Department of Environmental Conservation

Division of Environmental Remediation

Environmental Restoration
Record of Decision
153 Cedar Street Site
City of Oneida, Madison County New York
Site Number B-00076-7

March 2003

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* ERIN M. CROTTY, *Commissioner*

DECLARATION STATEMENT
ENVIRONMENTAL RESTORATION RECORD OF DECISION

153 Cedar Street Site
City of Oneida, Madison County, New York
Site No. B-00076-7
March 2003

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the 153 Cedar Street site, an environmental restoration site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the 153 Cedar Street environmental restoration site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous substances and petroleum products from this site have been addressed by implementing the interim remedial measures identified in this ROD. The removal of contaminated soil and wastes from the site has significantly reduced the threat to public health and the environment. The placement of the clean soil cover is effective in eliminating the potential for direct human or animal contact with the remaining soil and fill material at the site.

Description of Selected Remedy

Based on the results of the Site Investigation/Remedial Alternatives Report (SI/RAR) for the 153 Cedar Street site and the criteria identified for evaluation of alternatives, the NYSDEC has selected No Further Action.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective.

_____ _____

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

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RECORD OF DECISION

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SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the 153 Cedar Street site.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Under the Environmental Restoration (Brownfields) Program, the state provides grants to municipalities to reimburse up to 75 percent of eligible costs for site investigation and remediation activities. Once remediated the property can then be reused.

As more fully described in Sections 3 and 5 of this document, former industrial operations on the site including usage as a machine shop, gear and carriage manufacturer, an automobile storage building, then a manufacturer of electric distribution equipment resulted in the disposal of hazardous substances, including waste fuel oil, polycyclic aromatic hydrocarbons (PAHs), and inorganics. These hazardous substances contaminated the surface and subsurface soils at the site, and resulted in:

- a threat to human health associated with current and potential exposure to contaminated surface and subsurface soils, and;

- an environmental threat associated with the impacts of contaminants to subsurface soils and the groundwater.

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the 153 Cedar Street site in response to the threat identified above. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the site investigation/remedial alternatives report (SI/RAR). The IRMs undertaken at this site included:

- Cleaning and removal of a concrete sump in the former paint dipping area;

- Excavation and disposal of arsenic contaminated soil in the former coal storage area;

- Excavation and disposal of soil contaminated with fuel oil in the former tank containment area; and

- 12 to 18 inches of clean soil cover was placed and seeded with grass over the entire site to re-grade the parcel.

Based on the implementation of the above IRMs, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment, therefore No Further Action was selected as the remedy for this site.

The selected remedy, discussed in detail in Section 6, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The 1.22 acre site is located at 153 Cedar Street within the limits of the City of Oneida, Madison County. It is situated within an area of mixed residential and commercial development and has been identified by the City as a desirable area for commercial or business growth. Figure1 depicts the existing site layout and approximate property lines. The site is abutted by Cedar Street to the west, a small office building and a vacant lot to the north, Stoddard Street to the east, and an Agway Company retail and lumber store to the south. The vacant lot to the north is known as 129 Cedar Street, the subject site of an earlier Brownfield investigation and subsequent Record of Decision signed in March, 2000. Abutting the site to the northeast is a former manufactured gas plant (MGP) that was apparently shut down and converted to other industrial uses in the late 1890s.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

Historical information for the 153 Cedar Street site is drawn largely from information provided on Sanborn Fire Insurance Maps, historic maps, conversations with people familiar with the site, historic aerial photographs, and information available at the Madison County Historical Society.

Sanborn Fire Insurance Maps from 1893 through 1895 depict the site as the Oneida Manufacturing Co., which included a machine shop, paint shop, and storage area. In addition, there were several out buildings for lumber storage. The 1899 and 1904 Sanborn maps depict the original structure as the Schubert Bros. Gear Company, which manufactured carriages. In addition, the 1899 Sanborn map depicted an additional structure to the south of an access bridge that was identified as Oneida National Chuck Works, a machine shop. A 1904 Sanborn map shows a three-story brick building under construction in the location of the access bridge to the Schubert Brothers Gear Company. Based upon its configuration, it is likely that the new brick building is the same building that remained on-site until June 2000, when it was demolished. Map information depicts the site with a coal storage area (coal was used for heat), up to two kilns to the east (rear) of the plant, and substantial areas utilized for lumber storage.

The 1923 Sanborn map for the site is largely illegible; however, it appears that a significant change in the site utilization had occurred, based upon the apparent removal of the kilns and lumber storage areas. The 1927 Oneida City Directory lists the site as the Dodge Athletic Association, then City Directories from 1931 through 1935 list the site as the Coulter Motor Corporation, Used Car Depot. This is consistent with the 1930 Sanborn map which depicts the on-site building's use as an Auto Sales and Service company.

From 1941 through 1950, City Directories list the site as Line Material Sales of New York. According to City of Oneida, the facility manufactured products utilized for electrical power distribution. A facility map dated 1941 shows the site with a four-story brick structure along Cedar Street and several wood and concrete block buildings located to the west (rear) of the brick structure. City Directories since 1960 list the site as vacant; however, the City of Oneida Tax Assessor's information revealed that previous owners of the property include the Stanton Paper Box Co. (1960 – 1969). The most recent former owner utilized the facilities for storage from 1976 through 1999, when the parcel was conveyed to the City of Oneida. The buildings on the site were vacant for approximately one year, until they were demolished by the City in March and June 2000.

3.2: Remedial History

With the exception of a Phase I Environmental Site Assessment prepared November 17, 1997, there was little documented environmental information available for the site prior to the initiation of this project. Therefore, there was little knowledge regarding the presence of potential contaminants on the parcel, nor site-specific geologic conditions that could impact environmental fate and transport of contaminants on or near the site.

Between June 1999 and May 2001 the City of Oneida performed building demolition, including asbestos removal, at the site using HUD funding.

