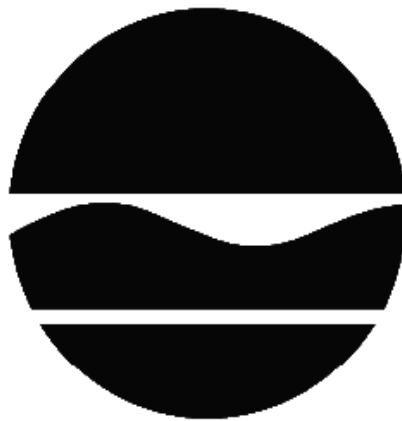


RECORD OF DECISION

Award Packaging Corp.
State Superfund Project
Garden City, Nassau County
Site No. 130155
March 2012



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

Award Packaging Corp.
State Superfund Project
Garden City, Nassau County
Site No. 130155
March 2012

Statement of Purpose and Basis

This document presents the remedy for the Award Packaging Corp. site, a Class 2 inactive hazardous waste disposal site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Award Packaging Corp. site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Air sparging with soil vapor extraction, an in-situ technology, will be used to treat groundwater contaminated with volatile organic compounds (VOCs). The process physically removes contaminants from the groundwater by injecting air into a well that has been installed into the groundwater. The VOCs are carried with the injected air into the vadose zone (the area below the ground surface but above the water table) where a soil vapor extraction (SVE) system is used to capture the injected air.

The SVE system will also remediate soil contaminated with VOCs and prevent soil vapor intrusion into the on-site building. The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The VOC-contaminated soils are in the same locations as the contaminated groundwater.

At this site, air injection wells will be installed in the portion of the site to be treated to a depth of approximately 45 feet, which is 15 feet below the water table. To capture the volatilized contaminants, two SVE wells will be installed in the vadose zone and screened from 20 feet below the ground surface (bgs) to a depth of approximately 25 feet bgs. The air containing VOCs extracted from the SVE wells will be treated with activated carbon, if necessary.

3. A site cover currently exists and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain a site cover, which will consist of the structures such as buildings, pavement, or sidewalks comprising the site. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. On-site soils located in the DW-01 area, the DW-02/DW-03 area, the loading dock area and the leaching pools that are not remediated using the SVE system and exceed unrestricted soil cleanup objectives will be excavated and transported off-site for disposal. Approximately 464 cubic yards of soil located in the vadose zone will be removed from these areas of concern. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will then be brought in to replace the excavated soil and establish the designed grades at the site.

5. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

6. A Site Management Plan is required, which includes the following:

a. An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 5 above.

Engineering Controls: The site cover discussed in Paragraph 3 and the air sparge/soil vapor extraction system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater, treatment system emissions, and vapor intrusion to assess the performance and effectiveness of the remedy;
- periodic soil vapor intrusion monitoring at the discretion of the NYSDEC to confirm that the SVE system is preventing soil vapor intrusion into the on-site building. The sampling will be conducted during the heating season and will include subslab vapor, indoor air and outdoor air sampling; and
- a schedule of monitoring and frequency of submittals to the Department.

c. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.
- continuing the operation of the components of the remedy until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

New York State Department of Health Acceptance

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

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 15, 2012



Date

Robert W. Schick, P.E., Acting Director
Division of Environmental Remediation

RECORD OF DECISION

Award Packaging Corp.
Garden City, Nassau County
Site No. 130155
March 2012

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of hazardous wastes at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Garden City Public Library
Attn: Lucy Jaffe
60 Seventh Street
Garden City, NY 11530
Phone: (516) 742-8405

New York State Department of Environmental Conservation
Attn: William Fonda
50 Circle Road
Stony Brook, NY 11790-3409
Phone: (631) 444-0350

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Award Packaging Corp. site is located at 625 South Street in the Town of Hempstead. The property is situated on the north side of South Street in a suburban area.

Site Features: The main site features include one multi-tenant commercial/industrial building, which is surrounded by paved parking.

Current Zoning/Use: The on-site building contains two tenant spaces. One space is used for warehousing and the other space is currently unoccupied. The site is zoned for industrial use. The surrounding parcels are currently used for a combination of commercial, light industrial, and a highway. The nearest residential area is 0.25 miles south of the site.

Historic Use: From 1967-2007, the site was used for application of print to plastic packaging material. During this time, wastes were disposed into two exterior drywells and one interior floor drain. In 2004, contaminated materials were excavated from the drywells and floor drain; however, remediation was incomplete. Groundwater contamination was detected at the bottom of the excavated drywells.

Site Geology and Hydrogeology: The subsurface soils above the water table consist of sand and gravel with discontinuous silt and clay lenses. The water table is located at a depth of 30 feet

below ground surface and groundwater generally flows south. However, the groundwater flow direction changes to southeast or east after heavy rains, due to the presence of a recharge basin west of the site.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the RI to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

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

The PRPs for the site, documented to date, include:

Rococo Associates, Inc.

Award Packaging Corp.

The Department and Rococo Associates, Inc. entered into a Consent Order on July 30, 2007. The Order obligates the responsible parties to implement a full remedial program.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,

- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

TOLUENE	BENZO(B)FLUORANTHENE
XYLENE (MIXED)	BENZO[K]FLUORANTHENE
TETRACHLOROETHYLENE (PCE)	Chrysene
ACETONE	BENZ(A)ANTHRACENE
ETHYLBENZENE	BENZO(A)PYRENE
CHROMIUM	indeno(1,2,3-cd)pyrene
COPPER	DIBENZ[A,H]ANTHRACENE
LEAD	

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Nature and Extent of Contamination: Based on investigations conducted to date, the site contaminants include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and metals.

Soil: Petroleum-related VOCs include toluene, ethylbenzene and xylene and were found in the soil near the two former drywells in the northwest corner of the property. Maximum concentrations of toluene and xylene were 3,000 parts-per-million (ppm) and 970 ppm, respectively. Toluene and xylene levels exceeded the unrestricted use soil cleanup objectives of 0.7 ppm and 0.26 ppm, respectively. Acetone, a VOC, was detected in the vicinity of the former indoor drain at 92 ppm, exceeding the unrestricted use soil cleanup objective of 0.05 ppm. Semivolatile organic compounds -- including benzo(a)anthracene, chrysene, benzo(b)fluoranthene and other polyaromatic hydrocarbons (PAHs) -- were found in several exterior drainage structures and beneath the former printing press area in the building. For example, benzo(b)fluoranthene was detected in a stormwater leaching pool at a maximum level of 6.8 ppm, exceeding the unrestricted use soil cleanup objective of 1 ppm. Metals, including cadmium, chromium and lead were detected in soils in and around on-site drainage structures. For example, the maximum lead concentration was found in a stormwater leaching pool at 6,870 ppm, exceeding the unrestricted use soil cleanup objective of 63 ppm.

Groundwater: VOCs were also found in on-site groundwater, but groundwater contamination has not migrated off site. Acetone, a VOC, was detected in a groundwater monitoring well near the indoor floor drain at 19,000 parts-per-billion (ppb), exceeding the groundwater standard of 50 ppb. Toluene was detected downgradient of the two former drywells at the northwest corner of

the site at a maximum concentration of 490 ppb, exceeding the groundwater standard of 5 ppb. Inorganic contaminants were detected at levels exceeding SCGs in unfiltered samples. However, groundwater sampling results generally met SCGs for inorganics for filtered samples and wells that were re-sampled using low-flow methods. Therefore, inorganic contaminants were likely detected in the unfiltered samples because of high turbidity and were probably not dissolved in the groundwater.

Soil Vapor: VOCs were also detected in the subslab vapor and indoor air of the on-site building. Tetrachloroethylene (PCE) was detected in the subslab vapor at a maximum level of 190 micrograms per cubic meter (ug/m³). The collocated indoor air sample had a PCE concentration of 0.31 ug/m³, which is lower than the indoor air guideline of 100 ug/m³. No off-site soil vapor testing was needed because VOC contamination has not migrated off-site.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Direct contact with contaminants in the soil and groundwater is unlikely because the majority of the site is covered with buildings, clean fill and pavement. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for inhalation of site-related contaminants due to soil vapor intrusion in the on-site building. Environmental sampling indicates that soil vapor intrusion is not a concern for off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: SUMMARY OF THE SELECTED REMEDY

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study (FS) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's remedy is set forth at Exhibit D.

The selected remedy is referred to as the Air Sparging, Soil Vapor Extraction, Excavation and a Cover System remedy.

The estimated present worth cost to implement the remedy is \$731,000. The cost to construct the remedy is estimated to be \$277,000 and the estimated average annual cost is \$83,800.

