# Phase I/Phase II

# Environmental Site Assessment

For

Adam's Wholesalers, Inc. Property

Block 80, Lot 1

Woodbury Heights, Gloucester County, New Jersey

December 28, 2005

Prepared for:

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#### LIST OF ACRONYMS

AOCs Areas of Concern

ASTM American Society of Testing and Materials
ASTM E 1527-00 Phase I Environmental Site Assessment

ASTs Aboveground Storage Tanks

bgs below ground surface

CERCLIS Comprehensive Environmental Response, Compensation and

Liability Information System

ERNS Emergency Response Notification System

FOIA Freedom of Information Act

GIS Geographic Information Systems

InfoMap Technologies, Inc.

InfoMap Report InfoMap – Environmental FirstSearch<sup>™</sup> Report

LUSTs Leaking Underground Storage Tanks

mg/kg Milligrams per kilogram

msl mean sea level

NFRAP No Further Remedial Action Planned

N.J.A.C. 7:26E et seq. Technical Requirements for Site Remediation

NJDEP New Jersey Department of Environmental Protection

NPL National Priority List

PCBs Polychlorinated Biphenyls

RCRA Resource Conservation and Recovery Act

RCRA-COR RCRA Corrective Action Sites
RCRA-LQG RCRA Large Quantity Generators
RCRA-SQG RCRA Small Quantity Generators

RCRA-TSD RCRA Treatment, Storage and Disposal Facilities

RDCSCC Residential Direct Contact Soil Cleanup Criteria

REC Recognized Environmental Condition

SHWS State Hazardous Waste Sites

SWF New Jersey Solid Waste Facility Directories

USEPA United States Environmental Protection Agency

USGS United States Geologic Survey
USTs Underground Storage Tanks

#### 1.0 INTRODUCTION

Marathon Engineering & Environmental Services, Inc., ("Marathon") was retained by the Berwind Property Group to conduct a Phase I/Phase II Environmental Site Assessment ("Phase I/II") of the property located at 523 Chestnut Avenue in the Borough of Woodbury Heights, Gloucester County, New Jersey. The property is designated on the Borough of Woodbury Heights Tax Maps as Block 80, Lot 1, hereafter referred to as the Subject Property.

The Phase I/II was conducted in accordance with the American Society of Testing and Materials ("ASTM") Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-00) and the New Jersey Department of Environmental Protection's ("NJDEP") Technical Requirements for Site Remediation (N.J.A.C. 7:26E et seq.)

This report details information obtained by Marathon during the investigation completed through December 28, 2005. Pertinent information made available after December 28, 2005, which would change the conclusions of this report, will be forwarded upon receipt. The available data was used to identify recognized environmental conditions ("RECs") as defined by the ASTM and areas of concern ("AOCs") as defined by the NJDEP. The scope of the evaluation was performed in accordance with ASTM E 1527-00 and N.J.A.C. 7:26E et seq., and included the following:

- We obtained and reviewed information, including a regulatory database report, which identifies facilities included on the databases referenced as standard environmental record sources by ASTM. The standard environmental record sources are listed below:
  - United States Environmental Protection Agency's ("USEPA") National Priority List ("NPL") (within 1.0 miles);
  - USEPA's Comprehensive Environmental Response, Compensation and Liability Information System ("CERCLIS") report (within 0.5 miles);
  - USEPA's CERCLIS No Further Remedial Action Planned ("NFRAP") report (within 0.5 miles);
  - USEPA's Resource Conservation and Recovery Act ("RCRA") Treatment, Storage and Disposal Facilities ("TSD") report (within 0.5 miles);
  - USEPA's RCRA Corrective Action Sites ("COR") report (within 1.0 miles);
  - USEPA's RCRA Generators ("GEN") report (within 0.25 miles);
  - USEPA's Emergency Response Notification System ("ERNS") report (Subject Property);