An adjacent parcel to the west-northwest of the site known as 141 Cedar Street is the subject of an ongoing environmental investigation due to the historical presence of a manufactured gas plant (MGP). Contamination consisting of benzene, toluene, ethyl benzene, and xylene (collectively known as BTEX compounds) and polycyclic aromatic hydrocarbons (PAHs) have been identified in the soil at 141 Cedar Street. The investigation further revealed that the contamination has also impacted a small area of approximately 15 by 20 feet on the 153 Cedar Street site. The parties responsible for the MGP site are currently planning a soil removal remedy for the 141 Cedar Street site, which will include removal of the contaminated soil extending onto the 153 Cedar Street parcel. This remedial approach includes backfilling the excavation with clean soil and grading the area to match the surrounding properties. The remedial design for this work was approved by the NYSDEC on December 10, 2002, with the work to proceed upon contractor selection.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past owners and operators, waste generators, and haulers.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. The City of Oneida will assist the state in its efforts by providing all information to the state which identifies PRPs. The City will also not enter into any agreement regarding response costs without the approval of the NYSDEC.

SECTION 5: SITE CONTAMINATION

The City of Oneida has recently completed a site investigation/remedial alternatives report (SI/RAR) to determine the nature and extent of any contamination by hazardous substances at this environmental restoration site.

5.1: Summary of the Site Investigation

The purpose of the SI was to define the nature and extent of any contamination resulting from previous activities at the site.

The SI was conducted in two phases. Phase I was conducted in June 1999, and was undertaken prior to the demolition of on-site structures. Phase II was conducted in May 2001 following the demolition of all on-site structures, and in response to concerns regarding potential soil impacts under the former structures. The field activities and findings of the investigation are described in the SI report.

The following activities were conducted during the SI:

- Research of historical information;
- Excavation of three test pits to evaluate the physical characteristics of the shallow overburden materials, and to gather representative samples to be submitted for laboratory analyses;
- Installation of nine soil borings, four of which were subsequently completed as monitoring wells, for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions;
- Collection of two surface soil samples to characterize the quality of surface soils;
- Sampling of three monitoring wells;
- Collection of a waste sample from the former building sump;
- A site survey to establish a relative elevation difference between monitoring wells, and;

To determine whether the soil, fill material, and groundwater contains contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels".

Based on the SI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized below. More complete information can be found in the SI report.

5.1.1: Site Geology and Hydrogeology

Two units of unconsolidated overburden deposits were observed during the subsurface investigation. These units include a site-wide layer of artificial fill and recent alluvial deposits of silt and sand underlying the fill. On the eastern portion of the site, the material underlying the fill consists of a layer of peat that averaged approximately 6 feet in thickness. The peat layer was underlain by silt and sand alluvial deposits.

The New York State Museum and Science Service's "Geologic Map of New York, Finger Lakes Sheet" (1970) describes bedrock beneath the site as Guelph dolostone belonging to the Sconondoa Formation of the Lockport Group. Bedrock was not encountered in any of the soil borings or test pits advanced during the site investigation.

Groundwater was encountered approximately one to four feet below ground surface across the site. Groundwater elevation data indicates that the flow direction beneath the site is roughly from west to east across the site. The average hydraulic gradient ranged from approximately 0.07 ft/ft on the west side of the site and reduced to approximately 0.005 ft/ft on the east side of the site. The reduction in hydraulic gradient from west to east appears to correspond to the surficial topographic contours of the site.

5.1.2: Nature of Contamination

As described in the SI report, many soil, groundwater, and waste samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganics (metals).

The only VOC of concern is acetone. Acetone is commonly used as a solvent or thinner, however, a likely source of the compound could not be identified at the site.

SVOCs at the site consist primarily of polycyclic aromatic hydrocarbons (PAHs). PAHs are common in coal, coke and related ash materials, as well as asphalt, tar and petroleum derived products.

The data indicates elevated levels of arsenic and copper are present at the site. The arsenic concentrations may be attributed to the historic storage of coal. Copper in soil may be the result of

outdoor storage of copper products and/or some other form of distribution of copper-containing materials on the site. It is likely that the other elevated levels of inorganics such as lead, iron, calcium, and sodium are associated with industrial fill that has been placed across the site over time.

5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

Chemical concentrations are reported in parts per billion (ppb) for water and parts per million (ppm) for waste and soil. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 summarizes the degree of contamination for the contaminants of concern in soil, waste materials, and groundwater and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Waste Materials

During the course of the site investigation, a sump was observed in the former paint, dipping, and galvanizing room. One sample of the contents of the sump was collected for laboratory analysis. The sump sample contained the PAH compounds indeno (1,2,3-cd) pyrene and benzo(a)pyrene at concentrations of 20 ppm each and benzo(k)fluoranthene at a concentration of 30 ppm. These compounds were the only organic substances detected, and both were found at concentrations exceeding TAGM 4046 recommended soil cleanup guidelines of 3.2 ppm, 0.061 ppm, and 1.1 ppm respectively. The sample also contained inorganics including cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc at concentrations that exceeded those established by TAGM 4046. Based upon the inorganics analytical data (especially the concentration of zinc), it appears that the pit may contain organics and inorganics that are residual from the dipping and galvanizing process.

Surface Soil

Collection of two surface soil samples prior to the placement of the clean soil cover was completed by clearing vegetation from an area approximately 1-meter square then collecting up to five discrete soil samples from a depth of 0 to 6 inches below the ground surface within the cleared area. The discrete samples were composited in a mixing bowl, then placed into sample containers for laboratory analysis.

No Pesticide or PCBs were detected in any of the surface soil samples collected on the site. The only VOC detected in surface soil samples was chloroform (.006 ppm) in sample SS-2 compared to the TAGM 4046 guideline of .300 ppm. Surface soil samples SS-1 (collected on the far eastern side of the site in the vicinity of the former rail spurs as shown on Figure 2), and SS-2 (collected near the former coal storage area) contained numerous polycyclic aromatic hydrocarbons (PAHs – a subset of SVOCs) in excess of TAGM 4046 recommended soil cleanup guidelines. The detected PAHs are all considered likely carcinogens, and include benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and dibenzo(a,h)anthracene.

Both surface soil samples contained levels of numerous inorganics at levels that exceeded the typical concentrations of the Eastern USA as stated in TAGM 4046.

Subsurface Soil

Subsurface soil samples were collected from both soil borings and test pits. The only detection of VOCs above TAGM 4046 guidelines occurred in the soil sample from an area previously under a former warehouse on the northern side of the site, which contained acetone at a concentration of .300 ppm compared to the TAGM 4046 guideline of .200 ppm. Site-wide chemical data indicates trace levels of acetone below the TAGM 4046 levels were detected in most of the soil borings across the site.

