encountered during the transformation. As part of the surface restoration, hard surfaces were also placed over the caustic soils identified in the former Solvent Recovery area and portions of the new courtyard where the vials were removed.

Remedial activities conducted during the Site Transformation were conducted in accordance with the Soil Management Contingency Plan (SMCP; O'Brien & Gere, February 2012) as approved by NYSDEC. A copy of this document is included as Attachment 1.

4.1 GOVERNING DOCUMENTS

Elements of the SMCP were implemented in coordination with procedures and requirements established by the following documents:

4.1.1 Site Specific Health & Safety Plan (HASP)

Health and safety procedures associated with the Transformation Project were outlined in several documents. The BMS Syracuse Facilities Transformation Project EHS Work Plan (BMS, August 2010) document outlined facility-specific requirements and procedures to be followed and was organized into five sections:

- General Project Protocols
- General EHS Requirements
- Safety Specific Protocols
- Health Specific Protocols
- Environmental Specific Protocols

This document included general site rules for the prevention of cross-contamination between PEN and non-penicillin (non-PEN) areas of the facility. In addition, the document outlined pre-work notification and permit requirements, emergency notification and reporting obligations as well as the minimum expectation for health and safety precautions for on-site contractors.

To supplement the BMS EHS document, subcontractors provided company-specific health and safety plans that identified task-specific hazards and procedures to follow during implementation of specific tasks associated with the Transformation Project for the protection of employees and other personnel. Plans that were developed for this purpose are as follows:

- Health and Safety Plan (HASP) Bristol-Myers Squibb Syracuse Site Transformation Project, 6000 Thompson Road, East Syracuse, NY (The PIKE Company (PIKE), August 9, 2011)
- HASP for BMS Syracuse Site Transformation Project; Cleveland Wrecking Company, June 25, 2012

4.1.2 Quality Assurance Project Plan (QAPP)

A Quality Assurance Project Plan (QAPP) (O'Brien & Gere, 2012) was developed for sample management and analytical protocols to be followed by the testing laboratory for samples submitted for analysis. The QAPP was consistent with that developed for the Remedial Investigation in that it included information pertaining to the analysis for a variety of chemicals that were potentially present within the BDA. A copy of the QAPP is included as an appendix to the SMCP (Attachment 1).

4.2 SOIL/MATERIAL MANAGEMENT

Soil and materials management for the Transformation Project were outlined in the SMCP. A general overview of the procedures follows. More detailed information is presented in the SMCP included in Attachment 1.

4.2.1 Planning/Scheduling

As outlined in the SMCP, an excavation planning process was used to manage the activities associated with excavations at the site. Step 1 of the process was completion and approval of the BMS Excavation Permit, which was required for all subgrade excavations. The permit was initiated by the contractor and reviewed by BMS

engineering and EHS personnel prior to approval. Step 2 involved scheduling of the activity with the construction team as part of a 3-week look-ahead process. This schedule was regularly provided to NYSDEC as part of the notification process for ground-intrusive activities.

The BMS Excavation Permit process provided the mechanism for tracking subsurface activities conducted as part of the Transformation Project. Table 4-1 is a summary of the excavation permits issued for areas located within BDA by the Project. In addition to a permit ID, this table identifies the planned date and actual date of each excavation. Copies of the Excavation Permits are included as Attachment 9.

4.2.2 Soil Management

Each excavation was monitored for the presence of discoloration, odors, or other indicators that were representative of potential contamination. Soil management was then based on whether the soils were suspected to be contaminated as follows:

Soils Not Suspected to be Contaminated

Excavated soils that did not exhibit odors, discoloration, or other indicators suggesting contamination were available for reuse. The excavated soils were placed back within the footprint of the excavation, when possible, or they were stockpiled for later reuse in association with the Transformation Project. Stockpiling occurred in one of three places: within the BDA, within the remainder of the Facility, or at the Fulton site. This material was stockpiled separately from imported fill and other soil excavated during the Transformation Project that was suspected to be contaminated. These soils were not analyzed prior to reuse.

Soils Suspected to be Contaminated

When excavations encountered soils that were suspected to contain contamination based on observations of discoloration, odors or other indicators, work in that area ceased, BMS EHS was notified, and the impacted area of the excavation was protected as outlined in the SMCP. A Project Log was initiated to document the location and field observations. Copies of the Project Logs are included as Attachment 10. Table 4-2 summarizes the instances where impacted soil was encountered within the BDA and relevant activities associated with the discovery as identified in the project log.

As illustrated on Table 4-2, there were seven instances where suspected impacted materials were encountered. These can be grouped into the following:

Petroleum-impacted soil near Building 55 – Refer to Section 3.1.4, above, for a discussion of this event. Associated information is included as Attachment 5.

Fluid Filled Vials in the Building 20 area – Refer to Section 3.1.3, above, for a discussion of this suspected contamination. Associated information is included in Attachment 4. After it was determined that the vials were non-hazardous and impacted area was much larger than originally anticipated, it was agreed that the vials could remain in place.

Purple Dirt – Refer to Section 3.1.5, above, for the Purple Dirt discussion. Additional information is included in Attachment 6.

Petroleum-impacted soil near Building 61 - Impacted soil was observed northeast of Building 61. Less than 1 cubic yard of material was removed. This material was placed in the roll-off and disposed of with the IDW associated with the RI. This excavation was a non-Transformation project contracted by BMS to Syracuse Utilities.

White precipitate in Building 52 area – Refer to Section 3.1.1, above, for the discussion on the B52 Caustic Soil. Additional information is provided in Attachment 2.

Reused Fill Materials

In addition to the imported materials identified above, crushed demolition debris, including concrete, from the on-site buildings were used for backfill. This material was temporarily stockpiled for reuse on the adjacent Time Warner

lot, or within the Transformation Project area. Concrete from buildings that had the potential for penicillin contamination was shipped off-site as construction waste.

Excess soil and concrete that was removed during transformation activities and deemed uncontaminated in accordance with the SMCP was temporarily stockpiled on the Fulton site. This material was subsequently used for backfill.

Figure 4-3 shows the locations where the imported soil and fill materials were placed within the BDA. Subsequent to soil placement and prior to stabilization, the site experienced several weeks of heavy rain which significantly modified the soil position and depth.

4.2.3 Excavated Soil Characterization and Disposal

Excavated Soils Suspected to be Contaminated were stockpiled at a separate location on the BDA or the Fulton site pending characterization and off-site disposal. Once moved from the point of initial placement during excavation, the Soils Suspected to be Contaminated were placed on, and covered by, plastic sheeting to minimize contact with underlying soil and precipitation and the generation of fugitive vapors or odors. The stockpile area(s) were surrounded by a berm constructed using wood or hay bales placed beneath the plastic underlayment. For small volumes soil was placed in drums or lined roll-off containers.

Soil disposed offsite was associated with the impacted material removals discussed above and summarized on Table 4-2.

4.2.4 Excavation Dewatering

As outlined in the SMCP and in accordance with the Onondaga County Department Water Environment Protection (OCDWEP) permit, groundwater generated through dewatering of excavations was temporarily contained within the diked area of the Upper Main Tank Farm (UMTF) prior to being directed to the BMS Wastewater Pretreatment Plant (WWpTP) for treatment. A copy of the permit and extension are included in Attachment 11. The permit specified that the groundwater be sampled biweekly during discharge periods for the following parameters: pH, PCBs (USEPA method 608), total cadmium, total chromium, total copper, total mercury, total nickel, total zinc, total lead, oil and grease, volatile organic compounds (USEPA method 8260). Due to the limited volume of groundwater generated, samples were collected prior to each discharge event, which occurred four times during the project. Copies of the discharge logs and analytical results associated with these events are included in Attachment 11.

4.2.5 Restoration of Excavated Areas

Restoration of individual excavation areas was in accordance with the Transformation Project specifications and design drawings. In general, most excavations within the area were backfilled with the material removed or structural fill. Restoration of areas which required extensive soil removal due to suspected contaminated soils are describe below:

- Removal of the vials from the former Building B-20 area resulted in excavation of approximately 200 tons of material. Subsequent to removal the area was backfilled with uncontaminated soil originating from other areas of the BDA temporarily stockpiled at the Fulton Site, in addition to material imported from a construction project at St. Joseph's Hospital Health Center. The area was subsequently converted to a courtyard in accordance with the design specifications. The courtyard area was covered by pervious concrete pavers as shown on Drawing C-Y-108, provided in Attachment 4. A design section showing the pervious concrete paver and subbase to be constructed over the vial area is provided in Drawing C-Y-510 which is also included in Attachment 4. Soils within the vial area were excavated to approximately 16-inches below finished grade. As shown on the design section, 6-inch diameter underdrains were subsequently placed within 8-inch deep trenches. Filter fabric was placed on top of the working grade and lined the underdrain trenches. ASTM No. 2 subbase stone was installed within the underdrain trenches and to 8-inches above working grade. Four inches of ASTM No. 51 base stone was installed on top of the subbase stone. Two inches of bedding and joint material were then placed on top of the base stone, followed by the pervious concrete paver course.

- Petroleum-impacted soil identified north of Building 55, where 19 drums of impacted soil were removed and disposed of off site. The area was backfilled with approved imported fill from the St. Joseph's Hospital Health Center project.
- Soil exhibiting elevated pH was removed from the former Building 52 area as discussed in Section 3.1 of this document. The area was subsequently covered with asphalt for use as a parking area as illustrated on the site as-built drawings provided as Figure 4-1.

4.2.6 Storm-Water Pollution Prevention Plan (SWPPP)

Erosion and sediment controls for the Transformation Project were performed in accordance with a Stormwater Pollution Prevention Plan (SWPPP) prepared by Keplinger Freeman Associates (Keplinger Freeman Associates, Rev. 6 June 2010). The SWPPP describes temporary and permanent erosion and sediment control (ESC) measures to be implemented. In addition, NYSDEC acknowledged the Notice of Intent from BMS for coverage under General Permit No. GP-0-10-001 of construction-related activities associated with the Transformation Project (permit number NYR 10U513). A copy of the SWPPP is provided as Exhibit B of the SMCP (Attachment 1). The SWPPP procedures were followed through completion of final surface restoration. The ESC structures were inspected on a weekly basis and the inspections were documented in SWPPP Inspection Summaries. The final inspection was conducted on November 22, 2013. Copies of the SWPPP Inspection Summaries are included in Attachment 18.

4.2.7 Community Air Monitoring Plan (CAMP)

A Community Air Monitoring Plan (CAMP) was developed and included in the SMCP (Attachment 1) to provide requirements for monitoring of air quality to document that unacceptable levels of volatile organic compounds (VOCs) and/or particulates that might be generated during implementation of the work associated with the Transformation Project did not leave the BDA. The CAMP was implemented whenever ground-intrusive activities occurred within the BDA. For unplanned excavations to address immediately critical utility, fire water or other line breaks, efforts were made, to the extent possible, to initiate the CAMP procedures prior to excavation. In any case where CAMP was not initiated prior to the start of excavation due to emergency mobilization, monitoring was started as soon as possible thereafter. There were no BDA excavations during this project time frame that were not accompanied by CAMP monitoring.

In accordance with the CAMP, action levels were based on 15 minute time-weighted averages and related to comparison of the downwind to upwind concentrations. The specific action levels that required response action were 5 ppm for VOCs and 100 µg/m³ (control dust) or 150 µg/m³ (stop work) for particulates.

Table 4-3 summarizes the CAMP results for the ground-intrusive activities conducted within the BDA. As illustrated on this table, there were no exceedances of the action levels for VOCs and the particulate exceedances identified were attributed to passing vehicles and not excavation activities. The daily logs for CAMP monitoring are included in Attachment 12.

4.2.8 Community Participation Plan

A Citizen Participation Plan (CPP) for the BMS North Campus Restoration Area was submitted to NYSDEC on November 30, 2011. This document provided an overview of the BDA and the Site and described opportunities for citizen participation during the execution of the BDA activities at the site, in addition to providing contact information for the regulatory agencies. A copy of the document was placed in the East Syracuse Library which was identified as the public repository for this project, and is included in this report in Attachment 13.

A fact sheet announcing the availability of the Draft Remedial Investigation Work Plan for public review and comment was distributed in January 2013. This was the first public participation activity identified in the CPP. A copy of this fact sheet is included in Attachment 13. This followed the first Fact Sheet announcing the Building Demolition Project, in August of 2012. This is also included in Attachment 13.

4.3 REMEDIAL PROGRAM ELEMENTS

The Transformation Project was completed in accordance with the design documents prepared by O'Brien & Gere Engineers, ASM Engineering LLC, John P. Stopen Engineering Partnership, and Keplinger Freeman Associates

dated May 2011. These documents were prepared in conjunction with BMS personnel. A copy of the design package (*Design Package 1 – Syracuse Site Transformation Project – Demolition*, O'Brien & Gere and Keplinger Freeman Associates, May 2011) is included as Attachment 14. The following presents some of the elements of the implementation of the project:

4.3.1 Contractors and Consultants

Primary contractors and consultants that conducted activities associated with the Transformation Project and their roles are provided below:

- Project Management – BMS/O'Brien & Gere Engineers, Inc.
- Design Management – O'Brien & Gere Engineers, Inc., Keplinger Freeman Associates (site civil design), ASM Engineering, LLC (structural design), John P. Stopen Engineering Partnership (structural design), Associated Architects of Syracuse (architectural design).
- Construction Management – The PIKE Company.

A list of all subcontractors and sub-consultants that worked on the project is provided as Table 4-4.

4.3.2 General Site Controls

The BMS site is fenced, with access controlled by a series of gates that are either manned or controlled by electronic badges. Access to the site for personnel involved with the Transformation Project was generally through a gate located on the north end of the site. Contractors were required to sign in and out at the field trailer or north guard shack on a daily basis.

4.3.3 Monitoring Well Abandonment

Several monitoring wells were abandoned as part of the Transformation Project. Wells that were abandoned are as follows:

- Alleyway and CHAPA Wells - 10 well clusters, each consisting of 2-inch diameter wells that were installed to historically assess groundwater quality in these areas of the site.
- PW-1 located west of Building 41 – this well was found to be dry and not needed for the Remedial Investigation (RI).
- BCP-B20-001, BCP-B20-002, BCP-B20-003 – these wells were installed in the Building 20 area to obtain data prior to the RI and were removed prior to construction of the courtyard.

The monitoring wells were abandoned by Arcadis in in general accordance with *NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy* (November 2009) and ARCADIS Standard Operating Procedures (SOPs). Copies of the well abandonment reports are included as Attachment 15.

4.3.4 Nuisance controls

A Dust Control Plan was prepared for the program that required the use of water and other housekeeping practices to minimize the generation of dust during the Transformation Project. A copy of this plan is included in Attachment 1. The PIKE Company was responsible for implementing the plan. The plan identified activities that had the potential to produce dust and procedures to minimize fugitive dust emissions. These procedures generally consisted of minimizing vehicular traffic over unpaved areas and wetting of exposed soil and debris before and after certain activities. Additional efforts to minimize tracking of materials onto public roadways included requiring trucks leaving the site to cover loads with tarps and washing of truck tires before leaving the site. Dust control during actual building demolition was achieved with the use of misters, hoses and water cannons, with any runoff water directed to the appropriate catch basins and inlets.

4.3.5 CAMP Results

As discussed in Section 4.2.7, CAMP monitoring information is summarized on Table 4-3. Daily reports associated with the CAMP are included in Attachment 12.

4.4 CONTAMINATED MATERIALS REMOVAL

4.4.1 Contaminated Soil

Contaminated soil identified during the Transformation Project was associated with the occurrences recorded on the Project Log as provided on the Project Log Summary Table (Table 4-2). These materials were managed separately from other excavated materials and ultimately disposed of off site. The disposal facility is listed on Table 4-2. Documentation of shipping is provided in Attachment 16.

4.4.2 Other Materials

C & D material and excavated soil that were deemed unsuitable for reuse on the BDA were disposed off-site as non-hazardous waste. C&D debris that was deemed unsuitable for backfill was disposed at either Seneca Meadows or Ontario Landfill.

Other waste generated during the Transformation Project consisted of ACM, universal waste materials and other unused chemicals. A summary of these materials is provided as Table 3-1. Bills of lading and manifests associated with these materials are included in Attachment 16.

4.5 IMPORTED BACKFILL

Backfill used for localized excavation and site restoration included typical processed rock materials as well as soil and topsoil from off-site sources. The SMCP defined a process for the use of imported materials at the site. The process was consistent with that defined in NYSDEC DER-10 (NYSDEC, 2010) and included documentation of the source and the absence of constituents of concern. Consistent with this process, imported materials were obtained from several sources for use in the restoration of surfaces following completion of the demolition and removals. Table 4-5 summarizes the imported fill and includes the type, volume and source of material, approximate location where it was used, in addition to the type of testing completed. Supporting information including test results is included as Attachment 17.

Processed gravel materials were imported from the following locations:

- Jamesville Quarry/ Hanson Aggregates, Jamesville
- TH Kinsella in Jamesville or Fayetteville, NY

Topsoil and other soil/fill was imported from the following locations:

- RH Law stockpiles located at Fly Road, East Syracuse, NY
- HW Smith School, Syracuse, NY
- St. Joseph's Hospital Health Center, Syracuse, NY
- Brickyard Road Mine located in VanBuren, NY (Virgin topsoil)
- Virgin farmland off Fly Road

4.6 CONTAMINATION REMAINING AT THE SITE

Contamination remaining at the site is being addressed through the Remedial Investigation being conducted as part of the NYSDEC BDA.

4.7 SOIL COVER SYSTEM

Figures 4-1 and 4-2 provide the as-built of the site surface at the end of the project. As shown, the surface of the site is covered with a combination of seeded topsoil, planted landscaping areas, and hard surfaces consisting of concrete, asphalt or pavers (courtyard). Riprap or gravel was used to cover the surface of surface drainage channels where needed to prevent erosion. NYSDEC-approved imported topsoil was placed in a 4-inch layer site-wide. No demarcation layer was placed beneath the surface materials. As mentioned in section 4.5, heavy rains modified the topsoil placement and created areas without clean imported cover.

4.8 OTHER ENGINEERING CONTROLS

The primary engineering controls at the Site consist of constructed hard surfaces such as parking lots, roadways, walkways and the permeable pavers that cover the former Building 20 and Building 55 areas. The remaining engineering control is the french drain that was installed west of the former Building 52 area which is discussed in Section 3.1. In addition to the water diversion, this area has been covered with an asphalt and gravel parking lot.

4.9 INSTITUTIONAL CONTROLS

The BDA occupies a portion of the BMS Syracuse Campus. It is surrounded by fencing and accessed through gates occupied by guards or secured by electronic key pads. Public access is not available to the site. The site surfaces will continue to be maintained by landscaping and personnel contracted by BMS. BMS has an Excavation Permit process in place for any subsurface work that is completed on the campus. Additional institutional controls (including deed restrictions) may be implemented at the conclusion of the BDA Remedial Investigation.