- NJDEP's State Hazardous Waste Sites ("SHWS") report (within 1.0 miles);
- NJDEP's Solid Waste Facility Directory ("State Landfill") report (within 0.5 miles);
- NJDEP's Leaking Underground Storage Tanks ("LUSTs") report (within 0.5 miles); and,
- NJDEP's Regulated Underground Storage Tanks ("USTs") and Aboveground Storage Tanks ("ASTs") report (within 0.25 miles).
- We obtained and reviewed the following additional environmental record sources, as defined by the ASTM, to the extent that they were available or provided to Marathon by December 28, 2005. These additional environmental record sources include:
  - Additional state and federal environmental records (for the Subject Property);
  - Gloucester County Department of Health and Senior Services; and,
  - Borough of Woodbury Heights files.
- We obtained and reviewed the United States Geological Survey ("USGS") Topographic Quadrangle for Woodbury, New Jersey-Pennsylvania (physical setting source as defined by ASTM) as well as discretionary and non-standard physical setting sources, including the NJDEP's Geographical Information System ("GIS") for information pertaining to surficial geology, soils, freshwater wetlands and public water supply wells.
- 4. We reviewed historical use information to establish a history of the Subject Property and surrounding area. The historical use information reviewed by Marathon included:
  - Aerial Photographs; and
  - Historic topographic USGS Maps.
- 5. On September 28, 2005, we performed a site reconnaissance to visually and physically observe the Subject Property noting uses and conditions, determining general property setting, listing uses of adjoining properties, determining hydrogeologic and topographic setting, noting roads and utilities, and checking for the following to the extent that they were visually or physically observable:
  - presence of hazardous substances and petroleum products;
  - storage tanks, drums and containers;
  - polychlorinated biphenyls ("PCBs");
  - stains and corrosion;
  - drains and sumps;
  - stressed vegetation, stained soils or pavement;

- railroads:
- solid waste, waste water; and,
- wells and septic systems.
- 6. On November 11, 2005, we completed a site investigation of the RECs and/or AOCs identified on the Subject Property in accordance with N.J.A.C. 7:26E et seq.
- 7. The following non-scope considerations were not included in this Phase I/Phase II as they are not required under ASTM E 1527-00:
  - radon:
  - wetlands:
  - pesticides;
  - asbestos; and.
  - lead-based paint.
- 8. We prepared this report of findings including documentation to support analysis, opinion and conclusions. This assessment has revealed no RECs as defined by ASTM E 1527-00 or AOCs as defined in N.J.A.C. 7:26E et seq. associated with the Subject Property except for the following:
  - Groundwater sampling at the former location of three (3) 4,000-gallon gasoline USTs and vent lines revealed elevated concentrations of tentatively identified compounds ("TICs") in the groundwater at a concentration of 895 micrograms per liter ("ug/l"). The NJDEP's standard for TICs is 500 ug/l. Benzene was also detected at a concentration of 1.7 ug/l. The NJDEP's standard for benzene in the groundwater is 1 ug/l.
  - The potential presence of an abandoned heating oil UST located immediately north of the northern wall of the warehouse.
  - The potential presence of an abandoned heating oil UST located immediately east of the eastern wall of the warehouse.

# 1.1 Limitations and Exceptions

It should be noted that this Phase I/II documents conditions on the Subject Property at the time of the site reconnaissance conducted on September 28, 2005, the site investigation conducted on November 11, 2005 and information relevant to the Subject Property reviewed through December 28, 2005. The information detailed herein, upon which the findings and conclusions are based, is limited under the following conditions:

- Much of the information contained within this report regarding potential environmental concerns for the Subject Property and surrounding properties was obtained from publicly available databases and public files. Marathon is not responsible for errors potentially present in these databases and public records.
- Marathon is not responsible for future regulatory modifications, agency interpretations, and/or policy changes that may affect the compliance status of the Subject Property.
- This report is intended for the exclusive use of the Berwind Property Group. The results of this study may not be relied upon by any other parties, other than those described above, without written consent of Marathon.

#### 1.2 Statement of Qualifications

Marathon is an environmental consulting firm with extensive knowledge and expertise in conducting Phase I/II's. This Phase I/II was conducted and the subsequent report prepared by David J. Fennimore, Environmental Scientist; Robert Jay Chappell, P.G., C.P.G., Geologist; and reviewed by Robert L. Carter Jr., Senior Environmental Scientist. Their professional resumes are included in Appendix A – Qualifications.

# 2.0 SITE DESCRIPTION

# 2.1 Site Location and Description

The Subject Property is located at 523 Chestnut Avenue in the Borough of Woodbury Heights, Gloucester County, New Jersey. The Subject Property is designated on the Borough of Woodbury Heights Tax Maps as Block 80, Lot 1. The Subject Property is located on the Woodbury, New Jersey-Pennsylvania USGS 7.5-Minute Topographic Quadrangle, a copy of which is included in Appendix B. Also included in Appendix B is a Tax Map for the Borough of Woodbury Heights that depicts the Subject Property.

