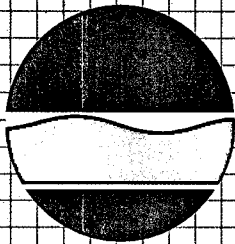


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# **SYSTEM EVALUATION, MODIFICATION AND MONITORING PROJECT MANAGEMENT WORK PLAN**



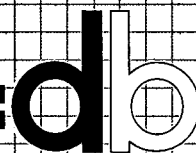
## **123 POST AVENUE SITE**

**VILLAGE OF WESTBURY  
NASSAU COUNTY, NEW YORK  
(SITE NO. 1-30-088)**

Prepared For

**New York State Department  
of Environmental Conservation**

JUNE 2007



**DVIRKA AND BARTILUCCI**  
CONSULTING ENGINEERS  
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

**REMEDIAL SYSTEM EVALUATION, MODIFICATION AND MONITORING  
PROJECT MANAGEMENT WORK PLAN**

**APPROVED**  
R. Buyer 7/20/07

**123 POST AVENUE (OU-00)  
WESTBURY  
NASSAU COUNTY, NEW YORK**

**APPROVED**  
[Signature]

**(SITE REGISTRY NO. 1-30-088)**

*Prepared for:*

**NEW YORK STATE DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION**

*Prepared by:*

**DVIRKA AND BARTILUCCI CONSULTING ENGINEERS  
WOODBURY, NEW YORK**

**JUNE 2007**

**REMEDIAL SYSTEM EVALUATION, MODIFICATION AND MONITORING  
PROJECT MANAGEMENT WORK PLAN  
123 POST AVENUE (OU-00)  
WESTBURY  
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# Section 1



## 1.0 INTRODUCTION

As part of New York State's program to investigate and remediate hazardous waste sites, the New York State Department of Environmental Conservation (NYSDEC) has issued a Work Assignment to Dvirka and Bartilucci Consulting Engineers (D&B) of Woodbury, New York. This work assignment has been issued under the Superfund Standby Contract between D&B and NYSDEC and involves sampling site and nearby media, and evaluating, modifying (as necessary) and monitoring the existing soil vapor extraction (SVE) system at the 123 Post Avenue site (Operable Unit 00) in Westbury, the Town of North Hempstead, Nassau County, New York. The registry number for this site is 1-30-088. The scope of work for this assignment includes:

- Preparation of a Project Management Work Plan;
- Development and implementation of a soil vapor survey;
- Sampling and closure of a dry well;
- Sampling of groundwater and indoor air;
- Evaluation of the existing SVE system;
- Modification of the SVE system; and
- Preparation of an operation, maintenance and monitoring manual for the modified SVE system.

This work plan has been prepared in accordance with NYSDEC guidance, and includes a detailed description of work tasks, schedule and budget for the project. The work plan also provides a site-specific quality assurance/quality control plan, a site-specific health and safety plan, key project milestones and the project team organizational structure.

## Section 2





## **2.0 BACKGROUND**

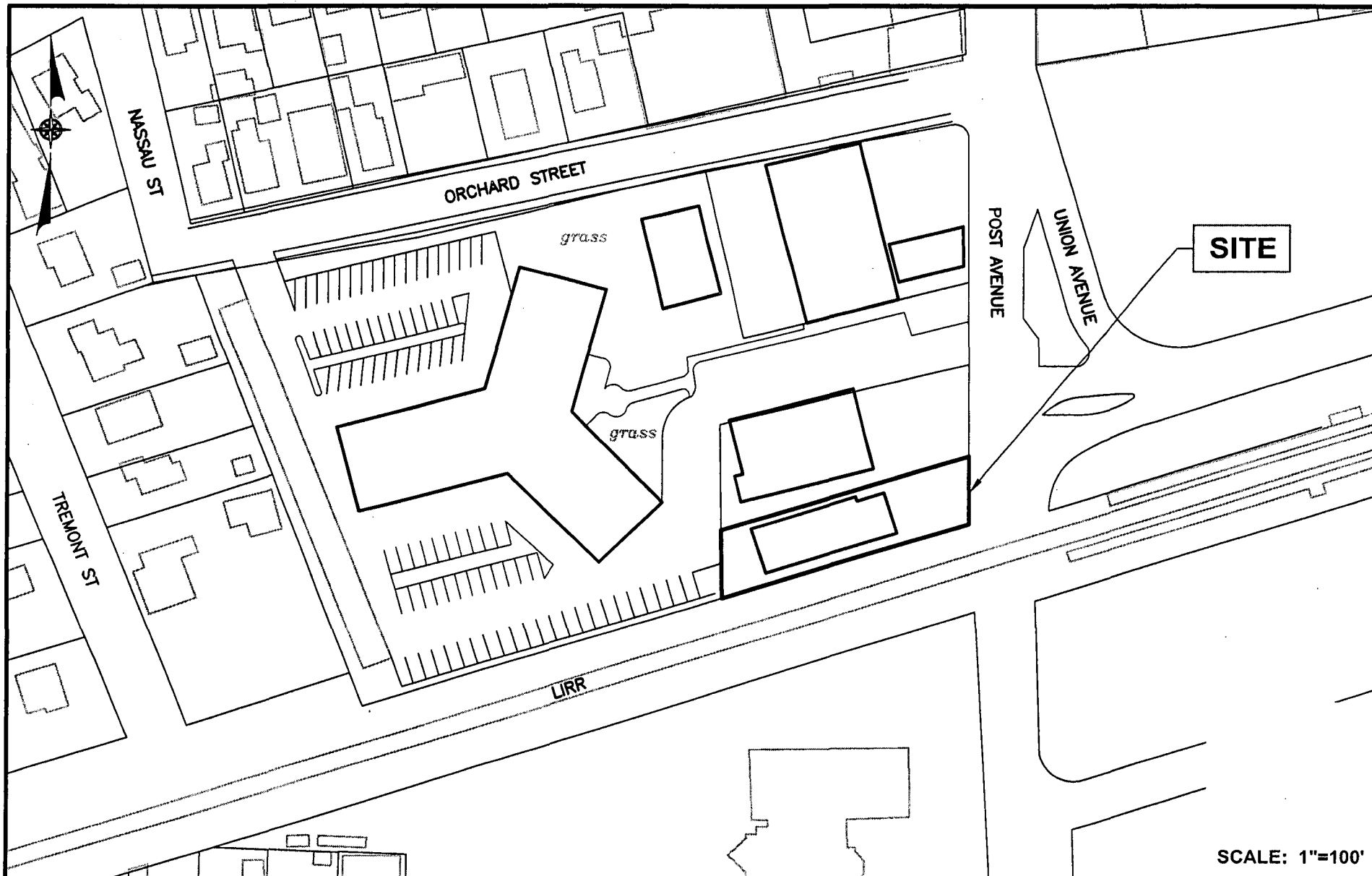
### **2.1 Site Location, Description and History**

The 123 Post Avenue site is an active dry cleaning facility located in the Village of Westbury, Nassau County, New York. The site is approximately 0.2 acres in size and is bordered by retail stores to the north, the Long Island Railroad (LIRR) elevated tracks to the south, Post Avenue to the east, and an apartment complex to the west. A map of the site and vicinity is depicted on Figure 2-1 and an aerial photograph is presented on Figure 2-2.

The area south of the LIRR and north of Old Country Road is primarily residential. Commercial businesses, offices and a parking lot occupy the western side of Post Avenue between the site and Old Country Road. The eastern side of Post Avenue, between the site and Old Country Road, is occupied by a LIRR station, cemeteries and a church.

Dry cleaning operations have been conducted at the site since the 1950's. The current owner of the site is Choe Realty, LLC and the current operator of the site is Westbury Valet Cleaners. During investigations at the site by the Nassau County Department of Health (NCDH) in 1995, contamination was first discovered as elevated levels of tetrachloroethene (PCE) and its associated breakdown products, trichloroethene (TCE) and dichloroethene (DCE), in soil and groundwater beneath the site.

In 1998, NYSDEC listed the site in the Registry of Inactive Hazardous Waste Disposal Sites with a Classification 2. The soil and the groundwater contamination within the site boundaries has been designated Operable Unit 01 (OU-01) and the groundwater off-site contamination has been designated Operable Unit 02 (OU-02).