Tables



Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
Casella ACM Friable	ACM nonfriable	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.7.11	manifest
STP-039	ACM nonfriable B46	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.4.12	manifest
STP-047	ACM nonfriable B4A	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.24.12	manifest
STP-048	ACM nonfriable B4A	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.24.12	manifest
STP-049	ACM nonfriable B4A	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.27.12	manifest
STP-050	ACM nonfriable B4A	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.29.12	manifest
STP-051	ACM nonfriable B20A	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.6.12	manifest
STP-053	ACM B4B roof, windows	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.12.12	manifest
STP-053	ACM nonfriable B4B	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.12.12	manifest
STP-054	ACM B20, 20A roof, windows	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.15.12	manifest
STP-054	ACM nonfriable B20 B20A	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.15.12	manifest
STP-055	ACM nonfriable	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.29.12	manifest
STP-059	ACM nonfriable	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	5.1.12	manifest
STP-059	ACM non-friable C&D	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	5.1.12	manifest
STP-060	ACM nonfriable	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	5.3.12	manifest
STP-060	ACM non-friable C&D	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	5.3.12	manifest
STP-061	ACM Friable B9	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	5.21.12	manifest
STP-068	ACM non-friable C&D B20	ACM	30 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.12.12	shipment record
STP-069	ACM non-Friable C&D	ACM	30 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.19.12	shipment record
STP-084	ACM non-friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.7.12	shipment record
STP-18	ACM nonfriable	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.27.11	manifest

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
STP-20	C&D	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.1.11	manifest
STP-61 ACM	ACM Friable B9	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	5.21.12	manifest
STP-ACM-05	ACM B29, B9, B1, B33	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.2.12	manifest
STP-ACM-06	ACM B20	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.13.12	manifest
STP-ACM-07	ACM B20	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.28.12	manifest
STP-PEN-013	ACM nonfriable	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.24.11	manifest
STP-PEN-014	C&D	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.25.11	manifest
STP-PEN-056	ACM nonfriable	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	4.4.12	manifest
STP-PEN-057	ACM Friable B24	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	4.12.12	manifest
STP-PEN-057	ACM nonfriable B24	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	4.12.12	manifest
STP-PEN-058	ACM Friable B8	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	4.12.12	manifest
STP-PEN-058	ACM Friable B8	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	4.12.12	manifest
STP-PEN-ACM 64	ACM Friable B8	ACM	1 CM/1 T	ACM	SYR Haulers	Ontario County Landfill, Stanley, NY	5.31.12	manifest
STP-PEN-ACM 65	ACM Friable B8	ACM	1 CM/1 T	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	6.4.12	manifest
STP-PEN-ACM-01	ACM B1, B4, B23, B24A, B24 tunnel	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.9.11	manifest
STP-PEN-ACM-02	ACM B43, B24A	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.12.11	manifest
STP-PEN-ACM-03	ACM	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.30.11	manifest
STP-PEN-ACM-04	ACM B4	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.12.12	manifest
STP-PEN-ACM-061	ACM Friable B8	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	5.22.12	manifest
STP-PEN-ACM-063	ACM Friable B8	ACM	40 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	5.24.12	manifest
STP-PEN-ACM-066	ACM, Friable, Bldg 8	ACM	40 yd	ACM	SYR Haulers	Ontario County Landfill, Stanley, NY	6.6.12	manifest

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
STP-PEN-ACM-067	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.7.12	Shipment record
STP-PEN-ACM-62	ACM Friable B8	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	5.22.12	manifest
STP-PEN-ACM-63	ACM Friable B8	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	5.24.12	manifest
STP-PEN-ACM-64	ACM Friable B8	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	5.31.12	manifest
STP-PEN-ACM-65	ACM Friable B8	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	6.4.12	manifest
STP-PEN-ACM-66	ACM Friable B8	ACM	40 yd	ACM	Syracuse Haulers	Ontario County Landfill, Stanley, NY	6.6.12	manifest
STP-PEN-ASB-047	ACM Bldg 4 roofing	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.24.12	shipment record
STP-PEN-ASB-048	ACM Bldg 4 roofing	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.24.12	shipment record
STP-PEN-ASB-049	ACM Bldg 4 roofing	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.27.12	shipment record
STP-PEN-ASB-050	ACM Bldg 4 roofing	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.29.12	shipment record
STP-PEN-ASB-051	ACM Bldg 20A roofing	ACM	30 yd	ACM	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.6.12	shipment record
STP-PEN-ASB-070	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.13.12	shipment record
STP-PEN-ASB-071	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.15.12	shipment record
STP-PEN-ASB-071	ACM, Friable, Bldg 8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.20.12	shipment record
STP-PEN-ASB-072	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.21.12	shipment record
STP-PEN-ASB-073	ACM, Friable, Bldg 8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	6.28.12	shipment record
STP-PEN-ASB-074	ACM, Friable, Bldg 8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.2.12	shipment record
STP-PEN-ASB-075	ACM, Friable, Bldg 8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.10.12	shipment record
STP-PEN-ASB-076	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.18.12	shipment record
STP-PEN-ASB-077	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.19.12	shipment record
STP-PEN-ASB-078	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.24.12	shipment record

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet								
Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
STP-PEN-ASB-079	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.24.12	shipment record
STP-PEN-ASB-080	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.26.12	shipment record
STP-PEN-ASB-081	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.26.12	shipment record
STP-PEN-ASB-082	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.31.12	shipment record
STP-PEN-ASB-083	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	7.31.12	shipment record
STP-PEN-ASB-085	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.7.12	shipment record
STP-PEN-ASB-086	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.7.12	shipment record
STP-PEN-ASB-087	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.9.12	shipment record
STP-PEN-ASB-088	ACM Friable B8	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.9.12	shipment record
STP-PEN-ASB-089	ACM, Friable, Bldg 8	ACM	40 yd	ACM	SYR Haulers	Ontario County Landfill, Stanley, NY	8.16.12	shipment record
STP-PEN-ASB-090	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.21.12	shipment record, final
STP-PEN-ASB-091	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.21.12	shipment record, final
STP-PEN-ASB-092	ACM, Friable	ACM	40 yd	ACM	Royal Environmental	Ontario County Landfill, Stanley, NY	8.28.12	shipment record, final

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
49994	C&D	C&D	35 Ton	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	8.21.12	manifest
(12 Manifests)	C&D	C&D	12 X 35 Ton	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	8.13.12	manifests (12)
(2 Manifests)	C&D B20	C&D	7 x dump trailer	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	6.28.12	manifests (7)
(21 Manifests)	C&D B20	C&D	21 trucks	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	7.2.12	manifests (21)
(25 Manifests)	C&D	C&D	25 x 35 Ton	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	6.29.12 - 6.30.12	manifests (25)
(4 Manifests)	C&D B20	C&D	4 trucks	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	6.20.12, 6.26.12	manifests (4)
(5 Manifests)	C&D	C&D	5 x truck	C&D	Ciotti Enterprises	Seneca Meadows Landfill, Waterloo, NY	10.5.12 - 10.8.12	manifests (5)
(5 Manifests)	C&D B20	C&D	2 x 35 Ton	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	7.3.12	manifests (2)
(7 Manifests)	C&D B20	C&D	4 x dump trailer	C&D	Riccelli	Seneca Meadows Landfill, Waterloo, NY	6.27.12	manifests (4)
CT-01 through CT-05	C&D - cooling tower	C&D	5 x 100 yards	C&D	Jackson Demolition	Ontario County Landfill, Stanley, NY	10.23.12 - 10.26.12	manifests (5)
001	PEN C&D waste	C&D	40 yd (1 CM)	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	9.9.11	manifest
002	PEN C&D waste	C&D	40 yd (1 CM)	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	9.13.11	manifest
51387	C&D B56	C&D	1 truck	PEN	Riccelli	Seneca Meadows Landfill, Waterloo, NY	8.21.12	dump authorization
(no number)	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.19.11	manifest
Casella PEN Waste - illegible	PEN C&D	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.5.11	manifest
STP -021	PEN C&D waste	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.2.11	manifest
STP-011	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.21.11	manifest
STP-012	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.24.11	manifest
STP-016	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.26.11	manifest
STP-023	PEN C&D waste	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.9.11	manifest
STP-024	PEN C&D waste	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.9.11	manifest

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
STP-025	PEN C&D waste B9	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.11.11	manifest
STP-026	PEN C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.15.11	manifest
STP-026	PEN C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.16.11	manifest
STP-027	PEN C&D waste B9	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.17.11	manifest
STP-028	PEN C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.17.11	manifest
STP-029	PEN C&D waste	C&D	40 yd (1 CM)	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.23.11	manifest
STP-029	PEN C&D waste B1	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.19.11	manifest
STP-030	PEN C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.18.11	manifest
STP-031	PEN C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.29.11	manifest
STP-032	PEN C&D waste B9A	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.2.11	manifest
STP-033	PEN C&D waste B1	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.13.11	manifest
STP-034	PEN C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.15.11	manifest
STP-035	PEN C&D waste B29	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.15.11	manifest
STP-036	PEN C&D waste B29	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.21.11	manifest
STP-037	PEN C&D waste B1 and B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.21.11	manifest
STP-038	PEN C&D waste B9	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	12.23.11	manifest
STP-040	Pen C&D waste B29	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.11.12	manifest
STP-041	Pen C&D waste B20	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.13.12	manifest
STP-042	Pen C&D waste B20	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.16.12	manifest
STP-043	Pen C&D waste B20	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.18.12	manifest
STP-044	Pen C&D waste B20	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.20.12	manifest

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet								
Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
STP-045	Pen C&D waste B20	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.24.12	manifest
STP-045	Pen C&D waste B4B	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	1.23.12	manifest
STP-046	Pen C&D waste B4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.16.12	manifest
STP-17	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.27.11	manifest
STP-19	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.28.11	manifest
STP-21	PEN C&D waste	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	11.3.11	manifest
STP-PEN-010	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.20.11	manifest
STP-PEN-015	PEN	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	10.26.11	manifest
STP-PEN-052	PEN B20, 52	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.12.12	manifest
STP-PEN-052	PEN C&D waste B20 and B52	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.12.12	manifest
STP-PEN-054	PEN B52	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.21.12	manifest
STP-PEN-054	Pen C&D waste B52	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.21.12	manifest
STP-PEN-055	PEN C&D waste	C&D	30 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	3.29.12	manifest
STP-PEN-056	PEN C&D waste	C&D	30 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	4.4.12	manifest
STP-PEN-ASB-046	PEN, Bldg 4	C&D	40 yd	PEN	Casella Waste Services	Ontario County Landfill, Stanley, NY	2.16.12	shipment record

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
006084435FLE	PCBs , liquid	HW	4 drums, 680 kg	B002	Clean Harbors/Frank's Vacuum Tk Svc/Robbie D. Wood Inc	Clean Harbors Deer Park LLC, LaPorte, TX	1.10.13	manifest # 006084438FLE, cert of disposal, Rec'd.
000464591VES	PCB caulk	HW	4 CF, 3 DM, 1 DF	B007	Frank's Vacuum Tk Svc/ Haz Mat Environmental Group	Veolia ES Technical Services, Flanders, NJ	5.2.13	manifest, Activity report, packing summary
006051906FLE	PCBs	HW	1 DF	B007	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	2.7.13	manifest
004857247FLE	Aerosols, paint, methyl chloride, other	HW	3 DM, 2 CF, 3 DF	D001, D002, D008, U056, U080, U112, U134, U154, U239	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	5.22.12	Manifest
005550429FLE	flammable liquids (gasoline)	HW	1 DF	D001, D018	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	8.27.12	manifest and Land disposal form
005211694FLE	Waste solvents	HW	1DF	D001, F002, F003, F005	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	6.8.12	manifest
005212349FLE	Waste acids	HW	1 DF	D002	Clean Harbors	Clean Harbors El Dorado LLC, El Dorado, AR	6.8.12	manifest
005550428FLE	Sulfuric acid	HW	1 DF	D002	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	8.23.12	manifest
006520271FLE	Chromium	HW	1 CM (19,800 lbs)	D007	Clean Harbors	Clean Harbors Lone Mountain, Waynoka, OK	4.12.13	manifest, land disposal form
006051905FLE	Lead	HW	2 DM	D008	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	2.16.13	manifest
004945890FLE	Debris from mercury spill cleanup	HW	1 DM	D009	Op-Tech Environmental Services	CWM Chemical Services LLC, Model City, NY	3.26.12	Manifest and profile
006051736FLE	Mercury waste	HW	3 DF	D009	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	2.7.13	manifest and notification form
005624498FLE	tetrachloroethylene	HW	7 DM	D039, F002	Clean Harbors	Spring Grove Resource Recovery, Spring Grove OH	3.15.13	manifest and Land disposal form
006051765FLE	Tetrachloroethylene	HW	1 Tank truck (1,900 gals)	D039, F002	Clean Harbors	Clean Harbors of Baltimore, Baltimore, MD	2.12.13	manifest and Land disposal form
006084512FLE	Tetrachloroethylene	HW	1 DM, 1DF	D039, F002	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	5.30.13	manifest, land disposal form, BOL
006618290FLE	Tetrachloroethylene	HW	4 DM	D039, F002	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	7.7.13	Manifest, notification form
006618291FLE	Tetrachloroethylene	HW	1 DF	D039, F002	Clean Harbors/Frank's Vacuum Tk Svc/Robbie D. Wood	Safety-Kleen Systems, Smithfield, KY	7.7.13	manifest
005550430FLE	Propane, compressed gasses, chlorodiflouromethane	HW/NHW	15 CY (only 5 HW)	D001	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors Deer Park LLC, LaPorte, TX	9.7.12	manifest

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet

Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
BOL 496836	Polypropylene glycol	NHW	6 DF	Chemical	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	5.22.12	
Manifest 10527	Sodium Bicarbonate	NHW	1 DF	Chemical	Op-Tech Environmental Services	CWM Chemical Services LLC, Model City, NY	5.4.12	manifest
Manifest 10528	Carboxymethylcellulose	NHW	1 DF	Chemical	Op-Tech Environmental Services	CWM Chemical Services LLC, Model City, NY	5.4.12	manifest
005548694FLE	PCBs, non-hazardous	NHW	1 DF, 30 Kg	NHW	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors Deer Park LLC, LaPorte, TX	10.25.12	manifest
006084322FLE	PCBs, non-hazardous	NHW	1 DM	NHW	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors Deer Park LLC, LaPorte, TX	12.6.12	manifest
BOL 483536	Mineral oil	NHW	1900 Gallons	NHW	Clean Harbors	Industrial Oil Tank Services Group, Oriskany, NY	2.4.13	BOL
BOL 496834	Media	NHW	1 DM, 2 DF	NHW	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	5.22.12	BOL
BOL 340353	Caustic solids, UV mercury, soil with kerosene, water, other	NHW	9 DF, 27 DM, 1 CW, 1 CF	NHW/UV Mercury	Clean Harbors	Clean Harbors El Dorado LLC, El Dorado, AR	12.1.12	BOL
BOL 480770	Soil B52	NHW	1 Rolloff (25 yd)	Soil	Clean Harbors	WM High Acres Landfill, Fairport, NY	7.23.13	BOL
BOL 480771	Soil B52	NHW	1 Rolloff (25 yd)	Soil	Clean Harbors	WM High Acres Landfill, Fairport, NY	7.23.13	BOL
BOL 480772	Soil B52	NHW	1 Rolloff (25 yd)	Soil	Clean Harbors	WM High Acres Landfill, Fairport, NY	7.23.13	BOL
BOL 480773	Soil B52	NHW	1 Rolloff (25 yd)	Soil	Clean Harbors	WM High Acres Landfill, Fairport, NY	7.23.13	BOL
BOL 480774	Soil B52	NHW	1 Rolloff (25 yd)	Soil	Clean Harbors	WM High Acres Landfill, Fairport, NY	7.23.13	BOL
BOL 480775	Soil B52	NHW	1 Rolloff (25 yd)	Soil	Clean Harbors	WM High Acres Landfill, Fairport, NY	7.23.13	BOL
BOL 483215	Soil with vials	NHW	1 CM (31,760 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	10.4.12	BOL, COD, weigh ticket
BOL 483216	Soil with vials	NHW	1 CM (46,360 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	10.10.12	BOL, COD, weigh ticket
BOL 483217	Soil with vials	NHW	1 CM (30,560 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	10.11.12	BOL, COD, weigh ticket

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet								
Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
BOL 483229	Soil with vials	NHW	1 CM (19,420 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	11.13.12	BOL, COD, weigh ticket
BOL 483230	Soil with vials	NHW	1 CM (19,640 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	10.22.12	BOL, COD, weigh ticket
BOL 483231	Soil with vials	NHW	1 CM (20,980 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	10.18.12	BOL, COD, weigh ticket
BOL 483232	Soil with vials	NHW	1 CM (34,500 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	10.12.12	BOL, weigh ticket
BOL 483342	Soil with vials	NHW	1 CM (21,160 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	11.15.12	BOL, COD, weigh ticket
BOL 497573	Soil with vials	NHW	1 CM (23,460 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	8.29.12	BOL, COD, weigh ticket
BOL 497576	Soil with vials	NHW	1 CM (25,460 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	8.21.12	BOL, COD, weigh ticket
BOL 497577	Soil with vials	NHW	1 CM (21,620 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	8.22.12	BOL, COD, weigh ticket
BOL 497578	Soil with vials	NHW	1 CM	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	8.23.12	BOL, COD
BOL 497579	Soil with vials	NHW	1 CM (25,480 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	8.29.12	BOL, COD, weigh ticket

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet								
Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
BOL 513646	Soil with vials	NHW	1 CM (30,380 lbs)	Soil	Clean Harbors	Clean Harbors of Connecticut, Bristol, CT CWM Model City, Niagara Falls, NY	8.20.12	BOL, COD, weigh ticket
BOL 483261	Oils	NHW	1 DF, 1 DM	Used Oil	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors Chattanooga LLC, Chattanooga,TN	10.25.12	BOL
BOL 483460	Oils	NHW	1 DF, 1 DM, 1 TP	Used Oil	Clean Harbors/Frank's Vacuum Tk Svc/Robbie D. Wood Inc	Clean Harbors Chattanooga LLC, Chattanooga,TN	1.10.13	BOL and manifest
BOL 483461	Silicone oil, Oily debris	NHW	2 DM	Used Oil	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	1.10.13	BOL and manifest
BOL 497583	Oils	NHW	1 DM	Used Oil	Clean Harbors/Frank's Vacuum Tk Svc	Clean Harbors El Dorado LLC, El Dorado, AR	8.23.12	BOL
BOL 483263	Oily debris	NHW	1 DM, 1 CF, 1 DF	UW	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	10.25.12	BOL
BOL 497584	Antifreeze, firefighting foam, oil debris and sludge	NHW, UW	3 DM, 3 DF	NHW	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	8.23.12	BOL
Letter of 8.28.12	Lightning Air Terminal	Return	1	Lightning Protection	Lightning Preventor or America	Not Applicable	8.28.12	memo of pick-up
Purchase Order 145995	Fire Extinguishers	Return	76	NHW	Jerome Fire Equipment Co.	Not Applicable	4.25.12	Work order

