REMEDIAL INVESTIGATION/ INTERIM REMEDIAL MEASURES WORK PLAN

FOR

PIERCE ARROW SITE
1695, 1721, AND 1723 ELMWOOD AVENUE
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
SITE NO. C915308

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ACRONYM LIST

AAR	Alternatives Analysis Report
ACM	Asbestos-containing Material
ASP	Analytical Services Protocol
BGS	Below Ground Surface
BSA	Buffalo Sewer Authority
CAMP	Community Air Monitoring Plan
CPP	Citizen Participation Plan
DER	Department of Environmental Remediation
DUSR	Data Usability and Summary Report
EDD	Electronic Data Deliverable
ELAP	Environmental Laboratory Accreditation Program
HASP	Health and Safety Plan
IRM	Interim Remedial Measures
MS/MSD	Matrix Spike / Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAH	Polycyclic Aromatic Hydrocarbons
PID	Photo-ionization Detector
RI	Remedial Investigation
RI/AAR/RWP	Remedial Investigation / Alternative Analysis Report/ Remedial Work Plan
SCO	Soil Cleanup Objectives
Site	2.86-Acre portion of Former Pierce Arrow Facility, Buffalo, New York
SVOC	Semi-volatile Organic Compounds
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

1 INTRODUCTION

This Remedial Investigation/Interim Remedial Measures (RI/IRM) Work Plan provides a description of the procedures that will be implemented to characterize the nature and extent of contamination of soil at the Pierce Arrow Site (the "Site") and the proposed methods to address that contamination. The Site has been assigned New York State Department of Environmental Conservation (NYSDEC) Site No. C915308 under the State's Brownfield Cleanup Program (BCP). This RI/IRM Work Plan has been prepared in accordance with Division of Environmental Remediation "Technical Guidance for Site Investigation and Remediation" (DER-10). To effectively characterize the environmental conditions, this RI/IRM Work Plan discusses the following:

- Current and historic site conditions
- Contaminants of concern and the extent of the contamination
- Extent of RI activities
- Quality controls and protocols for analytical sampling
- Health and safety procedures to protect site workers and the local community
- Community participation activities
- Proposed remedial measures

On October 14, 2016, Pierce Arrow LLC (the "Applicant"), acting as a BCP Volunteer, submitted a BCP Application to remediate and develop a portion of the larger Pierce Arrow Site. This particular portion consists of the buildings and land located at 1695, 1721, and 1723 Elmwood Avenue in Buffalo, New York (the "Site"). Investigative and remedial actions covered under this IRM will include the three parcels totaling 2.86 acres.

The Site is the location of the planned construction of a mixed use residential and commercial structure. The significant historic building will be repurposed into a quality residential facility with traditional apartments, residential and work studios, and loft style apartments. The project would include a complete historic renovation of the Pierce Arrow Administration Building (1695 Elmwood Avenue) and the original Pierce Arrow Garage (1721 and 1723 Elmwood Avenue). An RI will be implemented to further evaluate the extent of the contaminated fill material and to aid in the preparation of an Alternatives Analysis Report (AAR). **Section 4 Remedial Investigation** describes the scope of the investigation during remediation. This document also described proposed IRM actions intended to address known contamination present at the Site.

Closure sampling will be conducted during the performance of the RI. The results of the closure sampling will determine if remedial SCOs are achieved during the subsequent IRM.

1.1 Site Description

The Pierce Arrow Site is located in the City of Buffalo on Elmwood Avenue, at the intersection of Elmwood Avenue and Great Arrow Avenue, extending north to Conrail Railroad. The Site consists of three buildings from the former Pierce Arrow facility. The former Pierce Arrow Administrative Building located near the intersection of Elmwood Avenue and Great Arrow Avenue consists of a three- to four-story commercial building. A small parking lot is located along Elmwood Avenue and a private driveway, accessed from Great Arrow Avenue, runs along the east side of the building. The Site also consists of two conjoined buildings north of the

Administrative Building. These buildings were constructed as one-story brick and concrete slab-on-grade structures. A private driveway runs east to west in front of the buildings. Rail lines are located off-site to the immediate north of these buildings.

Figure 1 shows the location of the Site and **Figure 2** shows the Project Area and Site Boundaries.

The initial phase of the redevelopment will consist with historic renovation of over 150,000 square feet in the original Pierce Arrow Administration Building and an additional 40,000$^{+/-}$ square feet in the adjacent historical Pierce Arrow Garage. The grand auditorium space on the second floor of the building will be converted into a combined residential space and work center with a full service office and conference center, internet and Wi-Fi lounge, and still preserve, in part, the physical character of the original vaulted auditorium space. The building will be repurposed into a quality residential facility to accommodate both residential and Live/Work style spaces.

1.2 Site History

The land comprising the Site was historically divided into small, mostly residential lots that were consolidated in the early 1900s to facilitate the development of the Pierce-Arrow Motor Car Company.

The Pierce-Arrow Motor Car Company once built the world's most luxurious automobiles at the Site in Buffalo, New York. Pierce Arrow cars were manufactured on this facility from 1906 to 1938. The Site includes the former Administrative Building which was used primarily as office space and the two buildings along the rail line which were used to test engines. Ancillary uses within these buildings include aboveground and underground tanks for heating oil and gasoline storage, and coal storage. Since the closing of the Pierce Arrow facility, the Site has been used for commercial and industrial purposes. Past uses of the Site include the following:

- Tool and die manufacturing
- Cleaning compound manufacturing
- Garage, brazing and heat treatment
- Machine shop operations
- Dry cleaning
- Office space

Some remedial events were completed prior to Brownfield Cleanup Program sampling. On June 13, 2016, the NYSDEC was notified of an underground storage tank that was removed in November 2011 from the east side of the Administrative Building. The tank was removed and cut into pieces onsite. The tank size, contents, and removal of contaminated soil is unknown at this time, but is located in the NYSDEC as open spill number 1602559.

Based on recent investigation results, contaminated urban fill appears to have been deposited at the Site at some point in its history.

1.3 Site Geography, Geology, and Hydrogeology

The Site is generally flat, although certain minor variations in elevation are present. The Site contains a mix of buildings, asphalt parking/driveway areas and landscaped areas containing trees.

The Site contains urban fill with observed thickness ranging up to approximately one to three feet. Native clay is located below the fill.

Urban fill is defined as material coming from anthropogenic sources of the material re-worked to build a site to a defined grade. The urban fill material at the Site contains:

- Crushed Rock
- Sand
- Silt
- Clay
- Plastics
- Construction Debris
- Lumber
- Ash/Cinders
- Ceramics
- Bricks
- Metal

Native soil encountered beneath the fill consisted of soft to moderately stiff orange brown clay with some very stiff to extremely stiff reddish clay at deeper levels.

Groundwater was not observed during the Phase II investigation. Based on a review of NYSDEC data, the Site is not underlain by any mapped principal or unconfined aquifers. Groundwater at and in the vicinity of the Site is not used for public drinking water supply.

2 SUMMARY OF ENVIRONMENTAL CONDITIONS

2.1 Environmental Reports

Environmental information currently exists for the Site from a Phase I Environmental Site Assessment (ESA) completed at the Site by KTR Newmark in 2006, a Phase I/II ESA completed by AEI Consultants in 2011, surface soil sampling conducted by C&S in 2016, a geophysical survey conducted in 2016, and a Pre-Renovation Asbestos Inspection Report completed by AMD Environmental Consultants, Inc. in 2016. The associated documents are included in **Appendix A.**

2.1.1 KTR Newmark Phase I ESA Report (2006)

The Phase I ESA for the Site identified the following Recognized Environmental Conditions (RECs):

- According to available records from the Buffalo Fire Department, there are four 550-gallon heating oil underground storage tanks (USTs) at the Subject Property that have been unaccounted for since 1952. There are no records of these USTs ever having been removed or closed in place.
- One 200-gallon single-walled steel AST with unknown contents was noted during the site reconnaissance in the rooftop elevator mechanical room. The AST vent and fill pipes were not observed at the Subject Property. The AST has reportedly not been utilized in many years, and may have been a steam expansion tank for the former oil-fired heating system.
- The review of fire insurance maps indicated that several manufacturing buildings were present on the adjacent north and east properties relative to the Subject Property. Such buildings included a chemical laboratory located at 1711 Elmwood Avenue on the adjacent north and upgradient parcel and a garage, brazing facility, and heat-treating facility along a set of railroad tracks located to the north relative to the subject property. Buildings to the east included the main manufacturing plant for the former Pierce Arrow
- The review of historical street directories indicated past activities of environmental concern. Several current and former tenants of the subject property include photodevelopers, a graphics printing company, a chemical laboratory, and a metal fabricating business.
- Several railroad tracks were historically observed to the north and down gradient relative to the Subject Property since circa 1916. Historically, railroad tracks were treated with defoliants that potentially contained polychlorinated biphenyls (PCBs).

2.1.2 AEI Consultants Phase I ESA Report (2011)

The Phase I ESA for the Site identified the following RECs:

- Areas of the Subject Property have been occupied by a series of tenants that likely utilized the spaces for industrial purposes since at least 1938. These tenants include a tool and die manufacturer, cleaning compound manufacturers, chemical laboratories, a machine shop, dry cleaning facilities, and numerous other light industrial tenants. No other information was available regarding the historical operations of these facilities. These tenants likely stored and/or utilized petroleum products and other hazardous materials including hydraulic fluids and cleaning solvents. Due to the duration of industrial use, the unknown operations performed onsite, and the likely use of petroleum products and hazardous

substances, all under circumstances outside of regulatory agency oversight (prior to modern oversight standards), it is likely that the historical use has resulted in a release of hazardous substances or petroleum products to the subsurface of the Subject Property and represents a REC.

- One pad mounted transformer is located in the sub-grade basement of the Subject Property building. The transformer was reportedly the original transformer for the building and is still used in combination with a newer transformer for the building. Based on the presumed date of installation, the transformer is expected to contain polychlorinated biphenyls (PCBs). The presence of the historic transformer that is likely to contain hazardous materials represents a REC.
- Significant staining and pooling of unidentified liquids was observed in the vicinity of the drain located within the elevator pit adjacent to the former furniture woodworking shop. Due to the age of the building and the unknown integrity of the drain lines, the floor drain has the potential to act as a conduit to the subsurface of the Subject Property for any materials that are spilled around or discharged into the drain lines. Based on the quantity of staining and pooling liquids observed in combination with the presence of a floor drain, the potential that a release to the subsurface of the Subject Property has occurred could not be ruled out.

2.1.3 AEI Consultants Phase II ESA Report (2011)

A Phase II was completed in 2011 to provide additional information on the RECs discovered during the Phase I ESA. The Phase II consisted of the advancement of nine soil borings to approximately 12 feet below grade on 1695 Niagara Street. Nine soil samples were collected and analyzed for US Environmental Protection Agency (EPA) Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), and Target Analyte List (TAL) metals including mercury. Soil samples were also analyzed for PCBs.

The results indicated the presence of chromium, lead, mercury and various SVOCs at concentrations above the NYSDEC's Soil Cleanup Objectives Unrestricted Use (SCOs). A portion of the analyte concentrations also exceeded the Residential, Restricted Residential, Commercial, and/or Industrial Use SCOs.

2.1.4 C&S Surface Soil Sampling (2016)

Ten surface soil samples were collected from the Site. Eight surface soil samples were collected around the 1721 and 1723 Elmwood Avenue properties and two surface soil samples were collected on the 1695 Elmwood Avenue property. Surface soil samples were collected from the top two inches of soil, although in some cases the surface was covered by asphalt or bricks. In these instances, samples were collected directly underneath the asphalt or brick. All ten samples were collected and analyzed for SVOCs and TAL metals.

The results indicated the presence of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc and SVOCs at concentrations above the Unrestricted Use SCOs. A portion of the analyte concentrations also exceeded the Residential, Restricted Residential, Commercial, and/or Industrial Use SCOs.

2.1.5 C&S Geophysical Survey

New York Leak Detection (NYLD) conducted a geophysical survey of the proposed BCP Site. NYLD used ground penetrating radar technology to scan the Site for underground storage tanks (UST). One possible UST was identified in the private driveway along the Administrative Building. Two concrete vaults were also identified along Elmwood Avenue.

2.1.6 AMD Environmental Consultants Asbestos Inspection

AMD Environmental Consultants, Inc. conducted a pre-renovation asbestos inspection of the BCP Site from September 26th – 29th, 2016 for the administrative building and the north garage structure. Asbestos containing materials (ACM) were identified above 1% in materials that were sampled. Asbestos containing materials included:

- Wall panel mastic
- 9" x 9" and 12" x 12" Floor tiles and floor tile mastic
- Floor leveler
- Thermal system insulations
- Hot water tank
- Boiler insulation and breeching
- Fire door
- Sink insulation
- Transite pipe and exhaust stack
- Repair tar
- Door and window caulk
- Roofing

Since asbestos containing materials were identified and will be disturbed by proposed renovation work, proper asbestos abatement procedures should be implemented prior to the commencement of said work.

Site characterization efforts conducted to assess contaminant concentrations at the Site are summarized on **Figure 3**. Analytical results from the investigations are summarized in **Section 2.2** below.

2.2 Nature and Extent of Contamination

The Site soils generally consist of one to three feet of urban fill material. Consistent with urban fill found throughout the City of Buffalo, this urban fill contains SVOC and metal contamination, as shown in recent sampling. No discrete contamination layer was observed within the fill, and therefore, the extent of contamination within the fill material is difficult to identify due to its heterogeneous nature.

The Phase II completed in 2011 by AEI Consultants resulted in evidence of contamination. Two of the nine soil samples analyzed for TCL SVOCs contained analyte concentrations exceeding Restricted Residential Use SCOs. One of the two samples contained polycyclic aromatic hydrocarbons (PAHs), benzo(a)anthracene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene, at concentrations exceeding Commercial Use SCOs. In the same sample, benzo(a)pyrene was detected at concentrations exceeding Industrial Use SCOs.

Three samples contained concentrations of metals (chromium, lead or mercury) that were above Unrestricted Use SCOs. All soil samples exceeded for total chromium. NYSDEC standards separate chromium into trivalent and hexavalent. Soil samples were collected for total chromium and the results need to be compared to the more restrictive hexavalent chromium SCO.

The surface soil sampling completed in 2016 by C&S resulted in additional evidence of contamination. Ten surface soil samples were collected from the Site with eight surface soil samples collected around the 1721 and 1723 Elmwood Avenue properties and two surface soil samples collected on the 1695 Elmwood Avenue property.

All ten samples were collected and analyzed for SVOCs and TAL metals and contained at least one metal concentration that exceeded Unrestricted Use SCOs. Arsenic concentrations exceeded Industrial Use SCOs in two of the ten samples. Concentrations of copper exceeded Commercial Use SCOs in two of the ten samples. Cadmium concentrations exceeded Residential and Restricted Residential SCOs in three samples.

Eight of the ten surface soil samples contained SVOC concentrations at least above Restricted Residential Use SCOs. From the eight samples with elevated SVOC concentrations, seven samples contained levels of benzo(a)pyrene above Industrial Use SCOs.

Based on investigations conducted to date, the known contaminants of concern include SVOCs and metals including arsenic, copper, and cadmium in surface soils and in the fill.

The variation in analyte concentrations across the Site indicates that the source of contamination is the variable urban fill material and no discrete source is located onsite or offsite. Contaminated urban fill is expected to exist onsite from surface to an average approximate depth of three feet below grade.

3 OBJECTIVES, SCOPE AND RATIONALE

The objectives of the scope of work described in this Work Plan are to evaluate contaminant impacts to soil and identify and evaluate appropriate remedial actions necessary to redevelop the Site. The investigation work will include evaluating the magnitude and extent of contaminant impacts, conducting a qualitative exposure assessment for actual or potential exposures to contaminants at the Site and/or emanating from the Site, and producing data that will support the development of an acceptable RI Report and subsequent Alternatives Analysis Report (AAR). The IRM portion of this document details the remedial methods proposed to address the contamination present at the Site.

The RI is based on information previously gathered regarding historical operations conducted at the Site, the results of the limited site characterization, and the project objectives. The RI will include the following:

- Drainage Evaluation – This task will consist of flushing out and video logging the floor drains in the garage building.

- Soil Evaluation – This task will consist of four primary elements: surface soil, urban fill, soils under the buildings, and underlying native soil characterization.

    - The surface soils will be characterized to assess the extent and magnitude of contamination in all areas not covered by pavement.

    - The urban fill will be characterized to identify the extent and magnitude of contamination within the fill. This material will also be the subject of waste characterization sampling because subsequent remedial activities would possibly include the excavation and off-site disposal of the urban fill.

    - The soils under the two buildings will be characterized to determine if contaminant impacts are present under the building.

    - The underlying native soils will be characterized to determine the depth of impacts from the overlying urban fill.

- Groundwater Evaluation – Subsequent to completing the above tasks, groundwater monitoring wells will be installed. Although groundwater impacts at the Site are not anticipated, groundwater monitoring wells have been proposed to characterize site-wide groundwater conditions.

- Air Sampling – Sub-slab and indoor air sampling in the administrative building will be performed contingent on finding petroleum contamination at the site.

Additionally, because impacted fill is known to exist across portions of the Site, the proposed IRM is intended to address this contamination within the urban fill. The IRM tasks include removing the AST that is located along the side of the garage building, excavating the urban fill above the native soil and backfilling the excavation.

The RI and IRM activities will be completed in accordance with NYSDEC Division of Environmental Remediation: Technical Guidance for Site Investigation and Remediation dated May 2010 (DER-10).

4 REMEDIAL INVESTIGATION

A previous soil investigation encountered fill material at the Site that is impacted by SVOCs and metals at concentrations above NYSDEC Soil Cleanup Objectives (SCOs). This part of the RI Work Plan describes the scope of investigative work necessary to collect sufficient data to determine the extent of contaminated fill material which will support a subsequent AAR and RWP in achieving **Unrestricted Use SCOs**. This section of the RI Work Plan includes:

- Field Investigation
- Sampling Program
- Laboratory Analysis

4.1 Field Investigation

The RI intends to supplement the previous site characterization information by the advancement of soil borings, installing monitoring wells, and collecting and analyzing soil and groundwater samples. In addition, floor drains in the garage building will be flushed out and video logged. Contingent sub-slab and indoor air sampling of the administrative building will be necessary in the event that petroleum contamination is found somewhere onsite.

4.1.1 Video Inspection

The Garage Building had been used to test and run automobile engines and contains a number of floor drains. The condition, location, and contents of the floor drains are not known and concern exists for the presence of petroleum within the floor drains due to previous uses of the building as well as releases from the floor drains. However, if the floor drain system is viable, the system may be used following redevelopment of the building.

To initiate the cleaning and closure of the floor drain and associated piping system, a video inspection will be performed and the potential for removal of the water and sediment, if any, from and closure of the system will be evaluated. The video inspection will include the use of a video camera mounted on flexible hose or a camera tractor to assess the condition and length of the floor drain system.

The video equipment will be lowered into available access points and will remotely travel as far as possible in both directions. If the termination of the piping system is not reached in one or both directions, the equipment will be extracted and placed in other locations to attempt to reach the termination points. The equipment will be decontaminated following completion of the survey.

The results of the video inspection will be used to help determine:

- If the system does or once contained petroleum products
- If the piping is intact or if breaks exist at which contaminants may have been released
- The final discharge point(s)
- If the system can be reused during future reuse of the building

4.1.2 Surface Soil Sampling

Surface soil samples will be collected across the Site. The eight surface soil samples will be spatially distributed across the Site in areas not “capped” by asphalt or buildings. The samples

will be collected from 0 to 2 inches below grade using a decontaminated, stainless steel spoon or spatula. Surface soil samples will be collected at the locations shown on **Figure 4**.

The surface soil samples will be analyzed for the following analyte list:

- Target Compound List (TCL) volatile organic compounds (VOCs)
- TCL semivolatile organic compounds (SVOCs)
- TCL List pesticides/herbicides
- Polychlorinated biphenyls (PCBs)
- Target Analyte List (TAL) metals, including total mercury
- Total cyanide
- Hexavalent chromium (from 4 of 8 samples only)

4.1.3 Soil Boring Program

The advancement of soil borings across the Site will facilitate sampling of native material, fill material, and construction of groundwater monitoring wells. To ensure complete coverage of the Site, borings will be located around the building perimeter and in the buildings, as shown on **Figure 4**, resulting in 47 locations. All sub-slab areas within the building showing signs of staining and product will be investigated. If petroleum odors and/or elevated PID readings over 10 ppm will be sampled for indoor air and soil vapor beneath the sub-slab as discussed in **Section 4.1.1 Soil Vapor Sampling.**

From the borings, fill and native soil samples will be collected to document Site conditions. Up to 8 locations will also be used for the construction of groundwater monitoring wells, as discussed in **Section 4.1.3 Groundwater Monitoring**.

For the borings in which wells will not be installed, a direct-push drilling rig will be used to advance the borings. Each boring location will be continuously sampled in four-foot intervals using a one-inch by four-foot steel sampling tube fitted with a disposable acetate liner. All non-disposable sampling equipment will be decontaminated between runs and between drill locations to avoid potential cross contamination of samples.

In locations where direct-push techniques are not feasible and/or groundwater wells will be constructed, a rotary drill will be used to advance 4-1/4-inch hollow stem augers. Split-spoon samples will be advanced at two-foot intervals using a 140-pound hammer ahead of the augers. The augers and drilling rods will be decontaminated prior to use via high pressure sprayer. The split-spoons will be decontaminated prior to use via an Alconox wash followed by a potable water rinse. Between each soil sample and soil boring, decontamination procedures will be repeated.

Soils from the split-spoons and acetate liners will be screened in the field for visible impairment (e.g. staining), olfactory indications of impairment, evidence of NAPLs, and/or indication of detectable VOCs with a 10.6 eV PID over 10 ppm, collectively referred to as “evidence of impairment” and the results will be recorded on boring logs. The boring logs will be included in the RI Report.

Soil boring logs will be completed and include soil description, PID readings, etc. The boring logs will be included in the RI Report.

Fill Sampling

Fill samples will be collected from the borings based on evidence of impairment and to provide characterization across the Site. Up to 16 fill samples will be collected based on evidence of impairment, spatial distribution, and fill type. At least one sample will be collected from each fill type encountered and at least two samples will be collected from borings within each of the buildings. The fill samples will be collected and analyzed for the following:

- TCL volatile organic compounds (VOCs)
- TCL semivolatile organic compounds (SVOCs)
- TCL pesticides
- Polychlorinated biphenyls (PCBs)
- TAL List metals
- Total cyanide (from 8 of 16 samples only)
- Hexavalent chromium (from 8 of 16 samples only)

Additionally, two samples will be collected from the fill for waste disposal characteristics. The waste characterization analysis will include:

- Toxicity Characteristic Leaching Procedure (TCLP) VOCs
- TCLP SVOCs
- TCLP pesticides/herbicides
- PCBs
- TCLP metals
- Reactivity
- Corrosivity
- Ignitability

Native Soil Sampling

In the exterior borings, native soil will be visually assessed and sampled in each of the locations. In order to assess the impact of fill on the underlying native soil, a soil sample will be collected from the top of native material in each location. Four additional native soil samples will be collected at six-inch intervals below that and held. The 26 native soil samples will be collected and analyzed for:

- TCL VOCs
- TCL SVOCs
- TCL pesticides
- PCBs
- TAL metals
- Total cyanide (from 13 of 26 samples only)
- Hexavalent chromium (from 13 of 26 samples only)

The samples held by the laboratory immediately underneath those samples with contraventions of SCOs will be analyzed for those analytes exceeding the SCOs. This process will be repeated until the concentrations meet the SCOs. Based on the results, the native soil samples will also serve as the final confirmatory samples during the subsequent remedial activities.

4.1.1 Soil Vapor Sampling

If significant VOC contamination of subsurface soils adjacent to the Administration Building or encountered underneath the sub-slab during the Remedial Investigation or the Interim Remedial Measures, a soil gas survey may be necessary. The scope of this contingent soil vapor assessment will be discussed with and approved by the NYSDEC and the New York State Department of Health (NYSDOH) prior to implementation.

4.1.2 Groundwater Monitoring

To characterize groundwater conditions at the Site, up to eight monitoring wells will be installed. The wells will be installed from soil borings discussed in **Section 4.1.1 Soil Borings** and sampled. At least three wells will be distributed across the Site for groundwater flow determination. Additional wells will be installed around anomalies and in borings with evidence of impairment. The proposed well locations will be based on field observations and will be submitted to the NYSDEC for review prior to installation.

The overburden wells will be constructed to intersect the top of the water table. Each well will be completed with 5 to 10 feet of 2-inch Schedule 40 0.010-slot well screen connected to an appropriate length of schedule 40 PVC well riser to complete the well. The annulus will be sand packed with quartz sand to approximately one to two feet above the screened section, and one to two feet of bentonite chips or pellets above the sand. The remaining annulus will be grouted to ground surface. Each well will be completed without a stick-up protective casing.

Following installation, the monitoring wells will be developed through the removal of up to ten well volumes using dedicated bailers or a peristaltic or submersible pump.

Groundwater sampling will follow well development and be conducted using low-flow purging and sampling techniques. Before purging the well, water levels will be measured using an electric water level sounder capable of measuring to the 0.01-foot accuracy. Peristaltic or bladder pumps using manufacturer-specified tubing will be used for purging and sampling groundwater. Calibration, purging and sampling procedures will be performed as specified by the USEPA[1] for low-flow sampling. Decontamination will be conducted after each well is sampled to reduce the likelihood of cross contamination. Calibration times, purging volumes, water levels and field measurements will be recorded in a field log and will be provided in the Final Engineering Report.

The groundwater samples will be analyzed for the following analyte list:

- TCL VOCs
- TCL SVOCs
- TCL pesticides
- PCBs
- TAL metals
- Total cyanide (from 4 of 8 samples only)
- Hexavalent chromium (from 4 of 8 samples only)

[1] U.S. EPA Region 1 Low Stress (low-flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, January 19, 2010.

Drilling decontamination, development, and purge fluids will be allowed to infiltrate the ground surface of the Site in the vicinity of each soil sampling location, unless these fluids contain petroleum / chemical odors and/or showing signs of contamination must be collected and treated or disposed. Excess soil will be placed in a drum for subsequent removal.

A second round of groundwater sampling will be performed one to three months after the first round. The second round of groundwater samples will be analyzed for the same analytes as in the first round.

4.2 Sampling Plan and Laboratory Analysis

Table 1 summarizes the sampling program described in the sections above. Additionally, Quality Assurance/Quality Control (QA/QC) samples will be collected, and the following describes the minimum number of samples per media type.

- Soil samples (excluding waste characteristic samples)
    - Matrix Spike/Matrix Spike Duplicate (MS/MSD) – 5%
- Groundwater samples
    - Trip blank – 1 per shipment
    - Blind Duplicate – 5%
    - Matrix Spike/Matrix Spike Duplicate (MS/MSD) – 5%

C&S will utilize the services of an NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory for analytical testing. The laboratory results for the samples will be reported in a Category B deliverables package to facilitate validation of the data, and a third party validator will review the laboratory data and prepare a Data Usability Summary Report (DUSR). The validator will evaluate the analytical results for the field samples and quality assurance/quality control samples and compare the findings to USEPA guidance to determine the accuracy and validity of the results.

5 QUALITY ASSURANCE AND QUALITY CONTROL PROTOCOLS

To ensure that suitable and verifiable data results are obtained from the information collected at the Site, quality assurance procedures are detailed in this section.

During the RI or IRM the NYSDEC may spilt any waste, soil or groundwater sample.

5.1 Sampling Methods, Analytical Procedures and Documentation

5.1.1 Sampling Methods

Sampling procedures will be conducted in accordance with the NYSDEC *Sampling Guidelines and Protocols Manual*. Collection of representative samples will include the following procedures:

- Ensuring that the sample taken is representative of the material being sampled;
- Using proper sampling, handling and preservation techniques;
- Properly identifying the collected samples and documenting their collection in field records;
- Maintaining chain-of-custody; and
- Properly preserving samples after collection.

Soil Sampling

Soil sampling will be performed using two methods: (1) field screening using a PID; and (2) grab samples. Whether soil samples are collected from the excavator bucket, direct-push rig sleeves, or split-spoons, they will be collected as grab samples that are split and placed into jars supplied by the laboratory as well as into individual zip-lock bags for screening. Screening soil samples will be allowed to sit in sealed zip-lock bag for a short period of time (minimum of five minutes). Head space measurements will then be taken from each zip-lock bag. To prevent cross contamination, zip-lock bags will not be reused and will be properly disposed. Calibration of all electronic field screening equipment will be completed daily and will be done to manufacturer's specifications.

As detailed in the *Sampling Guidelines and Protocols Manual*, grab samples will be placed in 4-ounce and 8-ounce, wide-mouth, glass jars. Sample jars will immediately be placed on ice in a cooler.

Water Sampling

Groundwater sampling will be conducted in accordance with USEPA guidance for low-flow purging and sampling, as described in **Section 4**.

Water samples will be collected via pouring directly into pre-cleaned bottles provided by the laboratory and immediately placing the bottles on ice. The bottles and associated preservatives used, if any, will be based on the requirements of the analytical methods. The water will be analyzed for VOC, SVOC, PCBs, pesticides and metals on a standard turnaround time.

QA/QC Sampling

Matrix Spike /Matrix Spike Duplicates (MS/MSD) and duplicate samples will be collected from a minimum of 5% of the locations, and will be selected randomly. Quality Assurance/Quality Control samples will not be collected and analyzed for the waste characterization sampling.

Table 6-1: Summary of Estimated Sampling

Sample Type	***Matrix***	***Est. #***	***Purpose***
Urban Fill	Soil	16	Characterization
Native Soil	Soil	26	Confirmatory
Groundwater	Water	16	Characterization
Duplicate Groundwater	Water	2	QA/QC
MS/MSD –So.	Soil	3	QA/QC
MS/MSD –Aq.	Water	2	QA/QC
	Total	**65**	

5.1.2 Analytical Procedures

Laboratory Analysis

Laboratory analysis will be conducted by a third-party laboratory that is accredited by the NYSDOH Environmental Laboratory Accreditation Program (ELAP). Laboratory analytical methods will include the most current NYSDEC Analytical Services Protocol (ASP).

Soil and groundwater samples sent to a certified laboratory will be analyzed in accordance with EPA SW-846 methodology for the following contaminants:

- TCL Volatile Organic Compounds (EPA Method 8260);
- TCL Semi-Volatile Compounds (EPA Method 8270);
- TCL Pesticides (USEPA 8081);
- PCBs (USEPA 8082); and
- TAL Metals (EPA Method 6010).

Category B deliverable will be requested to be used in a third-party data validation.

Data Usability

Data Usability Summary Report (DUSR) will be performed by a third-party data consultant using the most recent methods and criteria from the U.S. EPA. The DUSR will assess all sample analytical data, blanks, duplicates and laboratory control samples and evaluate the completeness of the data package. The waste characterization samples will not be validated.

5.1.3 Documentation

Custody Procedures

As outlined in NYSDEC *Sampling Guidelines and Protocols*, a sample is in custody under the following conditions:

- It is in your actual possession;
- It is in your view after being in your physical possession;
- It was in your possession and then you locked or sealed it up to prevent tampering; or
- It is in a secure area.

The environmental professional will maintain all chain-of-custody documents that will be completed for all samples that will leave the Site to be tested in the laboratory.

Air Monitoring

Air monitoring will be conducted for on-site health and safety. Air monitoring will be conducted during active invasive activities periods. The monitoring will include VOC screening. The specifics of the air monitoring procedures and criteria are detailed in the Health and Safety Plan (HASP) in **Appendix D** and Community Air Monitoring Plan (CAMP) in **Appendix C.**

6 HEALTH AND SAFETY

To verify the safety of the workers and the local community during the performance of the work, monitoring practices of the work environment will be in place during all phases of RI activities. A Health and Safety Plan (HASP) was prepared that details procedures for maintaining safe working conditions and minimizing the potential for exposure to hazardous material. The HASP is provided in **Appendix D**.

Air monitoring during RI activities will be conducted using PID and an aerosol particle meter. Details on air monitoring are provided in the Community Air Monitoring Plan (CAMP). The CAMP is provided in **Appendix C**.

7 INTERIM REMEDIAL MEASURES

The Site is known to contain fill with concentrations of contaminants above the SCOs, Interim Remedial Measures are being planned to:

- Remove and properly dispose of all impacted fill material to meet Unrestricted Use SCOs.
- Removal of any petroleum storage tanks and impacted soil around the tanks.
- Backfill the excavation with material that meets Unrestricted Use SCOs.

The following sections identify the steps to be taken to implement the IRMs.

7.1 Site Control

Site control is an important aspect of this remedial program. In order to safeguard the health and safety of site workers and the general public, access to all remedial work areas will be restricted. Perimeter fencing will be installed to facilitate site control. Additionally, temporary construction fencing will be erected around accessible excavations and staging areas to prevent unauthorized personnel from entering these areas as appropriate.

7.2 Site Preparation

Site preparation activities will include the following:

7.2.1 Water Collection and Treatment System

Contingent plans will be created to address stormwater, if any, in the excavation. These plans include the potential for pumping the excavation water using temporary sumps or a vacuum truck into steel holding tanks. Stored water will either be shipped for off-site treatment at a licensed treatment facility or will be characterized and treated, if necessary, on-site and discharged to the sanitary sewer under a Buffalo Sewer Authority permit, as appropriate.

7.3 Excavation

Excavation is planned to occur across the Site and will include the removal and off-site disposal of all fill material to achieve Unrestricted Use SCOs. Fill excavated from the Site will not be re-used at other sites.

The depth of the excavation will be based on the sampling completed. The RI sampling will include one native soil sample from various locations around the buildings.

Although petroleum or other similar impacts are not anticipated, a C&S scientist or engineer will screen the removed fill for visual and olfactory observations and for total volatile compounds using a photoionization detector (PID). If grossly contaminated fill is observed, the impacted material will be evaluated and may be handled separately from the remaining fill at the Site.

As outlined in CP-51 Section G, soils that meet DEC-approved soil cleanup levels may exhibit a distinct odor or other type of nuisance. When the DEC determines that soil remaining after the remedial action will result in the continuation of the nuisance, the DEC will require that additional

remedial measures be evaluated, and may require additional remedial actions to be taken to address the nuisance condition.

Excavated fill may be direct-loaded onto trucks for off-site disposal or stockpiled and loaded onto trucks for off-site disposal. Excavated fill to be stockpiled on-site will be placed on and covered by a minimum of double 6-mil polyethylene sheeting which is sufficiently anchored to prevent any wind and water erosion. The cover will be inspected at least once per day with corrective action taken as needed. The inspections and any corrective actions will be documented in logs and will occur until the fill materials have been properly removed and disposed off-site.

Good housekeeping practices will be followed during excavation activities to prevent leaving contaminated material on the ground surface (e.g., precautions will be taken to prevent impacts to the ground surface due to material spilled from the excavator bucket).

Transportation of all wastes will be completed by properly permitted vehicles. To the extent practicable, trucks will travel along routes that avoid residential areas.

7.4 Backfilling

The excavation at the Site will be backfilled with material such as clean soil, crushed stone, and/or concrete.

For each source of backfill that is imported to the Site, one of the following will be completed prior to importing the backfill.

a. Documentation will be provided to NYSDEC as to the source of the material and the consistency of the material in accordance with the exemption for no chemical testing listed in DER-10 Section 5.4(e)(5); **OR**

b. Chemical testing will be completed in accordance with the following table:

<table>
<tr><td colspan="4">Recommended Number of Soil Samples for Soil Imported To or Exported From a Site</td></tr>
<tr><td>Contaminant</td><td>VOCs</td><td colspan="2">SVOCs, Inorganics & PCBs/Pesticides</td></tr>
<tr><td>Soil Quantity (cubic yards)</td><td>Discrete Samples</td><td>Composite</td><td>Discrete Samples/Composite</td></tr>
<tr><td>0-50</td><td>1</td><td>1</td><td rowspan="8">3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis</td></tr>
<tr><td>50-100</td><td>2</td><td>1</td></tr>
<tr><td>100-200</td><td>3</td><td>1</td></tr>
<tr><td>200-300</td><td>4</td><td>1</td></tr>
<tr><td>300-400</td><td>4</td><td>2</td></tr>
<tr><td>400-500</td><td>5</td><td>2</td></tr>
<tr><td>500-800</td><td>6</td><td>2</td></tr>
<tr><td>800-1000</td><td>7</td><td>2</td></tr>
<tr><td>1000</td><td colspan="3">Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER</td></tr>
</table>

Taken from DER-10 - Table 5.4(e)10

In the event that laboratory analytical testing is conducted, the results for each new source of fill must meet the values provided in Appendix 5 of DER-10 (provided as Appendix C in this Work Plan) for Restricted Residential use and must receive approval by the NYSDEC.

7.5 Air Monitoring

Continuous air monitoring will be conducted at upwind and downwind locations during all ground intrusive activities as per the NYSDOH Generic Community Air Monitoring Plan (CAMP) included in **Appendix C**. A particulate monitor will be used at a downwind location on the perimeter of the Site. Another handheld detector will be used in the excavation to ensure that the worker area is safe.

The action threshold for VOCs established in the CAMP is 5 ppm above background. If this value is exceeded for the 15-minute average, work will be halted and work may resume once instantaneous readings fall below 5 ppm work. The action level for dust is 100 micrograms per cubic meter over background during a 15-minute average. If this limit is exceeded, dust suppression techniques will be employed, including using water to wet the area.

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

7.6 Erosion and Dust Controls

As part of the remedial actions to be performed at the Site, measures will be needed to limit erosion and dust generation. Erosion control and dust suppression techniques will be employed as necessary to limit erosion and fugitive dust generated in disturbed areas during remediation and redevelopment activities. Such techniques may be employed even if the community air monitoring results indicate that particulate levels are below action levels. Techniques may include but are not limited to:

- Using silt fencing, hay bales, and/or mulching;
- Applying water on haul roads;
- Wetting equipment and excavation surfaces;
- Hauling materials in properly tarped or watertight containers;
- Limiting vehicle speed on the Site;
- Limiting the size of excavations; and
- Covering excavated areas and materials following excavation.

Effectiveness of the dust suppression measures will be evaluated based on the results of the air monitoring that will be conducted under the Site-Specific Community Air Monitoring Plan provided in **Appendix C**.

7.7 Confirmatory Sampling

The RI will determine the depth of impacts from the overlying urban soil. Excavation depths will be determined from the RI results; additional confirmatory sampling will not be necessary.

7.8 Summary of Interim Remedial Measures

The IRM as described above will be effective in remediating the Site.

All confirmatory soil samples collected during the RI will meet Unrestricted Use SCOs at the bottom depth of the excavation for that grid location following the excavation. The urban fill materials will be properly excavated and disposed off-site. Backfill materials will meet NYSDEC requirements for backfill at BCP sites.

8 REPORTING

Based on the results of the work described above, one report will be prepared to describe the methodologies and results of the RI and IRM. The report will also include an Alternatives Analysis for any contamination remaining at the Site following implementation of the IRMs. The RI and IRM portions of the Report will describe:

- Investigative methods;
- Observations and findings;
- Comparison of soil sample results to Unrestricted Use SCOs;
- Inspection/Monitoring observations of the remedial measures;
- Results of the community air monitoring program; and
- Analytical results.

The AAR portion of the Report will include the following elements:

- An Alternatives Analysis
  - Description of remaining contamination, if any
  - Identification of potential, additional remedial measures
  - Evaluation of potential, additional remedial measures, including no action following the remediation
  - Identification of recommended additional remedy

The documents will be submitted to the NYSDEC for review and approval.

9 SCHEDULE

It is assumed that NYSDEC will promptly review this RI/IRM Work Plan followed by a 30-day comment period. Below is an anticipated schedule of milestones for the remediation of the Site.

Anticipated Date Milestone

January 2017: Preparation/execution of Brownfield Cleanup Agreement

January 2017: Submission of Draft RI/AA Work Plan

March 2017: NYSDEC Approval of RI/AA Work Plan

March 2017: Performance of RI sampling/data collection

April 2017: Submission of RI results to NYSDEC

April-May 2017: Performance of IRMs

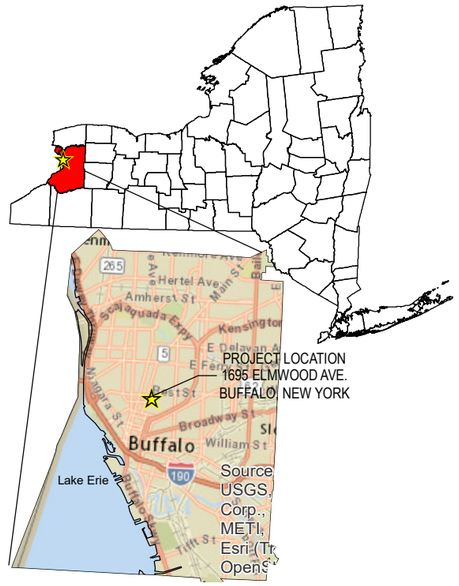
June 2017: Submission of RI/IRM/AA Report

August 2017: NYSDEC Approval of RI/IRM/AA Report

September 2017: Completion and approval of Final Engineering Report and other Brownfield Cleanup Program requirements as needed

December 2017: Receipt of Certificate of Completion

FIGURES



LEGEND

BCP BOUNDARY

0 500 1,000 2,000 Feet

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PIERCE ARROW BCP
WORK PLAN

BUFFALO, NEW YORK

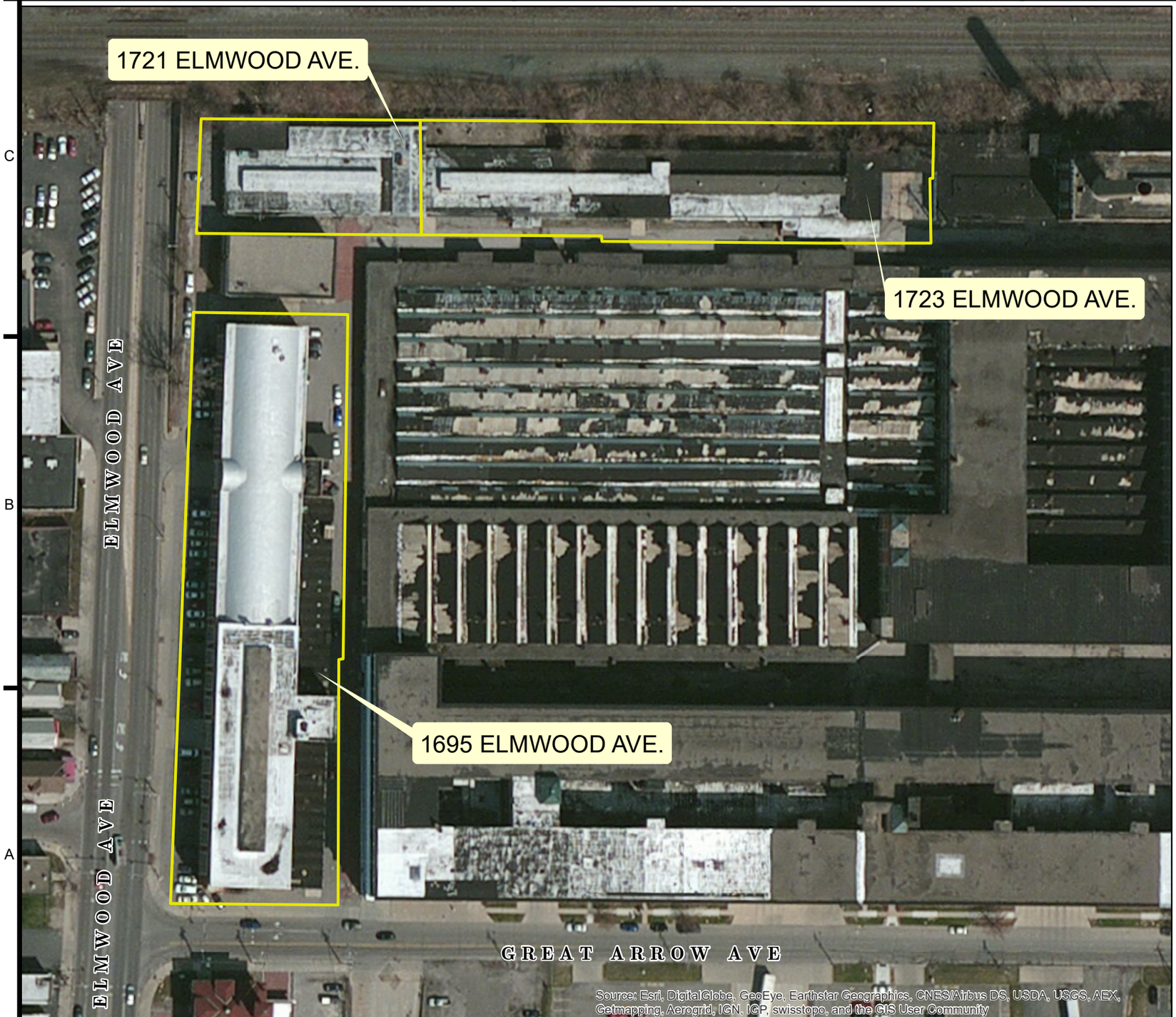
MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	069.001.001
DATE:	12/30/2016
DRAWN BY:	S.HERBERGER
DESIGNED BY:	S.HERBERGER
CHECKED BY:	DAN RIKER

SITE LOCATION MAP

FIGURE 1



LEGEND

BCP BOUNDARY

0 45 90 180 Feet

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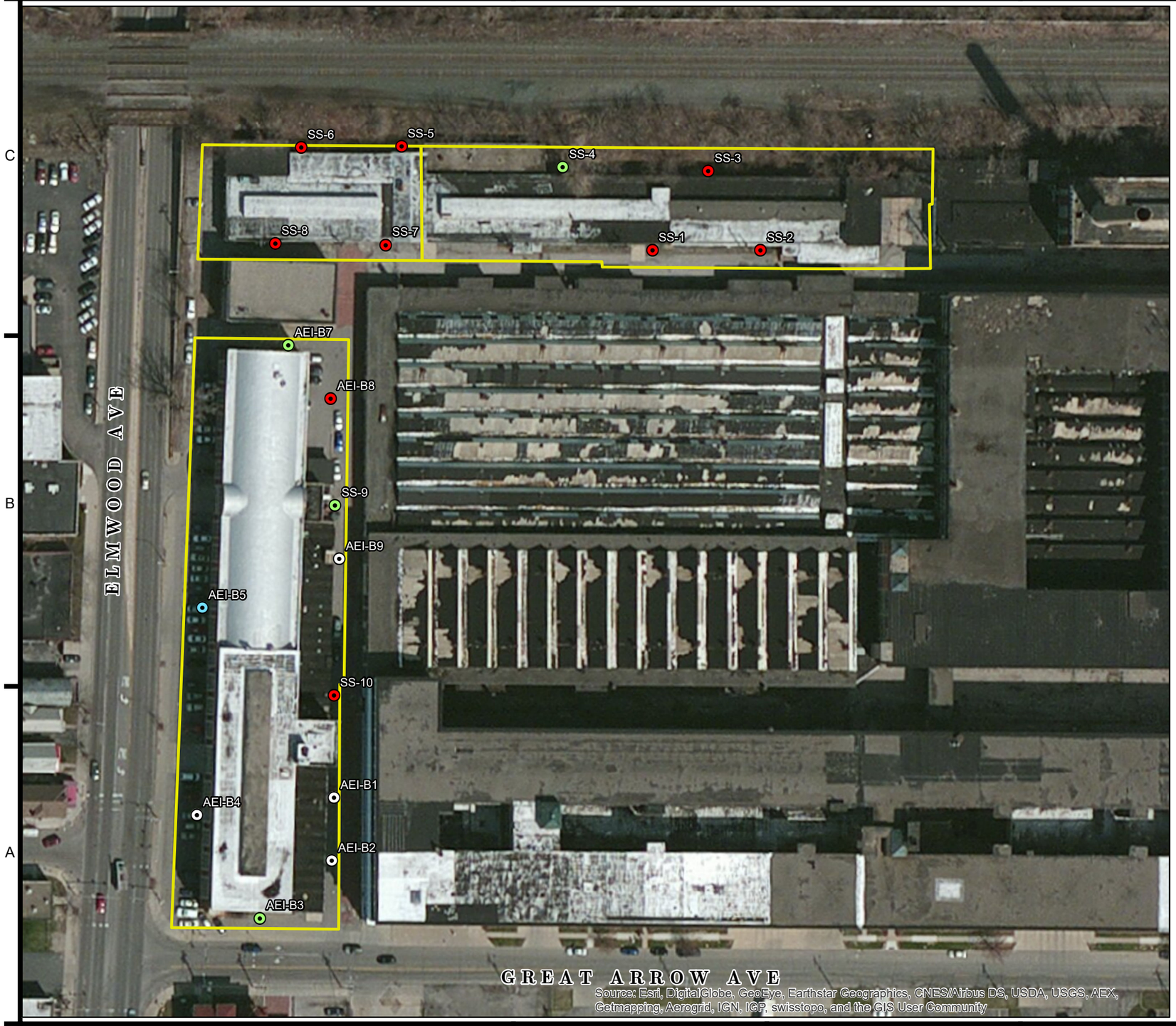
DESIGNED BY:	S.HERBERGER
CHECKED BY:	DAN RIKER

SITE MAP

FIGURE 2



EXCEEDANCE OF NYSDEC SOIL CLEANUP OBJECTIVES

NAME

- BELOW UNRESTRICTED USE CRITERIA
- SAMPLE EXCEED UNRESTRICTED USE CRITERIA FOR AT LEAST ONE COMPOUND
- SAMPLE EXCEED RESTRICTED RESIDENTIAL USE CRITERIA FOR AT LEAST ONE COMPOUND
- SAMPLE EXCEED INDUSTRIAL USE CRITERIA FOR AT LEAST ONE COMPOUND
- *PROPOSED BROWNFIELD CLEANUP PROGRAM (BCP) BOUNDARY*

0 45 90 180 Feet

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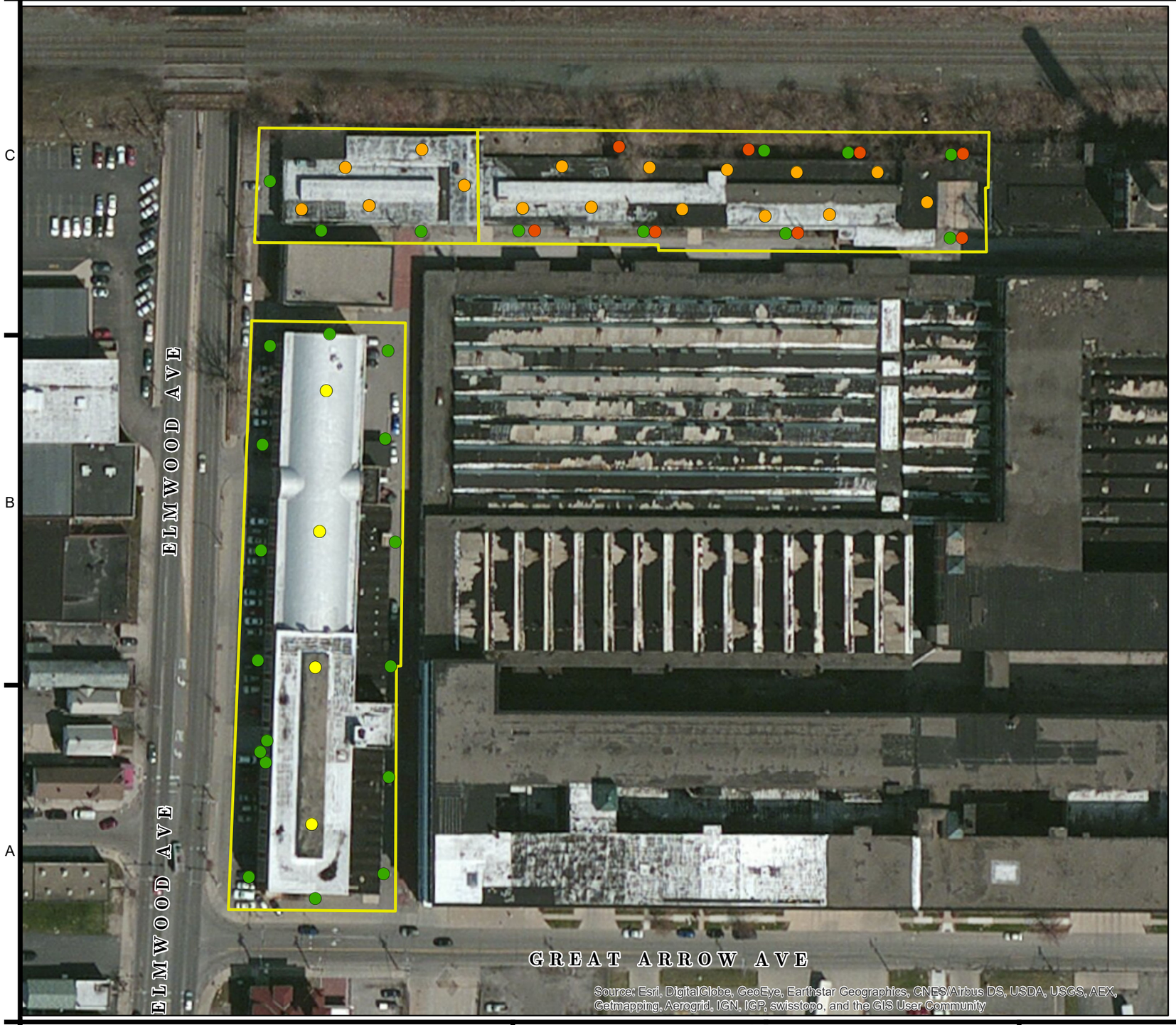
PROJECT NO:	069.001.001
DATE:	12/30/2016
DRAWN BY:	S.HERBERGER
DESIGNED BY:	S.HERBERGER
CHECKED BY:	DAN RIKER

EXISTING SITE CHARACTERIZATION RESULTS

FIGURE 3



Legend

PROPOSED SOIL SAMPLING

- Interior Soil Boring Locations - Garage Building
- Interior Soil Boring Locations - Administrative Building
- Surface Soil Sample Locations
- Exterior Soil Boring Locations

PROPOSED BROWNFIELD CLEANUP PROGRAM (BCP) BOUNDARY

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PIERCE ARROW BCP
WORK PLAN

BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	Q69.001.001
DATE:	1/5/2017
DRAWN BY:	A. SVIRGUN
DESIGNED BY:	A. SVIRGUN
CHECKED BY:	DAN RIKER

PROPOSED SOIL SAMPLE LOCATION MAP

FIGURE 4

TABLES

Table 1 – Proposed Remedial Investigation Sampling Program			
Task	**Location**	**Number of Samples**	**Lab Analysis**
Urban Fill Samples	Site-wide		TCL VOCs, SVOCs, and pesticides, PCBs, TAL Metals, Cyanide, Hex Chromium
	Site-wide		TCLP VOCs, SVOCs, pesticides, herbicides, and metals, PCBs, reactivity, corrosivity, ignitability
Native Soil Samples	Site-wide		TCL VOCs, SVOCs, and pesticides, PCBs, TAL Metals, Cyanide, Hex Chromium
Indoor Soil Samples (Cores)	Administration and Garage Buildings		TCL VOCs, SVOCs, and pesticides, PCBs, TAL Metals, Cyanide, Hex Chromium
Surface Soil Samples	Site-wide on areas without asphalt		TCL VOCs, SVOCs, and pesticides, PCBs, TAL Metals, Cyanide, Hex Chromium
Groundwater Samples	Site-wide	Up to 8	TCL VOCs, SVOCs, and pesticides, PCBs, TAL Metals, Cyanide, Hex Chromium
Indoor Air (Soil Vapor) Samples	Administration and Garage Buildings	Samples as a Contingency	TO-15 VOCs

APPENDICES

APPENDIX A
PREVIOUSLY COMPLETED ENVIRONMENTAL INVESTIGATIONS

KTR NEWMARK

DRAFT

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

PIERCE ARROW OFFICE BUILDING
1685 ELMWOOOD AVENUE
BUFFALO, NEW YORK 14207

KTR Project No. 06-1-1-114

Prepared For:

HOMETOWN COMMERCIAL CAPITAL LLC
330 PRIMROSE ROAD, SUITE 300
BURLINGAME, CALIFORNIA 94010

Prepared By:

KTR Newmark Consultants LLC
575 Lexington Avenue, 17th Floor
New York, New York 10022

July 11, 2006

KTR NEWMARK

July 11, 2006

Ms. Meghan Haskins
Funding Supervisor
Hometown Commercial Capital LLC
330 Primrose Road – Suite 300
Burlingame, California 94010

RE: **Phase I Environmental Site Assessment**
Pierce Arrow Office Building
1685 Elmwood Avenue
Buffalo, New York 14207
KTR Project No. 06-1-1-114

Dear Ms. Haskins:

Pursuant to our agreement dated June 9, 2006, KTR Newmark Consultants LLC ("KTR") has conducted a Phase I Environmental Site Assessment (ESA) of the above referenced property in conformance with the scope and limitations of ASTM Practice E 1527-05. The findings of this assessment are based upon a visual reconnaissance of the subject property, interviews with relevant personnel, limited observations of surrounding properties, and a records review including regulatory databases and historical use information. In addition, a limited visual screening for asbestos containing building material (ACBM) was conducted. Any exceptions to, or deletions from, this practice are described in Sections 2.0-2.4 of this report.

This report was prepared for and may be relied upon by Hometown Commercial Capital LLC, and its participants, lenders, affiliates, successors, and assigns (collectively, "HCC") with respect to any loan(s) place on the property described in the report. Any rating agency, issuer or purchaser of any security collateralized or otherwise backed by such loan(s), any servicer (and their collective successors and assigns), any underwriter co-underwriting any such securities, and any institutional provider(s) of any liquidity or credit support for such financings may also rely upon the report. HCC may, at its option, elect to include the report in its entirety in the offering memorandum or other disclosure materials relating to the Securization (as defined below). We also consent to the inclusion of this report in its entirety in any form, whether in paper or digital format, including any electronic media such as CD-ROM or the internet, in any Prospectus Supplement or other offering document relating to any HCC "Securization" (defined as an offering of debt securities that, as applicable, are registered with the Securities Exchange Commission pursuant to the Securities Act of 1933, as amended ["the Act"], or are privately placed pursuant to an exemption from the Act, in which the property reported upon may be part of a pool of properties owned by various non-affiliated owners collateralizing such offering) and the filing, if applicable, and the dissemination thereof, and we consent to the reference to our firm under the caption "Experts" in such Prospectus Supplement or other offering document, at HCC's discretion.

KTR NEWMARK CONSULTANTS LLC
575 Lexington Avenue, New York, NY 10022-6102 Tel: 212.935.9191 Fax: 212.935.5935
www.ktrnewmark.com

If you have questions regarding information in this report or if we can be of further assistance, please contact **Thomas J. Tener** at 212-906-9499. We appreciate the opportunity to be of service to Hometown Commercial Capital LLC, and look forward to working with you on future assignments.

Very truly yours,
KTR NEWMARK CONSULTANTS LLC

DRAFT

By: **Anthony J. Galasso**
Project Manager
(212) 906-9422

Reviewed By: **Patrice Saint-Amand**
Vice President
(212) 906-9410

TABLE OF CONTENTS

APPENDICES

1.0 EXECUTIVE SUMMARY

Pursuant to the terms and conditions of our engagement letter dated June 9, 2006, and in conformance with the scope and limitations of ASTM Practice E1527-05, KTR Newmark Consultants LLC ("KTR") performed a Phase I Environmental Site Assessment (ESA) of the Pierce Arrow Office Building located at 1685 Elmwood Avenue in Erie County, Buffalo, New York, herein referred to as the "subject property," which consists of a 138,672 square foot, 3-story office building on a 1-acre land parcel. The scope of service included a visual reconnaissance of the subject property, interviews with relevant personnel, limited observations of surrounding properties, and a records review including regulatory databases and historical use information. In addition, a limited visual screening for asbestos containing building material (ACBM), was conducted. Any exceptions to, or deletions from, this practice are described in Sections 2.0-2.4 of this report.

This assessment has revealed the following recognized environmental condition (REC) in connection with the property with respect to ASTM Standard E 1527-05:

- The review of fire insurance maps indicated that several manufacturing buildings were present on the adjacent north and east properties relative to the subject property. Such buildings included a chemical laboratory located at 1711 Elmwood Avenue on the adjacent north and upgradient parcel and a garage, brazing facility, and heat-treating facility along a set of railroad tracks located to the north relative to the subject property. Buildings to the east included the main manufacturing plant for the former Pierce Arrow Motor Car Company and two (2) auto body construction plants.

  The chemical laboratory is currently occupied by "Buffalo Finishing," and is listed in the environmental database report reviewed in Section 7.1 as a U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Small Quantity Generator of Regulated Hazardous Wastes (RCRIS-SQG). Four (4) violations were listed for this facility; however, compliance was achieved for these violations in 1996 and 2004. The facility is also listed in the New York State Department of Environmental Conservation (NYSDEC) Hazardous Materials Manifest (MANIFEST) database for the disposal of non-listed corrosive wastes.

  The former garage, brazing, and heat treatment buildings at 1721 Elmwood Avenue are currently occupied by the Smith Metal Arts Company, Inc., which is listed as a RCRIS-SQG and a MANIFEST site, as well as a NYSDEC Leaking Storage Tank Incident Report (LTANKS) site and a Historical LTANKS (HIST LTANKS) site. No RCRA violations were reported for this facility, which is listed in the MANIFEST database for the disposal of unknown chlorinated solvents. According to the LTANKS and HIST LTANKS databases, on August 4, 1989, contaminated soil was discovered at this facility associated with an unknown tank. On August 17, 1989, the unknown tank was excavated and several tons of contaminated soils were removed. The tank was inspected in October 1989 and found to be free of petroleum and backfilled with an inert concrete slurry. A letter of "No Further Action" for this LTANKS case was issued by the NYSDEC on March 13, 1990.