SVOCs were detected at concentrations above SCGs in numerous subsurface soil samples. With the exception of one sample, all of these samples were collected from a depth of less than 6-feet below the ground surface. This data suggests that most of the shallow soils on the parcel have been impacted by the historic industrial operations. All of the SVOCs that were detected above the SCGs were PAHs that are known or probable carcinogens. The PAHs detected above SCGs include benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. The subsurface soil samples that contained the highest concentrations of PAHs were SB-10 (3'-6') and SB-14 (4'-10')(see Figure 2), which contained total PAHs at a concentration of 34.3 parts per million (ppm) and 34.2 ppm respectively.

Samples that exceeded typical USA background levels as published in TAGM 4046 included arsenic, barium, copper, nickel, and zinc. It is likely that the elevated arsenic concentrations are attributed to the historic storage of coal in the central portion of the site. Copper in soil may be the result of outdoor storage of copper products and/or some other form of distribution of copper-containing materials on the site. It is likely that the other inorganics are associated with industrial fill that has been placed across the site over time.

Groundwater

A total of three groundwater monitoring wells (MW-1 through MW-3) were installed during the Phase I site investigation (see Figure 2). Each well was constructed of a 10-foot length of 0.010-inch slot size, flush joint, Schedule 40 PVC well screen, and an appropriate length of 2-inch I.D., Schedule 40 PVC riser. During site demolition activities in June 2000, MW-3 was accidentally damaged beyond repair. A temporary monitoring well, PZ-1, was constructed approximately 30-feet northeast of former MW-3 as part of the Phase II investigation. The three monitoring wells installed during Phase I were sampled on July 14, 1999. The two original monitoring wells and the temporary monitoring well were sampled on May 6, 2001, as part of the Phase II investigation.

None of the groundwater samples collected as part of this project contained VOCs, SVOCs, pesticides, or PCBs above the New York State Groundwater Standards.

Groundwater samples collected from the on-site monitoring wells contained inorganic compounds that exceeded the NYSDEC Groundwater Standards in both rounds of groundwater monitoring. The first round of sampling, conducted in July 1999, produced samples that were visibly turbid and contained a high level of suspended solids. During the second round of sampling in May 2001, the

wells were carefully purged, allowed to stabilize, then samples were collected very slowly in order to minimize turbidity and suspended solids in the sample. As a result of this change in sampling methodology, the detected concentrations of inorganics were greatly reduced between the 1999 and 2001 sampling events. For the purposes of discussion, only the May 2001 data will be utilized when comparing groundwater quality to regulatory guidance for inorganics. Samples collected from wells MW-1 and PZ-1 in May 2001 also contained elevated levels of inorganics. But these compounds were also detected in up gradient/background well MW-2. MW-1 and PZ-1 contained aluminum, antimony, cobalt, iron, magnesium, manganese, and sodium at concentrations above the NYS Groundwater Standards consistent with the groundwater quality measured at up gradient/background well MW-2. In addition, the sample collected from MW-1 contained barium at a concentration of 1,320 ppb, which exceeded the site background concentration of 279 ppb as detected at MW-2.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the SI/RAR.

As part of the demolition project, 12 to 18 inches of clean soil cover was placed and seeded with grass over the entire site to re-grade the parcel. It is important to note that although the placement of the soil cover was not completed under the Brownfield program, it eliminates potential exposure to any contaminants that may be within the fill below. It is therefore a critical component of remedial measures taken at the site and provides, in large part, the basis for the proposal for No Further Action.

In addition to demolishing all of the on-site structures, piles of debris, scrap iron, and plant overgrowth were also removed from the site. During this time, a concrete enclosure was uncovered that had not been noted or observed during any of the previous environmental investigation activities on the site. This structure was identified as a petroleum tank containment enclosure that once housed two above ground steel storage tanks.

The concrete structure contained what was thought to be a small quantity of rainwater. On March 21, 2000, the demolition crew breached one concrete wall, and the water was allowed to escape to the ground surface during the nighttime hours. On March 22, 2000, a visible sheen was observed on the surface of the water that had drained from the structure, and a limited area of the ground surface was impacted with a thin layer of a black tarry substance with a petroleum-like odor. The pool of water appeared to be restricted to a relatively small area approximately 50 feet east of the structure, in the vicinity of a former shed that the adjacent Agway store had recently demolished.

The empty concrete structure measured approximately 25 feet by 20 feet by 5 feet (deep) and an estimated 300 to 600 gallons of water appeared to have drained out over the course of the night. A substantial quantity of cinderblock, broken concrete, soil and other debris was observed within the structure. In addition, most of the debris within the structure, and the sidewalls of the concrete structure, were partially coated with the black tarry material. For documentation purposes, the NYSDEC designated this spill as Spill Number 99-14428. As part of the initial spill response measures, the City of Oneida Department of Public Works (DPW) forces recovered approximately 60 cubic yards of impacted soil that was easily identifiable due to staining, and approximately 300 gallons of water that remained ponded on the ground surface approximately 50 feet east of the

breached structure. The excavated soil was deposited in a bermed and covered storage area. Following a review of the TCLP chemical data that was collected on the pile of excavated soil, 77.91 tons of petroleum-contaminated soil was removed from the soil stockpile and disposed in the Madison County Landfill. The excavation was backfilled with clean soil to match the surrounding areas and seeded.

The concrete containment area that previously held the oil and water that caused the spill remained on-site at that time. The concrete materials, debris, soil and sidewalls of the structure were coated in locations with a black, tarry petroleum-like product. Based on consultation with the NYSDEC, it was deemed appropriate to address this structure as well as several other areas of concern as IRMs.

Three specific areas on the parcel were identified that warranted immediate remedial activity. The three identified IRM areas were the concrete sump in the former paint dipping and galvanizing room, the arsenic contaminated soils in the former coal storage area, and the former oil tank containment area discussed above, which remained visibly contaminated with fuel oil. Figure 3 depicts the locations of the IRMs. All IRM's were completed in December 2001. A full description of the IRM activities is provided in a separate report entitled "Report on Interim Remedial Measures" dated May 2002.

Sump IRM

The detected concentrations of SVOCs and inorganics required that the contents of the sump (approximately 12 cubic feet) be excavated, tested, and disposed in accordance with current NYSDEC contaminated waste regulations.