The Subject Property is located in a primarily residential neighborhood. It is bordered to the north by dense woods with the Woodbury Heights Grammar School located beyond; to the east by Academy Avenue with residences located beyond; to the south by Chestnut Avenue with residences located beyond; and to the west by an inactive rail line (formerly the Penn-Central Reading Seashore Line) with residences located beyond.

#### 2.2 Site Characteristics

The Subject Property consists of one (1) lot encompassing 17.5 acres which includes two (2) masonry structures and a crushed stone lot with some paved areas. The main structure is a single story warehouse approximately 230,000 square feet in size. There is a three-bay garage approximately 2,500 square feet in size located approximately 50 feet north of the warehouse. A railroad spur from the inactive Penn-Central Reading Seashore Line parallels the western edge of the warehouse. During the site inspection conducted on September 28, 2005, the building was largely vacant. Some individuals were observed dismantling remaining shelving associated with the former warehousing activities. The building is currently heated by natural gas and is serviced by public water and sanitary sewer. A 2002 aerial photograph depicting the Subject Property is provided in Appendix B.

# 3.0 PHYSICAL SETTING

# 3.1 Topography/Regional Drainage

According to the USGS 7.5-Minute Topographic Quadrangle for Woodbury, New Jersey-Pennsylvania, the elevation of the Subject Property is approximately 60± feet above mean sea level ("msl"). Generally, the Subject Property slopes in a northerly direction towards the forested portion of the subject property. Wetlands located on the northern portion of the Subject Property discharge into an intermittent stream which eventually discharges into Hester's Branch, a tributary of the Woodbury Creek. The Subject Property is located within the Woodbury Creek Watershed. The Woodbury Creek ultimately discharge into the Delaware River.

#### 3.2 Soils

A review of the <u>Soil Survey for Gloucester County, New Jersey</u>, United States Department of Agriculture-Soil Conservation Service, the soil on the Subject Property has been mapped as follows. Collington loamy sand ("CmB"), 0 to 5 percent slopes, Fallsington loam ("Fa"), and Woodstown and Dragston sandy loams (0 to 5 percent slopes) ("WsB"). The soil types and an accompany description of the each soil's characteristics are as follows.

# 3.2.1 Collington loamy sand (0 to 5 percent slopes):

Collington soils have a grayish-brown surface layer over a brown to olive-brown sandy loam to sandy clay loam subsoil and a sandy loam substratum. These well-drained soils have developed from sandy marine deposits that contain enough glauconite to make the subsoil olive brown. They occur in areas of gently to strongly sloping soils from greensand. The depth to seasonal high water table for the soil types listed above is five (5) or more feet below ground surface ("bgs").

# 3.2.2 Fallsington loam:

Fallsington soils are poorly drained soils formed in circular depressions and on flats adjacent to streams. Fallsington soils consist of a dark-gray or very dark-grayish brown loam to sandy loam surface layer. The subsoil is a grayish-brown or yellowish-

brown sandy loam to sandy clay loam that is mottled. The substratum texture is from sandy loam to loamy sand. Fallsington soils exhibit moderate permeability to a depth of 30 inches. Beyond 30 inches, permeability is moderately rapid to slow. The depth to seasonal high water table for this soil type is 1 foot bgs.

# 3.2.3 Woodstown and Dragston sandy loams (0 to 5 percent slopes):

Due to the similarity in the Woodstown and Dragston soils this mapping unit is undifferentiated. Woodstown and Dragston soils both have a dark grayish-brown surface layer, mottled in the lower part, that overlies a yellowish-brown mottled sandy loam to sandy clay loam subsoil. The substratum is loamy sand and contains various amounts of gravel and in some places lenses of clay. Both soil types are poorly drained with a depth to seasonal high water table of two (2) to three (3) feet bgs.