The elements of the selected remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Air sparging with soil vapor extraction, an in-situ technology, will be used to treat groundwater contaminated with volatile organic compounds (VOCs). The process physically removes contaminants from the groundwater by injecting air into a well that has been installed into the groundwater. The VOCs are carried with the injected air into the vadose zone (the area below the ground surface but above the water table) where a soil vapor extraction (SVE) system is used to capture the injected air.

The SVE system will also remediate soil contaminated with VOCs and prevent soil vapor intrusion into the on-site building. The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The VOC-contaminated soils are in the same locations as the contaminated groundwater.

At this site, air injection wells will be installed in the portion of the site to be treated to a depth of approximately 45 feet, which is 15 feet below the water table. To capture the volatilized contaminants, two SVE wells will be installed in the vadose zone and screened from 20 feet below the ground surface (bgs) to a depth of approximately 25 feet bgs. The air containing VOCs extracted from the SVE wells will be treated with activated carbon, if necessary.

3. A site cover currently exists and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain a site cover, which will consist of the structures such as buildings, pavement, or sidewalks comprising the site. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. On-site soils located in the DW-01 area, the DW-02/DW-03 area, the loading dock area and the leaching pools that are not remediated using the SVE system and exceed unrestricted soil

cleanup objectives will be excavated and transported off-site for disposal. Approximately 464 cubic yards of soil located in the vadose zone will be removed from these areas of concern. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will then be brought in to replace the excavated soil and establish the designed grades at the site.

5. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

6. A Site Management Plan is required, which includes the following:

a. An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 5 above.

Engineering Controls: The site cover discussed in Paragraph 3 and the air sparge/soil vapor extraction system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater, treatment system emissions, and vapor intrusion to assess the performance and effectiveness of the remedy;

- periodic soil vapor intrusion monitoring at the discretion of the NYSDEC to confirm that the SVE system is preventing soil vapor intrusion into the on-site building. The sampling will be conducted during the heating season and will include subslab vapor, indoor air and outdoor air sampling; and

- a schedule of monitoring and frequency of submittals to the Department.

c. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.
- continuing the operation of the components of the remedy until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into three categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and inorganics (metals and cyanide). Pesticides and polychlorinated biphenyls (PCB's) were determined not to be contaminants of concern at the site; therefore, these contaminants were not included in the sampling program. For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 6.1.1 are also presented.

Groundwater

Groundwater samples were collected from overburden wells and direct-push borings to assess groundwater conditions on-site. The overburden wells are screened at or near the water table, which is located at an approximate depth of 30 feet below ground surface (bgs). The direct push samples were obtained at depths of up to 60 feet bgs.

Groundwater sampling conducted during the RI revealed that the areal and vertical extent of the groundwater contamination was limited to the shallow on-site groundwater. Groundwater sampling conducted at the downgradient boundary of the site indicates that contaminated groundwater has not migrated off-site. Deep groundwater sampling results indicate that the groundwater contamination is limited to depths near the water table.

The groundwater contamination consists of VOCs, inorganics, and one SVOC. VOCs were found in the groundwater at levels exceeding SCGs at locations directly downgradient from areas with the same contaminants in soil. Inorganic contaminants were detected at levels exceeding SCGs in unfiltered samples. However, groundwater sampling results generally met SCGs for inorganics for filtered samples and wells that were re-sampled using low-flow methods. Therefore, inorganic contaminants were likely detected in the unfiltered samples because of high turbidity and were probably not dissolved in the groundwater. One semi-volatile organic compound, phenol, exceeded its SCG in one sample.

The groundwater contamination data is summarized in Table 1 and is depicted in Figure 2.

**Table 1- Groundwater
Award Packaging Corp.**

Detected Constituents	Concentration Range Detected (ppb)^a	SCG^b (ppb)^a	Frequency Exceeding SCG
<u>Metals NYS CLASS GA</u>			
ANTIMONY	ND ^c -10	3	1/44
ARSENIC	ND-220	25	6/44
BERYLLIUM	ND-22	3	14/44
CHROMIUM, TOTAL	ND-1100	50	17/44
COPPER	ND-430	200	1/44
IRON	ND-299000	300	28/44
LEAD	ND-200	25	15/44
MANGANESE	ND-4400	300	20/44
NICKEL	ND-240	100	1/44
SODIUM	970-112000	20000	24/44
THALLIUM	ND-20	0.5	3/44
<u>SVOC NYS CLASS GA</u>			
PHENOL	ND-26	1	1/17
<u>VOC NYS CLASS GA</u>			
ACETONE	ND-19000	50	2/28
BENZENE	ND-7.6	1	2/28
ETHYLBENZENE	ND-120	5	3/28
METHYLENE CHLORIDE	ND-170	5	1/28
TETRACHLOROETHYLENE(PCE)	ND-9.5	5	1/28
TOLUENE	ND-490	5	2/28
XYLENES, TOTAL	ND-220	5	3/28

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

c - ND: non-detect, less than minimum reporting limit as per DER-10.

The primary contaminants are acetone, toluene, ethylbenzene and xylene associated with past disposal on the site. As shown in Figure 2, acetone contamination is associated with disposal into an interior drywell while the other contaminants are associated with disposal into two exterior drywells on the northwest corner of the site.

Chromium, lead, and other metals were found in unfiltered samples throughout the site at levels exceeding SCGs. However, these chemicals were generally present at levels below SCGs in filtered samples and during re-sampling using a more representative sampling method. Phenol, an SVOC, was detected in one sample on the site and was not detected in any on-site soil samples. Therefore, the SVOC and metal compounds found are not considered site specific contaminants of concern in groundwater.

Based on the findings of the RI, the presence of acetone, toluene, ethylbenzene and xylene has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of groundwater to be addressed by the remedy selection process are: acetone, toluene, ethylbenzene and xylene.

Soil

Only subsurface soil samples were collected at the site during the RI, as the site is covered with pavement and a building. Soil samples were collected from a depth of 0 - 30 feet to assess soil contamination impacts to groundwater. The results indicate that soils at the site exceed the unrestricted SCGs and restricted commercial SCGs for volatile and semi-volatile organics and metals. Shallow soil samples obtained directly beneath the building (approximately 0-1 foot deep) generally exceeded unrestricted use SCGs while shallow soil samples obtained directly beneath outdoor pavement generally met unrestricted use SCGs.

The soil contamination data is tabulated in Table 2 and presented by area of concern in Figures 3 through 5. Soil contamination was found in the following areas of concern:

- DW-01 area: The soil in the vicinity of this former drywell inside the building was partially remediated prior to the remedial investigation. The soil contamination in this area consists primarily of acetone and copper. The maximum acetone concentration was 92 ppm, exceeding the unrestricted use SCG of 0.05 ppm. Copper was detected at 65.8 ppm, exceeding the unrestricted use SCG of 50 ppm. Sampling results for the DW-01 area are depicted in Figure 3.
- Former printing press area: The soil beneath the slab of the building in this area of concern is contaminated with acetone and SVOCs. The maximum acetone concentration was 0.46 ppm, exceeding the unrestricted use SCG of 0.05 ppm. Several SVOCs exceeded unrestricted use SCGs and two SVOCs exceeded restricted commercial use SCGs. The SVOCs were polycyclic aromatic hydrocarbons (PAHs), which are generally found in fuels. Sampling results for the former printing press area are depicted in Figure 3.
- Leaching pools and a loading dock drain: Several exterior former leaching pools and a loading dock drain contained contaminated soil. Contaminants included VOCs, SVOCs and inorganics. VOCs consisted primarily of acetone, with a maximum concentration of 0.87 ppm. The SVOCs were PAHs and their concentrations often exceeded restricted commercial SCGs. Inorganics included chromium, copper and lead, and were also frequently found at levels exceeding restricted commercial SCGs. Two on-site leaching pools (MH-3 and MH-6) were not sampled but were assumed to be contaminated because they are connected to contaminated leaching pools. Sampling results for the leaching pools and loading docks are depicted in Figure 4.
- DW-02/DW-03 area: The soil in the vicinity of these former drywells outside the building was partially remediated prior to the remedial investigation. Soil contamination in this area of concern consists of petroleum-related VOCs and metals. Maximum levels of toluene and total xylenes were 3,000 ppm and 970 ppm, exceeding SCGs for protection of groundwater. Chromium, copper and lead had exceedances of restricted commercial SCGs. Sampling results for the DW-02/DW-03 area are depicted in Figure 5.