  The American Radiator Company plant has historically been located at 1723 to 1799 Elmwood Avenue approximately 150 feet to the north and upgradient relative to the subject property since circa 1900. None of these addresses are listed in any federal or state environmental remediation database.

The adjacent former auto body construction buildings and main manufacturing buildings were subdivided into the "Great Arrow Industrial Park" at 255 Great Arrow Avenue on the adjacent east and cross gradient parcel. This facility is listed in the environmental database report as a RCRIS-SQG and MANIFEST facility. One (1) RCRA violation for a general oversight was reported for this facility; however, compliance was achieved in 1994. Morgan Materials, Inc. and International Recycling Services, Inc. are also tenants of the Great Arrow Industrial Park at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel. Morgan Materials, Inc. is listed as a RCRIS-SQG and MANIFEST facility for the disposal of non-listed ignitable wastes. No RCRA violations were reported. International Recycling Services, Inc. is listed as a MANIFEST site; however, no manifest information was available. The warehouse was also listed in the NYSDEC Spills Information System (SPILLS) and Historical SPILLS (HIST SPILLS) databases. On October 31, 1992, the Buffalo Fire Department received a call about a rubbish/tire fire in the vicinity of the warehouse. The fire was contained and extinguished, and no releases to the subsurface were reported. The SPILLS case was closed on November 2, 1992.

Based on the above information, there is a potential for impact to the subject property subsurface from the former adjacent uses as they were in operation prior to environmental regulation until present. Since the subject property building currently utilizes a public drinking water source, the potential for immediate impact to human health and safety appears to be relatively low. **During any future redevelopment or renovation of the subject property that disturbs the subsurface, KTR recommends conducting a subsurface investigation to characterize any excavated materials for potentially hazardous constituents.**

The assessment has revealed the following environmental concerns in connection with the property:

- One (1) 200-gallon single-walled steel AST with unknown contents was noted during the site reconnaissance in the rooftop elevator mechanical room. The AST vent and fill pipes were not observed to be located at the subject property. The AST has reportedly not been utilized in many years, and may have been a steam expansion tank for the former oil-fired heating system. No evidence of staining or leaking was observed in the area of the AST, and based on the AST's location, the potential for impact to the subject property appears to be relatively low. **KTR recommends confirmation that the AST is not filled with petroleum. If it is, KTR recommends draining and properly disposing of the petroleum as well as proper closure or removal of the AST.**

- Two (2) 55-gallon steel drums utilized for the storage of boiler treatment chemical were noted during the site reconnaissance on reinforced concrete flooring in the boiler room of the subject property. No spill retention such as secondary containment was observed in connection with the drums. No staining or leaking was observed in the drum storage area. **As a precaution, all drums should be provided with secondary containment.**

- The review of historical street directories indicated past activities of environmental concern. Several current and former tenants of the subject property include photodevelopers, a graphics printing company, a chemical laboratory, and metal fabricating business. None of these businesses are listed in any federal or state environmental database indicative of a release or violation; therefore, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

- Eight (8) former USTs were reportedly located at the property located adjacent to the east of the subject based on the following. On July 20, 2006, GZA Environmental, Inc. (GZA) reportedly reviewed Buffalo Fire Department records at their offices to determine the locations of USTs that were potentially located at the subject property according to a letter prepared by GZA on the same date. The GZA letter stated that a July 1952 permit and site map for the installation of four (4) 550-gallon USTs for the storage of gasoline were reviewed. The USTs were reportedly installed in front of the adjacent east (cross gradient) building located at 255 Great Arrow Road. GZA also reviewed a permit dated October 18, 1941 for the installation of four (4) 1,000-gallon gasoline USTs at 255 Great Arrow Road approximately 300 feet to the east (cross gradient) relative to the subject property. Insert the status of the adj USTs, including whether open or closed or removed &/or listed on UST, LTANKS &/or SPILLS databases. Based on gradient and regulatory status, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

- Several railroad tracks were historically observed to the north and down gradient relative to the subject property since circa 1916. Historically, railroad tracks were treated with defoliants that potentially contained polychlorinated biphenyls (PCBs). However, since the railroad tracks do not abut the property and PCBs do not typically migrate through soil into groundwater, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

- A large industrial facility was identified approximately 800 feet to the northwest and cross gradient relative to the subject property. This facility was identified in the environmental database report reviewed in Section 7.1 as the Alexander & Fiden Machinery Company, Inc. at 1770 Elmwood Avenue. This facility was identified as a RCRIS-SQG with one (1) violation for which compliance was achieved in 1992, and a MANIFEST site for the disposal of lead-containing wastes. Based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

- The Structural Steel Co. and People's Gas Light & Coke Co. were observed approximately 800 feet to the east and northeast and cross gradient relative to the subject property circa 1900 according to available Sanborn Fire Insurance Maps. Neither of these facilities are listed in any federal or state environmental database, and based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The assessment has revealed the following historical recognized environmental conditions (HRECs) in connection with the property with respect to ASTM Standard E 1527-05:

- A firehouse has been historically located on the adjacent south and down gradient parcel since circa 1900. This facility was identified in the environmental database report reviewed in Section 7.1 as a SPILLS site. According to the database, on November 17, 1999, subsurface soil contamination was discovered near a 550-gallon heating oil UST. The UST as well as 43.55 tons of contaminated soil were removed and disposed off-site. Post-excavation soil sample analysis did not detect any contamination above regulatory levels. The case was closed on February 7, 2000; therefore, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

- The Gioia Macaroni Company facility was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. The facility was formerly utilized as a

manufacturing facility for wire wheels, engines, and boilers. Gioia Macaroni Company was identified in the environmental database report reviewed in Section 7.1 as a RCRIS-SQG, an LTANKS site, a HIST LTANKS site, a MANIFEST facility, and a NYSDEC Registered Underground Storage Tank (UST) site. According to the database, no RCRA violations were reported for this facility. The facility reportedly disposes of non-listed ignitable wastes. On July 24, 1995, an open UST with petroleum product was observed beneath the floor of this facility. Groundwater investigations were conducted since removal of the tank was not possible without compromising the structure of the building. The UST was abandoned in-place in September of 1995, and post-abandonment sampling did not detect any significant contamination above regulatory levels. A "No Further Action" letter was issued for this LTANKS/HIST LTANKS case on October 11, 1995. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

- "FWS Warehouse" is located at 1740 Elmwood Avenue on the adjacent south and down gradient parcel relative to the subject property, and is listed in the LTANKS database. According to the database, a 4,000-gallon diesel fuel UST and a 2,000-gallon heating oil UST were removed from this facility on July 13, 2005. Soil contamination was identified, and contaminated soil was excavated and removed off-site. Analysis of post-excavation soil samples did not detect any contaminants above regulatory levels, and a "No Further Action" letter was issued for this LTANKS case on August 24, 2005. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The following non-ASTM environmental concerns were identified during the investigation:

- Suspect ACBM was observed during the subject property reconnaissance as noted in Table 7, Section 6.10. Some of the suspect ACBM identified was observed to be in poor condition and as being friable material. **KTR recommends sampling and laboratory analysis of the suspect ACBMs identified below. KTR further recommends development of an Operations and Maintenance Plan for proper maintenance of the ACBM identified, and abatement of the ACBM identified to be in poor condition.**

KTR recommends that the user of this Phase I report comply with the user responsibilities prescribed by ASTM E 1527-05 as listed in Section 2.6 of this report.

TABLE 1 – EXECUTIVE SUMMARY TABLE

ASSESSMENT COMPONENT	FINDINGS	COMMENTS
Regulatory Database	Several adjacent properties listed on regulatory databases.	Impact determined unlikely. No further action recommended at this time.
Historical Information	Adjacent upgradient parcels formerly utilized as chemical laboratory and radiator manufacturing facility.	Recommend subsurface investigation prior to redevelopment or renovation of subject property that could impact subsurface.
Subject Property Reconnaissance		
- Subject Property	55-gallon drums of boiler chemical observed.	Recommend providing drums with secondary containment.
- USTs	No evidence of USTs observed.	--
- ASTs	Unknown AST observed in elevator mechanical room; possible expansion tank from old steam boiler.	Impact determined unlikely. No further action recommended at this time.
- Adjacent Properties	Several adjacent industrial facilities identified; facilities listed in multiple databases.	Impact determined unlikely. No further action recommended at this time.
	Old railroad tracks observed upgradient of subject property.	Impact determined unlikely. No further action recommended at this time.
	8 USTs reported at adjacent property.	Impact determined unlikely. No further action recommended at this time.
- Surrounding Area	Several industrial facilities identified in surrounding area; facilities listed on multiple databases.	Impact determined unlikely. No further action recommended at this time.
Interview	No RECs	--
Non-ASTM Scope Items		
ACBM	Suspect ACBM observed; some suspect ACBM observed to be in poor condition and friable.	Recommend sampling and laboratory analysis of suspect ACBM. Friable ACBM in poor condition is recommended for abatement; development of O&M Plan is recommended for ACBM to remain in place.

REC = Signifies a Recognized Environmental Condition as defined by ASTM

2.0 INTRODUCTION

Pursuant to the request of Ms. Meghan Haskins, Funding Supervisor of Hometown Commercial Capital LLC, as our client, KTR has conducted a Phase I Environmental Site Assessment (ESA) of the Pierce Arrow Office Building located in Erie County, Buffalo, New York, see Appendix A. This ESA was conducted in accordance with and subject to the proposal dated June 9, 2006.

2.1 PURPOSE

The purpose of this report is to assess the subject property for evidence of recognized environmental conditions (RECs) in accordance with the provisions of ASTM Standard E 1527-05. The term "recognized environmental condition" as defined by ASTM means "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or onto the ground, ground water, or surface water of the property." A material threat is "a physically observable or obvious threat which is reasonably likely to lead to a release that is threatening and might result in impact to public health or the environment." An REC may include hazardous substances or petroleum products even under conditions in compliance with laws.

A historical recognized environmental condition (HREC) as defined by ASTM includes "environmental conditions which in the past would have been considered an REC, but which may or may not be considered an REC currently" based on remediation of the REC. Approval of said remediation by the responsible regulatory agency is a requirement for HREC status.

2.2 SPECIAL TERMS AND CONDITIONS

A limited visual screening for asbestos containing building material (ACBM) was conducted as per our agreement dated June 9, 2006.

Screenings for non-ASTM items including lead based paint (LBP), radon gas, lead in drinking water or mold were not within the scope of this Phase I investigation. LBP is not an area of concern because the subject property building is commercial in use.

2.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The purpose of this report is to assess the subject property with respect to the presence of hazardous substances and/or petroleum products in accordance with the provisions of ASTM Standard E 1527-05. This practice is intended to permit a user, which may be a prospective purchaser or tenant, an owner, a lender or a property manager, to satisfy requirements to qualify as an innocent landowner, contiguous property owner, or bona fide prospective purchaser, hereinafter known as the landowner liability protections (LLPs).

The innocent landowner defense applies to individuals who were not aware of contamination at a property despite completion of AAI at the time of purchase; government entities that acquired a property via escheat, eminent domain, or involuntary transfer or acquisition; and individuals who inherited a property.

The contiguous property owner liability protection applies to owners who have completed AAI prior to purchase and were not aware of a contiguous property not owned by them that has or may have impacted their

property. Knowledge of impact from a contiguous property exempts the owner from the contiguous property owner liability.

The bona fide prospective purchaser liability protection signifies that the purchaser made all appropriate inquiry into the subject property prior to the purchase.

This practice constitutes "all appropriate inquiry" (AAI) into the previous ownership and uses of the property consistent with good commercial or customary practice. Data gaps may occur in the event that a portion of the AAI practice cannot be fully performed as per ASTM E 1527-05,despite the good faith effort of the environmental professional. This practice does not address local or state environmental assessment obligations that may be applicable to a property.

The conclusions presented in this report are professional opinions, based solely upon visual observations of the subject property and vicinity and our interpretation of the available historical information and documents reviewed as described in this report. They are intended exclusively for the purpose outlined herein and for the subject property location and project indicated. KTR is a technical not legal firm, as such we offer no opinion as to the legal aspects of environmental compliance (permitting, remediation, etc.) and anyone relying upon this report should have this ESA reviewed by counsel regarding any legal issues.

This report was prepared for and may be relied upon by Hometown Commercial Capital LLC, and its participants, lenders, affiliates, successors, and assigns (collectively, "HCC") with respect to any loan(s) place on the property described in the report. Any rating agency, issuer or purchaser of any security collateralized or otherwise backed by such loan(s), any servicer (and their collective successors and assigns), any underwriter co-underwriting any such securities, and any institutional provider(s) of any liquidity or credit support for such financings may also rely upon the report. HCC may, at its option, elect to include the report in its entirety in the offering memorandum or other disclosure materials relating to the Securization (as defined below). We also consent to the inclusion of this report in its entirety in any form, whether in paper or digital format, including any electronic media such as CD-ROM or the internet, in any Prospectus Supplement or other offering document relating to any HCC "Securization" (defined as an offering of debt securities that, as applicable, are registered with the Securities Exchange Commission pursuant to the Securities Act of 1933, as amended ["the Act"], or are privately placed pursuant to an exemption from the Act, in which the property reported upon may be part of a pool of properties owned by various non-affiliated owners collateralizing such offering) and the filing, if applicable, and the dissemination thereof, and we consent to the reference to our firm under the caption "Experts" in such Prospectus Supplement or other offering document, at HCC's discretion.

The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this document or the findings, and conclusions, presented herein is at the sole risk of said user.

It should be recognized that this study was not intended to be a definitive investigation of contamination at the subject property. It is possible that currently unrecognized contamination may exist at the subject property. Opinions presented herein apply to subject property conditions existing at the time of our investigation and those reasonably foreseeable. They cannot necessarily apply to subject property changes of which KTR is unaware and has not had the opportunity to evaluate.

2.4 LIMITING CONDITIONS AND METHODOLOGY USED

The scope of services included the following:

1. Visual observations of the subject property, improvements, and surrounding properties were made to identify potential recognized environmental conditions such as underground storage tanks (USTs), aboveground storage tanks (ASTs), potential sources of polychlorinated biphenyls (PCBs), hazardous chemicals or materials and areas with surface stains or distressed vegetation. In addition, the adjoining properties were observed, without being entered, to determine potential sources of contamination or environmental impact that could migrate to the subject property via surface water runoff, ground water transport, or other pathways. The subject property and adjacent properties were observed to the extent that legal and /or physical restrictions allowed.
2. Topographical information published by the United States Geological Survey (USGS) was reviewed in the form of a 7.5 Minute Quadrangle map.
3. Historical records were reviewed to determine past uses of the subject property and surrounding properties.
4. Regulatory records and databases were reviewed to identify use, generation, storage, treatment, disposal, or releases of hazardous materials or chemicals that may impact the subject property. The databases and search parameters prescribed by ASTM Standard E 1527-05 were used.
5. A preliminary visual screening of readily visible and accessible building materials was done to evaluate the possible presence and condition of suspect asbestos containing building materials (ACBMs).

2.5 PREPARER RESPONSIBILITIES

This practice must be conducted by an Environmental Professional (EP) or under the supervision of an EP, which signifies an individual who "possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions indicative of releases or threatened releases" as defined by ASTM. Individuals that do not qualify as EPs may assist in the performance of AAI if appropriately trained and supervised by an EP. At a minimum, the EP must be involved in the planning of the site reconnaissance and interviews. The EP is also responsible for review of the Phase I ESA and interpretation of the information obtained via the Phase I investigation.

KTR declares that to the best of our professional knowledge and belief, the supervisor and reviewer of this Phase I ESA meet the definition of EP defined in §312.10 of 40 CFR Part 312. KTR has the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. KTR has developed and performed the AAI in conformance with the standards and practices set forth in 40 CFR Part 312. KTR has not conducted a search of Environmental Liens against the subject property. This search is a User's Responsibility as noted in Section 2.6 below.

2.6 USER'S RESPONSIBILITIES

The reason for this Phase I ESA according to the user is to qualify for LLP and to CERCLA liability. The user is responsible for the following:

1. Obtaining reasonably ascertainable recorded land title, lien, or AUL records from a title company or professional.
2. Reporting any specialized or actual knowledge regarding the subject property and any associated RECs to the EP prior to the site visit.

3. Reporting any commonly known or reasonably ascertainable information regarding the subject property to the EP.
4. Analyzing a purchase price significantly lower than the fair market value for a subject property that is not contaminated with hazardous substances or petroleum products.
5. Making known to the EP the reason for performing AAI. If the reason is not declared to the EP, it may be assumed that it is to obtain LLP.

This practice does not address the continuing obligations of the user, including protection of activity use limitations (AULs), which are legal or physical use limitations on use of or access to a site that may include institutional or engineering controls (physical modification to a subject property to reduce or prevent contact with known subsurface contamination at a subject property) or the duty to take reasonable steps to prevent future releases, or the duty to comply with legally required release reporting obligations.

3.0 SUBJECT PROPERTY OVERVIEW

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property, Pierce Arrow Office Building located at 1685 Elmwood Avenue, consists of a 138,672 square foot, 3-story office building on a 1-acre land parcel on the east side of Elmwood Avenue and north of Grote Street and Great Arrow Avenue in Erie County, Buffalo, New York. It is identified on the tax maps of the City of Buffalo as tax ID 0787700002006000.

3.2 SUBJECT PROPERTY AND VICINITY CHARACTERISTICS

The subject property is bounded by the following:

NORTH:	Buffalo Finishing (1719 Elmwood Avenue), Interior Marketing (1721 Elmwood Avenue), and additional industrial buildings and warehouses.
SOUTH:	Great Arrow Road followed by World Discounts and an auto repair facility.
EAST:	An industrial building at 255 Great Arrow Road.
WEST:	Elmwood Avenue followed by restaurants, residences, and a large multi-tenant commercial building (1700 Elmwood Avenue).

The general vicinity characteristics of the surrounding area are commercial and industrial with manufacturing and warehouses. Several industrial facilities were noted in the area during the subject property reconnaissance.

3.3 SUBJECT PROPERTY DEVELOPMENT AND USE

The subject property is located in a commercial and industrial area and is zoned M1, which designates Light Industrial District according to the City of Buffalo Department of Zoning. The subject property has been industrial in use since at least 1907 based on review of available historical Sanborn Fire Insurance Maps, aerial photographs, and topographic maps. There is currently one (1) subject property improvement constructed in two (2) stages: the north section, which was constructed in 1907, and the south section, which was constructed in 1910. The major occupant at the time of the site reconnaissance was the State of New York, which occupied a minimum of 40% of the subject property. A complete tenant list follows:

TABLE 2 – TENANT LIST

Tenant Name	Square Footage	Use
Center for Development and Human Resources	36,403	State of New York training center
Casino Career Training Center	5,408	Career training center
Heart Beat of the East	1,350	Exercise studio
Joy of Learning	1,102	Secondary education offices
Denise Cornell	884	Furniture retailer
Interior Design Resource	2,088	Interior decoration
Pierce Arrow Draperies	2,885	Window fixture retailers
The Ultimate Design	1,088	Window treatment retailer
Florencio Glass Company	806	China and crystal retailers
Claudia Cairns Interior Design	316	Interior decoration
Richard Ross	625	Interior decoration
ATM Supply	1,053	Used and rebuilt industrial equipment dealer
Faux F X	550	Painting contractor
Asbestos Workers Local Union Industry Training Program	1,088	Asbestos worker certification center
Dynasty Jewelers, Inc.	2,451	Jewelry wholesaler and manufacturer
Blue Photo	1,450	Photographer
Neglia Conservatory of Ballet	12,804	Dance company
First Platinum	1,786	Collection agency
Mike Mammona	850	Interior design
Buffalo Carpet	953	Carpet wholesalers
Jim Minor	780	Professional photography
Steve Rovner	1,068	Professional photography

According to the Pierce-Arrow Society (http://www.pierce-arrow.org/), in 1906, the Pierce Arrow Motor Car Company manufacturing facility was constructed on 44-acres on and adjacent to the subject property. The building located on the subject property historically served as the main office building with executive suites, sales offices, and a restaurant on the second floor. The main manufacturing plant and additional facilities were constructed to the north and east of the subject property. Facilities on the adjacent plant buildings included an experimental chemical laboratory, a power plant, a laundry, a brazing plant, auto body construction buildings, and the main manufacturing plant.

During World War I, Pierce Arrow manufactured 2-ton and 5-ton trucks for the war effort, shipping the vehicles to England and France, in addition to their standard automobile manufacturing operations. In 1918, the Pierce Arrow Motor Car Company went public on the New York Stock Exchange and motorcar production continued well into the 1920's. In 1928, the Studebaker Corporation, as a majority shareholder, purchased the Pierce Arrow Motor Car Company. However, the Stock Market Crash of 1929 and the following Great Depression had a major impact on automobile production at the facility. In 1934, the Pierce Arrow Motor Car Company was reorganized as the Pierce Arrow Motor Corporation. All dealerships were sold as part of the reorganization and operated as independent retailers in order to assist in the erasing of the deficit.

In 1936, the final Pierce Arrow automobile model was produced, with additional modified models being produced in 1937 and 1938. In 1938, the Pierce Arrow Motor Corporation was declared insolvent and ordered to be liquidated by the City of Buffalo Superior Court. The 1685 Elmwood Avenue Corporation was set up to dispose of the company's assets. Parts and service continued at the subject property until 1942 when the remainder of all manufacturing equipment was sold as scrap for the war effort during World War II.

Following the cessation of manufacturing operations, the entire manufacturing facility was subdivided and sold to various parties. The subject property, which only includes the former office building, was used as the New York State Institute for Applied Arts and Sciences. In the 1970's, the subject property was converted for use as a multi-tenant commercial building.

4.0 PHYSICAL SETTING

Information regarding physical settings in the region was obtained from review of a United States Geological Survey (USGS) 7.5 Minute Topographic Map, a review of United States Department of Agriculture (USDA) Soil Conservation reports, and local regulatory sources.

4.1 GEOLOGIC CONDITIONS

The subject property is approximately 600 feet above mean sea level (msl) as interpreted from the topographic map in Appendix A with a relatively flat topography. The local topography has a southerly slope toward Scajaquada Creek, a tributary of the Niagara River, which is located approximately 0.46 mile south of the subject property and flows in a westerly direction. Surface drainage at the subject property is via sheet flow across the asphalt-paved parking areas to onsite storm water collection drains, which diverted to the municipal system.

The subject property lies within the Appalachian Plateaus Physiographic Province, which is a broad belt of flat-lying and relatively unfolded layers of sedimentary rock, sandstones, shale, limestone, and conglomerates, that extends from northern New York State, from just north of the Catskill Mountains west to the vicinity of Cleveland, Ohio. Specifically, the subject property lies on the northernmost border of the Glaciated Allegheny Plateau, which is a maturely dissected plateau that has been extensively modified by Pleistocene glaciations, particularly the late Wisconsin glaciation. It is a mostly high and rugged plateau region formed of uplifted marine sandstones and shale, and is characterized by flat-topped hills and deeply dissected valleys.

The subject property geology is urban land. Urban land characteristically has 0 to 8 percent slopes. The soils and foundation material are highly variable, but because urban structures and works cover so much of this land type, identification of the soils is not practical. Most areas have been graded, and the original soil material has been disturbed, filled over, or otherwise destroyed prior to construction.

4.2 HYDROLOGIC CONDITIONS

Based on surface topography as interpreted from the USGS topographic quadrangle map in Appendix A, the regional groundwater is assumed to flow from the subject property south to Scajaquada Creek (upgradient to down gradient, respectively). Please note that the actual groundwater flow direction is often locally influenced by factors such as surface topography, underground structures, tidal influences, seasonal fluctuations, soil and bedrock geology, production wells, and other factors beyond the scope of this study.

According to information obtained from American Water, the City of Buffalo obtains its potable water from Lake Erie.

5.0 HISTORICAL RECORDS REVIEW

The objective of consulting historical records is to develop a history of the previous uses of the subject property. All obvious historical uses from the present back to 1940 or the first developed use, whichever is earlier, should be investigated. Approximate 5-year intervals are utilized in order to identify the likelihood of past uses that negatively impacted the subject property. However, 5-year intervals are not required by ASTM when the use of the subject property did not change over a period longer than 5 years. The history of the adjacent and surrounding properties should also be developed if that information is reasonably ascertainable. In the event that the above-described historical research could not be reasonably ascertained, data failure should be cited and explained.

5.1 FIRE INSURANCE MAPS

Sanborn Fire Insurance maps of the subject property and area were obtained from Environmental Data Resources, Inc. (EDR) and copies are included in Appendix C. The following is a summary of each map reviewed:

TABLE 3 – SANBORN FIRE INSURANCE MAP SUMMARY TABLE

YEAR	SUBJECT PROPERTY	NORTH	SOUTH	EAST	WEST	SURROUNDING AREA
1950	3-story office building occupied by a state college.	**Factory Building (built 1916)** followed by a **metal arts building, railroad tracks,** and the **American Radiator & Standard Sanitary Corp.**	Great Arrow Avenue followed by a fire department building.	Buffalo Merchandise Warehouses, Inc. and Downtown Merchants Delivery, Inc. buildings.	Elmwood Avenue followed by the **Gioia Macaroni Company manufacturing facility.**	Predominantly residential to west and south; gravel yard and contractor equipment facility to east; residential to north.
1935	Administration building for the Pierce Arrow Motor Car Company (built 1906-07).	**Manufacturing buildings for the Pierce Arrow Motor Car Company** followed by **railroad tracks** and the **American Radiator Company**.	Great Arrow Avenue followed by a fire department building and a parking area for the Pierce Arrow Motor Car Company.	**Manufacturing buildings for the Pierce Arrow Motor Car Company.**	Elmwood Avenue followed by the **Houk Mfg. Co, Inc. (wire wheels)** and **Sherwood Mfg. Co. (engines & boilers).**	Predominantly residential in surrounding area; **American Radiator Company faciliy buildings to north.**
1916		**Chemical laboratory for Pierce Arrow Motor Car Co.** followed by **garage, brazing, and heat treatment buildings, railroad tracks,** and the **American Radiator Company.**	Great Arrow Avenue followed by a fire department building.			
1900	No coverage.	**American Radiator Company.**	No coverage.	No coverage.	No coverage.	No coverage to west, south, and north; **American Radiator Co., Buffalo Structural Steel Co. and People's Gas Light & Coke Co. to east and northeast.**

The review of fire insurance maps indicated that several manufacturing buildings were present on the adjacent north and east properties relative to the subject property. Such buildings included a chemical laboratory located at 1711 Elmwood Avenue on the adjacent north and upgradient parcel and a garage, brazing facility, and heat-treating facility along a set of railroad tracks located to the north relative to the subject property. Buildings to the east included the main manufacturing plant for the former Pierce Arrow Motor Car Company and two (2) auto body construction plants.

The chemical laboratory is currently occupied by "Buffalo Finishing," and is listed in the environmental database report reviewed in Section 7.1 as a U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Small Quantity Generator of Regulated Hazardous Wastes (RCRIS-SQG). Four (4) violations were listed for this facility; however, compliance was achieved for these violations in 1996 and 2004. The facility is also listed in the New York State Department of Environmental Conservation (NYSDEC) Hazardous Materials Manifest (MANIFEST) database for the disposal of non-listed corrosive wastes.

The former garage, brazing, and heat treatment buildings at 1721 Elmwood Avenue are currently occupied by the Smith Metal Arts Company, Inc., which is listed as a RCRIS-SQG and a MANIFEST site, as well as a NYSDEC Leaking Storage Tank Incident Report (LTANKS) site and a Historical LTANKS (HIST LTANKS) site. No RCRA violations were reported for this facility, which is listed in the MANIFEST database for the disposal of unknown chlorinated solvents. According to the LTANKS and HIST LTANKS databases, on August 4, 1989, contaminated soil was discovered at this facility associated with an unknown tank. On August 17, 1989, the unknown tank was excavated and several tons of contaminated soils were removed. The tank was inspected in October 1989 and found to be free of petroleum and backfilled with an inert concrete slurry. A letter of "No Further Action" for this LTANKS case was issued by the NYSDEC on March 13, 1990.

The American Radiator Company plant has historically been located at 1723 to 1799 Elmwood Avenue approximately 150 feet to the north and upgradient relative to the subject property since circa 1900. None of these addresses are listed in any federal or state environmental remediation database.

The adjacent former auto body construction buildings and main manufacturing buildings were subdivided into the "Great Arrow Industrial Park" at 255 Great Arrow Avenue on the adjacent east and cross gradient parcel. This facility is listed in the environmental database report as a RCRIS-SQG and MANIFEST facility. One (1) RCRA violation for a general oversight was reported for this facility; however, compliance was achieved in 1994. Morgan Materials, Inc. and International Recycling Services, Inc. are also tenants of the Great Arrow Industrial Park at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel. Morgan Materials, Inc. is listed as a RCRIS-SQG and MANIFEST facility for the disposal of non-listed ignitable wastes. No RCRA violations were reported. International Recycling Services, Inc. is listed as a MANIFEST site; however, no manifest information was available. The warehouse was also listed in the NYSDEC Spills Information System (SPILLS) and Historical SPILLS (HIST SPILLS) databases. On October 31, 1992, the Buffalo Fire Department received a call about a rubbish/tire fire in the vicinity of the warehouse. The fire was contained and extinguished, and no releases to the subsurface were reported. The SPILLS case was closed on November 2, 1992.

Based on the above information, there is a potential for impact to the subject property subsurface from the former adjacent uses as they were in operation prior to environmental regulation until present. Since the

subject property building currently utilizes a public drinking water source, the potential for immediate impact to human health and safety appears to be relatively low. **During any future redevelopment or renovation of the subject property that disturbs the subsurface, KTR recommends conducting a subsurface investigation to characterize any excavated materials for potentially hazardous constituents.**

The Gioia Macaroni Company facility was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. The facility was formerly utilized as a manufacturing facility for wire wheels, engines, and boilers. Gioia Macaroni Company was identified in the environmental database report reviewed in Section 7.1 as a RCRIS-SQG, an LTANKS site, a HIST LTANKS site, a MANIFEST facility, and a NYSDEC Registered Underground Storage Tank (UST) site. According to the database, no RCRA violations were reported for this facility. The facility reportedly disposes of non-listed ignitable wastes. On July 24, 1995, an open UST with petroleum product was observed beneath the floor of this facility. Groundwater investigations were conducted since removal of the tank was not possible without compromising the structure of the building. The UST was abandoned in-place in September of 1995, and post-abandonment sampling did not detect any significant contamination above regulatory levels. A "No Further Action" letter was issued for this LTANKS/HIST LTANKS case on October 11, 1995. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

Several railroad tracks were historically observed to the north and down gradient relative to the subject property since circa 1916. Historically, railroad tracks were treated with defoliants that potentially contained polychlorinated biphenyls (PCBs). However, since the railroad tracks do not abut the property and PCBs do not typically migrate through soil into groundwater, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The Structural Steel Co. and People's Gas Light & Coke Co. were observed approximately 800 feet to the east and northeast and cross gradient relative to the subject property circa 1900 according to available Sanborn Fire Insurance Maps. Neither of these facilities are listed in any federal or state environmental database, and based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

A firehouse has been historically located on the adjacent south and down gradient parcel since circa 1900. This facility was identified in the environmental database report reviewed in Section 7.1 as a SPILLS site. According to the database, on November 17, 1999, subsurface soil contamination was discovered near a 550-gallon heating oil UST. The UST as well as 43.55 tons of contaminated soil were removed and disposed off-site. Post-excavation soil sample analysis did not detect any contamination above regulatory levels. The case was closed on February 7, 2000; therefore, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

5.2 AERIAL PHOTOGRAPHS

Aerial photographs depicting development of the subject property and subject property vicinity were obtained from EDR. Copies of the photographs are included in Appendix C. The following is a summary of each photograph reviewed:

TABLE 4 – AERIAL PHOTOGRAPH SUMMARY TABLE

YEAR	SCALE:	SUBJECT PROPERTY	NORTH	SOUTH	EAST	WEST	SURROUNDING AREA
1995	1" = 833'	Current office building.	**Small industrial buildings and railroad tracks followed by large industrial complex.**	Secondary street followed by a parking lot and small commercial buildings.	**Large industrial complex.**	Main road followed by **several commercial and industrial buildings.**	Mixed-use in surrounding area; residential to south and west; **large industrial facility to northwest.**
1983	1" = 750'						
1978	1" = 833'						
1966	1" = 750'						
1959	1" = 750'						

The review of historical aerial photographs indicated past activities that are recognized environmental conditions. The subject property has historically been part of a large industrial facility since circa 1959. Adjacent properties to the north, east, and west were also identified as historically industrial facilities. See Section 5.1 for further details.

A large industrial facility was identified approximately 800 feet to the northwest and cross gradient relative to the subject property. This facility was identified in the environmental database report reviewed in Section 7.1 as the Alexander & Fiden Machinery Company, Inc. at 1770 Elmwood Avenue. This facility was identified as a RCRIS-SQG with one (1) violation for which compliance was achieved in 1992, and a MANIFEST site for the disposal of lead-containing wastes. Based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

5.3 LOCAL STREET DIRECTORIES

Historical street directories for the subject property and adjacent properties were obtained from EDR. Copies are included in Appendix C. The following is a summary of each directory reviewed:

TABLE 5 – HISTORICAL CITY DIRECTORY SUMMARY TABLE

YEAR	SUBJECT PROPERTY	ADJACENT PROPERTIES
2005	**Pierce Arrow Building** A T M Supply Asbestos Workers Local Union 4 **Blue Fox Press Blue Photo** Cairns Claudia Interior Designs Casino Career Training Center Cornell Denise Dynasty Jewelers Inc Faux F/X Interior Design Resources Joy of Learning Melinda Burkholder Interior Design Miner Insulation Neglia Conservatory of Ballet Pierce Arrow Drapery Pierce Arrow Managing Co The Ultimate Design	**Elmwood Avenue** Residence (1676) Exchange Real Estate (1678) Residence (1678 City Limits (1680) Hadley Exhibits Inc (1700) Johnson Hehr Assoc Inc (1700) **Buffalo Refinishing Services (1711)**
2000	**Pierce Arrow Building** A T M Supply Asbestos Workers Local Union 4 **Blue Photo** Classic Transport Cleveland Wrecking Co Color Bond Refinishing Cornell Denise Donnelly Michael Dreamland Designs Empire Software First Capital Consumers **Frick Eric Photography** Interior Design Resources McMahon Carrol Interiors Miner Insulation Neglia Ballet Pierce Arrow Drapery Pierce Arrow Management Co Santuci Truck Drivers Local 449 The Ultimate Design	**Elmwood Avenue** Residence (1676) Exchange Real Estate (1678) Residence (1678) Residence (1680) Residence (1680 1/2) Hadley Exhibits Inc (1700) Johnson Hehr Assoc Inc (1700) **Buffalo Refinishing Services (1711)** Residence (1711)

TABLE 5 – HISTORICAL CITY DIRECTORY SUMMARY TABLE

YEAR	SUBJECT PROPERTY	ADJACENT PROPERTIES
1990	**Pierce Arrow Building** A T M Supply Alphabet Design Arrigo Russell & Associates Arth L F & Mason Upholstery Asbestos Workers Local Union 4 Baun Wood Designs Brett Designs Budgetcall **C Dittman Chem Lab** Callex Intl Inc Cement Masons Un 511 **Collucci J Photo** **D & L Metal Fabricating** Decorator Workshop **Great Arrow Graphics** Griffasi 5 Av Wndw Jackson T Flor Wall Lema Jos P Maggi Creations Mikron Prods Inc Pierce Arrow Drapery Pierce Arrow Mgmt. Co SC Buflo Occupatnl Truck Drivers Local 449	**Elmwood Avenue** Residence (1676) Pierce Arrow Grill (1680) Residence (1680 1/2) **Gioia Macaroni Co (1700)** No Return (1702) **Buffalo Refinishing Services (1711)**
1980	**Pierce Arrow Building** Agape Distribution Allied Equip. Co Alphabet Design Anderson W A Co Inc Arthur L F & Mason Upholstery Asbestos Workers Training Bricklayers & Masons **C Dittman Chem. Lab** Cement Masons Un 511 Cobb Hill Sportswear Costumes Unlimited Delta Buffalo Realty Empire St Sentinel **Great Arrow Graphics** Newton Consolidated Sales Truck Drivers Local 449 Wheels & Floors Inc	**Elmwood Avenue** Residence (1676) Pierce Arrow Grill (1680) Residence (1680) **Gioia Macaroni Co (1700)** **Piscitello Macaroni Co (1700)** Cape Cod Shops Inc (1702) Business Complex (4 occupants) (1711)

The review of historical street directories indicated past activities of environmental concern. Several current and former tenants of the subject property include photodevelopers, a graphics printing company, a chemical laboratory, and metal fabricating business. None of these businesses are listed in any federal or state environmental database indicative of a release or violation; therefore, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

Gioia Macaroni Co. was identified at 1700 Elmwood Avenue circa 1980 to 1990 on the adjacent west and cross gradient parcel relative to the subject property. Buffalo Finishing was also identified at 1711 Elmwood Avenue on the adjacent north and upgradient parcel relative to the subject property circa 1990 to 2005. See Section 5.1 for further details regarding these facilities.

5.4 HISTORICAL TOPOGRAPHIC MAPS

USGS Historical Topographic Maps, 7.5-minute series – Buffalo, New York/Canada Quadrangle, for the subject property and adjacent properties were obtained from EDR and copies are included in Appendix C. The following is a summary of each historical map:

TABLE 6 – HISTORICAL TOPOGRAPHIC MAP SUMMARY TABLE

YEAR	SUBJECT PROPERTY	NORTH	SOUTH	EAST	WEST	SURROUNDING AREA
1965 1950 1949 1948	Current office building as part of a **large industrial facility.**	**Railroad tracks and large industrial facility.**	Fully developed residential / commercial area.	**Several commercial or industrial buildings.**	Elmwood Avenue followed by fully developed residential / commercial area. Elmwood Avenue followed by **industrial facility.**	**Predominantly industrial to north;** fully developed to east, west, and south.
1901	Undeveloped area.	Residences and **railroad tracks** followed by an **industrial facility.**	Undeveloped land.	Undeveloped land.	Elmwood Avenue followed by residences.	Predominantly residential.

The review of historical topographic maps indicated past activities that are recognized environmental conditions. The subject property has historically been associated with a large industrial facility since circa 1948. The subject property was undeveloped in 1901. Several adjacent properties to the north, east, and west, as well as in the surrounding area to the north were identified circa 1901 to 1965. Many of these properties were listed in the environmental database report reviewed in Section 7.1. See Section 5.1 for further details.

6.0 SUBJECT PROPERTY RECONNAISSANCE AND INTERVIEWS

6.1 METHODOLOGY & LIMITATIONS

The subject property reconnaissance was conducted on June 29, 2006 by Anthony J. Galasso of KTR, an EP as defined by ASTM. See Appendix H for a Statement of KTR's Qualifications. The weather at the time of the reconnaissance was cloudy with a temperature of 65 degrees Fahrenheit. The key site manager, as designated by the owner as having knowledge of the subject property, for the reconnaissance was Mr. John McKowan of Pierce Arrow Holding.

The following spaces were visually and physically observed: subject property interiors, exteriors, mechanical spaces, electrical rooms, and the roof as well as adjoining and surrounding properties.

KTR inspected 65 % of the subject property units during the reconnaissance.

6.2 INTERVIEWS

6.2.1 INTERVIEW WITH KEY SITE MANAGER

The objective of this section is to obtain information indicating recognized environmental conditions in connection with the subject property from knowledgeable individuals including owners, operators, or occupants.

Mr. McKowan was interviewed in person on June 29, 2006. His actual knowledge of the subject property included the following: the subject property was historically part of the Pierce Arrow Motor Car Company manufacturing facility. Following the cessation of manufacturing operations, the plant was subdivided, and the subject property was purchased several years ago as part of a school. The building is currently utilized as a multi-tenant commercial office building. A copy of the Interview Questionnaire utilized is included in Appendix D.

Mr. McKowan was asked if the following documents were available for review as a part of this assessment:

1. Environmental subject property assessment reports,
2. Environmental audit reports,
3. Environmental permits,
4. Registrations for tanks,
5. Material safety data sheets (MSDS),
6. Community right to know plan,
7. Spill prevention, countermeasure, and control plans (SPCC),
8. Groundwater conditions report,
9. Environmental violation notices,
10. Hazardous waste generator notices or manifests,
11. Geotechnical studies,
12. Title Reports,
13. ACBM documentation,
14. LBP documentation,
15. Radon documentation,
16. Potable water quality documentation, and
17. Mold documentation.

None of the above listed documents was available according to Mr. McKowan.

6.3 GENERAL SUBJECT PROPERTY CONDITIONS

6.3.1 SUBJECT PROPERTY IMPROVEMENTS AND USE

The subject property is comprised of a 3-story building constructed in 1906 with a total approximate area of 138,672 square feet. The subject property is accessed via Elmswood Avenue and Great Arrow Avenue.

The building is constructed with a full basement level. The foundation consists of reinforced concrete perimeter footings with reinforced concrete and brick foundation walls. The superstructure consists of a reinforced concrete frame supporting reinforced concrete floor slabs with concrete masonry unit (CMU) infill walls. The building façade consists of brick with areas of exposed concrete and decorative accents along the front and rear facades. Windows are single-paned, double hung units set within aluminum frames on the first two floors, and wood frames on the third floor. The north building portion roof is barrel vaulted and the south building portion roof is low-sloped; both roof areas are covered with a modified bitumen roofing membrane with a reflective aluminum coating.

Gas-fired boilers and split systems provide heating and cooling. The building is equipped with one (1) traction elevator. The building is not protected with a fire sprinkler system, but does have a central fire alarm system. Interior tenant spaces are typically finished with vinyl tile and carpet flooring, painted drywall or painted CMU walls and a suspended acoustical tile or painted concrete ceilings.

The current use of the subject property involves the use, treatment, storage, disposal, or generation of hazardous substances including boiler treatment chemical. See Section 6.4.6 for details. Suspect ACBM was observed at the subject property. See Section 6.10 for details.

6.3.2 PAST USES OF THE SUBJECT PROPERTY

The past use of the subject property consisted of an administrative building for an automobile manufacturing facility. This information was determined by review of available historical Sanborn Fire Insurance Maps, aerial photographs, and topographic maps.

The past use of the subject property involved activities that are recognized environmental conditions. See Section 5.1 for details.

6.3.3 CURRENT USES OF ADJACENT PROPERTIES

The current uses of the adjacent properties include an industrial park, a foods processing plant, a metal finishing facility, a firehouse, restaurants, and residences.

The review of fire insurance maps indicated that several manufacturing buildings were present on the adjacent north and east properties relative to the subject property. Such buildings included a chemical laboratory located at 1711 Elmwood Avenue on the adjacent north and upgradient parcel and a garage, brazing facility, and heat-treating facility along a set of railroad tracks located to the north relative to the subject property. Buildings to the east included the main manufacturing plant for the former Pierce Arrow Motor Car Company and two (2) auto body construction plants.

The chemical laboratory is currently occupied by “Buffalo Finishing,” and is listed in the environmental database report reviewed in Section 7.1 as a U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Small Quantity Generator of Regulated Hazardous Wastes (RCRIS-SQG). Four (4) violations were listed for this facility; however, compliance was achieved for these violations in 1996 and 2004. The facility is also listed in the New York State Department of Environmental Conservation (NYSDEC) Hazardous Materials Manifest (MANIFEST) database for the disposal of non-listed corrosive wastes.

The former garage, brazing, and heat treatment buildings at 1721 Elmwood Avenue are currently occupied by the Smith Metal Arts Company, Inc., which is listed as a RCRIS-SQG and a MANIFEST site, as well as a NYSDEC Leaking Storage Tank Incident Report (LTANKS) site and a Historical LTANKS (HIST LTANKS) site. No RCRA violations were reported for this facility, which is listed in the MANIFEST database for the disposal of unknown chlorinated solvents. According to the LTANKS and HIST LTANKS databases, on August 4, 1989, contaminated soil was discovered at this facility associated with an unknown tank. On August 17, 1989, the unknown tank was excavated and several tons of contaminated soils were removed. The tank was inspected in October 1989 and found to be free of petroleum and backfilled with an inert concrete slurry. A letter of "No Further Action" for this LTANKS case was issued by the NYSDEC on March 13, 1990.

The American Radiator Company plant has historically been located at 1723 to 1799 Elmwood Avenue approximately 150 feet to the north and upgradient relative to the subject property since circa 1900. None of these addresses are listed in any federal or state environmental remediation database.

The adjacent former auto body construction buildings and main manufacturing buildings were subdivided into the "Great Arrow Industrial Park" at 255 Great Arrow Avenue on the adjacent east and cross gradient parcel. This facility is listed in the environmental database report as a RCRIS-SQG and MANIFEST facility. One (1) RCRA violation for a general oversight was reported for this facility; however, compliance was achieved in 1994. Morgan Materials, Inc. and International Recycling Services, Inc. are also tenants of the Great Arrow Industrial Park at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel. Morgan Materials, Inc. is listed as a RCRIS-SQG and MANIFEST facility for the disposal of non-listed ignitable wastes. No RCRA violations were reported. International Recycling Services, Inc. is listed as a MANIFEST site; however, no manifest information was available. The warehouse was also listed in the NYSDEC Spills Information System (SPILLS) and Historical SPILLS (HIST SPILLS) databases. On October 31, 1992, the Buffalo Fire Department received a call about a rubbish/tire fire in the vicinity of the warehouse. The fire was contained and extinguished, and no releases to the subsurface were reported. The SPILLS case was closed on November 2, 1992.

Based on the above information, there is a potential for impact to the subject property subsurface from the former adjacent use as they were in operation prior to environmental regulation until present. Since the subject property building currently utilizes a public drinking water source, the potential for immediate impact to human health and safety appears to be relatively low. **During any future redevelopment or renovation of the subject property that disturbs the subsurface, KTR recommends conducting a subsurface investigation to characterize any excavated materials for potentially hazardous constituents.**

The Gioia Macaroni Company facility was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. The facility was formerly utilized as a manufacturing facility for wire wheels, engines, and boilers. Gioia Macaroni Company was identified in the environmental database report reviewed in Section 7.1 as a RCRIS-SQG, an LTANKS site, a HIST LTANKS site, a MANIFEST facility, and a NYSDEC Registered Underground Storage Tank (UST) site. According to the database, no RCRA violations were reported for this facility. The facility reportedly disposes of non-listed ignitable wastes. On July 24, 1995, an open UST with petroleum product was observed beneath the floor of this facility. Groundwater investigations were conducted since removal of the tank was not possible without compromising the structure of the building. The UST was abandoned in-place in September of 1995, and post-abandonment sampling did not detect any significant contamination above regulatory levels. A "No

Further Action" letter was issued for this LTANKS/HIST LTANKS case on October 11, 1995. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

"FWS Warehouse" is located at 1740 Elmwood Avenue on the adjacent south and down gradient parcel relative to the subject property, and is listed in the LTANKS database. According to the database, a 4,000-gallon diesel fuel UST and a 2,000-gallon heating oil UST were removed from this facility on July 13, 2005. Soil contamination was identified, and contaminated soil was excavated and removed off-site. Analysis of post-excavation soil samples did not detect any contaminants above regulatory levels, and a "No Further Action" letter was issued for this LTANKS case on August 24, 2005. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

A firehouse has been historically located on the adjacent south and down gradient parcel since circa 1900. This facility was identified in the environmental database report reviewed in Section 7.1 as a SPILLS site. According to the database, on November 17, 1999, subsurface soil contamination was discovered near a 550-gallon heating oil UST. The UST as well as 43.55 tons of contaminated soil were removed and disposed off-site. Post-excavation soil sample analysis did not detect any contamination above regulatory levels. The case was closed on February 7, 2000; therefore, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

Eight (8) former USTs were reportedly located at the property located adjacent to the east of the subject based on the following. On July 20, 2006, GZA Environmental, Inc. (GZA) reportedly reviewed Buffalo Fire Department records at their offices to determine the locations of USTs that were potentially located at the subject property according to a letter prepared by GZA on the same date. The GZA letter stated that a July 1952 permit and site map for the installation of four (4) 550-gallon USTs for the storage of gasoline were reviewed. The USTs were reportedly installed in front of the adjacent east (cross gradient) building located at 255 Great Arrow Road. GZA also reviewed a permit dated October 18, 1941 for the installation of four (4) 1,000-gallon gasoline USTs at 255 Great Arrow Road approximately 300 feet to the east (cross gradient) relative to the subject property. Insert the status of the adj USTs, including whether open or closed or removed &/or listed on UST, LTANKS &/or SPILLS databases. Based on gradient and regulatory status, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

6.3.4 PAST USES OF ADJACENT PROPERTIES

Past uses of the adjacent properties consisted of a large automobile manufacturing facility, which included a chemical laboratory, auto body manufacturing, and several other ancillary facilities, as well as a radiator manufacturing facility, a wire wheel manufacturer, and an engine and boiler manufacturer. This information was determined by review of available historical Sanborn Fire Insurance Maps, aerial photographs, city directories, and topographic maps.

The past uses of the adjacent properties involved activities that are recognized environmental conditions. See Sections 5.1 through 5.3 for details.

6.3.5 CURRENT USES IN THE SURROUNDING AREA

Current uses of the surrounding area include residences, commercial retailers, a warehouse retailer, and an industrial facility.

A large industrial facility was identified approximately 800 feet to the northwest and cross gradient relative to the subject property. This facility was identified in the environmental database report reviewed in Section 7.1 as the Alexander & Fiden Machinery Company, Inc. at 1770 Elmwood Avenue. This facility was identified as a RCRIS-SQG with one (1) violation for which compliance was achieved in 1992, and a MANIFEST site for the disposal of lead-containing wastes. Based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

6.3.6 PAST USES IN THE SURROUNDING AREA

Past uses of the surrounding area consisted of several industrial facilities, residences, commercial retailers, and stores. This information was determined by review of available historical Sanborn Fire Insurance Maps, aerial photographs, city directories, and topographic maps.

The past uses of the surrounding area involved activities of environmental concern. See Sections 5.1 through 5.4 for details.

6.4 INTERIOR OBSERVATIONS

6.4.1 HEATING AND COOLING

Heat at the subject property is provided by a gas-fired boiler. The subject property is cooled via individual split system air conditioning units.

6.4.2 STAINS OR CORROSIONS

No interior stains or corrosions were noted during the site reconnaissance.

6.4.3 DRAINS AND SUMPS

One (1) sump pit and pump was observed at basement level in the center of the subject property building. The sump collects condensate from the gas-fired boiler, and diverts to the municipal sewer system. Drains observed during the site reconnaissance are reportedly connected to the municipal sewer system.

6.4.4 ODORS

No abnormal interior odors were noted during the site reconnaissance.

6.4.5 POOLS OF LIQUID

No interior pools of liquid were noted during the site reconnaissance.

6.4.6 DRUMS

Two (2) 55-gallon steel drums utilized for the storage of boiler treatment chemical were noted during the site reconnaissance on reinforced concrete flooring in the boiler room of the subject property. No spill retention such as secondary containment was observed in connection with the drums. No staining or leaking was observed in the drum storage area. **As a precaution, all drums should be provided with secondary containment.**

6.4.7 HAZARDOUS SUBSTANCE OR PETROLEUM CONTAINERS

No hazardous substance or petroleum containers were noted at the interior of the subject property improvement during the reconnaissance.

6.4.8 UNIDENTIFIED SUBSTANCE CONTAINERS

No unidentified substance containers were noted at the interior of the subject property improvement during the reconnaissance.

6.5 EXTERIOR OBSERVATIONS

6.5.1 PITS, PONDS, OR LAGOONS

No pits, ponds, or lagoons were noted during the site reconnaissance.

6.5.2 STAINED SOIL

No stained soil was noted during the site reconnaissance.

6.5.3 STRESSED VEGETATION

No stressed vegetation was noted during the site reconnaissance.

6.5.4 SOLID WASTE

No abnormal solid waste, including fill, was noted on the subject property during the reconnaissance.

6.5.5 WASTE WATER

No exterior wastewater, including storm water, discharged to the subject property or adjacent areas was noted during the reconnaissance.

6.5.6 WELLS

No groundwater, dry, irrigation, injection, abandoned, or other wells were noted during the site reconnaissance.

6.5.7 SEPTIC SYSTEMS

No septic system was noted during the reconnaissance. The area is served by the City of Buffalo municipal system.

6.5.8 ODORS

No abnormal exterior odors were noted during the site reconnaissance.

6.5.9 POOLS OF LIQUID

No exterior pools of liquid were noted during the site reconnaissance.

6.5.10 DRUMS

No drums were noted at the exterior of the subject property during the reconnaissance.

6.5.11 HAZARDOUS SUBSTANCE & PETROLEUM CONTAINERS

No hazardous substance or petroleum containers were noted at the exterior of the subject property during the reconnaissance.

6.5.12 UNIDENTIFIED SUBSTANCE CONTAINERS

No unidentified substance containers were noted at the exterior of the subject property during the reconnaissance.

6.5.13 SURFACE TOPOGRAPHY

The subject property is approximately 600 feet above mean sea level with a relatively flat topography. The local topography has a southerly slope toward Scajaquada Creek.

6.6 WASTE MANAGEMENT AND REGULATED MATERIALS

Solid waste (cardboard, paper, municipal waste) generated at the subject property is collected by a contracted waste hauler. Only municipal-type solid waste was observed at the time of the subject property visit. Sources of potential environmental impact were not observed on or about the trashcans at the time of inspection.

The subject property was not identified on the regulatory databases searched as a user or handler of hazardous materials or generator of hazardous wastes (see Section 7.1). KTR identified evidence of the usage and storage of hazardous materials or wastes at the subject property. Boiler treatment chemicals are stored in 55-gallon steel drums in the boiler room, and are fully utilized upon application to the gas boilers.

6.7 STORAGE TANKS

6.7.1 UNDERGROUND STORAGE TANKS (USTs)

According to available records from the Buffalo Fire Department, there are four (4) 550-gallon heating oil underground storage tanks (USTs) at the subject property that have been unaccounted for since 1952. There are no records of these USTs ever having been removed or closed in place. These USTs may have been previously utilized by Pierce Arrow Motor Car Company, a previous tenant at the subject property. Visual evidence (i.e., pipes, vents, pumps, stains, or accessways) indicating past or present USTs at the subject property was not apparent during the site reconnaissance. In addition, the regulatory records review as discussed further in Section 7.1 does not indicate evidence of past or present USTs at the subject property. KTR also did not identify any USTs at the subject property on the available Sanborn Fire Insurance Maps.

On July 20, 2006, GZA Environmental, Inc. (GZA) reviewed records of the Buffalo Fire Department to determine the locations of these USTs. GZA reviewed a July 1952 permit and site map for the installation of four (4) 550-gallon USTs for the storage of gasoline. The USTs were installed in front of the adjacent east (cross gradient) building located at 255 Great Arrow Road. GZA also reviewed a permit dated October 18, 1941 for the installation of four (4) 1,000-gallon gasoline USTs at 255 Great Arrow Road approximately 300 feet to the east (cross gradient) relative to the subject property.

Based on GZA's and KTR's review of the above-described information, there does not appear to be any evidence of these USTs being located on the subject property. Based on gradient, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

6.7.2 ABOVEGROUND STORAGE TANKS (ASTs)

One (1) 200-gallon single-walled steel AST with unknown contents was noted during the site reconnaissance in the rooftop elevator mechanical room. The AST vent and fill pipes were not observed to be located at the subject property. The AST has reportedly not been utilized in many years, and may have been a steam expansion tank for the former oil-fired heating system. No evidence of staining or leaking was observed in the area of the AST, and based on the AST's location, the potential for impact to the subject property appears to

be relatively low. **KTR recommends confirmation that the AST is not filled with petroleum. If it is, KTR recommends draining and properly disposing of the petroleum as well as proper closure or removal of the AST.**

KTR contacted the Buffalo Fire Department for information regarding ASTs at the subject property. No records were identified.

6.8 POLYCHLORINATED BIPHENYLS (PCBs)

Polychlorinated Biphenyls (PCBs) are known hazardous materials that are found in coolants or lubricating oils used in some electrical transformers, light ballasts, electrical panels or other similar equipment. PCB content in electrical transformers has been grouped into three (3) regulatory categories by the federal government. Parts per million is signified by ppm.

0 - 50 ppm	non-PCB unit
50 - 500 ppm	PCB contaminated unit
>500 ppm	PCB unit

Utility companies often own transformer equipment and typically assume the responsibility for repair or replacement of damaged or leaking units and for required cleanup or remediation activities. Indications of damage or leakage should be immediately reported to the responsible utility company.

Several railroad tracks were historically observed to the north and down gradient relative to the subject property since circa 1916. Historically, railroad tracks were treated with defoliants that potentially contained polychlorinated biphenyls (PCBs). However, since the railroad tracks do not abut the property and PCBs do not typically migrate through soil into groundwater, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

6.9 UTILITIES

ELECTRIC:	New York State Electric and Gas
GAS:	Constellation
POTABLE WATER:	American Water
SEWAGE SERVICE:	City of Buffalo

According to information obtained from American Water, the City of Buffalo obtains its potable water from Lake Erie.

6.10 ASBESTOS CONTAINING BUILDING MATERIALS (ACBMs)

This ESA includes general information pertaining to ACBMs. Materials that contain over 1% asbestos fibers are considered ACBMs and must be handled according to Occupational Health and Safety Administration (OSHA) and United States Environmental Protection Agency (EPA) regulations if disturbed.

Typical building materials that contain asbestos are found in a variety of types and uses including floor tile, sheet flooring, mastic, ceiling tile, spray-applied acoustical/decorative ceiling materials, plaster, wallboard and wallboard joint compound, insulation, roofing and flashing and many other materials in common use prior to 1978. On July 12, 1989, EPA issued a final rule banning most asbestos-containing products. In 1991, this

regulation was overturned by the Fifth Circuit Court of Appeals in New Orleans. As a result of the Court's decision, the following specific asbestos-containing products remain banned: flooring felt, rollboard, and corrugated, commercial, or specialty paper. In addition, the regulation continues to ban the use of asbestos in products that have not historically contained asbestos, otherwise referred to as "new uses" of asbestos. ACBMs may be present in debris piles containing discarded building construction materials. Asbestos fibers are also occasionally found in surficial soils in industrial or similar areas.

ACBMs identified as "friable" (capable of being crumbled, pulverized, or reduced to powder by hand pressure) have a greater potential for release of fibers to the atmosphere and are of greater concern than non-friable ACBMs. Friable ACBMs that are damaged require renovation or removal and are of the greatest immediate concern.

Sampling and analysis for ACBM is not within the scope of an ASTM Phase I investigation. However, as per our agreement dated June 9, 2006, this investigation included a limited visual screening without sampling of any readily observable suspect ACBM. Suspect ACBM was observed during the subject property reconnaissance as noted below in Table 7. **KTR recommends sampling and laboratory analysis of the suspect ACBMs identified below. KTR further recommends development of an Operations and Maintenance Plan for proper maintenance of the ACBM identified, and abatement of the ACBM identified to be in poor condition.**

TABLE 7 – SUSPECT ACBM SUMMARY TABLE

MATERIAL OBSERVED	LOCATION	CONDITION	ESTIMATED QUANTITY
Roofing material	Throughout building	Good; non-friable	35,000 square feet
Roof flashing	Main roof parapet	**Poor;** non-friable	500 square feet
Olive-green 9” x 9” vinyl floor tile and mastic	2nd floor common areas	Good; non-friable	25,000 square feet
2-inch corrugated pipe insulation	Piping along basement ceiling; common hallways	**Fair; friable**	700 square feet
2” corrugated pipe gaskets	Piping along basement ceiling; common hallways	**Poor; friable**	20 units
Boiler block insulation	Unused coal-fired boiler in basement	**Poor; friable**	500 square feet
Boiler breeching insulation	Gas-fired boiler in boiler room	Good; **friable**	30 square feet
Boiler wearing insulation	Gas-fired boiler in boiler room	Good; **friable**	350 square feet

Prior to any demolition or renovation activities, a more in-depth evaluation should be conducted. This would typically include a comprehensive asbestos survey with bulk sampling and laboratory analyses, an in depth review of building construction documents to include approved submittals, and information available from manufacturers of the various materials, or a combination of these.

6.11 LEAD-BASED PAINT (LBP)

This ESA includes general information pertaining to LBP. LBP is paint with a lead concentration greater than 5,000 parts per million (ppm) as defined by the EPA. LBP may be an environmental concern in residential properties based on the condition and maintenance of the paint and the presence or absence of LBP hazards. A LBP hazard is defined as damaged paint or paint covering a deteriorated subsurface that may create dust or chips that could potentially be ingested or inhaled. The federal government banned the use of LBP in 1978.

Sampling and analysis for LBP is not within the scope of an ASTM Phase I investigation. In addition, the scope of this assignment did not include a LBP screening because the subject property use is commercial and LBP is therefore not an area of concern.

6.12 RADON

This ESA includes general information pertaining to radon. Radon gas is a gas created from the radioactive decay of uranium. It exists in soil with a high concentration of uranium rocks or industrial waste. Radon gas may seep into and accumulate in dwellings through cracks in the foundation or walls or any other opening such as a floor drain.

The EPA has categorized radon levels into three (3) regulatory zones measured in pico-Curies per liter. The EPA action level for radon is 4.0 pico-Curies per liter.

Level 1	Greater than 4 pico-Curies per liter
Level 2	Between 2 and 4 pico-Curies per liter
Level 3	Less than 2 pico-Curies per liter

The EPA website indicates that the area has a radon zone level 1, which compares unfavorably with the EPA action level. Definitive information concerning radon gas in an individual building can only be obtained through long term testing. However, radon is not an area of concern for commercial properties. Sampling and analysis for radon is not within the scope of an ASTM Phase I investigation.

6.13 POTABLE WATER

This ESA includes general information pertaining to potable water. Drinking water for the subject property is supplied by the City of Buffalo through American Water, which obtains the water from Lake Erie. The water meets all EPA and local standards as stated in the Buffalo Water Authority 2004-2005 Annual Water Quality Report (http://www.ci.buffalo.ny.us/files/1_2_1/WaterQualityRep/WaterQualityReport2004-2005.pdf).