Table 3-1

BMS Syracuse Facility Transformation Project Waste Shipment Spreadsheet								
Document ID #	Description	Waste Class	Amount	Waste Type/Code	Transporter	TSDF	Date	Document Type
BOL 339708	Door closers	UW	1 DM, 1 DF	Oil	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	5.30.13	BOL, profile, invoice
03012013-001 (tracking #)	Lamps, Batteries, capacitors	UW	4 boxes, 16 DM, 1 PL	Used Batteries, Used Lamps	American Lamp Recycling	American Lamp Recycling, Marlboro, NY	3.1.13	manifest
Manifest 43061	E-waste	UW	7 gaylords	Used Electronics	RCR&R LLC	Rochester Computer Recycling & Recovery LLC, Victor, NY	4.26.12	manifest
Manifest 44350	E-waste	UW	4 gaylords	Used Electronics	RCR&R LLC	Rochester Computer Recycling & Recovery LLC, Victor, NY	6.7.12	manifest
Manifest 48160	E-waste	UW	12 pallets	Used Electronics	RCR&R LLC	Rochester Computer Recycling & Recovery LLC, Victor, NY	10.4.12	manifest
Manifest 51352	E-waste	UW	9 gaylords	Used Electronics	RCR&R LLC	Rochester Computer Recycling & Recovery LLC, Victor, NY	1.10.13	manifest
Manifest 53925	E-waste	UW	1 gaylord	Used Electronics	RCR&R LLC	Rochester Computer Recycling & Recovery LLC, Victor, NY	2.28.13	manifest
BOL 483410	UV flourescent lamps	UW	1 CF, 2 DF	UW - Lamps	Clean Harbors	Clean Harbors El Dorado LLC, El Dorado, AR	12.6.12	BOL
BOL 483411	UV flourescent lamps	UW	1 DF	UW - Lamps	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	12.6.12	BOL
BOL 339707	Mercury containing articles	UW	1 DM	UW - Mercury Article	Clean Harbors/Frank's Vacuum Tk Svc	Spring Grove Resource Recovery, Spring Grove OH	5.30.13	BOL
BOL 483262	Mercury containing articles	UW	1 DF	UW - Mercury Article	Clean Harbors/Frank's Vacuum Tk Svc/Robbie D. Wood Inc	Clean Harbors El Dorado LLC, El Dorado, AR	10.25.12	BOL

Notes: HW - Hazardous Waste
NHW - Non-hazardous waste
UW - Universal Waste

DF - Fiberboard or plastic drums, barrels, kegs
DM - Metal drums, barrels, kegs
CF - Fiber or plastic boxes, cartons, cases
CM - Metal boxes, cartons, cases, (including roll-offs)
CY - cylinder
TP - tote
PL - pail

CH - Clean Harbors Environmental Services

Table 3-2 - List of Tanks

BMS TRANSFORMATION PROJECT TANK INVENTORY									
BUILD	FLOOR	LOCATION	PEM-P	COMMON-C	USE	TANK ID#	CONSTRUCTION	SIZE	
1	1	1	UF RM	P	WATER	D-5	SS	200G	
2	1	1	UF RM	P	WATER	D-4	SS	200G	
3	1	1	UF RM	P	WATER	D-3	SS	200G	
4	1	1	RM 114	P	UTILITY	N/A	CS	500G	
5	1	1	RM 114	P	UTILITY	N/A	CS	200G	
6	1	1	RM 115	P	WATER SURGE	D-2	SS	2500G	
7	1	1	RM 117	P	MOTHER LIQUOR TANK	D-16	SS	1500G	
8	1	1	RM 117	P	SOLVENT WASH	D-17	SS	1500G	
9	1	1	RM 110 NORTHEAST	P	HP AIR	N/A	CS	300G	
10	1	1	RM 110 EASTWALK	P	SOFT WATER	N/A	CS	500G	
11	1	1	RM 110 SOUTHEAST CORNER	P	WATER	N/A	CS	500G	
12	1	1	RM 110 SOUTHEAST CORNER	P	WATER	N/A	CS	500G	
13	1	2	RM 204	P	SOLVENT	D-18	SS	1000G	
14	1	2	RM 208	P	SOLVENT	D-6	SS	1500G	
15	1	2	RM 208	P	SOLVENT	D-8	SS	1500G	
16	1	2	RM 208	P	SOLVENT	D-10	SS	3000G	
17	1	2	RM 267	P	SOLVENT	D-7	SS	3000G	
18	1	2	RM 267	P	CLEAN-IN-PLACE TANK	D-14	SS	500G	
19	1	2	RM 267	P	N/A	D-36	N/A (INSULATED)	300G	
20	1	2	RM 267	P	10% SULFURIC ACID	D-23	POLY	200G	
21	1	2	RM 225	P	CLEAN-IN-PLACE TANK	D-23	SS	750G	
22	1	2	RM 203	P	SODIUM HYPOCHLORITE	D-20R	F GLASS	400G	
23	1	2	RM 206	P	BROTH SURGE	D-1	SS	2000G	
24	1	2	RM 221	P	CRYSTALLIZED (AQUEOUS)	D-14	SS	1500G	
25	1	2	RM 221	P	CRYSTALLIZED (AQUEOUS)	D-13	SS	2000G	
26	1	2	RM 221	P	CRYSTALLIZED (AQUEOUS)	D-12	SS	2000G	
27	1	2	RM 221	P	CRYSTALLIZED (AQUEOUS)	D-11	SS	3000G	
28	1	2	RM 224	P	N/A	N/A	SS	500G	
29	1	3	RM 303	P	AMMONIA 19%	D-24	SS	1000G	
30	1	3	RM 309	P	SOLVENT	D-9	SS	1000G	
31	4	1	CARTER HANSON	P	CAUSTIC/NITRIC ACID	ACID WASH	SS	300G	
32	4	4	MAIN	P	35% SULFURIC ACID	V-41R	POLY	550G	
33	4	4	MAIN	P	35% SULFURIC ACID	V-43R	POLY	550G	
34	4	5	MAIN CTR	P	SOLVENT	N/A	SS	250G	
35	4B	4	RM A	P	SOLVENT	V-32	SS	2000G	
36	4B	4	RM C	P	SOLVENT	V-35	SS	3000G	
37	4B	4	RM C	P	SOLVENT	V-39	SS	500G	
38	4B	4	RM C	P	SOLVENT	V-40	SS	300G	
39	4B	4	RM D	P	SOLVENT	V-43	SS	500G	
40	4B	4	RM D	P	SOLVENT	V-44	SS	200G	
41	4B	3	RM A	P	SOLVENT	V-31	SS	500G	
42	4B	3	RM A S/EAST CORNER	P	SOLVENT	N/A	SS	500G	
43	4B	3	RM C	P	SOLVENT	V-34	SS	500G	
44	4B	2	MAIN	P	SOLVENT	V-20	SS	3000G	
45	4B	2	MAIN	P	SOLVENT	V-20B	SS	2500G	
46	4B	2	MAIN	P	SOLVENT	V-22	SS	2500G	
47	4B	2	MAIN	P	SOLVENT	V-23	SS	2500G	
48	4B	2	MAIN	P	SOLVENT	V-24	SS	2500G	
49	4B	2	MAIN	P	SOLVENT	V-29	SS	1500G	
50	4B	2	MAIN	P	SOLVENT	V-27	SS	1000G	
51	4B	2	MAIN	P	SOLVENT	V-26	SS	1500G	
52	4B	1	MEZZ	P	SOLVENT	V-18	SS	1500G	
53	4B	1	MEZZ	P	SOLVENT	V-12	SS	1500G	
54	4B	1	MEZZ	P	SOLVENT	V-13	SS	1500G	
55	4B	1	MEZZ	P	SOLVENT	V-14	SS	1500G	
56	4B	1	MEZZ	P	SOLVENT	V-15	SS	1000G	
57	4B	1	EAST WALL	P	CAUSTIC/NITRIC ACID	WASH	SS	300G	
58	4B	1	WEST UNDER MEZZ	P	SOLVENT	20 SEPARATOR	SS	200G	
59	4B	1	4B TANK VAULT	P	SOLVENT	CS-7	CS	10000G	
60	4B	1	4B TANK VAULT	P	SOLVENT	S-1	SS	10000G	
61	4B	1	4B TANK VAULT	P	SOLVENT	S-2	SS	10000G	
62	4B	1	4B TANK VAULT	P	SOLVENT	S-3	SS	10000G	
63	4B	1	4B TANK VAULT	P	SOLVENT	S-4	SS	10000G	
64	4B	1	4B TANK VAULT	P	SOLVENT	S-5	SS	10000G	
65	4B	1	4B TANK VAULT	P	SOLVENT	S-6	SS	10000G	
66	4B	1	OUTSIDE WEST	P	SOLVENT	ST-7	SS	14500G	
67	4B	1	OUTSIDE WEST	P	SOLVENT	ST-8	SS	14500G	
68	4B	1	OUTSIDE WEST	P	SOLVENT	ST-9	SS	14500G	
69	4B	1	OUTSIDE WEST	P	SOLVENT	ST-10	SS	14500G	
70	4B	1	OUTSIDE WEST	P	SOLVENT	ST-11	SS	14500G	
71	4B	1	OUTSIDE WEST	P	SOLVENT	ST-12	SS	14500G	
72	8	3	OPEN AREA	P	WEIGH TANK	J-3	SS	2000G	
73	8	3	OPEN AREA	P	STERILIZER	LS	SS	1500G	
74	8	3	OPEN AREA	P	FERMENTOR	L-26	SS	10000G	
75	8	3	OPEN AREA	P	FERMENTOR	L-25	SS	10000G	
76	8	3	OPEN AREA	P	FERMENTOR	L-27	SS	10000G	
77	8	3	OPEN AREA	P	FERMENTOR	L-28	SS	10000G	
78	8	3	OPEN AREA	P	FERMENTOR	L-29	SS	10000G	
79	8	3	OPEN AREA	P	FERMENTOR	L-30	SS	10000G	
80	8	3	OPEN AREA	P	FERMENTOR	N-31	SS CLAD CS	20000G	
81	8	3	OPEN AREA	P	FERMENTOR	L-32	SS	10000G	
82	8	3	OPEN AREA	P	FERMENTOR	N-33	SS CLAD CS	20000G	
83	8	3	OPEN AREA	P	FERMENTOR	N-34	SS CLAD CS	20000G	
84	8	3	OPEN AREA	P	FERMENTOR	R-35	SS CLAD CS	30000G	
85	8	3	OPEN AREA	P	POAC STORAGE	S-4	CS (INSULATED)	6000G	
86	8	3	OPEN AREA	P	POAC STORAGE	S-5	CS (INSULATED)	6000G	
87	8	3	OPEN AREA	P	POAC STORAGE	S-6	CS (INSULATED)	6000G	

BMS TRANSFORMATION PROJECT TANK INVENTORY									
BUILD	FLOOR	LOCATION	PEM-P	COMMON-C	USE	TANK ID#	CONSTRUCTION	SIZE	
88	8	3	OPEN AREA	P	POAC STORAGE	S-2	SS (INSULATED)	500G	
89	8	3	OPEN AREA	P	POAC STORAGE	S-3	SS (INSULATED)	500G	
90	8	3	OPEN AREA	P	POAC STORAGE	S-1	SS	500G	
91	8	3	OPEN AREA	P	FERMENTOR	R-36	SS CLAD CS	30000G	
92	8	3	OPEN AREA	P	FERMENTOR	R-37	SS CLAD CS	30000G	
93	8	3	OPEN AREA	P	FERMENTOR	R-38	SS CLAD CS	30000G	
94	8	3	OPEN AREA	P	FERMENTOR	R-39	SS CLAD CS	30000G	
95	8	3	OPEN AREA	P	FERMENTOR	R-40	SS CLAD CS	30000G	
96	8	3	OPEN AREA	P	FERMENTOR	R-41	SS CLAD CS	30000G	
97	8	3	OPEN AREA	P	FERMENTOR	U-43	SS CLAD CS	45000G	
98	8	3	OPEN AREA	P	FERMENTOR	U-44	SS CLAD CS	45000G	
99	8	3	OPEN AREA	P	FERMENTOR	U-45	SS CLAD CS	45000G	
100	8	3	OPEN AREA	P	FERMENTOR	R-42	SS CLAD CS	30000G	
101	8	1	NORTH END	P	20% SODIUM HYDROXIDE	T-18R	CS	4200G	
102	8	1	NORTH END	P	N/A	FYT	SS	4000G	
103	8	1	NORTH END	P	30% SULFURIC ACID	T-75R	F GLASS	550G	
104	8	1	NORTH END	P	BROTH SURGE	K1	SS	3000G	
105	8	1	NORTH END	P	BROTH SURGE	RSS SURGE C3	SS	3000G	
106	8	1	NORTHEAST CORNER	P	N/A	N/A	CS	1000G	
107	8	1	NORTHEAST CORNER	P	N/A	N/A	SS	1000G	
108	8	1	CENTER EAST	P	N/A	C-2	SS (INSULATED)	2000G	
109	8C	3	OPEN	P	POLYPROPYLENE GLYCOL STORAGE	J-2	CS	2000G	
110	8C	3	OPEN	P	POLYPROPYLENE GLYCOL STORAGE	J-1	CS	2000G	
111	8C	3	OPEN	P	MIX TANK	N/A	SS	300G	
112	8C	3	OPEN	P	BUFFER TANK	N/A	SS	200G	
113	8C	3	OPEN	P	BATCH STERILIZER	D-51	SS	300G	
114	8C	3	OPEN	P	BROTH SURGE	Q-12	SS	300G	
115	8C	3	OPEN	P	BROTH SURGE	Q-4	GLASS LINED PFAUDLER	300G	
116	8C	3	OPEN	P	BROTH SURGE	Q-3	GLASS LINED PFAUDLER	300G	
117	8C	3	OPEN	P	BROTH SURGE	Q-2	GLASS LINED PFAUDLER	300G	
118	8C	3	OPEN	P	BROTH SURGE	Q-1	SS	300G	
119	8C	3	OPEN	P	LARD OIL	P-1	SS	300G	
120	8C	3	OPEN	P	LARD OIL	P-2	SS	300G	
121	8C	3	OPEN	P	STERILIZER	F-1	SS	400G	
122	8C	3	OPEN	P	BROTH SURGE	F-2	SS	400G	
123	8C	3	OPEN	P	BROTH SURGE	F-3	SS	400G	
124	8C	3	OPEN	P	BROTH SURGE	F-4	SS	400G	
125	8C	3	OPEN	P	BROTH SURGE	F-5	SS	400G	
126	8C	3	OPEN	P	BROTH SURGE	D-1	SS	1250G	
127	8C	3	OPEN	P	BROTH SURGE	D-2	SS	1250G	
128	8C	3	OPEN	P	BROTH SURGE	D-3	SS	1250G	
129	8C	3	OPEN	P	BROTH SURGE	D-4	SS	1250G	
130	8C	3	OPEN	P	BROTH SURGE	D-5	SS	1250G	
131	8C	3	OPEN	P	BROTH SURGE	D-6	SS	1250G	
132	8C	3	OPEN	P	BROTH SURGE	D-7	SS	1250G	
133	8C	3	OPEN	P	BROTH SURGE	D-8	SS	1250G	
134	8C	3	OPEN	P	BROTH SURGE	D-9	SS	1250G	
135	8C	3	OPEN	P	BROTH SURGE	D-10	SS	1250G	
136	8C	3	OPEN	P	BROTH SURGE	D-11	SS	1250G	
137	8C	2	SOUTH	P	PHOSPHORIC ACID	C-6A	SS	2000G	
138	8C	2	SOUTH	P	PHOSPHORIC ACID	C-5A	CS	2000G	
139	8C	2	SOUTH	P	SURGE TANK	N/A	CS	200G	
140	8C	3	OPEN	P	BROTH SURGE	D-12	SS	1250G	
141	8C & BD	3	SOUTH END	P	AMMONIUM SULFATE	N/A	CS	200G	
142	8D	3	SOUTH	P	BROTH SURGE	D-13	SS	1000G	
143	8D	3	SOUTH	P	BROTH SURGE	D-14	SS	1000G	
144	8D	3	SOUTH	P	BROTH SURGE	D-15	SS	1000G	
145	8D	3	SOUTH	P	BROTH SURGE	D-16	SS	1000G	
146	8D	3	SOUTH	P	BROTH SURGE	D-17	SS	1000G	
147	8D	3	SOUTH	P	BROTH SURGE	D-18	SS	1000G	
148	8D	3	SOUTH	P	BROTH SURGE	D-19	SS	1000G	
149	8D	3	SOUTH	P	BROTH SURGE	D-20	SS	1000G	
150	8D	3	SOUTH	P	BROTH SURGE	D-21	SS	1000G	
151	8D	3	SOUTH	P	BROTH SURGE	D-22	SS	1000G	
152	8D	3	SOUTH	P	BROTH SURGE	D-23	SS	1000G	
153	8D	3	SOUTH	P	BROTH SURGE	D-24	SS	1000G	
154	8D	3	SOUTH	P	BROTH SURGE	D-25	SS	1000G	
155	8D	3	SOUTH	P	BROTH SURGE	D-51	SS	1000G	

NOTE: TANKS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH BRISTOL-MYERS EHS WORK PLAN.

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.		IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DOCUMENT.	
DRAWN BY: JLG CHECKED BY: SWM APPROVED BY: LUC		REVIEWED BY: GBC REVISIONS:	
VENDOR NAME: _____ REV. DATE DESCRIPTION DRAFTER APPROVAL		SYRACUSE NEW YORK SYRACUSE TECHNICAL OPERATIONS P.O. BOX 4758, SYR.	