# 3.3 Underlying Formation

According to the NJDEP's GIS, the Subject Property lies within outcrops of the Mount Laurel Formation of upper Cretaceous age. The Mount Laurel Formation is characteristically a brown and gray, fine to coarse-grained, slightly glauconitic quartz sand. The lower part of the formation is a dark-gray, clayey' fine- to medium-grained, glauconitic (maximum 25 percent) quartz sand. Fossils are scattered throughout this interval. The glauconitic and clay content decreases and the average grain size increases upward in the formation. Granules and very fine sand are common constituents in the upper five (5) feet. The upper beds are light gray where unweathered and light brown to reddish brown where weathered. Ledges, tubes, and concretions of iron-oxide-cemented sand are common in the most deeply weathered sections.

#### 3.4 Groundwater

The Subject Property lies within the outcrop of the Wenonah-Mount Laurel aquifer and the Marshalltown-Wenonah confining bed. The Wenonah-Mount Laurel aquifer is composed of the Mount Laurel Sand ("Kmw") and the Wenonah Formation (Kw). The Mount Laurel Sand is the notable component of the aquifer. Production wells that utilize the Wenonah-Mount Laurel aquifer between Burlington County and Salem County are within 10 miles of the Mount Laurel Sand outcrop area. Shallow groundwater flow on the Subject Property is expected to follow surface topography and flow in a northerly direction toward wetlands located on

the northern portion of the Subject Property. Based on our Site Investigation activities conducted on November 11, 2005, groundwater encountered during soil boring installations ranged from four (4) to twelve (12) feet bgs.

# 3.5 Migratory Pathways

Potential migratory pathways for surface water and groundwater entering and exiting the Subject Property are important in establishing impacts that surrounding areas may have on the Subject Property, or that the Subject Property may have on surrounding areas. Based on the USGS Topographic Quadrangle for Woodbury, New Jersey-Pennsylvania and on site observations, most surface water on the Subject Property is expected to be directed towards storm drains located in the parking lot on the eastern portion of the Subject Property. The stormwater system discharges to a surface drainage ditch located just north of the parking lot in the wooded portion of the Subject Property.

#### 4.0 SITE HISTORY

# 4.1 Sanborn Fire Insurance Maps

On September 22, 2005, Marathon requested Sanborn Fire Insurance Map coverage of the Subject Property from Environmental Data Resources ("EDR"). Marathon was informed by EDR that there is no coverage for the Subject Property.

# 4.2 Aerial Photographs

Marathon reviewed aerial photographs from 1940, 1951, 1965, 1975, 1985, and 2002. Marathon was unable to find aerial photographs for years earlier than 1940. The 1940 and 1951 aerial photographs were obtained from Aerial Viewpoint at scales of 1 inch equal to 1,667 feet. Marathon obtained the 1965, 1975, and 1985 aerial photographs from the Delaware Valley Regional Planning Commission ("DVRPC") at scales of 1 inch equal to 400 feet (Grid Numbers A33, B28). The 2002 aerial photograph was obtained electronically from the NJDEP's Bureau of Geographic Information & Analysis at a scale of 1 inch equal to 200 feet. Additionally, 1957, 1980, 1990 and 1995 aerial photographs were reviewed as part of ENSR's Phase I of the Subject Property (see Section 4.4) and the information is included in our review. These aerial photographs were reviewed to determine past uses and conditions of the Subject Property. The following is a brief narrative of the aerial photographic review:

#### 4.2.1 1940 Aerial Photograph

The Subject Property consists predominantly of undeveloped wooded areas and agricultural land. The Subject Property is bordered to the north by an undeveloped area with a stream running from south to north; to the east by woods and agricultural land; to the south by a commercial type property; and to the west by a rail line with a wooded area located beyond.

# 4.2.2 1951 Aerial Photograph

There are no significant changes to the Subject Property from the 1940 aerial photograph.

# 4.2.3 1957 Aerial Photograph

A 1957 aerial photograph was reviewed as part of ENSR's Phase I of the Subject Property. Their report stated the following: "The 1957 aerial photograph depicts the property to be undeveloped land".

# 4.2.4 1965 Aerial Photograph

Significant changes to the Subject Property include the development of the southern portion of the property, while the northern portion remains undisturbed. The warehouse and garage are visible, and the property appears to be developed to its present condition with the exception of the truck parking area located on the northern portion of the Subject Property.

# 4.2.5 1975 Aerial Photograph

There are no significant changes to the Subject Property from the 1965 aerial photograph.

