

Soil & Water Management Plan

Amphenol Aerospace Facility Sewer Replacement Project Village of Sidney, New York

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LIST OF ACRONYMS & ABBREVIATIONS

ACM	Asbestos-Containing Material
AMSL	Above Mean Sea Level
bgs	Below Ground Surface
BMP	Best Management Practice
CAMP	Community Air Monitoring Plan
CIH	Certified Industrial Hygienist
CIPP	Cured-In-Place Pipe
COC	Contaminant of Concern
CRZ	Contamination Reduction Zone
CSP	Certified Safety Professional
D&H	Delaware & Hudson
DCE	Dichloroethene
EAP	Emergency Action Plan
EHS	Environmental Health & Safety
ELAP	Environmental Laboratory Approval Program
EPA	Environmental Protection Agency
EZ	Exclusion Zone
GAC	Granular Activated Carbon
gpm	Gallons Per Minute
HASP	Health & Safety Plan
HAZWOPER	Hazardous Waste Operations & Emergency Response
HSC	Health & Safety Coordinator
HST	Health & Safety Technician
IDLH	Immediately Dangerous to Life or Health
MC	Medical Consultant
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
MUC	Maximum Use Concentration
NIOSH	National Institute for Occupational Safety and Health
NOI	Notice of Intent
NRC	National Response Center
NTU	Nephelometric Turbidity Unit
NYCRR	New York Code, Rules & Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
OSHA	Occupational Safety & Health Administration
PCB	Polychlorinated Biphenyls
PEL	Permissible Exposure Limit
PID	Photoionization Detector
PPE	Personal Protective Equipment
ppm	Parts Per Million
QA	Quality Assurance
QC	Quality Control

RCRA	Resource Conservation and Recovery Act
REL	Recommended Exposure Limit
SCBA	Self-Contained Breath Apparatus
SCO	Soil Cleanup Objective
SO	Safety Officer
SOP	Standard Operating Procedure
SPDES	State Pollutant Discharge Elimination System
SVOC	Semi- Volatile Organic Compound
SWMP	Soil & Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SZ	Support Zone
TAGM	Technical & Administrative Guidance Memorandum
TAL	Target Analyte List
TCA	Trichloroethane
TCE	Trichloroethylene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOGS	Technical & Operational Guidance Series
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
VCP	Vitrified Clay Pipe
VOC	Volatile Organic Compound
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

The Village of Sidney owns and operates an existing sanitary trunk sewer (herein referred to as the *western trunk*) that traverses through the western end of the Amphenol Aerospace facility located at 40-60 Delaware Avenue in the Village of Sidney, Delaware County, New York (see Figure 1). This Soil & Water Management Plan (SWMP) has been prepared to provide a basis for defining the procedures and requirements to be followed during replacement of the sewer line relative to the proper management of soil and groundwater that will be encountered during the construction.

The existing western trunk is presently in poor structural condition and may be the source of groundwater infiltration potentially contaminated with polychlorinated biphenyls (PCBs) which have been observed at the Village of Sidney Wastewater Treatment Plant (WWTP). Amphenol Corporation has been issued an Administrative Order on Consent by the New York State Department of Environmental Conservation (NYSDEC File 04-0312-85-06) that mandates Amphenol evaluate and, if necessary, mitigate the occurrence of PCBs in the Village owned sewer on its property. Based on their evaluations, Amphenol prepared and submitted a PCB mitigation plan which calls for the replacement of the western trunk. NYSDEC has approved the Amphenol PCB mitigation plan.

1.1 SITE DESCRIPTION

The Village-owned sewer is located along the western side of the Amphenol Aerospace facility, which is a large industrial complex located along the north side of Delaware Street in the Village of Sidney, Delaware County, New York. The project area is bordered to the north by railroad tracks which are part of the Delaware & Hudson (D&H) Railroad and residential development to the north; by the Amphenol industrial wastewater treatment plant and electroplating building, parking lots, and New York State (NYS) Route 8 to the west; by Delaware Avenue and residential development to the south, and by several buildings associated with the Amphenol facility to the east.

Based upon a survey map provided for the area, elevations in the vicinity of the project range from approximately 980 to 985 feet above mean sea level (AMSL), with the exception of the railroad corridor located along the north side of the project area where grades range up to 993 feet AMSL. The project area is relatively flat with steeper banks present along the north and south sides of the railroad bed.

1.2 SITE HISTORY

The project site is currently occupied by the Amphenol Aerospace facility, a manufacturer of electrical components and connectors for the aircraft and aerospace industries. The site was originally occupied by Scintilla beginning in 1925 and manufactured magnetos (electrical generators historically used in ignition systems of combustion engines) for avionics. In 1929, Scintilla became part of the Bendix Aviation Company, which was later purchased by Amphenol. Hazardous wastes were and still are generated through electroplating, vapor degreasing and parts-cleaning operations. However, all hazardous wastes generated at the facility since the mid 1980s have reportedly been stored in containers and tanks for less than 90 days, prior to shipment off-site, so the facility no longer requires a Resource Conservation and Recovery Act (RCRA) operating permit.

Through the production of electrical connectors and engine parts and the use of PCB-containing lubricants, PCB wastes were generated at the site prior to 1973. Groundwater under the Amphenol facility is suspected to contain PCBs (particularly Aroclor 1242 congener).

Amphenol processes also involved the use of volatile organic compounds (VOCs), principally trichloroethylene (TCE) and trichloroethane (TCA). While much of the waste from these processes was pumped to off-site lagoons or disposed in an off-site landfill, given the historical use of these solvents at the project facility, VOCs are also a contaminant of concern.

1.3 PURPOSE OF THE SWMP

Open-trench cutting methods and jack and bore methods have been selected as the most feasible methods for replacement of the sewer line. Less intrusive alternatives such as replacement of the sewer line by pipe bursting methods or rehabilitation using cured-in-place pipe (CIPP) lining had been considered for this project, but were not selected due to the level of deterioration of the existing sanitary trunk sewer (e.g. pipe sags, offset joints, severe crown cracking, etc.).

Given the potential to encounter soil and groundwater containing PCBs and VOCs at the site during the replacement of the western trunk, this SWMP has been prepared to establish guidelines for the management of soil, groundwater, and air quality during the intrusive remedial construction. Following the guidelines in the SWMP will provide protection of human health and the environment during the proposed sewer replacement project.

This SWMP is applicable to the sewer replacement activities at the Amphenol Aerospace facility only and is considered part of the Contract Documents for the western trunk replacement project.

1.4 SUMMARY OF PROPOSED PROJECT

A combination of replacement by open-cut methods and replacement by jack and bore methods is recommended for correcting the observed deficiencies in the four (4) sections of sanitary trunk sewer located at the west end of the Amphenol Corporation facility. Specifically, the following four sections of the sewer system will be replaced as part of this project:

Table 1-1. Sewer Lines Requiring Replacement

Section No.	Upstream Manhole	Downstream Manhole	Length (Feet)	Pipe Diameter	Pipe Material
1	S D11C	S C11A	224	15"	Asbestos Cement Pipe (ACM)
2	S C11A	S C11	210	15"	ACM
3	S C11	S C10	294	18"	Vitrified Clay Pipe (VCP)
4	S C10	S C9	133	18"	VCP

Specifically, the following work will be completed:

1. Installation of three (3) new sections of trunk sewer by open-cut trenching methods, including Sections 1 through 3 as defined in Table 1-1 below.
2. Installation of Section 4 of the trunk sewer by jack and bore methods (consisting of 133 feet of 18-inch sewer pipe) under the existing railroad bed.
3. Installation of four (4) new manholes and two (2) concrete headwalls at the ends of the pipe installed under the railroad.
4. Abandonment in-place of the existing four (4) sections of existing ACM and VCP pipe sewer.
5. Site restoration with pavement replacement.

1.5 ORGANIZATION OF REPORT

The work plan is divided into five (5) major sections. Section 1 identifies the Amphenol sewer replacement project and describes the purpose and organization of the report and Section 2 provides a description of the nature and extent of contamination in the western trunk replacement work area. Section 3 of the report details the procedures to be followed during the remedial construction. Section 4 summarizes general requirements for contingency planning and Section 5 summarizes the minimal health and safety requirements for completing the sewer replacement work at the Amphenol Aerospace facility.

2.0 NATURE & EXTENT OF CONTAMINATION

Given the historical industrial use of the subject site and the potential occurrence of PCBs and VOCs in the soil and groundwater at the site, an environmental investigation was completed in conjunction with a geotechnical investigation. The investigation was conducted between March 29, 2010 and April 2, 2010 and consisted of the installation of twenty (20) subsurface soil borings. While PCBs and VOCs were identified as the primary contaminants of concern (COCs) for the subject site, the concentration of semivolatile organic compounds (SVOCs) and metals in the soil were also evaluated as part of the investigation.

2.1 SUBSURFACE INVESTIGATION SCOPE OF WORK

The subsurface investigation associated with the sewer line replacement project included the following:

1. The installation of eighteen (18) subsurface borings advanced along the proposed replacement sewer route to depths of twelve (12) feet below the ground surface (bgs). These borings were designated at soil borings SB-1 through SB-18, as shown on Figure 2. Soil samples were collected continuously throughout the borings in two (2) foot intervals using standard split spoon sampling techniques. All samples were screened in the field for visual, olfactory, and photoionic evidence of contamination. Additionally, a soil samples was collected from each two (2) foot interval and analyzed for PCBs via EPA Method 8082 for a total of 105 samples (boring SB-2 terminated at a depth of six (6) feet due to presence of an obstruction), given that PCBs were identified as the primary contaminant of concern for the project. At the discretion of the field engineer based upon field screening activities, one (1) additional sample was collected from seventeen (17) of the eighteen (18) soil borings and analyzed for the following (no sample collected at SB-2 due to termination of boring):
 - Volatile Organic Compounds (VOCs) Target Compound List (TCL) via EPA Method 8260
 - Semivolatile Organic Compounds (SVOCs) TCL List via EPA Method 8270
 - Eight (8) toxicity characteristic metals identified by the Resource Conservation and Recovery Act (RCRA) protocol, commonly referred to as RCRA-8 metals. Arsenic, barium, cadmium, chromium, lead, silver, and selenium were analyzed for via EPA Method 6010, while the eighth metal, mercury, was analyzed for via EPA Method 7471.

2. The installation of two (2) additional borings (SB-19 and SB-20 as identified on Figure 2) at the proposed jack and bore pits located on the north and south sides of the existing railroad bed. These borings were advanced continuously to a depth of eighteen (18) feet bgs and then continued to a termination depth of forty-seven (47) feet bgs using standard five (5) foot sampling intervals. Soil samples were collected from each split spoon and analyzed for PCBs for a total of 30 additional samples. Additionally, one sample from each of these two borings was analyzed for the same VOC, SVOC, and metal parameters as the shallower borings.

Amphenol regularly monitors groundwater elevation and chemistry as part of the on-going groundwater remediation program for the West Well and Plating Building Site. This area is situated immediately west of the western trunk replacement work zone (Figure 2). Available data collected as part of these monitoring efforts were reviewed and are discussed in Section 2.3.

2.2 SUBSURFACE SOIL RESULTS

As previously indicated, all soil samples collected from the soil borings were screened in the field for visual, olfactory, and photoionic evidence of contamination. No such evidence of contamination was encountered in collected soil samples, except for those summarized in the following table:

Table 2-1. Soil Sample Field Screening Summary

Boring No.	Depth Interval (feet bgs)	Visual Evidence Contamination	Olfactory Evidence Contamination	Photoionization Detector (PID) Reading (ppm)	Comments
SB-5	0-8	Yes	No	No	Traces of black staining
SB-11	2-4	Yes	No	No	Traces of coal and wood debris
SB-13	8-12	Yes	Yes	No	Slight sheen and petroleum odor
SB-14	6-8	Yes	No	No	Black stained wood
SB-17	6-8	Yes	No	No	Trace black staining and wood debris
SB-18	6-8	Yes	No	No	Trace black staining
SB-20	12-14	Yes	No	No	Trace black staining

As indicated in the Table 1-1 above, there was no field evidence of significant contamination in any of the soil samples collected from the soil borings. Table 2-2 on the following pages summarizes the analytical results for all of the soil samples.

Given the location of the work zone and the fact that the Amphenol facility as a whole is zoned industrial, and is expected to remain an industrial site, the soil analytical results were compared to the restricted use soil cleanup objectives (SCOs) for industrial uses, as established in Table 375-6.8(b) of 6 NYCRR Subpart 375-6. Comparison of the results to restricted industrial thresholds provides a basis for evaluating removal and/or disposal options of the soils. The complete laboratory data package is available upon request from the Village of Sidney.