BMS TRANSFORMATION PROJECT TANK INVENTORY									
	BLDG	FLOOR	LOCATION	FEED	USE	TANK ID#	CONSTRUCTION	SIZE	
				COMMON-C					
156	8D	3	NORTH	P	BROTH SURGE	LBS	SS	400G	
157	8D	3	NORTH	P	BROTH SURGE	F-6	SS	400G	
158	8D	3	NORTH	P	BROTH SURGE	J-6	SS	400G	
159	8D	3	NORTH	P	CHILLED WATER TANK	N/A	CS	2000G	
160	8D	2	NORTH	P	PORTABLE TANK	PT-4	SS	40G	
161	8D	2	NORTH	P	EPO KILL TANK	N/A	SS	100G	
162	8D	2	SOUTH	P	BROTH	Q-5	GLP Jacketed ACM Insul	200-300G	
163	8D	2	SOUTH	P	BROTH	Q-6	GLP Jacketed ACM Insul	200-300G	
164	8D	2	SOUTH	P	BROTH	Q-7	GLP Jacketed ACM Insul	200-300G	
165	8D	2	SOUTH	P	BROTH	Q-8	GLP Jacketed ACM Insul	200-300G	
166	8D	2	SOUTH	P	BROTH	Q-10	GLP Jacketed ACM Insul	200-300G	
167	8D	2	SOUTH	P	BROTH	Q-9	GLP Jacketed ACM Insul	200-300G	
168	8E	3	MAIN	P	BROTH SURGE	SOUTH LOX	SS CLAD CS	20000G	
169	8E	3	MAIN	P	BROTH SURGE	NORTH LOX	SS CLAD CS	20000G	
170	9A	1	CTR	P	DREWSPRESS 747B	T-111	POLY	500G	
171	9A	1	EAST WALL	P	N/A	V-3	SS	200G	
172	9A	1	CTR	P	N/A	N/A	SS	200G	
173	9A	1	SOUTH EAST CORNER	P	AMMONIA (Aqueous)	T-100	SS	1000G	
174	9A	1	SOUTHEAST CORNER	P	AMMONIA (Aqueous)	T-101	SS	1000G	
175	9A	1	SOUTHEAST CORNER	P	AMMONIA (Aqueous)	T-102	SS	1000G	
176	9A	1	SOUTHEAST CORNER	P	AMMONIA (Aqueous)	T-103	SS	1000G	
177	9A	1 MEZZ	NORTHWEST CORNER	P	BROTH SURGE	V-6	SS	2500G	
178	9A	1	NORTH WALL	P	SURGE	T-110	SS	500G	
179	9A	1 MEZZ	NORTHWEST CORNER	P	BROTH SURGE	V-4	SS	2500G	
180	9A	1	OUTSIDE EAST	P	SOLVENT	18S	SS	1700G	
181	9A	1	OUTSIDE EAST	P	SOLVENT	18N	SS	1700G	
182	9A	3	MAIN	C	35% SULFURIC ACID	K-14	POLY	500G	
183	9A	3	MAIN	C	AMMONIUM HYDROXIDE	K-16	CS	800G	
184	9B	1	YORK ROOM	C	HIGH PRESSURE AIR	N/A	CS	400G	
185	9B	1	YORK ROOM	C	WATER	N/A	CS	300G	
186	9B	N/A	OUTSIDE SOUTH	C	SOLVENT	T-88	CS	2100G	
187	9N	1	OUTSIDE WEST	C	GLYCOL BRINE	CHT-15	CS	4000G	
188	9N	1	MAIN	C	AMMONIUM HYDROXIDE	K-24	CS	2000G	
189	9N	3	CRYSTALLIZER ROOM	C	METHANOL	K-17	SS	150G	
190	9N	3	CRYSTALLIZER ROOM	C	METHANOL	K-19	SS	150G	
191	9N	3	MAIN	C	35% SULFURIC ACID	K-12B	POLY	550G	
192	9A	3	MAIN	C	METHANOL	TOTE #1	SS	560G	
193	9A	3	MAIN	C	METHANOL	TOTE #2	SS	560G	
194	9A	3	MAIN	C	METHANOL	TOTE #3	SS	560G	
195	9S	3	SCOUT EAST CORNER	P	35% SULFURIC ACID	C-2	SS	500G	
196	9S	1	MEZZANINE	P	SOLVENT	T-88	SS	2000G	
197	9S	1	MEZZANINE	P	SOLVENT	T-87A	SS	1500G	
198	9S	1	MEZZANINE	P	SOLVENT	C-4	SS	2000G	
199	9S	1	MEZZANINE	P	SOLVENT	C-2	SS	1500G	
200	9S	1	MEZZANINE	P	SOLVENT	ER-2	SS	1500G	
201	9S	1	MEZZANINE	P	SOLVENT	CR-1	SS	1500G	
202	9S	1	MEZZANINE	P	AMMONIA	HT-01	SS	1000G	
203	9S	1	MEZZANINE	P	SOLVENT	C-5	SS	1500G	
204	9S	1	MEZZANINE	P	SOLVENT	U-45	SS	2000G	
205	9S	1	MEZZANINE	P	SOLVENT	V-46	SS	2000G	
206	9S	1	MEZZANINE	P	SOLVENT	T-67	SS	1500G	
207	9S	1	CLEAN IN PLACE ROOM	P	CLEAN-IN-PLACE	CIP TANK	SS	500G	
208	9S	1	CLEAN IN PLACE ROOM	P	CLEAN-IN-PLACE	MOTT FILT SURGE	SS	200G	
209	9S	1	CLEAN IN PLACE ROOM	P	CLEAN-IN-PLACE	MOTT FILT SURGE	SS	300G	
210	9S	1	OUTSIDE WEST	C	SOLVENT	T-91	GLASS LINED PFAUDLER	2000G	
211	20	1	MAIN	P	PHENOXYACETIC ACID	T-74	CS	28000G	
212	20	1	MAIN	P	PHENOXYACETIC ACID	T-76	CS	28000G	
213	20A	1	MAIN	C	MEDIA TANK	MIX TANK A	SS	10000G	
214	20A	1	MAIN	C	MEDIA TANK	MIX TANK B	SS	10000G	
215	21A	EMINT	EAST DOCK	C	HIGH PRESSURE AIR	N/A	CS	500G	
216	21B	1	OUTSIDE NORTH	C	ETHYLENE GLYCOL BRINE	BS-21B	SS	2500G	
217	24	1	AT AREA	C	SOLVENT	AT-6	SS	75G	
218	24	1	AT AREA	C	SOLVENT	AT-8	SS	75G	
219	24	1	AT AREA	C	SOLVENT	AT-4	SS	500G	
220	24	1	AT AREA	C	SOLVENT	AT-5	SS	300G	
221	24	1	AT AREA	C	SOLVENT	AT-2	SS	500G	
222	24	1	AT AREA	C	SOLVENT	AT-1	SS	1000G	
223	24	1	AT AREA	C	SOLVENT	AT-3	SS	500G	
224	24A	N/A	OUTSIDE WEST	C	15% METHANOL BRINE	BS-24	CS	3000G	
225	29	1 PEN	INSIDE ENTR PEN	P	TACA	PT-56	SS	100G	
226	29	1 PEN	MEZZANINE	P	CARBON BATCH	V-3	SS	2000G	
227	29	1 PEN	MEZZANINE	P	CARBON BATCH	V-9	SS	1500G	
228	29	1 PEN	JUST SOUTH OF V8	P	N/A	N/A	SS	200G	
229	29	1	OUTSIDE SOUTH	C	15% METHANOL BRINE	K-29	CS	7500G	
230	29	1	OUTSIDE SOUTH	C	GLYCOL BRINE	K-30	CS	3000G	
231	36	1	WEST AREA	C	HIGH PRESSURE AIR	N/A	CS	600G	
232	45					T-18			
233	45					T-19			
234	52	1	MECHANICAL ROOM	P	AFFF FIRE FOAM	N/A	CS BLADDER TANK	600G	
235	56	MAIN	LARGE ROOM	P	SEWER CONTAINMENT	T-99	SS	5000G	
236	56	N/A	OUTSIDE SOUTH	P	SEWER LIFT TANK	N/A	SS	300G	
237	62	2	MAIN	P	SOLVENT	N/A	SS	1500G	
238	62	1	MAIN	P	SOLVENT	N/A	SS	300G	
239	UMTF	MAIN	TANK FARM	C	METHANOL	CS-47	SS	10000G	
240	UMTF	MAIN	TANK FARM	C	METHANOL	CS-48	SS	10000G	

NOTE: TANKS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH BRISTOL-MYERS EHS WORK PLAN.

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DOCUMENT.



DRAWN BY: JLG CHECKED BY: SWM REVISIONS:		REVIEWED BY: GBC APPROVED BY: LJC	
VENDOR DOC. #	REV. DATE	DESCRIPTION	DRAWER / APPROVAL
AUTHORS			
DISCIPLINE			
SYSTEM			
SYSTEM #			
EQUIPMENT			
D 5/16/11 ISSUED FOR CONSTRUCTION D 11/29/10 ISSUED FOR BID		KAL LJC	
PROJECT NO: 2025-0028-30 CDR FILE NO: 2025-0028-30		SCALE: NOT TO SCALE DATE: 21 DECEMBER 2010 DWG. NO.: M-Y-003	

TABLE 3-3**TRANSFORMERS**

Syracuse Site Transformation Project
BMS Syracuse North Campus Restoration Area
East Syracuse, NY

Building	PEN/NON-PEN Building	Location	Capacity
Building 1	PEN	Indoors	1500 KVA Transformer 259 GAL
		Indoors	1500 KVA Transformer 259 GAL
		Roof	1000 KVA Transformer 235 GAL
		Roof	1000 KVA Transformer 235 GAL
Building 8	PEN	Roof	2500 KVA Transformer 330 GAL
		Indoors	750 KVA Transformer 191 GAL
		Indoor	750 KVA Transformer 191 GAL
Building 8D	PEN	Outdoors	2500 KVA Transformer 850 GAL
Building 9	PEN	Outdoors	(4) Four 1500 KVA Transformers 686 GAL
Building 20B	NON-PEN	Outdoors	1000 KVA Transformer 166 GAL
Building 52	PEN	Outdoors	750 KVA Transformer 191 GAL

Table 4-1

Excavation Permit Summary																						
Pike Excavate Request No	Trade	Pike Request Date	Sch Ref No	BMS Permit No	Sponsor	Contractor	Work Start Date	F&E Representative	Location	Description	Ref Dwg	Date Initiated	Excavation Start Date	Anticipated Completion Date	Permit Closure Date	Impacted Soil Encountered?	Soil Disposition	Reference Document Location	Reference Doc. Name	Activity of Ref Doc	Description	Date Reported
TP-0008	elec	6/16/11	N/A	6-16-TP0008	J.Robie	All Purpose Telephone	6/22/11	M Piper	Bldg-22 to BMS field office	Install data cable for BMS field office	N/A	6/16/11	6/22/11	6/30/11	7/19/11	no comment						
TP-0009	elec	6/21/11	UTIL-020	6-21-TP-0009	A.Bachman	Ridley Elec	7/12/11	M Piper	North Park Lot	All electrical-conduit, grounding rods, poles	M-Y-100	6/21/11	7/12/11	8/12/11	11/10/11	unknown	excess soil to Fulton Lot					
TP-0010	elec	6/21/11	PR-120	6-21-TP0010	R.Gillen	R.H.Law	7/25/11	M Piper	South of Bldg-55	Underground Elec PC2A, New Pull Box note-4	E-Y-101	6/21/11	7/25/11	8/25/11	10/20/11	unknown	excess soil to Fulton Lot					
TP-0011	civil	6/22/11	PR-040	6-22-TP-0011		Robert Law		M Piper	Bldg-21 to CB3-15	New 10" and 12" storm line	M-Y-180	6/21/11	5/13/13	5/30/13		no	excess soil to Fulton Lot					
TP-0014	civil	6/21/11	Mobilize41	6-14-TP0014	R.Gillen	Robert Law		M Piper	North Park Lot	Revisions to North lot entrance off Thompson Rd	C-Y-101	6/21/11	8/31/11	9/30/11	10/31/11	unknown						
TP-0015	civil	6/22/11	PR-040	6-22-TP-0015		Robert Law		M Piper	North of bldg-70	New CB's and 12" storm line	M-Y-180					NA						
TP-0017	civil	6/22/11	PR-040			Robert Law		M Piper	Bldg-20 to CB7-9	New CB's and 12" storm line	M-Y-180											
TP-0018	civil	6/22/11	PR-040	6-22-TP-0018		Robert Law		M Piper	East of bldg-52 to CB7-29	New CB's and 12" storm line	M-Y-180	6/22/11	11/13/12	12/15/12	3/18/13	No	excess soil to Fulton Lot					
TP-0039	civil	6/28/11		6-28-TP-0039		Robert Law		M Piper	North of bldg-62	Cap CHWO1S ans CHWO1R	M-Y-109	6/28/11	10/23/12	11/2/12	3/4/13	unknown	excess soil to Fulton Lot					
TP-0043	civil	6/29/11		6-29-TP-0043		Robert Law		M Piper	Bldg-7 to tunnel	Install new 2" CW	M-Y-130	6/29/11	10/12/12	11/15/12	10/24/12	No	excess soil to Fulton Lot					
TP-0044	civil	6/29/11		6-29-TP-0044	Defendorf	Robert Law		M Piper	Bldg-31 to existing 8" main	Install new 1-1/2" CW	M-Y-130	6/29/11	9/26/11	10/26/11	10/20/11	No	excess soil to Fulton Lot					
TP-0045	civil	6/29/11		6-29-TP-0045		Robert Law		M Piper	North bldg-29	Cut and cap 2-12" water lines	M-Y-130	6/29/11	9/7/12	10/19/12	12/11/12	No	excess soil to Fulton Lot					
TP-0046	civil	6/29/11		6-29-TP-0046		Robert Law		M Piper	East of bldg-41	Cut and cap 1-12" and 1-3" water lines	M-Y-130	6/29/11	12/14/11	12/30/11	12/11/12	No	excess soil to Fulton Lot					
TP-0053	civil	7/22/11		7-22-TP-0053	J.Sugar	Dia & Thiel		M Piper	Bldg-82	Bollards and trench	A-82-101	7/22/11	8/8/11	8/30/11	1/5/12	unknown	excess soil to Fulton Lot					
TP-0059	plum	9/22/11		9-22-TP-0059	R.Gillen	Robert Law		M. Piper	Bldg-55	Relocate fire, water, electrical, sanitary	Mod-0	9/22/11	9/29/11	10/29/11	10/20/11	yes	excess soil to Fulton Lot	I:\Bms.2874\63643.Sstp-Ccr-Prepar\Docs\Section Tables\Excavations\Excavation logs\BCP area Excavation logs\Rpt. 2011-001	Rpt. 2011-001	Excavating 2" City water line	Oily soil	9/14/2011
TP-0060	plum	10/5/11		10-5-TP-0060	R. Gillen	Robert Law		M. Piper	Bldg-55	Road between bldg-25N & 23	M-Y-123	10/5/11	10/7/11	11/7/11	10/20/11	No	excess soil to Fulton Lot					
TP-0066	civil	10/27/11		10-27-TP-0066		Robert Law		Sepulveda	South bldg-20B	Demo truck wash trench and backfill	M-Y-130	10/31/11	10/31/11	11/30/11	11/28/11	No						
TP-0067	fire	11/1/11		11-1-TP-0067	R.Gillen	Robert Law		M Piper	North bldg-43	Install spool pieces at 25a,43 and 56 takeoffs	M-Y-140	11/1/11	12/12/11	12/30/11	12/20/11	no						
TP-0069	fire	11/1/11		11-1-TP-0069		Robert Law		M Piper	North bldg-43	Cap fire water to 24a	M-Y-140	11/1/11	10/12/12	11/15/12	12/11/12	unknown						
TP-0070	fire	11/1/11		11-1-TP-0070		Robert Law		M Piper	South of 82	remove fire water t's/install spool piece	M-Y-140	11/1/11	9/7/12	Y10/19/2012	10/24/12	unknown						
TP-0071	fire	11/1/11		11-1-TP-0071		Robert Law		M Piper	North of 9a/29	cut and cap fire water main,remove PIV	M-Y-140	1/1/11	9/7/12	10/19/12	12/11/12	unknown						
TP-0074	fire	11/1/11		11-1-TP-0074		Robert Law		M Piper	North of Bldg 1	Fire line changes	M-Y-140	11/1/11	5/15/13	5/20/13	5/22/13	unknown						
TP-0075	fire	11/1/11		11-1-TP-0075	R.Gillen	Robert Law		M Piper	West of Bldg 1	Install spool pieces at bldg 1	M-Y-140	11/1/11	10/31/12	11/30/12	3/4/13	unknown						
TP-0076	fire	11/1/11		11-1-TP-0076		Robert Law		M Piper	North of Bldg 21	remove T and install spool piece	M-Y-140	11/1/11	12/18/12	12/30/12	5/22/13	no						
TP-0081	civil	11/9/11		11-9-TP-0081		Robert Law		M. Piper	Bldg-70/82	Excavate & erect 2 precast caissons	ES-82-100	11/9/11	11/22/11	12/22/11	12/8/11	unknown						
TP-0091	demo	1/9/12		1/9-TP-0091	R Gillen	Cleveland		M.Piper	Bldg-4/4A/4B	Demolish Bldg-4/4A/4B	G-Y-002	1/9/12	2/7/13	3/7/13	5/8/13	unknown						
TP-0092	demo	1/9/12		1/9-TP-0092	R Gillen	Cleveland		M.Piper	Bldg-8/8A/8B/8C	Demolish Bldg-8/8A/8B/8C	G-Y-002	1/9/12	2/11/13	3/15/13	5/8/13	unknown						
TP-0094	demo	1/9/12		1/9-TP-0094	R Gillen	Cleveland		M.Piper	Bldg-Tank Farm	Demolish Bldg-Tank Farm	G-Y-002	1/9/12	8/17/12	9/1/12	10/24/12	unknown						
TP-0095	demo	1/9/12		1/9-TP-0095	R Gillen	Cleveland		M.Piper	Bldg-46	Demolish Bldg-46	G-Y-002	1/9/12	1/23/13	4/30/13	5/8/13	unknown						
TP-0096	demo	1/9/12		1/9-TP-0096	R Gillen	Cleveland		M.Piper	Bldg-9/9A/9B	Demolish Bldg-9/9A/9B	G-Y-002	1/9/12	1/15/13	3/1/13	5/8/13	unknown						
TP-0097	demo	1/9/12		1/9-TP-0097	R Gillen	Cleveland		M.Piper	Bldg-29	Demolish Bldg-29	G-Y-002	1/9/12	1/23/13	4/30/13	5/8/13	unknown						
TP-0098	demo	1/9/12		1/9-TP-0098	R Gillen	Cleveland		M.Piper	Bldg-24/24A	Demolish Bldg-24/24A	G-Y-002	1/9/12	1/23/13	4/30/13	5/8/13	unknown						
TP-0099	demo	1/9/12		1/9-TP-0099	R Gillen	Cleveland		M.Piper	Bldg-56	Demolish Bldg-56	G-Y-002	1/9/12	1/23/13	4/30/13	5/8/13	unknown						
TP-0101	demo	1/9/12		1/9-TP-0101	R Gillen	Cleveland		M.Piper	Bldg-52	Demolish Bldg-52	G-Y-002	1/9/12	10/31/12	11/30/12	12/1/12	unknown						