Following the excavation of the contents of the sump, the concrete sump's interior surfaces were inspected. A large crack was present around the base of the sump. A test pit (TP-4) was dug immediately adjacent to and downgradient from the sump to assess if any wastes had leaked into the surrounding soil. Two soil samples were collected at a depth of approximately 2 feet below grade. One sample was analyzed for SVOCs and both were analyzed for metals. Results indicated levels consistent with site background concentrations. Following the collection of samples, the concrete sump was broken up, and the clean concrete was left on site and later disposed by the City.

Arsenic Area IRM

The former coal storage area and boiler room were identified as potential sources of arsenic due to the years of operation of coal-fired boilers. The concrete slab that presumably defined the floor of the coal storage bin appears to have provided containment of the coal and coal residue. Soil was removed from this area until coal was not visible in the excavated materials and the excavation bottom was defined by the top of the groundwater table and concrete slab. Limited excavation was performed between the concrete footers in the former boiler room area. Approximately 162 tons of soil was excavated from the identified arsenic IRM areas. Following excavation, confirmatory samples were collected and analyzed (see Figure 4), indicating arsenic concentrations were consistent with site conditions outside the former coal storage area, therefore the excavation was backfilled with clean soil to match the existing grade created by the 12" to 18" of clean fill placed during the site demolition activities.

Former Oil Tank Containment Area

The final IRM identified for the site included the demolition, excavation, and disposal of the concrete structure that was the source of the spill in March 2000. The tank containment structure previously held two (2) No. 6 fuel oil tanks. At the time of the interim remedial actions, the structure was empty with the exception of visibly contaminated debris and rainwater. Approximately 1,090 gallons of petroleum-contaminated water was pumped from the structure on December 21, 2001, using a vacuum tank truck.

The concrete structure was demolished on December 26, 2001. A separate concrete pad was discovered beneath the floor of the containment structure and fuel oil contamination was visually observed at the southeastern corner of the pad. NYSDEC Region 7 Spill Prevention and Response Section, was notified of the discovery and Spill Number 01-60053 was issued. The concrete pad was demolished in order to remove the contamination. Additional soil excavation was performed beyond the pad, until the property line was encountered. Once property access was arranged to continue off the 153 Cedar Street parcel, further excavation was performed to complete the cleanup in April 2002 and is detailed in a separate MWH report entitled "Spill Closure Report on Fuel Oil Contamination Discovered Below Former Tank Containment Structure" dated April 2002.

The excavation measured approximately 40 feet by 25 feet and was approximately 5 feet deep. The excavation sidewalls and bottom were sampled and analyzed for SVOCs using USEPA Method 8270 and VOCs using USEPA Method 8260. The excavation boundaries and soil sample locations are depicted in Figure 4**.** Approximately 162 tons of contaminated soil was disposed of at the Madison County Landfill and approximately 109 tons of contaminated concrete was disposed of at the Hyland Landfill in Angelica, New York.

IRM Summary

The goal of the remedial measures was to remove three identified potential sources of contamination from the project site. All excavation areas were backfilled with clean fill and graded. The areas will be seeded by the City of Oneida Department of Public Works.

In order to ensure the clean soil cover and the IRMs remain effective, a Soils Management Plan (SMP) has been established. The SMP includes the following conditions:

- Any breech of the clean soil cover, including for the purposes of construction, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical contamination. The repaired area must be seeded or covered with impervious product such as concrete or asphalt to prevent erosion in the future.

- Control of surface erosion and run-off of the entire property at all times, including construction activities. This includes proper maintenance of the vegetative cover established on the property.

- Site soil that is excavated (such as for foundations, utilities etc.) is to be removed from the property and must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives. As demarcation between the existing fill and the clean

soil cover may not be readily apparent, this condition shall apply to all soils excavated at the site.

- Any additional fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical contamination.

- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed.

- The Owner shall complete and submit to the Department an Annual Report by January 15th of each year. Such annual report shall contain certification that the institutional controls put in place, pursuit to the Final Site Investigation and Remedial Alternatives Report dated October 2002, are still in place, have not been altered and are still effective.

In addition, deed restrictions shall be implemented in accordance with the requirements of the New York State Brownfield program, limiting the future use of the property to business, commercial, or industrial development.

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 9.0 of the SI/RAR report.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

Pathways which are known to or may exist at the site include:

- Direct contact with contaminated subsurface soils if exposed during excavation;

- Incidental ingestion of subsurface soils after contact, and;

- Inhalation of dust from contaminated subsurface soils if disturbed during construction activities.

The remedial activities performed on the site, including the placement of the clean soil cover and the IRMs summarized in Section 5.2, have addressed these exposure pathways through establishment of the soil cover.

5.4: Summary of Environmental Impacts

This section summarizes the types of environmental exposures and ecological risks which may be presented by the site.

Due to the effectiveness of the remedial activities discussed in Section 5.3, no environmental exposures remain at this site.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS, SELECTED REMEDY, AND THE PROPOSED USE OF THE SITE

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous substances disposed at the site through the proper application of scientific and engineering principles.

The proposed future use for the 153 Cedar Street site is future development for commercial, light industrial, or business uses.

Prior to the completion of the IRMs described in Section 5.2, the remediation goals for this site were:

- Reduce, control or eliminate to the extent practicable, the contamination present within the soils, and fill material on-site, and;

- Eliminate the potential for direct human or animal contact with the contaminated soils and fill material on-site, and;

- Reduce, control or eliminate to the extent practicable, the release of contaminants from soil into groundwater that may create exceedances of groundwater quality standards.

The NYSDEC believes that the IRMs have accomplished these remediation goals provided that future use of the site is consistent with the required deed restrictions and the Soils Management Plan is followed.

Based on the results of the investigations at the site, the IRMs that has been performed, and the evaluation discussed below, the NYSDEC has selected No Further Action as the preferred alternative for the site.

The basis for this selection is the NYSDEC's conclusion that No Further Action will be protective of human health and the environment and will meet all SCGs. Overall protectiveness is achieved through meeting the remediation goals listed above.

The removal actions completed in the sump area, the arsenic area, and the former oil containment area have been effective in reducing or eliminating to the extent practicable the contamination that existed within the soil and fill material at the site.

The placement of the clean soil cover is effective in eliminating the potential for direct human or animal contact with the remaining soil and fill material at the site.