Table 2-2. Summary of Soil Analytical Results

Contaminant of Concern	6 NYCRR Part 375 Restricted Industrial Soil Cleanup Objective Concentration	Concentration Range Detected¹	Frequency of Samples Exceeding Restricted Industrial Use Soil Cleanup Objective Concentrations
VOCs (results in µg/Kg)			
Acetone	1,000,000	3.2-120	0 of 19
Benzene, (1-methylethyl)-	--	4.3-15	0 of 19
2-Butanone	1,000,000	4.9-28	0 of 19
1,2-Dichloroethene (Total)	--	28	0 of 19
Cis-1,2-Dichloroethene	1,000,000	28	0 of 19
Methylcyclohexane	--	7.7-15	0 of 19
Methylene Chloride	1,000,000	4.7-33	0 of 19
1,2,4-Trichlorobenzene	380,000	13	0 of 19
Trichloroethylene	400,000	120	0 of 19
SVOCs (results in µg/Kg)			
Acenaphthylene	1,000,000	21	0 of 19
Anthracene	1,000,000	18	0 of 19
Benzo(a)Anthracene	11,000	14-37	0 of 19
Benzo(a)Pyrene	1,100	20-44	0 of 19
Benzo(b)Fluoranthene	11,000	17-87	0 of 19
Benzo(g,h,i)Perylene	1,000,000	13-38	0 of 19
Bis(2-Ethylhexyl) Phthalate	--	89-790	0 of 19
Chrysene	110,000	13-65	0 of 19
Dibenzofuran	1,000,000	59	0 of 19
Fluoranthene	1,000,000	23-84	0 of 19
Fluorene	1,000,000	29-37	0 of 19
Indeno(1,2,3-Cd)Pyrene	11,000	35	0 of 19
2-Methylnaphthalene	--	34-1,800	0 of 19
2-Methylphenol	1,000,000	23	0 of 19
Naphthalene	1,000,000	70	0 of 19
Phenanthrene	1,000,000	31-44	0 of 19
Phenol	1,000,000	530	0 of 19
Pyrene	1,000,000	21-62	0 of 19

Contaminant of Concern	6 NYCRR Part 375 Restricted Industrial Soil Cleanup Objective Concentration	Concentration Range Detected ¹	Frequency of Samples Exceeding Restricted Industrial Use Soil Cleanup Objective Concentrations
PCBs (results in µg/Kg)			
Aroclor 1016	25,000	Not Detected	0 of 135
Aroclor 1221	25,000	Not Detected	0 of 135
Aroclor 1232	25,000	Not Detected	0 of 135
Aroclor 1242	25,000	22-55	0 of 135
Aroclor 1248	25,000	4.3-520	0 of 135
Aroclor 1254	25,000	9.2-510	0 of 135
Aroclor 1260	25,000	4.8-240	0 of 135
Metals (results in mg/Kg)			
Aluminum (Fume Or Dust)	--	7,750-13,800	0 of 19
Antimony	--	Not Detected	0 of 19
Arsenic	16	0.5-8.2	0 of 19
Barium	10,000	27.7-120	0 of 19
Beryllium	2,700	0.323-0.498	0 of 19
Cadmium	60	0.048-0.73	0 of 19
Calcium	--	200-99,300	0 of 19
Chromium	--	10.2-66.5	0 of 19
Cobalt	--	6.53-11.7	0 of 19
Copper	10,000	8.3-33.1	0 of 19
Cyanide	10,000	Not Detected	0 of 19
Iron	--	14,800-21,300	0 of 19
Lead	3,900	7.7-123	0 of 19
Magnesium	--	2,560-4,730	0 of 19
Manganese	10,000	106-813	0 of 19
Mercury	5.7	0.0124-0.858	0 of 19
Nickel	10,000	1634-26.9	0 of 19
Potassium	--	530-1,150	0 of 19
Selenium	6,800	0.6-1	0 of 19
Silver	6,800	0.092-0.116	0 of 19
Sodium	--	50.5-727	0 of 19
Thallium	--	0.4-0.6	0 of 19
Vanadium (Fume Or Dust)	--	10.4-19.7	0 of 19
Zinc	10,000	42.1-84.3	0 of 19

Note: 1. If a single value is noted, the referenced parameter was detected either only one time, or multiple times at the same concentration.

Overall, the analytical results of the subsurface investigation revealed that the soil samples collected along the proposed sewer replacement corridor are only slightly impacted and none of the results exceed the recommended soil cleanup objective concentrations for restricted industrial use.

2.3 REVIEW OF AVAILABLE GROUNDWATER DATA

Three groundwater monitoring wells exist in the near vicinity of the western trunk replacement route. Their locations are depicted on figure 2. These wells are monitored quarterly for groundwater elevation as part of the West Well groundwater remediation program. These wells are also sampled for VOC analyses on the following frequency:

- WW-4; quarterly
- WW-3; second and fourth quarter
- WW-2; second quarter

All data collected as part of the West Well groundwater remediation program are submitted to NYSDEC on a periodic basis.

Groundwater occurs between 7 to 10 feet below the surface elevation ranging from approximately 972 to 975 feet AMSL. Seasonal fluctuation at the site ranges between 2 and 3 feet.

The table below summarizes the concentration of VOCs detected (greater than 1 part per billion) in wells WW-2, WW-3 and WW-4 in 2008, 2009 and the first quarter of 2010.

Table 2-3. Summary of Available Work Zone Proximate Groundwater Data

Date	WW-2		WW-3		WW-4	
	cis1,2 DCE	TCE	cis 1,2 DCE	TCE	cis 1,2 DCE	TCE
March 2008					<1	
June 2008	3.9	<1	3.3	3.6	<1	<1
September 2008					<1	1.2
December 2008			2.0	2.3	<1	2.1
March 2009					<1	<1
June 2009	4.0	<1	4.9	5.0	<1	<1
September 2009					<1	1.1
December 2009			2.7	2.9	<1	<1
March 2010					<1	<1

Note: All results above are reported in units of µg/L.

These data indicate that for the two analytes that have been routinely detected, cis-1,2 dichloroethene (DCE) and trichloroethene (TCE), concentrations have been at or below the NYSDEC's *Technical and Operational Guidance Series (TOGS) 1.1.1 of "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" for fresh (Class GA) Groundwaters (1998)* standard of 5 µg/L, as specified in on all occasions for the past two years.

3.0 MANAGEMENT OF SOIL & WATER

The purpose of this section is to establish appropriate protocol for construction activities that will require the disturbance of soils and groundwater at the Amphenol facility. Officials from the Village of Sidney as well as Amphenol Aerospace will be notified a minimum of five working days, prior to a contractor(s) conducting any intrusive activities at the facility. Specifically, the following persons will be contacted:

Village of Sidney

Mr. John Woodyshek, P.E.
Phone: (607) 561-2310

Amphenol Aerospace

Joseph M. Bianchi
Group Manager, Environmental Health & Safety (EHS) & Support Services
Phone: (607) 563-5940

3.1 SITE CONTROLS

The site controls implemented at the subject site will minimize the potential for detrimental impacts to the environment and human health associated with the proposed excavations and handling of any impacted soils. All appropriate site controls must be in place prior to conducting any intrusive activities at the site.

3.1.1 Erosion & Sediment Controls

The replacement of the sewer pipes will result in the disturbance of land associated with excavation activities; however, the area disturbed will be less than one (1) acre, and therefore, coverage under the NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from Construction Activities is not required. Nevertheless, Best Management Practices (BMPs) will be implemented to the extent practical to control the potential for runoff of potentially contaminated soil and groundwater extracted from the excavations. All such erosion and sediment controls should be installed in accordance with the most current version of the NYSDEC's Standards and Specifications for Erosion and Sediment Control prior to commencing with any excavation activities.

The erosion and sediments controls established in the Stormwater Pollution Prevention Plan (SWPPP) describe temporary and a limited number of permanent erosion and sediment controls that will be employed prior to and during the remedial construction. The SWPPP is provided under a separate cover and address issues such as erosion prevention, sedimentation control, hydraulic loading, pollutant loading, and physical site characteristics that impact design.

Given that subject site is developed and most of the project area consists of asphalt roadways/parking lots situated between existing buildings, the number of practical erosion and sediment controls for the project will be limited. It is anticipated that most soil removed from the proposed utility excavations will be used for backfill in the trench or stockpiled in a containment area within 48-hours of being excavated. Finally, it should be noted that the project area will be restored to existing conditions following the installation of the new sewer pipe, so the excavation disturbances will represent a temporary condition only.

3.1.1.1 Temporary Erosion Control Measures

Temporary erosion and sedimentation control measures and facilities will be employed during active construction stages. Prior to any intrusive construction activity, temporary erosion and sediment control measures shall be installed and maintained until such time that permanent erosion control measures are installed and effective. Additional sediment control measures may also be necessary. Structural measures, such as those described below, will be designed and installed to provide the required sediment and erosion control:

- Silt fencing
- Straw bales
- Polyethylene sheeting (to control runoff from soil stockpiles)

The primary erosion and sediment controls for this project will include stormwater inlet protection and silt fence along the low points of the work area, which is anticipated to be primarily around the existing railroad tracks at the north end of the project area.

As sediment collects along the silt fences or inlet protection devices, they will be cleaned to maintain desired removal performance and prevent structural failure. Accumulated sediment will be removed when sixty (60) percent of the storage capacity of the silt fence or other control is full. Removed sediment will be stockpiled and characterized in a similar manner as impacted soils at the Amphenol facility. The perimeter silt fences will remain in place until construction activities in the area are completed and the existing site covers are replaced. Primarily, restoration will consist of repaving asphalt areas and placing topsoil and seed in green space areas adjacent to the existing railroad tracks. All erosion and sediment controls will be provided and installed in accordance with the New York Guidelines for Urban Erosion and Sediment Control.

Damaged silt fence will be replaced as necessary and sediment laden straw bales that have lost their structural integrity and/or effectiveness will be placed in the soil containment area. Straw bale barriers will remain in place until construction activities contributing sediment to the barrier are complete and vegetative cover established or pavement is replaced.

3.1.1.2 Permanent Erosion Control Measures

As previously indicated, most of the project area is currently paved and all paved areas will be restored with new asphalt pavement following the backfilling of the excavations. All previous greenspace adjacent to the railroad tracks will be restored with topsoil and seeded and mulch to re-establish permanent vegetation. These areas will be seeded in stages as construction is completed with a minimum of one-hundred pounds of seed per acre conforming to the mix that will be specified in the technical specifications for the replacement project. Vegetation serves to reduce erosion, enhance evapotranspiration, and improve runoff water quality.

3.1.2 Site Access & Work Zones

Appropriate work zones will be established prior to commencing intrusive activities at the Amphenol facility. The overall facility is secured with fencing and a guard gate to keep unauthorized personnel out of the facility.

As indicated in Section 2 of the plan, the level of contamination encountered in the subsurface soils is relatively low. Nevertheless, the presence of low concentrations of PCBs and VOCs will necessitate the need for proper management and handling of soils excavated during the proposed sewer replacement project. Additionally, given the historical use of the work area and the potential for variability in subsurface conditions, it is important that appropriate work zones be established in the event higher concentrations of PCBs or VOCs are discovered during construction.

3.1.2.1 Exclusion Zone

Temporary orange construction fencing or other similar barricade along with appropriate signage will be installed around the active excavation/exclusion zone to keep unnecessary personnel out of the excavation/exclusion work zone. Additionally, fencing will be placed around all open excavations that are not backfilled to grade at the end of each work day.

3.1.2.2 Contamination Reduction Zone

A Contamination Reduction Zone will be established adjacent to the Exclusion Zone to facilitate the decontamination of the personnel and equipment that come into contact with the impacted soils. Personnel working inside the exclusion zone will decontaminate or dispose all soiled clothing in the contamination reduction zone each time the exclusion zone is exited, if the clothing worn becomes soiled. Appropriate equipment, supplies, and personal protective equipment (PPE) will be made available in the contamination reduction zone to facilitate the protection and decontamination of personnel working in the exclusion zone.

All equipment coming into contact with soils from the project site will be decontaminated at the conclusion of the excavation activities and prior to demobilizing equipment from the project site. If appropriate precautions are taken throughout the excavation process, the only equipment requiring decontamination should be limited to the bucket on the excavator, the inside of dump boxes on the trucks used for hauling the soils, and small hand tools. Examples of such precautions include, but are not limited to:

- Efforts will be made to advance the excavation towards the excavator such that the tracks on the machine do not come into contact with the soils.
- Where possible, all trucks will be loaded adjacent to the excavation. Care will be taken to ensure that impacted soil is not spilled on the sides of the trucks as they are loaded and that the trucks do not drive through contaminated soils. If wet soils are encountered, dry soils will be placed near the rear tailgate of the truck and wetter soils will be placed near the front of the truck. If the soils are saturated, liners will need to be installed in the dump box or the soils will be stabilized prior to loading to avoid drippage out of the truck during the hauling process.
- Efforts will be made to minimize the amount of equipment and machinery that comes into contact with the impacted soils.

At a minimum, all non-disposable personnel protective clothing will be decontaminated by first washing the soil items with a non-phosphate detergent and potable water mixture, followed by potable water and distilled water rinses. All disposable/expendable clothing will be placed into plastic trash bags for off-site disposal. At a minimum, all equipment that comes into contact with contaminated soil and groundwater will be decontaminated with a high-pressure stream cleaner.

The Contamination Reduction Zone setup will involve the construction of a temporary decontamination pad. The decontamination pad will be of sufficient size to facilitate the decontamination of all of the contractor's equipment. It is anticipated that the decontamination will be constructed over a paved areas that is lined with a minimum of 20-mil polyethylene sheeting. A one-foot high soil berm will be constructed around the perimeter of the pad to control runoff/run-on to and from the stockpiles. The water generated from decontaminating equipment will be collected by placing a low spot on the pad to direct the water to one corner of the pad. The collected water will be pumped into drums or a temporary storage tank (e.g. frac tank) for characterization and proper management.

3.1.2.3 Support Zone

A Support Zone will be established in close proximity to the Contamination Reduction Zone. It is anticipated that this zone will consist of construction trailers that are staffed by the construction superintendent, a resident engineer, and other project support staff along with first aid kits, fire extinguishers, PPE for site workers, the HASP, air monitoring equipment, spill containment equipment, etc. Additionally, it is anticipated that based upon the limited contamination encountered during the subsurface investigation, all existing Amphenol buildings will be able to be maintained within a support zone.

3.1.3 Community Air Monitoring Plan

Air monitoring will be performed by the contractor at the Amphenol facility during the sewer replacement activities in accordance with the New York State Department of Health (NYSDOH) *Generic Community Air Monitoring Plan (CAMP)*. All air monitoring will be conducted on a real-time basis using both hand-held field instruments and perimeter air monitoring stations. All air monitoring readings will be recorded in a logbook and made available for review by the Village of Sidney and/or their representatives, Amphenol personnel, and the NYSDEC.