Table 4-1

Excavation Permit Summary																						
Pike Excavate Request No	Trade	Pike Request Date	Sch Ref No	BMS Permit No	Sponsor	Contractor	Work Start Date	F&E Representative	Location	Description	Ref Dwg	Date Initiated	Excavation Start Date	Anticipated Completion Date	Permit Closure Date	Impacted Soil Encountered?	Soil Disposition	Reference Document Location	Reference Doc. Name	Activity of Ref Doc	Description	Date Reported
TP-0102	demo	1/9/12		1/9-TP-0102	R Gillen	Cleveland	R.law	M.Piper	Bldg-20/20A/20B	Demolish Bldg-20/20A/20B	G-Y-002	1/9/12	6/14/12	8/7/12	3/4/13	Vials		I:\Bms.2874\63643.Sstp-Ccr- Prepar\Docs\Section Tables\Excavations\Excavation logs\BCP area Excavation logs\Rpt. 2012-001	Rpt. 2012-001	Removing soil and fill	Vials	7/17/2012
TP-0108	pipe	1/27/12		1/27-TP-0108	R Gillen	Robert Law		M. Piper	South Bldg-7	Excavate and cap gas line	M-Y-150	1/27/12	10/12/12	11/15/12	10/24/12	unknown						
TP-0118	civil	5/22/12		5/22-TP-0118	R.Gillen	R.Law		M.Piper	Bldg 20	Cut and cap fire to bldg 20	MY-140	5/22/12	6/11/12	6/22/12	6/22/12	unknown						
TP-0120	civil	6/27/12		6/27-TP-0120	R.Gillen	R.Law		M.Piper	N.Lot	relocate truck gate/remove turnstiles	CY-101	6/27/12	6/28/12	7/13/12	10/24/12	unknown						
TP-0122	civil	7/17/12		7/17-TP-0122	R Gillen	Cleveland		M. Piper	Tank Pad	Demo retaining walls, and tank pad	C-Y-101	7/17/12										
TP-0126	test	9/21/12		9/21-TP-0126	R. Gillen	ParrettWolf		M. Piper	Bldg-20	Monitoring wells		9/21/12	9/24/12	9/30/12	3/4/13	unknown						
TP-0128	demo	10/16/12		10/16-TP-0128	R Gillen	Nat-Grid		M.Piper	South of Bldg 41	Reroute natural gas line for Demo		10/16/12	10/29/12	11/9/12	11/27/12	unknown	excess soil to Fulton Lot	I:\Bms.2874\63643.Sstp-Ccr- Prepar\Docs\Section Tables\Excavations\Excavation logs\BCP area Excavation logs\Rpt. 2012-004	Rpt. 2012-004.pdf	Test pits to locate utilities	Dark oily soil	10/29/2012

Table 4-2

Project Log Summary								
RPT #	Related Pike Request #	Contractor	Impacted Soil Description	Activity of Ref Doc	Date Reported	Starting Location	Soil Volume Relocated	Final Disposal Location
2011-001	TP-003	R.H. Law, sub of Pike	Oily sheen on groundwater, dark discolored soil	Excavating for 2" City water line South of B20B west, to north of B55	9/14/2011	N. Bldg 55	19 drums	Drums (WMTF 39534) were staged in Building 29 until shipment to Clean Harbors in El Dorado, AR on December 1, 2011 on BOL 340353 (line item D).
2011-002	TP-0001	Dardrill, sub of Pike	Oily sheen and strong petroleum smell	Drilling holes for caissons	10/6/2011	E. Bldg 55 between B6 and B32		
2012-001, and 2012-001 more vials	TP-0102 - B20	R.H. Law, sub of Pike	Small injectible vials of clear liquid	Removing soil and fill	7/11/2012	Former Bldg 20 Foundation	14 dump truck loads	Mixture of vials and soil sent to Clean Harbors of Connecticut (Bristol, CT) for processing and then to CWM Model City Landfill for final disposal.
			More injectible vials of clear liquid		7/17/2012			
2012-002	BMS	Syracuse Utilities - Non Transformation	A thin layer of purple soil on two sides of excavation	Fire water repair	8/6/2012	NW Bldg 25A Foundation	not given	Soil was determined to be non-hazardous and placed back in the excavation as backfill.
2012-003	TP-0043	R.H. Law, sub of Pike	Thin vein of purple soil on one side of excavation	Excavation to install new water lines	10/18/2012	NW Bldg 68	not given	Excess soil to Fulton lot/Clean Harbor roll-off for off-site disposal by BMS
2012-004	BMS	Syracuse Utilities - Non Transformation	Small pocket (<1cy) of dark soil with petroleum smell	Test pits to locate utilities	10/29/2012	NE Bldg 61	<1 cy	Added to roll off from Phase 1 RIWP activities
2012-005	TP-0018	R.H. Law, sub of Pike	White coating precipitated on soil beneath standing water over weekend	Grading area for parking lot subbase - 8 inches of soil and concrete slab removed from area	11/19/2012	Former Bldg 52 area	6 rollofs @20,000 lbs each	Soil and concrete to High Acres Landfill in Fairport, NY as non-regulated material

TABLE 4-3
CAMP MONITORING SUMMARY

Date	Location of Ground Intrusive Activity	Dust (ug/m3)			TVOCs (ppm)	
		Upwind (Background)	Downwind Maximum ^a		Upwind (Background)	Downwind Maximum ^b
			Unadjusted	Background-corrected		
02-20-12	Excavation near B9A to locate and cap existing underground water line	<1 to 4	3 to 5	NC	<0.1 to 0.6	0.4 ^c
02-21-12	Excavation near B31 to locate and cap existing underground water line	<1 to 2	37	NC	<0.1 to <0.1	<0.1
02-21-12	Excavation near B9A to locate and cap existing underground water line	<1 to 2	18	NC	<0.1 to <0.1	<0.1
02-22-12	Excavations near B31 and B9A to locate and cap existing underground water line	<1 to 2	16	NC	<0.1 to <0.1	<0.1
02-23-12	Excavation near B31 to locate and cap existing underground water line	12 to 54	16	NC	<0.1 to 0.3	0.1
02-23-12	Excavation near B9A to locate and cap existing underground water line	12 to 54	20	NC	<0.1 to 0.3	<0.1
02-24-12	Trench adjacent to B31	NM	NM	NA	<0.1 to 1.5	0.6 ^c
02-24-12	Excavation near B8B to locate and cap existing underground water line	NM	NM	NA	<0.1 to 0.2	0.1
02/25/12	Backfilling of trench adjacent to B31	3 to 5	5	NC	<0.1 to 0.5	0.5 ^c
02/25/12	Backfilling near B8B to locate and cap existing underground water line	3 to 5	3	NC	<0.1 to 0.5	0.2 ^c
02/28/12	Excavation to repair broken water main in parking lot south of B20A	5 to 10	10	NC	<0.1 to <0.1	0.5 ^c
02/29/12	Filling of excavation to repair broken water main in parking lot south of B20A	13 to 18	16	NC	<0.1 to <0.1	0.7 ^c
03/01/12	Exploratory digs in road east of Building B23A	NM	NM	NA	<0.1 to 0.2	0.3 ^c
03/02/12	Exploratory digs in road east of Building B23A	15 to 21	20	NC	<0.1 to <0.1	0.4 ^c
03/23/12	Excavation in preparation for the repair of gas line east of B41	3 to 14	14	NC	<0.1 to <0.1	<0.1
03/24/12	Repair of gas line east of B41	2 to 3	7	NC	<0.1 to <0.1	0.3 ^c
03/26/12	Backfilling of excavation east of B41	6 to 18	40	NC	<0.1 to <0.1	0.3 ^c
03/27/12	Completion of backfilling of excavation east of B41	4 to 20	9	NC	<0.1 to <0.1	0.6 ^c
03/29/12	Excavation to locate and repair water line immediately adjacent to B25.	3 to 6	9	NC	<0.1 to <0.1	<0.1
03/30/12	Excavation to locate and repair water line immediately adjacent to B25	3 to 6	10	NC	<0.1 to <0.1	0.2 ^c
05/24/12	Excavation to locate and repair water line in parking lot south of B20 Complex	10 to 13	14	NC	<0.1 to <0.1	<0.1
05/25/12	Excavation to repair water line in parking lot south of B20 Complex	15 to 20	21	NC	<0.1 to <0.1	<0.1
05/29/12	Backfilling of excavation to repair water line in parking lot south of B20 Complex	37 to 40	35	NC	<0.1 to <0.1	<0.1
06/04/12	Excavation to repair a water main break just south of B7	1 to 3	4	NC	<0.1 to <0.1	<0.1
06/05/12	Excavation to repair broken water main south of B7	4 to 10	5	NC	<0.1 to <0.1	<0.1
06/11/12	Excavation to replace water valve south of B20A	12 to 22	22	NC	<0.1 to <0.1	<0.1
06/12/12	Excavation to replace water valve south of B20A	NM	NM	NA	<0.1 to 0.5	<0.1
06/13/12	Excavation to replace curbing at previous excavation south of B31	2 to 4	7	NC	<0.1 to <0.1	<0.1
06/14/12 ^d	Excavation to install two sump holes for demolition water	4	66	NC	<0.1	<0.1
06/18/12	Excavation to replace two valves adjacent to B61	14 to 20	4	NC	<0.1 to <0.1	<0.1
06/19/12	Excavation continuing to replace two valves adjacent to B61	11 to 28	<1	NC	<0.1 to 0.8*	<0.1
06/20/12	Excavation and backfilling in association with the replacement of valves adjacent to B61	16 to 24	37	NC	<0.1 to <0.1	<0.1
06/21/12	Excavation and backfilling in association with the replacement of valve adjacent to B61	19 to 30	2	NC	<0.1 to <0.1	<0.1
06/28/12	Demolition of B20 slab and foundation.	6 to 9	39	NC	<0.1 to <0.1	<0.1
06/29/12	Demolition of B20 slab and foundation	5 to 29	23	NC	<0.1 to <0.1	<0.1
06/30/12	Demolition of B20 slab and foundation	5 to 18	31	NC	<0.1 to <0.1	<0.1
07/02/12	Demolition of B20 slab and foundation	5 to 10	33	NC	<0.1 to <0.1	<0.1
07/03/12	Demolition of B20 slab and foundation	6 to 22	27	NC	<0.1 to <0.1	<0.1
07/05/12	Demolition of B20 complex foundation	2 to 5	78	NC	<0.1 to <0.1	<0.1
07/06/12	Demolition of B20 complex foundation	4 to 21	16	NC	<0.1 to <0.1	<0.1
07/11/12	Post hole digging and fence installation in North Parking Lot	5 to 8	12	NC	<0.1 to <0.1	<0.1
07/12/12	Removing dirt from the former B20 Complex site	11 to 20	34	NC	<0.1 to <0.1	<0.1
07/13/12	Removing dirt from the former B20 Complex site	15 to 46	51	NC	<0.1 to <0.1	<0.1
07/16/12	Removal and transfer of dirt from the former B20 Complex site	10 to 37	45	NC	<0.1 to <0.1	<0.1
07/17/12	Removal and transfer of dirt from the former B20 Complex site	15 to 26	30	NC	<0.1 to <0.1	<0.1
07/18/12	Removal and transfer of dirt from the former B20 Complex site	8 to 33	41	NC	<0.1 to <0.1	<0.1
07/19/12	Moving and removing dirt from the former B20 Complex site	23 to 46	50	NC	<0.1 to <0.1	<0.1
07/20/12	Moving and removing dirt from the former B20 Complex site	4 to 10	13	NC	<0.1 to <0.1	<0.1
07/23/12	Removal and transfer of dirt from the former B20 Complex site and filling of the B20A basement	16 to 26	31	NC	<0.1 to <0.1	<0.1
07/24/12	Removal and transfer of dirt from the former B20 Complex site	9 to 21	31	NC	<0.1 to <0.1	<0.1
07/25/12	Excavation for water lines at the B20 courtyard site	4 to 9	18	NC	<0.1 to <0.1	<0.1
07/26/12	Excavation for water lines at the B20 courtyard site	7 to 12	16	NC	<0.1 to <0.1	<0.1
07/30/12	Excavation for water lines at the B20 courtyard site	7 to 12	14	NC	<0.1 to <0.1	<0.1
07/31/12	Excavation at Hydrant #14, south of B20 footprint	14 to 29	34	NC	<0.1 to <0.1	<0.1
08/01/12	Excavation at Hydrant #14, south of B20 footprint	14 to 46	63	NC	<0.1 to <0.1	<0.1
08/02/12	Excavation related to hydrant relocation at the B20 courtyard site	9 to 15	17	NC	<0.1 to <0.1	<0.1
08/03/12	Excavation related to hydrant relocation at the B20 courtyard site	12 to 36	50	NC	<0.1 to <0.1	<0.1
08/06/12	Storm water pipe and manhole placement at the Courtyard (B20) site	2 to 7	16	NC	<0.1 to <0.1	<0.1
08/06/12	Between B62 and demo B25A for a water pipe break	2 to 7	20	NC	<0.1 to <0.1	<0.1
08/07/12	Excavation related to storm water pipe placement at the B20 courtyard site	2 to 11	28	NC	<0.1 to <0.1	<0.1
08/8/12	Continuation of B20 courtyard catch basin and storm water pipe installation	4 to 12	48	NC	<0.1 to <0.1	<0.1



TABLE 4-3
CAMP MONITORING SUMMARY

Date	Location of Ground Intrusive Activity	Dust (ug/m3)			TVOCs (ppm)	
		Upwind (Background)	Downwind Maximum ^a		Upwind (Background)	Downwind Maximum ^b
			Unadjusted	Background-corrected		
08/9/12	Continuation of B20 courtyard catch basin and storm water pipe installation	12 to 23	28	NC	<0.1 to <0.1	<0.1
08/13/12	B20 courtyard removal of dirt and debris	6 to 14	19	NC	<0.1 to <0.1	<0.1
08/14/12	B20 courtyard work	11 to 20	21	NC	<0.1 to <0.1	<0.1
08/15/12	B20 courtyard seat-wall excavation	10 to 38	46	NC	<0.1 to <0.1	<0.1
08/17/12	B20 courtyard activity seat-wall excavation	4 to 26	33	NC	<0.1 to <0.1	<0.1
08/17/12	Demolition of the ST Tank Farm	2 to 21	97	NC	<0.1 to <0.1	<0.1
08/20/12	B20 courtyard activity seat-wall excavation	6 to 28	34	NC	<0.1 to <0.1	<0.1
08/20/12	Demolition of the ST Tank Farm	4 to 27	29	NC	<0.1 to <0.1	<0.1
08/21/12	Demolition of the ST Tank Farm	4 to 21	26	NC	<0.1 to <0.1	<0.1
08/22/12	B20 courtyard activity - sail shade caisson excavation	6 to 20	24	NC	<0.1 to <0.1	<0.1
08/22/12	Demolition/cleanup of the ST Tank Farm	4 to 13	47	NC	<0.1 to <0.1	<0.1
08/23/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	9 to 39	70	NC	<0.1 to <0.1	<0.1
08/23/12	B22 water main break repair	6 to 9	10	NC	<0.1 to <0.1	<0.1
08/24/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	10 to 26	31	NC	<0.1 to <0.1	<0.1
08/24/12	B22 water main break repair	5 to 15	25	NC	<0.1 to <0.1	<0.1
08/27/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	9 to 17	25	NC	<0.1 to <0.1	<0.1
08/28/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	9 to 36	41	NC	<0.1 to <0.1	<0.1
08/29/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	2 to 11	15	NC	<0.1 to <0.1	<0.1
08/29/12	B22 water main break repair	1 to 7	9	NC	<0.1 to <0.1	<0.1
08/30/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	2 to 19	19	NC	<0.1 to <0.1	<0.1
08/30/12	B22 water main break repair	2 to 53	14	NC	<0.1 to <0.1	<0.1
08/31/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	6 to 17	48	NC	<0.1 to <0.1	<0.1
08/31/12	B22 water main break repair	6 to 19	17	NC	<0.1 to <0.1	<0.1
09/04/12	B20 courtyard activity - sail shade caisson excavation and seat-wall foundation work	6 to 15	21	NC	<0.1 to <0.1	<0.1
09/5/12	B20 courtyard activity	2 to 7	13	NC	<0.1 to <0.1	<0.1
09/5/12	B25 water main break repair	5 to 11	10	NC	<0.1 to <0.1	<0.1
09/6/12	B20 courtyard activity	7 to 27	24	NC	<0.1 to <0.1	<0.1
09/7/12	B20 courtyard activity	4 to 25	34	NC	<0.1 to <0.1	<0.1
09/7/12	B70 excavation for underground piping disconnect	8 to 34	24	NC	<0.1 to <0.1	<0.1
09/10/12	B20 courtyard activity	2 to 21	6	NC	<0.1 to <0.1	<0.1
09/11/12	B70 excavation for underground piping disconnect	<1 to 7	12	NC	<0.1 to <0.1	<0.1
09/11/12	B20 courtyard activity	3 to 15	12	NC	<0.1 to <0.1	<0.1
09/12/12	B20 courtyard activity	1 to 16	33	NC	<0.1 to <0.1	<0.1
09/12/12	B70 excavation for underground piping disconnect	3 to 19	12	NC	<0.1 to <0.1	<0.1
09/13/12	B20 courtyard activity	3 to 43	54	NC	<0.1 to <0.1	<0.1
09/13/12	B70 excavation for underground piping disconnect	7 to 38	9	NC	<0.1 to <0.1	<0.1
09/14/12	B20 courtyard activity	7 to 12	30	NC	<0.1 to <0.1	<0.1
09/14/12	B70 excavation for underground piping disconnect	11 to 25	18	NC	<0.1 to <0.1	<0.1
09/17/12	B20 courtyard activity	4 to 11	16	NC	<0.1 to <0.1	<0.1
09/17/12	B70 excavation for underground piping disconnect	6 to 16	10	NC	<0.1 to <0.1	<0.1
09/18/12	B20 courtyard activity	NM	NM	NA	<0.1 to <0.1	<0.1
09/18/12	B70 excavation for underground piping disconnect	NM	NM	NA	<0.1 to 0.2	0.1
09/19/12	B20 courtyard activity	1 to 3	6	NC	<0.1 to <0.1	<0.1
09/19/12	B70 excavation for underground piping disconnect	2 to 7	4	NC	<0.1 to 0.2	0.2
09/20/12	B20 courtyard activity	1 to 9	19	NC	<0.1 to <0.1	0.1
09/21/12	B20 courtyard activity	6 to 9	37	NC	<0.1 to <0.1	0.6
09/24/12	B20 courtyard activity	<1 to 4	28	NC	<0.1 to <0.1	<0.1
09/25/12	B20 courtyard activity	<1 to 4	14	NC	<0.1 to <0.1	<0.1
09/26/12	B20 courtyard activity	7 to 14	25	NC	<0.1 to <0.1	<0.1
09/27/12	B20 courtyard activity	1 to 8	18	NC	<0.1 to <0.1	<0.1
09/28/12	B20 courtyard activity	1 to 3	40	NC	<0.1 to <0.1	<0.1
10/01/12	B20 courtyard activity and curb installation	1 to 2	7	NC	<0.1 to <0.1	<0.1
10/02/12	B20 courtyard activity	5 to 10	15	NC	<0.1 to <0.1	<0.1
10/03/12	B20 courtyard activity and curb installation	9 to 28	25	NC	<0.1 to 0.4	<0.1
10/04/12	B20 courtyard activity	15 to 50	51	NC	<0.1 to <0.1	<0.1
10/05/12	B20 courtyard activity and demolition of the B55 slab.	11 to 16	32	NC	<0.1 to <0.1	<0.1
10/08/12	B20 courtyard activity and demolition of the B55 slab	1 to 48	41	NC	<0.1 to <0.1	<0.1
10/08/12	B70 excavation activities	3 to 3	3	NC	<0.1 to <0.1	<0.1
10/09/12	B20 courtyard activity and demolition of the B55 slab	2 to 11	20	NC	<0.1 to <0.1	<0.1
10/09/12	B70 excavation activities	7 to 33	9	NC	<0.1 to <0.1	<0.1
10/10/12	B20 courtyard activity and demolition of the B55 slab	4 to 8	14	NC	<0.1 to <0.1	<0.1
10/10/12	B70 excavation activities and excavation at B31	4 to 34	9	NC	<0.1 to <0.1	<0.1
10/11/12	B20 courtyard activity and demolition of the B55 slab	<1 to 2	9	NC	<0.1 to <0.1	<0.1
10/11/12	B70 excavation activities and excavation at B31	<1 to 2	34	NC	<0.1 to <0.1	<0.1
10/12/12	B20 Courtyard activity	<1 to 2	25	NC	<0.1 to <0.1	<0.1
10/15/12	B20 Courtyard activity	1 to 13	28	NC	<0.1 to <0.1	<0.1
10/16/12	B20 Courtyard activity	<1 to 4	22	NC	<0.1 to <0.1	<0.1
10/17/12	B20 Courtyard activity	4 to 11	21	NC	<0.1 to <0.1	<0.1
10/17/12	Underground disconnect south of B7	4 to 11	28	NC	<0.1 to <0.1	<0.1
10/18/12	B20 Courtyard activity	5 to 27	58	NC	<0.1 to 0.1	<0.1
10/18/12	Underground disconnect south of B7	5 to 27	21	NC	<0.1 to 0.1	0.3 ^c
10/19/12	B20 Courtyard activity	<1 to 1	<1	NC	<0.1 to <0.1	<0.1
10/19/12	Underground disconnect south of B7	<1 to 1	2	NC	<0.1 to <0.1	0.5 ^c
10/22/12	B20 Courtyard activity	3 to 15	30	NC	<0.1 to <0.1	0.1
10/22/12	Underground disconnect south of B7	4 to 16	15	NC	<0.1 to 0.6	<0.1
10/23/12	B20 Courtyard activity	NM	NM	NA	<0.1 to 0.1	0.2 ^c
10/23/12	Underground disconnects south of B7 and B62	NM	NM	NA	<0.1 to 0.1	0.2 ^c
10/24/12	B20 Courtyard activity	11 to 17	30	NC	<0.1 to <0.1	0.1
10/24/12	Underground disconnects south of B62	11 to 17	17	NC	<0.1 to <0.1	0.4 ^c
10/24/12	Water line work E of B22A	11 to 17	31	NC	<0.1 to <0.1	<0.1
10/25/12	B20 Courtyard activity	11 to 16	33	NC	<0.1 to 0.1	0.1
10/25/12	Underground disconnects S of B62	11 to 16	18	NC	<0.1 to 0.1	0.3
10/25/12	Water line work E of B22A	11 to 16	17	NC	<0.1 to 0.1	<0.1
10/26/12	Water line work E of B22A	14 to 44	50	NC	<0.1 to 0.1	<0.1
10/26/12	Underground disconnects south of B62	14 to 44	76	NC	<0.1 to 0.1	<0.1
10/26/12	B20 Courtyard activity	14 to 44	100	≤86	<0.1 to 0.1	<0.1
10/27/12	Excavation near former B55 for light pole base	1 to 15	42	NC	<0.1 to 0.3	<0.1