Sampling and analysis for lead in drinking water is not within the scope of an ASTM Phase I ESA investigation.

6.14 INDOOR AIR QUALITY (MOLD)

This ESA includes general information pertaining to mold, which is microscopic fungi that are ubiquitous in indoor and outdoor environments. An excess of 100,000 species exists. Mold may be of concern when a combination of conditions including moisture, nutrient sources and temperatures above 70 degrees Fahrenheit are present.

Sampling and analysis for mold are not within the scope of an ASTM Phase I ESA investigation. The client is cautioned that the site reconnaissance did not include a comprehensive inspection of the subject property for mold. Definitive statements regarding the existence of mold or mold conducive conditions cannot be made without a comprehensive inspection of the improvements, including areas above ceiling tiles, behind walls, within mechanical spaces and behind obstructions, such as furniture, display cases and/or equipment.

Implementation of “Water and Mold Response Plan” guidelines by Building Management as listed below may prevent mold. Water and Mold Response Plans involve the training of maintenance personnel, periodic

inspections, HVAC system maintenance and tenant housekeeping standards. In addition, a well formulated Water and Mold Response Plan will include:

1. Measures to prevent water intrusion into the structure.
2. The development of a preventive maintenance and inspection program with the objective of stopping water intrusion, and if mold is detected, with the objective of being able to respond and immediately mitigate the condition.
3. A plan that includes inspection of pipes for leaking plumbing systems, of foundations and exterior surfaces for cracking or material erosion, and inspections following major precipitation events, including ensuring that roof and ground drainage systems are clear and functioning during storm events.
4. A response plan to water conditions that is immediately implemented upon discovery of a water-intrusion event and includes the removal or drying of water-damaged materials.
5. The institution of a series of reinspections of any affected areas to ensure mold growth hasn't developed again.
6. A plan to immediately engage experts to assess the extent and type of mold condition and to hire qualified remediation experts when a condition is discovered.
7. Thorough record-keeping of all events, inspections and work orders associated with a mold event.

7.0 REGULATORY RECORDS REVIEW

7.1 FEDERAL AND STATE REGULATORY REVIEW

Federal and state regulatory records and databases were reviewed to identify use, generation, storage, treatment, disposal, or releases of hazardous materials or chemicals that may impact the subject property. Environmental Data Resources, Inc. (EDR) was contracted to provide the database, which is included in Appendix E (see Appendix E for publication dates of each database). The approximate minimum search distance for each regulatory database was plotted consistent with ASTM Standard E 1527-05, the AAI Standard.

The properties listed on the database were evaluated utilizing their down gradient to upgradient hydrologic locations in relation to the subject property in addition to other factors. As previously stated in Section 4.0, the direction of shallow groundwater flow is assumed to be toward the south.

In October 1995, the Lawrence Livermore National Laboratory presented "Recommendation to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks." Data compiled by Lawrence Livermore indicated that fuel groundwater contamination plumes seldom extended greater than 400 feet (0.075 mile) from the source in the worst cases. Therefore, KTR uses this data to further evaluate concern presented by off-site properties identified in the database. It should be noted that this data is specific to fuel releases. It should also be noted that the data was in some cases for very permeable soil types.

Table 8 summarizes these databases. The discussion that follows summarizes KTR's findings for all the listed sites on the databases reviewed. If a specific database is not discussed, no sites were identified on that list within the search radius.

TABLE 8 - FEDERAL AND STATE REGULATORY SUMMARY

DATABASE	SEARCH RADIUS (Mi)	SUBJECT PROPERTY	SUBJECT PROPERTY to 0.25 Mi.	0.25 to 0.50 Mi.	0.50 to 1 Mi.	TOTAL
NPL	1	0	0	0	0	0
DELISTED NPL	0.50	0	0	0	--	0
ROD	1	0	0	0	0	0
CONSENT	1	0	0	0	0	0
RCRIS-TSD	0.50	0	0	0	--	0
RCRIS-LQG	0.25	0	**3**	--	--	**3**
RCRIS-SQG	0.25	0	**21**	--	--	**21**
FINDS	SUBJECT PROPERTY	0	--	--	--	0
CORRACTS	1	0	0	0	0	0
CERCLIS	0.50	0	0	0	--	0
CERCLIS-NFRAP	0.50	0	0	0	--	0
INDIAN RESERV	1	0	0	0	0	0
BROWNFIELDS	0.50	0	0	0	--	0
SHWS	1	0	0	0	**1**	**1**
DEL SHWS	1	0	0	**1**	0	**1**
ERNS	SUBJECT PROPERTY	0	--	--	--	0
LF	0.50	0	**1**	0	--	**1**
LTANKS	0.50	0	**6**	**10**	--	**16**
HIST LTANKS	0.50	0	**5**	**8**	--	**13**
SPILLS	0.125	0	**6**	--	--	**6**
HIST SPILLS	0.125	0	**3**	--	--	**3**
UST	0.25	0	**5**	--	--	**5**
AST	0.25	0	**2**	--	--	**2**
VCP	0.50	0	0	0	--	0
MANIFEST	0.25	0	**22**	0	--	**22**
INST CONTROLS	0.50	0	0	0	--	0
ENG CONTROLS	0.50	0	0	0	--	0
Coal Gas	1	0	0	0	0	0

TABLE 8 - FEDERAL AND STATE REGULATORY SUMMARY						
DATABASE	SEARCH RADIUS (Mi)	SUBJECT PROPERTY	SUBJECT PROPERTY to 0.25 Mi.	0.25 to 0.50 Mi.	0.50 to 1 Mi.	TOTAL
TOTAL		0	**74**	**19**	**1**	**94**

NOTE: "--" means distance not searched (beyond scope of work)

The United States Environmental Protection Agency (EPA) National Priorities List (NPL) database was reviewed to identify facilities within an approximate 1-mile radius of the subject property that have been determined to represent a possible threat to public health or the environment. No facilities were noted within the search radius. **No further action is recommended at this time.**

The United States EPA database of delisted NPL sites (DELISTED NPL) was reviewed to identify facilities within an approximate 1-mile radius of the subject property that have been deleted from the NPL database. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. No facilities were noted within the search radius. **No further action is recommended at this time.**

The Records of Decision (ROD) database lists documented cleanup plans at an NPL facility. No facilities were noted within the search radius. **No further action is recommended at this time.**

Superfund Consent Decrees (CONSENT) lists major legal settlements that establish responsibility and standards for cleanup at NPL facilities. No facilities were noted within the search radius. **No further action is recommended at this time.**

The EPA Resource Conservation and Recovery Act (RCRA) database was reviewed to identify facilities which, treat, store, and dispose (RCRIS-TSD) of hazardous waste within an approximate 1 mile radius of the subject property. A facility's inclusion on this list does not necessarily indicate that hazardous conditions exist at that location. **No facilities were noted within the search radius, therefore, no further action is recommended at this time.**

There were three (3) RCRA large quantity generators (RCRIS-LQG) and twenty-one (21) RCRA small quantity generators (RCRIS-SQG) listed in the surrounding area. Several facilities were identified on adjacent parcels relative to the subject property, and are discussed below.

Buffalo Finishing is located on the adjacent north and upgradient parcel at 1711 Elmwood Avenue, and is listed in the environmental database report reviewed in Section 7.1 as a U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Small Quantity Generator of Regulated Hazardous Wastes (RCRIS-SQG). Four (4) violations were listed for this facility; however, compliance was achieved for these violations in 1996 and 2004. The facility is also listed in the New York State Department of Environmental Conservation (NYSDEC) Hazardous Materials Manifest (MANIFEST) database for the disposal of non-listed corrosive wastes.

Smith Metal Arts Company, Inc. is located at 1721 Elmwood Avenue on the adjacent north and upgradient parcel, and is listed as a RCRIS-SQG and a MANIFEST site, as well as a NYSDEC Leaking Storage Tank Incident Report (LTANKS) site and a Historical LTANKS (HIST LTANKS) site. No RCRA violations were reported for this facility, which is listed in the MANIFEST database for the disposal of unknown chlorinated solvents. According to the LTANKS and HIST LTANKS databases, on August 4, 1989, contaminated soil was discovered at this facility associated with an unknown tank. On August 17, 1989, the unknown tank was excavated and several tons of contaminated soils were removed. The tank was inspected in October 1989 and found to be free of petroleum and backfilled with inert concrete slurry. A letter of "No Further Action" for this LTANKS case was issued by the NYSDEC on March 13, 1990.

The "Great Arrow Industrial Park" is located at 255 Great Arrow Avenue on the adjacent east and cross gradient parcel. This facility is listed in the environmental database report as a RCRIS-SQG and MANIFEST facility. One (1) RCRA violation for a general oversight was reported for this facility; however, compliance was achieved in 1994.

Morgan Materials, Inc. and International Recycling Services, Inc. are also tenants of the Great Arrow Industrial Park at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel. Morgan Materials, Inc. is listed as a RCRIS-SQG and MANIFEST facility for the disposal of non-listed ignitable wastes. No RCRA violations were reported. International Recycling Services, Inc. is listed as a MANIFEST site; however, no manifest information was available. The warehouse was also listed in the NYSDEC Spills Information System (SPILLS) and Historical SPILLS (HIST SPILLS) databases. On October 31, 1992, the Buffalo Fire Department received a call about a rubbish/tire fire in the vicinity of the warehouse. The fire was contained and extinguished, and no releases to the subsurface were reported. The SPILLS case was closed on November 2, 1992.

Based on the above information, there exists a potential for impact to the subject property subsurface from 1711 Elmwood Avenue, which is currently occupied by Buffalo Finishing. Since the subject property building currently utilizes a public drinking water source, the potential for immediate impact to human health and safety appears to be relatively low. **During any future redevelopment or renovation of the subject property that disturbs the subsurface, KTR recommends conducting a subsurface investigation to characterize any excavated materials for potentially hazardous constituents.**

The Gioia Macaroni Company facility was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. The facility was formerly utilized as a manufacturing facility for wire wheels, engines, and boilers. Gioia Macaroni Company was identified in the environmental database report reviewed in Section 7.1 as a RCRIS-SQG, an LTANKS site, a HIST LTANKS site, a MANIFEST facility, and a NYSDEC Registered Underground Storage Tank (UST) site. According to the database, no RCRA violations were reported for this facility. The facility reportedly disposes of non-listed ignitable wastes. On July 24, 1995, an open UST with petroleum product was observed beneath the floor of this facility. Groundwater investigations were conducted since removal of the tank was not possible without compromising the structure of the building. The UST was abandoned in-place in September of 1995, and post-abandonment sampling did not detect any significant contamination above regulatory levels. A "No Further Action" letter was issued for this LTANKS/HIST LTANKS case on October 11, 1995. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

Of the remaining RCRA facilities, there was record of violations at nine (9) facilities on the database. Each violation was listed with a compliance date, therefore the EPA has approved the corrective action that was taken and impact to the subject property is not likely. **No further action is recommended at this time.**

The EPA Facility Index Database (FINDS) was reviewed to identify current and/or former tenants of the subject property that are listed in supplemental EPA databases. Such databases may include, but are not limited to air releases, hazardous waste generation, environmental violations, environmental remediation, pesticide production, or toxic substance reporting requirements. The subject property was not listed in this database. **No further action is recommended at this time.**

The Corrective Action Report (CORRACTS) identifies hazardous waste handlers with RCRA corrective action activity. No facilities were noted within the search radius. **No further action is recommended at this time.**

The EPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database of known, alleged, or potentially hazardous waste facilities was reviewed. A facility's presence on the CERCLIS list does not imply federal activity at that location, nor does it indicate that hazardous conditions necessarily exist. One (1) facility was listed: U.S. EPA Region 2 @ Buffalo Weaving Site located at 260 Chandler Street approximately 0.19 mile to the west and cross gradient relative to the subject property. According to the database, this facility was a former belt and weaving facility that was heavily damaged in a fire. The site contained several solvents, oils, and unknown chemicals. An emergency removal was conducted at this facility on April 9, 2004. The facility is also listed as a RCRIS-LQG with no violations, as well as a New York State Department of Environmental Conservation (NYSDEC) Hazardous Materials Manifest (MANIFEST) facility for the disposal of methyl ethyl ketone, a volatile solvent. The CERCLIS case remains open; however, based on gradient, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The EPA Comprehensive Environmental Response, Compensation and Liability Information System – No Further Remedial Action Planned (CERCLIS-NFRAP) database was reviewed. The CERCLIS-NFRAP database includes facilities where no further remedial action is planned because no contamination was detected, the contamination detected was remediated immediately or the contamination detected was below the level required for inclusion on the NPL database. One (1) facility was listed: Alcoa Buffalo Works located at 1880 Elmwood Avenue approximately 0.48 mile to the north and upgradient relative to the subject property. According to the database, the facility was discovered in February 1986, and after a preliminary assessment and site inspection, the site was archived in February 1987 since the EPA deemed no further action was required. The facility is not listed in any other federal or state environmental remediation database; therefore, based on site status, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The EPA Database of Native American Reserve Sites (INDIAN RESERV) was searched to identify sensitive Native American administered lands that have any area greater than or equal to 640 acres within a 1-mile radius of the subject property. No facilities were noted within the search radius. **No further action is recommended at this time.**

The EPA Brownfields (US BROWNFIELDS) database was reviewed to identify facilities that qualify for federal remediation funding under the Small Business Liability Relief and Brownfields Revitalization Act (the

"Brownfields" amendment to CERCLA). No facilities were noted within the search radius. **No further action is recommended at this time.**

The New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal facilities (SHWS) database was reviewed. This database is the state equivalent to CERCLIS, which is described in the paragraph above. One (1) facility was listed: American Brass located at 446 Military Road approximately 0.775 mile to the northwest and cross gradient relative to the subject property. According to the database, the facility was a copper and copper alloy processing facility since 1907, and numerous hazardous wastes including several thousand tons of slag and waste coal were disposed off-site. Elevated concentrations of PCBs, arsenic, cadmium, and lead were detected in soil, which was subsequently excavated and removed. The NYSDEC has declared that this site no longer poses a significant threat to human health or the environment; remediation work is due to be completed in 2005. Based on distance, gradient, and site status, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The NYSDEC Deleted Inactive Hazardous Waste Disposal facilities (DEL SHWS) database was reviewed. This database is the state equivalent to CERCLIS, which is described in the paragraph above, and includes facilities that have been deleted from the SHWS database due to completed remediation and case closure. One (1) facility was listed: Marcon Erectors located approximately 0.48 mile to the north and upgradient relative to the subject property. According to the database, this facility formerly manufactured windows, and utilized several aboveground storage tanks for the storage of heating oil. Significantly high concentrations of volatile organic compounds (VOCs) and PCBs were detected in sludge within the tanks, which had impacted the underlying concrete. Improper sludge removal operations in 1997 resulted in actions against the facility owner due to the lack of soil or groundwater data. The site was reportedly deleted from the SHWS database in 2000, and since the contaminants of concern were heating oils, the contaminants of concern, especially PCBs, are not expected to migrate onto the subject property due to the significant distance. Therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The EPA Emergency Response Notification System (ERNS) list includes spills from either CERCLA or the Superfund Amendments and Reauthorization Act (SARA) type chemicals or toxic substance spills covered by the Clean Water Act (CWA). It should be noted that the ERNS database is generally not well maintained by the EPA. Incomplete or misleading addresses or missing zip codes often make identification of the spill location difficult. Therefore only spills that can be accurately located within the search radius are researched. Database files for the Emergency Response Notification System (ERNS) were reviewed to identify spills at the subject property. The subject property was not listed in this database. **No further action is recommended at this time.**

Database files from the NYSDEC were reviewed regarding state solid waste facilities/landfill facilities (LF). One (1) facility was listed: Ben Singer & Sons Transfer Station located at 1732 Elmwood Avenue approximately 444 feet to the north and upgradient relative to the subject property. According to the database, this facility is an inactive transfer station for regulated municipal solid waste. The facility is not listed in any federal or state environmental remediation database; therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The database list of registered Leaking Storage Tank Incident Reports (LTANKS) maintained by the NYSDEC was reviewed to identify facilities within an approximate 0.50-mile radius of the subject property. Sixteen (16) facilities were listed. Three (3) facilities were identified within 400 feet of the subject property, and are discussed below.

Smith Metal Arts Company, Inc. is located at 1721 Elmwood Avenue on the adjacent north and upgradient parcel. See the RCRIS paragraph for further details.

Gioia Pasta was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. See the RCRIS paragraph for further details.

"FWS Warehouse" is located at 1740 Elmwood Avenue on the adjacent south and down gradient parcel relative to the subject property, and is listed in the LTANKS database. According to the database, a 4,000-gallon diesel fuel UST and a 2,000-gallon heating oil UST were removed from this facility on July 13, 2005. Soil contamination was identified, and contaminated soil was excavated and removed off-site. Analysis of post-excavation soil samples did not detect any contaminants above regulatory levels, and a "No Further Action" letter was issued for this LTANKS case on August 24, 2005. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The remaining fourteen (14) LTANKS facilities are located greater than 400 feet from the subject property, and are all closed. Therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The database list of Historical LTANKS (HIST LTANKS) maintained by the NYSDEC was reviewed to identify facilities within an approximate 0.50-mile radius of the subject property. Thirteen (13) were noted within the search radius. Two (2) are located within 400 feet of the subject property. Gioia Pasta was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. See the RCRIS paragraph for further details. Smith Metal Arts Company, Inc. is located at 1721 Elmwood Avenue on the adjacent north and upgradient parcel. See the RCRIS paragraph for further details.

The remaining eleven (11) HIST LTANKS facilities are located greater than 400 feet from the subject property, and are all closed. Therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

Six (6) facilities were listed in the Spills Information System (SPILLS) database. Three (3) facilities are located within 400 feet of the subject property and are discussed below.

A firehouse has been historically located on the adjacent south and down gradient parcel since circa 1900. According to the database, on November 17, 1999, subsurface soil contamination was discovered near a 550-gallon heating oil UST. The UST as well as 43.55 tons of contaminated soil were removed and disposed off-site. Post-excavation soil sample analysis did not detect any contamination above regulatory levels. The case was closed on February 7, 2000; therefore, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

A warehouse was identified on the corner of Great Arrow and Elmwood Streets on the adjacent east and cross gradient parcel relative to the subject property. See the RCRIS paragraph for further details.

National Fuel Gas was identified at the corner of Grote Street and Elmwood Avenue approximately 294 feet to the south-southeast and down gradient relative to the subject property. According to the database, on May 26, 1989, fifteen (15) gallons of waste oil were released around a machine due to human error. Cleanup was conducted, and the case was closed on September 20, 1989.

The remaining three (3) SPILLS sites are located greater than 400 feet from the subject property at cross and down gradient locations. All of the listed SPILLS cases are closed; therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

Three (3) facilities were listed in the Historical SPILLS (HIST SPILLS) database. All three (3) facilities were identified within 400 feet of the subject property, and are duplicate listings from the above-discussed SPILLS paragraph. **No further action is recommended at this time.**

Five (5) facilities were listed in the Registered Underground Storage Tanks (UST) database. One (1) is located within 400 feet of the subject property: Gioia Pasta located on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. See the RCRIS paragraph for further details. The remaining four (4) UST facilities are located greater than 400 feet from the subject property and are registered petroleum bulk storage (PBS) facilities. Therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

Two (2) facilities were listed in the Registered Aboveground Storage Tanks (AST) database. However, the AST facilities are located greater than 400 feet from the subject property and are registered petroleum bulk storage (PBS) facilities. Therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The Voluntary Cleanup Program (VCP) database maintained by the NYSDEC contains properties located within 0.50 mile of the subject property whose responsible parties have elected voluntarily to use private funds for remediation of contaminated sites. The program covers virtually any type of facility or contamination. No facilities were noted within the search radius. **No further action is recommended at this time.**

The NYSDEC Hazardous Materials Manifest Database (MANIFEST) was reviewed to identify facilities that track their generation, transport, storage, and disposal of regulated hazardous wastes in a “cradle-to-grave” manifest system. Twenty-two (22) facilities were identified. Six (6) facilities were identified on adjacent properties:

- Smith Metal Arts Company, Inc. located at 1721 Elmwood Avenue on the adjacent north and upgradient parcel;
- Gioia Pasta located at 1700 Elmwood Avenue on the adjacent west and cross gradient parcel;
- “Great Arrow Industrial Park” located at 255 Great Arrow Avenue on the adjacent east and cross gradient parcel;
- Morgan Materials, Inc. and International Recycling Services, Inc. located at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel;

- International Recycling Services, Inc. located at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel; and
- Buffalo Finishing located at 1711 Elmwood Avenue on the adjacent north and upgradient parcel.

See the RCRIS paragraph for further details regarding these facilities.

Of the remaining sixteen (16) MANIFEST facilities, three (3) are located upgradient relative to the subject property. One (1) facility has no reported RCRIS violations; one (1) facility has a reported RCRIS violation that has achieved compliance, and one (1) has a closed NYSDEC LTANKS case. The remaining MANIFEST facilities are located cross and down gradient relative to the subject property; therefore, the potential for impact to the subject property appears to be relatively low. **No further action is recommended at this time.**

The NYSDEC database of Engineering Control sites (ENG CONTROLS) was reviewed to identify sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. No facilities were noted within the search radius. **No further action is recommended at this time.**

The NYSDEC database of Institutional Control sites (INST CONTROLS) was reviewed to identify sites where engineering and/or institutional controls remain in place as part of a remedial action to address soil and/or groundwater contamination. These restrictions ensure protection of human health and the environment as long as they are maintained. No facilities were noted within the search radius. **No further action is recommended at this time.**

The EDR Proprietary Manufactured Gas Plant (Coal Gas) Database was created and is maintained by Real Property Scan, Inc., and includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and creates a potential for subsurface contamination. No facilities were noted within the search radius. **No further action is recommended at this time.**

Forty-five (45) orphan facilities (facilities within the search radius that could not be located due to incomplete address) were listed on the environmental database. No orphan facilities were mapped as located within the search area. **No further action is recommended at this time.**

Based on investigation of the facilities listed in the various environmental databases described above, there is potential for environmental impact to the subject property. See the RCRIS paragraph above for details.

7.2 LOCAL REGULATORY REVIEW

Publicly available and practically reviewable information available within a reasonable time period of twenty (20) days or less and at a nominal cost for retrieval and duplication of the information was obtained from local agencies via one of the following request methods: written correspondence, review of published or online

data, telephone conversations or in person. Copies of the local regulatory records obtained and records of correspondence are included in Appendix F.

KTR contacted the Buffalo Fire Department for information on USTs, ASTs, industrial waste and potential environmental and public health hazards at the subject property. This is the lead agency for the installation and removal of petroleum bulk storage tanks for the City of Buffalo. According to available records from the Buffalo Fire Department, there are four (4) 550-gallon heating oil underground storage tanks (USTs) at the subject property that have been unaccounted for since 1952. There are no records of these USTs ever having been removed or closed in place. These USTs may have been previously utilized by Pierce Arrow Motor Car Company, a previous tenant at the subject property. Visual evidence (i.e., pipes, vents, pumps, stains, or accessways) indicating past or present USTs at the subject property was not apparent during the site reconnaissance. In addition, the regulatory records review as discussed further in Section 7.1 does not indicate evidence of past or present USTs at the subject property. KTR also did not identify any USTs at the subject property on the available Sanborn Fire Insurance Maps.

On July 20, 2006, GZA Environmental, Inc. (GZA) reviewed records of the Buffalo Fire Department to determine the locations of these USTs. GZA reviewed a July 1952 permit and site map for the installation of four (4) 550-gallon USTs for the storage of gasoline. The USTs were installed in front of the adjacent east (cross gradient) building located at 255 Great Arrow Road. GZA also reviewed a permit dated October 18, 1941 for the installation of four (4) 1,000-gallon gasoline USTs at 255 Great Arrow Road approximately 300 feet to the east (cross gradient) relative to the subject property.

Based on GZA's and KTR's review of the above-described information, there does not appear to be any evidence of these USTs being located on the subject property. Based on gradient, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

KTR contacted the Buffalo Building Department for known or potential environmental and public health hazards regarding the subject property. No records were identified for the subject property.

KTR contacted the NYSDEC for known or potential environmental and public health hazards regarding the subject property. No records were identified for the subject property.

KTR contacted the Buffalo Health Department for known or potential environmental and public health hazards regarding the subject property. No records were identified for the subject property.

8.0 FINDINGS AND CONCLUSIONS

Pursuant to our agreement dated June 9, 2006, and conforming to the scope and limitations of ASTM Standard E 1527-05, KTR Newmark Consultants LLC ("KTR") has conducted a Phase I Environmental Site Assessment of the Pierce Arrow Office Building, located at 1685 Elmwood Avenue in Erie County, Buffalo, New York. The scope of service included a visual reconnaissance of the subject property, interviews with relevant personnel, limited observations of surrounding properties, and a records review including regulatory databases and historical use information. In addition, a limited visual screening for asbestos containing building material (ACBM) was conducted. Any exception to, or deletions from, this practice are described in Sections 2.0-2.4 of this report.

This assessment has revealed the following recognized environmental conditions (RECs) in connection with the property with respect to ASTM Standard E 1527-05:

- According to available records from the Buffalo Fire Department, there are four (4) 550-gallon heating oil underground storage tanks (USTs) at the subject property that have been unaccounted for since 1952. There are no records of these USTs ever having been removed or closed in place. These USTs may have been previously utilized by Pierce Arrow Motor Car Company, a previous tenant at the subject property. Visual evidence (i.e., pipes, vents, pumps, stains, or accessways) indicating past or present USTs at the subject property was not apparent during the site reconnaissance. In addition, the regulatory records review as discussed further in Section 7.1 does not indicate evidence of past or present USTs at the subject property. KTR also did not identify any USTs at the subject property on the available Sanborn Fire Insurance Maps.

  On July 20, 2006, GZA Environmental, Inc. (GZA) reviewed records of the Buffalo Fire Department to determine the locations of these USTs. GZA reviewed a July 1952 permit and site map for the installation of four (4) 550-gallon USTs for the storage of gasoline. The USTs were installed in front of the adjacent east (cross gradient) building located at 255 Great Arrow Road. GZA also reviewed a permit dated October 18, 1941 for the installation of four (4) 1,000-gallon gasoline USTs at 255 Great Arrow Road approximately 300 feet to the east (cross gradient) relative to the subject property.

  Based on GZA's and KTR's review of the above-described information, there does not appear to be any evidence of these USTs being located on the subject property. Based on gradient, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

- The review of fire insurance maps indicated that several manufacturing buildings were present on the adjacent north and east properties relative to the subject property. Such buildings included a chemical laboratory located at 1711 Elmwood Avenue on the adjacent north and upgradient parcel and a garage, brazing facility, and heat-treating facility along a set of railroad tracks located to the north relative to the subject property. Buildings to the east included the main manufacturing plant for the former Pierce Arrow Motor Car Company and two (2) auto body construction plants.

The chemical laboratory is currently occupied by "Buffalo Finishing," and is listed in the environmental database report reviewed in Section 7.1 as a U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Small Quantity Generator of Regulated Hazardous Wastes (RCRIS-SQG). Four (4) violations were listed for this facility; however, compliance was achieved for these violations in 1996 and 2004. The facility is also listed in the New York State Department of Environmental Conservation (NYSDEC) Hazardous Materials Manifest (MANIFEST) database for the disposal of non-listed corrosive wastes.

The former garage, brazing, and heat treatment buildings at 1721 Elmwood Avenue are currently occupied by the Smith Metal Arts Company, Inc., which is listed as a RCRIS-SQG and a MANIFEST site, as well as a NYSDEC Leaking Storage Tank Incident Report (LTANKS) site and a Historical LTANKS (HIST LTANKS) site. No RCRA violations were reported for this facility, which is listed in the MANIFEST database for the disposal of unknown chlorinated solvents. According to the LTANKS and HIST LTANKS databases, on August 4, 1989, contaminated soil was discovered at this facility associated with an unknown tank. On August 17, 1989, the unknown tank was excavated and several tons of contaminated soils were removed. The tank was inspected in October 1989 and found to be free of petroleum and backfilled with an inert concrete slurry. A letter of "No Further Action" for this LTANKS case was issued by the NYSDEC on March 13, 1990.

The American Radiator Company plant has historically been located at 1723 to 1799 Elmwood Avenue approximately 150 feet to the north and upgradient relative to the subject property since circa 1900. None of these addresses are listed in any federal or state environmental remediation database.

The adjacent former auto body construction buildings and main manufacturing buildings were subdivided into the "Great Arrow Industrial Park" at 255 Great Arrow Avenue on the adjacent east and cross gradient parcel. This facility is listed in the environmental database report as a RCRIS-SQG and MANIFEST facility. One (1) RCRA violation for a general oversight was reported for this facility; however, compliance was achieved in 1994. Morgan Materials, Inc. and International Recycling Services, Inc. are also tenants of the Great Arrow Industrial Park at 261 Great Arrow Avenue on the adjacent east and cross gradient parcel. Morgan Materials, Inc. is listed as a RCRIS-SQG and MANIFEST facility for the disposal of non-listed ignitable wastes. No RCRA violations were reported. International Recycling Services, Inc. is listed as a MANIFEST site; however, no manifest information was available. The warehouse was also listed in the NYSDEC Spills Information System (SPILLS) and Historical SPILLS (HIST SPILLS) databases. On October 31, 1992, the Buffalo Fire Department received a call about a rubbish/tire fire in the vicinity of the warehouse. The fire was contained and extinguished, and no releases to the subsurface were reported. The SPILLS case was closed on November 2, 1992.

Based on the above information, there is a potential for impact to the subject property subsurface from the former adjacent uses as they were in operation prior to environmental regulation until present. Since the subject property building currently utilizes a public drinking water source, the potential for immediate impact to human health and safety appears to be relatively low. **During any future redevelopment or renovation of the subject property that disturbs the subsurface, KTR recommends conducting a subsurface investigation to characterize any excavated materials for potentially hazardous constituents.**

- Several railroad tracks were historically observed to the north and down gradient relative to the subject property since circa 1916. Historically, railroad tracks were treated with defoliants that potentially contained polychlorinated biphenyls (PCBs). However, since the railroad tracks do not abut the property and PCBs do not typically migrate through soil into groundwater, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The assessment has revealed the following environmental concerns in connection with the property:

- One (1) 200-gallon single-walled steel AST with unknown contents was noted during the site reconnaissance in the rooftop elevator mechanical room. The AST vent and fill pipes were not observed to be located at the subject property. The AST has reportedly not been utilized in many years, and may have been a steam expansion tank for the former oil-fired heating system. No evidence of staining or leaking was observed in the area of the AST, and based on the AST's location, the potential for impact to the subject property appears to be relatively low. **KTR recommends confirmation that the AST is not filled with petroleum. If it is, KTR recommends draining and properly disposing of the petroleum as well as proper closure or removal of the AST.**

- Two (2) 55-gallon steel drums utilized for the storage of boiler treatment chemical were noted during the site reconnaissance on reinforced concrete flooring in the boiler room of the subject property. No spill retention such as secondary containment was observed in connection with the drums. No staining or leaking was observed in the drum storage area. **As a precaution, all drums should be provided with secondary containment.**

- The review of historical street directories indicated past activities of environmental concern. Several current and former tenants of the subject property include photodevelopers, a graphics printing company, a chemical laboratory, and metal fabricating business. None of these businesses are listed in any federal or state environmental database indicative of a release or violation; therefore, the potential for impact to the subject property subsurface appears to be relatively low. **KTR does not recommend any further action at this time.**

- A large industrial facility was identified approximately 800 feet to the northwest and cross gradient relative to the subject property. This facility was identified in the environmental database report reviewed in Section 7.1 as the Alexander & Fiden Machinery Company, Inc. at 1770 Elmwood Avenue. This facility was identified as a RCRIS-SQG with one (1) violation for which compliance was achieved in 1992, and a MANIFEST site for the disposal of lead-containing wastes. Based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

- The Structural Steel Co. and People's Gas Light & Coke Co. were observed approximately 800 feet to the east and northeast and cross gradient relative to the subject property circa 1900 according to available Sanborn Fire Insurance Maps. Neither of these facilities are listed in any federal or state environmental database, and based on gradient, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The assessment has revealed the following historical recognized environmental conditions (HRECs) in connection with the property with respect to ASTM Standard E 1527-05:

- A firehouse has been historically located on the adjacent south and down gradient parcel since circa 1900. This facility was identified in the environmental database report reviewed in Section 7.1 as a SPILLS site. According to the database, on November 17, 1999, subsurface soil contamination was discovered near a 550-gallon heating oil UST. The UST as well as 43.55 tons of contaminated soil were removed and disposed off-site. Post-excavation soil sample analysis did not detect any contamination above regulatory

levels. The case was closed on February 7, 2000; therefore, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

- The Gioia Macaroni Company facility was identified on the adjacent west and cross gradient parcel relative to the subject property at 1700 Elmwood Avenue. The facility was formerly utilized as a manufacturing facility for wire wheels, engines, and boilers. Gioia Macaroni Company was identified in the environmental database report reviewed in Section 7.1 as a RCRIS-SQG, an LTANKS site, a HIST LTANKS site, a MANIFEST facility, and a NYSDEC Registered Underground Storage Tank (UST) site. According to the database, no RCRA violations were reported for this facility. The facility reportedly disposes of non-listed ignitable wastes. On July 24, 1995, an open UST with petroleum product was observed beneath the floor of this facility. Groundwater investigations were conducted since removal of the tank was not possible without compromising the structure of the building. The UST was abandoned in-place in September of 1995, and post-abandonment sampling did not detect any significant contamination above regulatory levels. A "No Further Action" letter was issued for this LTANKS/HIST LTANKS case on October 11, 1995. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

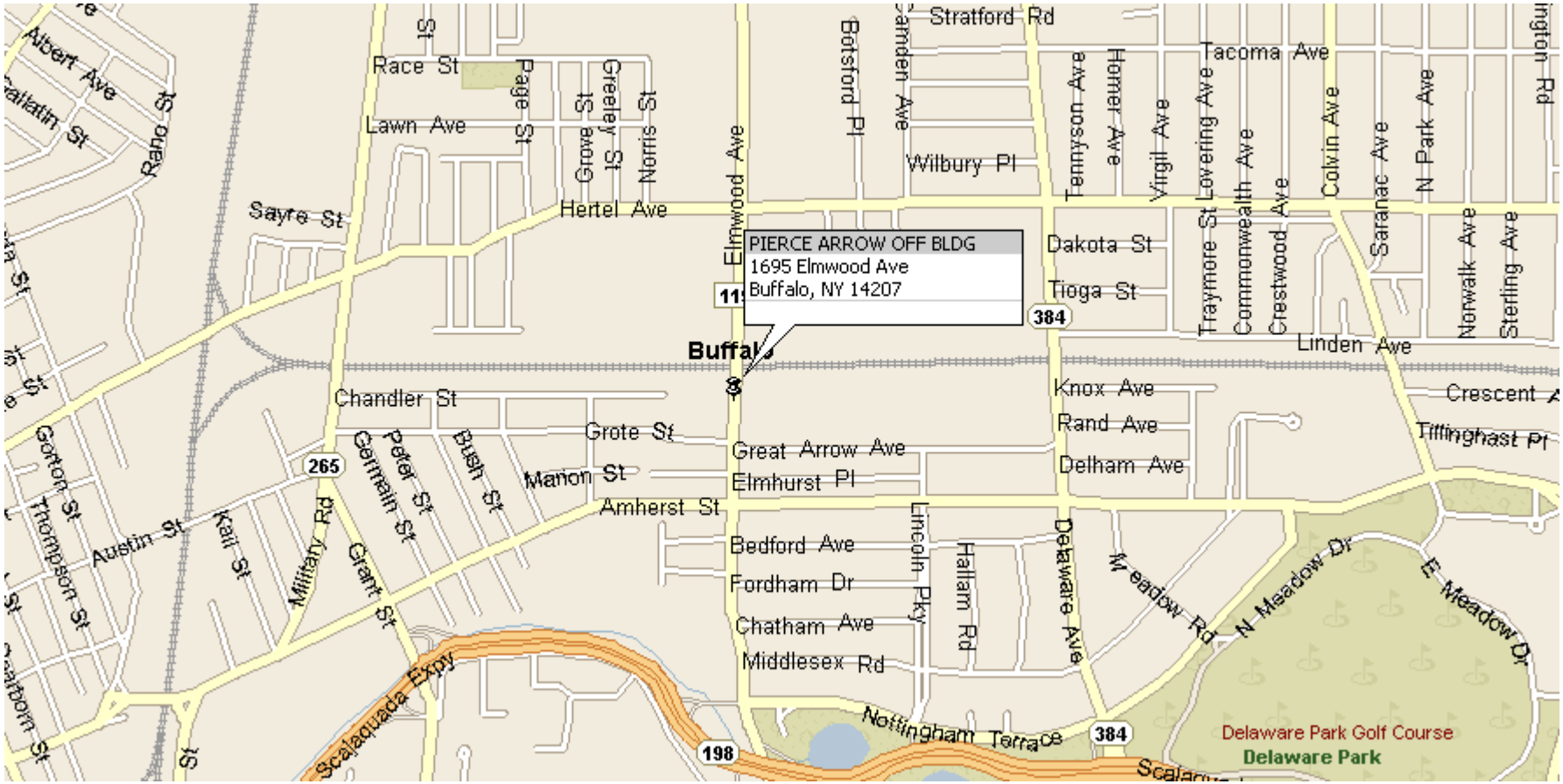
- "FWS Warehouse" is located at 1740 Elmwood Avenue on the adjacent south and down gradient parcel relative to the subject property, and is listed in the LTANKS database. According to the database, a 4,000-gallon diesel fuel UST and a 2,000-gallon heating oil UST were removed from this facility on July 13, 2005. Soil contamination was identified, and contaminated soil was excavated and removed off-site. Analysis of post-excavation soil samples did not detect any contaminants above regulatory levels, and a "No Further Action" letter was issued for this LTANKS case on August 24, 2005. Based on the above-listed information, the potential for impact to the subject property appears to be relatively low. **KTR does not recommend any further action at this time.**

The following non-ASTM environmental concerns were identified during the investigation:

- Suspect ACBM was observed during the subject property reconnaissance as noted in Table 7, Section 6.10. Some of the suspect ACBM identified was observed to be in poor condition and as being friable material. **KTR recommends sampling and laboratory analysis of the suspect ACBMs identified below. KTR further recommends development of an Operations and Maintenance Plan for proper maintenance of the ACBM identified, and abatement of the ACBM identified to be in poor condition.**
-

KTR recommends that the user of this Phase I report comply with the user responsibilities prescribed by ASTM E 1527-05 as listed in Section 2.6 of this report.

APPENDIX A – MAPS & FIGURES

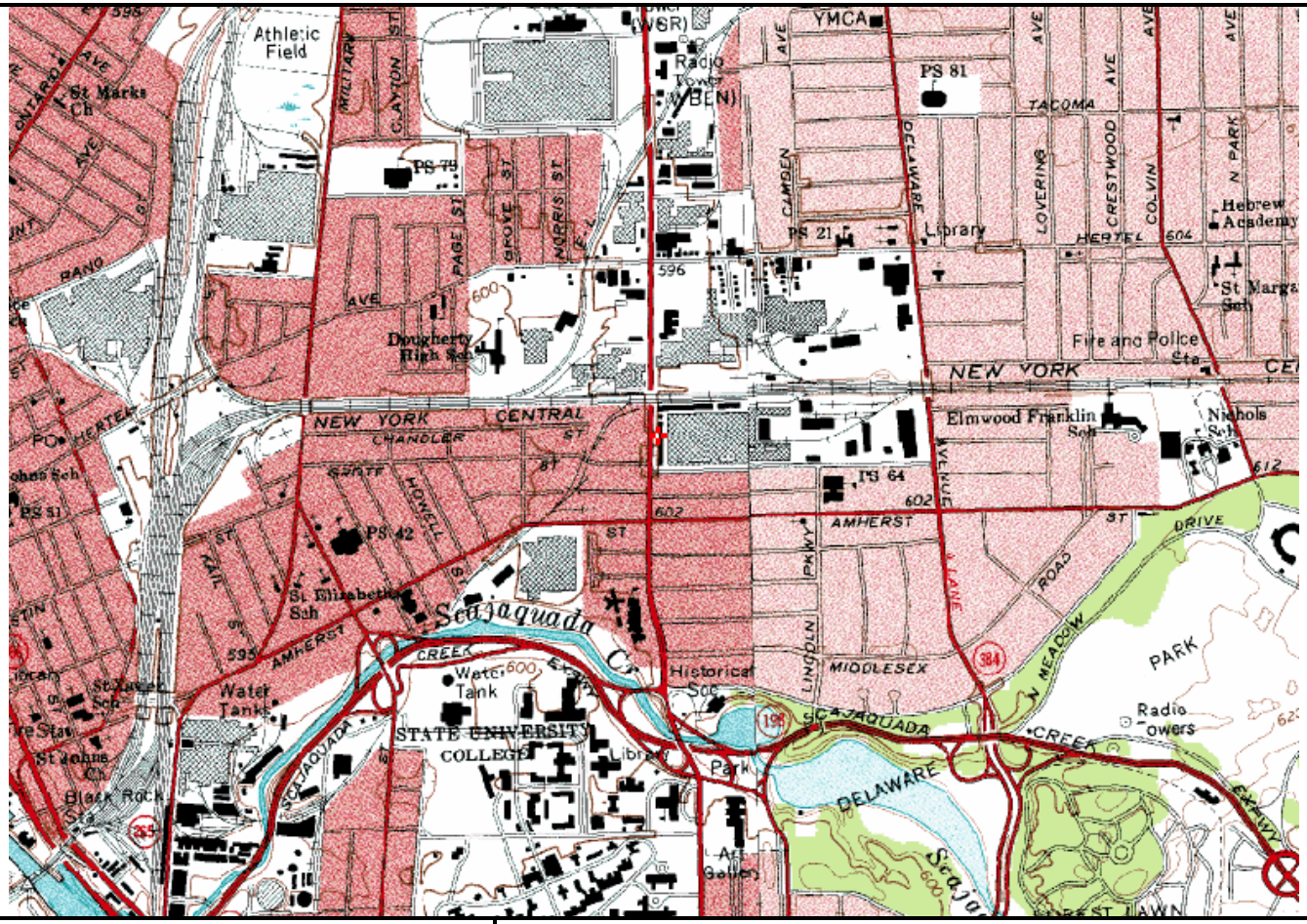


KTR NEWMARK

SITE LOCATION MAP

Compiled By: AJG	Date: July 2006
Reviewed By: PSA	Drawn By: Microsoft Streets
KTR Project No. 06-1-1-114	

PIERCE ARROW OFFICE BUILDING
1685 ELMWOOD AVENUE
BUFFALO, NEW YORK 14207



KTR NEWMARK

TOPOGRAPHIC MAP

Compiled By: AJG	Date: July 2006
Reviewed By: PSA	Drawn By: www.Topozone.com
KTR Project No. 06-1-1-114	

PIERCE ARROW OFFICE BUILDING
1685 ELMWOOD AVENUE
BUFFALO, NEW YORK 14207

APPENDIX B – PHOTOGRAPHS

APPENDIX C - HISTORICAL DOCUMENTS

APPENDIX D - INTERVIEW QUESTIONNAIRE

APPENDIX E – FEDERAL AND STATE REGULATORY REVIEW DATABASE

APPENDIX F - LOCAL REGULATORY INFORMATION

APPENDIX G - REFERENCES

APPENDIX G

1. United States Geological Survey
   Buffalo, New York/Canada Quadrangle
   7.5-minute series (topographic)
   Last Revised 1965

2. United States Geological Survey
   Earth Science Information Center
   Reston, VA 22092

3. Environmental Data Resources
   440 Wheelers Farms Road
   Milford, CT 06460
   800-352-0050

4. Mr. John McKowan
   Pierce Arrow Holding
   1685 Elmwood Avenue
   Buffalo, NY 14207
   (718) 972-0223

APPENDIX H - STATEMENT OF QUALIFICATIONS

ANTHONY J. GALASSO
PROJECT MANAGER

ANTHONY J. GALASSO is a Project Manager at the New York office of KTR Newmark Consultants, LLC. His responsibilities include conducting all manner of Phase I due diligence site reconnaissance, as well as report writing, and managing all relevant site information. He has performed Phase I Environmental Site Assessments, Transaction Screens, FCC National Environmental Policy Act (NEPA) surveys for various telecommunications facilities, and numerous Phase II Site and Remedial Investigations throughout the continental United States. Mr. Galasso has inspected all types of real estate throughout the country, including low- and high-rise office and apartment buildings, residences, condominiums and cooperative conversions, hotels, historical structures and landmark buildings, retail commercial buildings, shopping centers, industrial facilities, farmland, and undeveloped properties. Mr. Galasso also has experience in the design, implementation, and maintenance of onsite remediation systems for both active and passive soil and groundwater remediation.

Mr. Galasso is an accredited Asbestos Inspector and Management Planner in New York, New Jersey, and Pennsylvania, and is trained to identify any suspect asbestos containing building material (ACBM), sample those materials for quantitative laboratory analysis, and prepare asbestos management plans, including operations and maintenance (O&M) plans so that clients may properly and safely manage ACBM in their buildings. He has also successfully completed a course in the Regulated Training of Underground Storage Tanks in New Jersey and is an Occupational Safety and Health Administration (OSHA) 40-hour certified Hazardous Materials Site Investigator.

Mr. Galasso holds a Bachelor of Science in Environmental Studies from the Richard Stockton College of New Jersey, and a Masters of Science in Environmental Science with a Pollution Prevention & Remediation concentration from Rutgers University. He has been a member of ASTM International for the past 6 years, and has consulted on the development of new ASTM standards for pollution prevention.

PATRICE SAINT-AMAND
VICE PRESIDENT

PATRICE SAINT-AMAND is a Vice President at the New York offices of KTR Newmark Consultants LLC. She has 8 years of experience as a real estate professional with a primary focus on environmental issues. Her responsibilities include review of all types of environmental projects including Phase I Environmental Site Assessments, Phase II Environmental Site Assessments, File Reviews, Third Party Reviews, and asbestos containing building material (ACBM) and lead based paint (LBP) Operations and Maintenance (O&M) Plans. Ms. Saint-Amand is also responsible for maintaining client relationships and product quality as well as staff supervision. She has performed Phase I Environmental Site Assessments and Property Condition Assessments on all types of real estate throughout the United States and Puerto Rico including office buildings, multi-family residential buildings, hotels, strip centers, shopping centers, big box retail, power centers, warehouses and industrial properties. Ms. Saint-Amand also has experience in real estate underwriting.

Ms. Saint-Amand has certification from the American Society for Testing of Materials (ASTM) to conduct Phase I Environmental Site Assessments in accordance with ASTM standard E-1527-00, the industry standard. She also has experience in conducting Federal Home Loan Mortgage and Fannie Mae environmental inspections compliant with their guidelines. Ms. Saint-Amand is certified by the State of New York State as an Asbestos Inspector and as a Lead Inspector. She is trained to identify all types of suspect ACBMs or suspect LBP and sample those materials for laboratory analysis. Ms. Saint-Amand also successfully completed a course in the Fundamentals of Building Systems at the New York University School of Continuing Education.

Ms. Saint-Amand holds a Bachelor of Science both in Chemical Engineering and Environmental Science from the University of Rochester. She is a member of ASTM, the American Institute of Chemical Engineers, the African American Real Estate Professionals of New York, and the Real Estate Board of New York.

AEI Consultants
Environmental & Engineering Services

September 22, 2011

PHASE II
SUBSURFACE INVESTIGATION

Property Identification:
Pierce Arrow
1695 Elmwood Avenue
Buffalo, New York 14207

AEI Project No. 299363

Prepared for:
Pierce Arrow Holding LLC
948 45th Street
Brooklyn, New York 11219

Prepared by:
AEI Consultants
30 Montgomery Street, Suite 1450
Jersey City, New Jersey 07302
(201) 332-1844

AEI Consultants
Environmental & Engineering Services
30 Montgomery St., Suite 1450 Jersey City, NJ 07302
Tel: 201.332.1844 Fax: 201.332.1880

Wednesday, September 22, 2011

Mr. Joseph Hecht
Pierce Arrow Holding LLC
948 45th Street
Brooklyn, New York 11219

Subject: Phase II Subsurface Investigation Report
1695 Elmwood Avenue
Buffalo, New York 14207
AEI Project Number 299363

Dear Mr. Hecht:

The following report describes the activities and results of the Phase II Subsurface Investigation (Phase II) performed by AEI Consultants (AEI) at the above referenced property (subject property) (Figure 1: Site Location Map).

Based on the findings and recommendations of a previous Phase I Environmental Site Assessment (Phase I) conducted by AEI in July of 2011 (further discussed below), this investigation was performed to determine if the subsurface in the vicinity of the subject property may have been impacted by the following items of concern identified in the previous Phase I:

- Historical industrial activities.
- Operation of an electric transformer reported to be the original transformer installed at the subject property.
- Staining observed in the vicinity of a drain in the pit beneath the elevator in the subject property building.

This investigation included the installation of nine (9) borings to collect soil samples. The borings were advanced to a depth of 12 feet below ground surface (bgs). Groundwater was not encountered. The work was performed on August 16, 2011 in accordance with the scope of work outlined in a proposal dated August 2, 2011.

Please refer to Figure 2: Boring Location Map for a representation of boring locations.

I Site Description

The subject property is a 1.53-acre parcel located on the northeast corner of Elmwood Avenue and Great Arrow Avenue in the City of Buffalo, Erie County, New York. The subject property is improved with a three-story building with a basement.

II Previous Investigations

Phase I Environmental Site Assessment, prepared by AEI (July 2011):

AEI completed a Phase I for the subject property (AEI Project No. 297882) on July 8, 2011. During the completion of the Phase I the following recognized environmental conditions (RECs) that warranted further investigation were identified:

- Areas of the subject property have been occupied by a series of tenants that likely utilized the spaces for industrial purposes since at least 1938. These tenants include a tool and die manufacturer, cleaning compound manufacturers, chemical laboratories, machine shop, dry cleaning facilities and numerous other light industrial tenants. No other information was available regarding the historical operations of these facilities. These tenants likely stored and/or utilized petroleum products and other hazardous materials including hydraulic fluids and cleaning solvents. Due to the duration of industrial use, the unknown operations performed onsite, and the likely use of petroleum products and hazardous substances, all under circumstances outside of regulatory agency oversight (prior to modern oversight standards), it is likely that the historical use of the property has resulted in a release of hazardous substances or petroleum products to the subsurface of the subject property and represents a REC.
- One pad mounted transformer is located in the sub-grade basement of the subject property building. The transformer was reportedly the original transformer for the building and is still used in combination with a newer transformer for the building. Based on the presumed date of installation, the transformer is expected to contain polychlorinated biphenyls (PCBs). The presence of the historic transformer that is likely to contain hazardous materials represents a REC.

- Significant staining and pooling of unidentified liquids was observed in the vicinity of the drain located within the elevator pit adjacent to the former furniture woodworking shop. Due to the age of the building and the unknown integrity of the drain lines, the floor drain has the potential to act as a conduit to the subsurface of the subject property for any materials that are spilled around or discharged into the drain lines. Based on the quantity of staining and pooling liquids observed in combination with the presence of a floor drain, AEI is unable to rule out the potential that a release to the subsurface of the subject property has occurred.

In order to address the RECs identified in the previous Phase I, AEI proposed to conduct the following scope of work:

- Advance nine (9) borings to a depth of eight (8) feet below grade surface (bgs) or to refusal, whichever is encountered first, in a linear grid throughout the basement area of the subject property building. The borings will be spaced approximately 50 feet apart.
- Collect and analyze a total of nine (9) soil samples to be analyzed for volatile organic compounds (VOCs) via EPA Method 8260, semi-VOCs (SVOCS) via EPA Method 8270, and Priority Pollutant Metals (PP-Metals) via EPA Method 6010.

- Conduct an inspection of the transformer room and elevator pit for safety and access considerations. Once the transformer room is considered safe for entry, the area should be inspected for the presence of possible subsurface conduits including floor drains and cracks in the concrete slab. Advance one of the borings in the transformer room biased toward an area of obvious staining or cracks within the transformer room where a release may reach the subsurface. If there is no evidence of leaks, staining, cracked floors, etc., then no sampling will be required from this area.
- If collected, further analyze the sample from the transformer room for PCBs via EPA Method 8082.
- Advance another of the borings adjacent to the floor drain within the elevator pit.
- Further analyze the sample from the elevator room for PCBs via EPA Method 8082.

III Investigative Efforts

Pre-Drilling Activities

SJB Services, Inc. (SJB) was contracted to notify dig alert and to identify public utilities in the work area at least 72 hours prior to field activities. A Site Specific Health and Safety Plan (HASP) was prepared and reviewed on site prior to field activities.

Drilling Locations

The subject property owners requested that AEI not install the borings within the interior of the subject property building as the activity would entail coring through the concrete floor. As such the lack of access to the interior of the building does represent a limitation; however, AEI determined that analytical results from samples collected from borings advanced immediately adjacent to the building would be acceptable to determine if a significant release had occurred at the site. AEI drilled and logged a total of nine (9) exterior borings at the property on August 16, 2011. The borings were advanced with a track mounted, limited access direct push probe drill rig to a depth of 12 feet bgs.

The borings were advanced at the following locations:

- Boring AEI-B1 - East side of the building immediately adjacent to the transformer room and elevator pit.
- Boring AEI-B2 - 40 feet south of AEI-B1.
- Boring AEI-B3 – South side of the building.
- Borings AEI-B4 through AEI-B6 were advanced along the west side of the building.
- Boring AEI-B7 – North side of the building.
- Boring AEI-B8 – 60 feet south of the northeast corner of the building; and
- Boring AEI-B9 - East side of the building immediately adjacent to the boiler room.

Each boring was advanced to 12 feet bgs. The original scope proposed that borings be advanced to eight (8) feet beneath the basement floor. As the basement was discovered to be only a partial basement (approximately four feet bgs), the investigation borings were

advanced to a depth of 12 feet bgs. Groundwater was not encountered in any of the borings.

Please refer to Figure 2: Boring Location Map for a representation of boring locations.

Soil Sample Collection

Soil cores were collected with a 2" diameter stainless steel corer fitted with acrylic liners. The borings were advanced in four-foot increments. After each advance, the corer was withdrawn and the acrylic liner containing the soil core was removed. Each soil core was measured and examined for odors or stains, and screened with a photoionization detector (PID). The PID was properly calibrated to 100 parts per million (ppm) of isobutylene prior to conducting the investigation. This information including the lithology of each core was recorded. A soil sample was collected from the portion of the soil column that exhibited the highest PID reading or was observed to be obviously stained. If PID readings were insignificant, and no staining was observed, then a soil sample was collected from the terminal depth of the coring.

Except for the soil in boring AEI-B9, the soil in each of the borings exhibited no odors or visible staining. PID readings in these borings (AEI-B1 through AEI-B8) were negligible. The PID readings in the soil column at boring location AEI-B9 were as high as 128 PID units. Portions of the soil from this boring also appeared stained and had a significant petroleum odor. In addition, the drill rig operator reported that the corer appeared to "glance off something" as it was being advanced.

The soil characteristics were consistent in each of the borings: Fill material immediately below surface level followed by one to three feet of soft to moderately stiff clay. From four feet bgs to the terminal boring depth of 12 feet bgs, the soil consisted of very stiff to extremely stiff clay with some hard clay layers (the drill rig operator stated that the extremely stiff clay that was encountered continued to approximately 50 feet bgs based on past experience with the area). As PID readings were negligible in soil columns AEI-B1 through AEI-B8 and the extremely stiff clay below four feet bgs would inhibit vertical migration, the samples were collected from the softer clay portions of the soil columns just above the stiff clay layers. The AEI-B9 boring sample was collected from the depth that exhibited the greatest odor and PID reading.

Attachment A: Boring Logs, provides details on the soils observed in each boring as well as soil screening detail.

The soil samples were containerized in laboratory supplied bottle ware, labeled with a unique identifier, and immediately placed on ice and cooled in an ice chest to 4°C for shipment under chain of custody to the laboratory. At the completion of each boring, the boring was backfilled according to applicable regulations and topped with asphalt.

Groundwater Sample Collection

Groundwater was not encountered at any of the boring locations.

Boring Destruction

All borings were backfilled with cuttings topped with asphalt.

Laboratory Analysis

The soil samples were transported on August 17, 2011, to Aqua Pro-Tech Laboratories for analysis under chain of custody protocol. Analytical results and chain of custody documents are included as Attachment B, Sample Analytical Documentation.

Each sample was analyzed for VOCs via EPA Method 8260, for SVOCs via EPA Method 8270 and for PP-Metals via EPA Method 6010. Sample AEI-B1 was further analyzed for PCBs via EPA Method 8082.

IV Findings

Lithology

According to information obtained from the US Geological Survey (USGS), the area surrounding the Subject Property is underlain by deposits of the Paleozoic-era. Based on a review of the United States Department of Agriculture (USDA) Soil Survey for the area of the subject property, the soils in the vicinity of the subject property are classified as Urban Land. The Urban Land designation indicates that more than 85 percent of the original soils have been disturbed or covered by paved surfaces, buildings or other structures. Because of the variability of the soil material, onsite investigation would be required to determine the specific soil composition at the subject property.

Based on borings advanced during this investigation, the native soil beneath the site consists of soft to moderately stiff orange brown clay with some very stiff to extremely stiff reddish clay at deeper levels.

Groundwater was not encountered at any of the boring location.

Boring Logs are presented in Attachment A.

Soil Sample Analytical Results

VOCs:
Concentrations VOCs were detected in soil samples from borings AEI-B2, AEI-B8 and AEI-B9. Only one VOC compound was detected in soil sample AEI-B2 (naphthalene) and AEI-B8 (cis-1,2-dichloroethene). Twelve (12) VOC compounds that are associated with petroleum products were detected in soil sample AEI-B9 (collected adjacent to the boiler room). The concentration of each detected VOC was well below its respective New York State Department of Environmental Conservation (NYSDEC) Recommended Soil Cleanup Objective (RSCO) for Restricted Residential Land Use. No concentrations of VOCs were detected in any of the other soil samples.

Please refer to Table 1: Soil Sampling Analytical Results - VOCs for laboratory analytical results compared to their respective NYSDEC RSCOs.

SVOCs:
Concentrations of SVOCs were detected in each of the nine soil samples. Most of the SVOCs that were detected are classified as polycyclic aromatic hydrocarbons (PAHs). The concentration of several SVOCs exceeded their respective NYSDEC RSCO for Restricted Residential Land Use in all but two of the soil samples (AEI-B1 and AEI-B4). The concentration of one PAH, benzo-a-pyrene, was in excess of its respective Industrial RSCO in soil sample AEI-B8. The SVOC 2-methylnaphtahlene, which is associated with petroleum products, was found only at boring location AEI-B9 that was collected from adjacent to the boiler room.

Please refer to Table 2: Soil Sampling Analytical Results - SVOCs for laboratory analytical results compared to their respective NYSDEC RSCOs.

Metals:
Concentrations of metals were detected in each of the soil samples collected at the subject property. Concentrations of arsenic and chromium were found in excess of their respective NYSDEC RSCO for Restricted Residential Land Use, but below their Industrial Land Use RSCO. The concentration of arsenic exceeded this value in each of the samples. The concentration of chromium exceeded its respective RSCO in soil samples from boring locations AEI-B1, AEI-B22, AEI-B8 and AEI-B9. Chromium was not detected in sample AEI-B5 and was below its Restricted Residential Land Use RSCO in the remaining samples.

Please refer to Table 3: Soil Sampling Analytical Results - Metals for laboratory analytical results compared to their respective NYSDEC RSCOs.

PCBs:
No concentrations of metals were detected in soil sample AEI-B1.

Please refer to Table 4: Soil Sampling Analytical Results - PCBs for laboratory analytical results compared to their respective NYSDEC RSCOs.

V Summary and Conclusions

The purpose of this Phase II investigation was to determine if the subsurface in the vicinity of the subject property may have been impacted by the following items of concern identified during the previous Phase I:

- Historical industrial activities.
- Operation of an electric transformer reported to be the original transformer installed at the subject property.
- Staining observed in the vicinity of a drain in the pit beneath the elevator in the subject property building.

Based on the results of the soil sampling and analysis conducted at the subject property, it appears that the subsurface may have been impacted.

During the previous Phase I, AEI reviewed documents that summarized environmental investigations of neighboring properties including the Pierce Arrow properties to the east of the subject property. This review found that sampling results of soil collected from the adjacent Pierce Arrow property also indicated concentrations of PAHs and metals in excess of their respective Restricted Residential Land Use RSCO similar to the PAH and metals concentrations detected in the soil samples collected at the subject property. As such, the potential exists that the industrial and manufacturing operations that were historically conducted at the adjacent property to the east may have contributed to the impacts identified at the subject property than the historical uses of the building at the subject property. Based on this information as well as the fact that the concentrations of SVOCs, although above the Restricted Residential Land Use RSCO, were below the Industrial Land Use RSCO, no further action appears to be required for the SVOCs and metals issue. AEI recommends no further investigations for the SVOCs and metals unless redevelopment of the subject property is planned. At such time, AEI recommends that more extensive sampling be conducted to fully delineate the extent of the impact of SVOCs and metals so that a comprehensive remediation plan may be developed and implemented.

In addition, based on the following evidence, AEI determined that the potential may exist that an underground storage tank (UST) may be located adjacent to the boiler room at the subject property:

- Stained soil with a strong petroleum odor and elevated PID readings at boring location AEI-B9.
- VOC compounds and the SVOC 2-methylnaphthalene that are associated with petroleum products were found only in the soil sample collected from this location.
- The observation of the drill rig operator that the corer “glanced off something” during the collection of soil at boring location AEI-B9.