The CAMP developed for this project consists of two primary components. The fugitive dust control plan is discussed in 3.1.3.1 while the vapor control plan is discussed in Section 3.1.3.2. Air monitoring will be conducted both upwind and downwind of the construction areas and compared to assess if the construction activities are causing potential airborne migration of contaminants. Continuous monitoring will be required for all ground intrusive activities, including trenching and excavation activities. Periodic monitoring for VOCs will be required during non-intrusive activities such as the decontamination of equipment.

The CAMP is not intended for use in establishing action levels for worker respiratory protection that are otherwise described in the site-specific Health and Safety Plan (HASP) prepared for the project. Rather, its intent is to provide a measure of protection for the downwind community (i.e. Amphenol personnel not directly involved with the work activities and off site receptors including residences and businesses) from potential airborne contaminant releases as a direct result of the proposed remedial work activities. Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP will help prevent the remedial construction activities from spreading contamination off site through the air.

In addition to air monitoring, the faces of any open excavations will be covered with 10-mil thick polyethylene sheeting to control dust and odors at the site at the end of each day, unless field screening indicates that the limits of the contaminated soil have been reached, or all excavations are backfilled.

3.1.3.1 Fugitive Dust Control

Dust emissions may occur at the project site during intrusive remedial activities, including but not limited to, excavation and loading activities. Therefore, fugitive dust control measures will be implemented during all excavation/construction activities. Fugitive dust is described as discrete particles, liquid droplets or solids, which become airborne and contribute to air quality as a nuisance and threat to human health and the environment.

The United States Environmental Protection Agency (USEPA) has set the standard for particulate matter that may impact human health as those particulates less than ten microns in diameter (PM₁₀), regardless of whether the particulate materials is contaminated or not. This number is based upon values considered to be protective of human health with an adequate margin of safety. The primary standards established to protect human health are a fugitive dust concentration of a maximum of 150 micrograms per cubic (µg/m³) meter of a 24-hour averaging period and 50 µg/m³ over an annual average time.

The NYSDEC's Technical & Administrative Guidance Memorandum (TAGM) 4031 – Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites provides guidance for monitoring particulate matter at impacted sites and suppressing fugitive dust. Although the TAGM was originally developed for use at hazardous waste sites, the TAGM provides a basis for the developing a dust control plan at the project site, particularly due to the identified metal contaminants in the subsurface soils at the site.

The following particulate monitoring program and fugitive dust suppression program, as identified in TAGM 4031, will be implemented at the site:

1. Reasonable fugitive dust suppression techniques will be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring will be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Such activities shall also include the excavation, grading, or placement of clean fill, and control measures therefore should be considered.
3. Particulate monitoring will be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM₁₀) with the following minimum performance standards:
 - Object to be measured: dust, mists, aerosols
 - Size range: <0.1 to 10 microns (µm)
 - Sensitivity: 0.001milligram per cubic meter (mg/m³)
 - Range: 0.001 to 10 mg/m³
 - Overall Accuracy: ±10% as compared to gravimetric analysis of stearic acid or reference dust
 - Operating Conditions:
 - Temperature: 0 to 40 degree Celsius (°C)
 - Humidity: 10 to 99 percent Relative Humidity
 - Power: Battery operated with a minimum capacity of eight hours continuous operation
 - Automatic alarms are required to indicate exceedance of the action level

Particulate levels will be monitored immediately downwind at the working site/exclusion zone and integrated over a period not to exceed 15 minutes. Consequently, instrumentation shall require necessary averaging hardware to accomplish this task.

The P-5 Digital Dust Indicator as manufactured by MDA Scientific, Inc., or a similar instrument, is appropriate and will be used during the remedial program.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the entity operating the equipment to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at $150 \mu\text{g}/\text{m}^3$ over the integrated period not to exceed 15 minutes. While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of $150 \mu\text{g}/\text{m}^3$, the upwind background level must be measured immediately using the same portable monitor. If the working site particulate measurement is greater than $100 \mu\text{g}/\text{m}^3$ above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see Paragraph 7 below). Should the action level of $150 \mu\text{g}/\text{m}^3$ be exceeded, the NYSDEC's Division of Air Resources must be notified in writing within five working days; the notification must include a description of the control measures implemented to prevent further exceedances.
6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM_{10} at or above the action level. Since this situation has the potential to transport contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential will require the need for special measures to be considered.
7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:
 - Applying water on haul roads.
 - Wetting equipment and excavation faces.
 - Spraying water on equipment during excavation and dumping.
 - Hauling materials in properly tarped and watertight containers.
 - Restricting vehicle speeds to ten miles per hour or less.
 - Covering excavated areas and material after excavation activity ceases.
 - Reducing the excavation size and/or number of excavations.

Experience has shown that utilizing the above-mentioned dust suppression techniques, within reason as not to create excess water which would result in unacceptable wet conditions and the need to manage the excess water, the chance of exceeding the $150 \mu\text{g}/\text{m}^3$ action level during site remediation is remote. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. If the dust suppression techniques being utilized at the site do not lower particulates to an acceptable level (that is, below $150 \mu\text{g}/\text{m}^3$ and no visible dust), work must be suspended until appropriate corrective measures are approved to remedy the situation. The use of dust suppressant materials (e.g. calcium chloride) will not be permitted without the written authorization of the NYSDEC and Amphenol. Also, the evaluation of weather conditions will be necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, remedial actions may need to be temporarily suspended.

Organic vapor will be conducted simultaneously with the dust monitoring program and is described further below.

3.1.3.2 Organic Vapor Control

Based upon the historical use of the property and minor VOC contamination encountered during the subsurface soil investigation, organic vapor monitoring will be conducted simultaneously with the dust monitoring program. Based upon the NYSDOH's Generic CAMP, VOCs will be monitored by the contractor at the downwind perimeter of the immediate work area (i.e. the exclusion zone) on a continuous basis or as otherwise specified when the potential for VOC emissions exist. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions.

The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but are less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but is no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level in the downwind work area perimeter exceeds the upwind perimeter concentration by more than 25 ppm, the Major Vapor Emission Response Plan will be initiated. Under this plan, the following actions will be taken:
 1. All work will be halted.
 2. All Emergency Response Contacts identified in the Site-Specific Health and Safety Plan, including the local police and fire departments, will be contacted by the site Safety Officer.
 3. The NYSDEC, NYSDOH, Amphenol Aerospace, and the Village of Sidney officials will be notified of the situation.
 4. Air monitoring will be conducted at 15 minute intervals at a 20-foot offset from the exclusion zone. If two successive readings are measured by the field instrument and documented, the work may resume following the previously described monitoring plan.

All fifteen minute readings will be recorded and made available for review. Instantaneous readings, if any, used for decision purposes should also be recorded.

3.1.4 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. Specific odor control methods to be used on a routine basis are listed below. If nuisance odors are identified at the facility boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. The contractor will be responsible for the implementation of all odor controls and Amphenol Corporation will coordinate the halting of work.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, the following specific odor control measure will be used on a routine basis:

1. Limiting the area of open excavations and size of soil stockpiles.
2. Reducing the speed of excavation activities.
3. Shrouding open excavations with tarps and other covers.
4. Consider weather factors when planning daily activities (e.g. wind direction).
5. Using foams to cover exposed odorous soils.
6. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include:
 - a. Direct load-out of soils to trucks for off-site disposal.
 - b. Use of chemical odorants via spray or misting systems.
 - c. Use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

Additionally, polyethylene sheeting will be placed over the face of all excavations not backfilled at the end of the day to reduce emission of petroleum vapors and reduce fugitive dust generation.

3.1.5 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

1. Paved areas will be swept clean on a daily basis, or more frequently as needed, to reduce the potential for dust generation.
2. Traffic speeds, particularly for construction traffic, will be reduced.
3. The number and size of open excavations and uncovered stockpiles will be minimized.
4. Trenches will be backfilled and restored in a timely manner.

3.2 SOIL HANDLING ACTIVITIES

To facilitate the installation of the new sewer system and manholes, a number of excavations will be conducted at the Amphenol facility. Given the limited contamination encountered during the subsurface excavation, this material will be stockpiled immediately adjacent to the trench/excavation as work progresses. After installing the new pipeline, manholes, and bedding stone, the excavated material will be placed back into the excavations as backfill. Surplus soils not used as backfill will be stockpiled on-site on temporary containment pads for characterization purposes. Once the characterization results are available, Amphenol personnel will arrange for the management of the material under a separate contract.

The volume of surplus has been estimated as follows:

Average trench depth:	10 feet
Depth of pipe bedding:	0.67 feet (approximately 8 inches)
Outside diameter of pipe:	1.67 feet (approximately 20 inches)
Height stone fill above pipe:	1 foot
Depth of restored pavement:	1 foot
Imported material thickness:	4.3 feet (0.67+1.67+1+1)
Length of trench:	728 linear feet (last section installed via jacking)
Average trench width:	5 linear feet (with trench box)
Volume imported fill for trenches:	15,652 cubic feet or 580 cubic yards
Soil displaced per manhole:	640 cubic feet (8'x8'x10' deep) or 24 cubic yards
Total soil displaced by manholes:	120 cubic yards (5 each x 24 cubic yards/each)

Estimated total material displaced: 700 cubic yards (580 + 120)

3.2.1 Field Screening Methods

Visual (e.g. staining/sheen), olfactory (e.g. petroleum odors) and instrument-based (e.g. photoionization detector) soil screening will be performed by the contractor during all on-site excavations activities. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed. Soils will be segregated based on screening results into material that may require off-site disposal based upon field evidence of contamination and, material that can be reused as backfill in the utility excavations.

Soils that have visual or olfactory evidence of contamination or that have photoionization detector (PID) readings in excess of 10 ppm will be segregated and staged on containment pad for further characterization. The Village's contractor will arrange for any such characterization sampling; however, Amphenol will be responsible for the off-site disposal of any such material.

Soils will also be periodically screen (approximately one (1) sample every 50 tons) using in field total PCB assay testing.

3.2.2 Stockpiling Methods

All surplus material stockpiled on temporary containment pads in stockpiles a maximum of 500 cubic yards in size. Material will be placed in the containment area in discreet piles based on the location within the excavation where it originated. This will facilitate retrieval for characterization and, if necessary, disposal. A one-foot high soil berm will be constructed around the perimeter of the pads to control runoff/run-on to and from the stockpiles and the containment pads will be lined with a minimum of 20-mil polyethylene sheeting. If overlaps cannot be avoided, seams will be overlapped a minimum of two (2) feet and taped. All stockpiles will be covered with 10-mil thick polyethylene sheeting while awaiting loading and off-site disposal to control erosion from the stockpiles, volatilization of potential contaminants in the soil and dust. All sheeting used to cover stockpiles will be properly weighted down to prevent tearing and wind damage. Stockpiles will be routinely inspected and damaged covers will be promptly replaced.

3.3 POST EXCAVATION CHARACTERIZATION OF SOIL

Based upon the limited impact to subsurface soils, as described in Section 2 of the SWMP, some of the soils excavated will be utilized as backfill in the utility trenches. However, given the size of the pipes and manholes to be installed and the stone bedding requirements for the new sewer system, it is anticipated that some surplus soil will be generated as a result of this project. Given the data to date indicate these materials do not exceed the restricted use criteria for industrial sites, excess material will remain on site.

Following placement in the temporary containment area, the soil will be sampled at a frequency of two (2) grab samples and six (6) composite samples per every 500 tons of material. Additionally, if field screening of soils indicates that soil contamination is present, the soil will be segregated and stockpiled separately from the other surplus soils.

The sampling program will require the collection of both grab samples and composite samples. Samples collected for VOC analysis will be discrete grab samples and other analyses will be performed on composite samples. The basic sampling methodology is described below.

Grab Samples

The grab samples shall be collected by personnel wearing a freshly donned pair of latex gloves (or equivalent) and appropriately decontaminated, stainless steel hand tools. The samples should be immediately placed directly into the appropriately pre-preserved laboratory containers and labeled. The labeled containers should then be placed on ice and cooled to 4° Fahrenheit.

Composite Sampling

The composite samples shall be collected from various locations in the containment area. Each composite will be formed from five equally sized, discrete sub-sample soil samples. The samples can be collected by hand with a fresh pair of gloves or with appropriately decontaminated stainless steel hand tools. The sub-samples will then immediately be placed into a stainless steel bowl and covered with aluminum foil between the addition of each subsample. While composite sampling will not be utilized for samples collected for VOC analysis, the bowl will be covered between the additions of each sub-sample to minimize the potential for volatilization of any semivolatile contaminants that may have been present in the soil.

Once all five of the sub-samples are added to the bowl, the soil samples will be thoroughly homogenized using a stainless steel spoon/scoop and immediately transferred to the appropriate laboratory containers and managed in a similar manner as the grab samples. The locations within the containment area will be identified for each sample.

The soil samples will be submitted to a laboratory certified under the New York State Department of Health's Environmental Laboratory Approval Program (ELAP) for analysis following appropriate chain-of-custody protocols. The specific analytical waste characterization requirements of the waste disposal facility may vary and shall be verified prior to sampling. The parameters required for waste disposal characterization will likely include following:

- TCL VOCs by EPA Method 8260
- TCL SVOCs by EPA Method 8270
- TCL PCBs by EPA Method 8082. Target Analyte List (TAL) metals and cyanide by EPA Methods 6010/7471
- Toxicity Leaching Characteristic Procedure (TCLP) Extraction

Amphenol Corporation will coordinate the actual removal and off-site disposal of any stockpiled materials if the post-excavation sampling results exceed the industrial restricted use criteria.

3.4 CONSTRUCTION WASTEWATER MANAGEMENT

Based on the elevation of the existing sewer and the measured groundwater elevations at the earlier WW-2, WW-3 and WW-4, trenches for the replacement western trunk are not expected to require dewatering. However, should dewatering be required, all liquids to be removed from the excavations, including excavation dewatering and decontamination water will be handled, treated, transported and disposed in accordance with applicable local, State, and Federal regulations so as to prevent endangerment of human health, property, or any portion of the construction. Pumping and collection of such water will be done in a manner to prevent the migration of particulates or soil/fill, and to prevent damage to the existing subgrade materials.