**Table 2 Soil
Award Packaging Corp.**

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCG ^b (ppm) ^a	Frequency Exceeding Unrestricted SCG	Commercial Use SCG ^c (ppm) ^a	Frequency Exceeding Commercial SCG
Metals PART 375					
ARSENIC	ND ^d -18.6	13	1/66	16	1/66
CADMIUM	ND-14.3	2.5	4/66	9.3	2/66
CHROMIUM, TOTAL	1.7-1540	30	7/66	400	5/66
COPPER	1.2-905	50	8/66	270	4/66
LEAD	0.67-6870	63	8/66	1000	6/66
MERCURY	ND-0.44	0.18	3/66	2.8	0/66
NICKEL	0.9-57.3	30	2/66	310	0/66
SILVER	ND-2.2	2	1/66	1500	0/66
ZINC	ND-1310	109	4/66	10000	0/66
SVOC PART 375					
2-METHYLPHENOL (O-CRESOL)	ND-0.88	0.33	1/27	500	0/27
BENZO(A)ANTHRACENE	ND-4	1	6/27	5.6	0/27
BENZO(A)PYRENE	ND-3.5	1	7/27	1	7/27
BENZO(B)FLUORANTHENE	ND-6.8	1	7/27	5.6	2/27
BENZO(K)FLUORANTHENE	ND-2.4	0.8	6/27	56	0/27
CHRYSENE	ND-5.7	1	6/27	56	0/27
DIBENZ(A,H)ANTHRACENE	ND-0.87	0.33	5/27	0.56	2/27
INDENO(1,2,3-C,D)PYRENE	ND-3.6	0.5	6/27	5.6	0/27
VOC PART 375					
ACETONE	ND-92	0.05	25/114	0.05 ^e	25/114
ETHYLBENZENE	ND-150	1	4/114	1 ^e	4/114
METHYL ETHYL KETONE (2-BUTANONE)	ND-0.13	0.12	1/114	0.12 ^e	1/114
METHYLENE CHLORIDE	ND-3.1	0.05	10/114	0.05 ^e	10/114
TOLUENE	ND-3000	0.7	4/114	0.7 ^e	4/114
XYLENES, TOTAL	ND-970	0.26	7/114	1.6 ^e	6/114

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

d - ND: non-detect

e - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater

In summary, the primary soil contaminants are acetone, toluene, ethylbenzene, xylene, PAHs and metals associated with disposal of contaminants into drywells and leaching pools, and previous industrial operations. All of the SVOCs listed in Table 2 are classified as PAHs, which are generally found in fuels. The soil contamination is depicted in Figures 3 through 5.

Based on the findings of the Remedial Investigation, the past disposal of hazardous waste has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are acetone, toluene, ethylbenzene, xylene, PAHs and metals.

Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of soil vapor under structures (i.e. sub-slab) and indoor air inside structures.

Soil vapor samples were collected from beneath the slab of the structure located on the former Award Packaging property. Indoor air and outdoor air samples were also collected at this time. The results indicate tetrachloroethylene (PCE) was detected in on-site sub-slab soil vapor and indoor air. Figure 6 shows the results of the sub-slab soil vapor, indoor air and outdoor air sampling.

The primary soil vapor contaminant is tetrachloroethylene (PCE) which may be associated with previous industrial operations on the site. As noted on Figure 6, the primary soil vapor contamination is found in the western tenant space of the on-site building. Therefore, continued monitoring or mitigation is necessary for the on-site building. No off-site soil vapor testing was needed because VOC contamination has not migrated off-site.

Based on the findings of the Remedial Investigation, the presence of PCE has resulted in the contamination of soil vapor. The site contaminant that is considered to be the primary contaminant of concern which will drive the remediation of soil vapor to be addressed by the remedy selection process is PCE.

Exhibit B

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A. Alternatives were considered for three media: soil, groundwater and soil vapor.

Soil, Groundwater and Soil Vapor Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Soil Alternative 2: Soil Vapor Extraction

This alternative includes installing and operating a soil vapor extraction (SVE) system to remediate contaminated soil on the site. SVE is an in-situ technology used to treat volatile organic compounds (VOCs) in soil. The process physically removes contaminants from the soil by applying a vacuum to a SVE well that has been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The air extracted from the SVE wells is then run through an activated carbon treatment canister (or other air treatment process as applicable) to remove the VOCs before the air is discharged to the atmosphere.

At this site five SVE wells will be installed in the vadose zone and screened from 20 feet below the ground surface to a depth of approximately 25 feet. The air containing VOCs extracted from the SVE wells will be treated using activate carbon (or other air treatment as applicable).

This alternative includes institutional controls, in the form of an environmental easement and a site management plan, necessary to protect public health and the environment from any contamination identified at the site. The environmental easement will include a provision limiting the use and development of the controlled property for commercial or industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws.

This alternative meets the unrestricted soil clean objectives listed in Part 375-6.8 (a) for VOCs. However, the alternative does not meet unrestricted or restricted commercial SCGs for the other contaminants in the on-site soils. The design and construction time periods for this alternative are six months and one year, respectively. The Feasibility Study Report estimates that the treatment system will meet the objectives for VOCs in four years.

Present Worth:	\$219,000
Capital Cost:	\$127,000
Annual Costs:	\$23,700

Soil Alternative 3: Soil Excavation and Offsite Disposal

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A and soil meets the unrestricted soil clean objectives listed in Part 375-6.8 (a). This alternative includes excavation and off-site disposal of all waste and soil contamination above the unrestricted use soil cleanup objectives (SCOs).

Unrestricted use soil cleanup objectives (SCOs) will be used to guide excavation of contaminated soils. On-site soils which exceed unrestricted SCOs will be excavated and transported off-site for disposal.

Approximately 3,141 cubic yards of soil will be removed. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site. The design and construction time periods for this alternative are six months and one year, respectively.

<i>Present Worth:</i>	<i>\$1,230,000</i>
<i>Capital Cost:</i>	<i>\$1,230,000</i>
<i>Annual Costs:</i>	<i>\$0</i>

Soil Alternative 4: Implementation of Engineering and Institutional Controls

This alternative manages the existing soil contamination using engineering controls (ECs) and Institutional Controls (ICs). The institutional controls, in the form of an environmental easement and a site management plan, are necessary to protect public health and the environment from any contamination identified at the site. The environmental easement will include a provision limiting the use and development of the controlled property for commercial or industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws.

The ECs include a site cover, which currently exists and will be maintained to allow for restricted commercial or industrial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

This alternative requires minimal design and construction time. However, the alternative will leave soil contamination that exceeds unrestricted use and restricted commercial soil clean objectives on the site.

<i>Present Worth:</i>	<i>\$125,000</i>
<i>Capital Cost:</i>	<i>\$23,000</i>
<i>Annual Costs:</i>	<i>\$5,060</i>

Soil Alternative 5: Combined Soil Excavation and Offsite Disposal/SVE

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A and soil meets the unrestricted soil cleanup objectives listed in Part 375-6.8 (a). This alternative includes a combination of excavation and SVE to remediate the soil contamination above unrestricted use SCOs at the site. Soil contaminated with SVOCs and metals will be excavated and disposed off-site while VOC-contaminated soil above unrestricted use SCOs will be remediated using an SVE system. Descriptions of SVE systems and soil excavation were provided in the descriptions of soil alternatives 2 and 3, respectively.

For this alternative, two SVE wells will be installed in the vadose zone and screened from 20 feet below the ground surface to a depth of approximately 25 feet. One SVE well will be installed in each of the following areas of concern with VOC contamination: the interior drywell area (DW-1) and the drywell area in the northwest corner of the site (DW-2/3). The air containing VOCs extracted from the SVE wells will be treated using activate carbon (or other air treatment as applicable).

Unrestricted use soil cleanup objectives (SCOs) will be used to guide excavation of soils contaminated with SVOCs and metals. On-site soils which exceed unrestricted SCOs will be excavated and transported off-site for disposal.

Approximately 859 cubic yards of soil will be removed. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

The design and construction time periods for this alternative are six months and one year, respectively. The Feasibility Study Report estimates that the SVE system will meet unrestricted use soil cleanup objectives within four years of startup.

<i>Present Worth:</i>	<i>\$508,000</i>
<i>Capital Cost:</i>	<i>\$427,000</i>
<i>Annual Costs:</i>	<i>\$20,900</i>

Soil Alternative 6: Combined Soil Excavation and Offsite Disposal/SVE/Capping at Former Printing Press Area

This alternative includes a combination of SVE, excavation and disposal, and capping. As with Alternative 5, soil contaminated with SVOCs and metals will be excavated and disposed off-site while VOC-contaminated soil will be remediated using an SVE system. However, the contaminated soil in the former printing press area in the on-site building will be addressed with the existing cap, which is the on-site building. The soil beneath the former printing press area is not a significant source of VOCs, which are the contaminants of concern for groundwater. Descriptions of SVE systems and soil excavation were provided in the descriptions of soil alternatives 2 and 3, respectively.