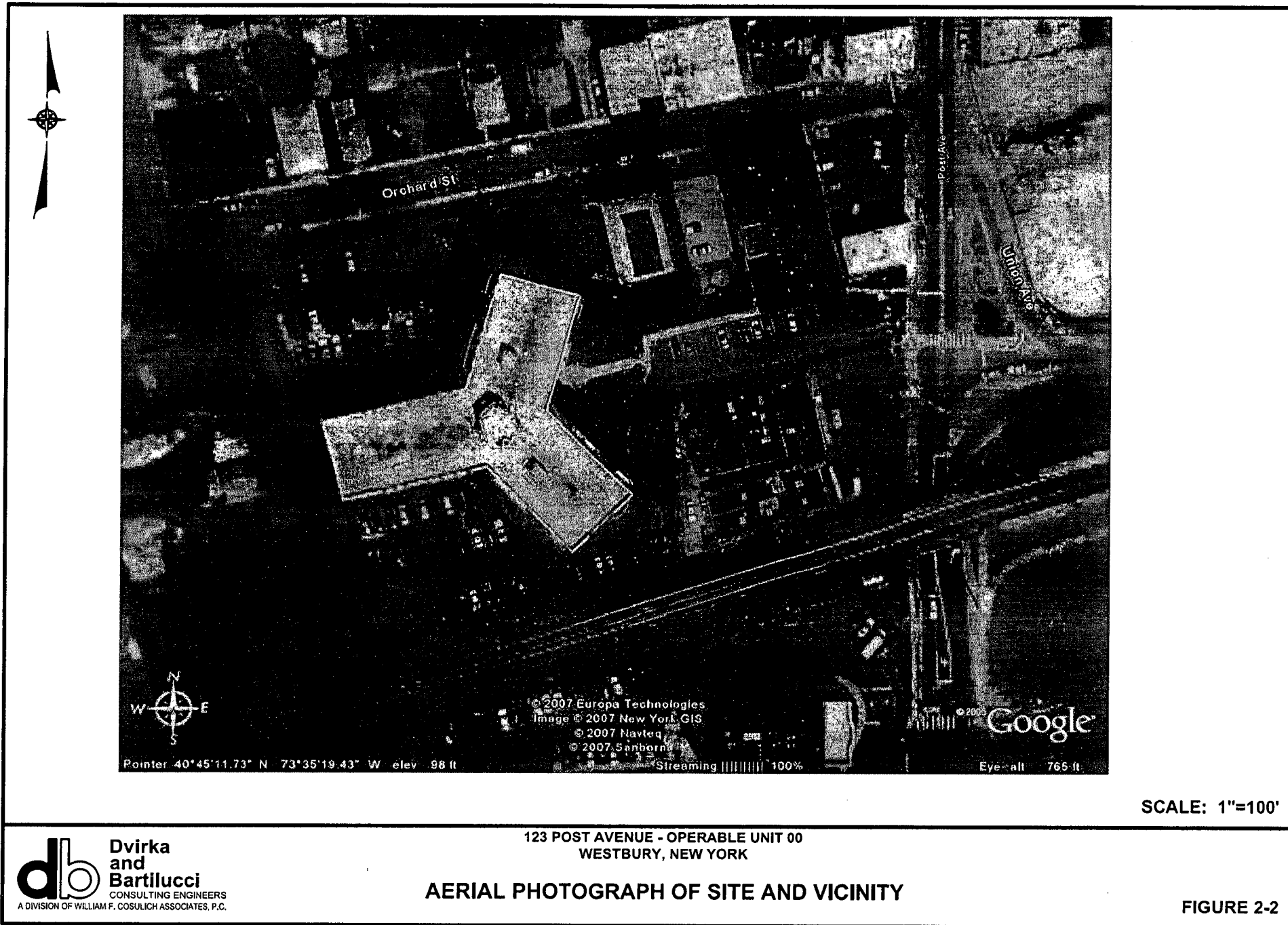
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**db**  
**Dvirka  
and  
Bartilucci**  
CONSULTING ENGINEERS  
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

123 POST AVENUE - OPERABLE UNIT 00  
WESTBURY, NEW YORK

**MAP OF SITE AND VICINITY**

**FIGURE 2-1**



## 2.2 Previous Investigations

A review of NYSDEC and Nassau County Department of Health (NCDH) files was previously conducted by D&B as part of the OU-02 project to determine the site history and previous investigations conducted at the site.

Periodic inspections of the 123 Post Avenue Site have been conducted by the NCDH since at least 1985. In July 1995, a NCDH inspection revealed the presence of two floor drains in the rear (western) portion of the on-site building, one in the boiler room and one in the workroom near the dry cleaning machine. Due to the presence of the floor drains, the site was referred to the United States Environmental Protection Agency (USEPA) for action under the Underground Injection Control (UIC) program.

A property transfer investigation was conducted in 1997 at 117 Post Avenue, immediately south of the LIRR tracks. As part of this investigation, a total of seven monitoring wells were constructed in two phases. Samples collected from these wells showed that shallow groundwater contained volatile organic compounds (VOCs), principally PCE, at levels exceeding NYSDEC groundwater standards. PCE was detected in each of the seven wells, at concentrations ranging from 9.6 micrograms per liter (ug/l) to 15,000 ug/l. Trichloroethene (TCE), a break-down product of PCE, was detected in five of the seven wells, at concentrations ranging from 0.52 ug/l to 110 ug/l. The report prepared for this investigation concluded that the 123 Post Avenue Site was the source of the groundwater contamination.

In December 1997, the NYSDEC issued a Notice of Intent to Designate a Potential Hazardous Waste Disposal Site for the 123 Post Avenue Site. In June 1998, the USEPA approved a UIC Closure Plan for the floor drains in the building at 123 Post Avenue. In July 1998, it was revealed to the NCDH that soil samples had been collected from the two floor drains in January 1996. At that time, soil from the floor drain in the boiler room contained PCE at concentrations up to 18,000 micrograms per kilogram (ug/kg) and TCE at concentrations up to

100 ug/kg. Soil from the floor drain in the work room contained PCE at concentrations up to 5,800,000 ug/kg and TCE at concentrations up to 40,000 ug/kg.

In August 1998, soil was excavated from each of the floor drains. Clean endpoint samples were collected from the floor drain in the boiler room, however, endpoint samples collected within the workroom floor drain contained PCE at concentrations up to 220,000 ug/kg. No additional soil was removed from the floor drain. In October 1998, ten drums (7,000 pounds) of PCE-contaminated soil from the floor drains were transported off-site for disposal as hazardous waste. Based on these results, the Site was placed on the New York State Registry of Inactive Hazardous Waste Sites in December 1998.

In March 1999, a soil boring was advanced at the location of the work room floor drain to evaluate the vertical distribution of the detected contamination. PCE was detected in each sample, with a maximum concentration of 270,000 ug/kg at a depth of 10 to 11 feet below ground surface. PCE concentrations decreased with depth to the water table (53 ug/kg at 20 to 22 feet and 17 ug/kg at 30 to 32 feet), and increased slightly just below the water table (62 ug/kg at 36 to 40 feet).

In February 1999, the USEPA approved a source area investigation for the Site to evaluate groundwater contamination from the floor drains. As part of this investigation, one upgradient and two downgradient monitoring wells were installed at the Site in March 1999. The upgradient well contained PCE at a concentration of 95 ug/l and the downgradient wells contained PCE at concentrations up to 20,000 ug/l. The USEPA response to the June 1999 report describing the on-site groundwater investigation, provided recommendations for additional on-site investigation activities, but did not address the need for off-site investigation.

In August 2000, a revised work plan for additional investigation at the 123 Post Avenue Site was submitted to the NYSDEC by the consultant for the property owner. Activities to be conducted included collection of soil/sediment samples from the former on-site septic system; collection of groundwater samples (including vertical profiling); and design, construction and operation of an on-site soil remediation system.

A potential responsible party (PRP)-funded Remedial Investigation/Feasibility Study was conducted in 2000 and 2001. This investigation sampled on-site soil and groundwater. Additionally an indoor air sampling program was initiated by the NYSDEC, New York State Department of Health (NYSDOH) and NCDH which was eventually taken over by the PRP. The investigation showed contamination in the soil, groundwater and soil vapor that exceeded standards, criteria and guidelines.

During the Remedial Investigation, an Interim Remedial Measure was initiated to install a soil vapor extraction system. This system was intended to reduce the concentration of contaminants in on-site soil and prevent soil vapor intrusion to adjacent structures.

A Record of Decision (ROD) for OU-01 was issued in March 2003, and the ROD for OU-02 was issued in March 2004. The selected remedy for OU-01 is no further action with continual operation of the Soil Vapor Extraction (SVE) system. The SVE system is required to operate until the NYSDEC determines it is no longer practical or feasible. The selected remedy for OU-02 is in-situ chemical oxidation to address off-site groundwater contamination.

As identified in the March 2003 ROD, the OU-01 remedy includes:

- Continued operation of the SVE system until the remedial objectives have been achieved;
- Continued monitoring of the groundwater and indoor air quality;
- Implementation of institutional controls in the form of existing use and development restrictions, preventing the use of groundwater as a source of potable or process water without required treatment as determined by the NCDH;
- As a contingency, the approved air sparging (AS) design would be implemented if the groundwater concentrations rebound; and
- Annual certification that the institutional controls put in place have not been altered and are still effective.

### **2.3 Description of Existing Remedial System**

According to available file information, the existing soil vapor extraction system (SVE) utilizes four extraction wells at four locations. Each line is connected to an equipment shed located along the south side of the 123 Post Avenue site. The vapor from each well passes through a moisture separation and a particulate filter prior to a vapor extraction blower. The blower feeds two carbon adsorbers in series prior to discharge to the atmosphere. The layout of the SVE system and associated radii of influences are depicted in the figure in Appendix A.