Available chemistry data indicate that New York State Class GA standards are not exceeded in shallow groundwater directly adjacent to the work zone. Therefore, groundwater collected from the utility excavations will be discharged to the adjacent paved areas for drainage to the nearest stormwater catch basin.

Water generated from the decontamination pads will be collected and stored in drums or other temporary storage tanks that are approved and labeled in accordance with United States Department of Transportation (USDOT) requirements. The water collected will be sampled by the remedial contractor on a frequency of one sample per every ten drums or one sample per every 2,000 gallons of water collected in larger vessels. The water samples will be analyzed for the following:

- TCL VOCs by EPA Method 8260
- TCL SVOCs by EPA Method 8270
- TCL PCBs by EPA Method 8082.
- TAL metals and cyanide by EPA Methods 6010/7471.

The results will be compared to the NYSDEC's *Technical and Operational Guidance Series (TOGS) 1.1.1 of "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" for fresh (Class GA) Groundwaters (1998)*. Although a Class GA groundwater is considered a source of drinking water, it is the only set of standards and guidance values established for groundwater in TOGS 1.1.1.

If no analytes are detected in the decontamination pad water samples at concentrations at or above the groundwater standards and guidance values established by the NYSDEC, and there is no

evidence of sheen or free product on the water surface or strong odors associated with the contained water, it may be discharged to the local storm sewer or the Village of Sidney's sanitary sewer system at a maximum discharge rate of 50 gallons per minute (gpm). However, the turbidity of the water must be reduced to a minimum of 50 Nephelometric turbidity units (NTUs) through filtering or settling processes prior to discharge. Groundwater standards and guidance values established by the NYSDEC, arrangements for treatment and disposal or other acceptable means to NYSDEC will be made.

4.0 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions

4.1 EMERGENCY TELEPHONE NUMBERS

In the event of any environmentally related situation or unplanned occurrence requiring assistance of Amphenol Corporation or the Village of Sidney, the Contractor should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to a qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the site.

Table 4-1. Emergency Contact Numbers

Ambulance, Fire & Police	911
NYSDEC Spills Hotline	(800) 457-7362
National Response Center (for Pollution Toxic Chemical Oil Spills)	(800) 424-8802
Poison Control Center	(800) 222-1222
EPS of Vermont - 24-Hour Emergency Spill Response	(800) 577-4557
Dig Safely New York – Utility Clearance (3-day notice required for utility markout)	(800) 962-7962 or 811

Note: Contact numbers are subject to change and should be updated as necessary.

Table 4-2. Support Contact Numbers

Village of Sidney - Mr. John Woodyshak, P.E.	(607) 561-2310
Amphenol Aerospace – Mr. Joseph Bianchi	(607) 563-5940
CHA, Inc. – Environmental Consultant/Environmental Professional	(315) 471-3920
EPS of Vermont – Cleanup Contractor	(315) 451-6666
NYSDEC Division of Environmental Remediation – Region 7	(315) 426-7551
New York State Department of Health	(800) 458-1158
Delaware County Department of Health	(607) 746-3166

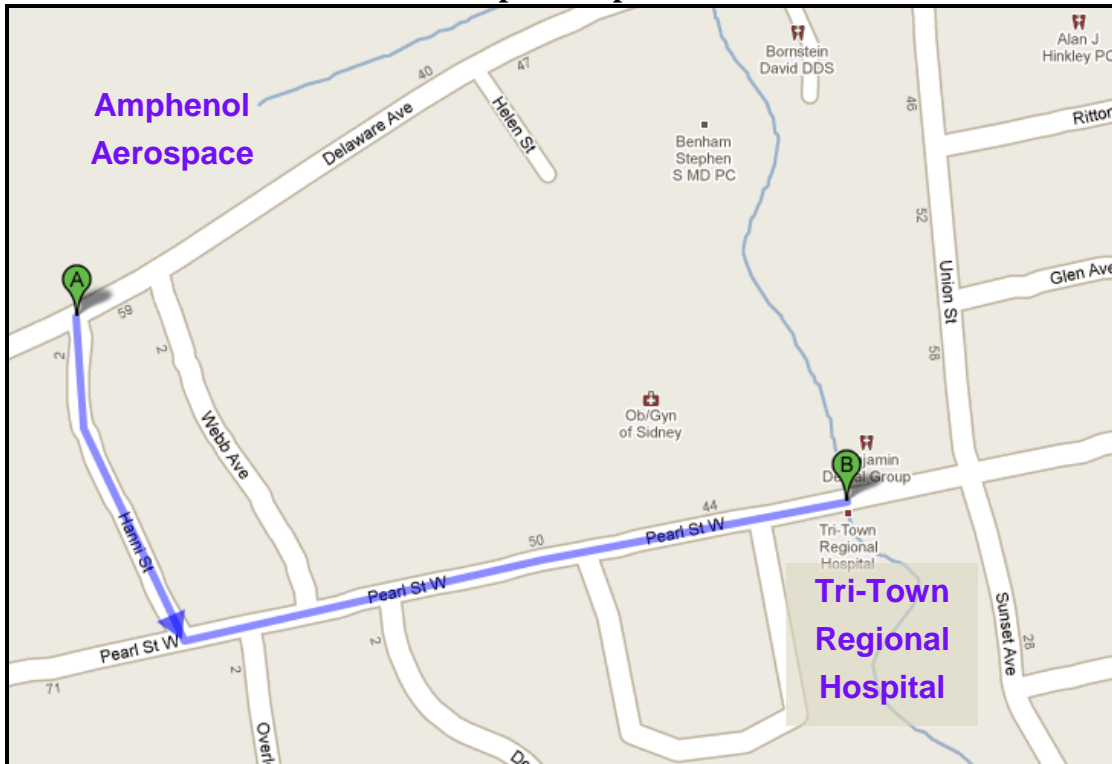
Note: Contact numbers are subject to change and should be updated as necessary.

4.2 DIRECTIONS AND MAP TO NEAREST HEALTH FACILITY

Nearest Hospital: Tri-Town Regional Hospital
 43 Pearl Street West
 Sidney, New York 13838
 Phone: (607) 563-7080
 Toll Free: (800) 773-4751

- Directions to Hospital:
1. Travel south in parking lot toward entrance/exit.
 2. Travel straight across Delaware Avenue going south on Hanni Street.
 3. At the end of Hanni Street, turn left onto Pearl Street West.
 4. Travel approximately 0.2 miles and look for Emergency entrance to hospital on right side of Pearl Street West.

Map to Hospital



4.3 RESPONSE PROCEDURES

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 3-1). The list will also be posted prominently at the facility and made readily available to all personnel at all times.

4.3.1 Spill Response Procedures

Spill Response Equipment

Storage areas for spill containment equipment are maintained at the Amphenol facility. The minimum spill equipment to be maintained at the facility is summarized in the following table.

Table 4-3. Spill Containment Equipment

Description	Quantity
18" x 18" Absorbents Pads	100 each
Oil Absorbent Booms	50 Lineal Feet
20 lb. bags of Lite-Dri Absorbent	10 each
Plastic Trash Bags	20 each
Shovel	1 each
Broom	1 each

Spill Response Procedures

1. Immediately upon evidence that a spill or release has occurred, facility personnel shall call the Mr. Joseph Bianchi of Amphenol Aerospace at (607) 563-5940 and Mr. John Woodyshek at (607) 561-2310 and inform them of the pertinent facts related to the spill event (i.e., location, source of spill, immediate threats).
2. Secure the spill site.
3. Check for immediate threats or people in danger.
4. Evaluate exposures to response personnel, the public, and the environment.
5. Call environmental services contractor, as necessary, for assistance with spill containment and cleanup.
6. Begin to contain the spill using spill containment equipment. All cleanup personnel will utilize appropriate personal protective equipment (PPE), such as gloves, boots, coveralls, eye protection, etc.
7. Barricade the point of release and the point at which the discharge exits the building (if applicable) with oil absorbent materials.
8. Prevent the flow into storm drains or other points of concern using oil absorbent booms and other materials to the extent possible.
9. Call Emergency Response (Fire Department) for assistance if necessary or if the surrounding community is affected.
10. Call the State Spill Hotline at (800) 457-7362 within two hours of discovery of the spill.

11. Call the National Response Center at (800) 424-8802 if the spill has reached navigable water or adjoining shorelines.

In some situations, an accidental discharge can be discovered without knowing the source of the spill. An example of this would be someone reporting an oil sheen on a surface water body. In these cases, the following spill alert procedures will be implemented:

1. Call Mr. Joseph Bianchi of Amphenol Aerospace at (607) 563-5940 and Mr. John Woodyshek at (607) 561-2310 and inform them of the pertinent facts related to the spill event (i.e., location, extent, immediate threats).
2. Contain the spill as much as possible. For example, if an oil discharge is discovered on a surface water body, use an oil absorbent boom to surround the affected area to the extent practical.
3. Trace the spill either upstream or up-gradient to locate the source. Look for culverts which may be conveying the oil or chemical, areas of sloped ground from which there may be a seep of oil or evidence of chemical staining, or storm sewer catch basins, grates, or pipes that may have evidence of oil or chemicals present.
4. If the release cannot be traced back to a definite source, a systematic check of all potential on-site sources should be performed (see items 5 through 8 below), while some response team members stay at the site of the detected spill to begin cleanup and continue containment.
5. Begin checking vehicles or maintenance equipment closest to where the spill was detected. Examine the ground and tanks for staining, odors, or corrosion.
6. Check parking areas that have storm drainage that discharges to the affected area.
7. If the source of the release is found, implement the spill response procedures outlined above.
8. If cause of the release is not found and the discharge is continuing, response and containment should continue, and the fire department should be contacted. Appropriate authorities should also be contacted (state and National Response Center (NRC)).

Methods of Disposal of Recovered Materials

All materials recovered from spill response measures will be appropriately containerized and labeled as to contents, including the date and nature of the contamination. Amphenol Aerospace representatives or designated representatives will make a hazardous waste evaluation of the containerized waste in accordance with the requirements of 6 NYCRR Part 371. In the event that the material is determined to be a regulated hazardous waste, it will be managed and disposed of in accordance with the appropriate requirements of 6 NYCRR Part 374 and 376, including manifesting of the hazardous waste.

If the recovered material is determined to be non-hazardous, it will be managed as part of the facility's routine non-hazardous waste stream. Amphenol contracts for spill cleanup (for significant releases) and for final disposal of absorbent materials and other contaminated materials. Only duly licensed vendors will be utilized to perform such services.

Spill Incident Reporting

All spills must be reported to the NYSDEC Spill Hotline at (800) 457-7362 unless they meet all of the following criteria:

- The spill is known to be less than 5 gallons
- The spill is contained and under control
- The spill has not and will not reach the State's waterways
- The spill is cleaned up within 2 hours of discovery.

When reporting a spill, the following information should be documented and provided to the NYSDEC for each reportable spill:

- The facility address and phone number
- Date and time of the discharge
- Type of material discharged
- Estimated total quantity of material discharged
- Source and/or cause of the discharge
- A description of all affected media
- Any damages or injuries caused by the discharge
- Actions being used to stop, remove, and mitigate the effects of the discharge
- Whether an evacuation may be needed
- The names of the individuals and/or organizations who have also been contacted

4.3.2 Evacuation Procedures

It is not always necessary to evacuate the site during an emergency. However, if there is a catastrophic failure of the site controls, a significant release that poses threat to the human health, or a significant weather event that poses a threat to the work area, evacuation may become necessary. It is important that occupants on the site are prepared and plan for such evacuations in advance.

An emergency action plan (EAP) is a written document required by particular OSHA standards (29 CFR 1910.38(a)). The purpose of an EAP is to facilitate and organize employer and employee actions during workplace emergencies. Well developed emergency plans and proper employee training (such that employees understand their roles and responsibilities within the plan) will result in fewer and less severe employee injuries and less structural damage to the facility during emergencies. A poorly prepared plan, likely will lead to a disorganized evacuation or emergency response, resulting in confusion, injury, and property damage. While the contractor performing the sewer replacement should include general emergency preparedness in their Site-Specific Health and Safety Plan and any specific requirements of Amphenol Corporation, some general guidelines include the following:

Building Evacuation

In the event that it becomes necessary to evacuate a building at the facility, the following procedures will be utilized:

1. Stay calm.
2. Safely stop work.
3. Gather personal belongings only if it is safe to do so (Reminder: take prescription medications with you if at all possible, as it may be hours before you are allowed back in the building).
4. If safe, close your office door and window, but do not lock them.
5. Use the nearest safe stairs and proceed to the nearest exit. Evacuation routes are provided at key locations through each building. Do NOT use elevators.
6. Evacuate persons with disabilities first if possible. Always ask someone with a disability how you can assist BEFORE attempting any rescue technique or giving assistance.
7. Proceed to the designated mustering point and report to the appropriate roll taker. All persons should stay a minimum of 100-feet from the evacuated building. Call 911 if emergency responders have not already been contacted.
8. Wait for instructions from emergency responders.
9. Do not re-enter the building or work area until emergency responders indicate it is safe to do so.

Site Evacuation

In the event it is necessary to evacuate the work site, emergency responders (e.g. police or fire departments) will coordinate such evacuations and determine when it is safe to return to the facility. If an evacuation is ordered, all persons at the facility should heed all safety personnel instructions relative to evacuation routes from the site and/or follow the general flow of traffic. Site occupants will be prohibited to congregate at the facility limits or evacuation line during emergency events.

5.0 HEALTH & SAFETY PLAN REQUIREMENTS

All contractors performing intrusive activities at the Amphenol facility will be required to prepare a Site-specific and activity-specific Health and Safety Plan (HASP). This section provides the minimum requirements for a HASP, but should not be construed as the HASP, as it is not activity specific. The Contractor will not be permitted to commence with construction/intrusive activities until the HASP has been reviewed by the Village of Sidney and Amphenol.