Based on this information, AEI recommended that additional investigation be conducted to confirm whether or not an UST exists. On September 20, 2011 the subject property owners employed the services of a backhoe to excavate a four foot square hole to a depth of four feet in the vicinity of boring location AEI-B9. An UST was not encountered during this activity. It should be noted that AEI was not on site to directly observe the excavation work; however, AEI was able to confirm the findings of the excavation based on provided photographs, and it was confirmed that the excavation was conducted in the area of boring AEI-B9.

As the excavation did not encounter an UST, and the concentrations of petroleum compounds that are associated with petroleum products were well below their respective NYSDEC RSCOs, AEI recommends no further investigation with respect to the suspected UST at this time.

VII Report Limitation

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If there are any questions regarding our investigation, please do not hesitate to contact either of the undersigned at (201) 332-1844.

Sincerely,
AEI Consultants

Michael Taormina
Senior Project Manager, CHMM

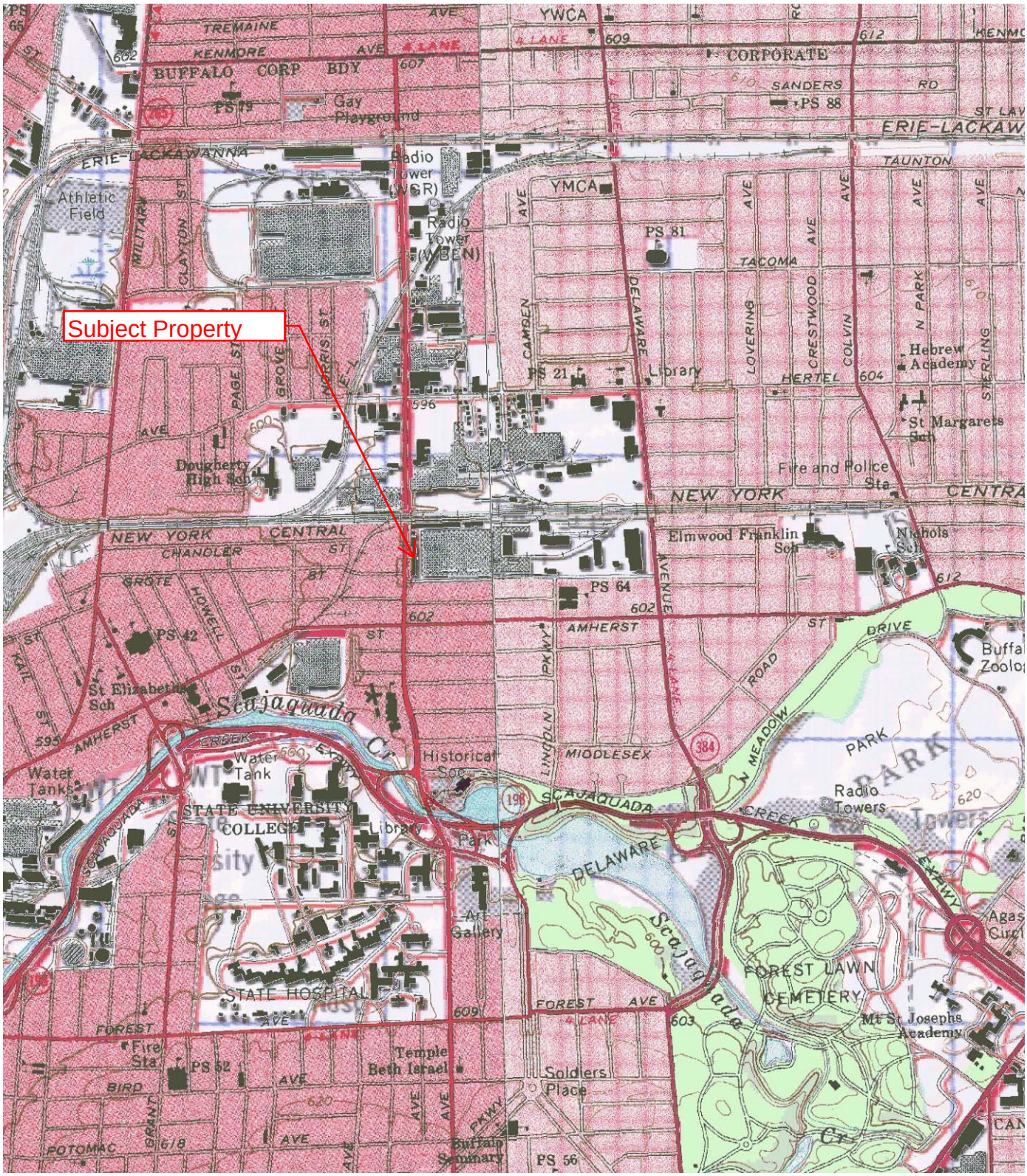
Paul Hinkston
Senior Author

Figures
Figure 1: Site Map
Figure 2: Boring Location Map

Tables
Table 1: Soil Sampling Analytical Results – VOCs
Table 2: Soil Sampling Analytical Results – SVOCs
Table 3: Soil Sampling Analytical Results – Metals
Table 4: Soil Sampling Analytical Results – PCBs

Appendices
Appendix A: Boring Logs
Appendix B: Sample Analytical Documentation

FIGURES



SITE LOCATION MAP

1695 Elmwood Avenue, Buffalo, NY 14207

N

FIGURE 1

Source: USGS

Project Number: 299363

AEI Consultants

BORING LOCATION MAP

1695 Elmwood Avenue, Buffalo, NY 14207

N

Legend

Approximate Property Boundary

Soil Boring

Transformer T

FIGURE 2

Project Number: 299363

AEI Consultants

TABLES

TABLE 1

SOIL SAMPLING ANALYTICAL RESULTS - VOCs
Pierce Arrow Holdings
1695 Elmwood Avenue
Buffalo, New York, 14207
Project # 299363

Sample ID:	AEI-B1	AEI-B2	AEI-B3	AEI-B4	AEI-B5	AEI-B6	AEI-B7	AEI-B8	AEI-B9	NYDEC Soil Recommended Soil Cleanup Objective	
Sample Date:	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011		
Sample Depth (feet bgs)	6	4	5.5	6	8.5	5	6	5.5	6.5		
VOCs via EPA Method 8260:										Res. Resident.	Industrial
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	0.001	NR	NR
Methylcyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	0.104	NR	NR
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	0.0069	21	400
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.0019	41	780
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.0033	100*	100*
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.005	100	1000
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.0015	52	380
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.0056	52	380
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.0076	100	1000
4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	0.0011	NR	NR
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.0127	100	1000
Naphthalene	ND	0.0105	ND	ND	ND	ND	ND	ND	0.112	100	1000
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	0.0020	ND	100	1000
All Other VOCs	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A

Notes:

All Results in mg/kg (ppm)
Unless marked (*), RSCOs are based on Restricted Residential (Res. Resid.) and Industrial RSCOs
Concentrations above Restricted Residential RSCOs are in **bold**.
Concentrations above Industrial RSCOs are in ***bold italics***.
ND = Non Detect
NR = Not Regulated
NA = Not Analyzed
N/A = Not Applicable

TABLE 2

SOIL SAMPLING ANALYTICAL RESULTS - SVOCs
Pierce Arrow Holdings
1695 Elmwood Avenue
Buffalo, New York, 14207
Project # 299363

Sample ID:	AEI-B1	AEI-B2	AEI-B3	AEI-B4	AEI-B5	AEI-B6	AEI-B7	AEI-B8	AEI-B9	NYDEC Soil Recommended Soil Cleanup Objective	
Sample Date:	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011		
Sample Depth (feet bgs)	6	4	5.5	6	8.5	5	6	5.5	6.5		
SVOCs via EPA Method 8270:										Res. Resident.	Industrial
Bis(2-ethylhexyl)phthalate	0.0608	0.217	0.235	ND	0.210	0.0663	0.083	ND	0.213	50*	50*
Dimethylphthalate	0.278	0.331	ND	0.128	ND	0.200	0.115	0.259	ND	100*	100*
Diethylphthalate	0.111	0.164	ND	ND	ND	0.109	ND	ND	ND	100*	100*
Di-n-octylphthalate	ND	ND	ND	0.0801	ND	ND	0.102	ND	ND	100*	100*
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	0.116	ND	410	43000
Acenaphthene	ND	0.0982	ND	ND	**0.231**	ND	ND	**1.060**	ND	410	43000
Dibenzofuran	ND	ND	ND	ND	**0.194**	ND	ND	**0.441**	ND	0.01	1700
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	**1.62**	0.41*	0.41*
Fluorene	ND	0.0822	ND	ND	0.324	ND	ND	1.920	1.060	270	29000
Phenanthrene	ND	0.476	0.520	ND	2.500	0.0852	0.232	9.270	2.090	200	22000
Anthracene	ND	0.157	0.0908	ND	0.554	ND	0.0708	2.700	0.655	2000	65000
Carbazole	ND	ND	ND	ND	0.353	ND	ND	0.942	ND	NR	NR
Fluoranthene	0.0515	0.564	0.626	ND	2.350	0.229	0.211	ND	0.992	270	29000
Pyrene	0.0506	0.512	0.681	ND	2.020	0.225	0.177	8.060	0.965	200	22000
Benzo(a)anthracene	0.0468	**0.414**	**0.475**	ND	**1.150**	**0.169**	**0.133**	**7.990**	**0.415**	0.1	11
Chrysene	ND	0.324	0.397	ND	0.891	0.137	0.118	**8.210**	0.331	1	110
Benzo(b)fluoranthene	0.0420	**0.344**	**0.350**	ND	**1.010**	**0.165**	**0.111**	**9.080**	**0.420**	0.1	11
Benzo(k)fluoranthene	ND	0.139	0.159	ND	0.325	0.046	ND	**3.910**	0.132	1	110
Benzo(a)pyrene	ND	**0.304**	**0.313**	ND	**0.794**	**0.129**	**0.0859**	***5.270***	**0.369**	0.01	1.1
Indeno(1,2,3-c,d)pyrene	ND	**0.133**	**0.145**	ND	**0.434**	0.0534	0.0484	**2.290**	**0.221**	0.1	11
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	**0.720**	ND	0.01	1.1
Benzo(g,h,i)perylene	ND	0.153	0.176	ND	0.508	0.0659	0.0446	2.370	0.298	200	22000
All Other Targeted SVOCs	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A
Tentatively identified compounds	0.691	1.947	4.170	4.148	1.600	1.644	3.036	29.910	55.230	NR	NR

Notes:
All Results in mg/kg (ppm)
Unless marked (*), RSCOs are based on Restricted Residential (Res. Resid.) and Industrial RSCOs
SVOCs with no Restricted Residential or Industrial guidelines are based on residential RSCOs
Concentrations above Restricted Residential RSCOs are in **bold**.
Concentrations above Industrial RSCOs are in ***bold italics***.
ND = Non Detect NR = Not Regulated
NA = Not Analyzed N/A = Not Applicable

TABLE 3

SOIL SAMPLING ANALYTICAL RESULTS - Metals
Pierce Arrow Holdings
1695 Elmwood Avenue
Buffalo, New York, 14207
Project # 299363

Sample ID:	AEI-B1	AEI-B2	AEI-B3	AEI-B4	AEI-B5	AEI-B6	AEI-B7	AEI-B8	AEI-B9	NYDEC Soil	
Sample Date:	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	Recommended Soil	
Sample Depth	6	4	5.5	6	8.5	5	6	5.5	6.5	Cleanup Objective	
Metals via EPA Method 6010:										Res. Resident.	Industrial
Lead	36.3	11.9	24.3	8.67	68.9	57.2	31.1	26.6	30.4	400	3900
Mercury	ND	0.036	0.22	ND	ND	0.147	0.034	0.085	0.081	0.81	5.7
Nickel	29.7	21.8	20.1	26.5	14.5	21.3	37.5	16.4	15.9	140	27000
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	36	6800
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	5*	5*
Antimony	2.68	1.43	4.73	3.83	3.6	3.58	ND	0.384	3.77	12*	12*
Arsenic	**4.9**	**2.31**	**2.32**	**2.42**	**2.42**	**2.92**	**1.77**	**1.22**	**0.802**	0.21	12
Beryllium	0.78	0.483	ND	0.251	1.19	0.216	0.931	0.597	0.118	14	2700
Cadmium	ND	ND	ND	ND	0.302	ND	ND	ND	ND	0.86	60
Chromium	**23.3**	20.3	19.7	21.9	15.5	20.4	**33.3**	**25**	**23.7**	22	800
Cobalt	ND	ND	ND	ND	ND	ND	ND	ND	ND	20*	20*
Copper	27.6	33.4	31.9	24.2	39.5	47.6	32.4	18.1	42.8	270	190000
Zinc	91.3	67.6	57.5	58	77.5	83	92.5	108	75.1	NR	NR

Notes:
All Results in mg/kg (ppm)
Unless marked (*), RSCOs are based on Restricted Residential (Res. Resid.) and Industrial RSCOs
Concentrations above Restricted Residential RSCOs are in **bold**.
Concentrations above Industrial RSCOs are in ***bold italics***.
ND = Non Detect
NR = Not Regulated
NA = Not Analyzed
N/A = Not Applicable

TABLE 4

SOIL SAMPLING ANALYTICAL RESULTS - PCBs
Pierce Arrow Holdings
1695 Elmwood Avenue
Buffalo, New York, 14207
Project # 299363

Sample ID:	AEI-B1	AEI-B2	AEI-B3	AEI-B4	AEI-B5	AEI-B6	AEI-B7	AEI-B8	AEI-B9	NYDEC Soil Recommended Soil Cleanup Objective	
Sample Date:	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011		
Sample Depth (feet bgs)	6	4	5.5	6	8.5	5	6	5.5	6.5		
PCBs via EPA Method 8082:										Res. Resident.	Industrial
All PCBs	ND	NA	NA	NA	NA	NA	NA	NA	0. NA	N/A	N/A

Notes:

All Results in mg/kg (ppm)
Unless marked (*), RSCOs are based on Restricted Residential (Res. Resid.) and Industrial RSCOs
Concentrations above Restricted Residential RSCOs are in **bold**.
Concentrations above Industrial RSCOs are in ***bold italics***.
ND = Non Detect
NR = Not Regulated
NA = Not Analyzed
N/A = Not Applicable

ATTACHMENT A

BORING LOGS

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B1** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **Adjacent to transformer room**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 12"		Recovery:
			Sandy gravelly clay with brick fragments - 10"	33.0	28"
			Soft orange brown clay - 6"	35.0	
				11.0	
5					Recovery:
	S	AEI-B1	Moderately stiff orange brown clay - 10"	35.0	40"
			Very stiff to extremely stiff orange brown clay - 30"	max	
					Recovery:
10			Extremely stiff reddish brown clay - 48"	30.0	48"
				max	
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B2** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **40 feet south of AEI-B1**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 17"		Recovery:
			Soft reddish clay - 5"		22"
	S	AEI-B2		66.2	
5					Recovery:
			Very stiff to extremely stiff orange brown clay - 48"	35.0 max	48"
				30.8	Recovery:
10			Extremely stiff reddish brown clay - 48"	10.1 max	48"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B3** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **South side of building**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 11"	0.0	Recovery: 11"
5	S	AEI-B3	Moderately stiff reddish brown clay - 9" Very stiff to extremely stiff brown clay - 39"	32.0 6.0 4.0	Recovery: 48"
10			Very stiff to extremely stiff reddish brown clay - 48"	0.0	Recovery: 48"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B4** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **West side of building - south area**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 10"		Recovery:
			Moderately stiff to very stiff brown clay - 9"	0.0	24"
			Gravel & shale fragments - 5"		
5			Moderately stiff to very stiff brown clay - 19"		Recovery:
	S	AEI-B4	Gravelly sand with clay - 9"	0.0	48"
			Extremely stiff reddish brown clay - 20"		
					Recovery:
10			Extremely stiff reddish brown clay - 48"	0.0	44"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B5** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **West side of building - central area**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 10"		Recovery:
			Moderately stiff brown clay - 4"	0.0	34"
			Moderately stiff to very stiff brown clay - 20"		
5			Gravelly sand with clay - 5"		Recovery:
			Very stiff to extremely stiff brown clay - 19"	0.0	37"
			Very stiff to extremely stiff reddish clay - 13"		
	S	AEI-B5			Recovery:
10			Very stiff to extremely stiff reddish clay - 48"	0.0	48"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B6** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **West side of building - north area**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 8"		Recovery:
			Stiff to moderately stiff reddish clay - 14"	2.8 max	22"
5			Soft to moderately stiff reddish clay - 26"	4.3	Recovery:
	S	AEI-B6	Very stiff to extremely stiff brown clay - 19"	max	46"
			Extremely stiff reddish clay - 20"		
					Recovery:
10			Extremely stiff reddish clay - 48"	0.0	48"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B7** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **North side of building**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Topsoil & fill - 10"		Recovery:
			Very stiff to extremely stiff orange brown clay - 15"	0.0	36"
			Cinder layer - 4"		
			Extremely stiff brown clay - 7"		
5					Recovery:
	S	AEI-B6	Extremely stiff to hard brown clay - 48"	0.0	48"
					Recovery:
10			Extremely stiff to hard reddish clay - 48"	0.0	48"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B8** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **East side of building - north area**

Depth, feet	Sample Type	Sample Number	DESCRIPTION	PID Reading	COMMENTS
			Asphalt & fill material - 8"		Recovery:
			Brick fragments & concrete debrs - 6"	1.1	23"
			Soft greenish clay - 9"	max	
5			Soft greenish clay - 4"	0.0	Recovery:
	S	AEI-B8	Extremely stiff to hard brown clay - 44"		48"
					Recovery:
10			Extremely stiff reddish clay - 48"	0.0	48"
			End of boring		
15					
20					

Project: Pierce Arrow Property **Project Location: 1695 Elmwood Avenue** **Buffalo, NY 14207** **Project Number: 299363**	**Boring AEI-B9** Sheet 1 of 1

Date Drilled: **August 16, 2011**	Logged by **Michael Taormina**
Drilling Method: **Push probe**	Total depth: **12 feet**
Drill Rig: **Geoprobe**	Elevation: **600 feet AMSL**
Groundwater Level: **> 12 feet**	Sample method: **Direct fill**
Borehole Backfill: **Cuttings & asphalt**	Location: **Adjacent to furnace room - east side**

Depth, feet	Sample Type	Sample Number	DESCRIPTION		PID Reading	COMMENTS
			Asphalt & gray fill material - 7"			Recovery:
			Brick fragments & concrete debrs - 7"			26"
			Stained soft greenish clay with a strong petroleum odor - 12"		128	
					10	
5			Soft to very soft greenish clay with odor - 11"	4"	0.8	Recovery:
	S	AEI-B9	Extremely stiff to hard reddish clay no odor - 18"	6"	121	29"
				10"	40	
				>10"	0.0	
						Recovery:
10			Extremely stiff to hard reddish clay - 48"		0.0	48"
			End of boring			
15						
20						

ATTACHMENT B

SAMPLE ANALYTICAL DOCUMENTATION

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 9:50
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-001 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:02	MARKA	2.7	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:02	MARKA	4.90	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:01	MARKA	0.78	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.078	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:01	MARKA	23.3	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:01	MARKA	27.6	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:02	MARKA	36.3	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	<0.020	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:02	MARKA	29.7	mg/kg	
PCBs	SW 846 8082		BOB	SA		
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	80.6	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.98	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.78	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.78	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:01	MARKA	91.3	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

AQUA PRO-TECH LABORATORIES
Fairfield, NJ

PCB ANALYTICAL REPORT
Method 8082 S

Client:	AEI Consultants	**Lab Sample ID:**	11080666-1
Project:	Buffalo 299363	**GC Run ID:**	3B6739
Sample ID:	AEI-B	**Extraction Date:**	8/18/11
Date Sampled:	8/16/11	**Sample Wt /Vol:**	15 g
Matrix: (soil/water):	Soil	**Final Volume (ml):**	10
% Moisture:	19%		
Concentration Units:	µg/kg		

Compound	Result	MDL	PQL	Qualifier	Date Analyzed	Dilution Factor
Aroclor 1016	ND	8.79	81.9	U	8/18/11	1
Aroclor 1221	ND	11.1	81.9	U	8/18/11	1
Aroclor 1232	ND	13	81.9	U	8/18/11	1
Aroclor 1242	ND	6.02	81.9	U	8/18/11	1
Aroclor 1248	ND	4.15	81.9	U	8/18/11	1
Aroclor 1254	ND	9.27	81.9	U	8/18/11	1
Aroclor 1260	ND	8.89	81.9	U	8/18/11	1

Qualifiers:

U - compound not detected at the specified detection limit
J - below PQL
D - concentration taken from diluted analysis
E - compound concentration exceeds calibration

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 19.4%
Extract Volume: 1 mL

Lab Sample ID: 11080666-001
Lab File ID: 5S1235.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	237	414
62-75-9	n-Nitroso-dimethylamine		U	372	414
100-52-7	Benzaldehyde		U	123	414
62-53-3	Aniline		U	18.2	414
111-44-4	bis(2-Chloroethyl)ether		U	25.6	414
541-73-1	1,3-Dichlorobenzene		U	24.8	414
106-46-7	1,4-Dichlorobenzene		U	31.4	414
100-51-6	Benzyl Alcohol		U	573	414
95-50-1	1,2-Dichlorobenzene		U	19.0	414
108-60-1	bis(2-Chloroisopropyl)ether		U	20.7	414
98-86-2	Acetophenone		U	109	414
621-64-7	n-Nitroso-di-n-propylamine		U	36.4	414
67-72-1	Hexachloroethane		U	23.2	414
98-95-3	Nitrobenzene		U	16.5	414
78-59-1	Isophorone		U	17.4	414
111-91-1	bis(2-Chloroethoxy)methane		U	28.1	414
120-82-1	1,2,4-Trichlorobenzene		U	28.9	414
91-20-3	Naphthalene		U	18.2	414
106-47-8	4-Chloroaniline		U	24.8	414
87-68-3	Hexachlorobutadiene		U	24.0	414
105-60-2	Caprolactam		U	75.3	414
91-57-6	2-Methylnaphthalene		U	21.5	414
77-47-4	Hexachlorocyclopentadiene		U	339	827
92-52-4	Biphenyl		U	81.1	414
91-58-7	2-Chloronaphthalene		U	16.5	414
88-74-4	2-Nitroaniline		U	9.10	414
131-11-3	Dimethylphthalate	278	B	24.0	414
208-96-8	Acenaphthylene		U	13.2	414
606-20-2	2,6-Dinitrotoluene		U	34.7	414
99-09-2	3-Nitroaniline		U	404	414
83-32-9	Acenaphthene		U	16.5	414
132-64-9	Dibenzofuran		U	18.2	414
121-14-2	2,4-Dinitrotoluene		U	32.3	414
86-73-7	Fluorene		U	12.4	414
84-66-2	Diethylphthalate	111	BJ	893	414
7005-72-3	4-Chlorophenyl phenyl ether		U	22.3	414
100-01-6	4-Nitroaniline		U	227	414
86-30-6	n-Nitrosodiphenylamine		U	18.2	414
103-33-3	1,2-Diphenylhydrazine		U	14.1	414

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 19.4%
Extract Volume: 1 mL

Lab Sample ID: 11080666-001
Lab File ID: 5S1235.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	26.5	414
118-74-1	Hexachlorobenzene		U	37.2	414
1912-24-9	Atrazine		U	67.8	414
85-01-8	Phenanthrene		U	6.62	414
120-12-7	Anthracene		U	11.6	414
86-74-8	Carbazole		U	25.6	414
84-74-2	Di-n-butylphthalate		U	39.7	414
206-44-0	Fluoranthene	51.5		20.7	414
92-87-5	Benzidine		U	388	414
129-00-0	Pyrene	50.6		11.6	414
85-68-7	Butylbenzylphthalate		U	15.7	414
56-55-3	Benzo(a)anthracene	46.8		14.1	414
91-94-1	3,3'-Dichlorobenzidine		U	217	414
218-01-9	Chrysene		U	16.5	414
117-81-7	bis(2-Ethylhexyl)phthalate	60.8	BJ	283	414
117-84-0	Di-n-octylphthalate		U	25.6	414
205-99-2	Benzo(b)fluoranthene	42		28.1	414
207-08-9	Benzo(k)fluoranthene		U	22.3	414
50-32-8	Benzo(a)pyrene		U	15.7	414
193-39-5	Indeno(1,2,3-cd)pyrene		U	10.8	414
53-70-3	Dibenzo(a,h)anthracene		U	13.2	414
191-24-2	Benzo(g,h,i)perylene		U	21.5	414

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 19.4%
Extract Volume: 1 mL

Lab Sample ID: 11080666-001
Lab File ID: 5S1235.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
19047-85-9	Phosphonic acid, dioctadecyl este	691	JN	20.65

Number of TICs found: 1
Total Est. Concentration: 691 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 19.4%

Lab Sample ID: 11080666-001
Lab File ID: 4V4473.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.38	6.2
74-87-3	Chloromethane		U	0.806	6.2
107-02-8	Acrolein		U	5.06	24.8
75-01-4	Vinyl Chloride		U	1.17	6.2
74-83-9	Bromomethane		U	2.12	6.2
75-00-3	Chloroethane		U	2.83	6.2
75-69-4	Trichlorofluoromethane		U	1.45	6.2
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethan		U	2.59	6.2
67-64-1	Acetone		U	3.56	12.4
75-35-4	1,1-Dichloroethene		U	1.67	6.2
75-65-0	tert-Butyl Alcohol		U	12.1	62
79-20-9	Methyl Acetate		U	1.18	6.2
75-09-2	Methylene Chloride		U	1.02	6.2
75-15-0	Carbon Disulfide		U	0.856	6.2
107-13-1	Acrylonitrile		U	1.61	6.2
1634-04-4	Methyl tert-Butyl Ether		U	1.08	6.2
156-60-5	trans-1,2-Dichloroethene		U	0.831	6.2
75-34-3	1,1-Dichloroethane		U	1.04	6.2
108-05-4	Vinyl Acetate		U	1.54	6.2
78-93-3	2-Butanone		U	2.54	12.4
594-20-7	2,2-Dichloropropane		U	0.645	6.2
156-59-2	cis-1,2-Dichloroethene		U	0.645	6.2
67-66-3	Chloroform		U	0.968	6.2
74-97-5	Bromochloromethane		U	1.17	6.2
110-82-7	Cyclohexane		U	1.25	6.2
71-55-6	1,1,1-Trichloroethane		U	1.41	6.2
563-58-6	1,1-Dichloropropene		U	1.34	6.2
56-23-5	Carbon Tetrachloride		U	1.08	6.2
107-06-2	1,2-Dichloroethane		U	0.707	6.2
71-43-2	Benzene		U	0.682	6.2
79-01-6	Trichloroethene		U	1.02	6.2
108-87-2	Methylcyclohexane		U	1.27	6.2
78-87-5	1,2-Dichloropropane		U	0.980	6.2
75-27-4	Bromodichloromethane		U	0.955	6.2
123-91-1	p-Dioxane		U	0.00	124
74-95-3	Dibromomethane		U	1.05	6.2
110-75-8	2-Chloroethylvinyl ether		U	1.22	12.4
108-10-1	4-Methyl-2-Pentanone		U	0.931	12.4
10061-01-5	cis-1,3-Dichloropropene		U	0.236	6.2

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 19.4%

Lab Sample ID: 11080666-001
Lab File ID: 4V4473.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.447	6.2
10061-02-6	trans-1,3-Dichloropropene		U	0.546	6.2
79-00-5	1,1,2-Trichloroethane		U	0.844	6.2
591-78-6	2-Hexanone		U	1.36	12.4
142-28-9	1,3-Dichloropropane		U	0.782	6.2
127-18-4	Tetrachloroethene		U	0.831	6.2
124-48-1	Dibromochloromethane		U	0.844	6.2
106-93-4	1,2-Dibromoethane		U	0.471	6.2
108-90-7	Chlorobenzene		U	0.534	6.2
630-20-6	1,1,1,2-Tetrachloroethane		U	0.782	6.2
100-41-4	Ethylbenzene		U	0.496	6.2
1330-20-7	m+p-Xylenes		U	1.19	12.4
95-47-6	o-Xylene		U	0.980	6.2
100-42-5	Styrene		U	0.782	6.2
98-82-8	Isopropylbenzene		U	0.645	6.2
75-25-2	Bromoform		U	2.22	6.2
79-34-5	1,1,2,2-Tetrachloroethane		U	1.76	6.2
96-18-4	1,2,3-Trichloropropane		U	3.44	6.2
103-65-1	n-Propylbenzene		U	2.33	6.2
108-86-1	Bromobenzene		U	1.07	6.2
95-49-8	2-Chlorotoluene		U	0.571	6.2
106-43-4	4-Chlorotoluene		U	0.409	6.2
108-67-8	1,3,5-Trimethylbenzene		U	1.77	6.2
98-06-6	tert-Butylbenzene		U	1.74	6.2
95-63-6	1,2,4-Trimethylbenzene		U	1.85	12.4
135-98-8	sec-Butylbenzene		U	2.08	6.2
99-87-6	4-Isopropyltoluene		U	1.95	6.2
541-73-1	1,3-Dichlorobenzene		U	1.03	6.2
106-46-7	1,4-Dichlorobenzene		U	1.05	6.2
104-51-8	n-Butylbenzene		U	1.92	6.2
95-50-1	1,2-Dichlorobenzene		U	0.893	6.2
96-12-8	1,2-Dibromo-3-chloropropane		U	5.60	12.4
120-82-1	1,2,4-Trichlorobenzene		U	1.22	6.2
87-68-3	Hexachlorobutadiene		U	2.84	6.2
91-20-3	Naphthalene		U	1.14	6.2
87-61-6	1,2,3-Trichlorobenzene		U	2.23	6.2
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 19.4%

Lab Sample ID: 11080666-001
Lab File ID: 4V4473.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 10:20
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-002 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:06	MARKA	1.4	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:06	MARKA	2.31	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:06	MARKA	0.48	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.052	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:06	MARKA	20.3	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:06	MARKA	33.4	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:06	MARKA	11.9	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	0.036	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:06	MARKA	21.8	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	83.6	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.66	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.52	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.52	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:06	MARKA	67.6	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 16.4%
Extract Volume: 1 mL

Lab Sample ID: 11080666-002
Lab File ID: 5S1234.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	229	399
62-75-9	n-Nitroso-dimethylamine		U	359	399
100-52-7	Benzaldehyde		U	119	399
62-53-3	Aniline		U	17.5	399
111-44-4	bis(2-Chloroethyl)ether		U	24.7	399
541-73-1	1,3-Dichlorobenzene		U	23.9	399
106-46-7	1,4-Dichlorobenzene		U	30.3	399
100-51-6	Benzyl Alcohol		U	553	399
95-50-1	1,2-Dichlorobenzene		U	18.3	399
108-60-1	bis(2-Chloroisopropyl)ether		U	19.9	399
98-86-2	Acetophenone		U	105	399
621-64-7	n-Nitroso-di-n-propylamine		U	35.1	399
67-72-1	Hexachloroethane		U	22.3	399
98-95-3	Nitrobenzene		U	15.9	399
78-59-1	Isophorone		U	16.7	399
111-91-1	bis(2-Chloroethoxy)methane		U	27.1	399
120-82-1	1,2,4-Trichlorobenzene		U	27.9	399
91-20-3	Naphthalene		U	17.5	399
106-47-8	4-Chloroaniline		U	23.9	399
87-68-3	Hexachlorobutadiene		U	23.1	399
105-60-2	Caprolactam		U	72.6	399
91-57-6	2-Methylnaphthalene		U	20.7	399
77-47-4	Hexachlorocyclopentadiene		U	327	797
92-52-4	Biphenyl		U	78.1	399
91-58-7	2-Chloronaphthalene		U	15.9	399
88-74-4	2-Nitroaniline		U	8.77	399
131-11-3	Dimethylphthalate	331	B	23.1	399
208-96-8	Acenaphthylene		U	12.8	399
606-20-2	2,6-Dinitrotoluene		U	33.5	399
99-09-2	3-Nitroaniline		U	389	399
83-32-9	Acenaphthene	98.2		15.9	399
132-64-9	Dibenzofuran		U	17.5	399
121-14-2	2,4-Dinitrotoluene		U	31.1	399
86-73-7	Fluorene	82.2		12.0	399
84-66-2	Diethylphthalate	164	BJ	861	399
7005-72-3	4-Chlorophenyl phenyl ether		U	21.5	399
100-01-6	4-Nitroaniline		U	219	399
86-30-6	n-Nitrosodiphenylamine		U	17.5	399
103-33-3	1,2-Diphenylhydrazine		U	13.6	399

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 16.4%
Extract Volume: 1 mL

Lab Sample ID: 11080666-002
Lab File ID: 5S1234.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	25.5	399
118-74-1	Hexachlorobenzene		U	35.9	399
1912-24-9	Atrazine		U	65.4	399
85-01-8	Phenanthrene	476		6.38	399
120-12-7	Anthracene	157		11.2	399
86-74-8	Carbazole		U	24.7	399
84-74-2	Di-n-butylphthalate		U	38.3	399
206-44-0	Fluoranthene	564		19.9	399
92-87-5	Benzidine		U	374	399
129-00-0	Pyrene	512		11.2	399
85-68-7	Butylbenzylphthalate		U	15.2	399
56-55-3	Benzo(a)anthracene	414		13.6	399
91-94-1	3,3'-Dichlorobenzidine		U	209	399
218-01-9	Chrysene	324		15.9	399
117-81-7	bis(2-Ethylhexyl)phthalate	217	BJ	273	399
117-84-0	Di-n-octylphthalate		U	24.7	399
205-99-2	Benzo(b)fluoranthene	344		27.1	399
207-08-9	Benzo(k)fluoranthene	139		21.5	399
50-32-8	Benzo(a)pyrene	304		15.2	399
193-39-5	Indeno(1,2,3-cd)pyrene	133		10.4	399
53-70-3	Dibenzo(a,h)anthracene		U	12.8	399
191-24-2	Benzo(g,h,i)perylene	153		20.7	399

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 16.4%
Extract Volume: 1 mL

Lab Sample ID: 11080666-002
Lab File ID: 5S1234.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
	unknown	426	J	19.71
506-52-5	1-Hexacosanol	710	JN	20.57
	unknown	811	J	21.39

Number of TICs found: 3
Total Est. Concentration: 1947 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 16.4%

Lab Sample ID: 11080666-002
Lab File ID: 4V4474.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.33	5.98
74-87-3	Chloromethane		U	0.778	5.98
107-02-8	Acrolein		U	4.88	23.9
75-01-4	Vinyl Chloride		U	1.12	5.98
74-83-9	Bromomethane		U	2.05	5.98
75-00-3	Chloroethane		U	2.73	5.98
75-69-4	Trichlorofluoromethane		U	1.40	5.98
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethan		U	2.50	5.98
67-64-1	Acetone		U	3.43	12
75-35-4	1,1-Dichloroethene		U	1.61	5.98
75-65-0	tert-Butyl Alcohol		U	11.7	59.8
79-20-9	Methyl Acetate		U	1.14	5.98
75-09-2	Methylene Chloride		U	0.981	5.98
75-15-0	Carbon Disulfide		U	0.825	5.98
107-13-1	Acrylonitrile		U	1.56	5.98
1634-04-4	Methyl tert-Butyl Ether		U	1.04	5.98
156-60-5	trans-1,2-Dichloroethene		U	0.801	5.98
75-34-3	1,1-Dichloroethane		U	1.00	5.98
108-05-4	Vinyl Acetate		U	1.48	5.98
78-93-3	2-Butanone		U	2.45	12
594-20-7	2,2-Dichloropropane		U	0.622	5.98
156-59-2	cis-1,2-Dichloroethene		U	0.622	5.98
67-66-3	Chloroform		U	0.933	5.98
74-97-5	Bromochloromethane		U	1.12	5.98
110-82-7	Cyclohexane		U	1.21	5.98
71-55-6	1,1,1-Trichloroethane		U	1.36	5.98
563-58-6	1,1-Dichloropropene		U	1.29	5.98
56-23-5	Carbon Tetrachloride		U	1.04	5.98
107-06-2	1,2-Dichloroethane		U	0.682	5.98
71-43-2	Benzene		U	0.658	5.98
79-01-6	Trichloroethene		U	0.981	5.98
108-87-2	Methylcyclohexane		U	1.22	5.98
78-87-5	1,2-Dichloropropane		U	0.945	5.98
75-27-4	Bromodichloromethane		U	0.921	5.98
123-91-1	p-Dioxane		U	0.00	120
74-95-3	Dibromomethane		U	1.02	5.98
110-75-8	2-Chloroethylvinyl ether		U	1.17	12
108-10-1	4-Methyl-2-Pentanone		U	0.897	12
10061-01-5	cis-1,3-Dichloropropene		U	0.227	5.98

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 16.4%

Lab Sample ID: 11080666-002
Lab File ID: 4V4474.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.431	5.98
10061-02-6	trans-1,3-Dichloropropene		U	0.526	5.98
79-00-5	1,1,2-Trichloroethane		U	0.813	5.98
591-78-6	2-Hexanone		U	1.32	12
142-28-9	1,3-Dichloropropane		U	0.754	5.98
127-18-4	Tetrachloroethene		U	0.801	5.98
124-48-1	Dibromochloromethane		U	0.813	5.98
106-93-4	1,2-Dibromoethane		U	0.455	5.98
108-90-7	Chlorobenzene		U	0.514	5.98
630-20-6	1,1,1,2-Tetrachloroethane		U	0.754	5.98
100-41-4	Ethylbenzene		U	0.478	5.98
1330-20-7	m+p-Xylenes		U	1.15	12
95-47-6	o-Xylene		U	0.945	5.98
100-42-5	Styrene		U	0.754	5.98
98-82-8	Isopropylbenzene		U	0.622	5.98
75-25-2	Bromoform		U	2.14	5.98
79-34-5	1,1,2,2-Tetrachloroethane		U	1.70	5.98
96-18-4	1,2,3-Trichloropropane		U	3.31	5.98
103-65-1	n-Propylbenzene		U	2.25	5.98
108-86-1	Bromobenzene		U	1.03	5.98
95-49-8	2-Chlorotoluene		U	0.550	5.98
106-43-4	4-Chlorotoluene		U	0.395	5.98
108-67-8	1,3,5-Trimethylbenzene		U	1.71	5.98
98-06-6	tert-Butylbenzene		U	1.67	5.98
95-63-6	1,2,4-Trimethylbenzene		U	1.78	12
135-98-8	sec-Butylbenzene		U	2.01	5.98
99-87-6	4-Isopropyltoluene		U	1.88	5.98
541-73-1	1,3-Dichlorobenzene		U	0.993	5.98
106-46-7	1,4-Dichlorobenzene		U	1.02	5.98
104-51-8	n-Butylbenzene		U	1.85	5.98
95-50-1	1,2-Dichlorobenzene		U	0.861	5.98
96-12-8	1,2-Dibromo-3-chloropropane		U	5.39	12
120-82-1	1,2,4-Trichlorobenzene		U	1.17	5.98
87-68-3	Hexachlorobutadiene		U	2.74	5.98
91-20-3	Naphthalene	10.5		1.10	5.98
87-61-6	1,2,3-Trichlorobenzene		U	2.15	5.98
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 16.4%

Lab Sample ID: 11080666-002
Lab File ID: 4V4474.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 10:40
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-003 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:10	MARKA	4.7	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:10	MARKA	2.32	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 14:00	MARK	<0.033	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.066	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:10	MARKA	19.7	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:10	MARKA	31.9	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:10	MARKA	24.3	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	0.022	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:10	MARKA	20.1	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	85.7	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.83	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.66	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.66	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:10	MARKA	57.5	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 14.3%
Extract Volume: 1 mL

Lab Sample ID: 11080666-003
Lab File ID: 5S1230.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	447	778
62-75-9	n-Nitroso-dimethylamine		U	700	778
100-52-7	Benzaldehyde		U	232	778
62-53-3	Aniline		U	34.2	778
111-44-4	bis(2-Chloroethyl)ether		U	48.2	778
541-73-1	1,3-Dichlorobenzene		U	46.7	778
106-46-7	1,4-Dichlorobenzene		U	59.1	778
100-51-6	Benzyl Alcohol		U	1080	778
95-50-1	1,2-Dichlorobenzene		U	35.8	778
108-60-1	bis(2-Chloroisopropyl)ether		U	38.9	778
98-86-2	Acetophenone		U	205	778
621-64-7	n-Nitroso-di-n-propylamine		U	68.5	778
67-72-1	Hexachloroethane		U	43.6	778
98-95-3	Nitrobenzene		U	31.1	778
78-59-1	Isophorone		U	32.7	778
111-91-1	bis(2-Chloroethoxy)methane		U	52.9	778
120-82-1	1,2,4-Trichlorobenzene		U	54.5	778
91-20-3	Naphthalene		U	34.2	778
106-47-8	4-Chloroaniline		U	46.7	778
87-68-3	Hexachlorobutadiene		U	45.1	778
105-60-2	Caprolactam		U	142	778
91-57-6	2-Methylnaphthalene		U	40.5	778
77-47-4	Hexachlorocyclopentadiene		U	638	1560
92-52-4	Biphenyl		U	152	778
91-58-7	2-Chloronaphthalene		U	31.1	778
88-74-4	2-Nitroaniline		U	17.1	778
131-11-3	Dimethylphthalate		U	45.1	778
208-96-8	Acenaphthylene		U	24.9	778
606-20-2	2,6-Dinitrotoluene		U	65.3	778
99-09-2	3-Nitroaniline		U	759	778
83-32-9	Acenaphthene		U	31.1	778
132-64-9	Dibenzofuran		U	34.2	778
121-14-2	2,4-Dinitrotoluene		U	60.7	778
86-73-7	Fluorene		U	23.3	778
84-66-2	Diethylphthalate		U	1680	778
7005-72-3	4-Chlorophenyl phenyl ether		U	42.0	778
100-01-6	4-Nitroaniline		U	426	778
86-30-6	n-Nitrosodiphenylamine		U	34.2	778
103-33-3	1,2-Diphenylhydrazine		U	26.4	778

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 14.3%
Extract Volume: 1 mL

Lab Sample ID: 11080666-003
Lab File ID: 5S1230.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	49.8	778
118-74-1	Hexachlorobenzene		U	70.0	778
1912-24-9	Atrazine		U	128	778
85-01-8	Phenanthrene	520	D	12.4	778
120-12-7	Anthracene	90.8	D	21.8	778
86-74-8	Carbazole		U	48.2	778
84-74-2	Di-n-butylphthalate		U	74.7	778
206-44-0	Fluoranthene	626	D	38.9	778
92-87-5	Benzidine		U	730	778
129-00-0	Pyrene	681	D	21.8	778
85-68-7	Butylbenzylphthalate		U	29.6	778
56-55-3	Benzo(a)anthracene	475	D	26.4	778
91-94-1	3,3'-Dichlorobenzidine		U	408	778
218-01-9	Chrysene	397	D	31.1	778
117-81-7	bis(2-Ethylhexyl)phthalate	235	BDJ	532	778
117-84-0	Di-n-octylphthalate		U	48.2	778
205-99-2	Benzo(b)fluoranthene	350	D	52.9	778
207-08-9	Benzo(k)fluoranthene	159	D	42.0	778
50-32-8	Benzo(a)pyrene	313	D	29.6	778
193-39-5	Indeno(1,2,3-cd)pyrene	145	D	20.2	778
53-70-3	Dibenzo(a,h)anthracene		U	24.9	778
191-24-2	Benzo(g,h,i)perylene	176	D	40.5	778

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 14.3%
Extract Volume: 1 mL

Lab Sample ID: 11080666-003
Lab File ID: 5S1230.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Est. Conc.	Q	RT
62238-11-3	Decane, 2,3,5-trimethyl-	827	JN	13.71
112-95-8	Eicosane	1750	JN	14.71
54833-23-7	Eicosane, 10-methyl-	873	JN	16.56
	unknown	720	J	17.42

Number of TICs found: 4
Total Est. Concentration: 4170 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 14.3%

Lab Sample ID: 11080666-003
Lab File ID: 4V4475.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.30	5.83
74-87-3	Chloromethane		U	0.758	5.83
107-02-8	Acrolein		U	4.76	23.3
75-01-4	Vinyl Chloride		U	1.10	5.83
74-83-9	Bromomethane		U	2.00	5.83
75-00-3	Chloroethane		U	2.66	5.83
75-69-4	Trichlorofluoromethane		U	1.37	5.83
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethar		U	2.44	5.83
67-64-1	Acetone		U	3.35	11.7
75-35-4	1,1-Dichloroethene		U	1.58	5.83
75-65-0	tert-Butyl Alcohol		U	11.4	58.3
79-20-9	Methyl Acetate		U	1.11	5.83
75-09-2	Methylene Chloride		U	0.957	5.83
75-15-0	Carbon Disulfide		U	0.805	5.83
107-13-1	Acrylonitrile		U	1.52	5.83
1634-04-4	Methyl tert-Butyl Ether		U	1.02	5.83
156-60-5	trans-1,2-Dichloroethene		U	0.782	5.83
75-34-3	1,1-Dichloroethane		U	0.980	5.83
108-05-4	Vinyl Acetate		U	1.45	5.83
78-93-3	2-Butanone		U	2.39	11.7
594-20-7	2,2-Dichloropropane		U	0.607	5.83
156-59-2	cis-1,2-Dichloroethene		U	0.607	5.83
67-66-3	Chloroform		U	0.910	5.83
74-97-5	Bromochloromethane		U	1.10	5.83
110-82-7	Cyclohexane		U	1.18	5.83
71-55-6	1,1,1-Trichloroethane		U	1.33	5.83
563-58-6	1,1-Dichloropropene		U	1.26	5.83
56-23-5	Carbon Tetrachloride		U	1.02	5.83
107-06-2	1,2-Dichloroethane		U	0.665	5.83
71-43-2	Benzene		U	0.642	5.83
79-01-6	Trichloroethene		U	0.957	5.83
108-87-2	Methylcyclohexane		U	1.19	5.83
78-87-5	1,2-Dichloropropane		U	0.922	5.83
75-27-4	Bromodichloromethane		U	0.898	5.83
123-91-1	p-Dioxane		U	0.00	117
74-95-3	Dibromomethane		U	0.992	5.83
110-75-8	2-Chloroethylvinyl ether		U	1.14	11.7
108-10-1	4-Methyl-2-Pentanone		U	0.875	11.7
10061-01-5	cis-1,3-Dichloropropene		U	0.222	5.83

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 14.3%

Lab Sample ID: 11080666-003
Lab File ID: 4V4475.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.420	5.83
10061-02-6	trans-1,3-Dichloropropene		U	0.513	5.83
79-00-5	1,1,2-Trichloroethane		U	0.793	5.83
591-78-6	2-Hexanone		U	1.28	11.7
142-28-9	1,3-Dichloropropane		U	0.735	5.83
127-18-4	Tetrachloroethene		U	0.782	5.83
124-48-1	Dibromochloromethane		U	0.793	5.83
106-93-4	1,2-Dibromoethane		U	0.443	5.83
108-90-7	Chlorobenzene		U	0.502	5.83
630-20-6	1,1,1,2-Tetrachloroethane		U	0.735	5.83
100-41-4	Ethylbenzene		U	0.467	5.83
1330-20-7	m+p-Xylenes		U	1.12	11.7
95-47-6	o-Xylene		U	0.922	5.83
100-42-5	Styrene		U	0.735	5.83
98-82-8	Isopropylbenzene		U	0.607	5.83
75-25-2	Bromoform		U	2.09	5.83
79-34-5	1,1,2,2-Tetrachloroethane		U	1.66	5.83
96-18-4	1,2,3-Trichloropropane		U	3.23	5.83
103-65-1	n-Propylbenzene		U	2.19	5.83
108-86-1	Bromobenzene		U	1.00	5.83
95-49-8	2-Chlorotoluene		U	0.537	5.83
106-43-4	4-Chlorotoluene		U	0.385	5.83
108-67-8	1,3,5-Trimethylbenzene		U	1.67	5.83
98-06-6	tert-Butylbenzene		U	1.63	5.83
95-63-6	1,2,4-Trimethylbenzene		U	1.74	11.7
135-98-8	sec-Butylbenzene		U	1.96	5.83
99-87-6	4-Isopropyltoluene		U	1.83	5.83
541-73-1	1,3-Dichlorobenzene		U	0.968	5.83
106-46-7	1,4-Dichlorobenzene		U	0.992	5.83
104-51-8	n-Butylbenzene		U	1.81	5.83
95-50-1	1,2-Dichlorobenzene		U	0.840	5.83
96-12-8	1,2-Dibromo-3-chloropropane		U	5.26	11.7
120-82-1	1,2,4-Trichlorobenzene		U	1.14	5.83
87-68-3	Hexachlorobutadiene		U	2.67	5.83
91-20-3	Naphthalene		U	1.07	5.83
87-61-6	1,2,3-Trichlorobenzene		U	2.10	5.83
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 14.3%

Lab Sample ID: 11080666-003
Lab File ID: 4V4475.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 11:10
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-004 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:15	MARKA	3.8	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:15	MARKA	2.42	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:15	MARKA	0.25	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.057	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:15	MARKA	21.9	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:15	MARKA	24.2	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:15	MARKA	8.7	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	<0.018	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:15	MARKA	26.5	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	83	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.72	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.57	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.57	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:15	MARKA	58.0	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.0%
Extract Volume: 1 mL

Lab Sample ID: 11080666-004
Lab File ID: 5S1236.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	231	402
62-75-9	n-Nitroso-dimethylamine		U	361	402
100-52-7	Benzaldehyde		U	120	402
62-53-3	Aniline		U	17.7	402
111-44-4	bis(2-Chloroethyl)ether		U	24.9	402
541-73-1	1,3-Dichlorobenzene		U	24.1	402
106-46-7	1,4-Dichlorobenzene		U	30.5	402
100-51-6	Benzyl Alcohol		U	557	402
95-50-1	1,2-Dichlorobenzene		U	18.5	402
108-60-1	bis(2-Chloroisopropyl)ether		U	20.1	402
98-86-2	Acetophenone		U	106	402
621-64-7	n-Nitroso-di-n-propylamine		U	35.3	402
67-72-1	Hexachloroethane		U	22.5	402
98-95-3	Nitrobenzene		U	16.1	402
78-59-1	Isophorone		U	16.9	402
111-91-1	bis(2-Chloroethoxy)methane		U	27.3	402
120-82-1	1,2,4-Trichlorobenzene		U	28.1	402
91-20-3	Naphthalene		U	17.7	402
106-47-8	4-Chloroaniline		U	24.1	402
87-68-3	Hexachlorobutadiene		U	23.3	402
105-60-2	Caprolactam		U	73.1	402
91-57-6	2-Methylnaphthalene		U	20.9	402
77-47-4	Hexachlorocyclopentadiene		U	329	803
92-52-4	Biphenyl		U	78.7	402
91-58-7	2-Chloronaphthalene		U	16.1	402
88-74-4	2-Nitroaniline		U	8.84	402
131-11-3	Dimethylphthalate	128	B	23.3	402
208-96-8	Acenaphthylene		U	12.9	402
606-20-2	2,6-Dinitrotoluene		U	33.7	402
99-09-2	3-Nitroaniline		U	392	402
83-32-9	Acenaphthene		U	16.1	402
132-64-9	Dibenzofuran		U	17.7	402
121-14-2	2,4-Dinitrotoluene		U	31.3	402
86-73-7	Fluorene		U	12.0	402
84-66-2	Diethylphthalate		U	867	402
7005-72-3	4-Chlorophenyl phenyl ether		U	21.7	402
100-01-6	4-Nitroaniline		U	220	402
86-30-6	n-Nitrosodiphenylamine		U	17.7	402
103-33-3	1,2-Diphenylhydrazine		U	13.7	402

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.0%
Extract Volume: 1 mL

Lab Sample ID: 11080666-004
Lab File ID: 5S1236.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	25.7	402
118-74-1	Hexachlorobenzene		U	36.1	402
1912-24-9	Atrazine		U	65.9	402
85-01-8	Phenanthrene		U	6.43	402
120-12-7	Anthracene		U	11.2	402
86-74-8	Carbazole		U	24.9	402
84-74-2	Di-n-butylphthalate		U	38.6	402
206-44-0	Fluoranthene		U	20.1	402
92-87-5	Benzidine		U	377	402
129-00-0	Pyrene		U	11.2	402
85-68-7	Butylbenzylphthalate		U	15.3	402
56-55-3	Benzo(a)anthracene		U	13.7	402
91-94-1	3,3'-Dichlorobenzidine		U	210	402
218-01-9	Chrysene		U	16.1	402
117-81-7	bis(2-Ethylhexyl)phthalate		U	275	402
117-84-0	Di-n-octylphthalate	80.1		24.9	402
205-99-2	Benzo(b)fluoranthene		U	27.3	402
207-08-9	Benzo(k)fluoranthene		U	21.7	402
50-32-8	Benzo(a)pyrene		U	15.3	402
193-39-5	Indeno(1,2,3-cd)pyrene		U	10.4	402
53-70-3	Dibenzo(a,h)anthracene		U	12.9	402
191-24-2	Benzo(g,h,i)perylene		U	20.9	402

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.0%
Extract Volume: 1 mL

Lab Sample ID: 11080666-004
Lab File ID: 5S1236.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
74381-40-1	Propanoic acid, 2-methyl-, 1-(1,1-	638	JN	13.58
629-50-5	Tridecane	447	JN	14.71
	unknown	333	J	15.65
54105-67-8	Heptadecane, 2,6-dimethyl-	406	JN	16.56
506-52-5	1-Hexacosanol	829	JN	20.66
	unknown	514	J	21.43
	unknown	521	J	21.54
	unknown	460	J	21.64

Number of TICs found: 8
Total Est. Concentration: 4148 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.0%

Lab Sample ID: 11080666-004
Lab File ID: 4V4476.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.34	6.02
74-87-3	Chloromethane		U	0.783	6.02
107-02-8	Acrolein		U	4.92	24.1
75-01-4	Vinyl Chloride		U	1.13	6.02
74-83-9	Bromomethane		U	2.06	6.02
75-00-3	Chloroethane		U	2.75	6.02
75-69-4	Trichlorofluoromethane		U	1.41	6.02
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethar		U	2.52	6.02
67-64-1	Acetone		U	3.46	12
75-35-4	1,1-Dichloroethene		U	1.63	6.02
75-65-0	tert-Butyl Alcohol		U	11.7	60.2
79-20-9	Methyl Acetate		U	1.14	6.02
75-09-2	Methylene Chloride		U	0.988	6.02
75-15-0	Carbon Disulfide		U	0.831	6.02
107-13-1	Acrylonitrile		U	1.57	6.02
1634-04-4	Methyl tert-Butyl Ether		U	1.05	6.02
156-60-5	trans-1,2-Dichloroethene		U	0.807	6.02
75-34-3	1,1-Dichloroethane		U	1.01	6.02
108-05-4	Vinyl Acetate		U	1.49	6.02
78-93-3	2-Butanone		U	2.47	12
594-20-7	2,2-Dichloropropane		U	0.627	6.02
156-59-2	cis-1,2-Dichloroethene		U	0.627	6.02
67-66-3	Chloroform		U	0.940	6.02
74-97-5	Bromochloromethane		U	1.13	6.02
110-82-7	Cyclohexane		U	1.22	6.02
71-55-6	1,1,1-Trichloroethane		U	1.37	6.02
563-58-6	1,1-Dichloropropene		U	1.30	6.02
56-23-5	Carbon Tetrachloride		U	1.05	6.02
107-06-2	1,2-Dichloroethane		U	0.687	6.02
71-43-2	Benzene		U	0.663	6.02
79-01-6	Trichloroethene		U	0.988	6.02
108-87-2	Methylcyclohexane		U	1.23	6.02
78-87-5	1,2-Dichloropropane		U	0.952	6.02
75-27-4	Bromodichloromethane		U	0.928	6.02
123-91-1	p-Dioxane		U	0.00	120
74-95-3	Dibromomethane		U	1.02	6.02
110-75-8	2-Chloroethylvinyl ether		U	1.18	12
108-10-1	4-Methyl-2-Pentanone		U	0.904	12
10061-01-5	cis-1,3-Dichloropropene		U	0.229	6.02

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.0%

Lab Sample ID: 11080666-004
Lab File ID: 4V4476.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.434	6.02
10061-02-6	trans-1,3-Dichloropropene		U	0.530	6.02
79-00-5	1,1,2-Trichloroethane		U	0.819	6.02
591-78-6	2-Hexanone		U	1.33	12
142-28-9	1,3-Dichloropropane		U	0.759	6.02
127-18-4	Tetrachloroethene		U	0.807	6.02
124-48-1	Dibromochloromethane		U	0.819	6.02
106-93-4	1,2-Dibromoethane		U	0.458	6.02
108-90-7	Chlorobenzene		U	0.518	6.02
630-20-6	1,1,1,2-Tetrachloroethane		U	0.759	6.02
100-41-4	Ethylbenzene		U	0.482	6.02
1330-20-7	m+p-Xylenes		U	1.16	12
95-47-6	o-Xylene		U	0.952	6.02
100-42-5	Styrene		U	0.759	6.02
98-82-8	Isopropylbenzene		U	0.627	6.02
75-25-2	Bromoform		U	2.16	6.02
79-34-5	1,1,2,2-Tetrachloroethane		U	1.71	6.02
96-18-4	1,2,3-Trichloropropane		U	3.34	6.02
103-65-1	n-Propylbenzene		U	2.27	6.02
108-86-1	Bromobenzene		U	1.04	6.02
95-49-8	2-Chlorotoluene		U	0.554	6.02
106-43-4	4-Chlorotoluene		U	0.398	6.02
108-67-8	1,3,5-Trimethylbenzene		U	1.72	6.02
98-06-6	tert-Butylbenzene		U	1.69	6.02
95-63-6	1,2,4-Trimethylbenzene		U	1.80	12
135-98-8	sec-Butylbenzene		U	2.02	6.02
99-87-6	4-Isopropyltoluene		U	1.89	6.02
541-73-1	1,3-Dichlorobenzene		U	1.00	6.02
106-46-7	1,4-Dichlorobenzene		U	1.02	6.02
104-51-8	n-Butylbenzene		U	1.87	6.02
95-50-1	1,2-Dichlorobenzene		U	0.867	6.02
96-12-8	1,2-Dibromo-3-chloropropane		U	5.43	12
120-82-1	1,2,4-Trichlorobenzene		U	1.18	6.02
87-68-3	Hexachlorobutadiene		U	2.76	6.02
91-20-3	Naphthalene		U	1.11	6.02
87-61-6	1,2,3-Trichlorobenzene		U	2.17	6.02
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.0%

Lab Sample ID: 11080666-004
Lab File ID: 4V4476.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 11:35
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-005 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:19	MARKA	3.6	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:19	MARKA	2.42	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:19	MARKA	1.19	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 12:19	MARKA	0.30	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:19	MARKA	15.5	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:19	MARKA	39.5	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:19	MARKA	68.9	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	<0.018	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:19	MARKA	14.5	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	85.8	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.74	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.59	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.59	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:19	MARKA	77.5	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 14.2%
Extract Volume: 1 mL

Lab Sample ID: 11080666-005
Lab File ID: 5S1231.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	446	777
62-75-9	n-Nitroso-dimethylamine		U	699	777
100-52-7	Benzaldehyde		U	232	777
62-53-3	Aniline		U	34.2	777
111-44-4	bis(2-Chloroethyl)ether		U	48.2	777
541-73-1	1,3-Dichlorobenzene		U	46.6	777
106-46-7	1,4-Dichlorobenzene		U	59.1	777
100-51-6	Benzyl Alcohol		U	1080	777
95-50-1	1,2-Dichlorobenzene		U	35.7	777
108-60-1	bis(2-Chloroisopropyl)ether		U	38.9	777
98-86-2	Acetophenone		U	205	777
621-64-7	n-Nitroso-di-n-propylamine		U	68.4	777
67-72-1	Hexachloroethane		U	43.5	777
98-95-3	Nitrobenzene		U	31.1	777
78-59-1	Isophorone		U	32.6	777
111-91-1	bis(2-Chloroethoxy)methane		U	52.8	777
120-82-1	1,2,4-Trichlorobenzene		U	54.4	777
91-20-3	Naphthalene		U	34.2	777
106-47-8	4-Chloroaniline		U	46.6	777
87-68-3	Hexachlorobutadiene		U	45.1	777
105-60-2	Caprolactam		U	141	777
91-57-6	2-Methylnaphthalene		U	40.4	777
77-47-4	Hexachlorocyclopentadiene		U	637	1550
92-52-4	Biphenyl		U	152	777
91-58-7	2-Chloronaphthalene		U	31.1	777
88-74-4	2-Nitroaniline		U	17.1	777
131-11-3	Dimethylphthalate		U	45.1	777
208-96-8	Acenaphthylene		U	24.9	777
606-20-2	2,6-Dinitrotoluene		U	65.3	777
99-09-2	3-Nitroaniline		U	758	777
83-32-9	Acenaphthene	231	D	31.1	777
132-64-9	Dibenzofuran	194	D	34.2	777
121-14-2	2,4-Dinitrotoluene		U	60.6	777
86-73-7	Fluorene	324	D	23.3	777
84-66-2	Diethylphthalate		U	1680	777
7005-72-3	4-Chlorophenyl phenyl ether		U	42.0	777
100-01-6	4-Nitroaniline		U	426	777
86-30-6	n-Nitrosodiphenylamine		U	34.2	777
103-33-3	1,2-Diphenylhydrazine		U	26.4	777