## Section 3





### **3.0 SCOPE OF WORK**

The services to be provided by D&B include preparation of a Project Management Work Plan, including: sampling of soil vapor (Task 1); a dry well, groundwater and indoor air, and evaluation of the existing SVE system (Task 2); modification of the existing SVE system (as necessary) (Task 3); and preparation of an operation, maintenance and monitoring manual (Task 4). This scope of work is based on the Work Assignment, dated February 13, 2007, issued by the NYSDEC to D&B and subsequent correspondences with the NYSDEC. The scopes of the project tasks are described below.

#### **3.1 Task 1 – Project Management Work Plan Preparation**

This task involves preparation of the draft version of this Project Management Work Plan for NYSDEC review and comment, and finalization of the work plan. This work plan includes a description of the major tasks and subtasks, a schedule with milestones and deliverables, a staffing plan, a site-specific Health and Safety Plan (HASP) including community air monitoring, a quality assurance and control plan, a budget, a Minority/Women Business Enterprise utilization plan and a list of proposed subcontractors, and citizen participation support. Additionally, this task also includes the preparation of monthly progress reports summarizing progress and updates on project budget and status.

#### **3.2 Task 2 – Sampling and SVE System Evaluation**

This task involves sampling of soil vapor in the area between the site and the apartment complex to the west, sampling of the dry well located in the stair well in the rear of the site building, sampling of groundwater from the three site monitoring wells, sampling of indoor air in nearby buildings and an evaluation of the existing SVE system. The scope of these tasks is provided below.

### 3.2.1 Soil Vapor Sampling

A soil vapor survey will be conducted to locate the highest concentrations of contamination to be used to determine the potential additional locations for soil vapor extraction wells and/or extension of the radius of influence of existing wells. The soil vapor survey will be conducted on-site, and in the area between the site and the apartment complex to the west. The survey will involve screening to select samples for laboratory analysis.

For the screening phase of the survey, between 10 and 12 locations will be monitored for volatile organic compounds (VOCs) using a photoionization detector (PID). The PID will be capable of detecting concentrations in the parts per billion (ppb) range and equipped with the appropriate ionizing lamp capable of detecting the site contaminants of concern (TCE and its breakdown products). The locations of the sampling points will be selected in consultation with the NYSDEC. The soil vapor to be screened will be from a depth of 15 feet below land surface. At the locations of the three highest PID readings, samples will be collected utilizing Summa canisters for laboratory analysis using the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. The three soil vapor sampling points will be converted to permanent probes and finished flush at grade with locking curb boxes. In addition to the soil vapor samples, one ambient air sample from the sampling area will also be collected.

The soil vapor will be collected utilizing the direct push method of probing. The samples for laboratory analysis will be sampled through polyethylene tubing at a maximum flow rate of 0.2 liters per minute (l/min) over a 2-hour period will be analyzed for volatile organic compounds (VOCs) using EPA Method TO-15. Reporting limits will be 1 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ), or less.

Provision will also be included for a second sampling of the three permanent soil vapor sampling probes prior to startup of the potentially retrofitted SVE system (Task 3) to provide baseline data.

### 3.2.2 Dry Well Sampling and Closure

A dry well is located in the rear of the dry cleaning facility that has not been previously sampled. The dry well structure is not a standard dry well but a drain with a small grated cover apparently installed for storm water runoff. It is located within a stairwell approximately a foot below grade the rear of the facility building.

Soil samples will be collected from the bottom of the dry well to the groundwater table (depth of approximately 35 feet below land surface). The samples will be collected at continuous intervals using direct push sampling methodology. Each 2-foot core sample will be screened in the field with a PID. Based on field observations and the PID results, a "worst-case" sample, as well as the deepest sample above the water table, will be selected for laboratory analysis by an ELAP-approved laboratory for VOCs using EPA Method 8260, in addition to analytes required by NCDH; total RCRA metals (EPA Method 6010) and semi-volatile organic compounds (EPA Method 8270).

The findings of the dry well investigation program will be evaluated and a scope of work for closure of the dry well will be developed and presented to the NYSDEC as described in Section 3.2.7.

The dry well will be closed in accordance with NCDH Floor Drain and Dry Well Closure Procedures. Based on the findings of the dry well sampling, the actual closure scope and associated cost will be developed and provided to the NYSDEC.

### 3.2.3 Groundwater Sampling

Groundwater samples will be collected from the three existing site wells (MW-1, MW-2 and MW-3). The wells will be sampled twice; initially, to establish current water quality and 6 months thereafter.

Prior to collecting the samples, water levels will be obtained from the wells and three volumes of well water will be removed from each well. Considering that groundwater over the past five years has contained only trace concentrations of VOCs, the purge water will be discharged to permeable surface areas near the wells.

The samples collected from the wells will be analyzed by an ELAP-approved laboratory for VOCs using EPA Method 8260. One set of matrix spike/matrix spike duplicate (MS/MSD) samples will also be collected during each sampling event.

### 3.2.4 Indoor Air Sampling

Indoor air samples will be collected from nearby buildings consistent with the prior sampling program established by the NYSDEC, NYSDOH and the NCDH. The indoor air sampling will be conducted initially to establish current indoor air quality.

During the sampling event, four samples will be collected; one from the Westbury Chiropractic, the Super Convenience Store common basement and from two locations of the Westbury Terrace Condominiums. The final locations of the sampling points will be determined in consultation with the NYSDEC and it is assumed that the NYSDEC will obtain access permission for the sample collection program.

The samples will be collected using passive diffusion type organic vapor monitors, Model 3500, manufactured by 3M. The samples will be collected over a 24-hour period and analyzed for PCE by an ELAP-approved laboratory using NYSDOH Method 311-9.

At a future point to be identified by the NYSDEC, one round of indoor air samples will be collected for laboratory analysis. The samples will be of the same locations described above in addition to a background ambient location.

The samples will be collected using Summa canisters following protocols as provided in the NYSDOH document entitled *Guidance for Evaluating Soil Vapor Intrusion*. The samples will be analyzed for volatile organic compounds (VOCs) using EPA Method TO-15. The deliverables package will be Category B and the reporting limits will be 1 microgram per liter (ug/l).

### 3.2.5 Site Survey

A physical features survey of the project site and surrounding area will be conducted using in-house capabilities to establish a baseline survey for design purposes related to the modification of the existing soil vapor extraction (SVE) system. The physical feature survey will be prepared utilizing AutoCAD Release 2005 at a scale of 1" = 20'-0". Approximated dimensions and locations, as applicable, of the following shall be included/shown on the physical features survey:

- Existing site structures;
- The limits of ground surface coverings (e.g., concrete, asphalt, landscaping, etc.);
- Fences and gates;
- Drainage structures;
- Approximate location of aboveground and belowground utilities;
- Manhole and valve box covers with rim elevations;
- Utility poles, light poles and traffic signs affecting the project;
- Surface elevations and top of casing elevations of existing monitoring wells and soil vapor extraction wells.

### *Utility Mark-outs*

The locations of all aboveground and belowground utilities will be identified using a private utility mark-out company prior to the performance of the physical features survey. The utility mark-out shall be performed using a non-intrusive geophysical subsurface investigation techniques such as ground penetrating radar (GPR). The dimensions, depths and locations, as applicable, of the following shall be physically marked on the property:

- Water lines;
- Gas lines;
- Sewer lines;
- Electric lines;
- Underground storage tanks and any associated piping; and
- Other underground utilities, objects and features.

The estimated level of effort for the private utility mark-out is based on completing the utility survey within two (2) business days. Locations of all subsurface utilities identified under this activity will be documented as part of the site survey referenced above. It should be noted that the location of subsurface utilities identified under this activity will be considered to be approximate given the limitations of the delineation techniques employed. As a result, it is not guaranteed that all subsurface targets will be detected in this survey.

#### 3.2.6 SVE System Evaluation

The work under this task consists of providing engineering services in connection with the evaluation of the SVE system currently installed at the project site. The services under this task have been organized into three subtasks as provided below:

### *Review of Project Records*

This subtask includes a review of project documents and reports provided by the NYSDEC. These documents and reports include, but are not limited to, investigation/IRM work plans, remedial investigation reports, soil vapor surveys, groundwater monitoring reports and SVE system performance monitoring reports.

### *Evaluation of Existing SVE System and Components*

The work under this subtask includes inspection of the SVE system currently installed at the project site to document the present condition of the system. The scope of the inspection is described below:

- Inspection of project site and surrounding areas;
- Inspection of existing SVE well head assemblies;
- Inspection of existing surface conditions within the SVE system radius of influence to evaluate potential for short circuiting;
- Inspection of the existing SVE system enclosure;
- Inspection and inventory of existing SVE system equipment and ancillaries; and
- Inspection and inventory of all visible SVE system piping, valves and instruments.
- Performance of a pilot study, utilizing existing SVE system equipment, to determine current system operating conditions (e.g., radius of influence). The pilot test will consist mainly of applying differing vacuums and flow rates to a predetermined test well while monitoring subsurface vacuum at discrete locations in the vicinity of the test well.
- Collection of process air samples at the system inlet to determine volatile organic compound (VOC) loading characteristics in order to evaluate adequacy of existing vapor-phase treatment system.
- Collection of water level data from existing on-site monitoring wells, during static and routine system operating conditions, to evaluate water table elevations in comparison to SVE well screen elevations.