Review of the Plan does not waive any responsibility of the Contractor to ensure that the HASP is adequate to comply with all regulations or compliance by personnel. The Village, Amphenol Corporation, their representatives, or agencies, assume, in any manner, the control or responsibility of the Contractor to provide safe working conditions of the contractor's employees or subcontractors in requiring the Contractor to follow general safety requirements. The contractors shall maintain the following items on the site at a minimum:

- A copy of the HASP
- First aid kit
- Fire extinguisher(s)
- Personal protective equipment (PPE)
- Air monitoring equipment and calibration equipment
- Spill containment equipment and cleanup materials

To facilitate the creation of appropriate HASPs by the contractor(s) performing work on the site, the range of concentrations of contaminants detected in soil and groundwater samples collected at the site prior to the completion of the remedial construction have been included in Section 2 of the SWMP.

5.1 COMPLIANCE

Consistent disregard for the provisions of the HASP by the remedial Contractor and/or his subcontractors or employees shall be deemed just and sufficient to cause for stoppage of work by the Village of Sidney and/or Amphenol. Furthermore, compliance with the minimum requirements in this document does not relieve the Contractor from the responsibility for implementing proper health and safety procedures during unanticipated conditions throughout the duration of the work.

All on-site workers must comply with the requirements of the HASP. The Contractor's HASP must comply with all applicable federal and state regulations protecting human health and the environment from the hazards posed by activities during intrusive site activities. The project design documents will further specify the health and safety requirements of this project. However, the general health a safety responsibilities and definitions are summarized below.

5.2 HEALTH & SAFETY DEFINITIONS

1. **Authorized Visitor:** The Safety Officer (SO) has primary responsibility for determining who is qualified and may enter the site. The Site Safety Officer will only allow authorized visitors with written proof that they have been medically certified and trained in accordance with 29 CFR 1910.120 (40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training) to enter the contamination reduction zone and/or exclusion area.
2. **Contamination Reduction Zone:** An area at the Exit Point of the Exclusion Zone through which all personnel, vehicles, and equipment must enter and exit. All decontamination of vehicles and equipment and removal of personal protective clothing and breathing apparatus must take place at the boundary between the Exclusion Zone and the Contamination Reduction Zone.
3. **Contractor Support Zone:** An area of the Contractor Work Area outside the Exclusion Zone, accessible for deliveries and visitors. No persons, vehicles, or equipment may enter these areas from the Exclusion Zone without having gone through specified decontamination procedures in the adjacent Contamination Reduction Zone.
4. **Contractor Work Area:** An area of the project site including the Support Zone, access roads, staging areas, and the Exclusion Zone.
5. **Exclusion Zone:** The innermost area within the Contractor Work Area that encloses the area of contamination. Protective clothing and breathing apparatus as specified in the health and safety requirements and in the Contractor's approved HASP must be worn.
6. **Health and Safety Coordinator (HSC):** The HSC shall be a Certified Industrial Hygienist (CIH) or Certified Safety Professional (CSP) retained by the Contractor. The HSC will be responsible for the development and implementation of the HASP.
7. **Health and Safety Technicians (HST):** The HST(s) will be the Contractor's on-site personnel who will assist the SO in the implementations of the HASP, in particular, with air monitoring in active work areas and maintenance of safety equipment.
8. **Medical Consultant (MC):** The MC is a physician retained by the Contractor who will be responsible for conducting physical exams as specified under the Medical Monitoring Programs in this section.

9. **Monitoring:** The use of direct reading field instrumentation to provide information regarding the levels of gases and/or vapor, which are present during remedial action. Monitoring shall be conducted to evaluate employee exposures to toxic materials and hazardous conditions.
10. **Project Personnel:** Project personnel include the Contractor, subcontractor, and Federal, and State, and local Representatives, working or having official business at the project site.
11. **Project Site:** The project site includes the entire the proposed sewer corridor along the western side of the Amphenol facility, but may be reduce for smaller, localized intrusive activities.
12. **Safety Officer (SO):** The SO will be the Contractor's on-site person, who will-, be responsible for the day-to-day implementation and enforcement of the HASP.
13. **Staging Areas:** Areas within the Exclusion Zone for the segregated temporary staging of uncontaminated and contaminated soil and debris.
14. **Work:** Work includes all labor, materials, and other items that are part of site sewer replacement activities.

5.3 RESPONSIBILITIES

The Contractor shall:

1. Be responsible and liable for the health and safety of all on-site personnel and off-site community impacted by the site intrusive activities.
2. Ensure all OSHA health and safety requirements are met (29 CFR 1910 – General Industry Safety and Health Standards and 29 CFR 1926 – Construction Industry Safety and Health Standards) and be responsible for compliance with all federal and state regulations.
3. Ensure that all project personnel have been trained in accordance with 29 CFR 1910.120.
4. Perform all work in a safe and environmentally acceptable manner. The Contractor will provide for the safety of all project personnel and make all reasonable efforts to protect the environment and community during the remedial activities. Barricades, warning lights, roped-off areas, and proper signs shall be furnished in sufficient amounts and locations to safeguard the project personnel and public at all times.
5. Employ a safety officer (SO) who shall be assigned full-time responsibility for all tasks herein described under this HASP and be on-site during all remedial activities. In the event the SO cannot meet his responsibilities, the Contractor shall be responsible for obtaining the services of an "alternate" SO meeting the minimum requirements and qualifications. No work will proceed on this project in the absence of an approved SO.
6. Ensure that all project personnel have obtained the required physical examination prior to and at the termination of work covered by the contract.

7. Be responsible for the pre-job indoctrination of all project personnel with regard to the HASP and other safety requirements to be observed during work, including but not limited to (a) potential hazards, (b) personal hygiene principles, (c) personal protection equipment, (d) respiratory protection equipment usage and fit testing, and (e) emergency procedures dealing with fire and medical situations.
8. Be responsible for the implementation of this HASP and the Emergency Contingency and Response Plan.
9. Provide and ensure that all project personnel are properly clothed and equipped and that all equipment is kept clean and properly maintained in accordance with the manufacturer's recommendations or replaced as necessary.
10. Will perform all work in a safe and environmentally acceptable manner. The Contractor will provide for the safety of all project personnel and the community for the duration of the work activities.
11. Have sole and complete responsibility for safety conditions for the project, including safety of all persons (including employees).
12. Maintain a chronological log of all persons entering the project site. It will include organization, date, and time of entry and exit. Each person must sign in and out.
13. Maintain and keep available safety records, up-to-date copies of all pertinent safety rules and regulations, material safety data sheets, the Contractor's Site-specific HASP, and the emergency response plan.
14. Hold safety meetings, including routine on-site safety meetings.
15. Stop work whenever a work procedure or a condition at the work site is deemed unsafe by the SO.

5.4 ELEMENTS OF THE HEALTH & SAFETY PLAN

A Site-specific HASP will be prepared in accordance with OSHA regulations and 29 CFR 1910.120. The will contain the following elements at a minimum:

1. Site description/characterization and history.
2. Health and safety team key personnel and organization.
3. Emergency contacts
4. Site entry objectives
5. Safety meeting and pre-entry briefing requirements
6. Safety training requirements

7. Medical surveillance requirements
8. Hazard analysis/evaluation, including physical, biological, and chemical hazards
9. Air monitoring requirements and action levels
10. Personal protective equipment (PPE) requirements
11. Site control measures and work zones
12. Decontamination requirements (personnel & equipment) and procedures
13. Hazard communication and need for Material Safety Data Sheets (MSDSs)
14. Emergency procedures/contingency plan
15. Spill containment program
16. Emergency medical care (e.g. first aid) and route to nearest hospital
17. Standard Operating Procedures (SOPs)
18. Confined space (as applicable)
19. Lockout/tagout (as applicable)
20. Hot work permits and safe work practices (as applicable)
21. Ladder/scaffolding safety (as applicable)
22. Competent Person requirements for excavations (as applicable)
23. Emergency Equipment/First Aid Requirements
24. Emergency Response and Contingency Plan.
25. Record keeping requirements
26. Certification and agreement

The following subsections provide a more detailed synopsis of the minimum requirements of a HASP needed to perform intrusive activities at the site.

5.4.1 Site Description & History

This section of the HASP should provide a general introduction and purpose of the HASP, as well as identify the site history, the neighboring property uses, the site topography, and meteorological data. Most of this information is provided in Section 2 of this SWMP. Meteorological data will vary by season in which the intrusive activities are planned and should be considered when preparing the HASP. For example, working during the winter time could result in cold exposure to site personnel, hinder proper operation of real-time air monitoring instruments. Snow and ice in the river could also have significant impacts on safe operations. Similarly, working in the summer time could introduce workers to heat stress, ultraviolet light exposure, more vector activity, potential for thunderstorms, etc.

5.4.2 Project Personnel & Organization Structure

All personnel involved with the intrusive activities of the site have a role in implementing the HASP. The following list summarizes the personnel that should be identified for each project/activity:

5.4.2.1 Off-Site Personnel

Title: **Project Manager**
Description: Responsible for defining project objectives, allocating resources, determining the chain of command, and evaluating program outcome. Also has authority to direct response operations and assumes total control over site activities.
Contact: To be determined

Title: **Scientific Advisor**
Description: Guides the Project Manager in scientific matters.
Contact: To be determined

Title: **Medical Consultant**
Description: Responsible for conducting physical exams as specified under the Medical Monitoring Programs
Contact: To be determined

Title: **Health & Safety Coordinator (HSC)**
Description: Overall responsibility for developing and implementing health and safety standards and the HASP, procuring appropriate personal protective clothing and equipment, staff training, etc.
Contact: To be determined

5.4.2.2 On-Site Personnel

This section should identify all on-site personnel and should be task specific.

Title: **Safety Officer (SO)**
Description: Advises the field team on all aspects of health and safety issues, recommends stopping work if any operation threatens worker or public health and safety.
Contact: To be determined

Title: **Health & Safety Technician (HST)**
Description: Responsible to assist the SO in implementation of the HASP, particularly the air monitoring activities in the work area
Contact: To be determined

Title: **Site Supervisor/Field Team Leader**
Description: Responsible for field team operations.
Contact: To be determined

<u>Title:</u>	Work Party
<u>Description:</u>	Performs field operations
<u>Contact:</u>	To be determined

5.4.3 Emergency Contacts

Emergency contacts are identified in Section 4.1 of this SMP and directions to the nearest hospital are provided in Section 4.2.

5.4.4 Site Entry

5.4.4.1 Site Entry Objectives

The objective of each intrusive activity should be identified in this section (e.g. to install a new waterline service). This section should describe all steps or procedures involved with the anticipated activity, including activity setup, performance of the activity, testing of soils, and restoration of the site.

5.4.4.2 Safety Meetings

To ensure that the HASP is being followed, the task Safety Officer (SO) will conduct a safety meeting prior to entry to the site or the initiation of any site activity (pre-entry briefing), if any conditions change, and before work commences each day.

5.4.4.3 Safety Training

The task SO will confirm that every person assigned to a task has had adequate training for that task and that the training is up-to-date by checking with the HSC. On-site personnel working at this site shall have a minimum of a 40-hour initial Hazardous Waste Operations and Emergency Response (HAZWOPER) training and a current 8-hour refresher course. Additionally, the SO will confirm that all subcontractor's on-site personnel have the HAZWOPER training and a current 8-hour refresher course.

All training will have been conducted and certified in accordance with the Occupational Safety and Health Administration (OSHA) regulations as outlined in 29 CFR 1910.120.

5.4.4.4 Medical Surveillance

The intent of medical surveillance is to monitor and reduce health risks to employees potentially exposed to hazardous materials and to provide baseline medical data for each employee involved in intrusive work activities. It is also intended to determine all personnel's ability to wear personal protective equipment such as chemical resistant clothing and respirators.

Medical examinations will be administered to all trained personnel on a pre-employment, post-employment, and annual basis. Additionally, exams will be performed as warranted by symptoms of exposure or specialized activities.

All on-site personnel will have had a medical surveillance physical consistent with OSHA regulations in 29 CFR 1910.120 and performed by a qualified occupational health physician. The SO will confirm prior to initiation of work on this site that every person assigned to a task has had an annual physical, has passed the medical examination and has been determined medically fit by an occupational health physician for the planned type of work.

5.4.5 Hazard Evaluation

This section of the HASP must provide an assessment of general hazards that may be encountered during intrusive activities at the site. Site hazards that potentially could be encountered at the site include three primary groups, including physical, biological, and chemical hazards, each of which is discussed below. Mitigation and controls will include work procedures, work/rest regimen, vapor and dust control measures, PPE, and respiratory protection as appropriate.