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 14.2%
Extract Volume: 1 mL

Lab Sample ID: 11080666-005
Lab File ID: 5S1231.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	49.7	777
118-74-1	Hexachlorobenzene		U	69.9	777
1912-24-9	Atrazine		U	127	777
85-01-8	Phenanthrene	2500	D	12.4	777
120-12-7	Anthracene	554	D	21.8	777
86-74-8	Carbazole	353	D	48.2	777
84-74-2	Di-n-butylphthalate		U	74.6	777
206-44-0	Fluoranthene	2350	D	38.9	777
92-87-5	Benzidine		U	729	777
129-00-0	Pyrene	2020	D	21.8	777
85-68-7	Butylbenzylphthalate		U	29.5	777
56-55-3	Benzo(a)anthracene	1150	D	26.4	777
91-94-1	3,3'-Dichlorobenzidine		U	407	777
218-01-9	Chrysene	891	D	31.1	777
117-81-7	bis(2-Ethylhexyl)phthalate	210	BDJ	531	777
117-84-0	Di-n-octylphthalate		U	48.2	777
205-99-2	Benzo(b)fluoranthene	1010	D	52.8	777
207-08-9	Benzo(k)fluoranthene	325	D	42.0	777
50-32-8	Benzo(a)pyrene	794	D	29.5	777
193-39-5	Indeno(1,2,3-cd)pyrene	434	D	20.2	777
53-70-3	Dibenzo(a,h)anthracene		U	24.9	777
191-24-2	Benzo(g,h,i)perylene	508	D	40.4	777

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 14.2%
Extract Volume: 1 mL

Lab Sample ID: 11080666-005
Lab File ID: 5S1231.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Est. Conc.	Q	RT
	unknown	944	J	15.5
192-97-2	Benzo[e]pyrene	656	JN	21.99

Number of TICs found: 2
Total Est. Concentration: 1600 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 14.2%

Lab Sample ID: 11080666-005
Lab File ID: 4V4477.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.29	5.83
74-87-3	Chloromethane		U	0.758	5.83
107-02-8	Acrolein		U	4.76	23.3
75-01-4	Vinyl Chloride		U	1.10	5.83
74-83-9	Bromomethane		U	1.99	5.83
75-00-3	Chloroethane		U	2.66	5.83
75-69-4	Trichlorofluoromethane		U	1.36	5.83
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethan		U	2.44	5.83
67-64-1	Acetone		U	3.34	11.7
75-35-4	1,1-Dichloroethene		U	1.57	5.83
75-65-0	tert-Butyl Alcohol		U	11.4	58.3
79-20-9	Methyl Acetate		U	1.11	5.83
75-09-2	Methylene Chloride		U	0.956	5.83
75-15-0	Carbon Disulfide		U	0.804	5.83
107-13-1	Acrylonitrile		U	1.52	5.83
1634-04-4	Methyl tert-Butyl Ether		U	1.01	5.83
156-60-5	trans-1,2-Dichloroethene		U	0.781	5.83
75-34-3	1,1-Dichloroethane		U	0.979	5.83
108-05-4	Vinyl Acetate		U	1.45	5.83
78-93-3	2-Butanone		U	2.39	11.7
594-20-7	2,2-Dichloropropane		U	0.606	5.83
156-59-2	cis-1,2-Dichloroethene		U	0.606	5.83
67-66-3	Chloroform		U	0.909	5.83
74-97-5	Bromochloromethane		U	1.10	5.83
110-82-7	Cyclohexane		U	1.18	5.83
71-55-6	1,1,1-Trichloroethane		U	1.33	5.83
563-58-6	1,1-Dichloropropene		U	1.26	5.83
56-23-5	Carbon Tetrachloride		U	1.01	5.83
107-06-2	1,2-Dichloroethane		U	0.664	5.83
71-43-2	Benzene		U	0.641	5.83
79-01-6	Trichloroethene		U	0.956	5.83
108-87-2	Methylcyclohexane		U	1.19	5.83
78-87-5	1,2-Dichloropropane		U	0.921	5.83
75-27-4	Bromodichloromethane		U	0.897	5.83
123-91-1	p-Dioxane		U	0.00	117
74-95-3	Dibromomethane		U	0.991	5.83
110-75-8	2-Chloroethylvinyl ether		U	1.14	11.7
108-10-1	4-Methyl-2-Pentanone		U	0.874	11.7
10061-01-5	cis-1,3-Dichloropropene		U	0.221	5.83

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 14.2%

Lab Sample ID: 11080666-005
Lab File ID: 4V4477.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.420	5.83
10061-02-6	trans-1,3-Dichloropropene		U	0.513	5.83
79-00-5	1,1,2-Trichloroethane		U	0.793	5.83
591-78-6	2-Hexanone		U	1.28	11.7
142-28-9	1,3-Dichloropropane		U	0.734	5.83
127-18-4	Tetrachloroethene		U	0.781	5.83
124-48-1	Dibromochloromethane		U	0.793	5.83
106-93-4	1,2-Dibromoethane		U	0.443	5.83
108-90-7	Chlorobenzene		U	0.501	5.83
630-20-6	1,1,1,2-Tetrachloroethane		U	0.734	5.83
100-41-4	Ethylbenzene		U	0.466	5.83
1330-20-7	m+p-Xylenes		U	1.12	11.7
95-47-6	o-Xylene		U	0.921	5.83
100-42-5	Styrene		U	0.734	5.83
98-82-8	Isopropylbenzene		U	0.606	5.83
75-25-2	Bromoform		U	2.09	5.83
79-34-5	1,1,2,2-Tetrachloroethane		U	1.66	5.83
96-18-4	1,2,3-Trichloropropane		U	3.23	5.83
103-65-1	n-Propylbenzene		U	2.19	5.83
108-86-1	Bromobenzene		U	1.00	5.83
95-49-8	2-Chlorotoluene		U	0.536	5.83
106-43-4	4-Chlorotoluene		U	0.385	5.83
108-67-8	1,3,5-Trimethylbenzene		U	1.67	5.83
98-06-6	tert-Butylbenzene		U	1.63	5.83
95-63-6	1,2,4-Trimethylbenzene		U	1.74	11.7
135-98-8	sec-Butylbenzene		U	1.96	5.83
99-87-6	4-Isopropyltoluene		U	1.83	5.83
541-73-1	1,3-Dichlorobenzene		U	0.967	5.83
106-46-7	1,4-Dichlorobenzene		U	0.991	5.83
104-51-8	n-Butylbenzene		U	1.81	5.83
95-50-1	1,2-Dichlorobenzene		U	0.839	5.83
96-12-8	1,2-Dibromo-3-chloropropane		U	5.26	11.7
120-82-1	1,2,4-Trichlorobenzene		U	1.14	5.83
87-68-3	Hexachlorobutadiene		U	2.67	5.83
91-20-3	Naphthalene		U	1.07	5.83
87-61-6	1,2,3-Trichlorobenzene		U	2.10	5.83
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 14.2%

Lab Sample ID: 11080666-005
Lab File ID: 4V4477.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 12:00
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-006 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:24	MARKA	3.6	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:24	MARKA	2.92	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:24	MARKA	0.22	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.074	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:24	MARKA	20.4	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:24	MARKA	47.6	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:24	MARKA	57.2	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	0.147	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:24	MARKA	21.3	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	83	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.93	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.74	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.74	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:24	MARKA	83.0	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.0%
Extract Volume: 1 mL

Lab Sample ID: 11080666-006
Lab File ID: 5S1237.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	231	402
62-75-9	n-Nitroso-dimethylamine		U	361	402
100-52-7	Benzaldehyde		U	120	402
62-53-3	Aniline		U	17.7	402
111-44-4	bis(2-Chloroethyl)ether		U	24.9	402
541-73-1	1,3-Dichlorobenzene		U	24.1	402
106-46-7	1,4-Dichlorobenzene		U	30.5	402
100-51-6	Benzyl Alcohol		U	557	402
95-50-1	1,2-Dichlorobenzene		U	18.5	402
108-60-1	bis(2-Chloroisopropyl)ether		U	20.1	402
98-86-2	Acetophenone		U	106	402
621-64-7	n-Nitroso-di-n-propylamine		U	35.3	402
67-72-1	Hexachloroethane		U	22.5	402
98-95-3	Nitrobenzene		U	16.1	402
78-59-1	Isophorone		U	16.9	402
111-91-1	bis(2-Chloroethoxy)methane		U	27.3	402
120-82-1	1,2,4-Trichlorobenzene		U	28.1	402
91-20-3	Naphthalene		U	17.7	402
106-47-8	4-Chloroaniline		U	24.1	402
87-68-3	Hexachlorobutadiene		U	23.3	402
105-60-2	Caprolactam		U	73.1	402
91-57-6	2-Methylnaphthalene		U	20.9	402
77-47-4	Hexachlorocyclopentadiene		U	329	803
92-52-4	Biphenyl		U	78.7	402
91-58-7	2-Chloronaphthalene		U	16.1	402
88-74-4	2-Nitroaniline		U	8.84	402
131-11-3	Dimethylphthalate	200	B	23.3	402
208-96-8	Acenaphthylene		U	12.9	402
606-20-2	2,6-Dinitrotoluene		U	33.7	402
99-09-2	3-Nitroaniline		U	392	402
83-32-9	Acenaphthene		U	16.1	402
132-64-9	Dibenzofuran		U	17.7	402
121-14-2	2,4-Dinitrotoluene		U	31.3	402
86-73-7	Fluorene		U	12.0	402
84-66-2	Diethylphthalate	109	BJ	867	402
7005-72-3	4-Chlorophenyl phenyl ether		U	21.7	402
100-01-6	4-Nitroaniline		U	220	402
86-30-6	n-Nitrosodiphenylamine		U	17.7	402
103-33-3	1,2-Diphenylhydrazine		U	13.7	402

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.0%
Extract Volume: 1 mL

Lab Sample ID: 11080666-006
Lab File ID: 5S1237.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	25.7	402
118-74-1	Hexachlorobenzene		U	36.1	402
1912-24-9	Atrazine		U	65.9	402
85-01-8	Phenanthrene	85.2		6.43	402
120-12-7	Anthracene		U	11.2	402
86-74-8	Carbazole		U	24.9	402
84-74-2	Di-n-butylphthalate		U	38.6	402
206-44-0	Fluoranthene	229		20.1	402
92-87-5	Benzidine		U	377	402
129-00-0	Pyrene	228		11.2	402
85-68-7	Butylbenzylphthalate		U	15.3	402
56-55-3	Benzo(a)anthracene	169		13.7	402
91-94-1	3,3'-Dichlorobenzidine		U	210	402
218-01-9	Chrysene	137		16.1	402
117-81-7	bis(2-Ethylhexyl)phthalate	66.3	BJ	275	402
117-84-0	Di-n-octylphthalate		U	24.9	402
205-99-2	Benzo(b)fluoranthene	165		27.3	402
207-08-9	Benzo(k)fluoranthene	46.1		21.7	402
50-32-8	Benzo(a)pyrene	129		15.3	402
193-39-5	Indeno(1,2,3-cd)pyrene	53.4		10.4	402
53-70-3	Dibenzo(a,h)anthracene		U	12.9	402
191-24-2	Benzo(g,h,i)perylene	65.9		20.9	402

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.0%
Extract Volume: 1 mL

Lab Sample ID: 11080666-006
Lab File ID: 5S1237.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
52783-43-4	Nonadecanol	770	JN	20.63
	unknown	874	J	21.44

Number of TICs found: 2
Total Est. Concentration: 1644 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.0%

Lab Sample ID: 11080666-006
Lab File ID: 4V4478.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.34	6.02
74-87-3	Chloromethane		U	0.783	6.02
107-02-8	Acrolein		U	4.92	24.1
75-01-4	Vinyl Chloride		U	1.13	6.02
74-83-9	Bromomethane		U	2.06	6.02
75-00-3	Chloroethane		U	2.75	6.02
75-69-4	Trichlorofluoromethane		U	1.41	6.02
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethar		U	2.52	6.02
67-64-1	Acetone		U	3.46	12
75-35-4	1,1-Dichloroethene		U	1.63	6.02
75-65-0	tert-Butyl Alcohol		U	11.7	60.2
79-20-9	Methyl Acetate		U	1.14	6.02
75-09-2	Methylene Chloride		U	0.988	6.02
75-15-0	Carbon Disulfide		U	0.831	6.02
107-13-1	Acrylonitrile		U	1.57	6.02
1634-04-4	Methyl tert-Butyl Ether		U	1.05	6.02
156-60-5	trans-1,2-Dichloroethene		U	0.807	6.02
75-34-3	1,1-Dichloroethane		U	1.01	6.02
108-05-4	Vinyl Acetate		U	1.49	6.02
78-93-3	2-Butanone		U	2.47	12
594-20-7	2,2-Dichloropropane		U	0.627	6.02
156-59-2	cis-1,2-Dichloroethene		U	0.627	6.02
67-66-3	Chloroform		U	0.940	6.02
74-97-5	Bromochloromethane		U	1.13	6.02
110-82-7	Cyclohexane		U	1.22	6.02
71-55-6	1,1,1-Trichloroethane		U	1.37	6.02
563-58-6	1,1-Dichloropropene		U	1.30	6.02
56-23-5	Carbon Tetrachloride		U	1.05	6.02
107-06-2	1,2-Dichloroethane		U	0.687	6.02
71-43-2	Benzene		U	0.663	6.02
79-01-6	Trichloroethene		U	0.988	6.02
108-87-2	Methylcyclohexane		U	1.23	6.02
78-87-5	1,2-Dichloropropane		U	0.952	6.02
75-27-4	Bromodichloromethane		U	0.928	6.02
123-91-1	p-Dioxane		U	0.00	120
74-95-3	Dibromomethane		U	1.02	6.02
110-75-8	2-Chloroethylvinyl ether		U	1.18	12
108-10-1	4-Methyl-2-Pentanone		U	0.904	12
10061-01-5	cis-1,3-Dichloropropene		U	0.229	6.02

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.0%

Lab Sample ID: 11080666-006
Lab File ID: 4V4478.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.434	6.02
10061-02-6	trans-1,3-Dichloropropene		U	0.530	6.02
79-00-5	1,1,2-Trichloroethane		U	0.819	6.02
591-78-6	2-Hexanone		U	1.33	12
142-28-9	1,3-Dichloropropane		U	0.759	6.02
127-18-4	Tetrachloroethene		U	0.807	6.02
124-48-1	Dibromochloromethane		U	0.819	6.02
106-93-4	1,2-Dibromoethane		U	0.458	6.02
108-90-7	Chlorobenzene		U	0.518	6.02
630-20-6	1,1,1,2-Tetrachloroethane		U	0.759	6.02
100-41-4	Ethylbenzene		U	0.482	6.02
1330-20-7	m+p-Xylenes		U	1.16	12
95-47-6	o-Xylene		U	0.952	6.02
100-42-5	Styrene		U	0.759	6.02
98-82-8	Isopropylbenzene		U	0.627	6.02
75-25-2	Bromoform		U	2.16	6.02
79-34-5	1,1,2,2-Tetrachloroethane		U	1.71	6.02
96-18-4	1,2,3-Trichloropropane		U	3.34	6.02
103-65-1	n-Propylbenzene		U	2.27	6.02
108-86-1	Bromobenzene		U	1.04	6.02
95-49-8	2-Chlorotoluene		U	0.554	6.02
106-43-4	4-Chlorotoluene		U	0.398	6.02
108-67-8	1,3,5-Trimethylbenzene		U	1.72	6.02
98-06-6	tert-Butylbenzene		U	1.69	6.02
95-63-6	1,2,4-Trimethylbenzene		U	1.80	12
135-98-8	sec-Butylbenzene		U	2.02	6.02
99-87-6	4-Isopropyltoluene		U	1.89	6.02
541-73-1	1,3-Dichlorobenzene		U	1.00	6.02
106-46-7	1,4-Dichlorobenzene		U	1.02	6.02
104-51-8	n-Butylbenzene		U	1.87	6.02
95-50-1	1,2-Dichlorobenzene		U	0.867	6.02
96-12-8	1,2-Dibromo-3-chloropropane		U	5.43	12
120-82-1	1,2,4-Trichlorobenzene		U	1.18	6.02
87-68-3	Hexachlorobutadiene		U	2.76	6.02
91-20-3	Naphthalene		U	1.11	6.02
87-61-6	1,2,3-Trichlorobenzene		U	2.17	6.02
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.0%

Lab Sample ID: 11080666-006
Lab File ID: 4V4478.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 12:45
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-007 AEI-B						
Antimony	SW 846 6010B	08/26/2011 14:00	MARK	<0.72	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:28	MARKA	1.77	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:28	MARKA	0.93	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.072	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:28	MARKA	33.3	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:28	MARKA	32.4	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:28	MARKA	31.1	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	0.034	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:28	MARKA	37.5	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	81.5	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.9	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.72	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.72	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:28	MARKA	92.5	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.5%
Extract Volume: 1 mL

Lab Sample ID: 11080666-007
Lab File ID: 5S1238.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	235	409
62-75-9	n-Nitroso-dimethylamine		U	368	409
100-52-7	Benzaldehyde		U	122	409
62-53-3	Aniline		U	18.0	409
111-44-4	bis(2-Chloroethyl)ether		U	25.4	409
541-73-1	1,3-Dichlorobenzene		U	24.5	409
106-46-7	1,4-Dichlorobenzene		U	31.1	409
100-51-6	Benzyl Alcohol		U	567	409
95-50-1	1,2-Dichlorobenzene		U	18.8	409
108-60-1	bis(2-Chloroisopropyl)ether		U	20.4	409
98-86-2	Acetophenone		U	108	409
621-64-7	n-Nitroso-di-n-propylamine		U	36.0	409
67-72-1	Hexachloroethane		U	22.9	409
98-95-3	Nitrobenzene		U	16.4	409
78-59-1	Isophorone		U	17.2	409
111-91-1	bis(2-Chloroethoxy)methane		U	27.8	409
120-82-1	1,2,4-Trichlorobenzene		U	28.6	409
91-20-3	Naphthalene		U	18.0	409
106-47-8	4-Chloroaniline		U	24.5	409
87-68-3	Hexachlorobutadiene		U	23.7	409
105-60-2	Caprolactam		U	74.4	409
91-57-6	2-Methylnaphthalene		U	21.3	409
77-47-4	Hexachlorocyclopentadiene		U	335	818
92-52-4	Biphenyl		U	80.2	409
91-58-7	2-Chloronaphthalene		U	16.4	409
88-74-4	2-Nitroaniline		U	9.00	409
131-11-3	Dimethylphthalate	115	B	23.7	409
208-96-8	Acenaphthylene		U	13.1	409
606-20-2	2,6-Dinitrotoluene		U	34.4	409
99-09-2	3-Nitroaniline		U	399	409
83-32-9	Acenaphthene		U	16.4	409
132-64-9	Dibenzofuran		U	18.0	409
121-14-2	2,4-Dinitrotoluene		U	31.9	409
86-73-7	Fluorene		U	12.3	409
84-66-2	Diethylphthalate		U	883	409
7005-72-3	4-Chlorophenyl phenyl ether		U	22.1	409
100-01-6	4-Nitroaniline		U	224	409
86-30-6	n-Nitrosodiphenylamine		U	18.0	409
103-33-3	1,2-Diphenylhydrazine		U	13.9	409

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.5%
Extract Volume: 1 mL

Lab Sample ID: 11080666-007
Lab File ID: 5S1238.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	26.2	409
118-74-1	Hexachlorobenzene		U	36.8	409
1912-24-9	Atrazine		U	67.1	409
85-01-8	Phenanthrene	232		6.54	409
120-12-7	Anthracene	70.8		11.5	409
86-74-8	Carbazole		U	25.4	409
84-74-2	Di-n-butylphthalate		U	39.3	409
206-44-0	Fluoranthene	211		20.4	409
92-87-5	Benzidine		U	384	409
129-00-0	Pyrene	177		11.5	409
85-68-7	Butylbenzylphthalate		U	15.5	409
56-55-3	Benzo(a)anthracene	133		13.9	409
91-94-1	3,3'-Dichlorobenzidine		U	214	409
218-01-9	Chrysene	118		16.4	409
117-81-7	bis(2-Ethylhexyl)phthalate	83	BJ	280	409
117-84-0	Di-n-octylphthalate	102		25.4	409
205-99-2	Benzo(b)fluoranthene	111		27.8	409
207-08-9	Benzo(k)fluoranthene		U	22.1	409
50-32-8	Benzo(a)pyrene	85.9		15.5	409
193-39-5	Indeno(1,2,3-cd)pyrene	48.4		10.6	409
53-70-3	Dibenzo(a,h)anthracene		U	13.1	409
191-24-2	Benzo(g,h,i)perylene	44.6		21.3	409

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.5%
Extract Volume: 1 mL

Lab Sample ID: 11080666-007
Lab File ID: 5S1238.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
	unknown	406	J	13.58
	unknown hydrocarbon	605	J	20.71
	unknown	332	J	21.32
	unknown	573	J	21.44
	unknown	774	J	21.54
	unknown	346	J	21.74

Number of TICs found: 6
Total Est. Concentration: 3036 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 18.5%

Lab Sample ID: 11080666-007
Lab File ID: 4V4479.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.36	6.13
74-87-3	Chloromethane		U	0.798	6.13
107-02-8	Acrolein		U	5.01	24.5
75-01-4	Vinyl Chloride		U	1.15	6.13
74-83-9	Bromomethane		U	2.10	6.13
75-00-3	Chloroethane		U	2.80	6.13
75-69-4	Trichlorofluoromethane		U	1.44	6.13
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethar		U	2.56	6.13
67-64-1	Acetone		U	3.52	12.3
75-35-4	1,1-Dichloroethene		U	1.66	6.13
75-65-0	tert-Butyl Alcohol		U	12.0	61.3
79-20-9	Methyl Acetate		U	1.17	6.13
75-09-2	Methylene Chloride		U	1.01	6.13
75-15-0	Carbon Disulfide		U	0.847	6.13
107-13-1	Acrylonitrile		U	1.60	6.13
1634-04-4	Methyl tert-Butyl Ether		U	1.07	6.13
156-60-5	trans-1,2-Dichloroethene		U	0.822	6.13
75-34-3	1,1-Dichloroethane		U	1.03	6.13
108-05-4	Vinyl Acetate		U	1.52	6.13
78-93-3	2-Butanone		U	2.52	12.3
594-20-7	2,2-Dichloropropane		U	0.638	6.13
156-59-2	cis-1,2-Dichloroethene		U	0.638	6.13
67-66-3	Chloroform		U	0.957	6.13
74-97-5	Bromochloromethane		U	1.15	6.13
110-82-7	Cyclohexane		U	1.24	6.13
71-55-6	1,1,1-Trichloroethane		U	1.40	6.13
563-58-6	1,1-Dichloropropene		U	1.33	6.13
56-23-5	Carbon Tetrachloride		U	1.07	6.13
107-06-2	1,2-Dichloroethane		U	0.699	6.13
71-43-2	Benzene		U	0.675	6.13
79-01-6	Trichloroethene		U	1.01	6.13
108-87-2	Methylcyclohexane		U	1.25	6.13
78-87-5	1,2-Dichloropropane		U	0.969	6.13
75-27-4	Bromodichloromethane		U	0.945	6.13
123-91-1	p-Dioxane		U	0.00	123
74-95-3	Dibromomethane		U	1.04	6.13
110-75-8	2-Chloroethylvinyl ether		U	1.20	12.3
108-10-1	4-Methyl-2-Pentanone		U	0.920	12.3
10061-01-5	cis-1,3-Dichloropropene		U	0.233	6.13

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample:
AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 18.5%

Lab Sample ID: 11080666-007
Lab File ID: 4V4479.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.442	6.13
10061-02-6	trans-1,3-Dichloropropene		U	0.540	6.13
79-00-5	1,1,2-Trichloroethane		U	0.834	6.13
591-78-6	2-Hexanone		U	1.35	12.3
142-28-9	1,3-Dichloropropane		U	0.773	6.13
127-18-4	Tetrachloroethene		U	0.822	6.13
124-48-1	Dibromochloromethane		U	0.834	6.13
106-93-4	1,2-Dibromoethane		U	0.466	6.13
108-90-7	Chlorobenzene		U	0.528	6.13
630-20-6	1,1,1,2-Tetrachloroethane		U	0.773	6.13
100-41-4	Ethylbenzene		U	0.491	6.13
1330-20-7	m+p-Xylenes		U	1.18	12.3
95-47-6	o-Xylene		U	0.969	6.13
100-42-5	Styrene		U	0.773	6.13
98-82-8	Isopropylbenzene		U	0.638	6.13
75-25-2	Bromoform		U	2.20	6.13
79-34-5	1,1,2,2-Tetrachloroethane		U	1.74	6.13
96-18-4	1,2,3-Trichloropropane		U	3.40	6.13
103-65-1	n-Propylbenzene		U	2.31	6.13
108-86-1	Bromobenzene		U	1.06	6.13
95-49-8	2-Chlorotoluene		U	0.564	6.13
106-43-4	4-Chlorotoluene		U	0.405	6.13
108-67-8	1,3,5-Trimethylbenzene		U	1.75	6.13
98-06-6	tert-Butylbenzene		U	1.72	6.13
95-63-6	1,2,4-Trimethylbenzene		U	1.83	12.3
135-98-8	sec-Butylbenzene		U	2.06	6.13
99-87-6	4-Isopropyltoluene		U	1.93	6.13
541-73-1	1,3-Dichlorobenzene		U	1.02	6.13
106-46-7	1,4-Dichlorobenzene		U	1.04	6.13
104-51-8	n-Butylbenzene		U	1.90	6.13
95-50-1	1,2-Dichlorobenzene		U	0.883	6.13
96-12-8	1,2-Dibromo-3-chloropropane		U	5.53	12.3
120-82-1	1,2,4-Trichlorobenzene		U	1.20	6.13
87-68-3	Hexachlorobutadiene		U	2.81	6.13
91-20-3	Naphthalene		U	1.13	6.13
87-61-6	1,2,3-Trichlorobenzene		U	2.21	6.13
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 18.5%

Lab Sample ID: 11080666-007
Lab File ID: 4V4479.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 13:45
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-008 AEI-B						
Antimony	SW 846 6010B	08/26/2011 12:32	MARKA	0.4	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 12:32	MARKA	1.22	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 12:32	MARKA	0.60	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.058	mg/kg	
Chromium	SW 846 6010B	08/26/2011 12:32	MARKA	25.0	mg/Kg	
Copper	SW 846 6010B	08/26/2011 12:32	MARKA	18.1	mg/kg	
Lead	SW 846 6010B	08/26/2011 12:32	MARKA	26.6	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	0.085	mg/kg	
Nickel	SW 846 6010B	08/26/2011 12:32	MARKA	16.4	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	81.2	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.72	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.58	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.58	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 12:32	MARKA	108	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.8%
Extract Volume: 1 mL

Lab Sample ID: 11080666-008
Lab File ID: 5S1232.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	471	821
62-75-9	n-Nitroso-dimethylamine		U	739	821
100-52-7	Benzaldehyde		U	245	821
62-53-3	Aniline		U	36.1	821
111-44-4	bis(2-Chloroethyl)ether		U	50.9	821
541-73-1	1,3-Dichlorobenzene		U	49.3	821
106-46-7	1,4-Dichlorobenzene		U	62.4	821
100-51-6	Benzyl Alcohol		U	1140	821
95-50-1	1,2-Dichlorobenzene		U	37.8	821
108-60-1	bis(2-Chloroisopropyl)ether		U	41.1	821
98-86-2	Acetophenone		U	217	821
621-64-7	n-Nitroso-di-n-propylamine		U	72.2	821
67-72-1	Hexachloroethane		U	46.0	821
98-95-3	Nitrobenzene		U	32.8	821
78-59-1	Isophorone		U	34.5	821
111-91-1	bis(2-Chloroethoxy)methane		U	55.8	821
120-82-1	1,2,4-Trichlorobenzene		U	57.5	821
91-20-3	Naphthalene		U	36.1	821
106-47-8	4-Chloroaniline		U	49.3	821
87-68-3	Hexachlorobutadiene		U	47.6	821
105-60-2	Caprolactam		U	149	821
91-57-6	2-Methylnaphthalene		U	42.7	821
77-47-4	Hexachlorocyclopentadiene		U	673	1640
92-52-4	Biphenyl		U	161	821
91-58-7	2-Chloronaphthalene		U	32.8	821
88-74-4	2-Nitroaniline		U	18.1	821
131-11-3	Dimethylphthalate	259	BD	47.6	821
208-96-8	Acenaphthylene	116	D	26.3	821
606-20-2	2,6-Dinitrotoluene		U	69.0	821
99-09-2	3-Nitroaniline		U	801	821
83-32-9	Acenaphthene	1060	D	32.8	821
132-64-9	Dibenzofuran	441	D	36.1	821
121-14-2	2,4-Dinitrotoluene		U	64.0	821
86-73-7	Fluorene	1920	D	24.6	821
84-66-2	Diethylphthalate		U	1770	821
7005-72-3	4-Chlorophenyl phenyl ether		U	44.3	821
100-01-6	4-Nitroaniline		U	450	821
86-30-6	n-Nitrosodiphenylamine		U	36.1	821
103-33-3	1,2-Diphenylhydrazine		U	27.9	821

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.8%
Extract Volume: 1 mL

Lab Sample ID: 11080666-008
Lab File ID: 5S1232.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	52.5	821
118-74-1	Hexachlorobenzene		U	73.9	821
1912-24-9	Atrazine		U	135	821
85-01-8	Phenanthrene	9270	D	13.1	821
120-12-7	Anthracene	2700	D	23.0	821
86-74-8	Carbazole	942	D	50.9	821
84-74-2	Di-n-butylphthalate		U	78.8	821
206-44-0	Fluoranthene	16500	DE	41.1	821
92-87-5	Benzidine		U	770	821
129-00-0	Pyrene	8060	D	23.0	821
85-68-7	Butylbenzylphthalate		U	31.2	821
56-55-3	Benzo(a)anthracene	7990	D	27.9	821
91-94-1	3,3'-Dichlorobenzidine		U	430	821
218-01-9	Chrysene	8210	D	32.8	821
117-81-7	bis(2-Ethylhexyl)phthalate		U	562	821
117-84-0	Di-n-octylphthalate		U	50.9	821
205-99-2	Benzo(b)fluoranthene	9080	D	55.8	821
207-08-9	Benzo(k)fluoranthene	3910	D	44.3	821
50-32-8	Benzo(a)pyrene	5270	D	31.2	821
193-39-5	Indeno(1,2,3-cd)pyrene	2290	D	21.3	821
53-70-3	Dibenzo(a,h)anthracene	720	D	26.3	821
191-24-2	Benzo(g,h,i)perylene	2370	D	42.7	821

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.8%
Extract Volume: 1 mL

Lab Sample ID: 11080666-008
Lab File ID: 5S1249.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 24-Aug-11
Dilution Factor: 10

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	2360	4110
62-75-9	n-Nitroso-dimethylamine		U	3690	4110
100-52-7	Benzaldehyde		U	1220	4110
62-53-3	Aniline		U	181	4110
111-44-4	bis(2-Chloroethyl)ether		U	255	4110
541-73-1	1,3-Dichlorobenzene		U	246	4110
106-46-7	1,4-Dichlorobenzene		U	312	4110
100-51-6	Benzyl Alcohol		U	5690	4110
95-50-1	1,2-Dichlorobenzene		U	189	4110
108-60-1	bis(2-Chloroisopropyl)ether		U	205	4110
98-86-2	Acetophenone		U	1080	4110
621-64-7	n-Nitroso-di-n-propylamine		U	361	4110
67-72-1	Hexachloroethane		U	230	4110
98-95-3	Nitrobenzene		U	164	4110
78-59-1	Isophorone		U	172	4110
111-91-1	bis(2-Chloroethoxy)methane		U	279	4110
120-82-1	1,2,4-Trichlorobenzene		U	287	4110
91-20-3	Naphthalene		U	181	4110
106-47-8	4-Chloroaniline		U	246	4110
87-68-3	Hexachlorobutadiene		U	238	4110
105-60-2	Caprolactam		U	747	4110
91-57-6	2-Methylnaphthalene		U	213	4110
77-47-4	Hexachlorocyclopentadiene		U	3370	8210
92-52-4	Biphenyl		U	805	4110
91-58-7	2-Chloronaphthalene		U	164	4110
88-74-4	2-Nitroaniline		U	90.3	4110
131-11-3	Dimethylphthalate		U	238	4110
208-96-8	Acenaphthylene		U	131	4110
606-20-2	2,6-Dinitrotoluene		U	345	4110
99-09-2	3-Nitroaniline		U	4010	4110
83-32-9	Acenaphthene	1170	D	164	4110
132-64-9	Dibenzofuran		U	181	4110
121-14-2	2,4-Dinitrotoluene		U	320	4110
86-73-7	Fluorene	2120	D	123	4110
84-66-2	Diethylphthalate		U	8870	4110
7005-72-3	4-Chlorophenyl phenyl ether		U	222	4110
100-01-6	4-Nitroaniline		U	2250	4110
86-30-6	n-Nitrosodiphenylamine		U	181	4110
103-33-3	1,2-Diphenylhydrazine		U	140	4110

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.8%
Extract Volume: 1 mL

Lab Sample ID: 11080666-008
Lab File ID: 5S1249.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 24-Aug-11
Dilution Factor: 10

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	263	4110
118-74-1	Hexachlorobenzene		U	369	4110
1912-24-9	Atrazine		U	673	4110
85-01-8	Phenanthrene	10000	D	65.7	4110
120-12-7	Anthracene	3010	D	115	4110
86-74-8	Carbazole		U	255	4110
84-74-2	Di-n-butylphthalate		U	394	4110
206-44-0	Fluoranthene	15600	D	205	4110
92-87-5	Benzidine		U	3850	4110
129-00-0	Pyrene	12700	D	115	4110
85-68-7	Butylbenzylphthalate		U	156	4110
56-55-3	Benzo(a)anthracene	10600	D	140	4110
91-94-1	3,3'-Dichlorobenzidine		U	2150	4110
218-01-9	Chrysene	8190	D	164	4110
117-81-7	bis(2-Ethylhexyl)phthalate		U	2810	4110
117-84-0	Di-n-octylphthalate		U	255	4110
205-99-2	Benzo(b)fluoranthene	9280	D	279	4110
207-08-9	Benzo(k)fluoranthene	2820	D	222	4110
50-32-8	Benzo(a)pyrene	5990	D	156	4110
193-39-5	Indeno(1,2,3-cd)pyrene	2680	D	107	4110
53-70-3	Dibenzo(a,h)anthracene		U	131	4110
191-24-2	Benzo(g,h,i)perylene	2920	D	213	4110

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 18.8%
Extract Volume: 1 mL

Lab Sample ID: 11080666-008
Lab File ID: 5S1232.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 2

CAS No.	Compound	Est. Conc.	Q	RT
4425-82-5	9H-Fluorene, 9-methylene-	2380	JN	15.51
832-64-4	Phenanthrene, 4-methyl-	2010	JN	16.65
610-48-0	Anthracene, 1-methyl-	2000	JN	16.71
	unknown hydrocarbon	1310	J	16.81
	unknown	2290	J	16.84
	unknown	1440	J	17.3
1576-67-6	Phenanthrene, 3,6-dimethyl-	1380	JN	17.83
	unknown	1090	J	17.88
	unknown	1990	J	19.14
243-17-4	11H-Benzo[b]fluorene	2050	JN	19.25
	unknown	1080	J	19.89
	unknown	1510	J	20.52
1705-84-6	Triphenylene, 2-methyl-	1570	JN	20.91
	unknown	4290	J	21.34
192-97-2	Benzo[e]pyrene	3520	JN	22

Number of TICs found: 15
Total Est. Concentration: 29910 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 18.8%

Lab Sample ID: 11080666-008
Lab File ID: 4V4480.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.37	6.16
74-87-3	Chloromethane		U	0.800	6.16
107-02-8	Acrolein		U	5.02	24.6
75-01-4	Vinyl Chloride		U	1.16	6.16
74-83-9	Bromomethane		U	2.11	6.16
75-00-3	Chloroethane		U	2.81	6.16
75-69-4	Trichlorofluoromethane		U	1.44	6.16
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethar		U	2.57	6.16
67-64-1	Acetone		U	3.53	12.3
75-35-4	1,1-Dichloroethene		U	1.66	6.16
75-65-0	tert-Butyl Alcohol		U	12.0	61.6
79-20-9	Methyl Acetate		U	1.17	6.16
75-09-2	Methylene Chloride		U	1.01	6.16
75-15-0	Carbon Disulfide		U	0.850	6.16
107-13-1	Acrylonitrile		U	1.60	6.16
1634-04-4	Methyl tert-Butyl Ether		U	1.07	6.16
156-60-5	trans-1,2-Dichloroethene		U	0.825	6.16
75-34-3	1,1-Dichloroethane		U	1.03	6.16
108-05-4	Vinyl Acetate		U	1.53	6.16
78-93-3	2-Butanone		U	2.52	12.3
594-20-7	2,2-Dichloropropane		U	0.640	6.16
156-59-2	cis-1,2-Dichloroethene	2.03		0.640	6.16
67-66-3	Chloroform		U	0.961	6.16
74-97-5	Bromochloromethane		U	1.16	6.16
110-82-7	Cyclohexane		U	1.24	6.16
71-55-6	1,1,1-Trichloroethane		U	1.40	6.16
563-58-6	1,1-Dichloropropene		U	1.33	6.16
56-23-5	Carbon Tetrachloride		U	1.07	6.16
107-06-2	1,2-Dichloroethane		U	0.702	6.16
71-43-2	Benzene		U	0.677	6.16
79-01-6	Trichloroethene		U	1.01	6.16
108-87-2	Methylcyclohexane		U	1.26	6.16
78-87-5	1,2-Dichloropropane		U	0.973	6.16
75-27-4	Bromodichloromethane		U	0.948	6.16
123-91-1	p-Dioxane		U	0.00	123
74-95-3	Dibromomethane		U	1.05	6.16
110-75-8	2-Chloroethylvinyl ether		U	1.21	12.3
108-10-1	4-Methyl-2-Pentanone		U	0.924	12.3
10061-01-5	cis-1,3-Dichloropropene		U	0.234	6.16

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 18.8%

Lab Sample ID: 11080666-008
Lab File ID: 4V4480.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene		U	0.443	6.16
10061-02-6	trans-1,3-Dichloropropene		U	0.542	6.16
79-00-5	1,1,2-Trichloroethane		U	0.837	6.16
591-78-6	2-Hexanone		U	1.35	12.3
142-28-9	1,3-Dichloropropane		U	0.776	6.16
127-18-4	Tetrachloroethene		U	0.825	6.16
124-48-1	Dibromochloromethane		U	0.837	6.16
106-93-4	1,2-Dibromoethane		U	0.468	6.16
108-90-7	Chlorobenzene		U	0.530	6.16
630-20-6	1,1,1,2-Tetrachloroethane		U	0.776	6.16
100-41-4	Ethylbenzene		U	0.493	6.16
1330-20-7	m+p-Xylenes		U	1.18	12.3
95-47-6	o-Xylene		U	0.973	6.16
100-42-5	Styrene		U	0.776	6.16
98-82-8	Isopropylbenzene		U	0.640	6.16
75-25-2	Bromoform		U	2.20	6.16
79-34-5	1,1,2,2-Tetrachloroethane		U	1.75	6.16
96-18-4	1,2,3-Trichloropropane		U	3.41	6.16
103-65-1	n-Propylbenzene		U	2.32	6.16
108-86-1	Bromobenzene		U	1.06	6.16
95-49-8	2-Chlorotoluene		U	0.566	6.16
106-43-4	4-Chlorotoluene		U	0.406	6.16
108-67-8	1,3,5-Trimethylbenzene		U	1.76	6.16
98-06-6	tert-Butylbenzene		U	1.72	6.16
95-63-6	1,2,4-Trimethylbenzene		U	1.83	12.3
135-98-8	sec-Butylbenzene		U	2.07	6.16
99-87-6	4-Isopropyltoluene		U	1.93	6.16
541-73-1	1,3-Dichlorobenzene		U	1.02	6.16
106-46-7	1,4-Dichlorobenzene		U	1.05	6.16
104-51-8	n-Butylbenzene		U	1.91	6.16
95-50-1	1,2-Dichlorobenzene		U	0.887	6.16
96-12-8	1,2-Dibromo-3-chloropropane		U	5.55	12.3
120-82-1	1,2,4-Trichlorobenzene		U	1.21	6.16
87-68-3	Hexachlorobutadiene		U	2.82	6.16
91-20-3	Naphthalene		U	1.13	6.16
87-61-6	1,2,3-Trichlorobenzene		U	2.22	6.16
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 18.8%

Lab Sample ID: 11080666-008
Lab File ID: 4V4480.D
Date Collected: 16-Aug-11

Date Analyzed: 1-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT

Number of TICs found: 0
Total Est. Concentration: 0 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

APL
AQUA PRO-TECH LABORATORIES

CERTIFICATIONS
NJ DEP 07010 / NY DOH 11634 / CT PH-0233
US ARMY CORPS (USACE)

ANALYTICAL RESULTS SUMMARY

Client	**AEI Consultants** 30 Montgomery St. Jersey City, NJ 07302	**APL Order ID Number**	**11080666**
		Date Sampled	08/16/2011 14:10
		Date Received	08/17/2011 10:24
Contact	Michael Taormina	**Matrix**	Soil
Project		**Site**	Buffalo 299363
Report Date	09/06/2011 12:49	**Customer Service Rep.**	

Sample Number/ Parameter	Method	Analysis Time	Analyst	Result	Units	MDL
11080666-009 AEI-B						
Antimony	SW 846 6010B	08/26/2011 13:59	MARKA	3.8	mg/kg	
Arsenic	SW 846 6010B	08/26/2011 13:59	MARKA	0.80	mg/kg	
Beryllium	SW 846 6010B	08/26/2011 13:59	MARKA	0.12	mg/kg	
Cadmium	SW 846 6010B	08/26/2011 14:00	MARK	<0.047	mg/kg	
Chromium	SW 846 6010B	08/26/2011 13:59	MARKA	23.7	mg/Kg	
Copper	SW 846 6010B	08/26/2011 13:59	MARKA	42.8	mg/kg	
Lead	SW 846 6010B	08/26/2011 13:59	MARKA	30.4	mg/kg	
Mercury	SW 846 7471A	08/22/2011 13:38	ASTOICA	0.081	mg/kg	
Nickel	SW 846 6010B	08/26/2011 13:59	MARKA	15.9	mg/kg	
Percent Solids	Gravimetric	08/17/2011 18:42	MARKA	82.5	%	
Selenium	SW 846 6010B	08/26/2011 14:00	MARK	<0.59	mg/kg	
Semivolatile Organics	SW 846 8270C		SUDIP	SA		
Silver	SW 846 6010B	08/26/2011 14:00	MARK	<0.47	mg/Kg	
Thallium	SW 846 6010B	08/26/2011 14:00	MARK	<0.47	mg/kg	
Volatile Organics	SW 846 8260B		OLGA	SA		
Zinc	SW 846 6010B	08/26/2011 13:59	MARKA	75.1	mg/kg	

SA: See attached report

Brian Wood
Laboratory Director

QA

1275 BLOOMFIELD AVENUE, BLDG. 6, FAIRFIELD, NJ 07004 TEL 973 227 0422 FAX 973 227 2813

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.5%
Extract Volume: 1 mL

Lab Sample ID: 11080666-009
Lab File ID: 5S1233.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
110-86-1	Pyridine		U	232	404
62-75-9	n-Nitroso-dimethylamine		U	364	404
100-52-7	Benzaldehyde		U	120	404
62-53-3	Aniline		U	17.8	404
111-44-4	bis(2-Chloroethyl)ether		U	25.1	404
541-73-1	1,3-Dichlorobenzene		U	24.2	404
106-46-7	1,4-Dichlorobenzene		U	30.7	404
100-51-6	Benzyl Alcohol		U	560	404
95-50-1	1,2-Dichlorobenzene		U	18.6	404
108-60-1	bis(2-Chloroisopropyl)ether		U	20.2	404
98-86-2	Acetophenone		U	107	404
621-64-7	n-Nitroso-di-n-propylamine		U	35.6	404
67-72-1	Hexachloroethane		U	22.6	404
98-95-3	Nitrobenzene		U	16.2	404
78-59-1	Isophorone		U	17.0	404
111-91-1	bis(2-Chloroethoxy)methane		U	27.5	404
120-82-1	1,2,4-Trichlorobenzene		U	28.3	404
91-20-3	Naphthalene		U	17.8	404
106-47-8	4-Chloroaniline		U	24.2	404
87-68-3	Hexachlorobutadiene		U	23.4	404
105-60-2	Caprolactam		U	73.5	404
91-57-6	2-Methylnaphthalene	1620		21.0	404
77-47-4	Hexachlorocyclopentadiene		U	331	808
92-52-4	Biphenyl		U	79.2	404
91-58-7	2-Chloronaphthalene		U	16.2	404
88-74-4	2-Nitroaniline		U	8.89	404
131-11-3	Dimethylphthalate		U	23.4	404
208-96-8	Acenaphthylene		U	12.9	404
606-20-2	2,6-Dinitrotoluene		U	33.9	404
99-09-2	3-Nitroaniline		U	394	404
83-32-9	Acenaphthene		U	16.2	404
132-64-9	Dibenzofuran		U	17.8	404
121-14-2	2,4-Dinitrotoluene		U	31.5	404
86-73-7	Fluorene	1060		12.1	404
84-66-2	Diethylphthalate		U	873	404
7005-72-3	4-Chlorophenyl phenyl ether		U	21.8	404
100-01-6	4-Nitroaniline		U	221	404
86-30-6	n-Nitrosodiphenylamine		U	17.8	404
103-33-3	1,2-Diphenylhydrazine		U	13.7	404

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.5%
Extract Volume: 1 mL

Lab Sample ID: 11080666-009
Lab File ID: 5S1233.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
101-55-3	4-Bromophenyl-phenyl ether		U	25.9	404
118-74-1	Hexachlorobenzene		U	36.4	404
1912-24-9	Atrazine		U	66.3	404
85-01-8	Phenanthrene	2090		6.46	404
120-12-7	Anthracene	655		11.3	404
86-74-8	Carbazole		U	25.1	404
84-74-2	Di-n-butylphthalate		U	38.8	404
206-44-0	Fluoranthene	992		20.2	404
92-87-5	Benzidine		U	379	404
129-00-0	Pyrene	965		11.3	404
85-68-7	Butylbenzylphthalate		U	15.4	404
56-55-3	Benzo(a)anthracene	415		13.7	404
91-94-1	3,3'-Dichlorobenzidine		U	212	404
218-01-9	Chrysene	331		16.2	404
117-81-7	bis(2-Ethylhexyl)phthalate	213	BJ	276	404
117-84-0	Di-n-octylphthalate		U	25.1	404
205-99-2	Benzo(b)fluoranthene	420		27.5	404
207-08-9	Benzo(k)fluoranthene	132		21.8	404
50-32-8	Benzo(a)pyrene	369		15.4	404
193-39-5	Indeno(1,2,3-cd)pyrene	221		10.5	404
53-70-3	Dibenzo(a,h)anthracene		U	12.9	404
191-24-2	Benzo(g,h,i)perylene	298		21.0	404

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8270 C Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 15.0 Grams
% Moisture: 17.5%
Extract Volume: 1 mL

Lab Sample ID: 11080666-009
Lab File ID: 5S1233.D
Date Collected: 16-Aug-11
Date Extracted: 19-Aug-11
Date Analyzed: 23-Aug-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
	unknown	2010	J	5.29
	unknown	3390	J	5.8
	unknown	8390	J	6.49
	unknown	2780	J	6.62
493-02-7	Naphthalene, decahydro-, trans-	2860	JN	7.01
	unknown	6890	J	7.32
74685-28-2	7-Hexadecyne	2920	JN	8.11
	unknown hydrocarbon	5350	J	9.3
62199-50-2	Cyclopentane, 1-butyl-2-propyl-	2210	JN	9.39
1465084	Nonane, 3-methyl-	3530	JN	10.06
	unknown	2200	J	10.28
17312-62-8	Decane, 5-propyl-	3840	JN	11.31
112-40-3	Dodecane	3230	JN	12.28
74645-98-0	Dodecane, 2,7,10-trimethyl-	3630	JN	14.8
	unknown	2000	J	18.02

Number of TICs found: 15
Total Est. Concentration: 55230 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.5%

Lab Sample ID: 11080666-009
Lab File ID: 4V4481.D
Date Collected: 16-Aug-11

Date Analyzed: 2-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
75-71-8	Dichlorodifluoromethane		U	1.35	6.06
74-87-3	Chloromethane		U	0.788	6.06
107-02-8	Acrolein		U	4.95	24.2
75-01-4	Vinyl Chloride		U	1.14	6.06
74-83-9	Bromomethane		U	2.07	6.06
75-00-3	Chloroethane		U	2.76	6.06
75-69-4	Trichlorofluoromethane		U	1.42	6.06
76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethar		U	2.53	6.06
67-64-1	Acetone		U	3.48	12.1
75-35-4	1,1-Dichloroethene		U	1.64	6.06
75-65-0	tert-Butyl Alcohol		U	11.8	60.6
79-20-9	Methyl Acetate		U	1.15	6.06
75-09-2	Methylene Chloride		U	0.994	6.06
75-15-0	Carbon Disulfide		U	0.836	6.06
107-13-1	Acrylonitrile		U	1.58	6.06
1634-04-4	Methyl tert-Butyl Ether		U	1.05	6.06
156-60-5	trans-1,2-Dichloroethene		U	0.812	6.06
75-34-3	1,1-Dichloroethane		U	1.02	6.06
108-05-4	Vinyl Acetate		U	1.50	6.06
78-93-3	2-Butanone		U	2.48	12.1
594-20-7	2,2-Dichloropropane		U	0.630	6.06
156-59-2	cis-1,2-Dichloroethene		U	0.630	6.06
67-66-3	Chloroform		U	0.945	6.06
74-97-5	Bromochloromethane		U	1.14	6.06
110-82-7	Cyclohexane	1.06	J	1.22	6.06
71-55-6	1,1,1-Trichloroethane		U	1.38	6.06
563-58-6	1,1-Dichloropropene		U	1.31	6.06
56-23-5	Carbon Tetrachloride		U	1.05	6.06
107-06-2	1,2-Dichloroethane		U	0.691	6.06
71-43-2	Benzene		U	0.667	6.06
79-01-6	Trichloroethene		U	0.994	6.06
108-87-2	Methylcyclohexane	104		1.24	6.06
78-87-5	1,2-Dichloropropane		U	0.958	6.06
75-27-4	Bromodichloromethane		U	0.933	6.06
123-91-1	p-Dioxane		U	0.00	121
74-95-3	Dibromomethane		U	1.03	6.06
110-75-8	2-Chloroethylvinyl ether		U	1.19	12.1
108-10-1	4-Methyl-2-Pentanone		U	0.909	12.1
10061-01-5	cis-1,3-Dichloropropene		U	0.230	6.06

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.5%

Lab Sample ID: 11080666-009
Lab File ID: 4V4481.D
Date Collected: 16-Aug-11

Date Analyzed: 2-Sep-11
Dilution Factor: 1

CAS No.	Compound	Conc ug/kg	Q	MDL	PQL
108-88-3	Toluene	0.69		0.436	6.06
10061-02-6	trans-1,3-Dichloropropene		U	0.533	6.06
79-00-5	1,1,2-Trichloroethane		U	0.824	6.06
591-78-6	2-Hexanone		U	1.33	12.1
142-28-9	1,3-Dichloropropane		U	0.764	6.06
127-18-4	Tetrachloroethene		U	0.812	6.06
124-48-1	Dibromochloromethane		U	0.824	6.06
106-93-4	1,2-Dibromoethane		U	0.461	6.06
108-90-7	Chlorobenzene		U	0.521	6.06
630-20-6	1,1,1,2-Tetrachloroethane		U	0.764	6.06
100-41-4	Ethylbenzene	1.87		0.485	6.06
1330-20-7	m+p-Xylenes		U	1.16	12.1
95-47-6	o-Xylene		U	0.958	6.06
100-42-5	Styrene		U	0.764	6.06
98-82-8	Isopropylbenzene	3.27		0.630	6.06
75-25-2	Bromoform		U	2.17	6.06
79-34-5	1,1,2,2-Tetrachloroethane		U	1.72	6.06
96-18-4	1,2,3-Trichloropropane		U	3.36	6.06
103-65-1	n-Propylbenzene	5.95		2.28	6.06
108-86-1	Bromobenzene		U	1.04	6.06
95-49-8	2-Chlorotoluene		U	0.558	6.06
106-43-4	4-Chlorotoluene		U	0.400	6.06
108-67-8	1,3,5-Trimethylbenzene	1.54	J	1.73	6.06
98-06-6	tert-Butylbenzene		U	1.70	6.06
95-63-6	1,2,4-Trimethylbenzene	5.58		1.81	12.1
135-98-8	sec-Butylbenzene	7.56		2.04	6.06
99-87-6	4-Isopropyltoluene	1.13	J	1.90	6.06
541-73-1	1,3-Dichlorobenzene		U	1.01	6.06
106-46-7	1,4-Dichlorobenzene		U	1.03	6.06
104-51-8	n-Butylbenzene	12.7		1.88	6.06
95-50-1	1,2-Dichlorobenzene		U	0.873	6.06
96-12-8	1,2-Dibromo-3-chloropropane		U	5.47	12.1
120-82-1	1,2,4-Trichlorobenzene		U	1.19	6.06
87-68-3	Hexachlorobutadiene		U	2.78	6.06
91-20-3	Naphthalene	112		1.12	6.06
87-61-6	1,2,3-Trichlorobenzene		U	2.18	6.06
496-11-7	Indan		U	0.00	0

Qualifiers : U=Undetected, J=Estimated, B=Also Detected in Blank,
E=Exceeded Calibration - Dilution Required, D=Result of Dilution

Aqua Pro-Tech Laboratories
EPA Method 8260 Analytical Report
Tentatively Identified Compounds

Client: AEI Consultants
Project: Buffalo 299363
Matrix: Soil

Client Sample: AEI-B

Sample Weight 5.0 Grams
Level: Low
% Moisture: 17.5%

Lab Sample ID: 11080666-009
Lab File ID: 4V4481.D
Date Collected: 16-Aug-11

Date Analyzed: 2-Sep-11
Dilution Factor: 1

CAS No.	Compound	Est. Conc.	Q	RT
63366-65-4	9-Borabicyclo[3.3.1]nonane, 9-hyd	85.3	JN	21.77
934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	56.9	JN	22.26
767-58-8	1H-Indene, 2,3-dihydro-1-methyl-	55.4	JN	22.79
95-93-2	Benzene, 1,2,4,5-tetramethyl-	54.4	JN	23.01
	unknown hydrocarbon	47.5	J	23.16
527-53-7	Benzene, 1,2,3,5-tetramethyl-	109	JN	24.15
62108-25-2	Decane, 2,6,7-trimethyl-	39.5	JN	24.34
27133-93-3	2,3-Dihydro-1-methylindene	47.9	JN	24.42
	unknown hydrocarbon	48.8	J	24.77
74645-98-0	Dodecane, 2,7,10-trimethyl-	77.8	JN	26.49

Number of TICs found: 10
Total Est. Concentration: 622.5 ug/kg

Qualifiers : J=Estimated Concentration, N=Used When Reporting a Specific Tentatively Identified Compound

Pre-Renovation Asbestos Inspection Report

Project Location:

1721 – 1723 Elmwood Avenue
Buffalo, NY 14207

Project ID: 16-0926DB-A

Conditions as of: September 29,2016

Prepared for:

R & P Oak Hill
3556 Lakeshore Road, Suite 620
Buffalo, New York 14219

Prepared by:

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October 14, 2016

R & P Oakhill
3556 Lakeshore Road, Suite 620
Buffalo, NY 14219

Re: Pre-Renovation Asbestos Inspection Report
1721 – 1723 Elmwood Avenue
Buffalo, NY 14207
AMD Project ID: 16-0926DB-A

I am pleased to present this summary of asbestos survey services at the above referenced address.

AMD Environmental Consultants conducted a pre-renovation asbestos inspection at the above referenced address from September 26th – 29th, 2016 for the administrative building (1721 Elmwood Ave.) and the North garage structure (1723 Elmwood Ave.) that runs parallel to the rail road tracks. Asbestos containing materials (ACM) were identified above 1% in materials that were sampled. For more detail refer to the summary on page 4.

New York State asbestos regulations (12 NYCRR 56-5) require that asbestos surveys are conducted in order to determine whether or not the building or structure, or portion(s) thereof to be demolished, renovated, remodeled, contains ACM, PACM or asbestos materials. These regulations also require that a copy of the pre-renovation survey be forwarded to the local New York State Department of Labor (NYSDOL) Asbestos Control Bureau immediately upon completion of the survey (NYSDOL contact info. at end of report). **If requested in writing, a copy of the survey will be submitted on your behalf to the NYSDOL, otherwise a copy must be submitted by the owner.**

AMD Environmental Consultants, Inc. surveys are intended to determine, to a reasonable extent, the presence, location, quantity, and condition of accessible asbestos containing materials (surfacing, thermal systems insulation, and miscellaneous materials). The information contained herein is representative of conditions found onsite during the date/time this survey was conducted. Environmental conditions, renovation, vandalism, etc. may alter conditions from the date/time that this survey was conducted, potentially creating new hazards.

Please do not hesitate to contact me if I may provide any additional information.

Sincerely,

Anthony DeMiglio
President

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1.0 Asbestos Inspection

1.1 Introduction

AMD Environmental Consultants, Inc (AMD) was retained by R & P Oak Hill to inspect the building located at 1721 – 1723 Elmwood Avenue in Buffalo, NY for the presence of materials suspected of containing asbestos (ACBM) in areas of planned renovations.

AMD was assigned to:

- Locate suspect asbestos containing materials,
- Sample these materials to determine asbestos content, and
- Identify the locations and estimated quantities of the confirmed asbestos containing materials.

The information following this introduction details the amount of asbestos present in this facility and the location of the ACBM (asbestos containing building materials). Although the report is a comprehensive analysis of the asbestos inspection work performed, it would be helpful to review all applicable federal, state and local rules, laws and regulations regarding the handling and treatment of asbestos containing building materials (ACBM).

The following is a list of suggested reading and information sources relating to asbestos:

- New York State Department of Labor Industrial Code Rule 56
- National Emission Standard for Hazardous Air Pollutants (NESHAPS)
- Occupational Safety and Health Administration
- (OSHA 1926.1101, 1910.134, 1910.1020, 1910.1200, 1910.145, 1910.95, 1926.58)
- Environmental Protection Agency rule CFR763.46 Asbestos Hazard Emergency Response Act

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1.2 Executive Summary

The scope of services included the identification of suspect asbestos containing building materials in areas of planned renovations; sampling and analysis of the suspect materials; and identifying the locations and estimated quantities of the confirmed asbestos containing materials.

Sampling and analysis of the suspect materials under Polarized Light Microscopy (PLM), and where necessary, under Transmission Electron Microscopy (TEM), revealed the following materials as asbestos containing building materials (ACBM):

ASBESTOS CONTAINING MATERIALS SUMMARY

HAN	Material Description	SID (Space Identification Number)	Estimated Quantity SF*	Friability/ Condition
104	Wall Panel Mastic - Brown	3001, 3002	325 sq. ft.	NF/I
304	Black Floor Tile Mastic	1003, 1006, 1010, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2024, 2028, 2031, 2032, 3008, 3010, 3012, 3013, 3014, 3016, 3017, 3018, 3019, 3020, 3021, 4001, 4002,4003	45,000 sq. ft.	NF/I
308	9" x 9" Floor Tile – Red	3005 – Note 1	1,705 sq. ft.	NF/I
309	9" x 9" Floor Tile – Painted Grey	3008, 3016, 3017 – Note 1	2,100 sq. ft.	NF/I
310	9" x 9" Floor Tile – Beige	1003, 3010, 3013, 3014 – Note 1	5,600 sq. ft.	NF/I
311	9" x 9" Floor Tile – Green	3012, 3019 – Note 1	1,100 sq. ft.	NF/I
312	Red Floor Leveler	3019, 3020	1,100 sq. ft.	F/I
315	9" x 9" Floor Tile – Brown	1010 – Note 1	300 sq. ft.	NF/I
321	9" x 9" Floor Tile – White	2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2031 – Note 1	7,500 sq. ft.	NF/I
400	Thermal System Insulation – including Aircell Pipe Insulation, Pipe Fittings, and Mag Pipe Insulation	1004, 1005, 1007, 1008, 1010, 1011, 1012, 1013, 1015, 1016, 1018, 1019, 1020, 1022, 1023, 1024, 1028, 1029, 1030, 1031, 1032, 1033, 1035, 1037, 1039, 1040, 1041, 1042, 2005, 2026, 3007, 3008, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023 – Note 1	4,500 linear feet	F/SD
403	Hot Water Tank	1031 – Note 1	150 sq. ft.	F/D
404	Boiler Insulation	1031 – Note 1	500 sq. ft.	F/D
405	Boiler Breeching	1031 – Note 1	60 linear feet	F/D
500	Fire Door	1013, 1041, 3001 – Note 1	130 sq. ft.	F/D
502	Sink Insulation - Black	2015, 3016	30 sq. ft.	NF/I
504	Transite Pipe	1012 – Note 1	20 sq. ft.	F/I
602	Repair Tar at Windows	Exterior	500 sq. ft.	NF/I

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ASBESTOS CONTAINING MATERIALS SUMMARY (CONTINUED)				
HAN	**Material Description**	**SID (Space Identification Number)**	**Estimated Quantity SF***	**Friability/ Condition**
603	Door Caulk	Exterior	50 linear feet	NF/I
604	Caulk at Storefront Windows	Exterior	30 linear feet	NF/I
700	Roofing	Roof – Note 1	43,000 sq. ft	NF/I
701	Repair Tar	Roof – Note 1	Included in HAN 700	NF/I
300	9" x 9" Floor Tile	1001, 1004 – Note 1 Garage:1723 Elmwood	800 sq. ft.	NF/D
305	12" x 12" Floor Tile – Beige	1008– See Note 1 Garage:1723 Elmwood Ave.	1,650 sq. ft.	NF/I
305A	Black Floor Tile Mastic	1008, 1014 Garage:1723 Elmwood Ave.	2,300 sq. ft.	NF/I
400	Thermal Systems Insulations	1012, 1013, 1015, 1016 – Note 1 Garage:1723 Elmwood Ave.	500 Linear Feet	F/SD
501	Sink Insulation – Pink –	1008 Garage:1723 Elmwood Ave.	<10 sq. ft.	NF/I
502	Transite Exhaust Stack	1012, 1013 – Note 1 Garage:1723 Elmwood Ave.	100 Linear Feet	NF/I
700	Roofing	Roof – Note 1 Garage: 1723 Elmwood Ave.	34,000 sq. ft.	NF/I
701	Repair Tar	Roof – Note 1 Garage:1723 Elmwood Ave.	Included in HAN 700	NF/I

*Quantities are approximate, and are only associated with areas of planned renovation. Additional asbestos containing materials may be located outside areas of planned renovation that were not surveyed, assessed or quantified during this inspection.