Soils contaminated with SVOCs and metals in the following areas will be excavated and disposed off-site: the DW-1 area beneath the building, the DW-2/3 area at the northwest corner of the site, and the contaminated leaching pools and loading docks. Unrestricted use soil cleanup objectives (SCOs) will be used to guide excavation of soils in these areas of concern. On-site soils which exceed unrestricted SCOs will be excavated and transported off-site for disposal.

Approximately 339 cubic yards of soil will be removed. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

The former printing press area will be addressed using an engineering control (EC). The EC includes a site cover, which currently exists and will be maintained to allow for restricted commercial or industrial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d). As the soil contamination beneath the former printing press area consists primarily of SVOCs, SVE will not remediate the soil contamination in this area of concern.

This alternative includes institutional controls, in the form of an environmental easement and a site management plan, necessary to protect public health and the environment from any contamination identified at the site. The environmental easement will include a provision limiting the use and development of the controlled property for commercial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws.

The design and construction time periods for this alternative are six months and one year, respectively. The Feasibility Study Report estimates that the SVE system will meet unrestricted use soil cleanup objectives for VOCs within four years of startup.

Present Worth: \$344,000
Capital Cost: \$219,000
Annual Costs: \$23,100

Soil Alternative 7: Combined Soil Excavation and Offsite Disposal/SVE/Capping

This alternative also includes a combination of SVE, excavation and disposal, and capping. As with Alternative 5, soil contaminated with SVOCs and metals will be excavated and disposed off-site while VOC-contaminated soil will be remediated using an SVE system. However, the contaminated soil in the former printing press area, the DW-1 area, and the DW-2/DW-3 area will be addressed by capping. This alternative uses capping in more areas of concern than Alternative 6. Descriptions of SVE systems and soil excavation were provided in the descriptions of soil alternatives 2 and 3, respectively.

Soils contaminated with SVOCs and metals in the contaminated leaching pools and loading docks will be excavated and disposed off-site. Unrestricted use soil cleanup objectives (SCOs) will be used to guide excavation of soils in these areas of concern. On-site soils in these areas of concern which exceed unrestricted SCOs will be excavated and transported off-site for disposal.

Approximately 274 cubic yards of soil will be removed. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

The former printing press area, the SVOCs and inorganics in the DW-1 area, and the SVOCs and inorganics in the DW-2/DW-3 area will be addressed using an engineering control (EC). The EC includes a site cover, which currently exists and will be maintained to allow for restricted commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d). As the soil contamination beneath the former printing press area consists primarily of SVOCs, SVE will not remediate the soil contamination in this area of concern.

This alternative includes institutional controls, in the form of an environmental easement and a site management plan, necessary to protect public health and the environment from any contamination identified at the site. The environmental easement will include a provision limiting the use and development of the controlled property for commercial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws.

The design and construction time periods for this alternative are six months and one year, respectively. The Feasibility Study Report estimates that the SVE system will meet unrestricted use soil cleanup objectives for VOCs within four years of startup.

Present Worth: \$288,000
Capital Cost: \$163,000
Annual Costs: \$23,100

Groundwater Alternative 2: Groundwater Monitoring

This alternative includes monitoring on-site groundwater monitoring wells without actively treating the groundwater. As a natural attenuation evaluation was not conducted during the RI, the Department cannot determine whether naturally occurring bacteria will remediate the groundwater contamination. As the alternative is not expected to meet groundwater SCGs, the cost estimate for this alternative includes monitoring for 30 years.

Present Worth: \$461,000
Capital Cost: \$3,330
Annual Costs: \$21,400

Groundwater Alternative 3: In-Situ Treatment by Air Sparging

This alternative includes air sparging to remediate the on-site groundwater contamination to meet groundwater SCGs. Air sparging is an in-situ technology used to treat groundwater contaminated with volatile organic compounds (VOCs). The process physically removes contaminants from the groundwater by injecting air into a well that has been installed into the groundwater. As the injected air rises through the groundwater it volatilizes the VOCs from the groundwater into the injected air. The VOCs are carried with the injected air into the vadose zone (the area below the ground surface but above the water table) where a soil vapor extraction (SVE) system is used to remove the injected air. The SVE system pulls a vacuum on wells that have been installed into the vadose zone to remove the VOCs along with the air introduced by the sparging process. The air extracted from the SVE wells is then run through activated carbon (or other air treatment as applicable) which removes VOCs from the air before it is discharged to the atmosphere.

The SVE system will also remediate soil contaminated with VOCs. The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The VOC-contaminated soils are in the same areal locations as the contaminated groundwater.

At this site, air injection wells will be installed in the portion of the site to be treated to a depth of approximately 45 feet, which is 15 feet below the water table. To capture the volatilized contaminants, two SVE wells will be installed in the vadose zone and screened from 20 feet below the ground surface to a depth of approximately 25 feet. The air containing VOCs extracted from the SVE wells will be treated with activated carbon, if necessary. These SVE wells are included in all of the soil remediation alternatives that use SVE. Therefore, costs will be lower than those listed in Exhibit C if this alternative is selected in conjunction with a soil remediation alternative that uses SVE.

The design and construction time periods for this alternative are six months and one year, respectively. The Feasibility Study Report estimates that the SVE system will meet unrestricted use soil cleanup objectives for VOCs within four years of startup.

Present Worth: \$279,000
Capital Cost: \$119,000
Annual Costs: \$41,700

Soil Vapor Alternative 2: Soil Vapor Intrusion Monitoring

This alternative includes annual vapor intrusion monitoring to ensure that occupants of the on-site building are not exposed to vapors migrating into the building from the groundwater. Each heating season, subslab vapor, indoor air and outdoor air samples will be collected, analyzed and evaluated. Monitoring will continue until sampling results indicate no further action is needed, as determined by the Department and the NYSDOH. The Feasibility Study Report estimated that monitoring will be needed for six years, assuming Groundwater Alternative 3 (Air Sparging) is implemented.

Present Worth: \$42,900
Capital Cost: \$4,600
Annual Costs: \$6,840

Soil Vapor Alternative 3: Soil Vapor Extraction

This alternative includes installing one SVE well beneath the on-site building to prevent migration of vapors into the building from groundwater. This SVE well is included in all of the soil remediation alternatives that use SVE. Therefore, costs will be lower than those listed in Exhibit C if this alternative is selected in conjunction with a soil remediation alternative that uses SVE. The cost estimate assumes that the SVE system will be running for four years.

Present Worth: \$178,000
Capital Cost: \$65,600
Annual Costs: \$29,300

Exhibit C**Remedial Alternative Costs**

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
1: No Action	0	0	0
Soil 2: Soil Vapor Extraction	\$127,000	\$23,700	\$219,000
Soil 3: Soil Excavation and Disposal	\$1,230,000	\$0	\$1,230,000
Soil 4: Implementation of Engineering and Institutional Controls	\$23,000	\$5,060	\$125,000
Soil 5: Combined Soil Excavation and Disposal/SVE	\$427,000	\$20,900	\$508,000
Soil 6: Combined Soil Excavation and Disposal/SVE/Capping at Former Printing Press Area	\$219,000	\$23,100	\$344,000
Soil 7: Combined Soil Excavation and Disposal/SVE/Capping	\$163,000	\$23,100	\$288,000
Groundwater 2: Groundwater Monitoring	3,330	\$21,400	\$461,000
Groundwater 3: In-Situ Treatment by Air Sparging	\$119,000	\$41,700	\$279,000
Soil Vapor 2: Soil Vapor Intrusion Monitoring	\$4,600	\$6,840	\$42,900
Soil Vapor 3: Soil Vapor Extraction	\$65,600	\$23,900	\$178,000

Exhibit D

SUMMARY OF THE SELECTED REMEDY

The Department has selected a remedy comprising the following Alternatives as the remedy for this site:

- Soil Alternative 6: Combined Soil Excavation and Disposal/SVE/Capping at Former Printing Press Area
- Groundwater Alternative 3: In-Situ Treatment by Air Sparging
- Soil Vapor Alternatives 2 & 3: Soil Vapor Extraction and Soil Vapor Intrusion Monitoring

These Alternatives will achieve the remediation goals for the site by remediating contaminated soil and groundwater and protecting the building occupants from vapor intrusion. The elements of this remedy are described in Section 7. The selected remedy is depicted in Figures 7 and 8. Figure 7 shows the remedy elements for the soil and soil vapor, while Figure 8 shows the groundwater treatment system.