5.4.5.1 Physical Hazards

Physical hazards such as the following may be encountered on site:

- Slip/trip/fall (e.g. from curbing, debris, steep topography, ice, etc.)
- Ultraviolet rays
- Lifting strains (e.g. from generators, drums, equipment)
- Heavy machinery and vehicles (e.g. excavators, drill rigs)
- Flying debris (e.g. debris from drilling equipment)
- Noise (e.g. elevated noise levels associated with heavy equipment)
- Heat/cold stress

5.4.5.2 Biological Hazards

Biological hazards such as the following may be encountered on site:

- Poisonous plants – poison ivy, poison oak, poison sumac, hog weed
- Insects/animals – deer ticks, mosquitoes, rabid animals, snakes, stray animals

5.4.5.3 Chemical Hazards

Based upon past environmental investigations completed at the site, site personnel may be exposed to the chemicals identified in Appendices B, C & E of this SMP. The primary contaminants on the site include VOCs, SVOCs, PCBs, and heavy metals. OSHA Permissible Exposure Levels (PELs) and the National Institute for Occupational Safety and Health (NIOSH) recommended exposure limits-time weighted average (REL-TWA) concentrations are provided in the following table for all contaminants detected during the subsurface investigation:

Table 5-1. Exposure Limit Summary

Chemical	OSHA PEL-TWA (mg/m ³ or ppm)	NIOSH REL-TWA (mg/m ³ or ppm)
Acetone	1,000	250
Benzene	1	0.1
2-Butanone	200	200
1,2-Dichloroethene (Total)	20	1
cis-1,2-Dichloroethene	200	200
Ethylbenzene	100	100
Methylcyclohexane	500	400
Methylene Chloride	25	--
1,2,4-Trichlorobenzene	--	5
Trichloroethylene	100	25
Trichloroethene	100	25
Acenaphthylene	--	--
Anthracene	0.2	0.1
Benzo(a)anthracene	--	--
Benzo(a)pyrene	0.2	0.1
Benzo(b)fluoranthene	--	--
Benzo(g,h,i)perylene	--	--
Bis(2-Ethylhexyl)phthalate	--	--
Chrysene	0.2	0.1
Dibenzofuran	--	--
Fluoranthene	--	--
Fluorene	--	--
Indeno(1,2,3-cd)pyrene	--	--
2-Methylnaphthalene	--	--

Chemical	OSHA PEL-TWA (mg/m ³ or ppm)	NIOSH REL-TWA (mg/m ³ or ppm)
2-Methylphenol	--	--
Naphthalene	10	10
Phenanthrene	0.2	0.1
Phenol	5	5
Pyrene	0.2	0.1
PCBs (Aroclors)	0.5	0.001
Aluminum	15	10
Antimony	0.5	0.5
Arsenic	0.01	--
Barium	--	--
Beryllium	0.002	0.0005
Cadmium	0.005	--
Calcium	--	--
Chromium	0.5	0.5
Cobalt	0.1	0.05
Copper	1	1
Iron	10	5
Lead	0.05	0.05
Magnesium	--	--
Manganese	5	1
Mercury	0.1	0.05
Nickel	1	0.015
Potassium	--	--
Selenium	0.2	0.2
Silver	0.01	0.01
Sodium	--	--
Thallium	0.1	0.1
Vanadium	0.05	0.05
Zinc	--	--

The potential exposure mechanism that can transport particulates and contaminants from the areas of the intrusive activity to other areas of the site as well as beyond the boundaries of the site are:

- Contaminated dust projected by air currents
- Failure to adhere to proper decontamination procedures
- Contact with the surface water and groundwater

5.4.5.4 Flammable Hazards

As a precautionary measure the following shall be implemented to address flammable hazards.

- Use a fire extinguisher only to escape or to fight very small fires. Do not attempt to fight large fires.
- Field vehicles must have at least one ABC rated fire extinguisher.
- Heavy equipment used for excavation must have an ABC rated fire extinguisher located on the equipment.
- Explosive or flammable materials and liquids will be stored only in approved facilities.
- Smoking is not permitted on the site or in any work areas.
- Do not use equipment that may generate a spark where there is a potential of explosive gases or vapors.
- Hot work (i.e.: cutting, grinding, welding, torching) shall not be allowed in the work area(s) unless a comprehensive Hot Work Permit is completed and authorized.

5.4.5.5 Hazard Identification & Control

Hazard controls generally consist of the following specific safety procedures: Training, Engineering Controls, Air Monitoring and PPE Selection. All site personnel are required to use the PPE appropriate to their work task and potential exposures as outlined in the HASP. The levels of PPE assigned to each activity will be based on available information on the estimation of exposure potential associated with each work task. An example analysis is shown in the following table:

Table 5-2. Example Hazard Identification Analysis

AFFECTED PERSONNEL	TASK/ OPERATION	HAZARDS	HAZARD CONTROL
Exclusion Zone Personnel	Soil Excavation & Trenching	Potential Exposure to volatiles, semi-volatiles, heavy metals	Exposure to chemical hazards: <ul style="list-style-type: none"> - Stand upwind when possible - Minimize direct contact - Avoid walking through discolored areas, puddles, leaning on drums or contacting anything that may be contaminated. - Don appropriate PPE - Level D PPE work as a minimum - >5 ppm organic vapor for 5 minutes, upgrade to Level C. - >200ppm organic vapor for 5 minutes upgrade to Level B
Exclusion Zone Personnel	Soil Excavation & Trenching	Inclement weather	<ul style="list-style-type: none"> - Cease site activities during electrical storm - Cease site activities in extreme temps
Exclusion Zone Personnel	Soil Excavation & Trenching	Back Injury	<ul style="list-style-type: none"> - Use mechanical lifting device when possible - Use buddy system when lifting heavy or awkward objects - Do not jerk or twist body while lifting

5.4.6 Hazard/Task Analysis

Potential physical hazards that may be associated with potential on-site activities are listed in the in Table 5-3 on the following page. The table provides a summary of typical physical site hazardous only. Additional hazards should be listed that are specific to the proposed intrusive activity.

Table 5-3. Example Physical Hazards Analysis

Hazards:	Precaution
1) Skin and/or eye contact with contaminated soil and/or groundwater, decon solutions, and sample preservation agents. 2) The inhalation of volatile organic vapors during site activities. 3) The inhalation of contaminated dusts and other airborne particles during site activities.	<ul style="list-style-type: none"> - Wear the required personal protective equipment when conditions or activities indicate the need for it. - Avoid walking through puddles, and contacting other potential sources of contaminants such as drums. - Keep airborne dust levels to a minimum by wetting down surfaces.
Physical injuries, such as abrasions, insect bites, back injuries, slips, trips, falls.	<ul style="list-style-type: none"> - Avoid slippery surfaces when possible. - Practice safe lifting techniques. - Know the location of other site workers at all times, especially before moving and/or starting up heavy equipment such as drill rig or truck. - Be observant of possible insect nesting areas. - Have a first aid kit on hand.
Noise	<ul style="list-style-type: none"> - Avoid standing near noise generating equipment. - Utilize appropriate hearing protection
Heat and cold stress	<ul style="list-style-type: none"> - Dress appropriately, wear dry clothing. - Take frequent breaks during extreme weather conditions. - Refer to the section on heat stress or cold stress, as appropriate for additional precautions.
Fire	<ul style="list-style-type: none"> - Have a fire extinguisher on hand. - Keep ignition sources away from flammable materials and atmospheres.
Security	<ul style="list-style-type: none"> - Stay alert to neighborhood activities

5.4.7 Air Monitoring & Action Levels

5.4.7.1 Air Monitoring Equipment

The following environmental monitoring instruments shall be used on site at the specified intervals.

Photoionization Detector (PID)

A PID with a 10.6 eV lamp shall be used during tasks that require any intrusive activities. At a minimum, the PID should be utilized at the start of all intrusive activities, whenever obvious contamination is noted, and at least every 15 to 30 minutes through the duration of the intrusive activities. PID measurements shall be taken in the breathing zone of on-site personnel, in low areas where flammable vapor may accumulate, in the headspace of soil and water samples, downwind of intrusive activities, and around the perimeter of the exclusion zone, as appropriate.

The PID shall be calibrated daily following manufacturers recommendations. Calibration data shall be recorded in daily logs by the SO or HST.

Quad Alarm Gas Monitor

Combustible gas levels, oxygen, carbon monoxide, and hydrogen sulfide concentrations shall be monitored if during the course of the activities, waste is encountered. The gas monitor shall be calibrated daily following manufacturers recommendations. Calibration data shall be recorded in daily logs by the task SO or HST.

Dust

Dust levels shall be visibly monitored. If it appears dust levels are increasing, a particulate meter shall be utilized following the manufacturer's recommendations.

Temperature

Ambient temperature should be monitored throughout the work day for potential heat stress or cold stress conditions. Based upon observed weather forecasts, a thermometer shall be utilized to monitor on-site temperatures whenever the expected low temperature for the day is anticipated to be less than 20° Fahrenheit or the anticipated high temperature is anticipated to be in excess of 90° Fahrenheit.

5.4.7.2 Action Levels

An action level is a point at which increased protection is required due to the concentration of contaminants in the work area or other environmental conditions. Each action level is determined by the concentration level (above background level) and the ability of the personal protective equipment to protect against that specific contaminant. The action levels are based on concentrations in the breathing zone.

Should action levels be reached, work operations shall cease until further evaluation is performed and safe levels are prevalent. If ambient levels are measured which exceed the action levels in areas accessible to the public or unprotected personnel, necessary site control measures (barricades, warning signs, and mitigative actions, etc.) must be implemented before commencing activities at the specific work site. If through engineering controls and monitoring, safe levels (below action levels) cannot be achieved, an upgrade in personal protection equipment shall be mandated by the task SO, or operations shall cease in that portion of the site. The maximum action levels at the site are as follows:

- Volatiles (PID monitor) = consistent readings of >5ppm sustained for 5 minutes
- Atmospheric gases (Quad Alarm)
 - Combustible gases = >10% LEL, requires an SCBA
 - Oxygen = 19.5%-23.5%, above or below requires an SCBA
 - Carbon Monoxide = >35ppm, requires an SCBA
 - Hydrogen Sulfide = >10ppm, requires an SCBA
- Temperature = body core temperature of < 36°C (96.8°F) for cold stress

In addition to health and safety air monitoring, a CAMP must be implemented for all intrusive activities, as described in Section 3.1.3 of this SMP.

5.4.8 Personal Protective Equipment

5.4.8.1 General Information

The purpose of personal protective clothing and equipment is to shield or isolate individuals from the chemical and physical hazards that may be encountered during work activities. The level of protection required must correspond to the level of hazard known, or suspected, in the specific work area.

There are four basic levels (A, B, C, and D) of personal protection as established by the United States Environmental Protection Agency (USEPA). Level A provides the highest level of protection and Level D provides the lowest. The levels of personal protection are briefly defined below.

- **Level D** will consist of field clothes, outer gloves (if soil/water contact is likely), steel toe and shank safety boots, safety glasses (for splash hazards), and a hard hat (if overhead hazards are present).
- **Modified Level D** will consist of Tyvek coverall, safety glasses (for dust/splash hazards) outer gloves with disposable inner gloves, steel toe and shank work boots, overboots if free product is encountered or as otherwise specified, hearing protection and, if overhead hazards are present, such as during drilling, a hard hat. Safety glasses must also be worn during drilling and excavating activities.
- **Level C** will consist of the same equipment as listed for modified Level D with the addition of a full-faced air purifying cartridge equipped respirator.
- **Level B**, if required for working on this project site, consists of the same equipment as listed for Level C with the substitution of a full-faced Self-Contained Breathing Apparatus (SCBA) in place of a full-faced air purifying respirator.
- **Level A** is not anticipated for this project.

When wearing Level C, B, or A, all junctures between the chemical protective coverall (i.e., Tyvek suit) and boots, gloves, and respirator must be taped. The suit must be placed over the boots and gloves. When taping, remember to leave a tab for easy removal. Stress spots in the suit must also be taped, such as under the arms, down the zipper, and up or across the back.

Personal protective equipment has been selected consistent with the hazards associated with the expected field activities. Personal protective equipment (PPE) is available in various sizes to provide a good fit for all personnel. PPE must be stored in a clean location with access by site workers. site workers are responsible for maintenance and storage of equipment at the site.

5.4.8.2 Task Specific Requirements

Based on evaluation of the potential hazards for the site, the initial levels of PPE appropriate for most anticipated intrusive activities is **Modified Level D** based on the potential route of contact and the potential contaminants, although this may be modified based upon the actual planned activity.

In this plan, Modified Level D is presented as a modified protection level which consists of, at a minimum, hard hat, safety glasses, work boots, long pants, disposable Tyvek suits/coveralls, latex/nitrile gloves, rubber boots or hazmat boot covers or work boots, and other weather appropriate clothing. Respiratory protection and an upgrade in PPE to Level C shall be incorporated only where required by site conditions. The following additional requirements should also be considered:

- A hard hat is only required when personnel are working around heavy machinery or vehicle (e.g. drilling operations) or when working in the right-of-way or an adjacent roadway and increased visibility is necessary.
- Safety glasses are only required when personnel are working around heavy machinery or vehicle (e.g. drilling operations) where there is a potential for debris to fly into worker's eyes.
- A reflective safety vest must be worn while working within the right-of-way or an adjacent roadway or when increased visibility is necessary, such as working around heavy equipment or when working at dawn/dusk.
- Tyvek suits and latex/nitrile gloves are only required to be worn during intrusive activities when soil and water samples are being handled. Tyvek suits and gloves are not required for non-intrusive activities (e.g. survey services and utility feasibility study).
- Hearing protection shall be required at the discretion of the SHSO, but at a minimum, must be utilized by all on-site personnel when the drill rig hammer is being utilized to advance the soil sampler.
- No changes to the specified levels of PPE shall be made without first obtaining approval of the SO and the Project Manager. If action levels are reached, work shall cease and the SO and his advisors shall perform further evaluations. If necessary, an upgrade in PPE shall be mandated.
- If an upgrade to Level C PPE is required, air purifying respirators equipped with organic vapor/acid gas/HEPA cartridges will be utilized. Organic vapor/acid gas/HEPA cartridges are the appropriate canister for use with the involved substances. All respirators used will be approved by NIOSH and/or the Mine Safety and Health Administration (MSHA) and their use shall be consistent with OSHA regulations in 29 CFR 1910.134. All on-site personnel wearing a respirator shall have respirator clearance from a qualified occupational health physician. In addition, the respirator wearers on site shall perform qualitative fit tests to ensure proper fit of the face seal of the respirator. Inspection logs shall be completed, signed and kept with the HASP. Filter cartridges used shall be of the same manufacturer as the respirator and shall be changed on a daily basis at a minimum and/or if breathing becomes difficult.