INSPECTION NOTES:

NOTE 1: Materials were assumed to contain asbestos based on AMD Environmental's experience on similar projects or because the material was adhered to another asbestos containing material and must be managed as such.

KEY TERMS AND DEFINITIONS:

HAN= Homogenous Area Number; number assigned to categorize materials of like composition, texture and appearance

SID=Space Identification Number: Sample Locations

Friability/Condition:

F= Friable: a material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure, or is capable of being released into the air by hand pressure.

NF= Non Friable: a material that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure, or is incapable of being released into the air by hand pressure.

I= Intact: Asbestos material that has not crumbled, been pulverized, or otherwise been damaged or disturbed, and the material's matrix has not noticeably deteriorated.

D= Damaged: Asbestos material that has deteriorated or sustained physical injury demonstrated by separation of the ACM into layers, separation of the ACM from the substrate, flaking, blistering, crumbling, water damage, scrapes, gouges, or other signs of physical injury.

SD=Significantly Damaged: Damaged asbestos where the damage is extensive and severe.

ACM=Asbestos Containing Material: material analyzed and confirmed by laboratory to contain above 1% of asbestos

PACM= Presumed Asbestos Containing Material: this material was assumed to contain asbestos to either save the client on lab fees or because the material was adhered to another asbestos containing material (or adjacent to other materials needing abatement) and must be managed as such.

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1.3 Purpose

The purpose of the asbestos inspection was to identify and quantify the types of asbestos containing building materials (ACBM)in the building to be affected by planned renovations. Samples of the suspect materials were collected for analysis by an independent laboratory, and the condition of each material noted in relation to its potential to be disturbed. The potential for fiber release was also considered.

The report is generated for the exclusive use of R & P Oak Hill and its representatives or agents, and is not designed to serve as a specification for abatement. Before requesting bids for abatement of materials identified in this report, the owner is strongly encouraged to contract with a consultant to provide this valuable service. A specification assures that all contractors are bidding on the same methodology and following the specific requirements for the work to be performed.

The inspection was conducted on September 26th – 29th, 2016 and revealed the following suspect asbestos containing building materials (ACBM):

HOMOGENOUS MATERIALS & SAMPLE RESULTS
Administrative Building: 1721 Elmwood Ave., Buffalo, NY 14207

HAN	Suspect Asbestos Containing Material Description	SID (Space Identification Number)	Sample No.	ACM	Estimated Quantity SF*	Friability/ Condition
100A	Drywall	1002, 1003, 1005, 1026, 1027, 1028, 1029, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2023, 2024, 2027, 2028, 2030, 2031, 2032, 3001, 3002, 3004, 3005, 3006, 3007, 3009, 3010, 3011, 3012, 3013, 3014, 3016, 3018, 3020, 3021, 4000, 4001, 4002, 4003	100A-1, 100A-2, 100A-3, 100A-4, 100A-5, 100A-6	No	N/A	F/I
100B	Joint Compound	1002, 1003, 1005, 1026, 1027, 1028, 1029, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2023, 2024, 2027, 2028, 2030, 2031, 2032, 3001, 3002, 3004, 3005, 3006, 3007, 3009, 3010, 3011, 3012, 3013, 3014, 3016, 3018, 3020, 3021, 4000, 4001, 4002, 4003	100B-1, 100B-2, 100B-3, 100B-4, 100B-5, 100B-6	No	N/A	F/I
101	Wall Panel Mastic – Beige	1003, 1019, 1024, 4000	101-1, 101-2	No	N/A	NF/I

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HAN	Suspect Asbestos Containing Material Description	SID (Space Identification Number)	Sample No.	ACM	Estimated Quantity SF*	Friability/ Condition
102A	Skim Coat Plaster	1001, 1002, 1019, 1025, 1026, 1027, 1028, 1029, 1041, 1042, 1043, 2003, 2007, 2008, 2014, 2015, 2020, 2023, 2024, 2025, 2027, 2028, 2029, 2030, 2031,2032, 3001, 3002, 3004, 3005, 3006, 3007, 3009, 3015, 4004	102A-1, 102A-2, 102A-3, 102A-4, 102A-5, 102A-6, 102A-7	No	N/A	F/I
102B	Base Coat Plaster	1001, 1002, 1019, 1025, 1026, 1027, 1028, 1029, 1041, 1042, 1043, 2003, 2007, 2008, 2014, 2015, 2020, 2023, 2024, 2025, 2027, 2028, 2029, 2030, 2031,2032, 3001, 3002, 3004, 3005, 3006, 3007, 3009, 3015, 4004	102B-1, 102B-2, 102B-3, 102B-4, 102B-5, 102B-6, 102B-7	No	N/A	F/I
103	Textured Wall Coating	4003	103-1, 103-2	No	N/A	F/I
104	**Wall Panel Mastic – Brown**	**3001, 3002**	**104-1, 104-2**	**Yes**	**325 sq. ft.**	**NF/I**
200A	Skim Coat Plaster	1001, 1002, 1019, 1025, 1026, 1027, 1028, 1029, 1041, 1042, 1043, 2003, 2007, 2008, 2014, 2015, 2020, 2023, 2024, 2025, 2027, 2028, 2029, 2030, 2031,2032, 3001, 3002, 3004, 3005, 3006, 3007, 3009, 3015, 4004	Included in HAN 1002A	No	N/A	F/I
200B	Base Coat Plaster	1001, 1002, 1019, 1025, 1026, 1027, 1028, 1029, 1041, 1042, 1043, 2003, 2007, 2008, 2014, 2015, 2020, 2023, 2024, 2025, 2027, 2028, 2029, 2030, 2031,2032, 3001, 3002, 3004, 3005, 3006, 3007, 3009, 3015, 4004	Included in HAN 102B	No	N/A	F/I
201	2' x ' 4' Ceiling Tile – Large Fissure	2005, 2008, 2024, 2030, 3008, 3009, 3012, 3013, 3018, 4001	201-1, 201-2	No	N/A	F/I
202	Textured Ceiling Coating	4003	202-1, 202-2, 202-3	No	N/A	F/I
203	2' x 4' Ceiling Tile – Small Fissure	2011, 2015, 2019, 2020, 3010, 3011, 3013, 4002	203-1, 203-2	No	N/A	F/I
204A	Mastic of 1' x 1' Ceiling Tile	1023, 1024, 3003,	204A-1, 204A-2	No	N/A	NF/I
205	2' x 4' Ceiling Tile – Smooth Fissure	1014, 2005, 3013, 3014, 3020, 3021	205-1, 205-2	No	N/A	F/I
206	2' x 4' Ceiling Tile – Dot Pattern	1006	206-1, 206-2	No	N/A	F/I
300	Black & White Linoleum	4000	300-1, 300-2	No	N/A	NF/I

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HAN	Suspect Asbestos Containing Material Description	SID (Space Identification Number)	Sample No.	ACM	Estimated Quantity SF*	Friability/ Condition
301	White Block Pattern Linoleum	4000	301-1, 301-2	No	N/A	NF/I
302	12" x 12" Floor Tile – Black & White	4000	302-1, 302-2	No	N/A	NF/I
303	Cove Base Mastic	1003, 1014, 1026, 1027, 1028, 1029, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2023, 2024, 2027, 2028, 2031, 2032, 3008, 3010, 3014, 3020, 3021, 4001	303-1, 303-2	No	N/A	NF/I
304	**Black Floor Tile Mastic**	**1003, 1006, 1010, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2024, 2028, 2031, 2032, 3008, 3010, 3012, 3013, 3014, 3016, 3017, 3018, 3019, 3020, 3021, 4001, 4002,4003**	**304-1, 304-2**	**Yes**	**45,000 sq. ft.**	**NF/I**
305	**12" x 12" Floor Tile – Beige**	**1006, 2007, 4001, 4002**	**305-1, 305-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
306	**12" x 12" Floor Tile – Beige Block Pattern**	**4002**	**306-1, 306-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
307	Carpet Mastic	1006, 1022, 1025, 1026, 1027, 1028, 1029, 1037, 1038, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2024, 2028, 2031, 2032, 3006, 3007, 3010, 3011, 3014, 3019, 3020, 3021	307-1, 307-2	No	N/A	NF/I
308	**9" x 9" Floor Tile – Red**	**3005**	**Sample Not Submitted – Note 1**	**Yes**	**1,705 sq. ft.**	**NF/I**
309	**9" x 9" Floor Tile – Painted Grey**	**3008, 3016, 3017**	**Sample Not Submitted – Note 1**	**Yes**	**2,100 sq. ft.**	**NF/I**
310	**9" x 9" Floor Tile – Beige**	**1003, 3010, 3013, 3014**	**Sample Not Submitted – Note 1**	**Yes**	**5,600 sq. ft.**	**NF/I**
311	**9" x 9" Floor Tile – Green**	**3012, 3018, 3019**	**Sample Not Submitted – Note 1**	**Yes**	**1,100 sq. ft.**	**NF/I**
312	**Red Floor Leveler**	**3019, 3020**	**312-1, 312-2**	**Yes**	**1,100 sq. ft.**	**NF/I**
313	Brown Wavy Pattern Linoleum	2003	313-1, 313-2	No	N/A	NF/I
314	**Stair Tread Mastic**	**2021**	**314-1, 314-2**	**Yes**	**N/A**	**NF/I**
315	**9" x 9" Floor Tile – Brown**	**1010, 2008**	**Sample Not Submitted – Note 1**	**Yes**	**300 sq. ft.**	**NF/I**
316	12 " x 12" Floor Tile – Blue	1026	316-1,316-2	No	N/A	NF/I

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HAN	Suspect Asbestos Containing Material Description	SID (Space Identification Number)	Sample No.	ACM	Estimated Quantity SF*	Friability/ Condition
317	Yellow Floor Tile Mastic	1026	317-1, 317-2	No	N/A	NF/I
318	**12" x 12" Floor Tile – Brown**	**2010, 2028**	**318-1, 318-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
319	**12" x 12" Floor Tile – Tan**	**2009, 2011, 2015, 2019, 2024**	**319-1, 319-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
320	**12" x 12" Floor Tile – Tan Modeled**	**2012, 2013, 2017, 2018, 2031, 2032**	**320-1, 320-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
321	**9" x 9" Floor Tile – White**	**2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2032**	**Sample Not Submitted – Note 1**	**Yes**	**7,500 sq. ft.**	**NF/I**
322	**12" x 12" Floor Tile – Yellow**	**2020**	**322-1, 322-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
323	**12" x 12" Floor Tile – Blue/Yellow**	**2024**	**323-1, 323-2**	**Yes**	**Included in HAN 304 – Note 1**	**NF/I**
400	**Thermal System Insulation – including Aircell Pipe Insulation, Pipe Fittings, and Mag Pipe Insulation**	**1004, 1005, 1007, 1008, 1010, 1011, 1012, 1013, 1015, 1016, 1018, 1019, 1020, 1022, 1023, 1024, 1028, 1029, 1030, 1031, 1032, 1033, 1035, 1037, 1039, 1040, 1041, 1042, 2005, 2026, 3007, 3008, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023**	**Sample Not Submitted – Note 1**	**Yes**	**4,500 linear feet**	**F/SD**
403	**Hot Water Tank**	**1031**	**Sample Not Submitted – Note 1**	**Yes**	**150 sq. ft.**	**F/D**
404	**Boiler Insulation**	**1031**	**Sample Not Submitted – Note 1**	**Yes**	**500 sq. ft.**	**F/D**
405	**Boiler Breeching**	**1031**	**Sample Not Submitted – Note 1**	**Yes**	**60 linear feet**	**F/D**
500	**Fire Door**	**1013, 1041, 3001**	**Sample Not Submitted – Note 1**	**Yes**	**130 sq. ft.**	**F/D**
501	Wiring Insulation	501, 3001, 3002, 3003, 3004,3013, 3014,	501-1, 501-2	No	N/A	NF/I
502	**Sink Insulation – Black**	**2015, 3016**	**502-1, 502-2**	**Yes**	**30 sq. ft.**	**NF/I**
503	Sink Insulation – Grey	1003, 2003	503-1, 503-2	No	N/A	
504	**Transite Pipe**	**1012**	**Sample Not Submitted – Note 1**	**Yes**	**20 sq. ft.**	**F/I**
505	Sink Insulation – White	1006, 1022, 1026, 2024	505-1, 505-2	No	N/A	NF/I
600	Window Glaze	Exterior	600-1, 600-2	No	N/A	NF/D

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HAN	Suspect Asbestos Containing Material Description	SID (Space Identification Number)	Sample No.	ACM	Estimated Quantity SF*	Friability/ Condition
601	Window Caulk	Exterior	601-1, 601-2	No	N/A	NF/D
602	**Repair Tar at Windows**	**Exterior**	**602-1, 602-2**	**Yes**	**500 sq. ft.**	**NF/I**
603	**Door Caulks**	**Exterior**	**603-1, 603-2**	**Yes**	**50 linear feet**	**NF/I**
604	**Caulk at Storefront Windows**	**Exterior**	**604-1, 604-2**	**Yes**	**30 linear feet**	**NF/I**
605	Sign Mastic	Exterior	605-1, 605-2	No	N/A	NF/I
700	**Roofing**	**Roof**	**Sample Not Submitted – Note 1**	**Yes**	**43,000 sq. ft.**	**NF/I**
701	**Repair Tar**	**Roof**	**Sample Not Submitted – Note 1**	**Yes**	**Included in HAN 700**	**NF/I**

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Garage Building: 1723 Elmwood Ave., Buffalo, NY 14207

HAN	Suspect Asbestos Containing Material Description	SID (Space Identification Number)	Sample No.	ACM	Estimated Quantity SF*	Friability/ Condition
100A	Skim Coat Plaster	1010, 1011, 1012, 1013, 1014	100A-1, 100A-2, 100A-3, 100A-4, 100A-5	No	N/A	F/SD
100B	Base Coat Plaster	1010, 1011, 1012, 1013, 1014	100B-1, 100B-2, 100B-3, 100B-4, 100B-5	No	N/A	F/SD
101A	Drywall	1003, 1005, 1006	101A-1, 101A-2	No	N/A	F/D
101B	Joint Compound	1003, 1005, 1006	101B-1, 101B-2	No	N/A	F/D
102A	Ceramic Tile Mastic	1002, 1004	102A-1, 102A-2	No	N/A	NF/I
102B	Ceramic Tile Grout	1002, 1004	102B-1, 102B-2	No	N/A	F/I
300	**9"x9" Floor Tile**	**1001, 1014**	**Sample Not Submitted – Note 1**	**Yes**	**800 sq. ft.**	**NF/D**
300A	Vapor Barrier under HAN 300	1001	300A-1, 300A-2	No	N/A	NF/D
301	Floor Leveler	1001	301-1, 301-2	No	N/A	NF/D
302	Carpet Mastic	1003	302-1, 302-2	No	N/A	NF/I
303	Brown Stone Pattern Linoleum	1003	303-1, 303-2	No	N/A	NF/D
304	Cove Base Mastic	1003	304-1, 304-2	No	N/A	NF/D
305	**12" x 12" Floor Tile – Beige**	**1008**	**305-1, 305-2 Note 1**	**Yes**	**1,650 sq. ft.**	**NF/I**
305A	**Black Floor Tile Mastic**	**1008, 1014**	**305A-1, 305A-2**	**Yes**	**2,300 sq. ft.**	**NF/I**
306	**12" x12" Floor Tile – Grey**	**1014**	**306-1, 306-2 Note 1**	**Yes**	**Included in Han 305A**	**NF/I**
400	**Thermal Systems Insulation**	**1012, 1013, 1015, 1016**	**Sample Not Submitted – Note 1**	**Yes**	**500 Linear Feet**	**F/SD**
500	Cloth Wire Insulation	1005	500-1, 500-2	No	N/A	NF/I
501	**Sink Insulation – Pink**	**1008**	**501-1, 501-2**	**Yes**	**<10 sq. ft.**	**NF/I**
502	**Transite Exhaust Stack**	**1012, 1013**	**Sample Not Submitted – Note 1**	**Yes**	**100 Linear Feet**	**NF/I**
600	Window Caulk	Exterior	600-1, 600-2	No	N/A	NF/D
601	Window Glaze	Exterior	601-1, 601-2	No	N/A	NF/D
602	Door Caulk	Exterior	602-1, 602-2	No	N/A	NF/D
700	**Roofing**	**Roof**	**Sample Not Submitted – Note 1**	**Yes**	**34,000 sq. ft.**	**NF/I**
701	**Repair Tar**	**Roof**	**Sample Not Submitted – Note 1**	**Yes**	**Included in HAN 700**	**NF/I**

*Quantities are approximate, and are only associated with areas of planned renovation. Additional asbestos containing materials may be located outside areas of planned renovation that were not surveyed, assessed or quantified during this inspection.

INSPECTION NOTES:

NOTE 1: Materials were assumed to contain asbestos based on AMD Environmental's experience on similar projects or because the material was adhered to another asbestos containing material and must be managed as such.

The above listed table provides a list of the materials that were sampled and tested for asbestos by Polarized Light Microscopy (PLM) and or Transmission Electron Microscopy (TEM), as applicable. Any sample determined to be a non-friable organically bound material (NOB), and which was found to be negative by Polarized Light Microscopy (PLM) analysis, was then analyzed by Transmission Electron Microscopy (TEM) analysis at Paradigm Environmental Services in Grand Island, New York. Paradigm is an ELAP Certified laboratory (ID: 11955) and conducts analysis according to EPA Method 198.1, 198.4 and 198.6. See Section 2.0 for the laboratory's analytical results.

1.4 Methodology

All work performed by AMD Environmental Consultants, Inc. was conducted in accordance with applicable regulations, including New York State Department of Labor standards 12NYCRR Part 56, National Emission Standards for Hazardous Air Pollutants (NESHAPS), and Occupational Safety and Health Administration regulations 29CFR1910.1101 and 29CFR1910.134. All AMD personnel assigned to conduct inspections have completed the Environmental Protection Agency (EPA) required training and New York State Department of Labor Division of Safety and Health certification program.

Each suspect asbestos containing building material (ACBM) was assigned a homogenous area number (HAN). Homogeneous areas consist of materials of like composition, texture and appearance.

Based on the homogeneous areas, samples of suspect materials were collected. Techniques used for sample collection were designed to minimize damage to suspected areas, reduce any potential for fiber release, and ensure the safety of the inspector and building occupants. Samples were collected by AMD personnel using the following procedures:

1. The surface to be sampled was sprayed with amended water (detergent and water) as necessary

2. A plastic sample bag was held to the surface sampled

3. The sample was collected using tools appropriate to the friability of the material sampled

4. Sample bags were labeled with a unique sample identification number

5. Samples were recorded on a Chain of Custody form, and submitted under strict chain-of-custody procedures to Paradigm Environmental Services in Grand Island, New York. Paradigm is an ELAP and NYSDOH approved, certified laboratory for PLM and TEM analysis (ELAP ID: 11955).

Samples were first analyzed using PLM, Polarized Light Microscopy in accordance with US Environmental Protection Agency Interim Method, 40CFRPt763, Supt F, App A(7-1-87). For the sample results not considered definitive, additional analysis was performed under Transmission Electron Microscopy (TEM) in accordance with NYSDOH ELAP Item 198.4, for Non-friable Organically Bound Bulk Material (NOB). The results of these analyses confirmed whether or not a suspect materials actually contained asbestos. All materials sampled are summarized in Section 1.3 of this report; the confirmed asbestos containing materials are listed in Section 1.2.

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2.0 Laboratory Analytical Results

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179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 1 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
100A-1	25419	4000	Brown/Gray Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
100A-2	25420	4000	Brown/Gray Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
100A-3	25421	3004	Brown/Gray Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
100A-4	25422	3002	Brown/Gray Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
100A-5	25423	2024	Brown/Gray Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
100A-6	25424	2023	Brown/Gray Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
100B-1	25425	4000	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
100B-2	25426	4000	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
100B-3	25427	3004	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
100B-4	25428	3002	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

KEY TO NOB COLUMN SYMBOLS
No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
√̃ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
 # denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
X denotes sample prepped only by ELAP Method 198.6.
**** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.**

Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Maciejewski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Andrew Kapl for Mary Dohr (ELAP 10958)

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 2 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
100B-5	25429	2024	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
100B-6	25430	2023	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
101-1	25431/ 85828	4000	Tan Wall Panel Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
101-2	25432/ 85829	4000	Tan Wall Panel Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
102A-1	25433	4004	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
102A-2	25434	4004	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
102A-3	25435	3001	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
102A-4	25436	3001	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
102A-5	25437	3001	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
102A-6	25438	2017	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 3 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
102A-7	25439	2024	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
102B-1	25440	4004	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
102B-2	25441	4004	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
102B-3	25442	3001	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
102B-4	25443	3001	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
102B-5	25444	3001	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
102B-6	25445	2017	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
102B-7	25446	2024	Gray Base Coat Plaster	Trace Chrysotile <1.0%	<1.0%		Not Required	N/A	None Detected	100%
104-1	25447	3001	Brown Wall Panel Mastic	Chrysotile 1.3%	1.3%	√	Not Required	N/A	None Detected	98.7%
104-2	25448	3001	Brown Wall Panel Mastic	Chrysotile 1.0%	1.0%	√	Not Required	N/A	None Detected	99%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
201-1	25449/ 85830	3009	White/Gray 2'x4' Fissure Pattern Ceiling Tile	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
201-2	25450/ 85831	3009	White/Gray 2'x4' Fissure Pattern Ceiling Tile	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
202-1	25451	4003	White/Gray Textured Ceiling Coating	None Detected	0%		Not Required	N/A	None Detected	100%
202-2	25452	4003	White/Gray Textured Ceiling Coating	None Detected	0%		Not Required	N/A	None Detected	100%
202-3	25453	4003	White/Gray Textured Ceiling Coating	None Detected	0%		Not Required	N/A	None Detected	100%
203-1	25454/ 85832	4002	White/Gray 2'x4' Small Fissure Ceiling Tile	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
203-2	25455/ 85833	4002	White/Gray 2'x4' Small Fissure Ceiling Tile	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
204A-1	25456/ 85834	3003	Brown 1'x1' Ceiling Tile Mastic	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%
204A-2	25457/ 85835	3003	Brown 1'x1' Ceiling Tile Mastic	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%
205-1	25458/ 85836	3014	Brown 2'x4' Smooth Fissure Ceiling Tile	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 5 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
205-2	25459/ 85837	3014	Brown 2'x4' Smooth Fissure Ceiling Tile	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
206-1	25460/ 85838	1006	White/Gray 2'x4' Dot Pattern Ceiling	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
206-2	25461/ 85839	1006	White/Gray 2'x4' Dot Pattern Ceiling	Inconclusive No Asbestos Detected	0%	#	None Detected	<1.0%	None Detected	100%
300-1	25462/ 85840	4000	Black/White Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
300-2	25463/ 85841	4000	Black/White Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
301-1	25464/ 85842	4000	White Block Fibrous Pattern Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	Fiberglass 10%	90%
301-2	25465	4000	White Block Pattern Linoleum	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A
302-1	25466	4000	Black/White 12"x12" Floor Tile	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A
302-2	25467	4000	Black/White 12"x12" Floor Tile	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A
303-1	25468/ 85843	4001	Tan Cove Base Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

KEY TO NOB COLUMN SYMBOLS
No Symbol In the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
V̂ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
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** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 6 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
303-2	25469/ 85844	4001	Tan Cove Base Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
304-1	25470	4001	Black Floor Tile Mastic	Chrysotile 2.9%	2.9%	√	Not Required	N/A	None Detected	97.1%
304-2	25471	4001	Black Floor Tile Mastic	Chrysotile 3.2%	3.2%	√	Not Required	N/A	None Detected	96.8%
305-1	25472/ 85845	4001	Beige 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
305-2	25473/ 85846	4001	Beige 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
306-1	25474/ 85847	4002	Beige Block Pattern 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
306-2	25475/ 85848	4002	Beige Block Pattern 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
307-1	25476/ 85849	3006	Tan Carpet Mastic	None Detected	0%	√	Not Required	N/A	None Detected	100%
307-2	25477/ 85850	3006	Tan Carpet Mastic	None Detected	0%	√	Not Required	N/A	None Detected	100%
312-1	25478	3020	Red Floor Leveler	Chrysotile 2.9%	2.9%		Not Required	N/A	None Detected	97.1%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 7 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
312-2	25479	3020	Red Floor Leveler	Chrysotile 6.2%	6.2%		Not Required	N/A	None Detected	93.8%
313-1	25480/ 85851	2003	Brown Wavy Pattern Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
313-2	25481/ 85852	2003	Brown Wavy Pattern Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
314-1	25482/ 85853	2008	Brown Stair Tread Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
314-2	25483/ 85854	2008	Brown Stair Tread Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
316-1	25484/ 85855	1026	Blue 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
316-2	25485/ 85856	1026	Blue 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
317-1	25486/ 85857	1026	Yellow Floor Tile Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
317-2	25487/ 85858	1026	Yellow Floor Tile Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
318-1	25488	2010	Brown 12"x12" Floor Tile	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 8 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
318-2	25489/ 85859	2010	Brown 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
319-1	25490/ 85860	2009	Tan 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
319-2	25491/ 85861	2009	Tan 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
320-1	25492/ 85862	2012	Tan Mottled 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
320-2	25493/ 85863	2012	Tan Mottled 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
322-1	25494	2020	Yellow 12"x12" Floor Tile	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A
322-2	25495/ 85864	2020	Yellow 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
323-1	25496/ 85865	2024	Blue/Yellow 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
323-2	25497/ 85866	2024	Blue/Yellow 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
501-1	25498/ 85867	3003	Black Wire Insulation	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

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179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 9 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
501-2	25499/ 85868	3003	Black Wire Insulation	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
502-1	25500	3016	Black Sink Insulation	Chrysotile 1.3%	1.3%	√	Not Required	N/A	None Detected	98.7%
502-2	25501	3016	Black Sink Insulation	Chrysotile 1.1%	1.1%	√	Not Required	N/A	None Detected	98.9%
503-1	25502/ 85869	2003	Gray Sink Insulation	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
503-2	25503/ 85870	2003	Gray Sink Insulation	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
505-1	25504/ 85871	1022	White Sink Insulation	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
505-2	25505/ 85872	1022	White Sink Insulation	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
600-1	25506/ 85873	Exterior	White Window Glazing	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
600-2	25507/ 85874	Exterior	White Window Glazing	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
601-1	25508/ 85875	Exterior	White Window Caulk	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%

NVLAP 1 Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee
Mary Dorr (ELAP 10958)

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ENVIRONMENTAL SERVICES, INC.
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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Ave
Buffalo, New York
Sample Date: 9/29/2016

Job No: 3007-16B
Page: 10 of 20

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
601-2	25509/ 85876	Exterior	White Window Caulk	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
602-1	25510	Exterior	Black Repair Tar at Window	Chrysotile 11%	11%	√	Not Required	N/A	None Detected	89%
602-2	25511	Exterior	Black Repair Tar at Window	Chrysotile 9.7%	9.7%	√	Not Required	N/A	None Detected	90.3%
603-1	25512/ 85877	Exterior	White Door Caulk	Inconclusive No Asbestos Detected	0%	√	Chrysotile 2.7%	2.7%	None Detected	97.3%
603-2	25513/ 85878	Exterior	White Door Caulk	Inconclusive No Asbestos Detected	0%	√	Chrysotile 2.9%	2.9%	None Detected	97.1%
604-1	25514	Exterior	Gray Caulk at Store Front Window	Chrysotile 4.1%	4.1%	√	Not Required	N/A	None Detected	95.9%
604-2	25515	Exterior	Gray Caulk at Store Front Window	Chrysotile 3.8%	3.8%	√	Not Required	N/A	None Detected	96.2%
605-1	25516/ 85879	Exterior	Tan Sign Mastic	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%
605-2	25517/ 85880	Exterior	Tan Sign Mastic	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%

NVLAP* Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

1

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ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/5-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Dembski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/7/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dolf (ELAP 10958)

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Garage

Job No: 3008-16B - 10198-16

Sample Date: 9/29/2016

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
100A-1	25518	1011	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100A-2	25519	1011	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100A-3	25520	1012	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100A-4	25521	1012	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100A-5	25522	1012	White Skim Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100B-1	25523	1011	Gray Base Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100B-2	25524	1011	Gray Base Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100B-3	25525	1012	Gray Base Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100B-4	25526	1012	Gray Base Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%
100B-5	25527	1012	Gray Base Coat Plaster	None Detected	0%		Not Required	N/A	None Detected	100%

NVLAP Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

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ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/4-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Maciejewski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/6/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Garage

Job No: 3008-16B - 10198-16

Sample Date: 9/29/2016

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
101A-1	25528	1003	White/Brown Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
101A-2	25529	1003	White/Brown Fibrous Drywall	None Detected	0%		Not Required	N/A	Cellulose 20%	80%
101B-1	25530	1003	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
101B-2	25531	1003	White Joint Compound	None Detected	0%		Not Required	N/A	None Detected	100%
102A-1	25532/ 85664	1002	Tan Ceramic Tile Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
102A-2	25533/ 85665	1002	Tan Ceramic Tile Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
102B-1	25534	1002	White Ceramic Tile Grout	None Detected	0%		Not Required	N/A	None Detected	100%
102B-2	25535	1002	White Ceramic Tile Grout	None Detected	0%		Not Required	N/A	None Detected	100%
300A-1	25536/ 85666	1001	Black 9"x9" Under Vapor Barrier	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%
300A-2	25537/ 85667	1001	Black 9"x9" Under Vapor Barrier	Inconclusive No Asbestos Detected	0%	√	Trace Chrysotile <1.0%	<1.0%	None Detected	100%

NVLAP Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

KEY TO NOB COLUMN SYMBOLS
No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
V̈ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
# denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
X denotes sample prepped only by ELAP Method 198.6.
** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/4-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Maciejewski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/6/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Andrea Maynard for Mary Dohr (ELAP 10958)

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Garage
Job No: 3008-16B - 10198-16

Sample Date: 9/29/2016

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
301-1	25538	1001	Brown Floor Leveler	None Detected	0%		Not Required	N/A	None Detected	100%
301-2	25539	1001	Brown Floor Leveler	None Detected	0%		Not Required	N/A	None Detected	100%
302-1	25540/ 85668	1003	Tan Carpet Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
302-2	25541/ 85669	1003	Tan Carpet Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
303-1	25542/ 85670	1003	Brown Stone Pattern Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
303-2	25543/ 85671	1003	Brown Stone Pattern Linoleum	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
304-1	25544/ 85672	1003	Brown Cove Base Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
304-2	25545/ 85673	1003	Brown Cove Base Mastic	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
305-1	25546/ 85674	1008	Gray 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
305-2	25547/ 85675	1008	Gray 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%

NVLAP Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

KEY TO NOB COLUMN SYMBOLS
No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
V̌ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
# denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
X denotes sample prepped only by ELAP Method 198.6.
** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/4-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Maciejewski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/6/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Andrea Maciejewski for Mary Dohr (ELAP 10958)

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Garage

Job No: 3008-16B - 10198-16

Sample Date: 9/29/2016

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
305A-1	25548	1008	Black Floor Tile Mastic	Chrysotile 4.4%	4.4%	√	Not Required	N/A	None Detected	95.6%
305A-2	25549	1008	Black Floor Tile Mastic	Chrysotile 3.4%	3.4%	√	Not Required	N/A	None Detected	96.6%
306-1	25550/ 85676	1014	Gray 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
306-2	25551/ 85677	1014	Gray 12"x12" Floor Tile	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
500-1	25552	1005	Black Wire Insulation	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A
500-2	25553	1005	Black Wire Insulation	<1.0% Residue Remaining. PLM and TEM Not Required.	N/A	X	N/A	N/A	N/A	N/A
501-1	25554	1008	Pink Sink Insulation	Chrysotile 3.0%	3.0%	√	Not Required	N/A	None Detected	97%
501-2	25555	1008	Pink Sink Insulation	Chrysotile 2.4%	2.4%	√	Not Required	N/A	None Detected	97.6%
600-1	25556/ 85678	Exterior	Gray Window Caulk	Inconclusive No Asbestos Detected	0%	√	Actinolite/ Tremolite <1.0%	<1.0%	None Detected	100%
600-2	25557/ 85679	Exterior	Gray Window Caulk	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%

NVLAP Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).

V̈ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

 # denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).

X denotes sample prepped only by ELAP Method 198.6.

**** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.**

Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.")or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/4-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Maciejewski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/6/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: AMD Environmental Consultants
Location: 1721-1723 Elmwood Garage
Job No: 3008-16B - 10198-16
Page: 5 of 10

Sample Date: 9/29/2016

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	NOB	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non-Fibrous Matrix Material %
601-1	25558/ 85680	Exterior	White Window Glaze	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
601-2	25559/ 85681	Exterior	White Fibrous Window Glaze	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	Fiberglass 20%	80%
602-1	25560/ 85682	Exterior	Gray Door Caulk	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
602-2	25561/ 85683	Exterior	Gray Door Caulk	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%

NVLAP Lab Code 200530-0 for PLM Analysis

ELAP ID No.: 10958 PLM
ELAP ID No.: 11955 TEM

KEY TO NOB COLUMN SYMBOLS
No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
Ṽ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
# denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM).
X denotes sample prepped only by ELAP Method 198.6.
** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples."Jor EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0),

ELAP 11955 (Buffalo)

PLM Date Analyzed: 10/4-7/2016
Microscope: Olympus BH-2 #241709
PLM Analyst: *A. Maciejewski*

ELAP 10958 (Rochester)

TEM Date Analyzed: 10/6/2016
TEM Analyst: M. Lochner

Laboratory Results Approved By:
Asbestos Operations Manager or Designee Mary Dohr (ELAP 10958)

2.1 Analytical Key Terms and Definitions

PLM: Polarized Light Microscopy; type of analysis

TEM: Transmission Electron Microscopy; secondary analysis if applicable

NOB: Non-Friable Organically Bound; materials analyzed by PLM or TEM

NAD: No asbestos detected

NA: Not applicable

PS: Positive Stop

Trace: Less than 1% asbestos (Non ACM)

ACM: Asbestos Containing Material

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716 833-0043 Fax: 716 241-8689
www.amdenvironmental.com

3.0 Sample Chain(s) of Custody

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

[ ] 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
[X] 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3008-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 [ ] 2 [ ] 3 [ ] 5 [X] Other [ ]
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable ___ NOB ___ TEM ___
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Garage	**Page** 1 **of** 5 **Date Logged In:** 10/3/16 **Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	100A-1	25518	1011			Sl/Sm Coat Plaster
2	100A-2	-19	1011			Sl/Sm Coat Plaster
3	100A-3	-20	1012			Sl/Sm Coat Plaster
4	100A-4	-21	1012			Sl/Sm Coat Plaster
5	100A-5	-22	1012			Sl/Sm Coat Plaster
6	100B-1	-23	1011			Base Coat Plaster
7	100B-2	-24	1011			Base Coat Plaster
8	100B-3	-25	1012			Base Coat Plaster
9	100B-4	-26	1012			Base Coat Plaster
#	100B-5	-27	1012			Base Coat Plaster

Sampled By: David Batt — **Date:** 9/29/16

Transported to Paradigm By: — **Date:** 9/29/16

Received By: Amy Dembek — **Date:** 9/30/16 0815

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS [ ]
or provide TEM contact name:

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: [ ]

1721-1723 Elmwood Ave.

31

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

[ ] 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
[X] 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 300B-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dba#@amdenv.com	**Turn Around Time:** 1 [ ] 2 [ ] 3 [ ] 5 [X] Other [ ]
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable ___ NOB ___ TEM ___
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Garage	**Page** 2 **of** 5 **Date Logged In:** 10/3/16 **Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	101A-1	25528	1 of 3			Dry wall
2	101A-2	-29	1 of 3			Dry wall
3	101B-1	-30	1 of 3			Joint Compound
4	101B-2	-31	1 of 3			Joint Compound
5	102A-1	-32	1 of 2		Ceramic	Tile Mastic
6	102A-2	-33	1 of 2		Ceramic	Tile Mastic
7	102B-1	-34	1 of 2		Ceramic	Tile Grout
8	102B-2	-35	1 of 2		Ceramic	Tile Grout
9	300A-1	-36	1 of 1		Vapor Barrier	under 9x9
#	300A-2	-37	1 of 1		Vapor Barrier	under 9x9

Sampled By: Dave Bass **Date:** 9/29/16

Transported to Paradigm By: Dave Bass **Date:** 9/29/16

Received By: Amy Demark 9/30/16 0815

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS or provide TEM contact name: [ ]

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: [ ]

1721-1723 Elmwood Ave.

32

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
☒ 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3008-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — **Page** 3 **of** 5
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable ___ NOB ___ TEM ___ — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Garage	**Logged In By:** AWD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	301-1	25538	1001			Floor Leveler
2	301-2	-39	1001			Floor Leveler
3	302.1	-40	1003			Carpet Mastic
4	302.2	-41	1003			Carpet Mastic
5	303-1	-42	1003	Brown	Stone Pattern	Linoleum
6	303-2	-43	1003	Brown	Stone Pattern	Linoleum
7	304-1	-44	1003		Cove Base	Mastic
8	304-2	-45	1003		Cove Base	Mastic
9	305-1	-46	1008	Beige	12x12	Floor Tile
#	305-2	-47	1008	Beige	12x12	Floor Tile

Sampled By: [signature] **Date:** 9/29/16

Transported to Paradigm By: [signature] **Date:** 9/29/16

Received By: [signature] **Date:** 9/30/16 0815

10/6/16

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS ☐
or provide TEM contact name:

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.
33
16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

[ ] 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
[X] 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 300816B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbath@amdenv.com	**Turn Around Time:** 1 [ ] 2 [ ] 3 [ ] 5 [X] Other [ ] — **Page** 4 of 5
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable # NOB TEM — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721 -1723 Elmwood Garage	**Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	305A-1	25548	Lobby	Black	Floor	Tile Mastic
2	305A-2	-49	Floor	Black	Floor	Tile Mastic
3	306-1	-50	Room	Grey	12x12	Floor Tile
4	306-2	-51	Room	Grey	12x12	Floor Tile
5	500-1	-52	Lobby			Wire Insulation
6	500-2	-53	Lobby			Wire Insulation
7	501-1	-54	Room			Sink Insulation
8	501-2	-55	Room			Sink Insulation
9	600-1	-56	Exterior			Window Caulk
#	600-2	-57	Exterior			Window Caulk

Sampled By: Dan Best **Date:** 9/29/16

Transported to Paradigm By: Dan Best **Date:** 9/29/16

Received By: Amy Dembek **Date:** 9/30/16 0815

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS or provide TEM contact name: [ ]

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: [ ]

1721-1723 Elmwood Ave.

34

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

[ ] 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
[X] 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3008-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dba#@amdenv.com	**Turn Around Time:** 1 [ ] 2 [ ] 3 [ ] 5 [X] Other [ ] — **Page** 5 **of** 5
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable # NOB TEM — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Grease	**Logged In By:** AM

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	601-1	25558	Exterior			Window Glaze
2	601-2	-59	Exterior			Window Glaze
3	602-1	-60	Exterior			Door Caulk
4	602-2	-61	Exterior			Door Caulk
5						
6						
7						
8						
9						
#						

Sampled By: Dan Bost **Date:** 9/29/16	All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.
Transported to Paradigm By: Dan Bost **Date:** 9/29/16	**CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS or provide TEM contact name:** [ ]
Received By: Amy Dunlap 9/30/16 0815	**TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:**

1721-1723 Elmwood Ave.

35

16-0926DB-A

PARADIGM

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
☒ 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com
Results To dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐
Date Sampled: 9/29/16	**Material Type/Quantity:** Friable ___ NOB ___ TEM ___
Project Location: 1721-1723 Elmwood Ave Buffalo	

Client Mailing Address:
AMD Environmental Consultants
712 Main Street, Suite L-1
Buffalo, NY 14202

OFFICE USE ONLY
Job #: 300716B
Page 1 of 10
Date Logged In: 10/3/16
Logged In By: AD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	100A-1	25419	4000			Drywall
2	100A-2	-20	4000			Drywall
3	100A-3	-21	3004			Drywall
4	100A-4	-22	3002			Drywall
5	100A-5	-23	2024			Drywall
6	100A-6	-24	2023			Drywall
7	100B-1	-25	4000			Joint Compound
8	100B-2	-26	4000			Joint Compound
9	100B-3	-27	3004			Joint Compound
#	100B-4	-28	3002			Joint Compound

Sampled By: David Batt [signature] **Date:** 9/29/16

Transported to Paradigm By: [signature] **Date:** 9/29/16

Received By: Amy Dembrook **Date:** ~~10~~ 9/30/16 0815

AD 10/3

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS or provide TEM contact name: ☐

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: ☐

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

[ ] 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
[X] 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3007-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 [ ] 2 [ ] 3 [ ] 5 [X] Other [ ]
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable NOB TEM
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Ave Buffalo	**Page** 2 **of** 10 **Date Logged In:** 10/3/16 **Logged In By:** AWO

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	100B -5	25429	2024			Join t Compound
2	100B- 6	-30	2023			Joint Compound
3	101- 1	-31	4000			Wall Panel Mastic
4	101-2	-32	4000			Wall Panel Mastic
5	102A -1	-33	4004			SKim Coat Plaster
6	102A-2	-34	4004			SKim Coat Plaster
7	102A-3	-35	3001			SKim Coat Plaster
8	102A-4	-36	3001			SKim Coat Plaster
9	102A-5	-37	3001			SKim Coat Plaster
#	102A-6	-38	2017			SKim Coat Plaster

Sampled By: [signature] **Date:** 9/29/16

Transported to Paradigm By: [signature] **Date:** 9/29/16

Received By: Amy Dembek **Date:** 9/30/16 0815

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CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS [ ]
or provide TEM contact name:

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: [ ]

1721-1723 Elmwood Ave.

37

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
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Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — **Page** 3 **of** 10
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable NOB TEM — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721 - 1723 Elmwood Ave Buffalo	**Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	102A-7	25439	2024			Skim Coat Plaster
2	102B-1	-40	4004			Base Coat Plaster
3	102B-2	-41	4004			Base Coat Plaster
4	102B-3	-42	3001			Base Coat Plaster
5	102B-4	-43	3001			Base Coat Plaster
6	102B-5	-44	3001			Base Coat Plaster
7	102B-6	-45	2017			Base Coat Plaster
8	102B-7	-46	2024			Base Coat Plaster
9	104-1	-47	3001			Wall Panel Mastic
#	104-2	-48	3001			Wall Panel Mastic

Sampled By: Dan Batt **Date:** 9/29/16

Transported to Paradigm By: Dan Batt **Date:** 9/29/16

Received By: Amy Dembski **Date:** 9/30/16 0815

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS or provide TEM contact name: ☐

TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.

38

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
☒ 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3057-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — **Page** 4 **of** 10
712 Main Street, Suite L-1.	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable NOB TEM — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721 - 1723 Elmwood Ave Buffalo	**Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	201-1	25449	3009		2x4	Fissure Pattern ceiling tile
2	201-2	-50	3009		2x4	Fissure Pattern ceiling tile
3	202-1	-51	4003			Textured ceiling Coating
4	202-2	-52	4003			Textured ceiling Coating
5	202-3	-53	4003			Textured ceiling Coating
6	203-1	-54	4002		2x4	Small Fissure ceiling tile
7	203-2	-55	4002		2x4	Small Fissure ceiling tile
8	204A-1	-56	3003		1x1	ceiling tile mastic
9	204A-2	-57	3003		1x1	ceiling tile mastic
#	205-1	-58	3014	2x4		Smooth Fissure ceiling tile

Sampled By: Dan Batt **Date:** 9/29/16

Transported to Paradigm By: Dan Batt **Date:** 9/29/16

Received By: Amy Demlak **Date:** 9/30/16 0815

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1,198.4 and 198.6) unless EPA 600/M4/82/020 per 40 CFR 763 and/or EPA 600/R-93/116 methods are requested.

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TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.

39

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
☒ 1815 Love Road, Grand Island , New York 14072 · — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3057-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — **Page** 5 **of** 10
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable ____ NOB ____ TEM ____ — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Ave Buffalo	**Logged In By:** AnO

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	205-2	25459	3014		2x4	Smooth Fissure Ceiling tile
2	206-1	-60	1006		2x4	Dot Pattern Ceiling tile
3	206-2	-61	1006		2x4	Dot Pattern Ceiling tile
4	300-1	-62	4000			Black & white Linoleum
5	300-2	-63	4000			Black & white Linoleum
6	301-1	-64	4000	White		Black Pattern Linoleum
7	301-2	-65	4000	White		Black Pattern Linoleum
8	302-1	-66	4000	Black & white	12x12	Floor tile
9	302-2	-67	4000	Black & white	12x12	Floor tile
#	303-1	-68	4001		Cove Base	mastic

Sampled By: [signature] **Date:** 9/29/16

Transported to Paradigm By: [signature] **Date:** 9/29/16

Received By: [signature] **Date:** 9/30/16 0915

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CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS ☐
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TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.

40

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
☒ 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3057 16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — **Page** 6 **of** 10
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable ___ NOB ___ TEM ___ — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721 - 1723 Elmwood Ave Buffalo	**Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	303-2	25469	Area1		Cove Base	Mastic
2	304-1	-70	Area1	Black	Floor Tile	Mastic
3	304-2	-71	Area1	Black	Floor Tile	Mastic
4	305-1	-72	Area1	Beige	12x12	Floor Tile
5	305-2	-73	Area1	Beige	12x12	Floor Tile
6	306-1	-74	Area2	Beige Black Pattern	12x12	Floor Tile
7	306-2	-75	Area2	Beige Black Pattern	12x12	Floor Tile
8	307-1	-76	Area6			Carpet Mastic
9	307-2	-77	Area6			Carpet Mastic
#	312-1	-78	Area	Red		Floor Leveler

Sampled By: Dean Batt **Date:** 9/29/16

Transported to Paradigm By: Dean Batt **Date:** 9/29/16

Received By: Jimmy Dembek 9/30/16 0815

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TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: ☐

1721-1723 Elmwood Ave.

41

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

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Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3007-16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — **Page** 7 **of** 10
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable NOB TEM — **Date Logged In:** 10/3/16
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Ave Buffalo	**Logged In By:** AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	312-2	25479	3020	Red		Floor Leveler
2	313-1	-80	2003	Brown	Wavy Pattern	Linoleum
3	313-2	-81	2003	Brown	Wavy Pattern	Linoleum
4	314-1	-82	2008		Stair Tread	Mastic
5	314-2	-83	2008		Stair Tread	Mastic
6	316-1	-84	1026	Blue	12 x 12	Floor Tile
7	316-2	-85	1026	Blue	12 x 12	Floor Tile
8	317-1	-86	1026	Yellow	Floor tile	Mastic
9	317-2	-87	1026	Yellow	Floor tile	Mastic
#	318-1	-88	2010	Brown	12 x 12	Floor Tile

Sampled By: Dean Batt **Date:** 9/29/16

Transported to Paradigm By: Dean Batt **Date:** 9/29/16

Received By: Emmy Dembski 9/30/16 0815

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TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.

42

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

☐ 179 Lake Avenue, Rochester, New York 14608 — Office: 585-647-2530
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Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY**
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	**Job #:** 3007 16B
Client Mailing Address: AMD Environmental Consultants	**Results To** dbath@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable NOB TEM
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Ave Buffalo	**Logged In By:** AMD

Page 8 **of** 10

Date Logged In: 10/3/16

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	318-2	25489	2010	Brown	12x12	Floor Tile
2	319-1	-90	2004	Tan	12x12	Floor Tile
3	319-2	-91	2004	Tan	12x12	Floor Tile
4	320-1	-92	2012	Tan Mottled	12x12	Floor Tile
5	320-2	-93	2012	Tan mottled	12x12	Floor Tile
6	322-1	-94	2020	Yellow	12x12	Floor Tile
7	322-2	-95	2020	Yellow	12x12	Floor Tile
8	323-1	-96	2024	Blue/Yellow	12x12	Floor Tile
9	323-2	-97	2024	Blue/Yellow	12x12	Floor Tile
#	501-1	-98	3003			Wire Insulation

Sampled By: Dan Bath **Date:** 9/29/16

Transported to Paradigm By: Dan Bath **Date:** 9/29/16

Received By: Amy Dembek **Date:** 9/30/16 0815

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TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.

43

16-0926DB-A

CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

PARADIGM

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☒ 1815 Love Road, Grand Island , New York 14072 — Office: 716-775-5777

Client: AMD Environmental Consultants	**Contact:**	**OFFICE USE ONLY** Job #: 3007 16B
Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	
Client Mailing Address: AMD Environmental Consultants	**Results To** dbatt@amdenv.com	**Turn Around Time:** 1 ☐ 2 ☐ 3 ☐ 5 ☒ Other ☐ — Page 9 of 10
712 Main Street, Suite L-1	**Date Sampled:** 9/29/16	**Material Type/Quantity:** Friable NOB TEM — Date Logged In: 10/3/16
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Ave Buffalo	Logged In By: AMD

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	501-2	25499	Bec3			Wire Insulation
2	502-1	25500	3016	Black		Sink Insulation
3	502-2	-01	3016	Black		Sink Insulation
4	503-1	-02	2ae3	Grey		Sink Insulation
5	503-2	-03	2ae3	Grey		Sink Insulation
6	505-1	-04	1022	White		Sink Insulation
7	505-2	-05	1022	White		Sink Insulation
8	600-1	-06	Exterior			Window Glazing
9	600-2	-07	Exterior			Window Glazing
#	601-1	-08	Exterior			Window Caulk

Sampled By: [signature]	**Date:** 9/29/16
Transported to Paradigm By: [signature]	**Date:** 9/29/16
Received By: Tommy Denlock	**Date:** 9/30/16 0815

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1721-1723 Elmwood Ave.

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Phone Number: 833-0043 Ext. 103	**Email Address for Data:** jwolf@amdenv.com sdunlap@amdenv.com anthony@amdenv.com	Page 1 of 1
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712 Main Street, Suite L-1	**Date Sampled:** 9/29/16 **Material Type/Quantity:** Friable NOB TEM	Logged In By: AMD
Buffalo, NY 14202	**Project Location:** 1721-1723 Elmwood Ave. Buffalo	

	Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	601-2	25509	Exterior			Window Caulk
2	602-1	-10	Exterior		Repair tar at windows	
3	602-2	-11	Exterior		Repair tar at windows	
4	603-1	-12	Exterior			Door Caulk
5	603-2	-13	Exterior			Door Caulk
6	604-1	-14	Exterior		Caulk at Store Front Window	
7	604-2	-15	Exterior		Caulk at Store Front Window	
8	605-1	-16	Exterior			Sign Mastic
9	605-2	-17	Exterior			Sign Mastic
#						

Sampled By: [signature] **Date:** 9/29/16

Transported to Paradigm By: [signature] **Date:** 9/29/16

Received By: [signature] **Date:** 9/30/160815

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TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY:

1721-1723 Elmwood Ave.

45

16-0926DB-A

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716 833-0043 Fax: 716 241-8689
www.amdenvironmental.com

4.0 Site Map(s)
Administrative Building:
1721 Elmwood Ave., Buffalo, NY 14207

KEY NOTES

1 ELEVATOR IS PRESENT BUT DOES NOT FUNCTION.
DOOR OPENINGS ARE FILLED WITH FRAME WALLS.

GENERAL NOTE
ANY SPACES CURRENTLY OCCUPIED MAY BE REALLOCATED TO ANOTHER TENANT, IF NECESSARY,
BECAUSE ALL CURRENT LEASES ARE MONTH-TO-MONTH.

ROOF OF ROOMS IN BASEMENT

KEY NOTES

1 ELEVATOR IS PRESENT BUT DOES NOT FUNCTION.
DOOR OPENINGS ARE FILLED WITH FRAME WALLS.

GENERAL NOTE
ANY SPACES CURRENTLY OCCUPIED MAY BE REALLOCATED TO ANOTHER TENANT, IF NECESSARY,
BECAUSE ALL CURRENT LEASES ARE MONTH-TO-MONTH.

BASEMENT

FLOOR 1

GREAT ARROW STREET

ELMWOOD AVENUE

PIERCE ARROW HOLDING COMPANY, LLC 1685 ELMWOOD AVENUE, BUFFALO, NY 14207 JOSEPHHECHT@GMAIL.COM 347-451-0006	FLOOR PLANS : BASEMENT & FLOOR 1 SCALES: ⅛" = 1' ON SHEET 36x64, 1/16" = 1' ON SHEET 18x32 21 SEPTEMBER 2014	SURVEY OF EXISTING CONDITIONS ADMINISTRATION BUILDING 1685 ELMWOOD AVENUE BUFFALO, NY 14207
16-0926DRW DRAWINGS BY GREG PROEFROCK GLANCEDESIGN@YAHOO.COM 415-225-5606	47	

PIERCE ARROW BUILDING

1721-1723 Elmwood Ave.