# 4.2.6 1980 Aerial Photograph

A 1980 aerial photograph was reviewed as part of ENSR's Phase I of the Subject Property. Their report stated the following: "The 1980 aerial photograph depicts the Subject Property in a similar condition as in 1975. There appears to be a small soil disturbance to the west of the garage".

# 4.2.7 1985 Aerial Photograph

There are no significant changes to the Subject Property from the 1980 aerial photograph.

#### 4.2.8 1990 Aerial Photograph

A 1990 aerial photograph was reviewed as part of ENSR's Phase I of the Subject Property. Their report stated the following: "The 1990 aerial photograph depicts the Subject Property in a similar condition as in 1985. One (1) rail car is located on the spur to the west of the building. An aboveground storage tank appears to the east of the Subject Building".

# 4.2.9 1995 Aerial Photograph

A 1995 aerial photograph was reviewed as part of ENSR's Phase I of the Subject Property. Their report stated the following: "The 1995 aerial photograph depicts the Subject Property in a similar condition as in 1990. An AST appears to the west of the garage. The AST to the east of the building is no longer visible".

# 4.2.10 2002 Aerial Photograph

There are no significant changes to the Subject Property from the 1995 aerial photograph.

# 4.3 Historical USGS Topographic Maps

Marathon obtained historical USGS Topographic Map ("USGS Map") coverage of the Subject Property from InfoMap Technologies, Inc. ("InfoMap"). The USGS Maps reviewed for this Phase I include the Pleasantville, New Jersey USGS Maps, dated 1967, 1986, 1990, 1994 and 1995 (see Appendix C - Historical USGS Maps). The scale of these maps is 1 inch equal to 2,000 feet. Please note that these maps are detailed enough to give a general view of a property; however, these maps often do not include all the structures present on a particular property.

Buildings shown on USGS Maps are typically depicted as symbols, which are solid black, or white with black outline. Buildings intended to house human activities, such as schools, churches, residences, shops, hotels are depicted by a solid or cross-hatch symbol. Buildings, which are not intended primarily for housing human activities, such as greenhouses, barns, storage garages and sheds, are often illustrated on a map with an open outline, or single-hatch symbol. Please note that smaller structures typically are not located on USGS Maps. Typically large areas mapped as white are open areas that are used as agricultural land or are open with herbaceous vegetation while the yellowish-green areas indicate forests. Areas mapped with yellowish-green dots on a white background are areas used as orchards.

Changes from earlier USGS Maps to more recent USGS Maps were made through a review of aerial photographs and other sources. These changes were added to the maps in purple. The USGS notes that the revisions were not field verified.

# 4.3.1 1967 Woodbury Historical USGS Topographic Map

The 1967 USGS Map depicts the Subject Property and the immediate vicinity much as it appears today with the warehouse visible and the surrounding residential communities represented.

# 4.3.2 1986 Woodbury Historical USGS Topographic Map

The 1986 USGS Map reveals no changes to the Subject Property or surrounding properties from the 1976 USGS Map.

# 4.3.3 1990 Woodbury Historical USGS Topographic Map

The 1990 USGS Map reveals no changes to the Subject Property or surrounding properties from the 1986 USGS Map.

# 4.3.4 1994 Woodbury Historical USGS Topographic Map

The 1994 USGS Map reveals no changes to the Subject Property or surrounding properties from the 1990 USGS Map.

# 4.3.5 1995 Woodbury Historical USGS Topographic Map

The 1995 USGS Map reveals no changes to the Subject Property or surrounding properties from the 1994 USGS Map.

#### 4.4 Previous Environmental Studies

# 4.4.1 Phase I Environmental Site Assessment and Limited Asbestos Sampling - ENSR

Marathon reviewed a Phase I Environmental Site Assessment and Limited Asbestos Sampling report for the Subject Property, prepared by ENSR Corporation ("ENSR"), dated April 19, 2000 (see Appendix D).

Historical information included in the ENSR Phase I indicated that the Robbins family purchased the property from J&R Quigley, who operated a wholesale lumber and millwork company in the late 1950s. The Robbins family developed the Subject Property and

operated the "Robbins Door and Sash Company". In approximately 1964, Walter Robbins leased the Subject Property to MidAtlantic Millwork Company ("MAMCO"). MAMCO was a lumber and millwork company and occupied the Subject Property until 1986, when Adams Wholesalers purchased MAMCO. Adams continued to lease the property from Walter Robbins until the mid-1990's, when Adams purchased the Subject Property. In the late 1990s Adams sold the Subject Property to the Mae Holding Company, from whom they leased the Subject Property at the time of the ENSR Phase I.