TABLE 4-3
CAMP MONITORING SUMMARY

Date	Location of Ground Intrusive Activity	Dust (ug/m3)			TVOCs (ppm)	
		Upwind (Background)	Downwind Maximum ^a		Upwind (Background)	Downwind Maximum ^b
			Unadjusted	Background-corrected		
10/29/12	B20 Courtyard activity	7 to 20	41	NC	<0.1 to <0.1	0.1
10/29/12	Fire water line work at B61	7 to 20	16	NC	<0.1 to <0.1	0.3 ^c
10/29/12	Gas line re-route at B41	7 to 20	21	NC	<0.1 to <0.1	<0.1
10/30/12	B20 Courtyard activity	2 to 3	18	NC	<0.1 to <0.1	0.2
10/30/12	Fire water line work at B25	2 to 3	5	NC	<0.1 to <0.1	0.5 ^c
10/30/12	Gas line re-route at B41	2 to 3	32	NC	<0.1 to <0.1	0.3 ^c
10/31/12	B20 Courtyard activity	NM	NM	NA	<0.1 to <0.1	<0.1
10/31/12	Gas line re-route at B41	NM	NM	NA	<0.1 to <0.1	0.2
11/1/12	B20 Courtyard activity	NM	NM	NA	<0.1 to 0.2	0.1
11/1/12	Foundation breaking and removal at former B52 site	NM	NM	NA	<0.1 to 0.2	<0.1
11/1/12	Gas line re-route at B41/excavation north of ST Tank Farm	NM	NM	NA	<0.1 to <0.1	0.4 ^c
11/2/12	B20 Courtyard activity	NM	NM	NA	<0.1 to <0.1	0.1
11/2/12	Foundation breaking and removal at former B52 site	NM	NM	NA	<0.1 to <0.1	0.1
11/2/12	Excavation north of ST Tank Farm.	NM	NM	NA	<0.1 to 0.4	0.7 ^c
11/5/12	B20 Courtyard activity	1 to 3	17	NC	<0.1 to <0.1	0.1
11/5/12	Foundation breaking and removal at former B52 site	1 to 3	8	NC	<0.1 to <0.1	<0.1
11/6/12	B20 Courtyard activity	3 to 11	51	NC	<0.1 to <0.1	0.2
11/6/12	Foundation breaking and removal at former B52 site	3 to 11	NM	NA	<0.1 to <0.1	<0.1
11/6/12	National Grid work near B41	5 to 9	11	NC	<0.1 to <0.1	<0.1
11/7/12	B20 Courtyard activity	NM	21	NA	<0.1 to <0.1	<0.1
11/7/12	Foundation breaking and removal at former B52 site and Syracuse Utility underground boring at B52	NM	38	NA	<0.1 to <0.1	<0.1
11/7/12	Syracuse Utility underground boring at B62	NM	13	NA	<0.1 to <0.1	0.8 ^c
11/7/12	“Holy Cross” excavation at ST Tank Farm and National Grid work near B41	NM	15	NA	<0.1 to <0.1	0.3
11/8/12	B20 Courtyard activity	3 to 11	30	NC	<0.1 to 0.1	<0.1
11/8/12	Foundation breaking and removal at former B52 site and Syracuse Utility underground boring at B52	3 to 11	47	NC	<0.1 to 0.1	<0.1
11/8/12	Syracuse Utility underground boring at B62	3 to 11	11	NC	<0.1 to 0.1	<0.1
11/8/12	“Holy Cross” excavation at ST Tank Farm	3 to 11	11	NC	<0.1 to 0.1	0.3
11/9/12	B20 Courtyard activity	11 to 48	49	NC	<0.1 to 0.3	0.5 ^c
11/9/12	Foundation breaking and removal at former B52 site and the Syracuse Utility underground boring at B52	11 to 48	70	NC	<0.1 to 0.3	<0.1
11/9/12	Syracuse Utility underground boring at B62	11 to 48	48	NC	<0.1 to 0.3	<0.1
11/12/12	B20 Courtyard activity	6 to 9	26	NC	NM	<0.1
11/12/12	Foundation breaking and removal at former B52 site and the Syracuse Utility underground boring at B62	6 to 9	15	NC	NM	<0.1
11/12/12	Syracuse Utility underground boring at B52	6 to 9	18	NC	NM	<0.1
11/12/12	“Holy Cross” excavation near ST Tank Farm.	6 to 9	30	NC	NM	<0.1
11/13/12	B20 Courtyard activity	6 to 10	14	NC	<0.1 to <0.1	0.3 ^c
11/13/12	Foundation breaking and removal at VE Tank Farm and catch basin installation at the former B52 site	6 to 10	16	NC	<0.1 to <0.1	0.1
11/13/12	“Holy Cross” excavation near ST Tank Farm.	6 to 10	6	NV	<0.1 to <0.1	0.3 ^c
11/14/12	B20 Courtyard activity	<1 to 3	38	NC	<0.1 to <0.1	0.1
11/14/12	Catch basin installation at the former B52 site	<1 to 3	10	NC	<0.1 to <0.1	0.1
11/14/12	“Holy Cross” excavation and B41 excavation near ST Tank Farm	<1 to 3	7	NC	<0.1 to <0.1	<0.1
11/14/12	Foundation breaking and removal at VE Tank Farm	<1 to 3	6	NC	<0.1 to <0.1	0.7 ^c
11/15/12	B20 Courtyard activity	5 to 17	17	NC	<0.1 to 0.4	0.2
11/15/12	Foundation breaking and removal at VE Tank Farm and catch basin installation at the former B52 site	5 to 17	18	NC	<0.1 to 0.4	0.4 ^c
11/15/12	B41 excavation near ST Tank Farm	5 to 17	16	NC	<0.1 to 0.4	<0.1
11/15/12	Water line excavations east of B22	5 to 17	8	NC	<0.1 to 0.4	<0.1
11/16/12	Catch basin installation at the former B52 site	7 to 21	25	NC	<0.1 to <0.1	0.5 ^c
11/16/12	Water line excavations east of B22 and north of B25N	7 to 21	22	NC	<0.1 to <0.1	0.2
11/16/12	B41 excavation near ST Tank Farm	7 to 21	26	NC	<0.1 to <0.1	0.1
11/17/12	B41 excavation near ST Tank Farm	8 to 33	37	NC	<0.1 to <0.1	0.1
11/19/12	Catch basin installation and parking lot work at the former B52 site	13 to 24	37	NC	<0.1 to 0.5	<0.1
11/19/12	B41 excavations (gas and water) near ST Tank Farm	22 to 42	30	NC	<0.1 to 0.1	0.1
11/20/12	Catch basin installation and parking lot work at the former B52 site	17 to 35	NM	NA	<0.1 to 0.5	<0.1
11/21/12	Catch basin installation and parking lot work at the former B52 site	19 to 51	NM	NA	<0.1 to 0.2	<0.1
11/21/12	Water line work at B22	27 to 52	40	NC	<0.1 to <0.1	<0.1
11/26/12	Sub base installation and parking lot work at the former B52 site	NM	NM	NA	<0.1 to <0.1	0.2
11/26/12	Water line work at B22	NM	NM	NA	<0.1 to <0.1	<0.1
11/26/12	National Grid gas line work near B41	NM	NM	NA	<0.1 to <0.1	<0.1
11/27/12	Sub base installation and parking lot work at the former B52 site	6 to 15	15	NC	<0.1 to <0.1	0.2
11/27/12	Water line work at B22	6 to 15	8	NC	<0.1 to <0.1	<0.1
11/27/12	National Grid gas line work near B41	6 to 15	7	NC	<0.1 to <0.1	<0.1
11/28/12	Water line work at B22	5 to 20	24	NC	<0.1 to 0.3	<0.1
11/29/12	Water line work at B41	8 to 16	17	NC	<0.1 to 0.2	<0.1
11/29/12	Water line work at B22	8 to 16	17	NC	<0.1 to 0.2	<0.1
11/30/12	Water line work at B41	3 to 9	9	NC	<0.1 to 0.3	0.1
11/30/12	Water line work at B22	7 to 21	10	NC	<0.1 to <0.1	<0.1
12/03/12	B23B ramp excavation	11 to 19	21	NC	<0.1 to <0.1	0.3
12/03/12	Water line work at B22	11 to 19	21	NC	<0.1 to <0.1	0.2
12/03/12	“Holy Cross” excavation	11 to 19	30	NC	<0.1 to <0.1	0.1
12/04/12	B23B ramp reconstruction	10 to 43	30	NC	<0.1 to <0.1	0.1
12/04/12	Water line work at B22	10 to 43	38	NC	<0.1 to <0.1	<0.1
12/04/12	“Holy Cross” water line work	10 to 43	22	NC	<0.1 to <0.1	<0.1
12/05/12	B23B ramp excavation	NM	NM	NA	<0.1 to <0.1	0.3
12/05/12	Foundation removal at the Upper Tank Farm/city water capping at B70	NM	NM	NA	<0.1 to <0.1	0.3
12/05/12	“Holy Cross” excavation	NM	NM	NA	<0.1 to <0.1	<0.1
12/06/12	B23B ramp excavation	2 to 4	15	NC	<0.1 to <0.1	0.2
12/06/12	Foundation removal at the Upper Tank Farm/city water capping at B70	2 to 4	17	NC	<0.1 to <0.1	0.1
12/06/12	“Holy Cross” excavation	2 to 4	30	NC	<0.1 to <0.1	<0.1
12/07/12	B23B ramp excavation	9 to 14	19	NC	<0.1 to <0.1	<0.1



TABLE 4-3
CAMP MONITORING SUMMARY

Date	Location of Ground Intrusive Activity	Dust (ug/m3)			TVOCs (ppm)	
		Upwind (Background)	Downwind Maximum ^a		Upwind (Background)	Downwind Maximum ^b
			Unadjusted	Background-corrected		
12/07/12	foundation removal at the Upper Tank Farm/city water capping at B70	9 to 14	45	NC	<0.1 to <0.1	<0.1
12/07/12	“Holy Cross” backfilling activities	9 to 14	NM	NA	<0.1 to <0.1	<0.1
12/08/12	Foundation removal at the Upper Tank Farm/ city water capping at B70 activities	10 to 24	52	NC	<0.1 to <0.1	0.1
12/10/12	B23B ramp excavation	NM	NM	NA	<0.1 to <0.1	0.3
12/11/12	B23B Ramp excavation	NM	NM	NA	<0.1 to <0.1	0.1
12/11/12	“Holy Cross” fire water line work	NM	NM	NA	<0.1 to <0.1	0.4
12/12/12	Excavation northwest of B41 (“Holy Cross”)	NM	16	NC	<0.1 to <0.1	0.1
12/13/12	B42/B22 water line work	7 to 22	21	NC	<0.1 to <0.1	0.3
12/13/12	B23B water line work	11 to 28	24	NC	<0.1 to <0.1	<0.1
12/13/12	B31 water line work	7 to 22	62	NC	<0.1 to <0.1	<0.1
12/14/12	B31 water line work, boiler house (B2) work	9 to 36	25	NC	<0.1 to <0.1	0.2
12/14/12	B42/B22 water line work, B23B water line work	7 to 22	33	NC	<0.1 to <0.1	0.1
12/15/12	B23B water line work, B31 water line work	7 to 12	19	NC	<0.1 to 0.1	0.3
12/15/12	Boiler house (B2) excavation, excavation near B48	7 to 12	11	NC	<0.1 to 0.1	<0.1
12/15/12	B42/B22 water line work	7 to 12	18	NC	<0.1 to 0.1	0.1
12/17/12	Water line work at B23	NM	NM	NA	<0.1 to 0.2	<0.1
12/17/12	Water line work at B2	NM	NM	NA	<0.1 to 0.2	0.2
12/17/12	Water line work at B31	NM	NM	NA	<0.1 to 0.2	0.1
12/17/12	Water line work at B22	NM	NM	NA	<0.1 to 0.2	1.1 ^c
12/18/12	Water line work at the North Parking Lot	NM	NM	NA	<0.1 to 0.4	0.3
12/18/12	Demolition of B41	NM	NM	NA	<0.1 to <0.1	0.4
12/19/12	Demolition of B41	2 to 12	12	NC	<0.1 to <0.1	0.1
12/19/12	B23B Ramp work	3 to 22	19	NC	<0.1 to 0.1	0.1
12/20/12	B23B Ramp work	3 to 26	32	NC	<0.1 to <0.1	0.3
12/20/12	B22 water line work	4 to 9	6	NC	<0.1 to 0.1	0.2
12/21/12	B23B Ramp work	NM	NM	NA	<0.1 to 0.3	0.2
12/26/12	B23B Ramp work	9 to 17	23	NC	<0.1 to <0.1	0.3
12/26/12	B22 work	9 to 17	17	NC	<0.1 to <0.1	0.6
12/27/12	B22 excavation activities	14 to 16	17	NC	<0.1 to 0.1	0.4
12/27/12	B41 excavation activities	<1 to 8	14	NC	<0.1 to 0.1	0.2
12/28/12	B22 work and near B41	7 to 13	25	NC	<0.1 to <0.1	0.3
12/29/12	B36 excavation	NM	NM	NA	<0.1 to <0.1	0.5
01/08/13	B62 Foundation demolition	13 to 21	26	NC	<0.1 to <0.1	<0.1
01/09/13	B62 foundation demolition	11 to 40	49	NC	<0.1 to <0.1	0.2
01/10/13	B62 foundation demolition	4 to 18	7	NC	<0.1 to <0.1	0.2
02/01/13	Demolition of stairs north of former B1	NM	NM	NA	<0.1 to 0.4	<0.1
02/07/13	Scraping of soil over the top of the “Wine Cellar” tank area, just west of B4B	8 to 11	17	NC	<0.1 to <0.1	<0.1
02/11/13	Excavation for work on the French Drain at B61 parking lot	3 to 7	7	NC	<0.1 to <0.1	0.1
02/12/13	Excavation for work on the French Drain at B61 parking lot	NM	NM	NA	<0.1 to <0.1	<0.1
02/12/13	Trenching work north of former B1	5 to 6	6	NC	<0.1 to <0.1	<0.1
02/13/13	Excavation for work on the French Drain at B61 parking lot	8 to 25	25	NC	<0.1 to <0.1	<0.1
02/13/13	Trenching work north of former B1	26 to 31	37	NC	<0.1 to <0.1	<0.1
02/14/13	Excavation for work on the French Drain at B61 parking lot	22 to 37	41	NC	<0.1 to <0.1	0.3
02/15/13	Excavation for work on the French Drain at B61 parking lot.	3 to 9	12	NC	<0.1 to <0.1	0.1
02/18/13	Work on the French Drain at B61 parking lot	2 to 6	43	NC	<0.1 to <0.1	0.1
02/19/13	Tie-in of B61 parking lot storm drain	7 to 11	11	NC	<0.1 to <0.1	0.3
03/01/13	Driving a grounding rod for generator near B21	2 to 3	4	NC	<0.1 to <0.1	<0.1
03/07/13	Demolition of B4 “Wine Cellar” interior wall and roof	4 to 24	39	NC	<0.1 to 0.1	0.5 ^e
03/08/13	Demolition of B4 “Wine Cellar” interior wall and roof	3 to 10	18	NC	<0.1 to <0.1	<0.1
03/18/13	Installation of fence east of B22A	5 to 13	33	NC	<0.1 to <0.1	<0.1
03/19/13	Installation of fence east of B22A	NM	NM	NA	<0.1 to 0.1	0.2
03/19/13	Foundation excavation at Upper Tank Farm, west of B82	NM	NM	NA	<0.1 to <0.1	<0.1
03/22/13	Fire water line installation between B22 and B25	NM	NM	NA	<0.1 to <0.1	<0.1
03/23/13	Fire water line installation between B22 and B25	1 to 9	6	NC	<0.1 to <0.1	<0.1
03/25/13	Fire water line installation northwest of B25	3 to 10	7	NC	<0.1 to <0.1	<0.1
03/26/13	Fire water line installation northwest of B25	4 to 63	75	NC	<0.1 to <0.1	0.1
03/27/13	Fire water line installation northwest of B25	5 to 28	86	NC	<0.1 to <0.1	<0.1
03/28/13	Fire water line installation northwest of B25	3 to 35	14	NC	<0.1 to <0.1	0.1
03/29/13	Fire water line installation and tower water leak northwest of B25	3 to 57	23	NC	<0.1 to <0.1	0.2
4/1/2013	Fire water line and tower water leak northwest of B25.	NM	NM	NA	<0.1 to 0.2	0.2
4/2/2013	Fire water line backfilling	NM	NM	NA	<0.1 to <0.1	0.1
4/4/2013	Excavation at B52 foundation.	NM	7	NC	<0.1 to <0.1	<0.1
4/13/2013	Excavation/ Slab breaking near B24 and B9 area.	8 to 35	26	NC	<0.1 to 0.2	<0.1
4/15/2013	Slab breaking at B24/24A	2 to 5	37	NC	<0.1 to <0.1	<0.1
4/16/2013	Slab breaking at B24/24A, B4 Complex, B41/ST Tank Farm	9 to 20	NM	NA	<0.1 to 0.2	<0.1
4/17/2013	Slab and foundation breaking at B4/8 Complex	<1 to 4	47	NC	<0.1 to <0.1	<0.1
4/18/2013	Slab and foundation breaking at B4/8 Complex	4 to 101	36	NC	<0.1 to <0.1	<0.1
4/19/2013	Slab and foundation breaking at B21	5 to 15	83	NC	<0.1 to <0.1	<0.1
4/20/2013	Slab and foundation breaking at B21	1 to 39	12	NC	<0.1 to <0.3	<0.1
4/22/2013	Slab and foundation breaking at B21	2 to 8	41	NC	NM	0.1
4/23/2013	Slab and foundation breaking at B21	2 to 6	95	NC	<0.1 to <0.1	<0.1
4/23/2013	Slab and foundation breaking at B43	2 to 6	12	NC	<0.1 to <0.1	<0.1
4/23/2013	Laying of fill from Fulton in the B41/ST Tank Farm/B1 corridor	2 to 6	98	NC	<0.1 to <0.1	<0.1
4/24/2013	Slab and foundation breaking at B21	5 to 10	88	NC	<0.1 to <0.1	<0.1
4/24/2013	Laying of fill from Fulton in the B41/ST Tank Farm/B1 corridor	5 to 10	114 ^f	NC	<0.1 to <0.1	<0.1
4/25/2013	Slab and foundation breaking at B36	3 to 17	310 ^g	NC	<0.1 to <0.1	<0.1
4/29/2013	Fill activities in the B24 and B8 footprints with fill from the Fulton site.	3 to 5	43	NC	<0.1 to <0.1	<0.1