FLOOR 2
KEY NOTES
ELEVATOR IS PRESENT BUT DOES NOT FUNCTION. DOOR OPENINGS ARE FILLED WITH FRAME WALLS.
GENERAL NOTE
ANY SPACES CURRENTLY OCCUPIED MAY BE REALLOCATED TO ANOTHER TENANT, IF NECESSARY, BECAUSE ALL CURRENT LEASES ARE MONTH-TO-MONTH.
GENERAL NOTE
ANY PARTY WHO USES THESE DRAWINGS SHALL AGREE, BY USE OF A DRAWING OR DRAWINGS ON PAPER OR IN ELECTRONIC FORMAT, TO VERIFY ON SITE ANY AND ALL DIMENSIONS THAT RELATE TO THE INTERESTS OF THAT PARTY OR ANY OTHER PARTY WHO MAY BE AFFECTED. THE AUTHOR OF THESE DRAWINGS MAKES NO CLAIMS REGARDING ACCURACY OF CONTENT, DIMENSIONS, NOR ANY OTHER ASPECT OF THESE DRAWINGS, AND SHALL NOT BE LIABLE FOR ANY RESULTS OF USE OF THESE DRAWINGS BY ANY PARTY OTHER THAN THE AUTHOR.
IN MEN'S ROOM, FIXTURE LOCATIONS ARE APPROXIMATE. FIXTURES & PARTITIONS WERE NOT PRESENT AT TIME OF SURVEY.
261 AUDITORIUM
STAIR #3
STAIR #4
STAIR #5
STAIR #7
ELMWOOD AVENUE
GREAT ARROW STREET


FLOOR 3
KEY NOTES
ELEVATOR IS PRESENT BUT DOES NOT FUNCTION. DOOR OPENINGS ARE FILLED WITH FRAME WALLS.
GENERAL NOTE
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ELMWOOD AVENUE
GREAT ARROW STREET

PIERCE ARROW HOLDING COMPANY, LLC
1685 ELMWOOD AVENUE, BUFFALO, NY 14207
JOSEPHHECHT@GMAIL.COM 347-451-0006

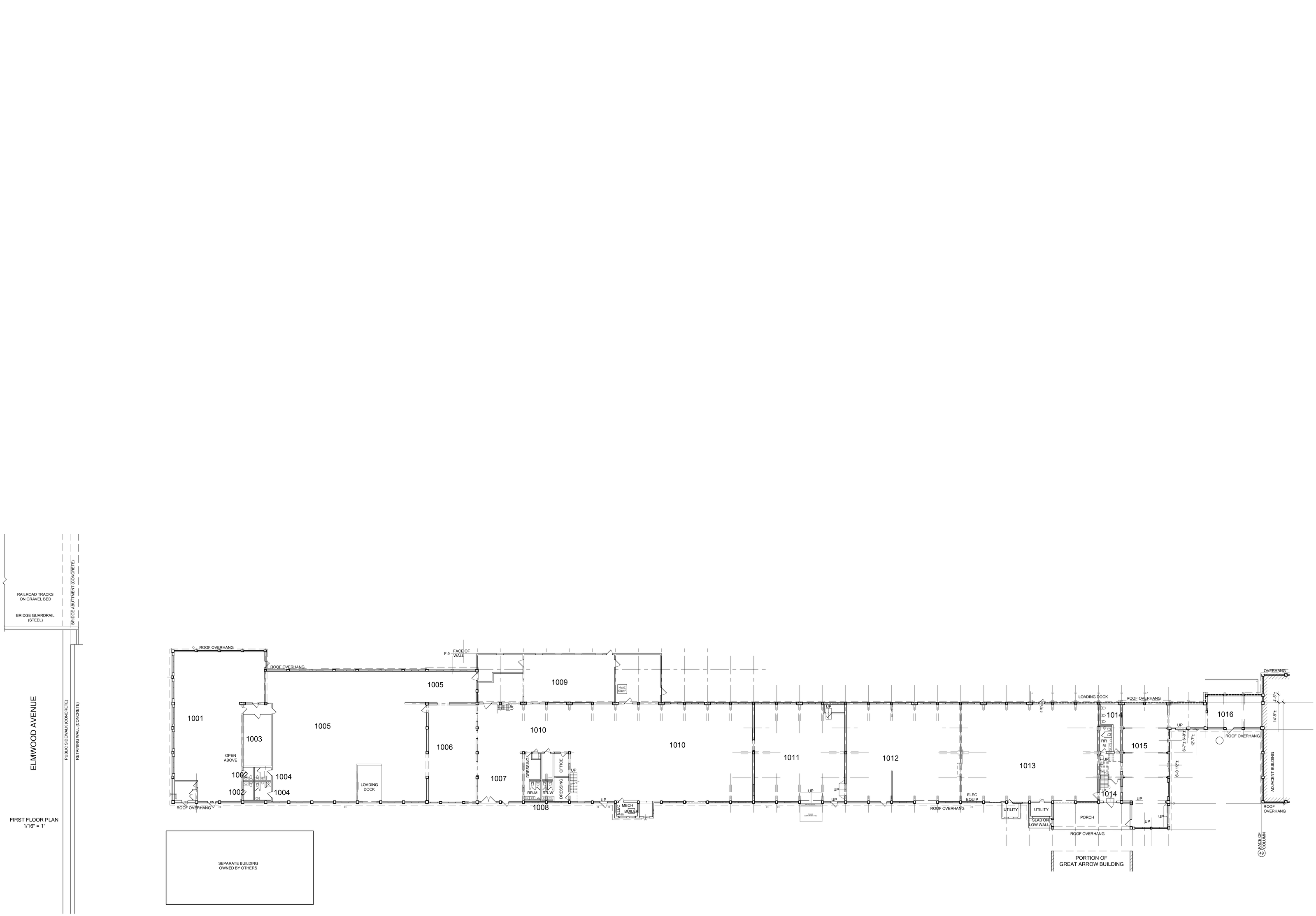
FLOOR PLANS : FLOOR 2 & FLOOR 3
SCALES: 1/8" = 1' ON SHEET 36x64, 1/16" = 1' ON SHEET 18x32
21 SEPTEMBER 2014

SURVEY OF EXISTING CONDITIONS
ADMINISTRATION BUILDING
1685 ELMWOOD AVENUE
BUFFALO, NY 14207

PIERCE ARROW BUILDING

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716 833-0043 Fax: 716 241-8689
www.amdenvironmental.com

4.0 Site Map(s)
Garage Building:
1723 Elmwood Ave., Buffalo, NY 14207


RAILROAD TRACKS
ON GRAVEL BED
BRIDGE GUARDRAIL
(STEEL)
BRIDGE ABUTMENT (CONCRETE)
PUBLIC SIDEWALK (CONCRETE)
RETAINING WALL (CONCRETE)
ELMWOOD AVENUE
FIRST FLOOR PLAN
1/16" = 1'
ROOF OVERHANG
ROOF OVERHANG
F.F.
FACE OF
WALL
1001
1003
OPEN
ABOVE
1002
1002
1004
1004
1005
1005
LOADING
DOCK
1006
1007
1008
1009
HVAC
EQUIP
1010
1010
DRESSING
RR-M
RR-W
OFFICE
DRESSING
UP
ELEC
MECH
BOILER
1011
1012
ROOF OVERHANG
ELEC
EQUIP
1013
LOADING DOCK
ROOF OVERHANG
1014
RR
M
1014
1015
1016
UP
6'-7"±
6'-0"±
12'-7"±
6'-9 1/2"±
ROOF OVERHANG
OVERHANG
2'-5"±
14'-9"±
ADJACENT BUILDING
ROOF
OVERHANG
UTILITY
UTILITY
PORCH
SLAB ON
LOW WALL
ROOF OVERHANG
FACE OF
COLUMN
A9
PORTION OF
GREAT ARROW BUILDING
SEPARATE BUILDING
OWNED BY OTHERS

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716 833-0043 Fax: 716 241-8689
www.amdenvironmental.com

Appendix A: Firm Certification and Personnel License(s)

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

AMD Environmental Consultants, Inc.
Suite L1
712 Main Street

Buffalo, NY 14202

FILE NUMBER: 10-56177
LICENSE NUMBER: 56177
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 11/25/2015
EXPIRATION DATE: 11/30/2016

Duly Authorized Representative – Anthony DeMiglio:

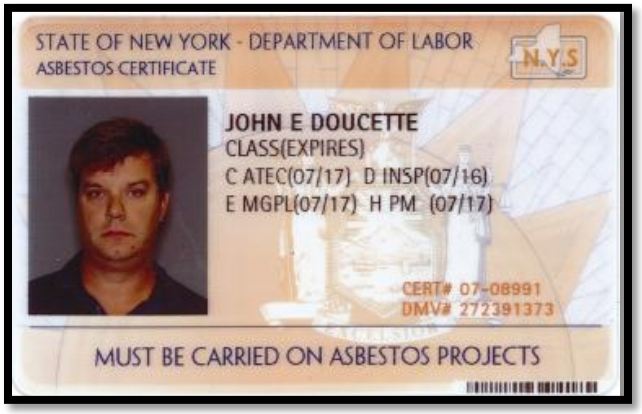
This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

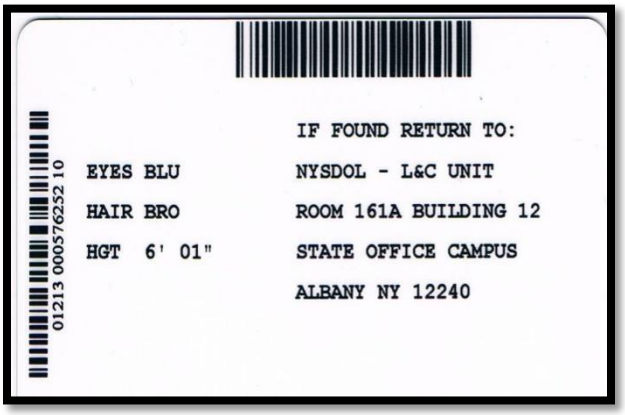
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com





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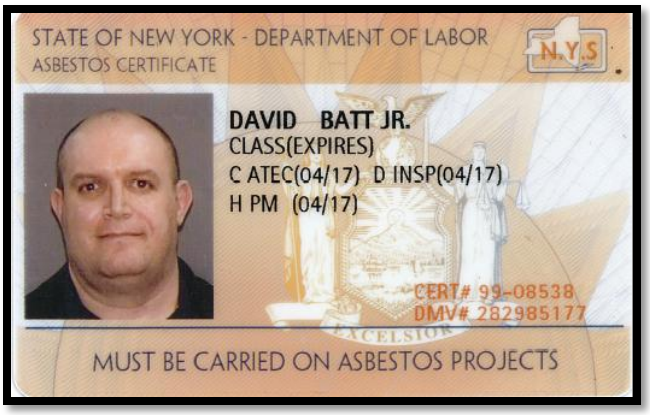
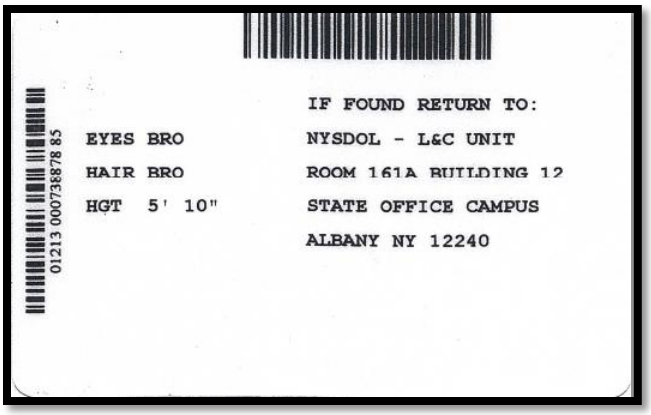
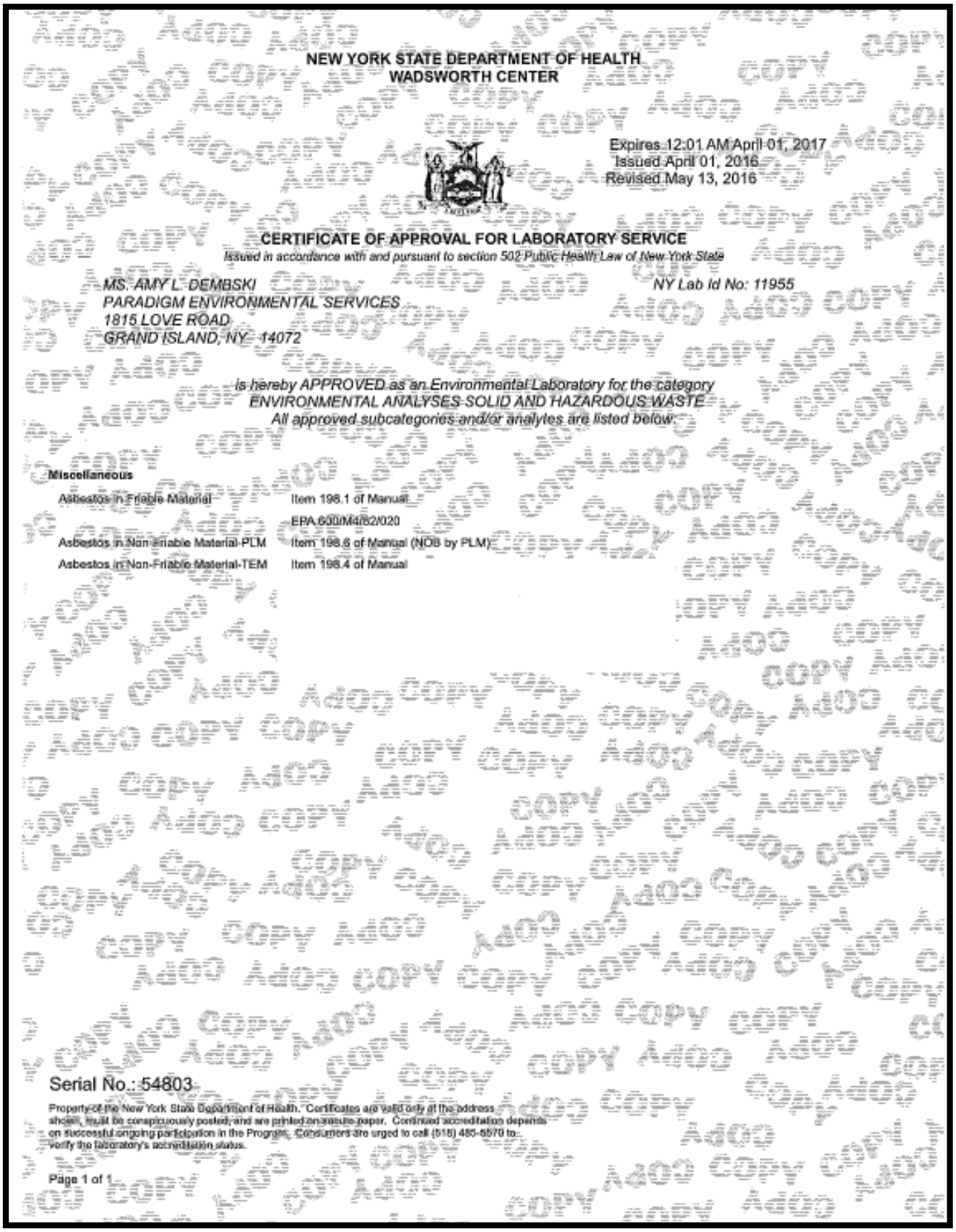




AMD Environmental Consultants, Inc.
712 Main Street. Suite L1
Buffalo, NY 14202
Office: 716 833-0043 Fax: 716 241-8689
www.amdenvironmental.com

Appendix B: Laboratory Certification

AMD Environmental Consultants, Inc.
712 Main St. Suite L1
Buffalo, NY 14202
Office: 716-833-0043 Fax: 716-241-8689
www.amdenvironmental.com



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2017
Issued April 01, 2016
Revised May 13, 2016

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. AMY L. DEMBSKI
PARADIGM ENVIRONMENTAL SERVICES
1815 LOVE ROAD
GRAND ISLAND, NY 14072

NY Lab Id No: 11955

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

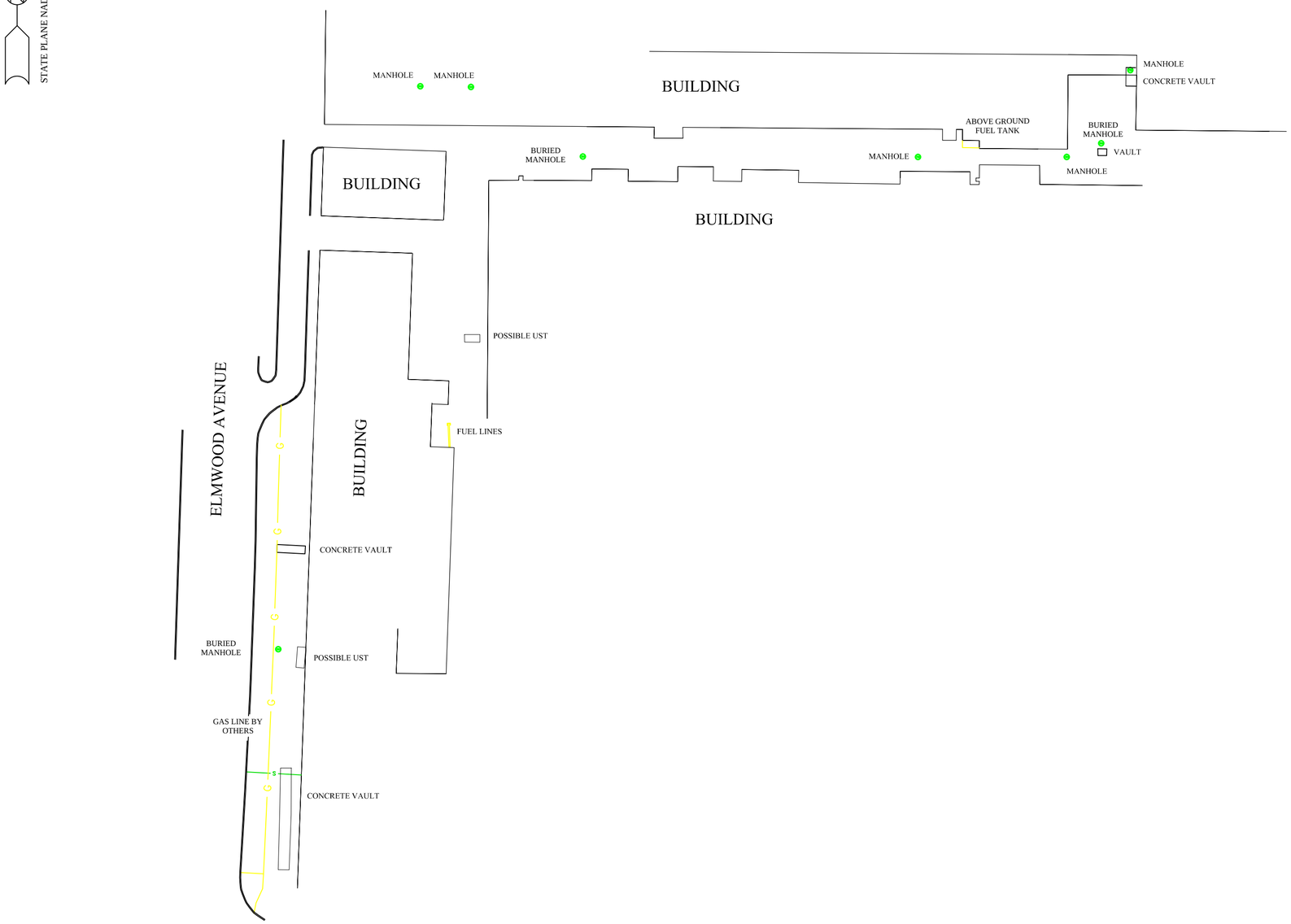
Miscellaneous	
Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual

Serial No.: 54803

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

Page 1 of 1

STATE PLANE NAD 83 ~ NY WEST ZONE



LOCATION MAP ~ NOT TO SCALE

NOTE: NYLD DISCLAIMER

RECOGNIZING THAT UNDERGROUND LEAK DETECTION, UTILITY LOCATING AND GROUND PENETRATING RADAR IS AN ART AS WELL AS A SCIENCE, AND THAT THERE ARE INNUMERABLE VARIABLES IN ACHIEVING THE DESIRED RESULTS, NYLD DOES NOT GUARANTEE ACCURACY IN LOCATING UNDERGROUND LEAKS OR UTILITIES, AND DISCLAIMS ALL LIABILITY FOR ANY DAMAGES BASED ON INFORMATION PROVIDED BY NYLD

NYLD STRIVES TO PROVIDE THE HIGHEST QUALITY SERVICE POSSIBLE WITH THE EXPERIENCE OF THE TECHNICIANS AND EQUIPMENT USED. IT IS OUR DESIRE THAT OUR WORK PROVIDES OUR CLIENTS AND CUSTOMERS WITH THE INFORMATION THEY NEED WITHOUT ADVERSE CONSEQUENCES.

MEASUREMENTS ONLY IN SPECIFIC AREAS BY NYLD TECHNICIANS. NOT ALL UTILITIES MARKED TO SCALE.

LOCATION OF ALL UTILITIES SHOULD BE VERIFIED IN FIELD PRIOR TO EXCAVATION.

NYLD TECHNICIANS PERFORM ALL SUBSURFACE UTILITY INVESTIGATIONS AT A QUALITY LEVEL B (QL-B) LEVEL UNDER THE SUBSURFACE UTILITY ENGINEERING (S.U.E.) PROCESS. TOLERANCE ZONE GUIDELINES SHOULD BE FOLLOWED DURING EXCAVATION WHICH ARE 2 FEET ON EITHER SIDE OF THE DESIGNATED CENTERLINE OR 2 FEET FROM EACH OUTSIDE EDGE OF THE MARKED OUT UTILITY.

NYLD INFRASTRUCTURE
New York Leak Detection, Inc.

NYLD INFRASTRUCTURE
NEW YORK LEAK DETECTION INC.
P.O. BOX 269, JAMESVILLE NY 13078
1-800-928-4350 ~ NYLD.COM
GEORGE E. WILLIAMS, JR., PROFESSIONAL LAND SURVEYOR, LICENSE NO. 50272

INFORMATION SHOWN HEREON IS BASED UPON AN ACTUAL SURVEY PERFORMED IN THE FIELD UTILIZING A LEICA TS15 TOTAL STATION AND GPS LEICA VIVA GNSS GS12 RECEIVER.

UTILITY LOCATION MAP
PREPARED FOR
C&S COMPANIES
PIERCE ARROW
1721 ELMWOOD AVE
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
SCALE: 1" = 60' ~ JULY 19, 2016

APPENDIX B
CITIZEN PARTICIPATION PLAN

New York State Department of Environmental Conservation

Brownfield Cleanup Program

Citizen Participation Plan

for

Pierce Arrow Site

1695, 1721, and 1723 Elmwood Avenue (SBL 78.77-2-2,3 & 6)
Buffalo, Erie County, New York
Site No. C915308

January 2017

Contents

* * * * *

Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site's investigation and cleanup process.

Applicant: **Pierce Arrow LLC**
Site Name: **Pierce Arrow (Site)**
Site Address: **1695, 1721, and 1723 Elmwood Avenue**
Site County: **Erie**
Site Number: **C915308**

1. What is New York's Brownfield Cleanup Program?

New York's Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants that conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: http://www.dec.ny.gov/chemical/8450.html .

2. Citizen Participation Activities

Why NYSDEC Involves the Public and Why It Is Important

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision makers form or adopt final positions.

Involving citizens affected and interest in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment

- Improving public access to, and understanding of, issues and information related to a particular site and that site's investigation and cleanup process

- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process

- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community

- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Project Contacts

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Locations of Reports and Information

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

Site Contact List

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.
The site contact list includes, at a minimum:

- chief executive officer and planning board chairperson of each county, city, town and village in which the site is located;
- residents, owners, and occupants of the site and properties adjacent to the site;
- the public water supplier which services the area in which the site is located;
- any person who has requested to be placed on the site contact list;
- the administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

CP Activities

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The flowchart in Appendix D shows how these CP activities integrate with the site investigation and cleanup process. The public is informed about these CP activities through a CP website, fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **CP Website, notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.

- **Public forums, comment periods, and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

Technical Assistance Grant

NYSDEC must determine if the site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

For more information about TAGs, go online at http://www.dec.ny.gov/regulations/2590.html

Note: The table identifying the citizen participation activities related to the site's investigation and cleanup program follows on the next page:

Citizen Participation Requirements (Activities)	Timing of CP Activity(ies)
Application Process:	
) Prepare site contact list) Establish document repositories	At time of preparation of application to participate in the BCP.
) Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period) Publish above ENB content in local newspaper) Mail above ENB content to site contact list) Conduct 30-day public comment period	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement:	
) Prepare Citizen Participation (CP) Plan	Before start of Remedial Investigation
Before NYSDEC Approves Remedial Investigation (RI) Work Plan:	
) Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan) Conduct 30-day public comment period) Conduct Public Meeting	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 30-day public comment period
After Applicant Completes Remedial Investigation:	
) Distribute fact sheet to site contact list that describes RI results) Conduct Public Meeting	Before NYSDEC approves RI Report.
Before NYSDEC Approves Remedial Work Plan (RWP):	
) Distribute fact sheet to site contact list about proposed RWP and announcing 30-day public comment period) Public meeting by NYSDEC about proposed RWP) Conduct 30-day public comment period	Before NYSDEC approves RWP. Thirty day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 30-day public comment period.
Before Applicant Starts Cleanup Action:	
) Distribute fact sheet to site contact list that describes upcoming cleanup action) Conduct Public Meeting	Before the start of cleanup action.

Citizen Participation Requirements (Activities)	Timing of CP Activity(ies)
After Applicant Completes Cleanup Action:	
) Distribute fact sheet to site contact list that announces that cleanup action has been completed and that summarizes the Final Engineering Report) Conduct Public Meeting) Distribute fact sheet to site contact list announcing issuance of Certificate of Completion (COC)	At the time NYSDEC approves Final Engineering Report. These two fact sheets are combined if possible if there is not a delay in issuing the COC.

3. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

Site soils consist of one to three feet of urban fill material. This urban fill contains SVOC and metal contamination, as shown in recent sampling. No discrete contamination layer was observed, and therefore, the extent of contamination within the fill material is difficult to identify due to its heterogeneous nature.

Contaminated urban fill is expected to exist on-site from surface to an average approximate depth of six feet below grade. The Site is 2.86 acres. The estimated volume of contaminated soil/fill that exceeds Unrestricted Use SCOs is approximately 750,000 cubic feet, or approximately 28,000 cubic yards.

Groundwater was not observed during the recent evaluation of the Site. Based on a review of NYSDEC data, the Site is not underlain by any mapped principal or unconfined aquifers. The City of Buffalo bans the use of groundwater for drinking water so there is little exposure risk to the public from groundwater use.

The presence of the contamination is limiting the future use and re-investment opportunities on the parcel. Stakeholders in the remediation of the Site include the City of Buffalo, local residents and users of adjacent buildings. See Appendix B for a contact list of stakeholders.

4. Site Information

Appendix C contains a map identifying the location of the site.

Site Description

Location: 1695, 1721, and 1723 Elmwood Avenue, Buffalo, Erie County
Setting: Urban
Site size: 2.86 acres
Adjacent properties:

1695 Elmwood Avenue (Administrative Building)

- **East** (Warehouse – Commercial Purposes including The ALT Theatre, etc.)
- **South** (Auto Repair – World Automotive)
- **West** (Residential and Manufacture – Hadley Exhibits**)**
- **North** (Commercial – Buffalo Refinishing Services)

1721 1723 Elmwood Avenue (Garage Building)

- **East** (Manufacture – Great Arrow Inc.)
- **South** (Commercial – Buffalo Refinishing Services and Warehouse)
- **West** (Manufacture – Hadley Exhibits)
- **North** (Rail Line)

History of Site Use, Investigation, and Cleanup

The land comprising the Site was historically divided into small, mostly residential lots that were consolidated in the early 1900s to facilitate the development of the Pierce-Arrow Motor Car Company.

The Pierce-Arrow Motor Car Company once built the world's most luxurious automobiles right in Buffalo, NY. Pierce Arrow cars were manufactured on this facility from 1906 to 1938. The former Administrative Building and two buildings along the rail line that were used to test engines comprise the Site. Ancillary uses within these buildings include aboveground and underground tanks for heating oil and gasoline storage, and coal storage. Since the closing of the Pierce Arrow facility, the Site has been used for commercial and industrial purposes.

Some remedial events were completed prior to Brownfield Cleanup Program sampling. On June 13, 2016, the NYSDEC was notified of an underground storage tank that was removed in November 2011 from the east side of the Administrative Building. The tank was removed and cut into pieces onsite. The tank size, contents, and removal of contaminated soil is unknown at this time, but is located in the NYSDEC as open spill number 1602559.

Based on recent investigation results, contaminated urban fill appears to have been deposited at the Site at some point in its history.

Heterogeneous urban fill is present at the Site at depths ranging from one to three feet below grade. Urban fill is defined as material coming from anthropogenic sources of the material re-worked to build a site to a defined grade. The urban fill material at the Site contains:

- Crushed Rock
- Sand
- Silt
- Clay
- Plastics
- Construction Debris
- Lumber
- Ash/Cinders
- Ceramics
- Bricks
- Metal

Native soil encountered beneath the fill consisted of soft to moderately stiff orange brown clay with some very stiff to extremely stiff reddish clay at deeper levels.

Groundwater was not observed during the recent evaluation of the Site. Based on a review of NYSDEC data, the Site is not underlain by any mapped principal or primary aquifers. Groundwater at and in the vicinity of the Site is not used for public drinking water supply.

No active or passive remediation has taken place on-site.

5. Investigation and Cleanup Process

Application

The Applicants have applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicants were not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a qualitative exposure assessment, a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicants in its Application proposes that the site will be will be repurposed into a quality residential facility to accommodate both residential and Live/Work style spaces.

To achieve this goal, the Applicants will conduct cleanup activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicants set forth the responsibilities of each party in conducting these activities at the site.

Remedy Selection

When the investigation of the Site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicants may recommend in its investigation report that no action is necessary at the Site. In this case, NYSDEC would make the investigation report available for public comment for 30 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a Certificate of Completion (described below) to the Applicants.

or

2. The Applicants may recommend in its investigation report that action needs to be taken to address Site contamination. After NYSDEC approves the investigation report, the Applicants may

then develop a cleanup plan, officially called a Remedial Work Plan. The Remedial Work Plan describes the Applicants' proposed remedy for addressing contamination related to the Site.

When the Applicants submit a proposed Remedial Work Plan for approval, NYSDEC would announce the availability of the proposed plan for public review during a 30-day public comment period.

Cleanup Action

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy.

The Applicants may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicants complete cleanup activities, they will prepare a final engineering report that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the Site.

Certificate of Completion

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the Site, it will approve the final engineering report. NYSDEC then will issue a Certificate of Completion (COC) to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicants from future liability for Site-related contamination, subject to certain conditions. The Applicants would be eligible to redevelop the Site after it receives a COC.

Site Management

Site management is the last phase of the Site cleanup program. This phase begins when the COC is issued. Site management may be conducted by the Applicants under NYSDEC oversight, if contamination will remain in place. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the Site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An institutional control is a non-physical restriction on use of the Site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the Site suitable for some, but not all uses.

An engineering control is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that is pumping and treating groundwater. Site management continues until NYSDEC determines that it is no longer needed.

Appendix A
Project Contacts and Locations of Reports and Information

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Anthony Lopes
Project Manager
NYSDEC Region 9
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, NY 14203-2999
716.851.7220

Kristen Davidson
Citizen Participation Specialist
NYSDEC Region 9
270 Michigan Avenue
Buffalo, NY 14203-2915
716.851.7220

New York State Department of Health (NYSDOH):

Scarlett McLaughlin
Project Manager
NYSDOH
Empire State Plaza – Corning Tower,
RM 1787
Albany, NY 12237
(518) 402-7860

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents:

Buffalo and Erie County Central Library
1 Lafayette Square
Buffalo, NY 14203
Attn: April Tompkins
Phone: 716.858.7180

NYSDEC 9
270 Michigan Avenue
Buffalo, NY 14203
Attn: David Locey
Phone: 716.851.7220
Hours: Monday to Friday 9 am to 5 pm
(call for appointment)

The citizen participation website is under construction. A URL will be provided when the website is functional. The website provides information for the interested and affected public to

help understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.

Appendix B Site Contact List

1. Local Government - City of Buffalo

Erie County Executive:

Mark Poloncarz
Edward A. Rath County Office Building
95 Franklin Street
Buffalo, NY 14202
http://www2.erie.gov/exec/index.php?q=email-mark

Chief Executive Officer – City of Buffalo:

Mayor Byron W. Brown
City of Buffalo
201 City Hall, 65 Niagara Square
Buffalo, New York 14202
Mayor@city-buffalo.com

City of Buffalo Planning Board Chairman:

James A. Morrell, Chairman
City of Buffalo Planning Board
901 City Hall, 65 Niagara Square
Buffalo, NY 14202
(716) 851-5035
mgrunzweig@city-buffalo.com

Erie County Department of Environment and Planning Commissioner:

Maria R. Whyte
Erie County Department of Environment and Planning
95 Franklin Street, 10th Floor
Buffalo, NY 14202
maria.whyte@erie.gov

2. Residents, Owners and Occupants of Property and Property Adjacent to Site:

Pierce Arrow LLC
4706 18th Avenue
Brooklyn, NY 11204

Pierce Arrow Holding LLC
948 45th Street
Brooklyn, NY 11219

Pierce Arrow Automobiles
Realty LLC
948 45th Street
Brooklyn, NY 11219

O'Brien, Devin
1093 Flushing Avenue
Suite 111
Brooklyn, NY 11237

Chertoff, David
1635 Elmwood Avenue
Buffalo, NY 14207

Great Arrow Acquisition, LLC
255 Great Arrow Avenue
Suite 100
Buffalo, NY 14207

The Subversive Theatre Collective
255 Great Arrow Avenue
Buffalo, NY 14207

The ALT Theatre
255 Great Arrow Avenue
Buffalo, NY 14207

Great Arrow INC
91 Rowley Avenue
Kenmore, NY 14217

Engine 36, LLC
1655 Elmwood Avenue
Buffalo, NY 14207

Niagara Mohawk Power Corporation
1664 Elmwood Avenue
Buffalo, NY 14207

National Fuel Gas Distribution Corporation

1662 Elmwood Avenue
Buffalo, NY 14207

Elmwood Jakes, LLC
1672 Elmwood Avenue
Buffalo, NY 14207

Janis M. Richmeyer
1676 Elmwood Avenue
Buffalo, NY 14207

MHMH Property LLC
1375 Delaware Avenue
Buffalo, NY 14207

Ploch, Mary C.
1678 Elmwood Avenue
Buffalo, NY 14207

Ploch, Sigmund & W.
1680 Elmwood Avenue
Buffalo, NY 14207

Hadley Exhibits, Inc.
1700 Elmwood Avenue
Buffalo, NY 14207

Conrail
200 Military Road
Buffalo, NY 14207

3. Local Media:

Local Newspaper:

Buffalo News
1 News Plaza
Buffalo NY 14240
(716) 849-3434
http://www.buffalonews.com/classifieds/

Local Television:

WGRZ – TV Channel 2

259 Delaware Avenue
Buffalo, NY 14202
(716) 849-2200
http://www.wgrz.com/news/default.aspx

WIVB – TV Channel 4
2077 Elmwood Avenue
Buffalo, NY 14207
(716) 874-4410
http://www.wivb.com/subindex/news

WKBW – TV Channel 7
7 Broadcast Plaza
Buffalo, NY 14202
(716) 840-7777
http://www.wkbw.com/

Radio:

WBEN 930 AM Radio
500 Corporate Parkway
Amherst, NY 14226
(716) 843-0600
http://www.wben.com

WBFO 88.7 FM Radio
Horizons Plaza
P.O. Box 1263
Buffalo, NY 14240
716-845-7000
http://www.wbfo.org/

Websites:

City of Buffalo website:
http://www.ci.buffalo.ny.us/

4. Local Water Supplier:

Buffalo Water Authority
281 Exchange Street
Buffalo, NY 14204
(716) 847-1065

City of Buffalo Water Board/
Division of Water
281 Exchange Street
Buffalo, NY 14204

5. Persons Requesting to be Placed on Contact List:

6. School and Day Care Facilities:

Schools:

Parette U. Walker
Buffalo Elementary School 64
Frederick Law Olmstead School
874 Amherst Street
Buffalo, NY 14216

Eric Klapper, Executive Director
Tapestry Charter School
65 Great Arrow Ave
Buffalo, NY 14216

Crystal Boling-Barton, Principal
McKinley High School
1500 Elmwood Avenue
Buffalo, NY 14216

Nicholas Klaich
Buffalo Elementary School 81
140 Tacoma Avenue
Buffalo, NY 14216

Cecelie Owens
Buffalo Elementary School 94
West Hertel Academy
489 Hertel Avenue
Buffalo, NY 14207

Gregory Mott
Buffalo Elementary School 79
PFC. William J. Grabiarz School of Excellence
225 Lawn Avenue
Buffalo, NY 14207

Andrew Deyell
Elmwood Franklin School
104 New Amsterdam Avenue
Buffalo, NY 14216

Bill Clough
Nichols School
1250 Amherst Street
Buffalo, NY 14216

Dennis R. Maple
First Student, Inc.
119 Botsford Place
Buffalo NY 14216

Lynn Pullano
Child Care Resource Network
1000 Hertel Avenue
Buffalo, NY 14216

EduKids Child Care Center Buffalo
1350 Hertel Avenue
Buffalo, NY 14216

Town Child Development Center
1365 Hertel Avenue
Buffalo, NY 14216

Schoolhouse Commons Day Care
1005 Grant Street
Buffalo, NY 14207

Reeders Day Care
436 Amherst Street
Buffalo, NY 14207

Griffin James Brady, Founder
Slyboots Headquarters
467 Richmond Avenue
Buffalo, NY 14222

Ms. Bryant, Principal
PS 64 Frederick Law Olmsted School
874 Amherst Street
Buffalo, NY 14216

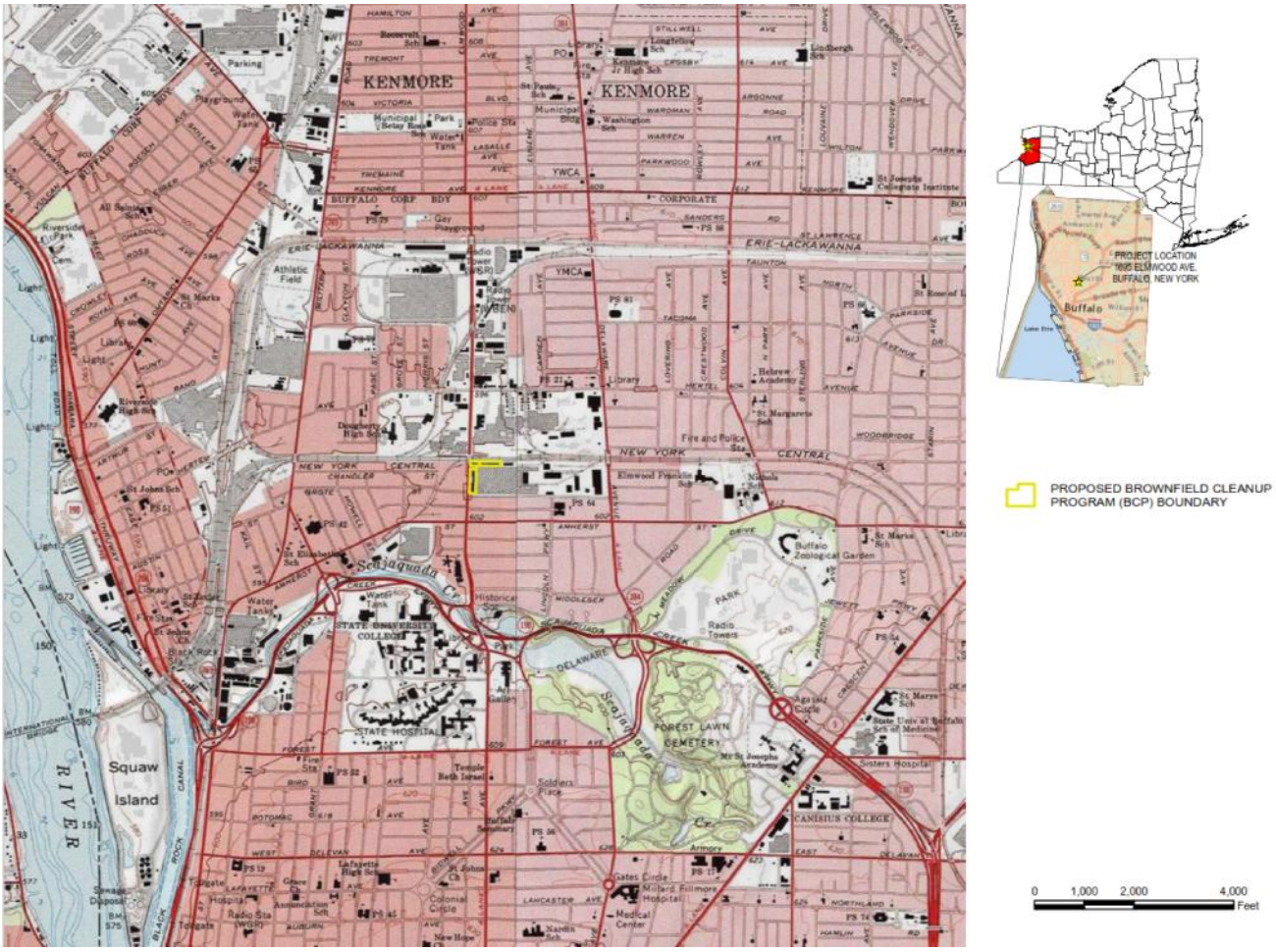
Nora Trincanati, Principal
Campus West School
1300 Elmwood Avenue
Buffalo, NY 14222

Day Care Facilities:

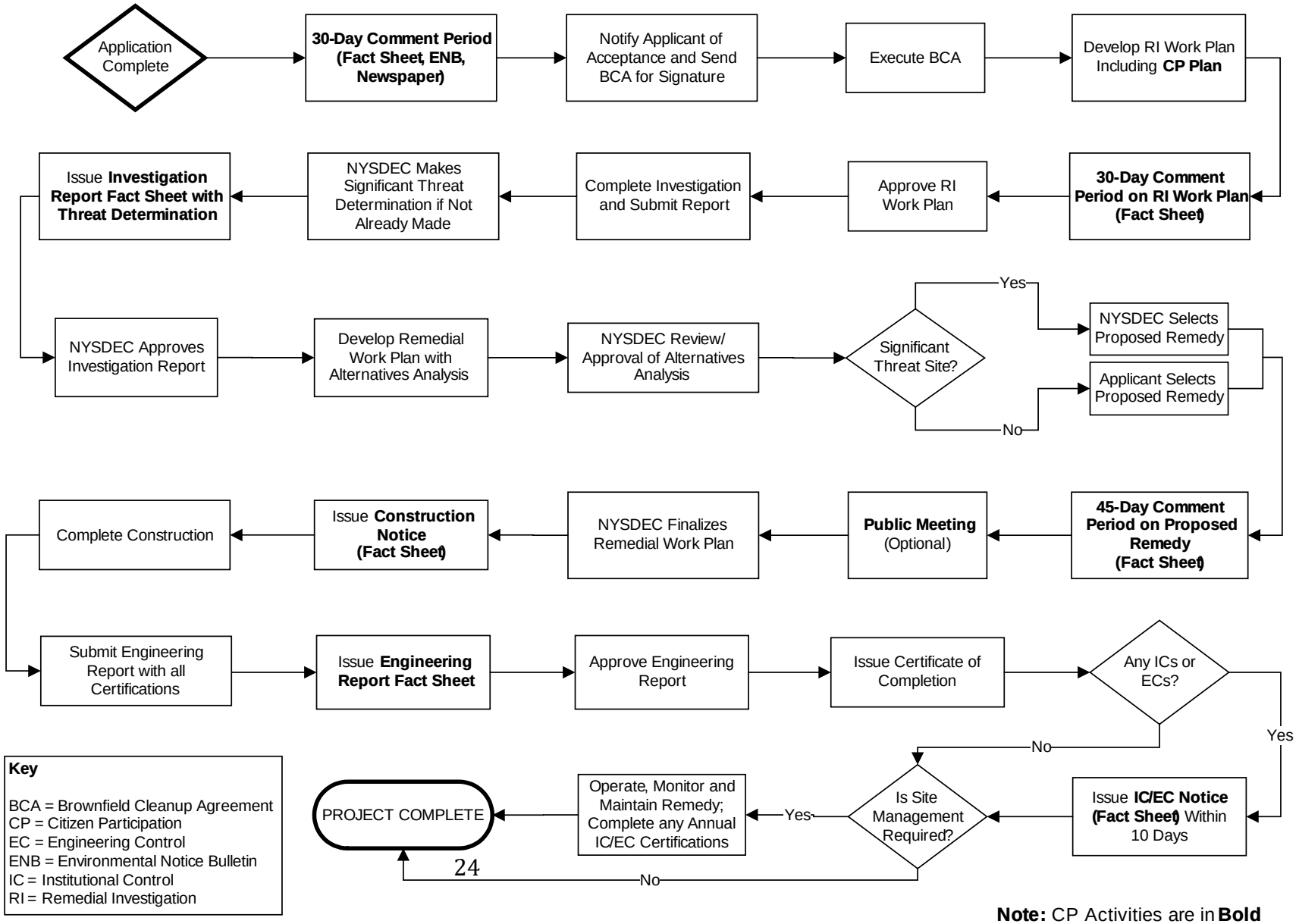
Buffalo State Child Care Center
Buckingham Hall
1300 Elmwood Avenue
Buffalo, NY 14222

Early Head Start Delaware Academy
2422 Delaware Avenue
Buffalo, NY 14216

Appendix C- Site Location Map



Appendix D– Brownfield Cleanup Program Process



APPENDIX C
COMMUNITY AIR MONITORING PLAN

Community Air Monitoring Plan

for

Pierce Arrow Site
1695, 1721, and 1723 Elmwood Avenue (SBL 78.77-2-2,3 & 6)
Buffalo, Erie County, New York

Site No. C915308

January 2017

Community Air Monitoring Plan

Overview

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

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary.

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

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

<u>VOC Monitoring, Response Levels and Actions</u>

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

surrogate, such as isobutylene. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

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

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

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

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

Particulate Monitoring, Response Levels, and Actions

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

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

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be

stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

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

Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number;
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;

(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50$_o$ C (14 to 122$_o$ F); and
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record-keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM-10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:
(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

APPENDIX D
HEALTH AND SAFETY PLAN

Health and Safety Plan for Brownfield Site Investigation And Interim Remedial Measures

Pierce Arrow Site
1695, 1721, and 1723 Elmwood Avenue
(SBL 78.77-2-2,3 & 6)
Buffalo, Erie County, New York

Site No. C915308

Prepared by

C&S Engineers, Inc.
141 Elm Street, Suite 100
Buffalo, New York 14203

January 2017

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ATTACHMENTS

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SECTION 1 – GENERAL INFORMATION

The Health and Safety Plan (HASP) described in this document will address health and safety considerations for all those activities that personnel employed by C&S Engineers, Inc., may be engaged in during site investigation and remediation work at the Campus Square Brownfield Site located on a portion of 1695, 1721, and 1723 Elmwood Avenue in Buffalo, Erie County, New York (Site). Figure 1 shows the approximate location of the Site in downtown Buffalo, New York. This HASP will be implemented by the Health and Safety Officer (HSO) during site work.

Compliance with this HASP is required of all C&S personnel who enter this Site. The content of the HASP may change or undergo revision based upon additional information made available to the health, safety, and training (H&S) committee, monitoring results or changes in the technical scope of work. Any changes proposed must be reviewed by the H&S committee.

Responsibilities

Project Manager…….	Mark Colmerauer Phone: (716) 847-1630 Cell: (716) 570-3457
Site Health and Safety Officer……..	Cody Martin Phone: (716) 847-1630 Cell: (716) 864-3752
Emergency Coordinator…….	Cody Martin Phone: (716) 847-1630 Cell: (716) 864-3752
Health and Safety Manager……	Cody Martin Phone: (716) 847-1630 Cell: (716) 864-3752

Emergency Phone Numbers

Emergency Medical Service.....911

Police: Buffalo Police Department (NYPD) 911

Hospital: Buffalo General Hospital.....(716) 859-5600

Fire: Buffalo Fire Department.....911

National Response Center .....(800) 424-8802

Poison Control Center .....(800) 222-1222
Center for Disease Control.....(800) 311-3435
NYSDEC Region 9 (Buffalo, New York) .....(716) 851-7220
C&S Engineers.....(716) 847-1630
Site Superintendent .....Bill Gannon (716) 517-0792

Project Field Office Trailer .....(716) 847-1630

SECTION 2 - HEALTH AND SAFETY PERSONNEL

2.0 Health and Safety Personnel Designations

The following information briefly describes the health and safety designations and general responsibilities for this Site.

2.1 Project Manager (PM)

The PM is responsible for the overall project including the implementation of the HASP. Specifically, this includes allocating adequate manpower, equipment, and time resources to conduct Site activities safely.

2.2 Health and Safety Manager

- Has the overall responsibility for coordinating and reporting all health and safety activities and the health and safety of Site Workers.
- Must have completed, at a minimum, the OSHA 30-Hour Construction Safety Training, and either the 24-Hour training course for the Occasional Hazardous Waste Site Worker or the 40-Hour training course for the Hazardous Waste Operations Worker that meets OHSA 29 CFR 1910.
- Must have completed the 8-Hour Site supervisor/manager's course for supervisors and managers having responsibilities for hazardous waste Site operations and management.
- Directs and coordinates health and safety monitoring activities.
- Ensures that field teams utilize proper personal protective equipment (PPE).

- Conducts initial on-site specific training prior to Site Workers commencing work.
- Conducts and documents daily and periodic safety briefings.
- Ensures that field team members comply with this HASP.
- Immediately notifies the Construction Manager (CM) Project Manager and Superintendent of all accident/incidents.
- Determines upgrading or downgrading of PPE based on Site conditions and/or real time monitoring results.
- Ensures that monitoring instruments are calibrated daily or as the manufacturer's instructions determine.
- Reports to the CM Project Manager and Superintendent to provide summaries of field operations and progress.
- Submits and maintains all documentation required in this HASP and any other pertinent health and safety documentation.

2.3 Health and Safety Officer (HSO)

- Must be designated to the Health and Safety Manager by each Subcontractor as a Competent Person having, at a minimum, the OSHA 30-Hour Construction Safety Training
- Must schedule and attend a Pre-Construction Safety Meeting with the Health and Safety Manager to discuss the Subcontractor Safety Requirements and must attend the Weekly Subcontractor Coordination Meeting.
- Responsible for ensuring that their lower tier contractors comply with project safety requirements.
- Must make frequent and regular inspections of their work areas and activities and ensure hazards that are under their control are corrected immediately and all other hazards are

reported to the Construction Manager's Project Manager and Health and Safety Manager.

- Must report all work related injuries, regardless of severity, to the Construction Manager's Project Manager and the Health and Safety Manager within 24 hours after they occur.

2.4 Emergency Coordinator

- The Emergency Coordinator or his on-site designee will, in coordination with Campus Square, LLC., implement the emergency response procedures whenever conditions at the Site warrant such action.

- The Emergency Coordinator or his on-site designee will be responsible for assuring the evacuation, emergency treatment, emergency transport of C&S personnel as necessary, and notification of emergency response units (refer to phone listing in the beginning of this HASP) and the appropriate management staff.

2.5 Site Workers

- Report any unsafe or potentially hazardous conditions to the Health and Safety Manager.

- Maintain knowledge of the information, instructions, and emergency response actions contained in the HASP.

- Comply with rules, regulations, and procedures as set forth in this HASP, including any revisions that are instituted.

- Prevent unauthorized personnel from entering work Site.

SECTION 3 - PERTINENT SITE INFORMATION

3.1 Site Location and General History

The Pierce Arrow Site is located in the City of Buffalo on Elmwood Avenue, at the intersection of Elmwood Avenue and Great Arrow Avenue, extending north to Conrail Railroad. The Site consists of three buildings from the former Pierce Arrow facility. The former Pierce Arrow Administrative Building located near the intersection of Elmwood Avenue and Great Arrow Avenue consists of a

three- to four-story commercial building. A small parking lot is located along Elmwood Avenue and a private driveway, accessed from Great Arrow Avenue, runs along the east side of the building. The Site also consists of two conjoined buildings north of the Administrative Building. These buildings were constructed as one-story brick and concrete slab-on-grade structures. A private driveway runs east to west in front of the buildings. Rail lines are located off-site to the immediate north of these buildings.

Figure 1 presents the Site's location.

Site History and Suspect Recognized Environmental Conditions

The land comprising the Site was historically divided into small, mostly residential lots that were consolidated in the early 1900s to facilitate the development of the Pierce-Arrow Motor Car Company.

The Pierce-Arrow Motor Car Company once built the world's most luxurious automobiles at the Site in Buffalo, New York. Pierce Arrow cars were manufactured on this facility from 1906 to 1938. The Site includes the former Administrative Building which was used primarily as office space and the two buildings along the rail line which were used to test engines. Ancillary uses within these buildings include aboveground and underground tanks for heating oil and gasoline storage, and coal storage. Since the closing of the Pierce Arrow facility, the Site has been used for commercial and industrial purposes. Past uses of the Site include the following:

- Tool and die manufacturing
- Cleaning compound manufacturing
- Garage, brazing and heat treatment
- Machine shop operations
- Dry cleaning
- Office space

Some remedial events were completed prior to Brownfield Cleanup Program sampling. On June 13, 2016, the NYSDEC was notified of an underground storage tank that was removed in November 2011 from the east side of the Administrative Building. The tank was removed and cut into pieces onsite. The tank size, contents, and removal of contaminated soil is unknown at this time, but is located in the NYSDEC as open spill number 1602559.

Based on recent investigation results, contaminated urban fill appears to have been deposited at the Site at some point in its history.

The Site soils generally consist of one to three feet of urban fill material. Consistent with urban fill, this urban fill contains SVOC and metal contamination, as shown in recent sampling. No discrete contamination layer was observed within the fill, and therefore, the extent of contamination within the fill material is difficult to identify due to its heterogeneous nature.

SECTION 4 - HAZARD ASSESSMENT AND HAZARD COMMUNICATION

Hazards to workers during a site work include typical construction-related hazards such as slip-trip-fall, equipment malfunction, faulty electrical grounding, and heat/cold/excessive noise exposure. In addition to those typical construction-related hazards, there is also the potential for chemical exposures associated with environmental conditions. The most likely routes of chemical exposure during site work tasks include skin adsorption and inhalation of airborne dust particles.

It is difficult to draw a correlation between the concentrations of contaminants found in one media and the potential for exposure to these contaminants to site workers. However, their potential presence indicates that the potential for exposure to these compounds exist, and the requirements for protective measures and monitoring of exposure is based on this potential.

SECTION 5 - TRAINING

5.1 Site-specific Training

Training will be provided that specifically addresses the activities, procedures, monitoring, and equipment for the Site operations prior to going on site. Training will include familiarization with Site and facility layout, known and potential hazards, and emergency services at the Site, and details all provisions contained within this HASP. This training will also allow Site Workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

5.2 Safety Briefings

C&S project personnel will be given briefings by the HSO on a daily or as needed basis to further assist Site Workers in conducting their activities safely. Pertinent information will be provided when new operations are to be conducted. Changes in work practices must be implemented due to new information made available, or if Site or environmental conditions change. Briefings will

also be given to facilitate conformance with prescribed safety practices. When conformance with these practices is not occurring or if deficiencies are identified during safety audits, the project manager will be notified.

SECTION 6 - ZONES

Four types of Site activity zones are identified for the Brownfield investigation activities, including the Exclusion Zone, Contamination Reduction Zone, Remediation Zone and the Support Zone. Prior to commencement of field work a further definition of where these zones will be set up will be established.

6.1 Exclusion Zone

The area where the unexpected condition is discovered would be considered the Exclusion Zone (EZ). All excavation and handling of contaminated materials generated as a result of the discovery of an unexpected condition would take place within the EZ. This zone will be clearly delineated by hay bales, jersey barriers, and/or similar methods. Safety tape may be used as secondary delineation within the EZ. The zone delineation markings may be opened in areas for varying lengths of time to accommodate equipment operation or specific construction activities. The Site Safety Manager/Director may establish more than one EZ where different levels of protection may be employed or where different hazards exist. Site Workers will not be allowed in the EZ without:

- A buddy (co-worker);
- Appropriate PPE in accordance with OSHA regulations;
- Medical authorization; and
- Training certification in accordance with 29 CFR 1910.120.

6.2 Contamination Reduction Zone

A Contamination Reduction Zone (CRZ) will be established between the EZ and the property limits. The CRZ contains the Contamination Reduction Corridor (CRC) and provides an area for decontamination of Site equipment. The CRZ will be used for general Site entry and egress, in

addition to access for heavy equipment and emergency support services. Site Workers will not be allowed in the CRZ without:

- A buddy (co-worker);
- Appropriate PPE in accordance with OSHA regulations;
- Medical authorization; and
- Training certification in accordance with 29 CFR 1910.120.

In addition, the CRZ will include a Site Worker Cleaning Area that will include a field wash station for Site Workers, equipment, and PPE to allow Site Workers to wash their hands, arms, neck, and face after exiting areas of grossly contaminated soil or hazardous materials. All Site Workers will be required to pass through the Site Worker Cleaning Area and wash their hands and remove any loose fill and soils from their clothing and boots prior to exiting the CRZ.

6.3 Remediation Zone

A Remediated Zone (RZ) will be established in portions of the Site where the remediation has been completed and only general construction work will be performed. Setup of the RZ will consist of implementing several measures designed to reduce the risk of workers' exposure and prevent non-trained workers from entering the non-remediated zone. Non-trained workers will work only in areas where the potential for exposure has been minimized by removal of all hazardous materials. The remediated zone will then be separated from the non-remediated zone by installing and maintaining temporary plywood or other construction fences along the boundary between the two zones. If potentially impacted material is uncovered in the RZ, all non-trained workers will be removed and the Site Safety Manager/Director will assess the potential risks. If, at any other time, the risk of exposure increases while non-trained workers are present in the RZ, the non-trained workers will be removed. At all times, when non- trained workers are present in the RZ, air monitoring for the presence of VOCs will be conducted in the RZ, as well as at the fence line of the non-remediated zone.

6.4 Support Zone

The Support Zone (SZ) will be an uncontaminated area that will be the field support area for the Site operations. The SZ will contain the temporary project trailers and provide for field team communications and staging for emergency response. Appropriate sanitary facilities and safety equipment will be located in this zone. Potentially contaminated equipment or materials are not allowed in this zone. The only exception will be appropriately packaged/decontaminated and labeled samples. Meteorological conditions will be observed and noted from this zone, as well as those factors pertinent to heat and cold.

SECTION 7 - PERSONAL PROTECTIVE EQUIPMENT

7.1 General

The level of protection to be worn by field personnel will be defined and controlled by the HSO. Depending upon the type and levels of material present or anticipated at the site, varying degrees of protective equipment will be needed. If the possible hazards are unknown, a reasonable level of protection will be taken until sampling and monitoring results can ascertain potential risks. The levels of protection listed below are based on USEPA Guidelines. A list of the appropriate clothing for each level is also provided.

Level A protection must be worn when a reasonable determination has been made that the highest available level of respiratory, skin, eye, and mucous membrane protection is needed. It should be noted that while Level A provides maximum available protection, it does not protect against all possible hazards. Consideration of the heat stress that can arise from wearing Level A protection should also enter into the decision making process. Level A protection includes:

- Open circuit, pressure-demand self-contained breathing apparatus (SCBA)
- Totally encapsulated chemical resistant suit
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective

Level B protection must be used when the highest level of respiratory protection is needed, but hazardous material exposure to the few unprotected areas of the body (e.g., the back of the neck) is unlikely. Level B protection includes:

- Open circuit, pressure-demand SCBA or pressure airline with escape air bottle
- Chemical protective clothing: Overalls and long sleeved jacket; disposal chemical resistant coveralls; coveralls; one or two piece chemical splash suit with hood
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective

Level C must be used when the required level of respiratory protection is known, or reasonably assumed to be, not greater than the level of protection afforded by air purifying respirators; and hazardous materials exposure to the few unprotected areas of the body (e.g.., the back of the neck) is unlikely. Level C protection includes:

- Full or half face air-purifying respirator
- Chemical protective clothing: Overalls and long-sleeve jacket; disposable chemical resistant coveralls; coveralls; one or two piece chemical splash suit
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective

Level D is the basic work uniform. It cannot be worn on any site where respiratory or skin hazards exist. Level D protection includes:

- Safety boots/shoes
- Safety glasses
- Hard hat with optional face shield

Note that the use of SCBA and airline equipment is contingent upon the user receiving special training in the proper use and maintenance of such equipment.

7.2 Personal Protective Equipment – Site Specific

Level D with some modification will be required when working in the work zone on this Site. In addition to the basic work uniform specified by Level D protection, Nitrile gloves will be required when contact with soil or ground water is likely. Hearing protection will be worn when power equipment is used to perform subsurface investigation work. An upgrade to a higher level (Level C) of protection may occur if determined necessary by the HSO.

SECTION 8 - MONITORING PROCEDURES

8.1 Monitoring During Site Operations

All Site environmental monitoring should be accompanied by periodic meteorological monitoring of appropriate climatic conditions.

8.1.1 Drilling Operations (Monitoring Well Installation and Subsurface Borings) and Test Pit Excavations

Monitoring will be performed by the HSO or drilling observer during the conduct of work. A photoionization detector (PID) equipped with a 10.0 eV lamp will be utilized to monitor for the presence of volatile organic vapors within the breathing zone, the borehole, and subsurface samples upon their retrieval. Drill cuttings and excavation spoils will also be monitored by use of the PID. The PID will be field checked for calibration accuracy three times per day (morning, lunch, and end of day. If subsurface conditions warrant, a combustible gas indicator (CGI) with oxygen alarm may also be used to monitor the borehole for the presence of combustible gases. Similar monitoring of fluids produced during well development will also be conducted.

8.1.2 Interim Remedial Measures

If future Interim Remedial Measures (IRM) occurs, monitoring will be performed during excavation and sampling operations when C&S personnel are within the work zone. Although historical information previously obtained at the Site indicates low level of volatile organic vapors and compounds, a photoionization detector (PID) will be used during subsurface activities. If an IRM is performed, the, the remedial contractor will be required to employ dust control practices during work.

8.2 Action Levels

If readings on the PID exceed 10 ppm for more than fifteen minutes consecutively, then personal protective equipment should be upgraded to Level C. The air purifying respirator used with Level C protective equipment must be equipped with organic vapor cartridges. If readings on the explosive gas meter are within a range of 10%-25% of the LEL then continuous monitoring will be implemented. Readings above 25% of the LEL indicate the potential for an explosive condition. Sources of ignition should be removed and the Site should be evacuated.

8.3 Personal Monitoring Procedures

Personal monitoring shall be performed as a contingency measure in the event that VOC concentrations are consistently above the 10 ppm action level as detected by the PID. If the concentration of VOCs is above this action level, then amendments to the HASP must be made before work can continue at the Site.

SECTION 9 - COMMUNICATIONS

A phone will be located on Site to be utilized by personnel conducting investigation and IRM efforts. Cell phones will be the primary means of communicating with emergency support services/facilities.

SECTION 10 - SAFETY CONSIDERATIONS FOR SITE OPERATIONS

10.1 General

Standard safe work practices that will be followed include:

- Do not climb over/under drums, or other obstacles.
- Do not enter the work zone alone.
- Practice contamination avoidance, on and off-site.
- Plan activities ahead of time, use caution when conducting concurrently running activities.
- No eating, drinking, chewing or smoking is permitted in work zones.
- Due to the unknown nature of waste placement at the Site, extreme caution should be practiced during excavation activities.
- Apply immediate first aid to any and all cuts, scratches, abrasions, etc.
- Be alert to your own physical condition. Watch your buddy for signs of fatigue, exposure, etc.
- A work/rest regimen will be initiated when ambient temperatures and protective clothing create a potential heat stress situation.
- No work will be conducted without adequate natural light or without appropriate supervision.
- Task safety briefings will be held prior to onset of task work.
- Ignition of flammable liquids within or through improvised heating devices (barrels, etc.) or space heaters is forbidden.

- Entry into areas of spaces where toxic or explosive concentrations of gases or dust may exist without proper equipment is prohibited.
- Any injury or unusual health effect must be reported to the Site health and safety officer.
- Prevent splashing or spilling of potentially contaminated materials.
- Use of contact lenses is prohibited while on site.
- Beards and other facial hair that would impair the effectiveness of respiratory protection are prohibited if respiratory protection is necessary.
- Field crew members should be familiar with the physical characteristics of investigations, including:
  - Wind direction in relation to potential sources
  - Accessibility to co-workers, equipment, and vehicles
  - Communication
  - Hot zones (areas of known or suspected contamination)
  - Site access
  - Nearest water sources
- The number of personnel and equipment in potentially contaminated areas should be minimized consistent with site operations.

10.2 Field Operations

10.2.1 Intrusive Operations

The HSO or designee will be present on-site during all intrusive work, e.g., drilling operations, excavations, trenching, and will provide monitoring to oversee that appropriate levels of protection and safety procedures are utilized by C&S Engineers, Inc., personnel. The use of salamanders or other equipment with an open flame is prohibited and the use of protective clothing, especially hard hats and boots, will be required during drilling or other heavy equipment operations.

10.2.2 Excavations and Excavation Trenching

Guidance relating to safe work practices for C&S employees regarding excavations and excavating/trenching operation is presented in Appendix A of this HASP.

SECTION 11 - DECONTAMINATION PROCEDURES

Decontamination involves physically removing contaminants and/or converting them chemically into innocuous substances. Only general guidance can be given on methods and techniques for decontamination. Decontamination procedures are designed to:

- Remove contaminant(s).
- Avoid spreading the contamination from the work zone.
- Avoid exposing unprotected personnel outside of the work zone to contaminants.

Contamination avoidance is the first and best method for preventing spread of contamination from a hazardous site. Each person involved in site operations must practice the basic methods of contamination avoidance listed below. Additional precautions may be required in the HASP.

- Know the limitations of all protective equipment being used.
- Do not enter a contaminated area unless it is necessary to carry out a specific objective.
- When in a contaminated area, avoid touching anything unnecessarily.
- Walk around pools of liquids, discolored areas, or any area that shows evidence of possible contamination.
- Walk upwind of contamination, if possible.
- Do not sit or lean against anything in a contaminated area. If you must kneel (e.g., to take samples), use a plastic ground sheet.
- If at all possible, do not set sampling equipment directly on contaminated areas. Place equipment on a protective cover such as a ground cloth.
- Use the proper tools necessary to safely conduct the work.

Specific methods that may reduce the chance of contamination are:

- Use of remote sampling techniques.
- Opening containers by non-manual means.
- Bagging monitoring instruments.
- Use of drum grapplers.
- Watering down dusty areas.

Equipment which will need to be decontaminated includes tools, monitoring equipment, and personal protective equipment. Items to be decontaminated will be brushed off, rinsed, and

dropped into a plastic container supplied for that purpose. They will then be washed with a detergent solution and rinsed with clean water. Monitoring instruments may be wrapped in plastic bags prior to entering the field in order to reduce the potential for contamination. Instrumentation that is contaminated during field operations will be carefully wiped down. Heavy equipment, if utilized for operations where it may be contaminated, will have prescribed decontamination procedures to prevent contaminant materials from potentially leaving the Site. On-site contractors, such as drillers or backhoe operators, will be responsible for decontaminating all construction equipment prior to demobilization.

SECTION 12 – DISPOSAL PROCEDURES

All discarded materials, waste materials, or other objects shall be handled in such a way as to reduce or eliminate the potential for spreading contamination, creating a sanitary hazard, or causing litter to be left on-site. All potentially contaminated materials, e.g., clothing, gloves, etc., will be bagged or drummed as necessary and segregated for proper disposal. All contaminated waste materials shall be disposed of as required by the provisions included in the contract and consistent with regulatory provisions. All non-contaminated materials shall be collected and bagged for appropriate disposal. Investigation derived waste will be managed consistent with the work plan for this Site and DER-10 Technical Guidance for Site Investigation and Remediation dated May 2010.

SECTION 13 - EMERGENCY RESPONSE PROCEDURES

As a result of the hazards at the Site, and the conditions under which operations are conducted, there is the possibility of emergency situations. This section establishes procedures for the implementation of an emergency plan.

13.1 Emergency Coordinator

Emergency Coordinator: ..... Cody Martin .....Work Phone: (716) 847-1630

The Emergency Coordinator or his on-site designee will, in concert with Campus Square LLC, implement the emergency response procedures whenever conditions at the Site warrant such action. The Emergency Coordinator or his on-site designee will be responsible for assuring the evacuation, emergency treatment, emergency transport of C&S personnel as necessary, and

notification of emergency response units (refer to phone listing in the beginning of this HASP) and the appropriate management staff.

13.2 Evacuation

In the event of an emergency situation, such as fire, explosion, significant release of toxic gases, etc., all personnel will evacuate and assemble in a designated assembly area. The Emergency Coordinator or his on-site designee will have authority to contact outside services as required. Under no circumstances will incoming personnel or visitors be allowed to proceed into the area once the emergency signal has been given. The Emergency Coordinator or his on-site designee must see that access for emergency equipment is provided and that all ignition sources have been shut down once the emergency situation is established. Once the safety of all personnel is established, the Fire Department and other emergency response groups will be notified by telephone of the emergency.

13.3 Potential or Actual Fire or Explosion

Immediately evacuate the Site and notify local fire and police departments, and other appropriate emergency response groups, if LEL values are above 25% in the work zone or if an actual fire or explosion has taken place.

13.4 Environmental Incident (spread or release of contamination)

Control or stop the spread of contamination if possible. Notify the Emergency Coordinator and the Project Manager. Other appropriate response groups will be notified as appropriate.

13.5 Personnel Injury

Emergency first aid shall be applied on-site as necessary. Then, decontaminate (en route if necessary) and transport the individual to nearest medical facility if needed. The ambulance/rescue squad shall be contacted for transport as necessary in an emergency. The directions to the hospital are shown in Section 1 of this HASP and a map is shown in Attachment A.