The Phase I made the following recommendations based on the conditions identified during their investigation:

- "Based on the information obtained regarding the removal of petroleum-contaminated soil during the UST closure, the lack of closure documentation, and evidence of incomplete closures, ENSR considers these former USTs to be RECs and recommends groundwater sampling."
- "Based on the lack of information regarding the handling and disposal practices of the hazardous waste generated by the previous occupants, ENSR recommends soil and groundwater sampling to identify potential releases in the storage areas of hazardous waste and regulatory substances."
- "During the site reconnaissance, ENSR observed surface staining along a short section of the railroad spur, located west of the subject building. The rust colored staining extended between the adjacent off-site railroad tracks and the on-site railroad spur. The source of the staining is unknown and it is not know what type of materials historically may have been transported on the rail spur. ENSR recommends removing and properly disposing of the stained soil, and conducting post excavation sampling to verify no residual contaminants are present above the applicable state cleanup criteria." (Marathon did not identify any staining or evidence of a discharge along the railroad spur.)
- "Due to the quantity (known and unknown), lack of secondary containment, and proximity to a floor drain of unknown destination, ENSR considers the drum storage area in the garage to be a REC on the Subject Property. The drums should be stored in secondary containment and clearly labeled with product name and associated hazards.

The floor drains should be sealed to avoid potential unpermitted discharges of hazardous materials to either the environment or the locally owned publicly owned treatment works ("POTW"). Furthermore the facility should investigate the discharge point. If the drains discharge to an onsite septic system/or stormwater system, additional investigations may be necessary." (Marathon confirmed that floor drains discharge to a POTW.)

- "An investigation into the area of the former AST and surface staining reported by Vectre in their 1990 Phase I ESA should be conducted to characterize the nature and extent of any potential site contamination."
- "Information from the fire department and water department has not yet been received, and ENSR can form no opinion about the environmental conditions at the Subject Property at this time with regard to the emergency responses made to the Subject Property or drinking water quality.
- "Although not a REC per ASTM, ENSR recommends abatement of the asbestos containing pipe insulation due to its position in a return air plenum, used by the HVAC unit serving the main office area. A licensed abatement contractor should perform the abatement activities with abatement supervision by a third party project monitor. An Operations and Management ("O&M") Plan should be developed to address the in-place management of the asbestos-containing mastic."

# 4.4.2 Soil & Groundwater Sampling & Analysis – Demaio's, Inc.

In December 2002, Demaio's, Inc. of Egg Harbor, New Jersey conducted soil and groundwater sampling and analysis at five (5) AOC locations on the Subject Property and described as "as identified by the client" in their report. Demaio's report did not describe the specific circumstances surrounding the AOCs investigated but instead included a "Sample Location Plan" that depicted the five (5) AOCs investigated (see Appendix E). Based on the AOCs identified in the ENSR report and Demaio's Sample Location Plan, Marathon was able to determine the circumstances surrounding four (4) of the five (5) areas. Area 3 is depicted at the northeast corner of the warehouse, but it is not known why this location was chosen to be investigated. The areas investigated included the following:

Area 1: Former location of 1,000-gallon heating oil UST

eastern wall of warehouse

Area 2: Former location of three (3) 4,000-gallon

gasoline USTs - east of garage

Area 3: Unknown AOC (depicted at NE corner of

warehouse on plan)

Area 4: Staining observed along the railroad spur

Area 5: Former location of 2,000-gallon heating oil UST

northern wall of warehouse

A total of eleven (11) borings were advanced to a depth of approximately twelve (12) feet below ground surface. One (1) soil sample was collected at each boring and analyzed for total petroleum hydrocarbons ("TPH"). Additionally, one (1) groundwater sample was collected from each of the five (5) areas of concern. Soil sample B-5, collected at a depth of 24 inches at the former location of three (3) 4,000-gallon gasoline USTs (Area #2), revealed a TPH level of 1870 milligrams per kilogram ("mg/kg"). The sample was further analyzed for volatile organic compounds with a forward library search ("VO+10"). No detectable concentrations of VO+10 constituents were revealed.