The main SCGs applicable to this project are as follows:

C Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

C Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels".

Implementation of the IRMs discussed in Section 5.2 have achieved the SCGs to the extent practicable through the removal of contaminated media.

Therefore, the NYSDEC concludes that the elements of the IRMs already completed have achieved the remediation goals for the site and that No Further Action is needed, other than the successful completion of the soil removal remedy planned for the adjacent MGP site in the near future and the institutional and engineering controls specified in the SMP detailed in Section 5.2 above.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the 153 Cedar Street environmental restoration process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.

- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.

- A public meeting was held on February 6, 2003 to present and receive comment on the PRAP.

- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

In general, the public comments received were supportive of the selected remedy.

TABLE 1
Nature and Extent of Contamination
June 1999-May 2001

WASTE	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic	Benzo (k) fluoranthene	30	1.1	1 of 1
	Benzo (a) pyrene	20	.061	1 of 1
	Indeno (1,2,3-cd) pyrene	20	3.2	1 of 1
Inorganic Compounds	Arsenic	9.06	7.5	1 of 1
	Barium	369	300	1 of 1
	Cadmium	5.21	1	1 of 1
	Chromium	146	10	1 of 1
	Copper	141	25	1 of 1
	Lead	1680	400[c]	1 of 1
	Mercury	1.5	.1	1 of 1
	Nickel	75.4	13	1 of 1
	Zinc	7510	20	1 of 1

TABLE 1
Nature and Extent of Contamination (Continued)

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	Benzo (a) anthracene	.226 to 1.74	.224	2 of 2
	Chrysene	.41 to 2.3	.4	2 of 2
	Benzo (b) fluoranthene	ND to 1.55	1.1	1 of 2
	Benzo (k) fluoranthene	.369 to 2.27	1.1	1 of 2
	Benzo (a) pyrene	.483 to 1.74	.061	2 of 2
	Dibenzo (a,h) anthracene	ND to .388	.014	1 of 2
Inorganic Compounds	Arsenic	12.5 to 34.5	7.5	2 of 2
	Chromium	12.5 to 17.8	10	2 of 2
	Copper	32 to 32.7	25	2 of 2
	Nickel	13.2 to 14.8	13	2 of 2
	Zinc	244 to 303	20	2 of 2

TABLE 1
Nature and Extent of Contamination (Continued)

SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds	Acetone	ND to .300	.200	1 of 12
Semivolatile Organic Compounds (SVOCs)	Benzo (a) anthracene	ND to 2.2	.224	3 of 12
	Chrysene	ND to 2.6	.4	3 of 12
	Benzo (b) fluoranthene	ND to 1.4	1.1	1 of 12
	Benzo (k) fluoranthene	ND to 2.4	1.1	2 of 12
	Benzo (a) pyrene	ND to 1.68	.061	6 of 12
	Indeno (1,2,3-cd) pyrene	ND to 4.2	3.2	1 of 12
	Dibenzo (a,h) anthracene	ND to .91	.014	2 of 12
Inorganic Compounds	Arsenic	2.7 to 82.9	7.5	8 of 12
	Barium	26.3 to 457	300	1 of 12
	Cadmium	ND to 21.3	1	4 of 12
	Chromium	6 to 31.1	10	5 of 12
	Copper	10.5 to 227	25	9 of 12
	Lead	3.1 to 623	400[c]	2 of 12
	Nickel	8.2 to 28.6	13	7 of 12
	Zinc	24.1 to 5770	20	12 of 12

TABLE 1
Nature and Extent of Contamination (Continued)

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Inorganic Compounds	Barium	161 to 1320	1000	1 of 3

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, ppm, in soil;

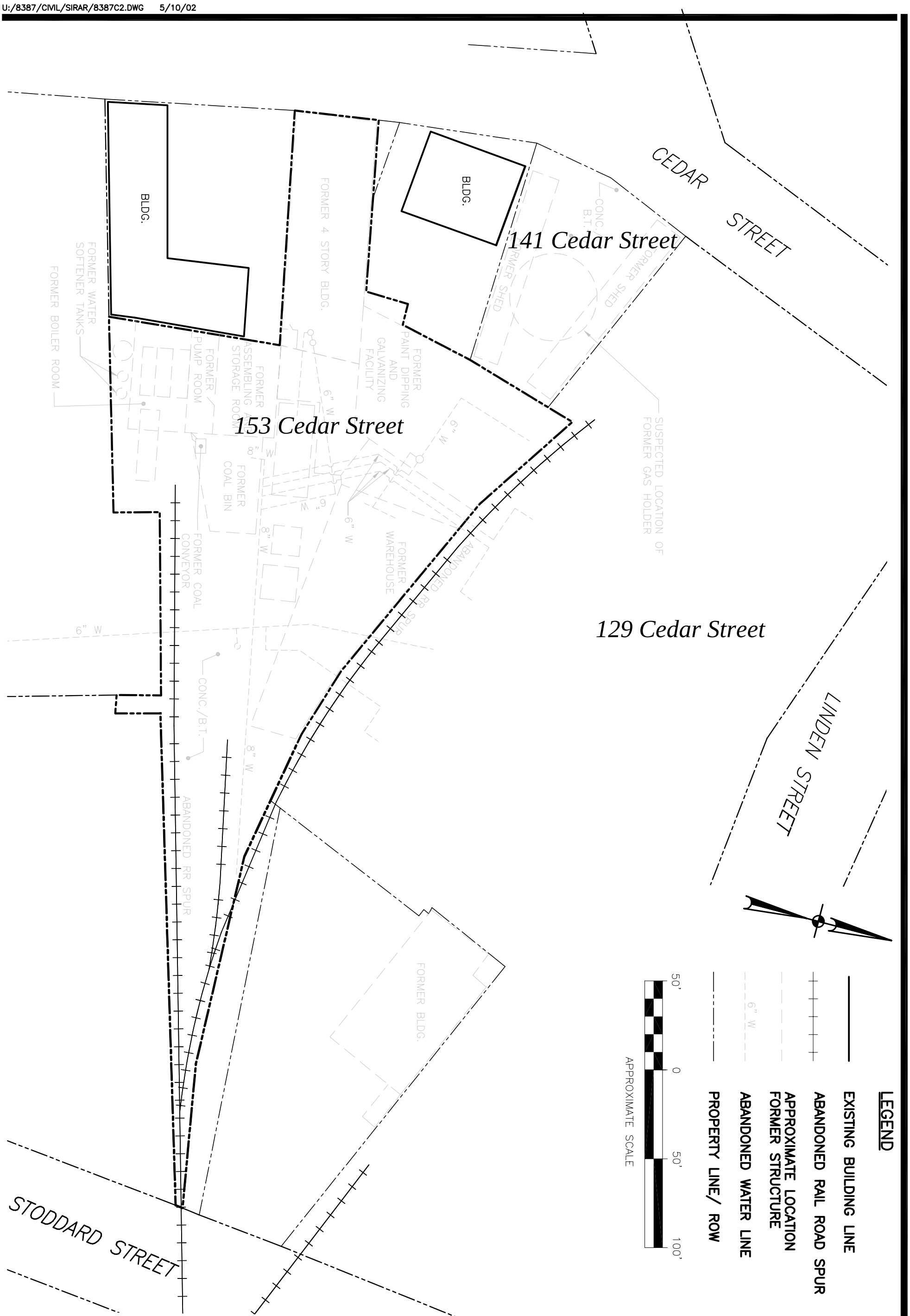
[b] SCG = standards, criteria, and guidance values; soils and waste materials are compared to TAGM 4046, groundwater is compared to NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