TABLE 4-3
CAMP MONITORING SUMMARY

Date	Location of Ground Intrusive Activity	Dust (ug/m3)			TVOCs (ppm)	
		Upwind (Background)	Downwind Maximum ^a		Upwind (Background)	Downwind Maximum ^b
			Unadjusted	Background-corrected		
4/30/2013	Fill activities in the B24 and B8 footprints	1 to 146	86	NC	<0.1 to <0.1	<0.1
4/30/2013	Grading at the B41/ST Tank Farm area with fill from the Fulton site.	1 to 146	16	NC	<0.1 to <0.1	<0.1
5/1/2013	Fill activities and grading at the B41/ST Tank Farm area with fill from the Fulton site.	6 to 16	93	NC	<0.1 to <0.1	<0.1
5/2/2013	Fill and grading at the B1/B41/ST Tank Farm area with fill from the Fulton site.	2 to 10	55	NC	<0.1 to <0.1	<0.1
5/6/2013	Installation of a new manhole near B7	3 to 32	31	NC	<0.1 to <0.1	<0.1
5/7/2013	Installation of a new manhole near B7	1 to 134	29	NC	<0.1 to <0.1	<0.1
5/8/2013	Installation of new manholes west of B7	3 to 6	16	NC	<0.1 to 0.1	0.1
5/9/2013	Installation of new catchbasins west of B7	2 to 4	20	NC	<0.1 to <0.1	<0.1
5/10/2013	Installation of new catchbasins west of B7	2 to 8	34	NC	<0.1 to <0.1	<0.1
5/13/2013	Installation of new catchbasins west of B7 and NE of B31	1 to 4	17	NC	<0.1 to <0.1	<0.1
5/14/2013	Installation of new catchbasins NE of B31	2 to 9	36	NC	<0.1 to <0.1	<0.1
5/14/2013	Placement of BMS fill from the Fulton site in the B8 complex footprint	2 to 9	11	NC	<0.1 to <0.1	<0.1
5/15/2013	Installation of new catchbasins NE of B31	9 to 70	30	NC	<0.1 to 0.1	2.1
5/15/2013	Placement of BMS fill from the Fulton site in the B24 complex footprint and B21 footprint	9 to 70	27	NC	<0.1 to 0.1	0.3
5/16/2013	Placement of BMS fill from the Fulton site in the B24 complex footprint, and excavation for fire water cap near B1	2 to 8	39	NC	<0.1 to <0.1	<0.1
5/17/2013	Excavation for fire water cap near B1	1 to 12	47	NC	<0.1 to <0.1	<0.1
5/22/2013	Excavation for storm structure installation N of B7	2 to 31	53	NC	<0.1 to <0.1	<0.1
5/23/2013	Excavation for storm structure installation N of B7	4 to 9	17	NC	<0.1 to <0.1	<0.1
5/24/2013	Excavation for storm structure installation N of B7	NM	NM	NA	<0.1 to 0.4	<0.1
5/28/2013	Excavation for storm structure installations N of B7 and broken water line E of B31	5 to 13	8	NC	<0.1 to 0.2	<0.1
5/29/2013	Excavation for storm structure installations N of B7 and broken water line E of B31	8 to 15	54	NC	<0.1 to 0.3	0.3
5/30/2013	Excavation for storm structure installations N of B7	5 to 32	32	NC	<0.1 to <0.1	<0.1
5/31/2013	Excavation for storm structure installations near B31	10 to 21	30	NC	<0.1 to <0.1	<0.1
6/5/2013	Storm structure installation, road sub base installation	3 to 20	29	NC	<0.1 to <0.1	0.6
6/15/2013	Excavation for sewer line repair west of B70	7 to 21	31	NC	<0.1 to <0.1	0.1
6/27/2013	Verizon line repair west of B22	10 to 19	109	97	<0.1 to <0.1	<0.1
6/28/2013	Verizon line repair west of B22	3 to 12	11	NC	<0.1 to 0.9	0.2
7/1/2013	Verizon line repair west of B22	11 to 19	21	NC	<0.1 to 0.4	0.1
7/9/2013	Verizon line repair west of B22	19 to 46	44	NC	<0.1 to <0.1	>0.1
7/10/2013	Planting of trees in the Courtyard	45 to 62	58	NC	<0.1 to <0.1	0.1
7/15/2013	Moving and placing of BMS dirt from the Fulton Yard in various places on site	5 to 41	40	NC	<0.1 to <0.1	>0.1
7/16/2013	Moving and placing of BMS dirt from the Fulton Yard in various places on site	16 to 27	74	NC	<0.1 to 0.3	>0.1
7/26/2013	Fence Installation near transformer/B22	2 to 20	6	NC	<0.1 to <0.1	>0.1
8/5/2013	Fence installation near former B1	-	12	NC	<0.1 to <0.1	>0.1
8/6/2013	Fence installation near former B1	6	9	NC	<0.1 to <0.1	>0.1

Perimeter Limits and Response		
Parameter	Limit (background-corrected)	Response
Dust	Action Level: 100 ug/m ²	Investigate and institute dust suppression
	Work Perimeter Limit: 150 ug/m ²	Curtail operations; increase dust suppression
TVOCs	Action Level: 5 ppm	Investigate and apply controls/countermeasures
	Work Perimeter Limit: 25 ppm	Curtail operations and apply controls/countermeasures
^a Downwind dust levels presented before and after background-correction when maximum (uncorrected) downwind levels were above 100 ug/m ³ .		
^b Downwind TVOC levels are presented without background-correction, unless otherwise noted.		
^c Elevated TVOC readings were due to instrument zero drift.		
^d The AQM field technician was on site for the duration of the excavation, which was short in duration (approximately 15 minutes). The TVOC monitors did not operate for sufficient time to record a 15-minute average reading, however, the AQM operator observed that the TVOC monitor measurements during the excavation did not exceed 0.1 ppm.		
^e Downwind TVOCs were monitored during the entire excavation period, however, there was a data logging malfunction with the PID. No TVOCs elevated TVOC readings (above <0.1 ppm) were observed during outline (once per hour) inspections of the instrument. Additionally, no alarms indicating TVOC concentrations above 0.5 ppm were observed.		
^f The Downwind dust monitor was located downwind of demolition activities near B1, including truck traffic and concrete crushing (not ground intrusive activities). Elevated 15-minute dust averages of 101 and 114 µg/m ³ were measured during periods of visible dust from these activities. No dust was observed from the B1/ST Tank Farm/B41 fill site.		
^g An elevated 15-minute average dust concentration of 310 µg/m ³ was caused by the passing of a street sweeper in close proximity to the Downwind dust monitor. Next highest average was 81 µg/m ³ .		
NM – No monitoring conducted/ Instrument malfunction.		

Table 4-4

Site Transformation Project Contractors and Subcontractors

Contactor/Subcontractor	Description of Service
OBG	DESIGN AND CONSTRUCTION OVERSIGHT SERVICES
ASSOCIATED ARCHITECTS	ARCHITECTURAL ENGINEERING
ALAN MERCER	FIRE ALARM AND SECURITY CONSULTANT
ASM ENGINEERING	MECHANICAL ENGINEERING
CME ASSOCIATES	SPECIAL TESTING
JACK ROBIE	SAFETY CONSULTANT
JP STOPEN ENGINEERING	STRUCTURAL ENGINEERING
KEPLINGER FREEMAN ASSOCIATES	CIVIL ENGINEERING
MATTHEW PIPER	SAFETY AND PERMITTING CONSULTANT
Pike	GENERAL CONTRACTOR
AMERICAN LAMP RECYCLING, LLC	UNIVERSAL WASTE RECYCLING
ATLANTIC TESTING LABORATORIES	ASBESTOS SURVEY SERVICES
ATLAS FENCE, INC.	TEMPORARY FENCE
BON-TON GLASS COMPANY, INC.	GLASS & GLAZING
BURNS BROS CONTRACTORS, INC.	HVAC & PLUMBING
BURNS BROS CONTRACTORS, INC.	TEMP CONNECT - TRAILERS
CKS FLOORING CORPORATION	FLOORING
CLEAN HARBORS, INC	WASTE DISPOSAL
	FIRE EXTINGUISHER, WALL & CORNER GUARDS AND
D.S. SPECIALTIES, INC.	WAREHOUSE & DOCK EQUIPMENT
DARDRILL, INC.	CAISSONS/DRILLED FOUNDATIONS
DAVIS-ULMER, INC.	SPRINKLER - FIRE PROTECTION
DEADLINE SOLUTIONS, INC.	COMMISSIONING
DIAMOND & THIEL CONSTRUCTION	CONCRETE, MASONRY, CARPENTRY
DIAMOND ROOFING CO., INC.	METAL PANELS & ROOFING PATCH
DOYLE SECURITY SYSTEMS, INC.	SECURITY SYSTEM FOR TRAILERS
ENVIRONMENTAL CONSTRUCTION GROUP	ABATEMENT AND DECONTAMINATION
ENVIRONMENTAL GROWTH CHAMBERS	COLD ROOM
FLEXTEX CONSULTING, INC.	CAD SERVICES, UTILITY LOCATIONS
G4S SECURE SOLUTIONS USA, INC.	SECURITY GUARD SERVICE
HENDERSON-JOHNSON CO., INC.	HIGH DENSITY STORAGE SHELVING
HILAND PHARMACON, LLC	PEN CONSULTANT
JACKSON DEMOLITION SERVICE, INC	COOLING TOWER DEMO
KELLEY BROS., LLC	METAL DOORS AND FRAMES
KP BEGINSKY DEWATERING	STORM DRAIN CLEANING
LAMINAR FLOW, INC.	CLEAN ROOM MATERIALS
LCI INDUSTRIAL	HIGH DENSITY STORAGE SHELVING
M.J. ENGINEERING AND LANDSCAPING	LASER SCANNING
MITCHELL'S CONSTRUCTION	CLEANING
MODSPACE - PIKE TRAILER	TRAILER RENTAL
MODSPACE - BMS TRAILER	TRAILER RENTAL
MODSPACE - PIKE SAFETY TRAILER	TRAILER RENTAL
MUELLER FARMS LANDSCAPING CO.	SNOW REMOVAL
NES RENTALS	TEMPORARY SCAFFOLDING
OP-TECH ENVIRONMENTAL SVCS, INC	DISPOSAL OF WASTE MATERIAL
OP-TECH ENVIRONMENTAL SVCS, INC	B23 ASBESTOS ABATEMENT
OVERHEAD DOOR CO OF AUBURN/	ROLLING DOORS
PEGASUS ENVIRONMENTAL CO.	GPR TRAILER UTILITIES
RAULLI & SONS, INC.	STEEL WORK
RIDLEY ELECTRIC CO., INC.	TEMP POWER - TRAILERS
RIDLEY ELECTRIC CO., INC.	ELECTRICAL
RITE-HITE	INDUSTRIAL DOORS
ROBERT H. LAW, INC.	EARTHWORK AND UTILITY
ROYAL ENVIRONMENTAL, INC.	ABATEMENT AND DECONTAMINATION
STEVENS OFFICE INTERIORS, INC.	OFFICE FURNITURE
STRUCTURAL SERVICES OF NY, INC	EPOXY FLOORING
TARGET CONSTRUCTION SVCS, LLC	ABATEMENT AND DECONTAMINATION
URS CORPORATION (NY)	SAFETY / MEP
URS CORPORATION (NY)	MASS DEMO
VEOLIA ENVIRONMENTAL SERVICES	WASTE REMOVAL
WAGNER HOHNS INGLIS, INC.	SCHEDULING
WHITACRE ENGINEERING CO.	RE-BAR

Table 4-5

Imported Fill Summary

Physical								
Name	Use	Source Location	Chemical Testing	Testing	Volume*	Placements	Submittal Backup Information	Other
Brickyard topsoil	topsoil - alternate source	Brickyard Road Mine, VanBuren NY	Yes	Yes	2000 cy	site-wide top 4 inches	Pike trans 02304	Permit ID 7-3156-00025/00003
shale	fill	Brickyard Road Mine, VanBuren NY Syracuse Sand and Gravel	No	Yes		general fill	02220-3.6 01010-3.3B	Permit ID 7-3156-00025/00003
Crushed Gravel, Type A	fill	Jamesville Quarry/Hanson Aggregates	No	Yes		general fill	02230-1.3B-1A.1 Rev 1	NYSDOT Source 3-3RS Limestone Permit ID 7-3126-00034
Run-of-Crusher Type F	fill	Jamesville Quarry/Hanson Aggregates	No	Yes		general fill	02230-1.3B-1D.1	NYSDOT Source 3-3RS Limestone
#1B Stone Fill	Fill in Basement of B20A	TH Kinsella, Fayetteville, NY	No	Yes		Basement B20A	02230-1.3B1	Permit ID 7-3138-00014/00001
Crushed Stone Type B	Fill	TH Kinsella, Jamesville, NY	No	Yes		general fill	02230-1.3B-1B	Permit ID 7-3138-00014/00001
Run-of-Bank 1C Type E	fill	TH Kinsella, Jamesville, NY	No	Yes		general fill	02230-1.3B-1C	Permit ID 7-3126-00232/00001
Run-of-crusher Type F	fill	TH Kinsella, Jamesville, NY	No	Yes			02230-1.3B-1D	
Run-of-Bank Gravel Type E	fill	TH Kinsella, Jamesville, NY	No	Yes			02230-1.3B-2.2C	
Run-of-Crusher Type F	fill	TH Kinsella, Jamesville, NY	No	Yes			02230-1.3B-2.2D	
#57 Stone Base Material	fill	TH Kinsella, Jamesville, NY	No	Yes		general fill	02230-1.3B2	Permit ID 7-3126-00232/00001
#1A Stone	setting bed material	TH Kinsella, Fayetteville, NY	No	Yes		general fill	02515-1.2B-2.1	Permit ID 7-3126-00232/00001
staged sand pile	fill	staged onsite	yes	N/A	~2,500 cy	Mixed with topsoil, sitewide	submittal #20 sand test results	
Fly Road Topsoil	topsoil - top 4" of cover	Fly Road	Reviewed (Rev 1) yes	Yes	2400 cy	48 cy in B36 area, top 4 inches	DEC approval email of 4/25/13	
Screened topsoil	topsoil	RH Law	pH and soluble salts	Yes		site-wide top 4 inches	02205-001	
HW Smith soil	fill	Fulton Iron yard, previously HW Smith School. Staged at Fulton Iron	Yes - on CD	No	~2100 cy	Upper Tank Farm northwest to B4; B9, B46, B56, B62, B43, B25A west to pipe rack and south to B561 parking lot; east of B1, running south just north of B4 through ST Tank Farm and B41	DEC letter of 3/11/13, 01010-HW Smith CY503-D10 01-07-2013	
St Joseph's soil	fill, subgrade	RH Law yard	Yes	No	~1750 cy	West Courtyard; Former B21/21A; Former B1 to Thompson Road	DEC letter of 3/11/13 Resubmittal 3/22/13 01010-CY503-D9	
Time Warner Lot/Fulton Iron	Top Ft below topsoil	Time Warner Lot - on site building debris; Fulton Iron - from previous construction projects on BMS site	No	No	10068 cy	N. Cooling Tower, B5, B4,4A,4B and ST Tank Farm area; B5, B8, B54; B9, B29, B24, B68; just south of roadway at North Entrance, B21/21A, B36, B5/5A; West side of Courtyard	(None)	
Crushed demo debris, milled asphalt	deep fill	site building demo	No	No	unknown	site-wide below 1 ft.	(none)	

Notes:

Top 12 inches, below topsoil

cy = cubic yard

* volume estimated assuming 12cy truckloads, or cy indicated on supporting submittal