The five (5) groundwater samples were analyzed for VO+10 and base neutral compounds with a forward library search ("BN+15"). The sample analysis revealed no detectable concentrations of VO+10 or B/N+15 constituents.

#### 4.5 Interviews

The site is currently vacant. As such, there were no key site managers to interview during the site inspection. During a September 27, 2005 meeting, Mr. Al Gilbert, the property owner, indicated that the only environmental information he had concerning the Subject Property was contained within the reports that he provided (see Section 4.4).

#### 4.6 Chain-of-Title

A Title Report prepared by the Land America Commercial Services and dated August 16, 2005 was provided to Marathon for review. On April 23, 1964, the Subject Property was deeded to Middle Atlantic Millwork Company by Robbins Door and Sash Company. On January 31, 2003, the Subject Property was deeded to The Gilbert Partnership by Middle Atlantic Millwork Company.

#### 5.0 REGULATORY AGENCIES' RECORDS REVIEW

#### 5.1 Database Review

InfoMap prepared a report, entitled "Environmental FirstSearch<sup>TM</sup> Report" dated September 22, 2005 ("InfoMap Report"), for the Subject Property. The InfoMap Report identifies facilities and operations considered being RECs as related to the Subject Property. The InfoMap Report provides listings, accompanied by a map of facilities and operations with reported environmental concerns, within a specified distance from the Subject Property (see Appendix F – InfoMap Report). The InfoMap Report reviewed by Marathon includes the following lists:

- USEPA's NPL report includes sites identified as being uncontrolled or abandoned hazardous waste sites. These sites are targeted for potential long-term remedial action under the Superfund Act.
- USEPA's CERCLIS report includes sites identified as having actual or suspected uncontrolled releases of hazardous substances, contaminants, or pollutants.
- USEPA's NFRAP report includes information on facilities that have been removed from the USEPA's CERCLIS database.
- USEPA's RCRA-TSD report includes facilities that treat, store, or dispose of hazardous wastes.
- USEPA's RCRA-COR report includes hazardous waste handlers with RCRA corrective action activity.
- USEPA's RCRA-GEN report includes information on Large Quantity Generators ("LQG"), which are facilities that either generate more than 1,000 kilograms ("kg") of hazardous waste per month or meet other applicable requirements of RCRA; Small Quantity Generators ("SQG"), which are facilities that either generate between 100 kg and 1,000 kg of hazardous waste per month or meet other applicable requirements of RCRA; and, Conditionally Exempt Small Quantity Generators ("CEG"), which are facilities that either generate less than 100 kg of hazardous waste per month or meet other applicable requirements of RCRA.
- USEPA's ERNS report includes information on accidental releases of oil and hazardous substances.
- NJDEP's SHWS report includes sites that have contamination present at levels above the applicable soil and/or groundwater standards.
- NJDEP's State Landfills report is a listing of regulated solid waste disposal facilities or landfills.

- NJDEP's LUSTs report is a comprehensive listing of all reported active and inactive leaking underground storage tanks located within New Jersey.
- NJDEP's USTs/ASTs report is a comprehensive listing of all registered underground and aboveground storage tanks located within New Jersey. This listing excludes USTs and/or ASTs used for on-site consumption of heating oil in residential dwellings and storage tanks associated with farming activities.

When reviewing the locations of sites referenced in the InfoMap Report, Marathon first determined the watershed in which the facility was located in order to determine the potential for contaminants to impact the Subject Property. As referenced in Section 3.1, the Subject Property is located within the Woodbury Creek Watershed.

When a facility was determined to be located within the Woodbury Creek Watershed, Marathon evaluated the topographic gradients in the area to determine whether the referenced facility was located upgradient, sidegradient or downgradient of the Subject Property. Depending upon its distance and type of contaminants present, facilities located upgradient have the greatest potential to impact the Subject Property. Facilities located sidegradient have less potential to impact the Subject Property; and facilities located downgradient, or within a different watershed, have the least amount of potential to impact the Subject Property.

# 5.1.1 Subject Property

The Subject Property is listed once in the InfoMap Report as a LUST site, once as a UST site, and five (5) times as a State Spills Site. The following paragraphs provide a brief summary of the each designation.