[c] USEPA, Federal Register Part III 40 CFR Part 745 "EPA, Lead; Identification of Dangerous Levels of Lead; Final Rule"

Table 2
Remedial Alternative Costs

Remedial Alternative	Capital Cost	Annual OM&M	Total Present Worth
No Further Action	$0	$0	$0

U:/8387/CIVIL/SIRAR/8387C2.DWG 5/10/02



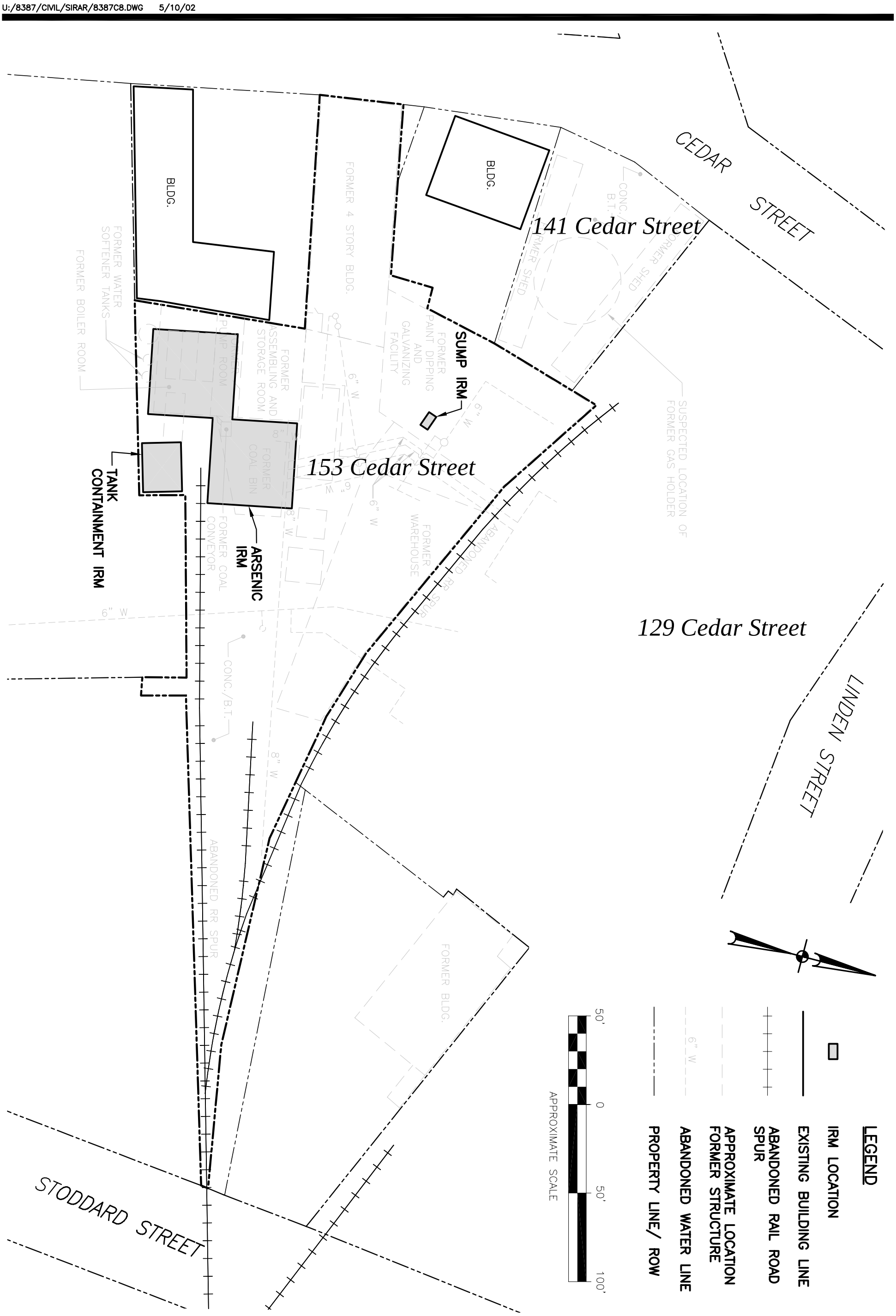
MWH
MONTGOMERY WATSON HARZA
181 Genesee St., Utica, NY 13501-2168 / Tel: (315)793-5000 / Fax: (315)797-8143