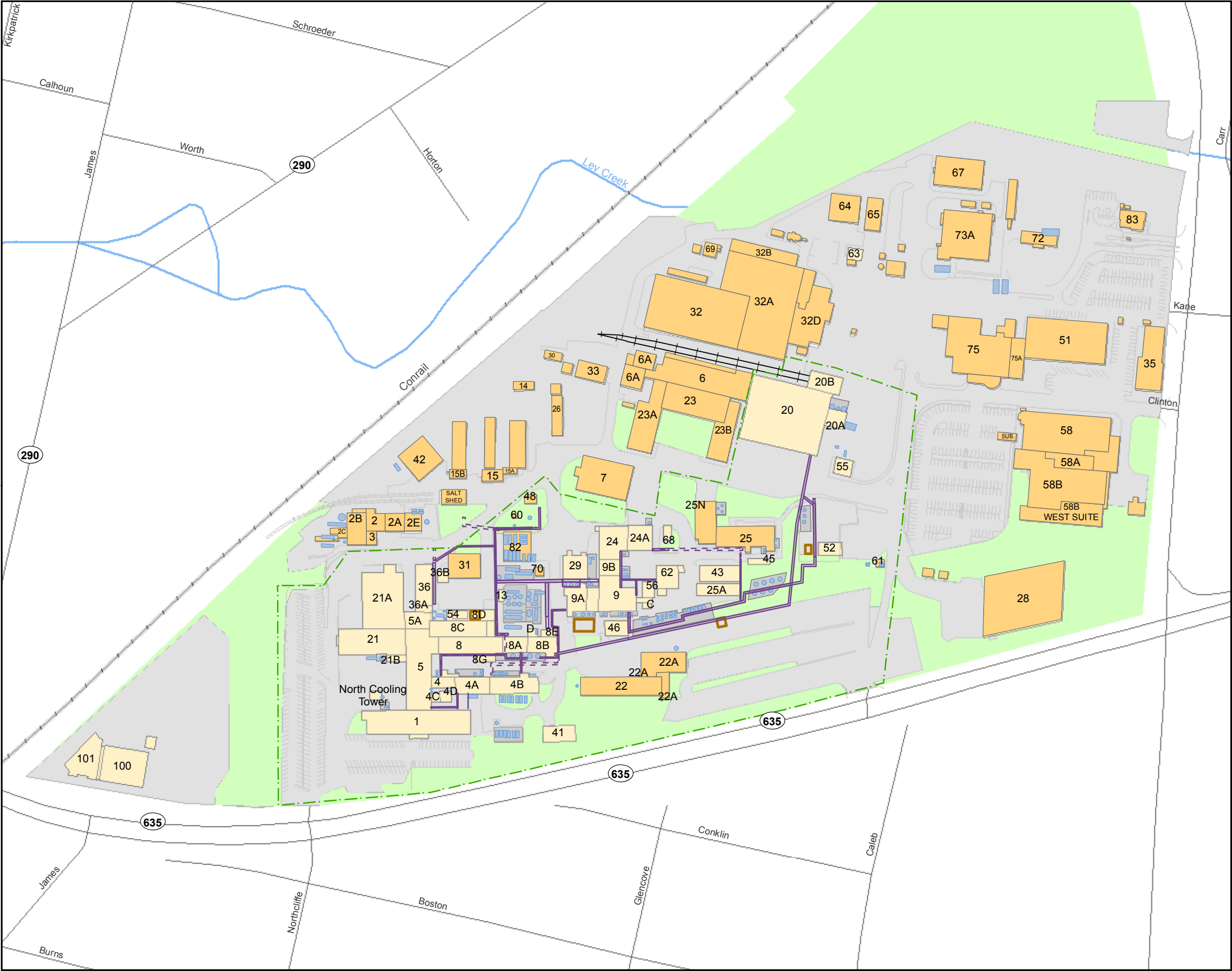


Figures



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LEGEND

- BMS STRUCTURES REMAINING
- BMS STRUCTURES DEMOLISHED BY TRANSFORMATION
- SECONDARY CONTAINMENT
- BCP BOUNDARY
- GRASS/LANDSCAPE
- PAVEMENT

BRISTOL-MYERS SQUIBB
SYRACUSE, NEW YORK

BCP BOUNDARY



JUNE 2018
2874.63643




O'BRIEN & GERE ENGINEERS, INC.



0 30 60 120
Feet

JUNE 2017
2874.63643



O'BRIEN & GERE ENGINEERS, INC.

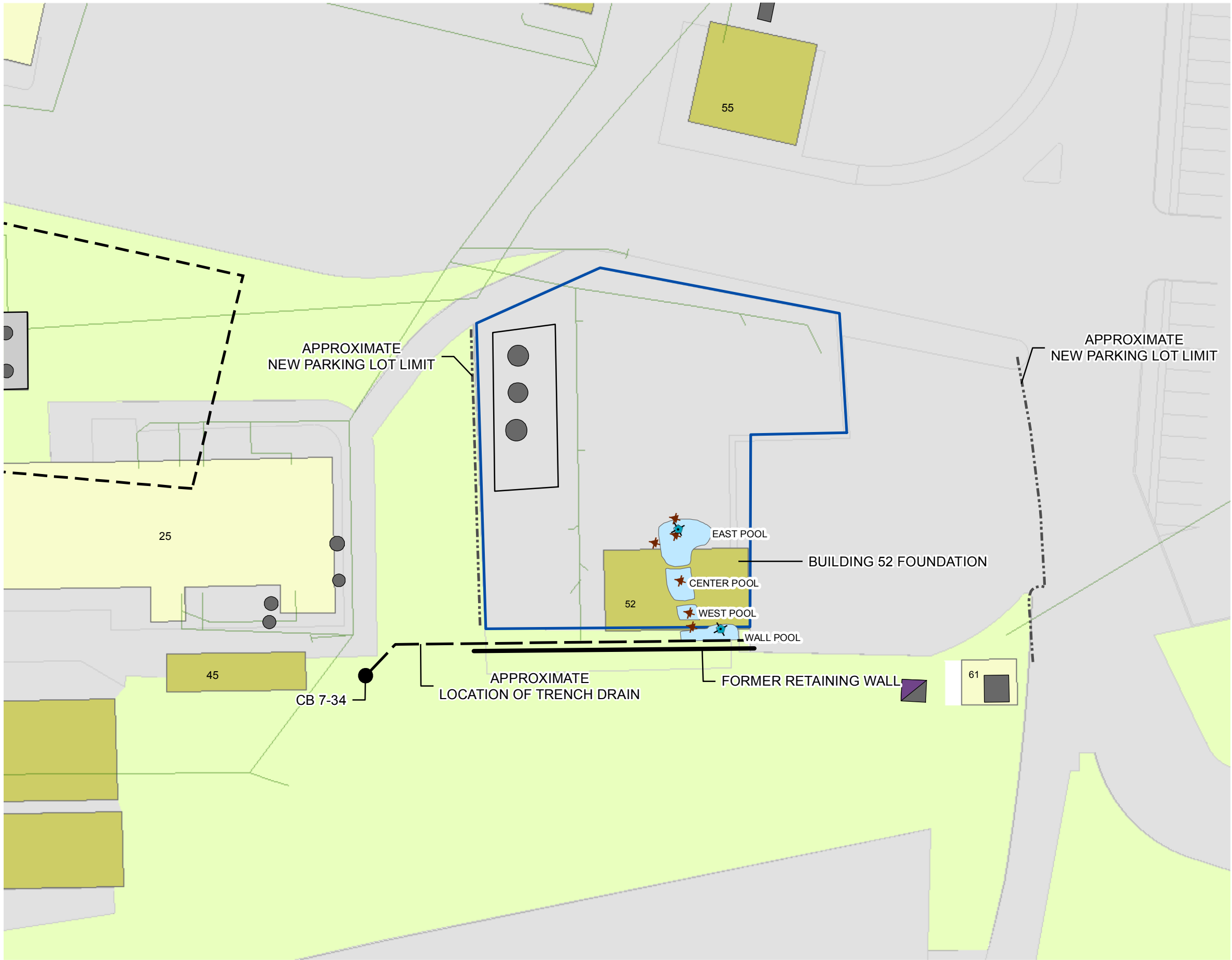


FIGURE 3-2

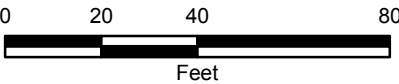


LEGEND

- NEAR-SURFACE SOIL SAMPLE
- NEAR-SURFACE WATER SAMPLE
- SANITARY SEWER
- PAD
- GRASS/LANDSCAPE
- PAVEMENT
- BUILDING TO REMAIN
- BUILDING REMOVED
- TANK TYPE
 - AST
 - UST
- AOC
 - POTENTIAL AREAS OF CONCERN
 - HISTORIC AOC
 - PRODUCTION RELATED

BRISTOL-MYERS SQUIBB
SYRACUSE, NEW YORK

BUILDING 52
CAUSTIC SOIL AREA



JUNE 2018
2874.63643



SIGN SCHEDULE			
KEY	SIGN PLATE	SIGN SIZE MOUNTING HT.	NY&DOT MULT.CD. NO. / COMMENTS
[A]		STOP SIGN 24" x 24" 7'-0" HT.	SIGN NO. RI-1C COLORS: RED BACKGROUND, WHITE TEXT AND BORDER
[B]		CAMPUS SPEED LIMIT 15 MPH 12" x 18" 7'-0" HT.	SIGN NO. COLORS: WHITE BACKGROUND, BLACK TEXT AND BORDER
[C]		CURVE RIGHT 24" x 24" 7'-0" HT.	SIGN NO. WI-2R COLORS: YELLOW BACKGROUND, BLACK ARROW AND BORDER
<p>NOTES:</p> <ol style="list-style-type: none"> 1. REFER TO TRAFFIC CONTROL SIGN DETAIL FOR INSTALLATION. 2. ALL REGULATORY SIGNS SHALL CONFORM TO THE MOST CURRENT NY&DOT "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES." 			

Figure 4-1 - Site As-Built Sheet 1

RECORD DRAWING

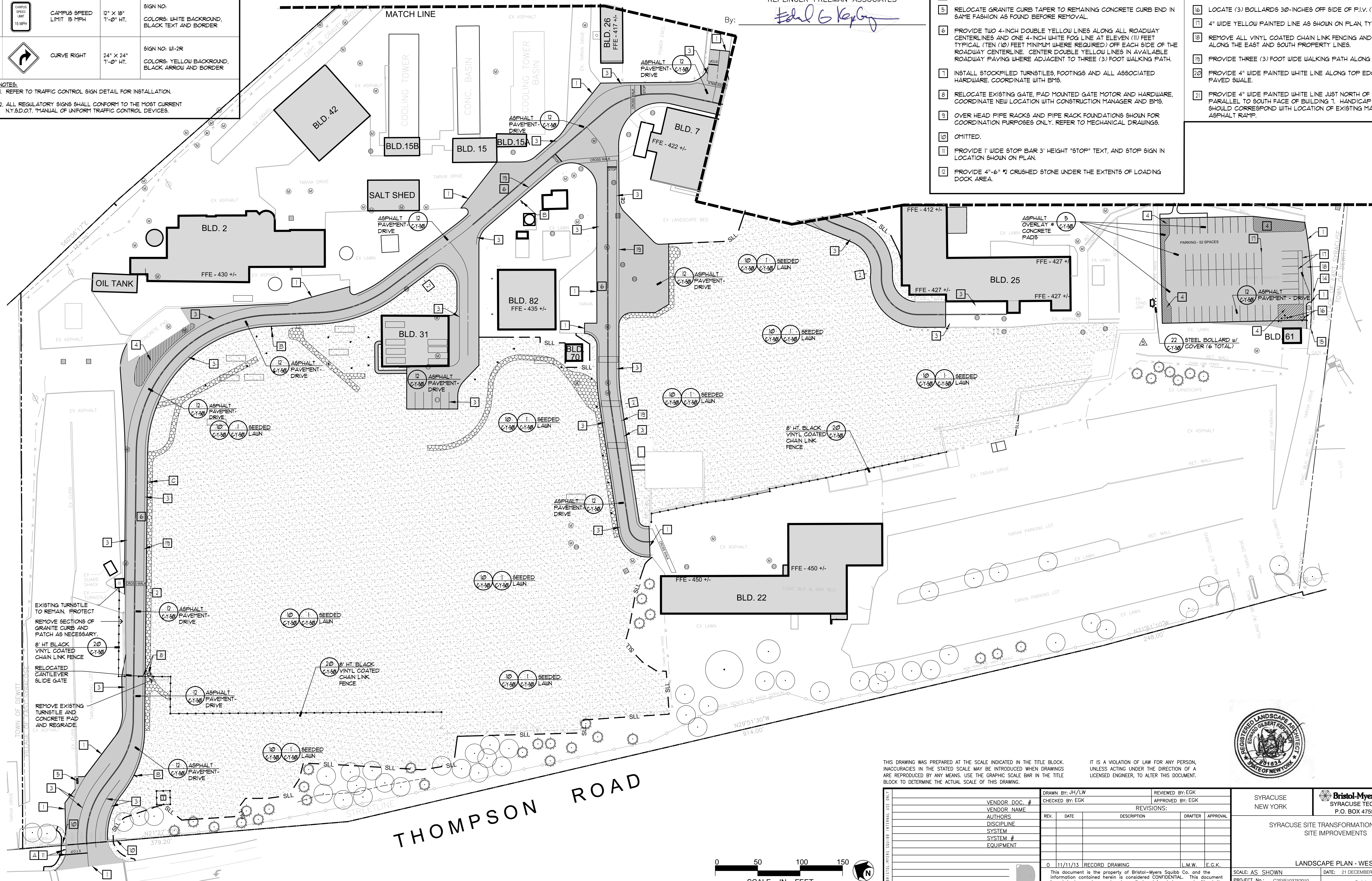
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KEPLINGER FREEMAN ASSOCIATES

By:

LAYOUT CONSTRUCTION NOTES

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| <p>1 MEET EXISTING LINE AND GRADE.</p> <p>2 ALL DIMENSION LINES ARE PARALLEL AND/OR PERPENDICULAR TO PROPOSED ROAD CENTER LINE UNLESS OTHERWISE NOTED.</p> <p>3 4" WIDE PAINTED WHITE LINES AS SHOWN ON PLAN, TYPICAL.</p> <p>4 PAINT 4" WIDE LINES @ 45°, 2'-0" ON CENTER.</p> <p>5 RELOCATE GRANITE CURB TAPER TO REMAINING CONCRETE CURB END IN SAME FASHION AS FOUND BEFORE REMOVAL.</p> <p>6 PROVIDE TWO (2) 4-INCH DOUBLE YELLOW LINES ALONG ALL ROADWAY CENTERLINES AND ONE 4-INCH WHITE FOG LINE AT ELEVEN (11) FEET TYPICAL (TEN (10) FEET MINIMUM WHERE REQUIRED) OFF EACH SIDE OF THE ROADWAY CENTERLINE. CENTER DOUBLE YELLOW LINES IN AVAILABLE ROADWAY PAVING WHERE ADJACENT TO THREE (3) FOOT WALKING PATH.</p> <p>7 INSTALL STOCKPILED TURNSTILES, FOOTINGS AND ALL ASSOCIATED HARDWARE. COORDINATE WITH BMS.</p> <p>8 RELOCATE EXISTING GATE, PAD MOUNTED GATE MOTOR AND HARDWARE, COORDINATE NEW LOCATION WITH CONSTRUCTION MANAGER AND BMS.</p> <p>9 OVER HEAD PIPE RACKS AND PIPE RACK FOUNDATIONS SHOWN FOR CONSIDERATION PURPOSES ONLY. REFER TO MECHANICAL DRAWINGS.</p> <p>10 OMITTED.</p> <p>11 PROVIDE 1' WIDE STOP BAR 3" HEIGHT "STOP" TEXT, AND STOP SIGN IN LOCATION SHOWN ON PLAN.</p> <p>12 PROVIDE 4"-6" #2 CRUSHED STONE UNDER THE EXTENTS OF LOADING</p> | <p>13 ANGLE CURB BACK AT 45 DEGREES. PROVIDE TWO (2) FOOT MIN CLEARANCE TO PIPE RACK FOUNDATION.</p> <p>14 4" WIDE WHITE PAINTED LINE APPROXIMATELY 2 FEET FROM FACE OF GUIDE RAIL AND/OR EDGE OF NEW PAVEMENT. FIELD VERIFY LOCATION PRIOR TO PAINTING.</p> <p>15 EXISTING GUIDERAIL TO REMAIN. PROTECT.</p> <p>16 LOCATE (3) BOLLARDS 30-INCHES OFF SIDE OF P.I.V. (TYP OF 3 P.I.V.'s)</p> <p>17 4" WIDE YELLOW PAINTED LINE AS SHOWN ON PLAN, TYPICAL.</p> <p>18 REMOVE ALL VINYL COATED CHAIN LINK FENCING AND GATES WITH SLATS ALONG THE EAST AND SOUTH PROPERTY LINES.</p> <p>19 PROVIDE THREE (3) FOOT WIDE WALKING PATH ALONG ROADWAY EDGE.</p> <p>20 PROVIDE 4" WIDE PAINTED WHITE LINE ALONG TOP EDGE OF EXISTING PAVED SWALE.</p> <p>21 PROVIDE 4" WIDE PAINTED WHITE LINE JUST NORTH OF EXISTING BOLLARD PARALLEL TO SOUTH FACE OF BUILDING 1. HANDICAP LOADING ZONE SHOULD CORRESPOND WITH LOCATION OF EXISTING MANDOOK WITH ASPHALT RAMP.</p> |
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SYRACUSE
NEW YORK

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SYRACUSE SITE TRANSFORMATION PROJECT
SITE IMPROVEMENTS

LANDSCAPE PLAN - WEST

SCALE: AS SHOWN	DATE: 21 DECEMBER 20
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PROJECT No.:	C2SYF103752010	DWG. NO.:	C-Y-105
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CHECKED BY: EGK		APPROVED BY: EGK	
REVISIONS:			
REV.	DATE	DESCRIPTION	DRAFTER APPROVAL

0	11/11/13	RECORD DRAWING	LMW	EGK
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5. NAME _____

BRISTOL

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1	

A horizontal scale bar with a black background and white markings. The markings are labeled 0, 50, 100, and 150. Below the bar, the text "SCALE IN FEET" is written in white capital letters.

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- LEGEND
- PIPERACK
 - PIPE TUNNEL / PIPE CHASE
 - PIPERACK ABOVE PIPE TUNNEL
 - TRANSFORMER AREA
 - EXTERIOR TANK LOCATIONS
 - SECONDARY CONTAINMENT
 - BMS STRUCTURES REMAINING
 - BMS STRUCTURES DEMOLISHED BY TRANSFORMATION
 - BMS FILL FROM FULTON YARD
 - FILL FROM H.W. SMITH SCHOOLS PROJECT
 - FILL FROM ST. JOSEPH'S HOSPITAL PROJECT
 - BDA BOUNDARY
 - GRASS/LANDSCAPE
 - PAVEMENT

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IMPORTED FILL
LOCATION



Attachments