13.6 Personnel Exposure

- *Skin Contact*: Use copious amounts of soap and water. Wash/rinse affected area thoroughly, and then provide appropriate medical attention. Eyes should be thoroughly rinsed with water for at least 15 minutes.
- *Inhalation*: Move to fresh air and/or, if necessary, decontaminate and transport to emergency medical facility.
- *Ingestion*: Decontaminate and transport to emergency medical facility.
- *Puncture Wound/Laceration*: Decontaminate, if possible, and transport to emergency medical facility.

13.7 Adverse Weather Conditions

In the event of adverse weather conditions, the HSO will determine if work can continue without sacrificing the health and safety of field workers.

13.8 Incident Investigation and Reporting

In the event of an incident, procedures discussed in the Medical Emergency/Incident Response Protocol, presented in Appendix B of this HASP, shall be followed.

SECTION 14 - COMMUNITY RELATIONS

14.1 Community Health and Safety Plan

14.1.1 Community Health and Safety Monitoring

As part of the site work, three general types of efforts are scheduled, including, non-intrusive reconnaissance tasks, sampling or monitoring tasks (monitoring point sampling), and intrusive tasks (test trenching, subsurface borings, monitoring well installation). During completion of general reconnaissance and sampling or monitoring tasks, potential for health and safety risks to off-site landowners or the local community are not anticipated.

During completion of intrusive efforts at or adjacent to the Site, health and safety monitoring efforts will be concentrated on the area or areas in which intrusive efforts are being completed. Since the air pathway is the most available and likely avenue for the release of potential contaminants to the atmosphere at or near the Site, in addition to limiting public or community

access to the areas in which intrusive efforts are completed, health and safety measures will primarily consist of monitoring the air pathway for worker exposure.

14.1.2 Community Air Monitoring Plan

Efforts will be taken to complete field work in a manner which will minimize the creation of airborne dust or particulates. Under dry conditions, work areas may be wetted to control dust. During periods of extreme wind, intrusive field work may be halted until such time as the potential for creating airborne dust or particulate matter as a result of investigation activities is limited. Periodic monitoring following the guidelines of the site's Community Air Monitoring Plan (see Appendix C of the IRM) will be implemented during all non-intrusive Site investigation activities, including surface soil and sediment sampling, and collection of groundwater samples from groundwater monitoring wells.

During completion of Site investigation, a community air monitoring plan meeting the requirements of the site's Community Air Monitoring Plan (see Appendix C of the IRM) will be implemented for the duration of intrusive activities. These additional air monitoring activities will include establishment of background conditions, continuous monitoring for volatile organic compounds and/or particulates at the downwind work area (exclusion zone) perimeter, recording of monitoring data, and institution and documentation of Response Levels and appropriate actions in accordance with NYSDOH guidance.

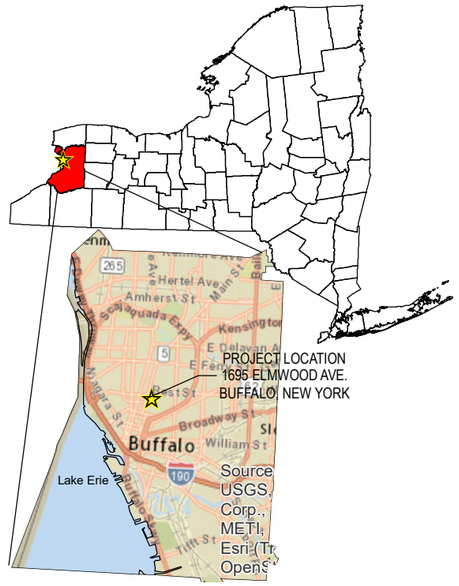
SECTION 15 - AUTHORIZATIONS

Personnel authorized to enter the Site while operations are being conducted must be approved by the HSO. Authorization will involve completion of appropriate training courses, medical examination requirements, and review and sign-off of this HASP. No C&S personnel should enter the work zone alone. Each site visitor should check in with the HSO or Project Manager prior to entering the work zones.

FIGURE 1

SITE LOCATION MAP

C&S ENGINEERS



LEGEND

BCP BOUNDARY

0 500 1,000 2,000 Feet

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

PIERCE ARROW BCP
WORK PLAN

BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	069.001.001
DATE:	12/30/2016
DRAWN BY:	S.HERBERGER
DESIGNED BY:	S.HERBERGER
CHECKED BY:	DAN RIKER

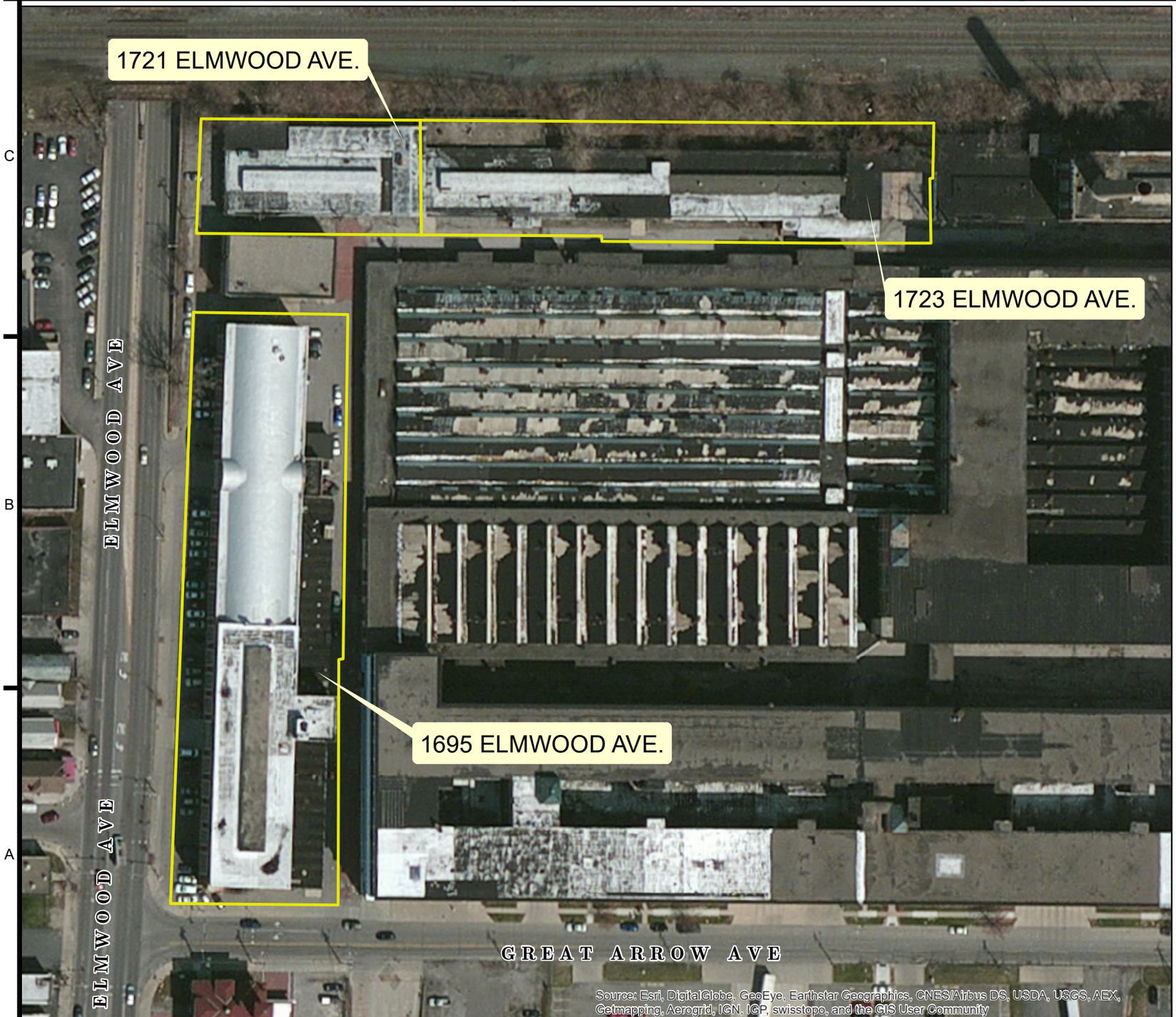
SITE LOCATION MAP

FIGURE 1

FIGURE 2

SITE AERIAL PHOTO

C&S ENGINEERS



LEGEND

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0 45 90 180 Feet

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N

PIERCE ARROW BCP
WORK PLAN

BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	Q69.001.001
DATE:	12/30/2016
DRAWN BY:	S.HERBERGER
DESIGNED BY:	S.HERBERGER
CHECKED BY:	DAN RIKER

SITE MAP

FIGURE 2

ATTACHMENT A

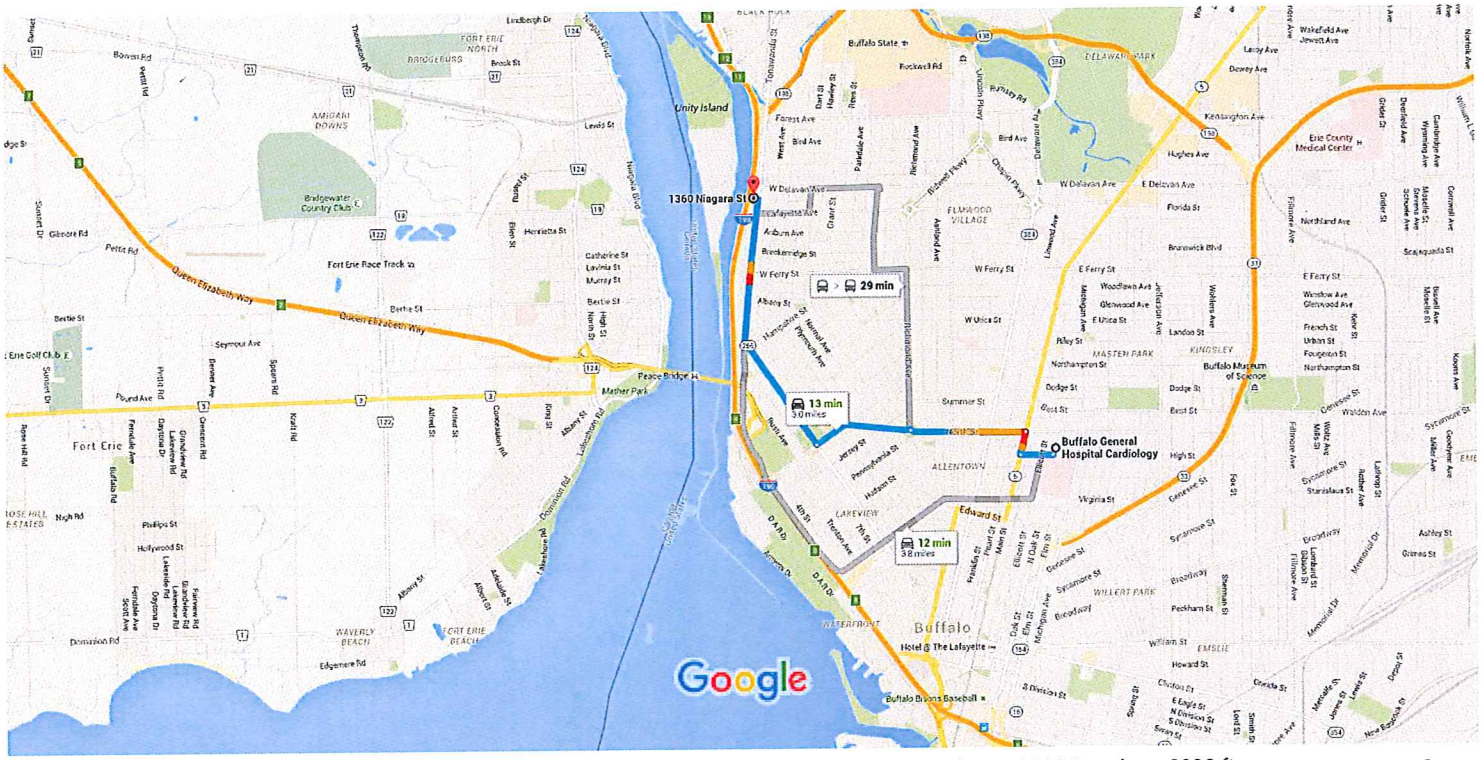
MAP TO HOSPITAL

C&S ENGINEERS

Google Maps

Buffalo General Hospital Cardiology to 1360 Niagara St, Buffalo, NY 14213

Drive 3.0 miles, 13 min



Map data ©2016 Google 2000 ft

Buffalo General Hospital Cardiology

100 High Street, Buffalo, NY 14203

1. Head west on High St toward Ellicott St — 0.2 mi
2. Turn right onto Main St — 0.1 mi
3. Turn left onto North St — 0.6 mi
4. At the traffic circle, continue straight onto Porter Ave — 0.6 mi
5. Turn right onto Niagara St
   Destination will be on the left — 1.5 mi

1360 Niagara St

Buffalo, NY 14213

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

Appendix A

EXCAVATION/TRENCHING GUIDELINE

C&S ENGINEERS

C&S ENGINEERS, INC. HEALTH & SAFETY GUIDELINE #14
EXCAVATION/TRENCHING OPERATIONS

TABLE OF CONTENTS

C&S ENGINEERS, INC.
EXCAVATION/TRENCHING OPERATIONS

1.0 PURPOSE

To establish safe operating procedures for excavation/trenching operations at C&S work sites.

2.0 SCOPE

Applies to all C&S activity where excavation or trenching operations take place.

3.0 DEFINITIONS

Excavation — Any manmade cavity or depression in the earth's surface, including its sides, walls, or faces, formed by earth removal and producing unsupported earth conditions by reasons of the excavation.

Trench — A narrow excavation made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench is not greater than 15 feet.

4.0 RESPONSIBILITY EMPLOYEES

Employees — All employees must understand and follow the procedures outlined in this guideline during all excavation and trenching operations.

Health and Safety Coordinator/Officer (HSC/HSO) - The HSC/HSO is responsible for ensuring that these procedures are implemented at each work site.

5.0 GUIDELINES

5.1 Hazards Associated With Excavation/Trenching

The principal hazards associated with excavation/trenching are:

- Suffocation, crushing, or other injury from falling material.
- Damage/failure of installed underground services and consequent hazards.
- Tripping, slipping, or falling.
- Possibility of explosive, flammable, toxic, or oxygen-deficient atmosphere in excavation.

5.2 Procedures Prior to Excavation

1. Underground Utilities

   - Determine the presence and location of any underground chemical or utility pipes, electrical, telephone, or instrument wire or cables.
   - If the local DigSafely NY is unable to locate private/domestic or plant utilities, then an independent utility locating service must be contacted and mobilized to the site.
   - Identify the location of underground services by stakes, markers or paint.
   - Arrange to de-energize or isolate underground services during excavation. If not possible, or if location is not definite, method of excavation shall be established to minimize hazards by such means as:

     a) Use of hand tools in area of underground services.
     b) Insulating personnel and equipment from possible electrical contact.
     c) Use of tools or equipment that will reduce possibility of damage to underground services and hazard to worker.

2. Identify Excavation Area — Areas to be excavated shall be identified and segregated by means of barricades, ropes, and/or signs to prevent access of unauthorized personnel and equipment. Suitable means shall be provided to make barriers visible at all times.
3. Surface Water Provide means of diverting surface water from excavation.
4. Shoring/Bracing — Shoring or bracing that may be required for installed equipment adjacent to the excavation shall be designed by a competent person.
5. Structural Ramps — Structural ramps that are used solely by employees as a means of access to or egress from the excavation shall be designed by a competent person.

5.3 Procedures For Doing The Excavation

1. **Determine the need for shoring/sloping** — the type of soil will establish the need for shoring, slope of the excavation, support systems, and equipment to be used. The soil condition may change as the excavation proceeds. Appendices A, B, C, D, E, and F of the OSHA Excavation Regulation, 29 CFR 1926 Subpart P, are to be used in defining shoring and sloping requirements.

2. **Mobile equipment** — For safe use of mobile industrial equipment in or near the excavation, the load carrying capacity of soil shall be established and suitable protection against collapse of soil provided by the use of mats, barricades, restricting the location of equipment, or shoring.

3. Excavated material (spoil) shall be stored at least two (2) feet from the edge of the excavation.

4. All trench (vertical sides) excavations greater than five (5) feet deep shall be shored.

5. The excavation shall be inspected daily for changes in conditions, including the presence of ground water, change in soil condition, or effects of weather such as rain or freeze. A safe means of continuing the work shall be established based on changes in condition. Typically test trench excavations made as part of an environmental subsurface nvestigation are made and backfilled the same day.

6. Appropriate monitoring for gas, toxic, or flammable materials will be conducted to establish the need for respiratory equipment, ventilation, or other measures required to continue the excavation safely.

7. Adequate means of dewatering the excavation shall be provided by the contractor as required.

8. A signal person shall be provided to direct powered equipment if working in the excavation with other personnel.

9. A signal person shall be provided when backfilling excavations to direct powered equipment working in the excavation with other personnel.

10. Warning vests will be worn when employees are exposed to public vehicular traffic.

11. Employees shall stand away from vehicles being loaded or unloaded, and shall not be permitted underneath loads handled by lifting or dragging equipment.

12. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available if hazardous atmospheric conditions exist or may be expected to develop. The specifics will be determined by the HSC/HSM.

13. Walkways or bridges with standard guardrail shall be provided where employees or equipment are required or permitted to cross over excavations.

5.4 Entering the Excavation

No C&S Engineers, Inc., employee shall enter an excavation which fails to meet the requirements of Section 5.3 of this guideline.

6.0 REFERENCES

29 CFR 1926, Subpart P - Excavations

7.0 ATTACHMENTS

29 CFR 1926 Subpart P - Appendices A, B, F

• **Part Number:**	1926
• **Part Title:**	Safety and Health Regulations for Construction
• **Subpart:**	P
• **Subpart Title:**	Excavations
• **Standard Number:**	1926 Subpart P App A
• **Title:**	Soil Classification

(a) Scope and application - (1) Scope. This appendix describes a method of classifying soil and rock deposits based on site and environmental conditions, and on the structure and composition of the earth deposits. The appendix contains definitions, sets for requirements, and describes acceptable visual and manual tests for use in classifying soils.

(2) Application. This appendix applies when a sloping or benching system is designed in accordance with the requirements set fo 1926.652(b)(2) as a method of protection for employees from cave-ins. This appendix also applies when timber shoring for excav designed as a method of protection from cave-ins in accordance with appendix C to subpart P of part 1926, and when aluminum shoring is designed in accordance with appendix D. This Appendix also applies if other protective systems are designed and selec from data prepared in accordance with the requirements set forth in 1926.652(c), and the use of the data is predicated on the us classification system set forth in this appendix.

(b) Definitions. The definitions and examples given below are based on, in whole or in part, the following; American Society for T Materials (ASTM) Standards D653-85 and D2488; The Unified Soils Classification System; The U.S. Department of Agriculture (US Textural Classification Scheme; and The National Bureau of Standards Report BSS-121.

"Cemented soil" means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.

"Cohesive soil" means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sideslopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.

"Dry soil" means soil that does not exhibit visible signs of moisture content.

"Fissured" means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.

"Granular soil" means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.

"Layered system" means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.

"Moist soil" means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.

"Plastic" means a property of a soil which allows the soil to be

deformed or molded without cracking, or appreciable volume change.
"Saturated soil" means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or sheer vane.
"Soil classification system" means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.
"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.
"Submerged soil" means soil which is underwater or is free seeping.
"Type A" means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A. However, no soil is Type A if:
(i) The soil is fissured; or
(ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
(iii) The soil has been previously disturbed; or
(iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
(v) The material is subject to other factors that would require it to be classified as a less stable material.
"Type B" means:
(i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
(ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
(iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.
(iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or
(v) Dry rock that is not stable; or
(vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.
"Type C" means:
(i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or
(ii) Granular soils including gravel, sand, and loamy sand; or
(iii) Submerged soil or soil from which water is freely seeping; or
(iv) Submerged rock that is not stable, or
(v) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.
"Unconfined compressive strength" means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.
"Wet soil" means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

(c) Requirements - (1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent perso Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.

(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other reco methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Depart Agriculture textural classification system.

(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of thi shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify prc properties, factors, and conditions affecting the classification of the deposits.

(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each laye classified individually where a more stable layer lies under a less stable layer.

(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any w changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumst

(d) Acceptable visual and manual tests. - (1) Visual tests. Visual analysis is conducted to determine qualitative information regarc excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil take samples from excavated material.

(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the amounts of the particle sizes. Soil that is primarily composed of fine-grained material material is cohesive material. Soil composec of coarse-grained sand or gravel is granular material.

(ii) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does nc clumps is granular.

(iii) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tens could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of m ground and are indications of potentially hazardous situations.

(iv) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground s and to identify previously disturbed soil.

(v) Observed the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slop the excavation. Estimate the degree of slope of the layers.

(vi) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water see the sides of the excavation, or the location of the level of the water table.

(vii) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the s the excavation face.

(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil a provide more information in order to classify soil properly.

(i) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohe material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch be held on one end without tearing, the soil is cohesive.

(ii) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is g combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clu only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breaks into clumps wh break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the s considered unfissured.

(iii) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive so test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designatior "Standard Recommended Practice for Description of Soils (Visual - Manual Procedure).") Type A soils with an unconfined compre strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great eff soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molde finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicat excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influe flooding), the classification of the soil must be changed accordingly.

(iv) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetron using a hand-operated shearvane.

(v) Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesi and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.5 six inches (15.24 cm) in diameter until it is thoroughly dry:

(A) If the sample develops cracks as it dries, significant fissures are indicated.

(B) Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil ha cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength determined.

(C) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the t pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cc fissures. If they pulverize easily into very small fragments, the material is granular.

Next Standard (1926 Subpart P App B)

Regulations (Standards - 29 CFR) - Table of Contents

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www.OSHA.gov

• **Part Number:**	1926
• **Part Title:**	Safety and Health Regulations for Construction
• **Subpart:**	P
• **Subpart Title:**	Excavations
• **Standard Number:**	1926 Subpart P App B
• **Title:**	Sloping and Benching

(a) ***Scope and application***. This appendix contains specifications for sloping and benching when used as methods of protecting working in excavations from cave-ins. The requirements of this appendix apply when the design of sloping and benching protectiv is to be performed in accordance with the requirements set forth in § 1926.652(b)(2).

(b) ***Definitions***.

Actual slope means the slope to which an excavation face is excavated.

Distress means that the soil is in a condition where a cave-in is imminent or is likely to occur. Distress is evidenced by such phen the development of fissures in the face of or adjacent to an open excavation; the subsidence of the edge of an excavation; the slu material from the face or the bulging or heaving of material from the bottom of an excavation; the spalling of material from the fa excavation; and ravelling, i.e., small amounts of material such as pebbles or little clumps of material suddenly separating from the excavation and trickling or rolling down into the excavation.

Maximum allowable slope means the steepest incline of an excavation face that is acceptable for the most favorable site condi protection against cave-ins, and is expressed as the ratio of horizontal distance to vertical rise (H:V).

Short term exposure means a period of time less than or equal to 24 hours that an excavation is open.

(c) ***Requirements*** -- (1) ***Soil classification***. Soil and rock deposits shall be classified in accordance with appendix A to subpart I 1926.

(2) ***Maximum allowable slope***. The maximum allowable slope for a soil or rock deposit shall be determined from Table B-1 of tl appendix.

(3) ***Actual slope***. (i) The actual slope shall not be steeper than the maximum allowable slope.

(ii) The actual slope shall be less steep than the maximum allowable slope, when there are signs of distress. If that situation occur slope shall be cut back to an actual slope which is at least ½ horizontal to one vertical (½H:1V) less steep than the maximum allo slope.

(iii) When surcharge loads from stored material or equipment, operating equipment, or traffic are present, a competent person sh determine the degree to which the actual slope must be reduced below the maximum allowable slope, and shall assure that such achieved. Surcharge loads from adjacent structures shall be evaluated in accordance with § 1926.651(i).

(4) ***Configurations***. Configurations of sloping and benching systems shall be in accordance with Figure B-1.

TABLE B-1
MAXIMUM ALLOWABLE SLOPES

SOIL OR ROCK TYPE	MAXIMUM ALLOWABLE SLOPES (H:V)(1) FOR EXCAVATIONS LESS THAN 20 FEET DEEP(3)
STABLE ROCK	VERTICAL (90°)
TYPE A (2)	3/4:1 (53°)
TYPE B	1:1 (45°)
TYPE C	1 ½:1 (34°)

Footnote(1) Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angle rounded off.

Footnote(2) A short-term maximum allowable slope of 1/2H:1V (63°) is allowed in excavations in Type A soil that are 12 feed (3.67 m) or l depth. Short-term maximum allowable slopes for excavations greater than 12 feet (3.67 m) in depth shall be 3/4H:1V (53°).

Footnote(3) Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

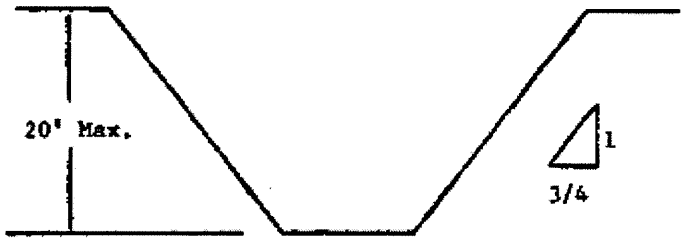
Figure B-1

Slope Configurations

(All slopes stated below are in the horizontal to vertical ratio)

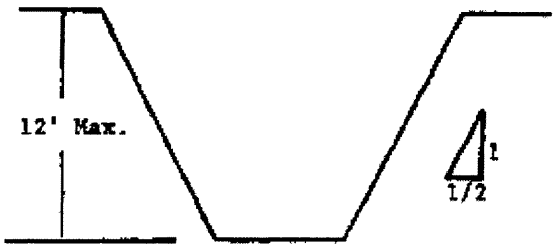
B-1.1 Excavations made in Type A soil.

1. All simple slope excavation 20 feet or less in depth shall have a maximum allowable slope of ¾:1.



SIMPLE SLOPE -- GENERAL

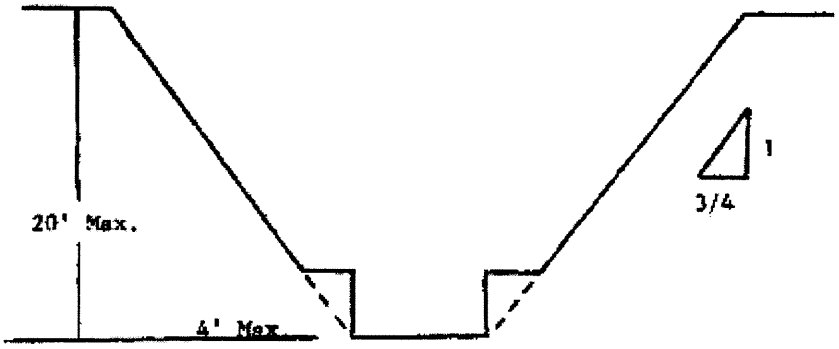
Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have maximum allowable slope of ½:1.



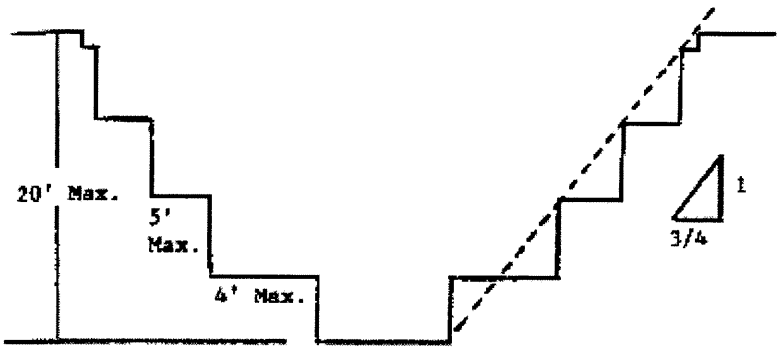
SIMPLE SLOPE -- SHORT TERM

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 3/4 to 1 and maximum bench dimens

follows:

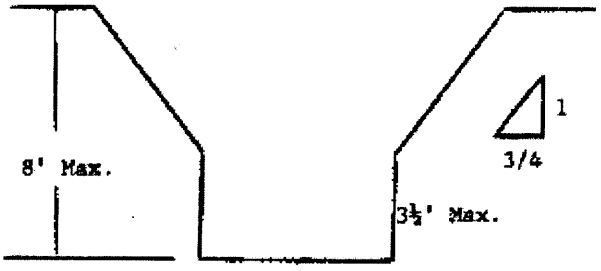


SIMPLE BENCH



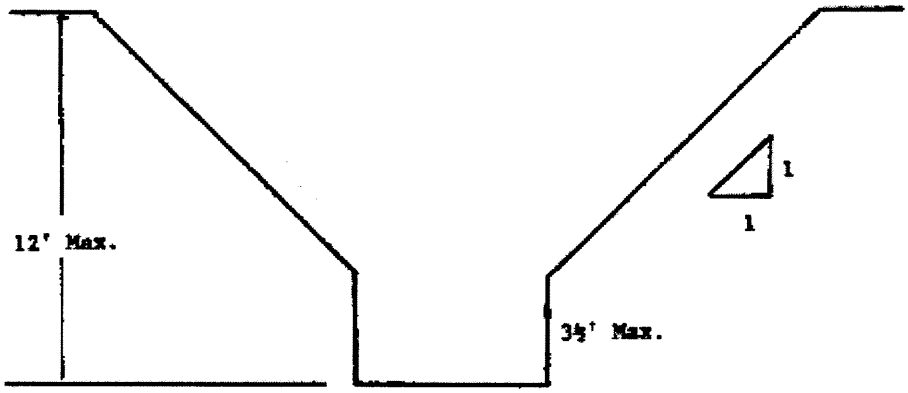
MULTIPLE BENCH

3. All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical sid feet.



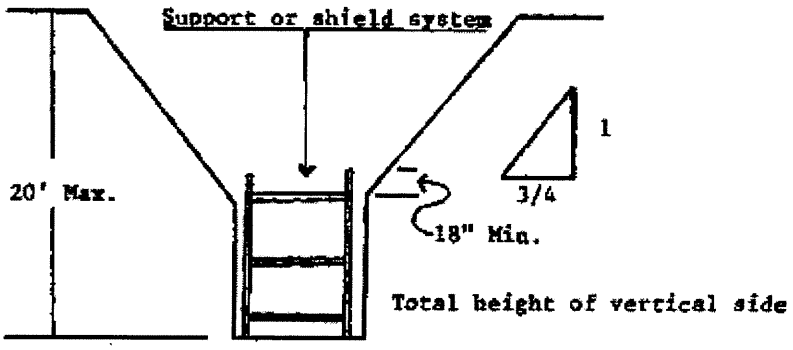
UNSUPPORTED VERTICALLY SIDED LOWER PORTION -- MAXIMUM 8 FEET IN DEPTH)

All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a r allowable slope of 1:1 and a maximum vertical side of 3½ feet.



UNSUPPORTED VERTICALLY SIDED LOWER PORTION -- MAXIMUM 12 FEET IN DEPTH)

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maxi allowable slope of ¾:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

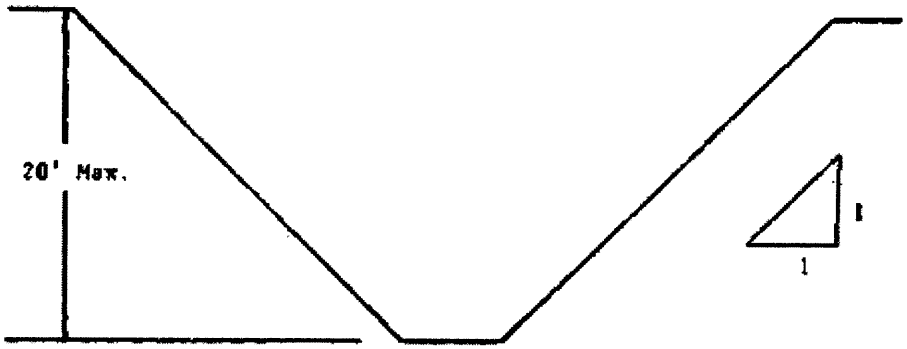


SUPPORTED OR SHIELDED VERTICALLY SIDED LOWER PORTION

4. All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other opt permitted under § 1926.652(b).

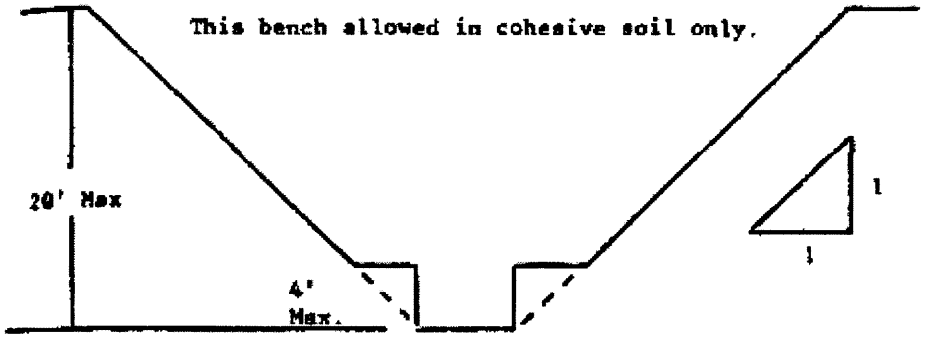
B-1.2 Excavations Made in Type B Soil

1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.

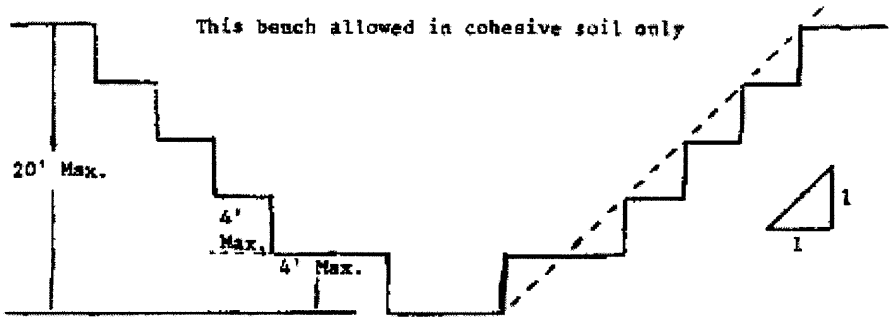


SIMPLE SLOPE

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maximum bench dimensions

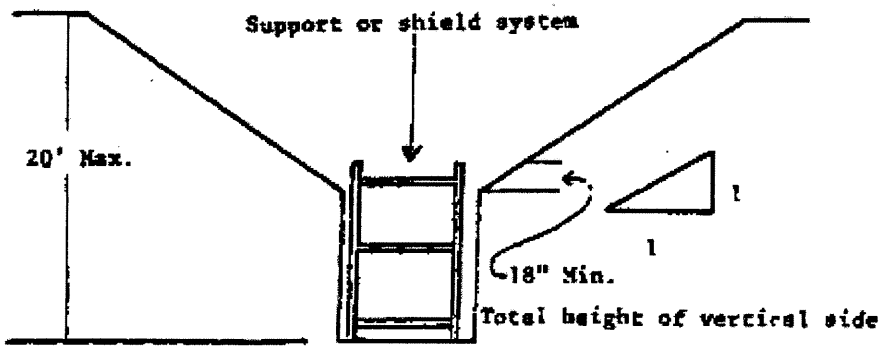


SINGLE BENCH



MULTIPLE BENCH

3. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at le inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1:1.

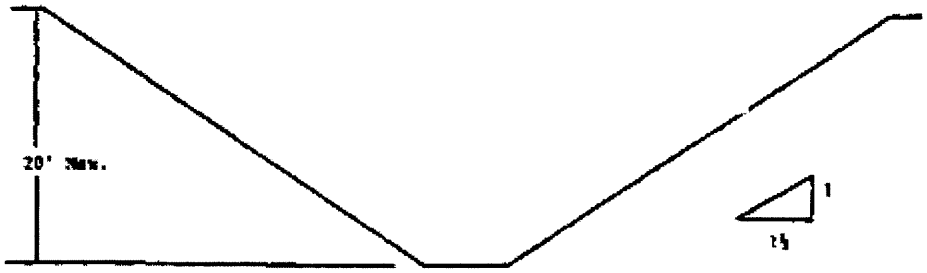


VERTICALLY SIDED LOWER PORTION

4. All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

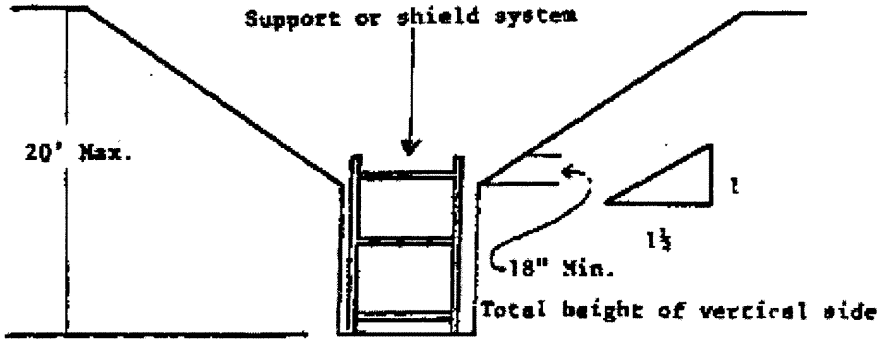
B-1.3 Excavations Made in Type C Soil

1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1½:1.



SIMPLE SLOPE

2. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at le inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1½:1.

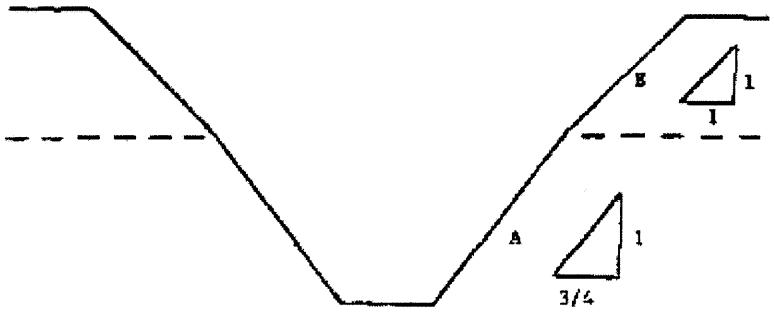


VERTICAL SIDED LOWER PORTION

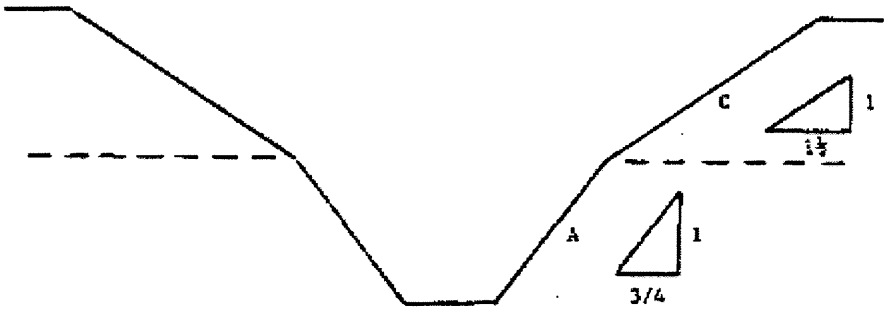
3. All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

B-1.4 Excavations Made in Layered Soils

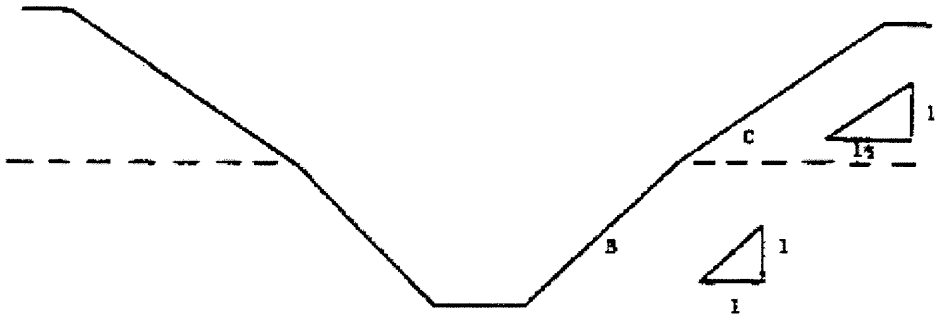
1. All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth b



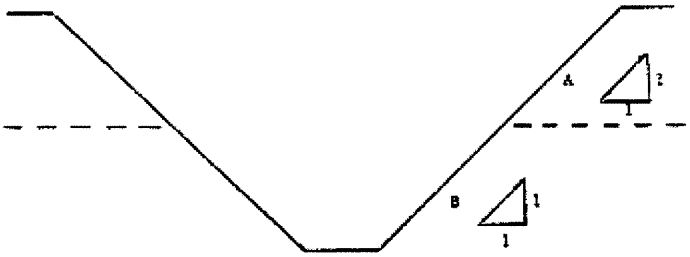
B OVER A



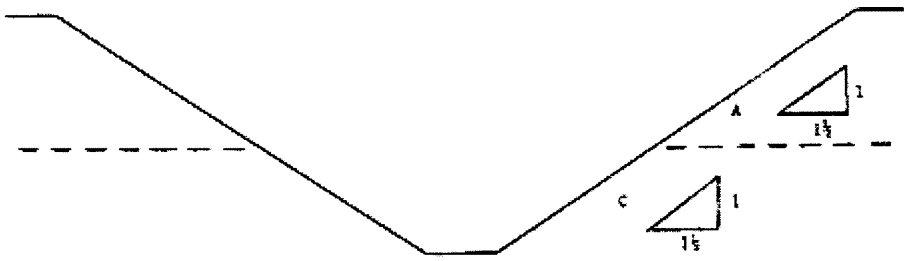
C OVER A



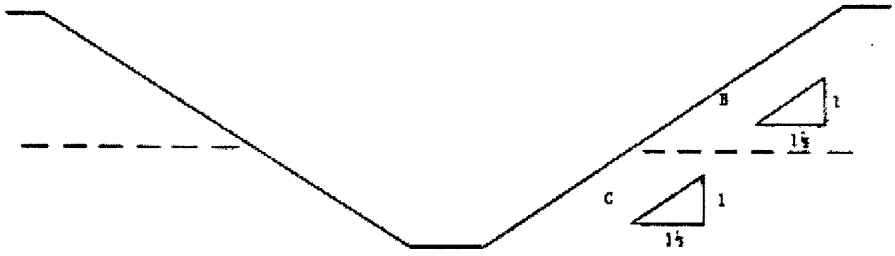
C OVER B



A OVER B



A OVER C



B OVER C

2. All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

Next Standard (1926 Subpart P App C)

Regulations (Standards - 29 CFR) - Table of Contents

• **Part Number:**	1926
• **Part Title:**	Safety and Health Regulations for Construction
• **Subpart:**	P
• **Subpart Title:**	Excavations
• **Standard Number:**	1926 Subpart P App F
• **Title:**	Selection of Protective Systems

The following figures are a graphic summary of the requirements contained in subpart P for excavations 20 feet or less in depth. Prc systems for use in excavations more than 20 feet in depth must be designed by a registered professional engineer in accordance wit 1926.652(b) and (c).

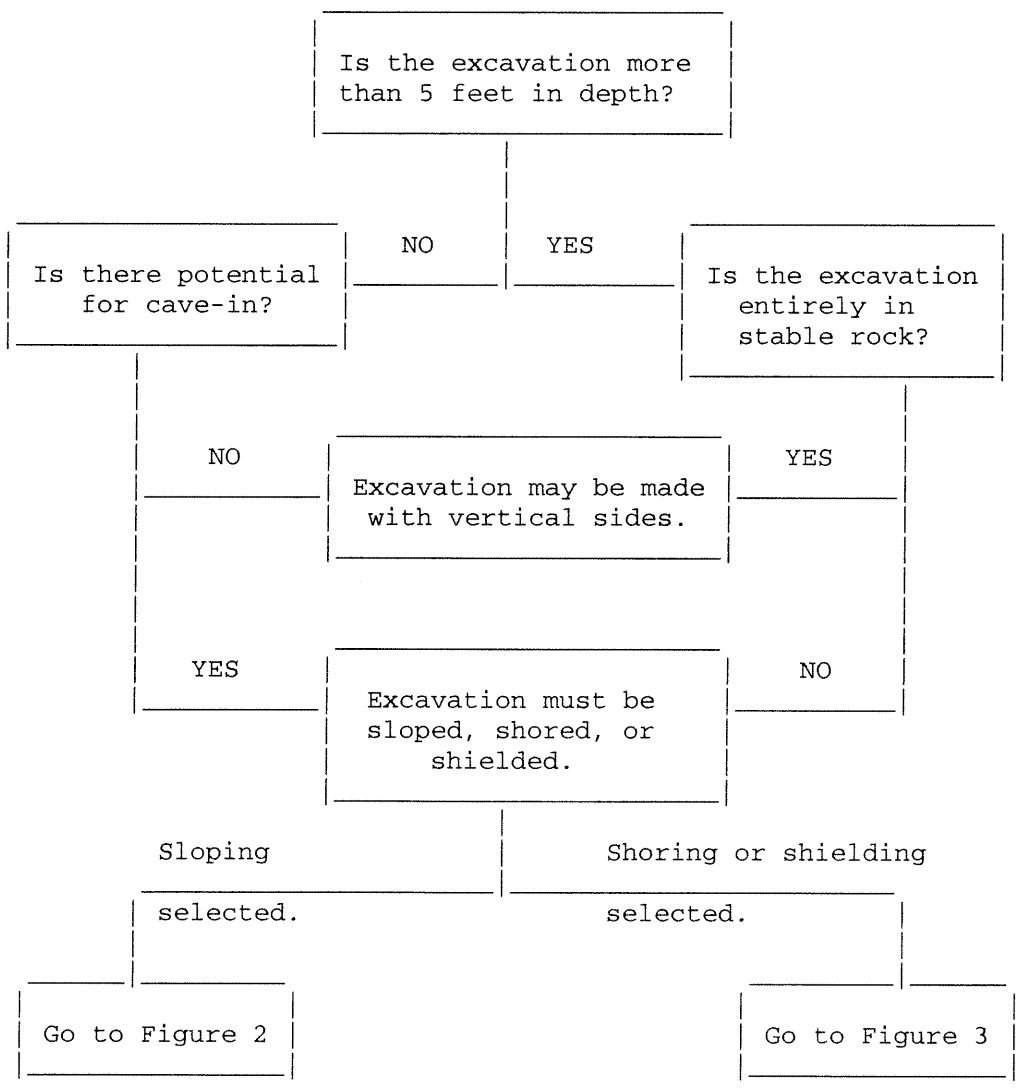


FIGURE 1 - PRELIMINARY DECISIONS

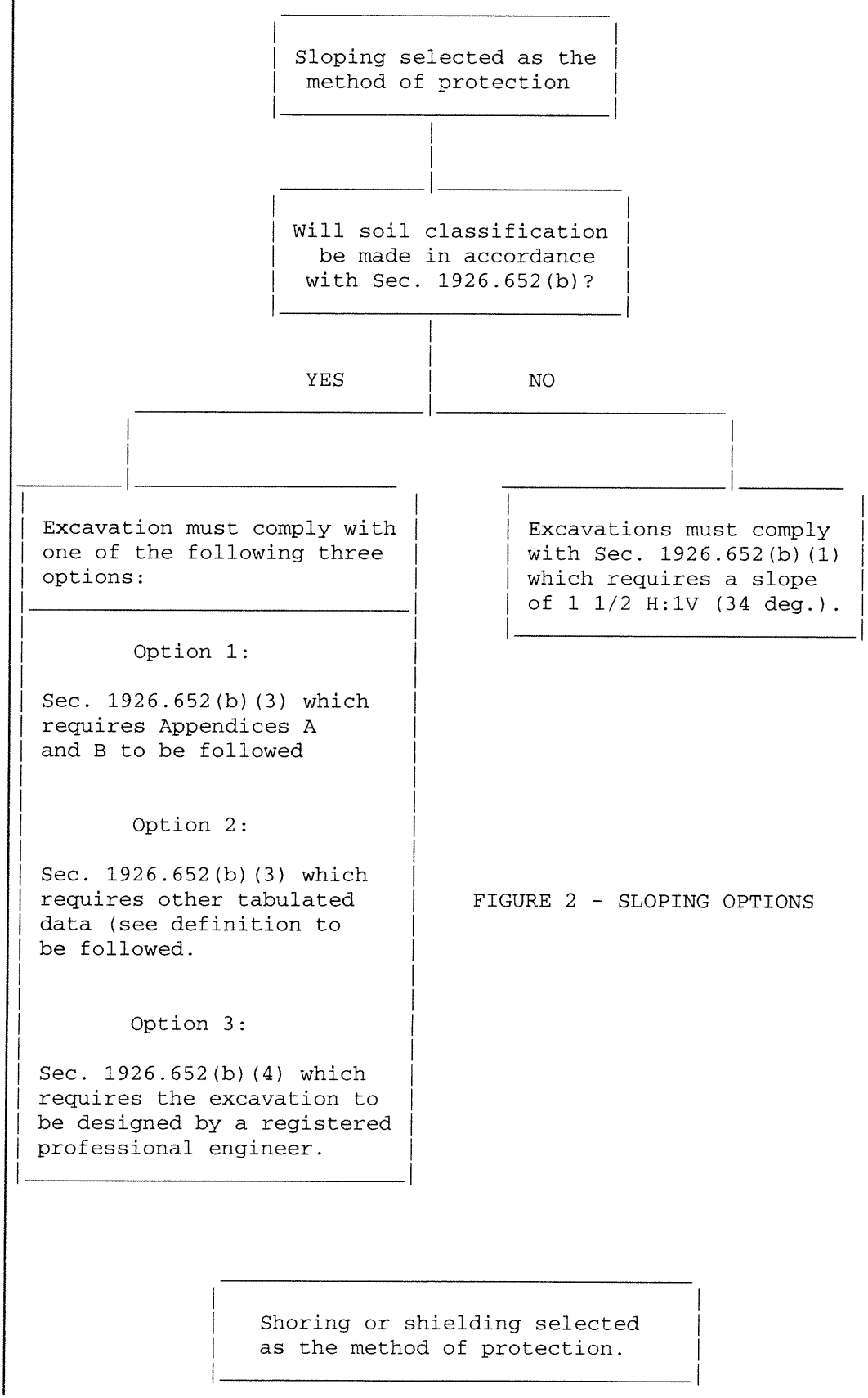


FIGURE 2 - SLOPING OPTIONS

Shoring or shielding selected as the method of protection.

Soil Classification is required when shoring or shielding is used. The excavation must comply with one of the following four options:

Option 1

Sec. 1926.652(c)(1) which requires Appendices A and C to be followed (e.g. timber shoring).

Option 2

Sec. 1926.652(c)(2) which requires manufacturers data to be followed (e.g. hydraulic shoring, trench jacks, air shores, shields).

Option 3

Sec. 1926.652(c)(3) which requires tabulated data (see definition) to be followed (e.g. any system as per the tabulated data).

Option 4

Sec. 1926.652(c)(4) which requires the excavation to be designed by a registered professional engineer (e.g. any designed system).

FIGURE 3 - SHORING AND SHIELDING OPTIONS

Next Standard (1926 Subpart Q)

Regulations (Standards - 29 CFR) - Table of Contents

Appendix B

GUIDANCE ON INCIDENT INVESTIGATION

AND REPORTING

C&S ENGINEERS

3. Following the treatment and care of the injured employee, the emergency coordinator or his on-site designee and the project manager will initiate the completion of the first injury report. The Health & Safety Manager will assist.

Project Manager

1. Upon notification of a personal injury or illness on the job site, will notify C & S Engineers, Inc, President and Corporate Legal and C&S Companies Health and Safety Manager.
2. Will report to the worksite to initiate the first injury report.
3. Will report to the treatment facility to check on the well being of the injured employee. The project manager will ensure that the treatment facility is aware that this is a workers compensation case.
4. Will assist the Health and Safety Manager in the analysis of the incident.

Health & Safety Manager

1. Upon notification of the personal injury will determined if it is necessary to report to the treatment facility or the accident site, depending on the nature of the injuries and the circumstances of the accident.
2. Will report to the worksite to begin a root cause analysis investigation of the accident. The investigation may include interview of witnesses, field crew , and project manager, the photographing of the scene, reconstruction of the accident scene, using test instruments and taking measurements. The Health and Safety Manager may draw diagrams from the information learned.
3. The Health and Safety Manager will work with the owner/client as necessary to investigate the accident.
4. The Health & Safety manager will ensure that the site is safe to resume work.
5. The Health & Safety Manager shall initiate the New York State Compensation form requirements (C-2) and forward a copy of the C-2 to the C & S Engineers, Inc. controller for transmittal to the Compensation Carrier within 8 hrs of notification of the incident or by the end of the next business day.
6. The Health and Safety manager, upon completion of the investigation, will provide the Project Manager with a written investigative report (copy to the President)
7. The accident will be reviewed at the next Project Managers meeting with the intent to prevent further or similar events on other projects.
8. The Health & Safety Manager will assess the incident to determine OSHA record ability and make record if necessary on the OSHA 300 form, within five working days.

Incident Response

1.0 PURPOSE

To prevent the occurrence of accidents on C&S Engineers, Inc., work sites and to establish a procedure for investigation and reporting of incidents occurring in, or related to C&S work activities.

2.0 SCOPE

Applies to all incidents related to C&S Engineers, Inc. work activities.

3.0 DEFINITIONS

Accident - An undesired event resulting in personal injury and/or property damage, and/or equipment failure.

Fatality - An injury or illness resulting in death of the individual.

Incident - Any occurrence which results in, or could potentially result in, the need for medical care or property damage. Such incidents shall include lost time accidents or illness, medical treatment cases, unplanned exposure to toxic materials or any other significant occurrence resulting in property damage or in "near misses."

Incidence Rate - the number of injuries, illnesses, or lost workdays related to a common exposure base of 100 full-time workers. The rate is calculated as:

N/EH x 200,000

N = number of injuries and illnesses or lost workday cases; EH = total hours worked by all associates during calendar year. 200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

Injury - An injury such as a cut, fracture, sprain, amputation, etc. which results from a work accident or from a single instantaneous event in the work environment.

Lost Workday Case - A lost workday case occurs when an injured or ill employee experiences days away from work beginning with the next scheduled work day. Lost workday cases do not occur unless the employee is effected beyond the day of injury or onset of illness.

Recordable Illness - An illness that results from the course of employment and must be entered on the OSHA 300 Log and Summary of Occupational Injuries and Illnesses. These illnesses require medical treatment and evaluation of work related injury. For example, dermatitis, bronchitis, irritation of eyes, nose, and throat can result from work and non-work related incidents.

Recordable Injury - An injury that results from the course of employment and must be entered on the OSHA 300 Log and Summary of Occupational Injuries and Illnesses. These injuries require medical treatment; may involve loss of consciousness; may result in restriction of work or motion or transfer to another job; or result in a fatality.

Near Miss - An incident which, if occurring at a different time or in a different personnel or equipment configuration, would have resulted in an incident.

4.0 RESPONSIBILITIES

Employees - It shall be the responsibility of all C&S Engineers, Inc. employees to report all incidents as soon as possible to the HSC, regardless of the severity.

Human Resources - has overall responsibility for maintaining accident/ incident reporting and investigations according to current regulations and recording injuries/ illness on the OSHA 300 log, and posting the OSHA 300 log.

Emergency Coordinator - It is the responsibility of the Emergency Coordinator to investigate and prepare an appropriate report of all accidents, illnesses, and incidents occurring on or related to C&S Engineers, Inc. work. The Emergency Coordinator shall complete Attachment A within 24 hours of the incident occurrence.

Health and Safety Manager (HSM) - It is the responsibility of the HSM to investigate and prepare an appropriate report of all lost time injuries and illnesses and significant incidents occurring on or related to C&S Companies. The HSM shall maintain the OSHA 300 form.

Project Managers (PM) - It shall be the PM's responsibility to promptly correct any deficiencies in personnel, training, actions, or any site or equipment deficiencies that were determined to cause or contribute to the incident investigated.

5.0 GUIDELINES

5.1 Incident Investigation

The Project Manager will immediately investigate the circumstances surrounding the incident and will make recommendations to prevent recurrence. The HSM shall be immediately notified by telephone if a serious accident/ incident occurs. The incident shall be evaluated to determine whether it is OSHA recordable. If the incident is determined to be OSHA 300 recordable, it shall be entered on the OSHA 300 form.

The Project Manager with assistance from the HSM must submit to the office an incident report form pertaining to any incident resulting in injury or property damage.

5.2 Incident Report

The completed incident report must be completed by the Project Manager within 12 hours of the incident and distributed to the HSM, and Human Resources. This form shall be maintained by Human Resources for at least five years for all OSHA recordable cases. This form serves as an equivalent to the OSHA 101 form.

5.3 Incident Follow-up Report

The Incident Follow-Up Report (Attachment B) shall be distributed with the Incident Report within one week of the incident. Delay in filing this report shall be explained in a brief memorandum.

5.4 Reporting of Fatalities or Multiple Hospitalization Accidents

Fatalities or accidents resulting in the hospitalization of three or more employees must be reported to OSHA verbally or in writing within 8 hours. The report must contain 1) circumstances surrounding the accident(s), 2) the number of fatalities, and 3) the extent of any injuries.

5.5 OSHA 300A Summary Form

Recordable cases must be entered on the log within six workdays of receipt of the information that a recordable case has occurred. The OSHA log must be kept updated to within 45 calendar days.
OSHA 300 forms must be updated during the 5 year retention period, if there is a change in the extent or outcome of an injury or illness which affects an entry on a log. If a change is necessary, the original entry should be lined out and a corrected entry made on that log. New entries should be made for previously unrecorded cases that are discovered or for cases that initially weren't recorded but were found to be recordable after the end of the year. Log totals should also be modified to reflect these changes.

5.5.1 Posting

The log must be summarized at the end of the calendar year and the summary must be posted from February 1 through May 31.

5.6 OSHA 300A

Facilities selected by the Bureau of Labor Statistics (BLS) to participate in surveys of occupational injuries and illnesses will receive the OSHA 300A. The data from the annual summary on the OSHA 300 log should be transferred to the OSHA 300A, other requested information provided and the form returned as instructed by the BLS.

5.7 Access to OSHA Records

All OSHA records (accident reporting forms and OSHA 300 logs) should be available for inspection and copying by authorized Federal and State government officials.

Employees, former employees, and their representatives must be given access for inspection and copying to only the log, OSHA No. 300, for the establishment in which the employee currently works or formerly worked.

6.0 REFERENCES

29 CFR Part 1904

7.0 ATTACHMENTS

Attachment A - Incident Investigation Form
Attachment B - Incident Follow-Up Report
Attachment C - Establishing Recordability

ATTACHMENT A

INCIDENT INVESTIGATION FORM

Accident investigation should include:

Location: _____

Time of Day: _____

Accident Type: _____

Victim: _____

Nature of Injury: _____

Released Injury: _____

Hazardous Material: _____

Unsafe Acts: _____

Unsafe Conditions: _____

Policies, Decisions: _____

_____

Personal Factors: _____

_____

Environmental Factors: _____

_____

_____

ATTACHMENT B

Date _____

Foreman: _____

INCIDENT FOLLOW-UP REPORT

Date of Incident: _____

Site: _____

Brief description of incident: _____

_____

_____

_____

_____

Outcome of incident: _____

_____

_____

_____

Physician's recommendations: _____

_____

_____

_____

Date the injured returned to work: _____

Project Manager Signature: _____

Date: _____

ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM

ATTACHMENT C

ESTABLISHING RECORDABILITY

1. Deciding whether to record a case and how to classify the case.

   Determine whether a fatality, injury or illness is recordable.

   A fatality is recordable if:

   - Results from employment

   An injury is recordable if:

   - Results from employment and
   - It requires medical treatment beyond first aid or
   - Results in restricted work activity or job transfer, or
   - Results in lost work day or
   - Results in loss of consciousness

   An illness is recordable if:

   - It results from employment

2. Definition of "Resulting from Employment"

   Resulting from employment is when the injury or illness results from an event or exposure in the work environment. The work environment is primarily composed of: 1) The employer's premises, and 2) other locations where associates are engaged in work-related activities or are present as a condition of their employment.

   The employer's premises include company rest rooms, hallways, cafeterias, sidewalks and parking lots. Injuries occurring in these places are generally considered work related.

   The employer's premises EXCLUDES employer controlled ball fields, tennis courts, golf courses, parks, swimming pools, gyms, and other similar recreational facilities, used by associates on a voluntary basis for their own benefit, primarily during off work hours.

   Ordinary and customary commute, is not generally considered work related.

   Employees injured or taken ill while engaged in consuming food, as part of a normal break or activity is not considered work related. Employees injured or taken ill as the result of smoking, consuming illegal drugs, alcohol or applying make up are generally not considered work related. Employee injured by un authorized horseplay is generally not considered work related, however, an employee injured as a result of a fight or other workplace violence act, may be considered work related.

Associates who travel on company business are considered to be engaged in work related activities all the time they spend in the interest of the company. This includes travel to and from customer contacts, and entertaining or being entertained for purpose of promoting or discussing business. Incidents occurring during normal living activities (eating, sleeping, recreation) or if the associate deviates from a reasonably direct route of travel are not considered OSHA recordable.

3. Distinction between Medical Treatment and First Aid.

First aid is defined as any one-time treatment, and any follow up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, etc., which do not ordinarily require medical care. Such one time treatment, and follow up visit for the purpose of observation, is considered first aid even though provided by a physician or registered professional personnel.

Medical Treatment (recordable)

a) They must be treated only by a physician or licensed medical personnel.

b) They impair bodily function (i.e. normal use of senses, limbs, etc.).

c) They result in damage to physical structure of a non superficial nature (fractures).

d) They involve complications requiring follow up medical treatment.