The estimated cost (provided in Section 7.0) to provide the scope of services above is based on the following:

- Unrestricted access will be provided to the site;
- Our estimated budget is based on performing the above tasks utilizing a fully functional, well-maintained facility;
- Standard laboratory time will be provided for all analyses. Category A data packages will be provided. Additionally, the scope above includes data validation.

Information obtained as a result of the inspection described above will be used to assist in providing recommendations for improved performance and efficiency of the existing SVE system, while at the same time evaluating the potential for minimizing operating costs.

#### 3.2.7 Findings and Recommendations

The results of this task will be provided in a letter report to NYSDEC. The report will present and evaluate the results of the media sampling along with an evaluation of the operation of the existing system. The primary objectives of the study is to assess the potential of either the existing or modified SVE system and to address impacted media such as soil vapor and indoor air. Once recommendations provided in this report are reviewed and approved by the NYSDEC, they will be incorporated into the scope of work to be developed as part of Task 3 – Modification of Existing SVE System, as discussed below.

### 3.3 **Task 3 – Modification of Existing SVE System**

The services to be provided by D&B under this task include the design and implementation of recommended system modifications based on the evaluation performed under Task 2. D&B will design the system modification based on the findings of Task 2 and will then select a contractor, with NYSDEC concurrence, to install the system, and D&B will contract with the subcontractor. The following sections provide detailed descriptions of the work to be conducted as part of this task.



### 3.3.1 Preparation of Design Documents

A Request for Proposal (RFP) comprised of performance based design specifications shall be prepared to obtain competitive bids for modifications to the existing SVE system and subsequent system start-up. The major element of the RFP will take into account the following:

- Condition of existing system and useable components of the system, as well as, the need for replacement/resizing of existing SVE system equipment;
- Ability to influence source zone areas of soil vapor contamination identified in the soil vapor survey to mitigate off-site migration of contaminated soil vapor and need for additional soil vapor extraction points;
- Evaluate system effluent treatment requirements based on information obtained from the soil vapor survey and the pilot test data. The information will be evaluated according to the Division of Air Resources policy DAR-1 to develop a recommendation with respect to selection of appropriate air pollution control treatment.

Three copies of the draft RFP will be submitted to the NYSDEC for review and comment. For budget purposes, it is assumed that one set of comments will be addressed by D&B prior to the preparation of the final RFP package.

### 3.3.2 Pre-Award Services and Contractor Procurement

D&B shall provide pre-award services to the NYSDEC in conjunction with the competitive bidding of the SVE system modifications. The actual subcontractor costs are dependant upon the level of effort required to modify the existing SVE system based on the evaluation/recommendations identified under Task 2. Listed below is a description of the pre-award services to be provided.

### Pre-Bid Meeting

D&B will conduct a pre-bid meeting and site visit with prospective bidders. D&B will respond to technical questions regarding the RFP, and prepare and submit meeting minutes to the NYSDEC.

### Addenda

D&B will prepare written responses to questions raised at the pre-bid meeting, and any necessary addenda to the RFP package for timely transmittal to prospective bidders. For budget purposes, it is assumed that one addendum will be prepared.

### Bid Review

Following receipt of bids, D&B will perform a technical review of the bids received and prepare a tabulation of the bids that will be submitted to the NYSDEC. D&B will review the bid submittals required as part of the bids submitted by the three lowest responsive and responsible bidders.

### Construction Inspection

Full-time on-site inspection will be provided by D&B during construction activities related to the existing SVE system modifications and subsequent system start-up. The selected contractor will be monitored for conformance with the RFP package and approved submittals by inspecting the work performed. Complete and detailed records regarding the oversight activities will be maintained. The records will include:

- Daily Construction Logs: At a minimum, the daily construction logs shall include a summary of the work completed, on-site visitors and important conversations, listing and use of Contractor's personnel, material and equipment that allows for quantification of the Contractor's production and any unusual circumstances encountered (weather conditions, differing site conditions, environmental problems, etc.)

- Construction Photographs: Photographs will be taken before work begins, during its progress and at the completion of the work. Each photograph will be labeled to show the project name, site number, short description of the view, photograph number and date taken.

Upon completion of the work, D&B will prepare a letter report summarizing the work performed. All related project records shall be included as appendices to the letter report. For budget purposes, it is assumed that the construction period will consist of 15 business days.

### **3.4 Task 4 –Operation, Maintenance and Monitoring Manual**

Based on our conversations with the NYSDEC, an Operation Maintenance and Monitoring Manual (OM&M Manual) does not exist for the current system. As a result, per the request of the NYSDEC an OM&M Manual will be developed for the retrofitted SVE system in accordance with the requirements provided in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, Section 6.0. The major elements to be included in this manual are described below:

- Purpose of the OM&M Manual
- Site Description
- Site Remedial Action
- Special Site-Specific Safety Warnings
- Records Management
- Sampling and Analysis Plan
- Environmental Effectiveness Monitoring and Procedures
- Analytical Program
- Evaluation of Monitoring Results
- Site Maintenance
- Inspections and Maintenance
- Disposal of Used Material and Waste

- Reports
- Citizen Participation Plan
- Personnel
- Health and Safety Plan
- Records and Forms
- Emergency Contingency Plan
- Record Drawings

As discussed with the NYSDEC, the OM&M manual will be developed to address the project specific objectives and concerns and shall incorporate the appropriate level of detail. The OM&M manual will also identify a scope of work for collection and analysis of routine SVE system process samples, as well as indoor air and groundwater samples in the vicinity of the site, which will focus on assessing the effectiveness of the retrofitted SVE system. The scope will identify sample media, locations, methodologies, and frequencies. Three copies of the draft OM&M manual will be submitted to the NYSDEC for review and comment. For budget purposes, it is assumed that one set of comments will be addressed by D&B prior to the preparation of the final OM&M manual.

### **3.5 Citizen Participation Activities**

If requested by the NYSDEC, D&B will provide citizen participation activities support and attend one public meeting to answer questions regarding the project sampling, SVE system evaluation and proposed system modification. D&B will also prepare minutes of the meeting and will provide them to the NYSDEC.

## Section 4



## **4.0 PROJECT MANAGEMENT**

### **4.1 Project Schedule and Key Milestones/Reports**

The schedule for the 123 Post Avenue OU-00 assignment is provided in Table 4-1. Key milestones are identified to monitor work progress. The following is a list of the primary milestones for this project:

- Draft Project Management Work Plan
- Final Work Plan
- Notice to Proceed
- Draft Letter Report providing sampling results, dry well closure scope, and existing SVE system evaluation with retrofit recommendations
- Final Letter Report
- Draft RFP for Modification of Existing SVE System
- Final RFP for Modification of Existing SVE System
- SVE System Modifications and Start-up
- Draft Operation, Maintenance and Monitoring Manual
- Final Operation, Maintenance and Monitoring Manual

### **4.2 Project Management, Organization and Key Technical Personnel**

D&B will be the prime consultant responsible for the work assignment. The following subcontractors are proposed to be used for this project for the noted services:

- Zebra Environmental Corporation – soil vapor and dry well sampling
- Mitkem Corporation – soil laboratory analysis
- Contest Laboratories – air laboratory analyses
- To be determined – dry well closure

- To be determined — modification of existing SVE system

The project organization for this project, indicating management and project responsibilities for the project team and key personnel, is shown on Figure 4-1.