Basis for Selection

The selected remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

Soil Contamination

The selected remedy will satisfy this criterion by removing the VOCs in on-site soil using SVE and excavating soil contaminated with SVOCs and metals to levels that will allow for commercial use. The existing cap over the soils in the former printing press area will be maintained to prevent public health and environmental exposure. Alternative 1 (No Action) does not provide any protection to public health and the environment and will not be evaluated further. Alternative 2 (SVE) will not be protective to public health and the environment because only VOCs will be addressed; therefore, Alternative 2 will not be evaluated further. Alternatives 3 through 7 meet this threshold criteria, as all of the soil contamination will be addressed using excavation, SVE and/or capping.

Groundwater Contamination

The selected remedy will satisfy this criterion by actively treating the contaminated groundwater using AS/SVE. Alternatives 1 (No Action) and 2 (Groundwater Monitoring) do not provide any protection to public health and the environment and will not be evaluated further.

Soil Vapor Contamination

The selected remedy (soil vapor extraction and soil vapor intrusion monitoring) will satisfy this criterion by preventing vapor intrusion into the on-site building and confirming the efficacy of the remedy through soil vapor intrusion monitoring. Alternative 1 (No Action) does not provide any protection to public health and the environment and will not be evaluated further.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Soil Contamination

Alternative 6 complies with SCGs for soil to the extent practicable. It addresses soil contamination through excavation and SVE and complies with the restricted use soil cleanup objectives at the former printing press area through maintenance of a cover system. It also creates the conditions necessary to restore groundwater quality to the extent practicable. Alternatives 4 and 7 also comply with restricted use soil cleanup objectives, but rely on maintenance of a cover system in more locations. Alternatives 3 and 5 comply with unrestricted use cleanup objectives by relying on excavation and/or SVE to remediate all of the soil contamination. Because Alternatives 3 through 7 satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

Groundwater Contamination

Alternative 3 complies with SCGs for groundwater to the extent practicable. It addresses groundwater contamination by treating the groundwater using air sparge/soil vapor extraction.

Soil Vapor Contamination

Applying the NYSDOH guidance to the soil vapor data indicates that continued vapor intrusion monitoring, at a minimum, is recommended. The selected remedy exceeds this recommendation by both mitigating the potential for vapor intrusion and monitoring the progress of the remedy. As the selected remedy meets the threshold criteria and the other alternative, no action, does not meet either criterion, additional evaluation of the selected soil vapor remedy will not be conducted.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Soil Contamination

The selected remedy exhibits long-term effectiveness because excavation and AS/SVE will permanently remediate VOC-contaminated soil and all exterior soil contamination at the site. The selected remedy also includes maintaining the existing building and pavement as a cover for residual soil contamination, which is effective in the long-term because the building provides a long-term cover and the property owner must follow the site management plan to maintain the cover. Alternatives 3 and 5 are more effective and permanent because they rely solely on SVE and/or excavation to remediate the soil contamination. Alternatives 4 and 7 are less effective and permanent because they rely more on the cover system to address the soil contamination than the selected remedy.

Groundwater Contamination

The selected remedy exhibits long-term effectiveness and permanence because it permanently remediates the groundwater contamination.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Soil Contamination

The selected remedy will reduce toxicity, mobility and volume of wastes at the site using excavation and SVE. Maintaining the building and pavement as a cover will reduce the mobility of contaminants in that area. Alternatives 3 and 5 will reduce toxicity, mobility and volume in all areas with soil contamination, as these alternatives use excavation and/or SVE to remediate all of the contaminated soil. The selected remedy reduces toxicity and volume better than Alternatives 4 and 7 because both of these alternatives rely more on a cover system than the selected remedy.

Groundwater Contamination

The selected remedy will reduce toxicity, mobility and volume of groundwater contamination by treating the groundwater using AS/SVE.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Soil Contamination

The selected remedy will achieve remedial objectives within five years and result in minimal short-term impacts. An air monitoring program will be implemented during the excavation work to protect the public. Maintenance of the cover currently exists and excavation will be completed during the one-year construction period. The SVE system will run approximately four years after construction is complete. Alternative 4 will meet remedial objectives upon implementation and will have no short-term impacts, as the alternative only includes maintenance of the building and pavement as a cover. Alternatives 3 and 5 will impact the on-site business, as excavation will be conducted in the on-site building. Alternative 7 has similar impacts to the selected remedy, as all of the excavation will be conducted in the exterior portion of the property. Alternative 3 meets remedial objectives within the one-year construction period, while Alternatives 5 and 7 meet remedial objectives in the same length of time as the selected remedy because they include SVE systems.

Groundwater Contamination

The selected remedy will achieve remedial objectives within five years and result in minimal short-term impacts.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

Soil Contamination

The selected remedy and Alternative 7 are favorable in that they are readily implementable. Alternatives 3 and 5 are implementable, but the excavation inside the on-site building disrupts the on-site business and requires measures to ensure the structural integrity of the building. Alternative 4 is implementable because no construction is required.

Groundwater Contamination

The selected remedy is favorable in that it is readily implementable. AS/SVE is routinely used to remediate groundwater contaminated with VOCs.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

Soil Contamination

The selected remedy is less expensive than Alternatives 3 and 5, but is more expensive than Alternatives 4 and 7. Alternatives 3 and 5 are more expensive than the selected remedy because they include more excavation than the selected remedy. Alternatives 4 and 7 rely more on a cover than the selected remedy, resulting in lower costs.

Groundwater Contamination

The selected remedy is the only alternative that meets the threshold criteria; hence, a cost comparison is not applicable. Other active groundwater treatment technologies were rejected in the FS Report due to high cost and/or technical effectiveness.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

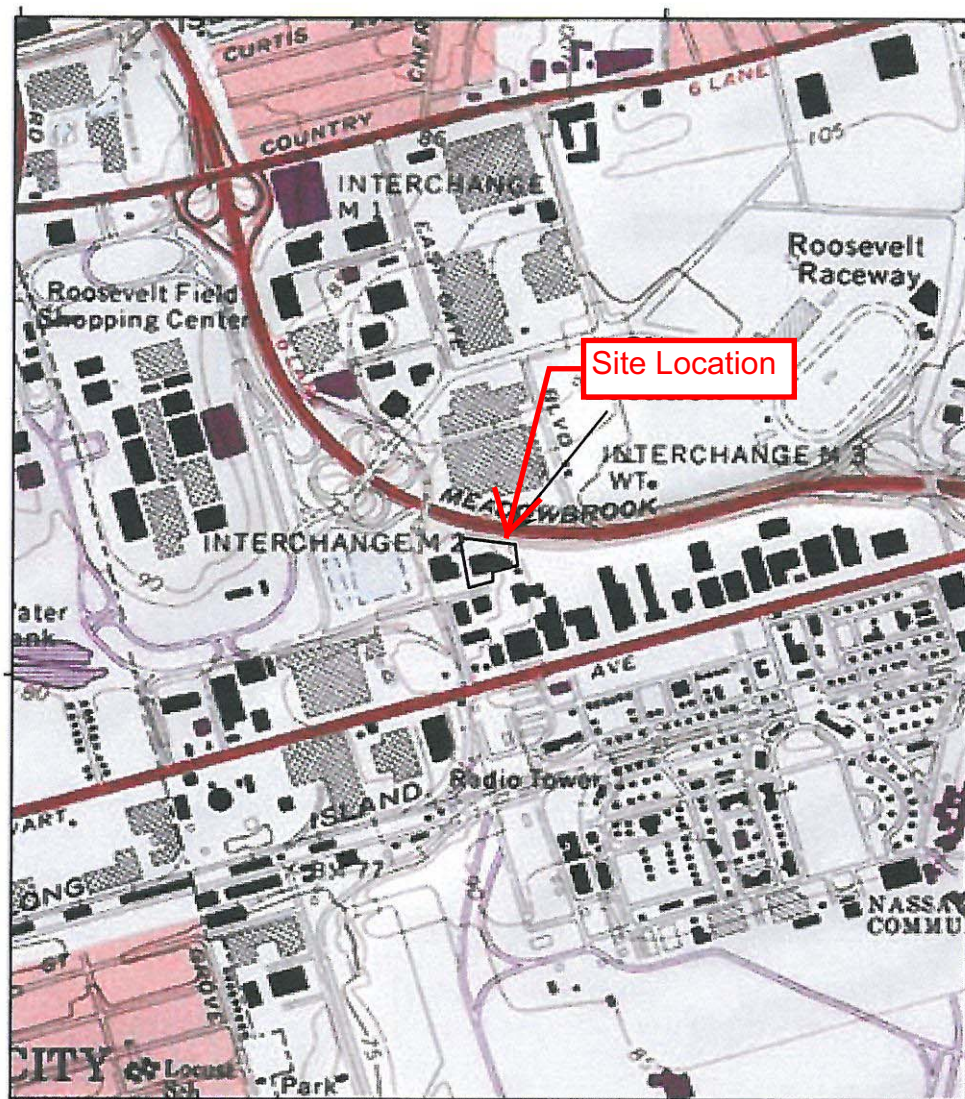
As the remedial objectives for groundwater contamination do not consider land use, only soil remediation is evaluated using this criterion.