DATE: 5–10–02
DRAWN BY: AK
PROJECT NO. 8387/ 4060167

CITY OF ONEIDA
BROWNFIELD INVESTIGATION
SITE PLAN - 153 CEDAR STREET
MADISON COUNTY NEW YORK

FIGURE
1

U:/8387/CIVIL/SIRAR/8387C8.DWG 5/10/02



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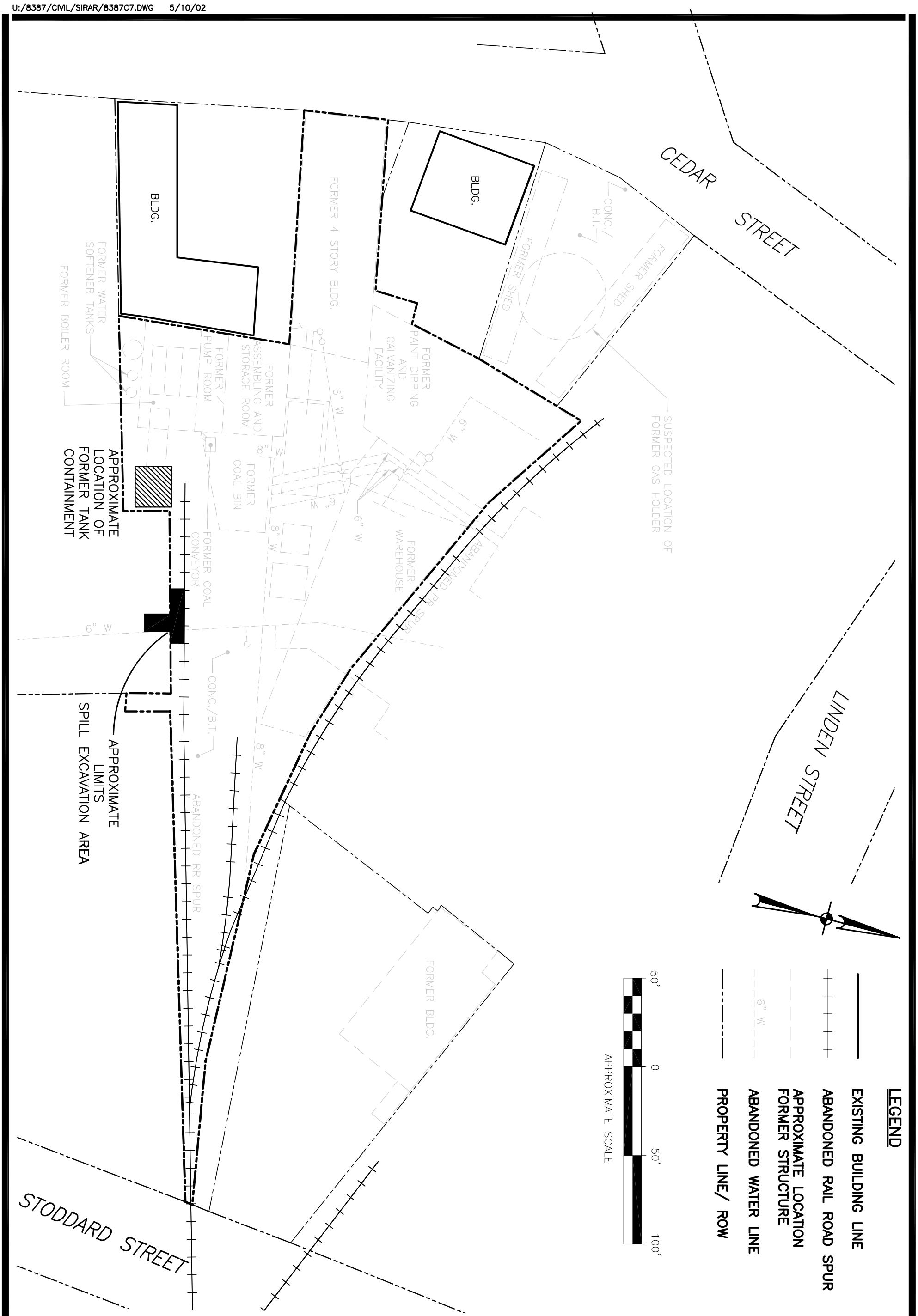
DRAWN BY:	AK
PROJECT NO.	8387/ 4060167

CITY OF ONEIDA
BROWNFIELD INVESTIGATION
SITE PLAN - 153 CEDAR STREET
MADISON COUNTY NEW YORK

FIGURE
3

U:/8387/CIVIL/SIRAR/8387C7.DWG 5/10/02



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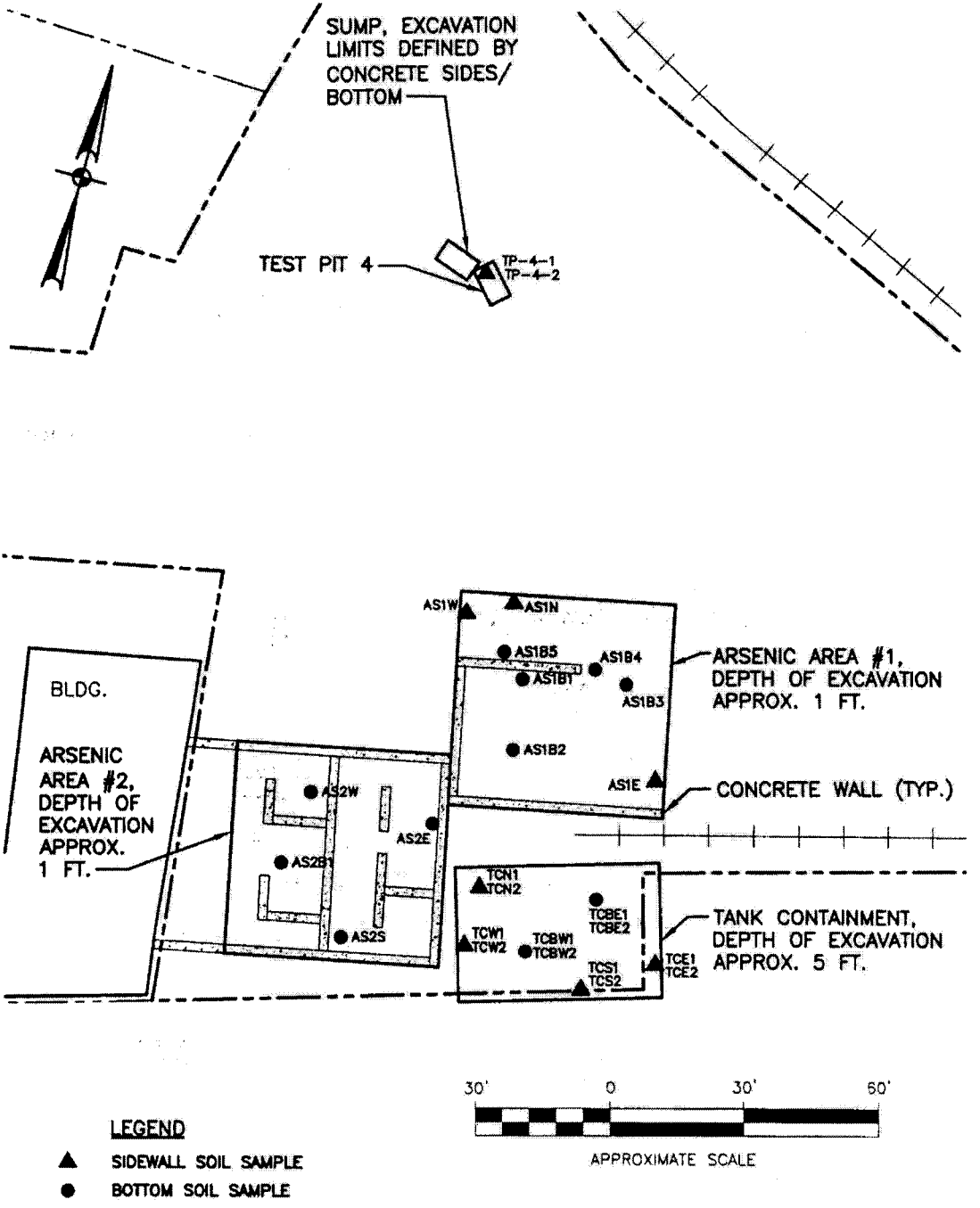
DATE: 5-10-02
DRAWN BY: AK
PROJECT NO. 8387/ 4060167