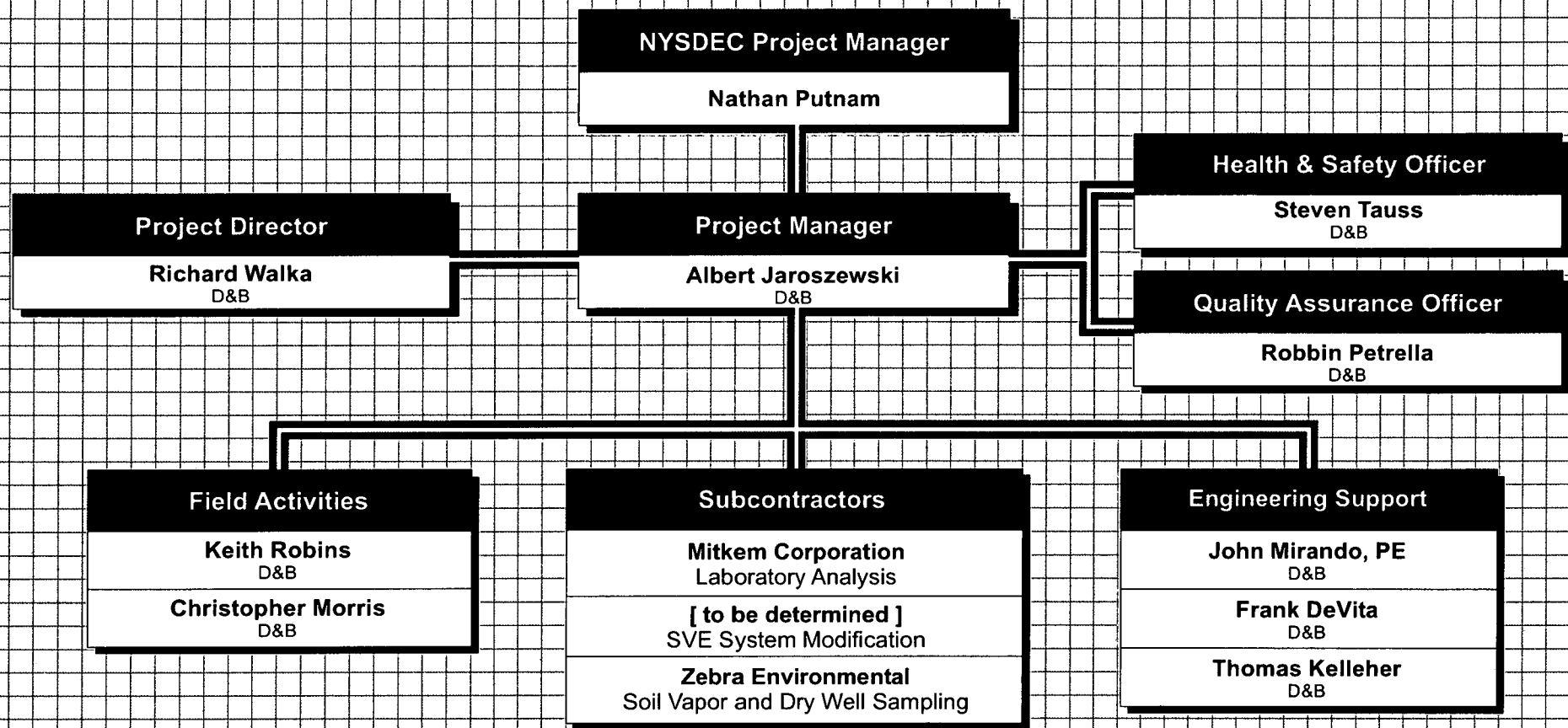
**Table 4-1**  
**PROJECT SCHEDULE**

<b>Task</b>	<b>Completion Date</b>
<b><i>Task 1 – Work Plan Preparation</i></b>	
• Draft Work Plan	April 2007
• Work Plan/Site Meeting	April/May 2007
• Final Work Plan	May 2007
• Notice to Proceed	May 2007
<b><i>Task 2 – Sampling and SVE Evaluation</i></b>	
• Conduct Media Sampling	June 2007
• Conduct Site Survey	June 2007
• Conduct SVE Evaluation	June/July 2007
• Draft Report of Findings and Evaluation	August 2007
• Final Report of Findings and Evaluation	September 2007
<b><i>Task 3 – Modification of Existing SVE System*</i></b>	
• Draft RFP for Modification of Existing SVE System	TBD
• Final RFP for Modification of Existing SVE System	TBD
• SVE System Modifications and Start-up	TBD
<b><i>Task 4 – Operation and Monitoring Manual</i></b>	
• Draft Operation, Maintenance and Monitoring Manual	TBD
• Final Operation, Maintenance and Monitoring Manual	TBD

\*The scope of the SVE system modification will be based on the findings of Task 2.  
TBD: To be determined.



# SVE SYSTEM EVALUATION, MODIFICATION AND MONITORING 123 POST AVENUE (OU-00) SITE, WESTBURY, NEW YORK PROJECT TEAM ORGANIZATION CHART



## Section 5



## **5.0 SITE-SPECIFIC QUALITY ASSURANCE/QUALITY CONTROL PLAN**

Sample analyses for the 123 Post Avenue OU-00 project will be conducted in accordance with the NYSDEC Analytical Services Protocol (ASP). All other information that is not provided below regarding detailed sampling procedures and protocols, as well as other, quality assurance/quality control (QA/QC) requirements, is provided in the Generic Remedial Investigation and Feasibility Study Generic Work Plans QA/QC Plan, Dry Cleaner Sites prepared for NYSDEC by D&B, dated February 1996. For the soil vapor sampling program, one sample of ambient air will also be collected. For the dry well and groundwater sampling program, matrix spike and matrix spike duplicate samples will also be collected.

Table 5-1

**123 POST AVENUE OU-00**  
**SUMMARY OF MONITORING PARAMETERS/SAMPLE FRACTIONS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
<b>Environmental Samples</b>									
Dry well	Grab	Soil	Volatile Organics	2	1	Glass, clear/ 40 ml ICHM 200 series or equivalent	Cool to 4°C	7 days	6/00 NYSDEC ASP Method USEPA SOW OLMO 4.2
			Semivolatile Organics	2	1	Glass, clear/8oz/1 ICHM 200 series or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYDEC ASP Method USEPA Sow OLM04.2
			Metals	2	1	Glass, clear/8oz/1 ICHM 200 series or equivalent	Cool to 4°C	26 days for mercury analysis, 6 months for all others	6/00 NYDEC ASP Method USEPA Sow ILMO 4.0
Monitoring Well	Grab	Groundwater	Volatile Organics	3	2	Glass, clear/ 40 ml ICHM 300 series or equivalent	Cool to 4°C	7 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO 4.2
Soil Vapor	Grab	Air	Volatile Organics	4	1	400 ml Summa canister at 0.2 l/m	None	7 days	EPA/600/4 – 89/017 Method T0-15
Indoor Air	Grab	Air	Tetrachloroethene	4	2	Passive diffusion Badge 3M, Model 3500	None	7 days for analysis	NYSDOH 311-9
System Process Samples	Grab	Air	Volatile Organics	4	1	400 ml Summa canister at 0.2 l/m	None	7 days	EPA/600/4 – 89/017 Method T0-15
<b>QA/QC Samples</b>									
Groundwater	Matrix spike and matrix spike duplicate	Soil	Volatile Organics	2	2	Glass, clear/ 40 ml ICHM 200 series or equivalent	Cool to 4°C	7 days	6/00 NYSDEC ASP Method USEPA SOW OLMO 4.2

\*Holding time based on Verified Time of Sample Receipt (VTSR).

## Section 6



## 6.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN

This section presents the site-specific health and safety information to supplement the generic Health and Safety Plan (HASP) included in the February 1996 draft "Remedial Investigation and Feasibility Study Generic Work Plan, Dry Cleaner Sites."

Project Name:	<u>123 Post Avenue OU-00</u>
Telephone:	<u>Not available</u>
Date of HASP Preparation	<u>March 2007</u>
Dates of Field Investigation:	<u>May 2007 through December 2007</u>
Project Objectives:	<u>Investigate and characterize soil vapor and dry well sediment quality.</u>

### Project Organization:

	<b>Name</b>	<b>Telephone</b>
Project Director:	Richard Walka	(516) 364-9890
Project Manager:	Albert Jaroszewski	(516) 364-9890
Health and Safety Officer (HSO):	Keith Robins	(516) 364-9890
Field Operations Manager/ Alternate HSO:	Christopher Morris	(516) 364-9890
Field Subcontractor:	Zebra Environmental Corp.	(516) 596-6300

### Medical Assistance:

Physician:	<u>Plainview Medical Group, P.C.</u>
Address:	<u>100 Manetto Hill Road, Suite 205</u>
	<u>Plainview, NY 11803</u>
Telephone:	<u>(516) 822-2541</u>

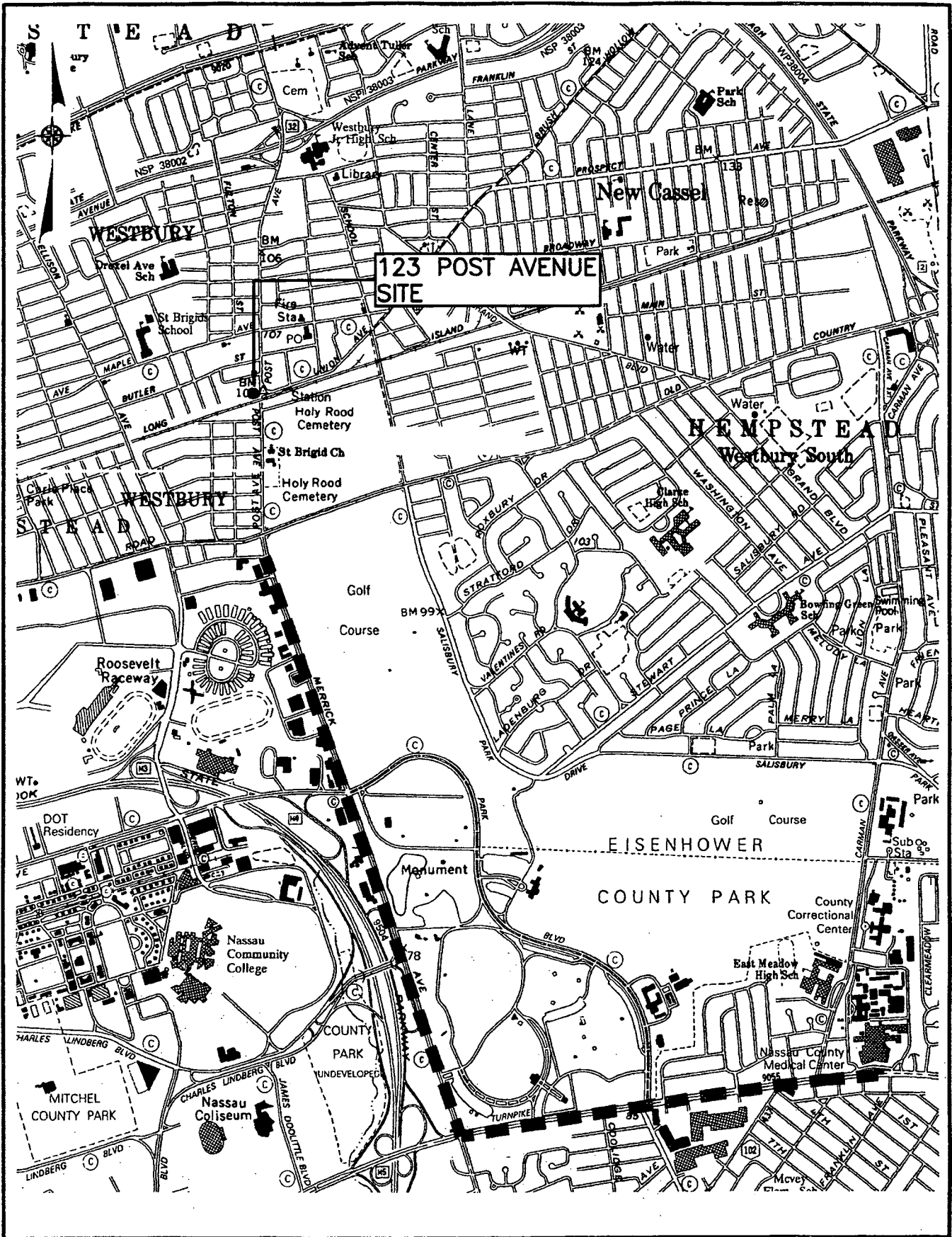
Hospital:	<u>Nassau County Medical Center</u>
Telephone:	<u>(516) 572-0123</u>
Directions: (see Figure 6-1)	<u>Proceed south on Post Avenue (which becomes Merrick Avenue south of Old Country Road) to Route 24 (Hempstead Turnpike). Turn left (east) on Route 24. Hospital is approximately 1 mile on the left (north) side of Route 24.</u>