Since the anticipated use of the site is commercial, Alternatives 3 and 5 are most desirable because they remove or treat contaminated soil permanently. The selected remedy is more desirable than Alternatives 4 and 7 because the selected remedy removes more contaminated soil than these alternatives. The residual contamination with Alternatives 4, 6, and 7 is controllable with implementation of a Site Management Plan.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan (PRAP) have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP were evaluated. A responsiveness summary has been prepared that describes public comments received and the manner in which the Department will address the concerns raised.

The combination of Soil Alternative 6, Groundwater Alternative 3 and Soil Vapor Alternatives 2 and 3 has been selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.



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FPM GROUP

FIGURE 1

Site location Map

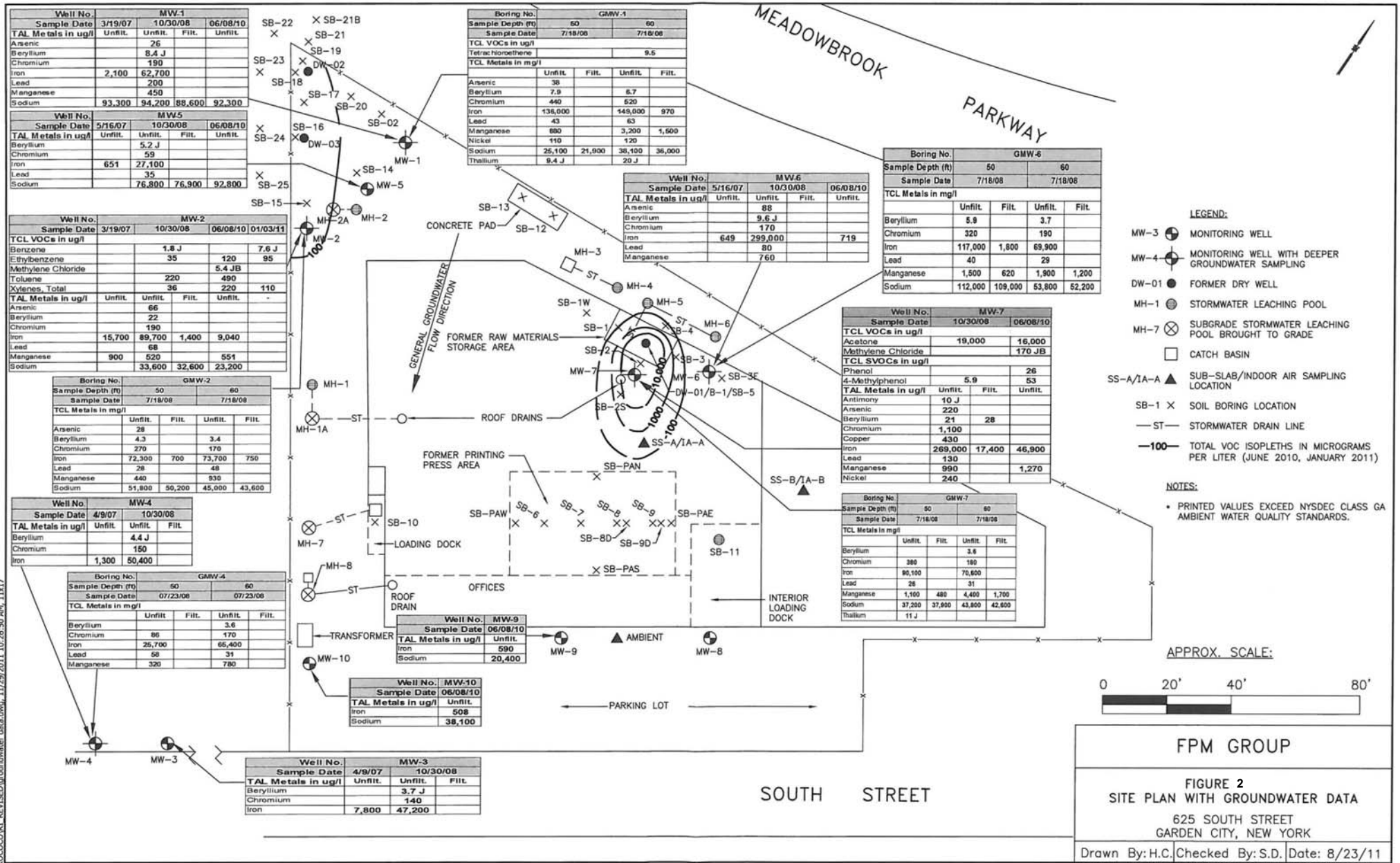
AWARD PACKAGING CORP. SITE
625 SOUTH STREET
GARDEN CITY, NEW YORK

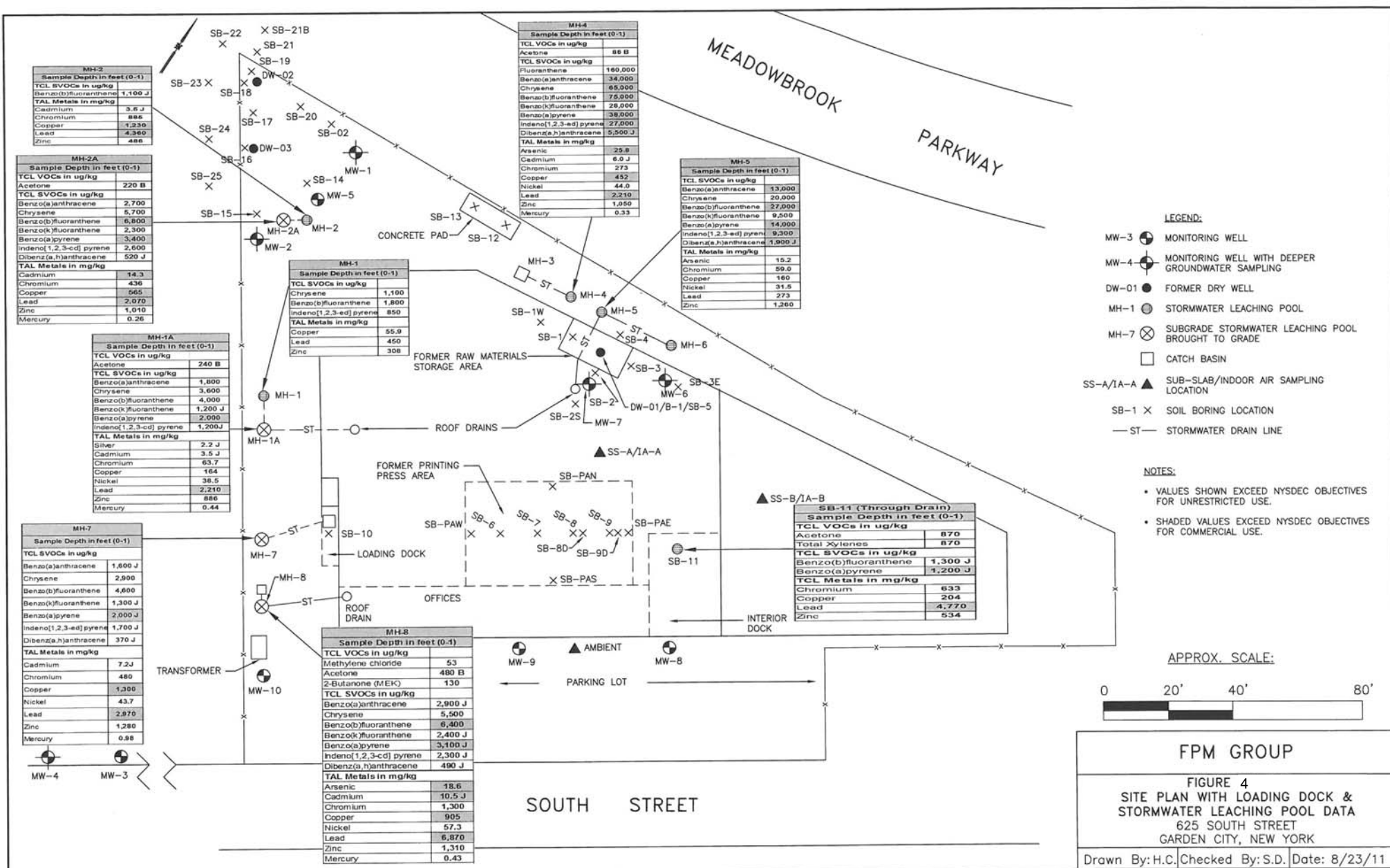
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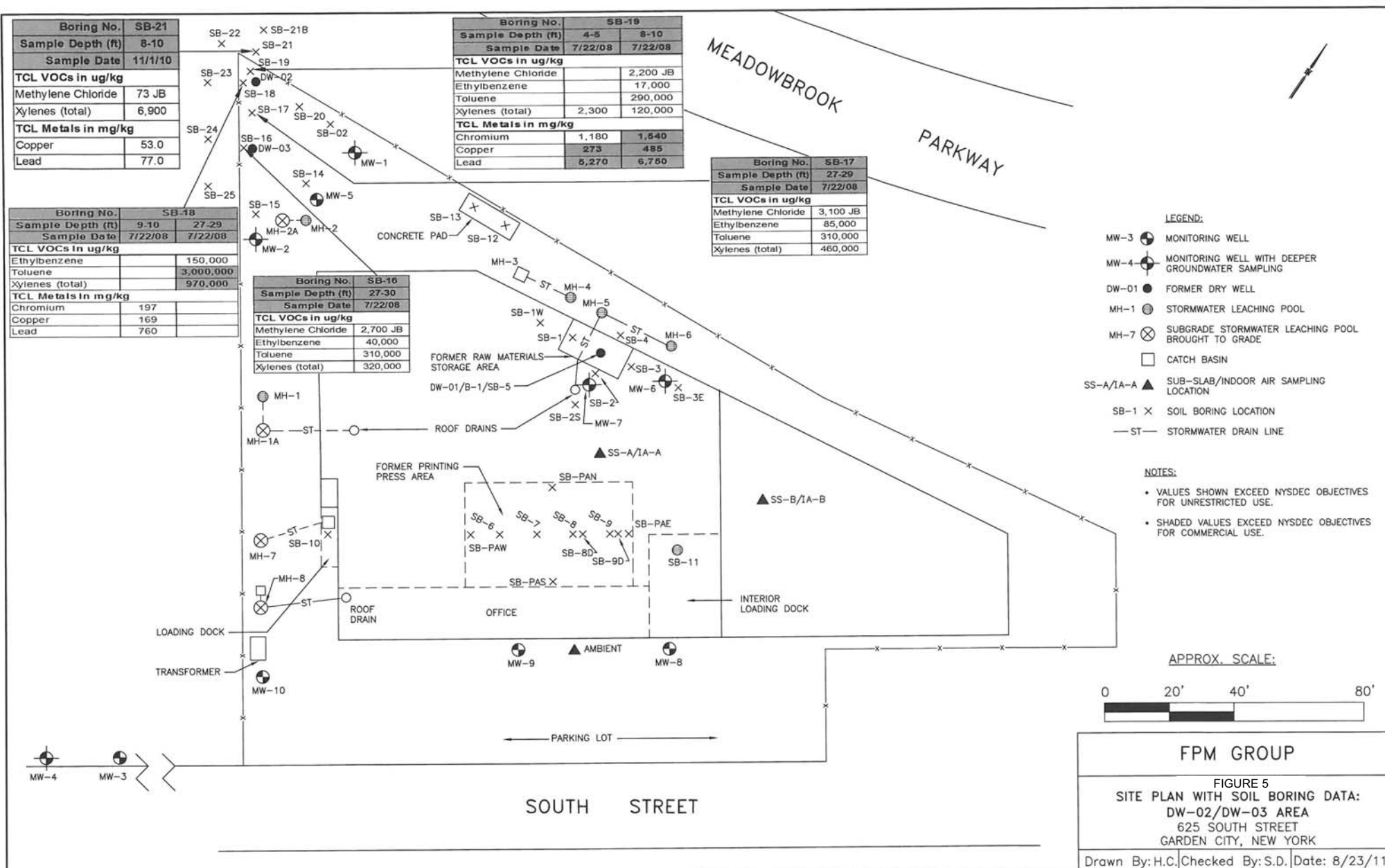
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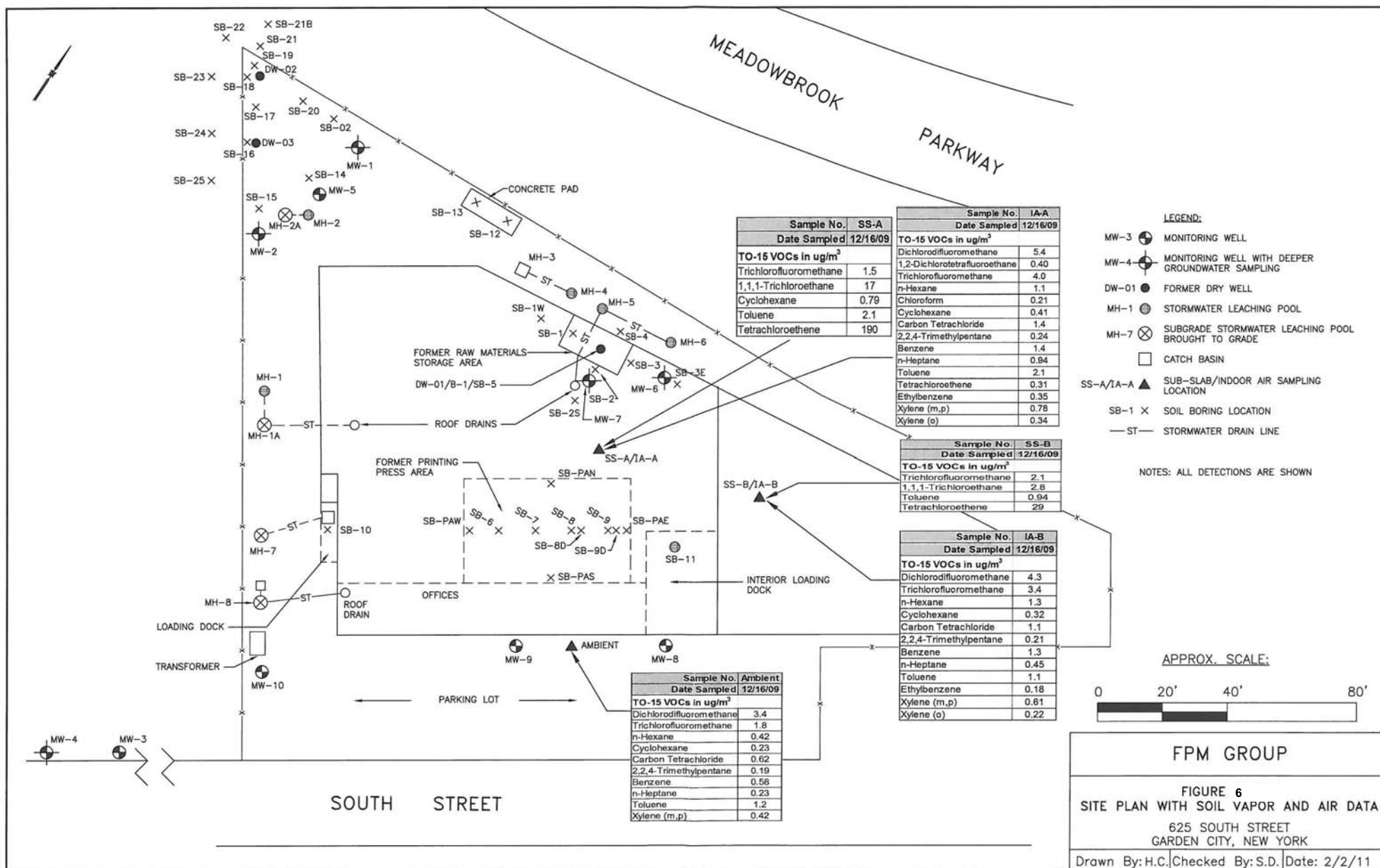
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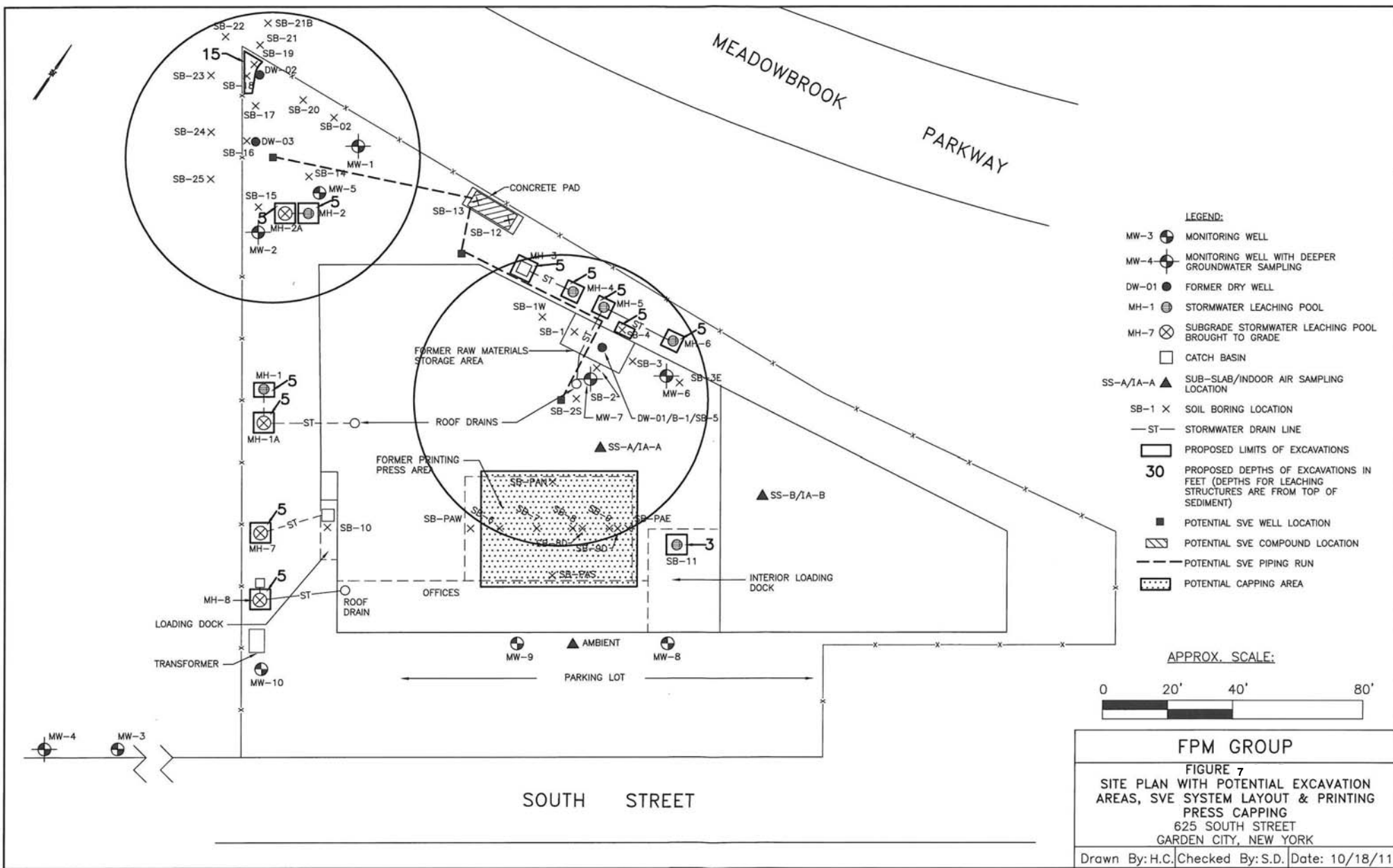
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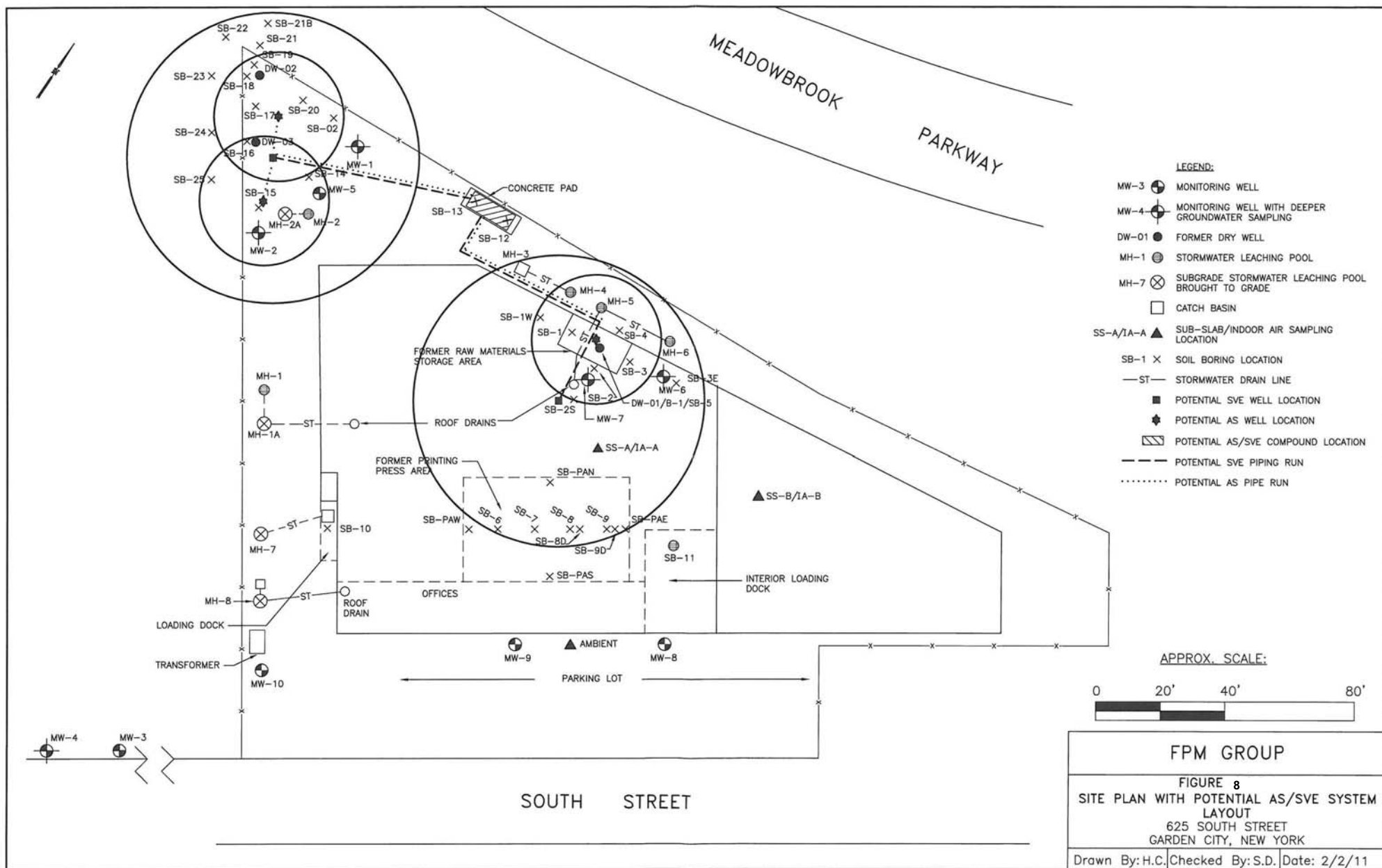












APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Award Packaging Corp.
State Superfund Project
Garden City, Nassau County, New York
Site No. 130155**

The Proposed Remedial Action Plan (PRAP) for the Award Packaging Corp. site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 10, 2012. The PRAP outlined the remedial measure proposed for the contaminated soil, groundwater, and soil vapor at the Award Packaging Corp. site.

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

A public meeting was held on February 22, 2012, which included a presentation of the remedial investigation/feasibility study (RI/FS) for the Award Packaging Corp. site, as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 12, 2012.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following was the only comment received, with the Department's response:

COMMENT 1: How was it determined what the required radii of influence for the treatment wells will be?

RESPONSE 1: The required radii of influence for the treatment wells was based on the extent of the volatile organic compound (VOC) contamination in the soil, groundwater and soil vapor. The remediation systems will be designed to clean up the VOC contamination in the soil, groundwater and soil vapor, and prevent soil vapor intrusion into the on-site building.

APPENDIX B

Administrative Record

Administrative Record

**Award Packaging Corp.
State Superfund Project
Garden City, Nassau County, New York
Site No. 130155**

Proposed Remedial Action Plan for the Award Packaging Corp. site, dated February 2012, prepared by the Department.

Order on Consent, Index No. A1-0557-0706, between the Department and Rococo Associates, Inc., executed on July 30, 2007.

“Remedial Investigation/Feasibility Study Work Plan for Award Packaging Corp. Site”, May 2008, prepared by FPM Group.

“Revised Remedial Investigation Delineation Work Plan”, January 7, 2010, prepared by FPM Group.

“Remedial Investigation/Feasibility Study Report for Award Packaging Corp. Site”, December 2011, prepared by FPM Group.