Air purifying respirators shall not be used if any of the following conditions exist:

- Oxygen deficiency
 - Immediately Dangerous to Life or Health (IDLH) concentrations of specific substances
 - Entry into an unventilated or confined area which has not been characterized
 - Presence or potential presence of unidentified contaminants
 - Contaminant concentrations are unknown or exceed designated maximum use concentrations (MUCs)
 - Identified gases or vapors have inadequate warning properties
 - High relative humidity, may reduce protection offered by sorbent
- The need for Level A or Level B PPE is not anticipated for tasks covered by this HASP. Should Level C PPE be deemed insufficient based upon the conditions encountered in the field, all work activities will temporarily cease and the HASP will be updated prior to continuing any on-site activities.

Personnel should also be able to upgrade or downgrade their level of protection with the concurrence of the SO and task manager based upon air monitoring results and the following.

Reasons to upgrade:

- Known or suspected presence of dermal hazards.
- Occurrence or likely occurrence of gas, vapor or dust emission.
- Change in work task that will increase the exposure or potential exposure with hazardous materials.

Reasons to downgrade:

- New information indicating that the situation is less hazardous than was originally suspected.
- Change in site conditions that decrease the potential hazard.
- Change in work task that will reduce exposure to hazardous materials.

5.4.9 Site Control Measures

5.4.9.1 Work Zones

All site work zones will be clearly marked as applicable and discussed with all on-site personnel. Site personnel will be responsible for delineating and maintaining the work zones. Site work zones shall consist of the exclusion, support, and contamination reduction zones as required. Because there will be minimal disturbance to the project site under pre-design programming tasks for the wetlands delineation, the survey services and the utility feasibility study, a delineated exclusion zone is not required to be designated as part of these tasks.

The **exclusion zone** (EZ) is the zone which contamination is most likely to be encountered. For most intrusive activities, the exclusion zone is considered to be the actual area of the intrusive activity plus a 50 foot buffer surrounding the intrusive activity. Flow of personnel and equipment into and out of the zone will be monitored throughout the activity. While in the exclusion zone all personnel must wear the specified PPE.

The **contamination reduction zone** (CRZ) will be determined based upon the location of the intrusive activity and prevailing wind conditions at the site. Personnel working inside the exclusion zone will decontaminate or dispose all soiled clothing in the contamination reduction zone each time the exclusion zone is exited, if the clothing worn becomes soiled. Appropriate equipment, supplies, and personal PPE will be made available in the contamination reduction zone to facilitate the protection and decontamination of personnel working in the exclusion zone.

A **support zone** (SZ) will be established in close proximity to the Contamination Reduction Zone, but again, the exact location will be based upon the actual location of the intrusive activity.

5.4.9.2 Communication

Communication shall be accomplished by a combination of person to person verbal correspondence, the use of cellular phones, and by verbal signals or hand signals depending on the pre-design programming task. Communication procedures will be reviewed at the Safety Meeting before entering the exclusion zone.

5.4.9.3 Site Security Measures

The contamination reduction zone and support zone shall be clearly marked as appropriate and reviewed at the Safety Meeting. All personnel shall report to the SO upon entering and exiting the site so that everyone will be accounted for.

5.4.10 Decontamination

All decontamination activities will be performed on-site within the contamination reduction zone. Decontamination pads will be constructed in a similar manner to the temporary containment pads described in Section 3.2.2 of this SMP. Preferably, one decontamination pad will be constructed for personnel and small hand tools/instruments, while a second pad is constructed for heavy equipment. The contractor will be responsible for ensuring that the decontamination activities do not result in erosion of the existing soils on the site and that the water is not discharging into a surface water body. All water derived from decontamination processes will be collected and characterized for off-site disposal.

5.4.10.1 PPE

At a minimum, all non-disposable personnel protective clothing will be decontaminated by first washing the soiled items with a non-phosphate detergent and potable water mixture, followed by potable water and distilled water rinses. All disposable/expendable PPE and clothing will be placed into plastic trash bags for off-site disposal. At a minimum, all equipment that comes into contact with contaminated soil and groundwater will be decontaminated with a high-pressure steam cleaner.

5.4.10.2 Small Equipment & Hand Tools

Small hand tools and equipment (e.g. hand augers, split spoon soil samplers, etc.) will be decontaminated as appropriate, but, at a minimum, prior to removal from the site. The recommended decontamination procedure for equipment used during the performance of the pre-design programming tasks is:

- Wash and scrub with distilled water and low phosphate detergent
- Distilled water rinse

5.4.10.3 Heavy Equipment

Heavy equipment, such as a hydraulic excavator, may be utilized during the intrusive activities. All heavy equipment will be decontaminated with a pressure steam cleaner in the CRZ prior to demobilization of the equipment and all wash water generated from the steam cleaning operations will be collected for off-site treatment.

5.4.11 Hazard Communication

In compliance with 29 CFR 1910.1200, any hazardous materials brought on-site by any personnel will be accompanied with an appropriate Material Safety Data Sheet (MSDS). The SO will be responsible for maintaining the MSDSs on site, reviewing them for hazards that working personnel may be exposed to, and evaluating their use on site with respect to compatibility with other materials including personal protective equipment, and their hazards. Should the SO deem the material too hazardous for use on-site, the party responsible for bringing the material on site will immediately remove it from the site.

5.4.12 Emergency Procedures

On-site emergencies can range in intensity from minor to serious conditions. Various procedures for responding to site emergencies are listed in this section. The designated SO is responsible for contacting local emergency services in emergency situations (however, others must assume responsibility if the situation warrants). An injured person shall be accompanied by another worker at all times.

The following emergency procedures will be used by on-site personnel. The SO shall be notified of any on-site emergencies and be responsible for ensuring that the appropriate measures are followed. Non-emergencies will be treated on-site and documented and then directed to seek further medical attention. All occupational injuries and illnesses will be reported, recorded, and investigated.

On-site personnel will be equipped with a cellular telephone for communication. Other emergency equipment, including a first aid kit will be on-site at all times. In the case of a medical emergency, workers and the SO will communicate to determine the nature of the emergency and the location. After it is determined whether there is an actual emergency, he/she will instruct someone to call for an ambulance. Cellular telephones would be used to place such a call.

If an emergency evacuation of the site must take place, all personnel on-site will immediately stop work, shut off all equipment, and assemble at the entrance to the site. After assembly of all personnel, the site will be evacuated using vehicles parked in the support zone. All vehicles will be parked facing out to enable a quick exit from the site. If time permits, as determined by the SO, emergency decontamination will take place. This will consist of a wash and rinse of overboots, removal of disposable clothing, and washing of hands and face. After exiting the site, all personnel will reassemble near the western gate to the Amphenol facility.

If the head count reveals someone is still on site, the SO and his/her assistant will look for the person(s), using appropriate personal protection.

The SO will also be responsible for determining whether or not the emergency warrants complete evacuation of the site. If evacuation is appropriate, the SO will coordinate the evacuation of all building/site occupants with the Amphenol personnel.

5.4.12.1 Personnel Injury

Upon notification of personnel injury the nature of the injury will be assessed, the appropriate first aid shall be initiated and, if necessary, contact shall be made for an ambulance and with the designated medical facility. If the injury increases the risk to others, activities on site will stop until the added risk is removed or minimized.

5.4.12.2 Fire/Explosion

Upon notification of fire or explosion, all site personnel shall assemble at a safe distance upwind of the involved area. The SO shall alert the appropriate fire department.

5.4.12.3 PPE Failure

If any site worker experiences a failure or alteration of PPE that affects the protection factor that person and his/her buddy shall immediately exit the exclusion zone. Re-entry shall not be permitted until the equipment has been repaired or replaced.

5.4.12.4 Chemical Exposure

If any site worker experiences adverse effects due to chemical exposure, the appropriate first aid procedures shall be followed according to the MSDS for that chemical. The person shall at a minimum be moved to fresh air. Whenever possible, personnel should be decontaminated before administering first aid.

Workers should go to the support zone as soon as any of the following acute symptoms of exposure are experienced:

- Rotten egg odor (indicates hydrogen sulfide)
- Sweet almond-like odor (indicates cyanide presence)
- Headache
- Nausea or vomiting
- Fatigue
- Weakness
- Confusion
- Dizziness
- Irritation of eyes, nose, throat
- Dermatitis
- Chills
- Chest tightness
- Cough
- Muscle spasms
- Staggered gait
- Increased salivation
- Indigestion
- Diarrhea
- Irritability
- Metallic taste in mouth

5.4.12.5 Spill Containment

If on-site work results in the accidental spill or release of oil or hazardous materials, containment to the extent possible will be required by on-site personnel (in proper PPE). Containment should include the use of absorbent pads or materials, diking with soils, covering and/or diverting spills from sewers, drains, surface water bodies, etc. For spills that cannot be controlled by on-site personnel or are above the reportable quantities, the SSO or designee will secure the area and notify the NYSDEC Spills hotline and notify appropriate emergency personnel through the 9-1-1 system.

5.4.13 Emergency Medical Care

5.4.13.1 Nearest Hospital

See Section 4.2 for directions to the nearest hospital.

5.4.13.2 On-site First Aid

A first aid kit shall be maintained and stored within the Contamination Reduction Zone. General first aid procedures are identified in the list below:

Skin/Eye Contact: Flush eyes and/or skin thoroughly with water for 15 minutes. Remove contaminated clothing. If skin was contacted with a dry material, brush it off first, then flush with water. Seek medical attention if irritation develops.

Ingestion: Do not induce vomiting. Call the Poison Control Center. Tell them what was swallowed, if possible. Follow instructions. Arrange for transport of the victim to the hospital by calling for an ambulance.

Inhalation: Remove person from contaminated environment without risking your own safety. **DO NOT ENTER A CONFINED SPACE UNLESS WEARING LEVEL B AND A STANDBY PERSON IS PRESENT. DO NOT ENTER EXCLUSION ZONE UNLESS WEARING ONE LEVEL HIGHER PROTECTION THAN VICTIM WAS WEARING.** Administer CPR, if necessary. Bring victim to hospital or call ambulance.

Injuries: Do not move a victim who may have a back injury. Cover them with coats, blankets, or other appropriate items to keep them warm. Call an ambulance.

Apply pressure to bleeding wounds. If the victim is able, have the victim apply pressure to the wound. If they are not able, wear gloves to protect from exposure to blood. Put gauze bandages or other clean cloth over the wound. Do not remove blood-soaked bandages or cloth - instead put additional bandages or cloths over the blood-soaked bandages. Elevate the limb with the injury above the heart.

Administer CPR if victim does not have a pulse and if you are currently certified in CPR. Have someone call for an ambulance immediately if there is any possibility that the victim is having or had a heart attack.

Shock is likely to develop in any serious injury or illness. The following are signals of shock: restlessness or irritability; altered consciousness; pale, cool, moist skin; rapid breathing; and/or rapid pulse. In the event of shock, do the following: Immediately have someone call for an ambulance; have the victim lie down; elevate legs 12 inches unless you suspect head, neck, or back injuries; if victim is cool, cover the victim to prevent chilling; do not give the victim anything to drink, even if thirsty.

Collapses: If site personnel have unexplainably collapsed, all personnel must evacuate work area. Rescue personnel must don a level of protection higher than the victim was in before evacuating victim from work area. Confined space rescue always requires Level B protection. No one will re-enter the work area until the cause has been determined and the SO has determined that the area is safe to re-enter.

5.4.13.3 Heat & Cold Stress

Heat Stress Symptoms and Remedies

Acclimatization and frequent rest periods must be established for conducting activities where heat stress may occur. Symptoms of heat stress and appropriate responses include:

- Heat Rash - redness of skin. Remedy - frequent rest and change of clothing.
- Heat Cramp - painful muscle spasms in hands feet, and/or abdomen. Remedy - administer lightly salted water (1/4 teaspoon per gallon) orally unless there are medical restrictions.
- Heat Exhaustion - clammy, moist, pale skin; dizziness, nausea rapid pulse, fainting. Remedy - remove to cooler area and administer fluids orally or have physician administer saline solution intravenously.
- Heat Stroke - hot dry skin; red, spotted or bluish; high body temperature of 104°F or greater, mental confusion, loss of consciousness, convulsions or coma. Remedy -immediately cool victim by immersion in cool water. Wrap in wet sheet while fanning, sponge with cool liquid. While fanning, treat for shock. Call for an ambulance. **DO NOT DELAY TREATMENT. COOL BODY WHILE AWAITING AMBULANCE.**

Heat Stress - Precautions

Precautions to take to reduce the possibility of heat stress include the following:

- Avoid caffeine and alcohol both during work hours and 24 hours before on-site activity.
- Drink water before feeling thirsty.
- Watch for signs and symptoms of heat stress.
- Rest in cool/dry areas, such as air conditioned vehicle or building or in the shade.
- Use cooling devices such as water sprays or fans to cool off.

Cold Stress Symptoms

Cold Stress symptoms may include any or all of the following:

- Excessive fatigue
- Irritability
- Euphoria
- Drowsiness
- Uncontrollable shivering
- Frost nip
- Medical assistance is necessary if these symptoms persist.

Cold Stress Treatment

Cold stress and frostbite emergency care:

- Remove the patient to a warm, dry place.
- If clothing is wet, remove and replace with dry clothing.
- Keep patient warm. Re-warming of the patient should be gradual to avoid heat stroke symptoms.
- Dehydration or the loss of body fluids may result in cold injury due to a significant change in blood flow to the extremities. If patient is conscious and alert, warm sweet drinks should be provided.
- Extremities affected by frostbite should be gradually warmed up and returned to normal temperature. Moist compresses should be applied; begin with lukewarm compresses and slowly increase the temperature as changes in skin temperature are detected.
- Keep patient warm and calm, remove to a medical facility as soon as possible.

Cold Stress - Prevention

- Take breaks in heated shelters at frequent intervals when working in temperatures below 20°F, including wind chill.
- Remove outer layer of clothing when entering the shelter. Loosen other layers to allow sweat to evaporate.
- Drink warm, sweet liquids or soups to reduce possibility of cold injury. Avoid caffeine and alcohol.