Emergency Contacts:

Agency/Facility	Telephone	Emergency Telephone
EMS - Ambulance		911
Police Department	(516) 573-6300	911
Westbury Fire Department	(516) 334-7968	911 or (516) 334-7924
Hospital	(516) 572-0123	
Poison Control Center	(516) 542-2323	

Additional site-related information (including special hazards, site control, waste storage and disposal, personal protective equipment, decontamination area location, special engineering controls, etc.):

VOCs will be monitored in the work zone during intrusive activities. If warranted, a Community Air Monitoring Plan will be implemented in accordance with the attached protocol.



**db** Dvirka  
and  
Bartilucci  
CONSULTING ENGINEERS  
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

123 POST AVENUE OU-00  
WESTBURY, NEW YORK  
ROUTE TO HOSPITAL

FIGURE 6-1



## Section 7



## **7.0 PROJECT COST ESTIMATE (SCHEDULE 2.11 FORMS)**

This section provides the estimated cost to complete the scope of work described in Section 3.0. The following assumptions have been made as part of the cost estimate:

- All field work can be completed with Level D personal protection.
- Access/notification to the site and SVE system, and off-site for the work assignment tasks will be secured by the NYSDEC.
- State-owned field equipment will be available for the duration of this project. This equipment includes a photoionization meter, Horiba Model 22 water quality meter and submersible pump.
- After Task 2 is completed, and the scope of the SVE system modification is defined and approved by the NYSDEC, a budget will be prepared and presented to the NYSDEC in an amendment.

The Schedule 2.11 Forms for the project are provided in the remainder of this section.

Schedule 2.11 (a)

Summary of Work Assignment Price  
123 Post Avenue OU-00  
Work Assignment Number D004446-24

1.	Direct Salary Costs (Schedules 2.10 (a) and 2.11(b))	\$50,321
2.	Indirect Costs (Schedule 2.10 (g))	\$75,985
3.	Direct Non-Salary Costs (Schedules 2.11 (c) and (d))	\$3,153

Subcontract Costs

Cost-Plus-Fixed-Fee Subcontracts (Schedules 2.11(e))

	<u>Name of Subcontractor</u>	<u>Services To Be Performed</u>	<u>Subcontract Price</u>
4.	Total Cost-Plus-Fixed-Fee Subcontracts		\$0

Unit Price Subcontracts (Schedules 2.11(f))

	<u>Name of Subcontractor</u>	<u>Services To Be Performed</u>	<u>Subcontract Price</u>
	Zebra Environmental	Direct Push	\$4,943
	Mitkem Corporation (MBE)	Soil Analyses	\$3,461
	ConTest Laboratories (WBE)	Air Analyses	\$2,250
	Hager-Richter (WBE)	Utility Markouts	\$2,250
5.	Total Unit Price Subcontracts		\$12,904
6.	Subcontract Management Fee		\$0
7.	Total Subcontract Costs (lines 4 + 5 + 6)		\$12,904
8.	Fixed Fee (Schedule 2.10 (h))		\$14,525
9.	Total Work Assignment Price (lines 1 + 2 + 3 + 7 + 8)		\$156,889

123 Post Avenue OU-00  
Work Assignment Number D004446-24

NAME/LABOR CLASSIFICATION	NSPE Level	Hourly Rate as of 1/1/2007	Task 1 Work Plan		Task 2 Sampling and System Evaluation		Task 3 System Modification		Task 4 O&M Manual		Task 5		TOTAL TASKS	
Richard Walka Project Director	IX	\$63.45	2	\$127	0	\$0	0	\$0	2	\$127	0	\$0	4	\$254
John Mirando Enginer	IX	\$63.45	0	\$0	8	\$508	10	\$635	0	\$0	0	\$0	18	\$1,142
Albert Jaroszewski Senior Geologist	VI	\$46.80	26	\$1,217	44	\$2,059	68	\$3,182	20	\$936	0	\$0	158	\$7,394
Michael Neuberger Senior Engineer	V	\$37.18	0	\$0	4	\$149	48	\$1,785	0	\$0	0	\$0	52	\$1,933
Maria Wright Senior Engineer	V	\$37.18	0	\$0	0	\$0	8	\$297	0	\$0	0	\$0	8	\$297
Robbin Petrella QA/QC Officer	V	\$37.18	0	\$0	14	\$521	0	\$0	6	\$223	0	\$0	20	\$744
Richard Avanzini Engineering Technician	V	\$37.18	0	\$0	6	\$223	0	\$0	10	\$372	0	\$0	16	\$595
John Zegers Senior Designer	V	\$37.18	0	\$0	0	\$0	8	\$297	0	\$0	0	\$0	8	\$297
Thomas Kelleher Senior Engineer	V	\$37.18	12	\$446	84	\$3,123	284	\$10,559	56	\$2,082	0	\$0	436	\$16,210
Christopher Clement Senior Engineer	V	\$37.18	0	\$0	22	\$818	0	\$0	0	\$0	0	\$0	22	\$818
Christopher Morris Geologist	III	\$29.96	0	\$0	126	\$3,775	184	\$5,513	80	\$2,397	0	\$0	390	\$11,684
Frank DeVita Engineer	III	\$29.96	12	\$360	46	\$1,378	96	\$2,876	12	\$360	0	\$0	166	\$4,973
Lydda Glubiak Drafter	II	\$23.82	10	\$238	20	\$476	40	\$953	14	\$333	0	\$0	84	\$2,001
Virginia Passalacqua Administrative Assistant	II	\$23.82	3	\$71	4	\$95	4	\$95	1	\$24	0	\$0	12	\$286
Allyson Manz Word Processor	II	\$23.82	5	\$119	6	\$143	48	\$1,143	12	\$286	0	\$0	71	\$1,691
<b>Labor Subtotal (Direct Salary)</b>			70	\$2,578	384	\$13,268	798	\$27,336	213	\$7,139	0	\$0	1465	\$50,321
<b>Indirect Cost (1.51)</b>				\$3,893		\$20,035		\$41,277		\$10,780		\$0		\$75,985
<b>Profit (0.115)</b>				\$744		\$3,830		\$7,890		\$2,061		\$0		\$14,525
<b>TOTAL</b>			70	\$7,215	384	\$37,132	798	\$76,503	213	\$19,980	0	\$0	1465	\$140,831

SCHEDULE 2.11 (b)  
SUMMARY  
123 Post Avenue OU-00  
Work Assignment Number D004446-24  
Work Plan

Average NSPE Wage Rates	IX	VIII	VI	V	IV	III	II	I	TOTAL HOURS
as of 1/1/07	\$63.45	\$56.60	\$46.80	\$37.18	\$34.52	\$29.96	\$23.82	\$18.64	
Task 1 - Work Plan	2	0	26	12	0	12	18	0	70
Task 2 - Samling and SVE System Evaluation	8	0	44	130	0	172	30	0	384
Task 3 - Implementation of SVE	10	0	68	348	0	280	92	0	798
Task 4 - O&M Manual	2	0	20	72	0	92	27	0	213
Total Hours	22	0	158	562	0	556	167	0	1,465
Total Direct Labor Cost	\$1,396	\$0	\$7,394	\$20,895	\$0	\$16,658	\$3,978	\$0	\$50,321