CITY OF ONEIDA
BROWNFIELD INVESTIGATION
SPILL EXCAVATION AREA - 153 CEDAR STREET
MADISON COUNTY NEW YORK

FIGURE 3



U:/8387/CIVIL/8387 *.DWG 5/8/02

MWH MONTGOMERY WATSON HARZA 101 Genesee St., Utica, NY 13501-2165 / Tel. (315)798-8000 / Fax (315)797-9149	DATE: 5-8-02 DRAWN BY: AK PROJECT NO. 8387/4060157	CITY OF ONEIDA REMEDIAL MEASURES EXCAVATION AND SOIL SAMPLE LOCATIONS 153 CEDAR STREET MADISON COUNTY NEW YORK	FIGURE 4

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

153 Cedar Street Environmental Restoration Site
City of Oneida, Madison County New York
Site No. B00076-7

The Proposed Remedial Action Plan (PRAP) for the 153 Cedar Street site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on January 29, 2003. The PRAP outlined the remedial measure proposed for the contaminated soil at the 153 Cedar Street site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on February 6, 2003, which included a presentation of the Site Investigation (SI) and the Remedial Alternatives Report (RAR) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 19, 2003.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the NYSDEC's responses:

COMMENT 1: Please explain what the Soils Management Plan (SMP) will entail.

RESPONSE 1: The SMP has been developed to ensure the Interim Remedial Measures (IRMs) remain effective. The SMP, as detailed in Section 5.2 of the Record of Decision, contains provisions for future use of the property, the protection of the clean soil cover currently in place (erosion control), proper handling of soils if excavated for construction activities, and requires certification that such provisions have been met on an annual basis.

COMMENT 2: Will there be a continued need for the monitoring wells at the site?

RESPONSE 2: Continued groundwater monitoring is not required, therefore all monitoring wells associated with the site can be decommissioned.

COMMENT 3: In terms of the deed restrictions, would housing construction on the site be prohibited?

RESPONSE 3: Yes. As detailed in the required deed restriction, any future use of the property shall be limited to business, commercial, or industrial development.

This limitation will be included in the deed restrictions to be recorded at the close-out of the project.

COMMENT 4: Is there a requirement for the NYSDEC to review and approve any plans and specifications for future building on the site?

RESPONSE 4: It will be the responsibility of the site owner to insure that any future construction will be in compliance with the deed restrictions and the SMP. Compliance with the SMP shall be documented in the Annual Certification Report.

COMMENT 5: Who is responsible for certifying the integrity of the site?

RESPONSE 5: The site owner will be required to submit an Annual Certification Report to the NYSDEC.

COMMENT 6: What provisions will be in place to address potential erosion problems during construction activities?

RESPONSE 6: The SMP will address potential erosion problems and how to rectify those problems, should they occur.

COMMENT 7: Will it be permissible to construct a storm water retention basin on the site? Due to the location of the site, such a structure may be required by local zoning ordinance depending on the future use of the property.

RESPONSE 7: A retention basin, properly constructed to prevent direct contact between the storm water and the existing soils (i.e. those below the soil cover), would be allowed.

COMMENT 8: Please explain the cleanup of the remaining 15' x 20' area of potentially contaminated soil.

RESPONSE 8: An adjacent parcel to the west-northwest of the site known as 141 Cedar Street is the subject of an ongoing environmental investigation due to the historical presence of a manufactured gas plant (MGP). The investigation revealed that the contamination from the 141 Cedar Street parcel has also impacted a small area of approximately 15' by 20' on the 153 Cedar Street site. A soil removal remedy is currently planned for the 141 Cedar Street site, which will include excavation of the 15' by 20' area of contaminated soil on the 153 Cedar Street parcel. This remedial approach includes backfilling the excavation with clean soil and grading the area to match the surrounding properties.

APPENDIX B

Administrative Record

Administrative Record

153 Cedar Street Site
City of Oneida, Madison County, New York
Site No. B-00076-7

1. Proposed Remedial Action Plan, 153 Cedar Street, City of Oneida, Madison County, Site No. B00076-7, dated January 2003.

2. Work Plan for the Site Investigation and Remedial Action Report at 153 Cedar Street, City of Oneida, Madison County, by HARZA Northeast, February 1999.

3. Spill Closure Report of Fuel Oil Contamination Discovered Below Former Tank Structure, NYSDEC Spill No. 01-60053, 153 Cedar Street Brownfields Redevelopment, Oneida, New York, April, 2002.

4. Site Investigation and Remedial Action Report for the 153 Cedar Street Site Environmental Restoration Project, City of Oneida, Madison County, by Montgomery Watson Harza, October 2002.

5. Fact Sheet and Meeting Notice for the 153 Cedar Street Site, January 2003.