5.4.14 Standard Operating Procedures

The following standard operating procedures shall be implemented during intrusive site activities:

- All construction activities shall be performed in compliance with all OSHA Construction Industry Standards and Regulations. Following the procedures, requirements, and provisions of this plan, all personnel who may be potentially exposed to hazardous materials or wastes shall be in compliance with federal/state regulations, OSHA 29 CFR 1910.120.
- Horseplay will NOT be tolerated under any circumstances.
- All work conducted on-site will be coordinated through the Project Manager and the SO.
- Minimize contact with hazardous substances.
- Use remote sampling, handling, and container-opening techniques whenever possible.
- Any drum or tank discovered on-site shall not be sampled, opened, or handled until an appropriate task specific plan for unknown drum/tank sampling has been implemented.
- Samples from areas known, or suspected, to be contaminated with hazardous substances shall be handled with appropriate personal protective equipment.
- The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated shall result in evacuation of site personnel and reevaluation of the hazards and the level of protection. Contact the Health and Safety Coordinator to determine the appropriate actions to take.
- Protect monitoring and sampling instruments by bagging.
- Wear disposable outer garments and use disposable equipment where appropriate.

- Use proper dressing procedures before entering the Exclusion Zone and use all fasteners (zippers, snaps, buttons, etc.).
- All personal protective equipment and skin surfaces should be checked for cuts and/or punctures.
- All equipment used in site operations shall be properly cleaned and maintained in good working order. Equipment shall be inspected for signs of defect and/or contamination before and after use.
- Do not eat, smoke, chew gum, or drink on site. Avoid any practice that may increase the probability of hand-to-mouth transfer and ingestion of material. Avoid any application of cosmetics. Personnel shall wash thoroughly before initiating any of the aforementioned activities.
- Avoid brushy areas to minimize allergic reactions to poison ivy, deer ticks, etc.
- Prescribed drugs should not be taken by personnel where the potential for absorption, inhalation, or ingestion of toxic substances exists unless specifically approved by a qualified person. Alcoholic beverages intake should be avoided.
- The “buddy system” must always be used and enforced. At a minimum, two persons who are in constant communication with each other shall be on site at all times during any activity conducted on-site in which the potential exists for exposure to hazardous materials, or accident or injury.
- Personnel entering the Contamination Reduction Zone and/or the Exclusion Zone must check in and out at the Access Control Points.
- All subcontractors shall abide by the HASP or provide one that is equivalent, at a minimum, to the conditions specified in the HASP.
- No workers with beards or heavy side burns are allowed to wear respirators.

5.4.15 Task-Specific Requirements

In the event that a confined space entry is necessary for a particular intrusive activity, all confined space entry procedures, techniques, and equipment shall be consistent with OSHA regulations in 29 CFR 1910.146. Given the nature of the site, all confined spaces shall be considered permit-required confined spaces.

Similarly, sections should be added to the HASP to discuss lockout/tagout procedures, hot work permits, ladder/scaffolding safety, safe excavations, etc. as appropriate for the intended intrusive activity.

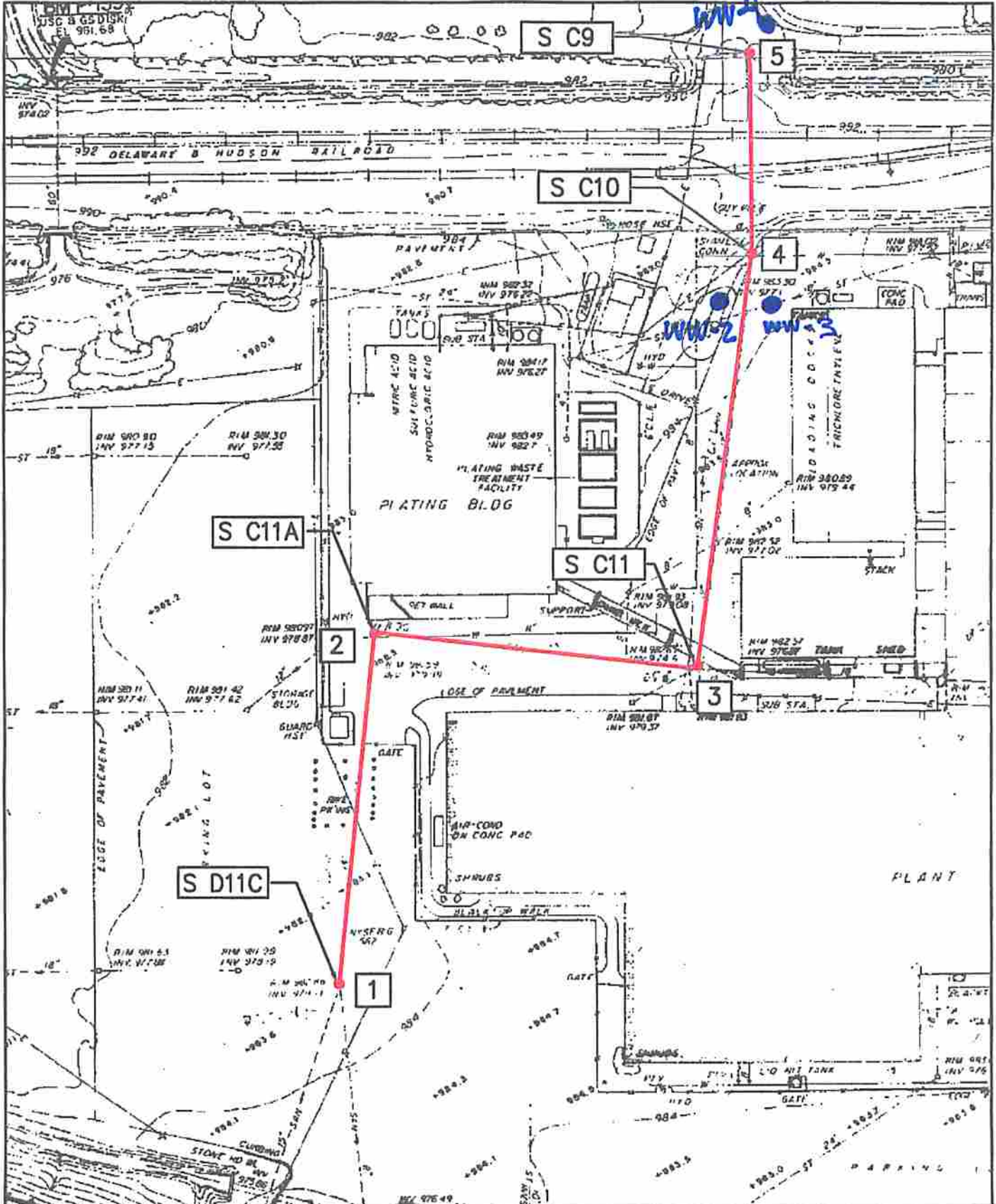
5.4.16 Certification & Agreement

An agreement should be included in all HASPs and must be signed by all contractors, subcontractors, and visitors before entering the entering the exclusion or decontamination zones. The agreement should include a statement similar to the following:

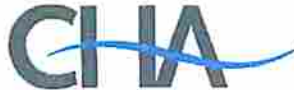
“I have read this Health and Safety Plan and I understand the requirements of the Plan. I will conduct work at this site in accordance with the requirements of the Health and Safety Plan.”

FIGURES

File: V:\PROJECTS\ANY\2\20385\CADD\ACAD\FIGURES\FIGURE1.DWG Saved: 3/11/2010 12:01:07 PM Plotted: 3/17/2010 9:29:20 AM User: Page, David



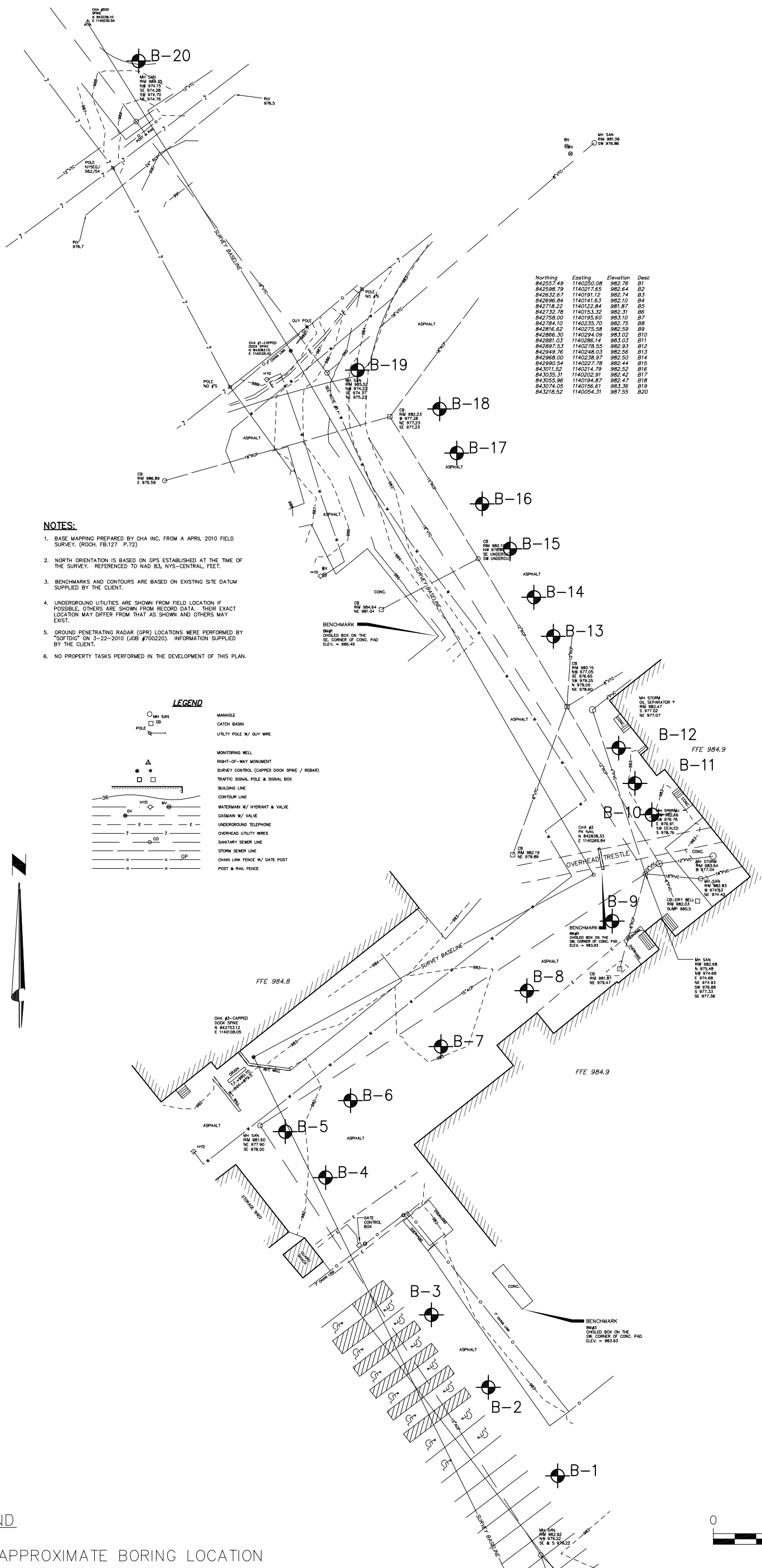
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FIGURE 1
PROJECT LOCATION MAP

PROJECT NO. 20385
DATE: MARCH, 2010
FIGURE 1



NOTES:

1. BASE MAPPING PREPARED BY CHA INC. FROM A APRIL 2010 FIELD SURVEY. (ROCH. FB.127 P.72)
2. NORTH ORIENTATION IS BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83, NYS-CENTRAL, FEET.
3. BENCHMARKS AND CONTOURS ARE BASED ON EXISTING SITE DATUM SUPPLIED BY THE CLIENT.
4. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
5. GROUND PENETRATING RADAR (GPR) LOCATIONS WERE PERFORMED BY "SOFTDIG" ON 3-22-2010 (JOB #700220). INFORMATION SUPPLIED BY THE CLIENT.
6. NO PROPERTY TASKS PERFORMED IN THE DEVELOPMENT OF THIS PLAN.

LEGEND

- MH SAN
- POLE
- UTILITY POLE W/ GUY WIRE
- MONITORING WELL
- RIGHT-OF-WAY MONUMENT
- SURVEY CONTROL (CAPPED DOCK SPIKE / REBAR)
- TRAFFIC SIGNAL POLE & SIGNAL BOX
- BUILDING LINE
- CONTOUR LINE
- WATERMAIN W/ HYDRANT & VALVE
- GASMAIN W/ VALVE
- UNDERGROUND TELEPHONE
- OVERHEAD UTILITY WIRES
- SEWER SINKER LINE
- STORM SINKER LINE
- CHAIN LINK FENCE W/ GATE POST
- POST & RAIL FENCE
- MANHOLE
- CATCH BASIN
- MONITORING WELL
- RIGHT-OF-WAY MONUMENT
- SURVEY CONTROL (CAPPED DOCK SPIKE / REBAR)
- TRAFFIC SIGNAL POLE & SIGNAL BOX
- BUILDING LINE
- CONTOUR LINE
- WATERMAIN W/ HYDRANT & VALVE
- GASMAIN W/ VALVE
- UNDERGROUND TELEPHONE
- OVERHEAD UTILITY WIRES
- SEWER SINKER LINE
- STORM SINKER LINE
- CHAIN LINK FENCE W/ GATE POST
- POST & RAIL FENCE

LEGEND

B-1 APPROXIMATE BORING LOCATION



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BORING LOCATION PLAN

VILLAGE OF SIDNEY SANITARY SEWER REPLACEMENT
AMPHENOL FACILITY
SIDNEY, NEW YORK

PROJECT NO.
20385

DATE: 04/2010

FIGURE 2