SCHEDULE 2.11 (b-1)  
SUMMARY  
123 Post Avenue OU-00  
Work Assignment Number D004446-24

Average NSPE Wage Rates	IX	VIII	VI	V	IV	III	II	I	TOTAL HOURS
as of 1/1/07	\$63.45	\$56.60	\$46.80	\$37.18	\$34.52	\$29.96	\$23.82	\$18.64	
Task 1	2	0	4	0	0	0	4	0	10
Task 2	2	0	4	0	0	0	4	0	10
Task 3	0	0	10	0	0	0	54	0	64
Task 4	2	0	4	0	0	0	9	0	15
Total Hours	6	0	22	0	0	0	71	0	99
Total Direct Labor Cost	\$381	\$0	\$1,030	\$0	\$0	\$0	\$1,691	\$0	\$3,102

Dvirka & Bartilucci Consulting Engineers  
 123 Post Avenue OU-00  
 Work Assignment Number D004446-24

**BREAKDOWN OF ADMINISTRATIVE  
 LOE HOURS ON SCHEDULE 2.11(b-1)**

ADMIN ACTIVITY	WORK PLAN DEVELOPMENT															REVIEW WORK ASSIGNMENT (WA) PROGRESS														
	Conflict of Interest Checks						Prepare 2.11 Schedules									Conduct Progress Reviews					Prepare Monthly Report & Update Schedules									
NSPE	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I	VIII	VII	VI	V	IV	III	VIII	VII	VI	V	IV	III	II	I		
TASK 1	1								2																					
TASK 2																														
TASK 3																														
TASK 4																	1													
TOTAL	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		

ADMIN ACTIVITY	REVIEW WORK ASSIGNMENT (WA) PROGRESS														CAP PREPARATION											
	MBE/WBE Activities								Program Management						Prepare Monthly Cost Control Report & CAP						Oversee CAP					
NSPE	VIII	VII	VI	0	IV	III	II	I	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI
TASK 1									1			2									2					
TASK 2				0					2.0			4									2					
TASK 3												4					6				6					
TASK 4				0					2.0			3														
TOTAL	0	0	0	0	0	0	0	0	5	0	0	13	0	0	0	0	6	0	0	0	10	0	0	0	0	

ADMIN ACTIVITY	MISCELLANEOUS																								
	Update NSPE List								Equipment Use and Inventory				Word Proc. and Report Preparation			Total Adm. LOE (hrs)									
NSPE	VIII	VII	VI	V	IV	III	II	I	IV	III	II	I	IV	III	II	I	IX	VIII	VII	VI	V	IV	III	II	I
TASK 1															2		2.0	0.0	0	4	0	0	0	4	0
TASK 2															2		2	0.0	0	4	0	0	0	4	0
TASK 3															48		0	0.0	0	10	0	0	0	54	0
TASK 4															9		2	0.0	0	4	0	0	0	9	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0	6.0	0.0	0	22	0	0	0	71	0

SCHEDULE 2.11 (c)  
DIRECT NON-SALARY COSTS  
SUMMARY  
123 Post Avenue OU-00  
Work Assignment Number D004446-24

ITEM	MAXIMUM REIMBURSEMENT RATE	UNIT	Work Plan NUMBER OF UNITS	TOTAL ESTIMATED COSTS
IN-HOUSE				
Outside Services*	\$50.00	set	6	\$300.00
Express Mail	\$40.00	package	6	\$240.00
Sample Shipping	\$50.00	shipment	10	\$500.00
Level D Safety Equipment	\$14.00	person/day	6	\$84.00
TRAVEL				
Transportation (Personal Car)	\$0.485	mile	550	\$266.75
Van Rental	\$100.00	day	6	\$600.00
Gas	\$50.00	day	2	\$100.00
TOTAL DIRECT NON-SALARY COSTS			TOTAL	\$2,090.75

\* Includes photo finishing, slides and any other costs not associated with in-house capabilities.



SCHEDULE 2.11 (d) 1

EQUIPMENT PURCHASED UNDER THE CONTRACT  
SUMMARY

123 Post Avenue OU-00  
Work Assignment Number D004446-24

ITEM	ESTIMATED PURCHASE PRICE	O&M RATE (\$/per month)	TERM OF USAGE (MONTHS)	ESTIMATED USAGE COST (MONTHS)
			TOTAL	\$0.00

Schedule 2.11 (d) 2  
Summary

Maximum Reimbursement Rates for Consultant/Subconsultant - Owned Equipment  
123 Post Avenue OU-00  
Work Assignment Number D004446-24

ITEM	PURCHASE PRICE X 85%	USAGE RATE (\$/day)	CAPITAL RECOVERY RATE (\$/Unit of Time)	ESTIMATED USAGE (days)	ESTIMATED USAGE COST (Col. 3x6)
					\$0
				TOTAL	\$0

Notes:

Usage Rate = Capital Recovery Rate + O&M rate

The maximum usage rate for an item of equipment reverts to the O&M rate when the total usage reimbursement exceed 85% of the purchase price.

SCHEDULE 2.11 (d) 3  
EQUIPMENT  
VENDOR RENTED  
SUMMARY

123 Post Avenue OU-00  
Work Assignment Number D004446-24

ITEM	MAXIMUM REIMBURSEMENT RATE	TIME PERIOD	ESTIMATED USAGE (period of time)	ESTIMATED USAGE COST
Century OVA 128	\$125.00	day	0	\$0
Photovac Microtip	\$125.00	day	0	\$0
MIE Miniram Digital Dust Indicator	\$0.00	week	0	\$0
YSI Meter and Flow Cell	\$100.00	day	5	\$0
Solinst Water Level Indicator	\$25.00	day	0	\$0
Generator	\$60.00	day	5	\$300
Peristaltic Pump	\$50.00	day	5	\$0
Grundfos Pump	\$125.00	day	0	\$0
GoMac Helium Meter	\$75.00	day	0	\$0
In-Situ MiniTroll	\$225.00	week	0	\$0
Total				\$300

SCHEDULE 2.11 (d) 4  
SUMMARY  
EXPENDABLE SUPPLIES

123 Post Avenue OU-00  
Work Assignment Number D004446-24

ITEM	ESTIMATED QUANTITY	UNITS	UNIT COST	TOTAL BUDGETED COST
Polyethylene tubing	250	feet	\$0.25 TOTAL	\$62.50

SCHEDULE 2.11 (d) 5  
CONSUMABLE SUPPLIES  
SUMMARY

123 Post Avenue OU-00  
Work Assignment Number D004446-24

ITEM	ESTIMATED QUANTITY	UNIT COST	TOTAL BUDGETED COST
Miscellaneous Supplies	4	\$250.00	\$1,000.00
		TOTAL	\$1,000.00

SCHEDULE 2.11 (f) 1  
UNIT PRICE SUBCONTRACTS  
SUMMARY  
123 Post Avenue OU-00  
Work Assignment No. D004446-24

**NAME OF SUBCONTRACTOR**  
Zebra Environmental Corp.

**SERVICES TO BE PERFORMED**

Soil Vapor and Dry Well Sampling

**SUBCONTRACT**  
**PRICE**

\$4,943

**MANAGEMENT**  
**FEE**

\$0

ITEM DESCRIPTION	UNIT	ESTIMATED	UNIT		TOTAL
		QUANTITY	PRICE		PRICE
1 A. MOBILIZATION/DEMobilIZATION INCLUDING SITE SETUP/ BREAKDOWN, CLEANUP, REPAIR, INITIAL AND FINAL DECONTAM- INATION, LODGING, MEALS AND LABOR FOR SITE RESTORATION	LUMP SUM	1	100.00		\$100.00
C. PROB HOLE SETUP	PER LOCATION	12	\$10.00		\$120.00
2. TEMPORARY DECONTAMINATION PAD					
A. NON-MOBILE	LUMP SUM	1	\$105.00		\$105.00
3. GEOPROBE SYSTEM OR EQUIVALENT WITH ASSOCIATED TOOLS NECESSARY (W/ 1-PERSON CREW)					
A. TRUCK/VAN-MOUNTED PROBE	PER DAY	3	\$1,150.00		\$3,450.00
G. CHARGE FOR ADDITIONAL PERSON FOR CREW	PER DAY	1	\$195.00		\$195.00
4. OVERTIME CHARGE FOR ON-SITE WORK (IN EXCESS OF 8 HRS)	PER HOUR	4	\$75.00		\$300.00
5. PROBE SAMPLING					
B. LARGE CORE SOIL SAMPLES	PER SAMPLE	18	\$9.00		\$162.00
D. SOIL VAPOR SAMPLES	PER SAMPLE	15	\$12.00		\$180.00
9. INSTALLATION OF FLUSH MOUNT CASING WITH SECURED COVER AND DRAIN HOLE	PER COVER	3	\$55.00		\$165.00
14. ASPHALT PATCH	PER BAG	2	\$8.00		\$16.00
16. STANDBY TIME	PER HOUR	2	\$75.00		\$150.00
TOTAL					\$4,943.00

SUBTOTAL \$4,943.00

SUBCONTRACT MANAGEMENT FEE \$0

TOTAL \$4,943.00

SCHEDULE 2.11 (f)2  
UNIT PRICE SUBCONTRACTS  
123 Post Avenue OU-00  
Work Assignment Number D004446-24

<u>NAME OF SUBCONTRACTOR</u>	<u>SERVICES</u>			<u>PRICE</u>	<u>FEE</u>	
MITKEM CORPORATION (MBE)	Sample Analysis			\$3,461	\$0	
	Item	Method	Maximum Reimbursement Rate	Expedited Turnaround Multiplier	Estimated No. of Units	Total Estimated Costs
ENVIRONMENTAL SAMPLES						
<u>Soil</u>	VOCs	OLMO4.2	\$74.00 /sample	1	2	\$148
	SVOCs	OLMO4.2	\$170.00 /sample	1	2	\$340
	TAL Metals	6010	\$77.00 /sample	1	2	\$154
<u>Groundwater</u>	VOCs	OLMO4.2	\$74.00 /sample	1	6	\$444
<u>Indoor Air</u>	PCE	NYSDOH 311-9	\$80.00 /sample	1	8	\$640
QA/QC SAMPLES						
<u>Soil</u>	Trip Blanks	OLMO4.2	\$110.00 /sample	1	2	\$220
	VOCs (MS/MSD/MSB)	OLMO4.2	\$330.00 /sample	1	1	\$330
	SVOCs (MS/MSD/MSB)	OLMO4.2	\$510.00 /sample	1	1	\$510
	TAL Metals (MS/MSD/MSB)	6010	\$231.00 /sample	1	1	\$231
<u>Groundwater</u>	VOCs	OLMO4.2	\$74.00 /sample	1	6	\$444
SUBTOTAL						\$3,461
SUBCONTRACT MANAGEMENT FEE						\$0
TOTAL						\$3,461

SCHEDULE 2.11 (f)3  
UNIT PRICE SUBCONTRACTS  
123 Post Avenue OU-00  
Work Assignment Number D004446-24

<u>NAME OF SUBCONTRACTOR</u>		<u>SERVICES</u>	Work Plan		<u>PRICE</u>	<u>MANAGEMENT FEE</u>
ConTest Laboratories (WBE)		Sample Analysis			\$2,250	\$0
			Maximum Reimbursement Rate	Expedited Turnaround Multiplier	Estimated No. of Units	Total Estimated Costs
ENVIRONMENTAL SAMPLES	Item	Method				
<u>Air</u>	VOCs	EPA TO-15	\$225.00	1	10	\$2,250
SUBTOTAL						\$2,250
SUBCONTRACT MANAGEMENT FEE						\$0
TOTAL						\$2,250



SCHEDULE 2.11 (f) 6  
UNIT PRICE SUBCONTRACTS  
SUMMARY  
123 Post Avenue OU-00  
Work Assignment No. D004446-24

NAME OF SUBCONTRACTOR  
Hager-Richter Geoscience Inc. (WBE)

SERVICES TO BE PERFORMED

SUBCONTRACT  
PRICE

MANAGEMENT  
FEE

Subsurface Utility Markout Survey

\$2,250

\$0

ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
1 CONDUCT SUBSURFACE UTILITY SURVE	LUMP SUM	1	\$2,250.00	\$2,250.00

SUBTOTAL	\$2,250.00
SUBCONTRACT MANAGEMENT FEE	\$0
TOTAL	\$2,250.00

Project Name: 123 Post Avenue OU-00  
 Work Assignment No.: D004446-24  
 Task No./Name: All Tasks  
 Complete: 0.00%

SCHEDULE 2.11 (g)  
 SUMMARY

Page 1 of 7  
 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT SUMMARY OF FISCAL INFORMATION								
Expenditure Category	Work Plan Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$50,321	0.00
2 Indirect	0.00	0.00	0.00	0.00	0.00	0.00	\$75,985	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$126,306	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$3,153	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$3,153	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	\$12,904	0.00
7a. Management Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	\$142,363	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$14,525	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	\$156,889	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: 123 Post Avenue OU-00  
 Work Assignment No.: D004446-24  
 Task No./Name: 1/Work Plan Development  
 Complete: 0.00%

SCHEDULE 2.11 (g)

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 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$2,578	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	\$3,893	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$6,471	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	\$50	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$50	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
7a. Management Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	\$6,521	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$744	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	\$7,265	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: 123 Post Avenue OU-00  
 Work Assignment No.: D004446-24  
 Task No./Name: 2/Sampling and SVE Evaluation  
 Complete: 0.00%

SCHEDULE 2.11 (g)

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 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$13,268	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	\$20,035	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$33,302	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	\$146	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$1,010	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$1,156	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	\$9,237	0.00
7a. Management Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	\$43,695	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$3,830	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	\$47,525	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: 123 Post Avenue OU-00  
 Work Assignment No.: D004446-24  
 Task No./Name: 3/SVE Modification  
 Complete: 0.00%

SCHEDULE 2.11 (g)

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 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$27,336	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	\$41,277	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$68,613	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	\$121	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$764	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$885	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
7a. Management Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	\$69,498	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$7,890	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	\$77,388	0.00

Project Manager (Engineer)

Date

Project Name: 123 Post Avenue OU-00  
 Work Assignment No.: D004446-24  
 Task No./Name: 4/O&M Manual  
 Complete: 0.00%

SCHEDULE 2.11 (g)

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 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$7,139	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	\$10,780	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$17,920	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$150	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	\$150	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
7a. Management Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	\$18,070	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	\$2,061	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	\$20,130	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_



Work Assignment No.: D004446-24  
Task No./Name: All Tasks

SCHEDULE 2.11 (g) SUPPLEMENTAL  
MONTHLY COST CONTROL REPORT  
SUBCONTRACTS

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Date Prepared:  
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Invoice No.:

<u>Subcontract Name</u>	<u>Subcontract Costs Claimed This Application Incl. Resubmittals</u>	<u>Subcontract Costs Approved for Payment on Previous Application</u>	<u>Total Subcontract costs to Date (A plus B)</u>	<u>Subcontract Approved Budget</u>	<u>Management Fee Budget</u>	<u>Management Fee Paid</u>	<u>Total Costs To Date</u>
Zebra Environmental				\$4,943	\$0		
Mitkem Corporation				\$3,461	\$0		
ConTest Laboratories				\$2,250	\$0		
Hager -Richter				\$2,250	\$0		
Total				\$12,904	\$0		



## Schedule 2.11 (h)

Project Name: 123 Post Avenue OU-00

Work Assignment No.: D004446-24

Task No./Name: All Tasks

Date Prepared:

Billing Period

Invoice No.

NSPE Labor Classification	IX EXP/EST	VIII EXP/EST	VII EXP/EST	VI EXP/EST	V EXP/EST	IV EXP/EST	III EXP/EST	I & II EXP/EST	ADMIN/ SUPPORT	TOTAL NUMBER OF DIRECT LABOR HOURS EXP/EST
Task 1	0/ 2	0/ 0	0/ 0	0/ 26	0/ 12	0/ 0	0/ 22	0/ 14	0/ 4	0/ 70
Task 2	0/ 8	0/ 0	0/ 0	0/ 44	0/ 130	0/ 0	0/ 172	0/ 26	0/ 4	0/ 384
Task 3	0/ 10	0/ 0	0/ 0	0/ 68	0/ 348	0/ 0	0/ 280	0/ 38	0/ 54	0/ 798
Task 4	0/ 2	0/ 0	0/ 0	0/ 20	0/ 72	0/ 0	0/ 92	0/ 18	0/ 9	0/ 213
Total Hours	0/ 22	0/ 0	0/ 0	0/ 158	0/ 562	0/ 0	0/ 566	0/ 96	0/ 71	0/ 1,465
TOTAL HOURS	0/ 22	0/ 0	0/ 0	0/ 158	0/ 562	0/ 0	0/ 566	0/ 96	0/ 71	0/ 1,465

MBE/WBE  
UTILIZATION PLAN  
SUMMARY

123 Post Avenue OU-00  
Work Assignment Number D004446-24

<u>Areas to be Subcontracted</u>	<u>Subcontractor Name</u>	<u>MBE/WBE</u>	<u>Total Subcontract Value</u>	<u>% MBE/WB Utilization</u>
1. Soil Analyses	Mitkem Corporation	MBE	\$3,461	2.2%
2. Air Analyses	ConTest Laboratories	WBE	\$2,250	1.4%
3. Utility Markout	Hager-Richter	WBE	\$2,250	1.4%
Total MBE Utilization	<u>MBE Subcontract Value</u> Total Contract Value	=	<u>\$3,461</u> \$156,889	2.2%
Total WBE Utilization	<u>WBE Subcontract Value</u> Total Contract Value	=	<u>\$4,500</u> \$156,889	2.9%
Total MBE/WBE Utilization	<u>MBE/WBE Subcontract Value</u> Total Contract Value	=	<u>\$7,961</u> \$156,889	5.1%

# Appendix A



## **APPENDIX A**

### **SVE SYSTEM LAYOUT**

**Figure 6**

Radius of Influence  
(for 50-foot ROI)  
Westbury Valet Dry Cleaners