# **LUST Designation**

As discussed above, the Subject Property was listed as a LUST site in the InfoMap report. The property was identified as follows:

Robbins Door & Sash
 Chestnut & Academy
 Woodbury Heights, NJ

Facility ID: LU-88-05-27-0924

Map ID: 4

The InfoMap report indicates that "Robbins Door & Sash" received a no further action ("NFA") from the NJDEP on December 3, 1991. No additional information relative to the Subject Property's LUST

designation was included in the InfoMap report's LUST summary, however the information included in the UST summary indicated that five (5) USTs were previously located on site (see below).

# **UST Designation**

As discussed above, the Subject Property was listed as a UST site in the InfoMap report. The property was identified as follows:

Middle Atlantic Millwork Co. Facility ID: 0085151
 Chestnut St and Academy Ave Map ID: 4
 Woodbury Heights, NJ

The InfoMap report indicates that "Middle Atlantic Millwork Co" previously had five (5) registered USTs on site. The five (5) USTs included the following:

Tank 1: 1,000-gallon heating oil (No. 2) – removed 1989 Tank 2: 2,000-gallon heating oil (No. 2) – removed 1989

Tank 3: 4,000-gallon medium diesel (No. 2-D) – removed 1988 Tank 4: 4,000-gallon medium diesel (No. 2-D) – removed 1988 Tank 5: 4,000-gallon medium diesel (No. 2-D) – removed 1988

# State Spills Site Designation

As discussed above, the Subject Property was listed five (5) times as a State Spills Site in the InfoMap report. The property was identified as follows:

Adam Wholesalers Map ID: 4
 Academy Ave
 Woodbury Heights, NJ

The five (5) "spills" are in fact not actual spills associated with an environmental incident or release, but instead revolve around citizen complaints regarding noise associated with tractor trailers previously located on site. The incidents were the result of citizen complaints over a three (3) month period in 1994. The complaints had to do with excessive truck idling, pressure washing of vehicles, horns, etc., not actual spills of any hazardous substances.

#### 5.1.2 NPL Sites

The InfoMap Report revealed no NPL sites within 1.0 miles of the Subject Property.

#### 5.1.3 CERCLIS Sites

The InfoMap Report revealed no CERCLIS sites within 0.5 miles of the Subject Property.

#### 5.1.4 CERCLIS-NFRAP Sites

The InfoMap Report revealed one (1) CERCLIS-NFRAP site within 0.5 miles of the Subject Property. The CERCLIS-NFRAP site was identified as follows:

Mantua Metal Prod Co Inc.
 Grandview Avenue
 Woodbury Heights, NJ

Facility ID: NJD085693505

Map ID: 1

Mantua Metal Prod Co Inc. is located 0.37 miles northeast and sidegradient of the Subject Property. A Preliminary Assessment was completed for this property by the USEPA in September 1984. Based on the findings in the Preliminary Assessment, no further remedial action is planned. Based on the sidegradient location of the property to the Subject Property and the fact that no areas warranting further remedial action were identified by the USEPA, it is unlikely that this property has affected the Subject Property.

#### 5.1.5 RCRA-TSD Sites

The InfoMap Report revealed no RCRA-TSD sites within 0.5 miles of the Subject Property.

#### 5.1.6 RCRA-COR Sites

The InfoMap Report revealed no RCRA-COR sites within 1.0 miles of the Subject Property.

#### 5.1.7 RCRA-GEN Sites

The InfoMap Report revealed no RCRA-GEN sites within 0.25 miles of the Subject Property.

#### 5.1.8 ERNS Sites

The InfoMap Report did not identify the Subject Property as an ERNS site.

#### 5.1.9 SHWS

The InfoMap Report revealed three (3) SHWS within 1.0 miles of the Subject Property. All three (3) sites are located at last 0.96 miles northwest and downgradient of the Subject Property. As such, the three (3) SHWS are unlikely to have impacted the Subject Property

#### 5.1.10 State Landfills

The InfoMap Report revealed no State Landfills within 0.5 miles of the Subject Property.

#### **5.1.11 LUST Sites**

Other than the Subject Property being listed as a LUST site, there are no other LUST sites within 0.5 miles of the Subject Property.

#### 5.1.12 UST/AST Sites

Other than the Subject Property being listed as a UST site, there are no other UST or AST sites within 0.25 miles of the Subject Property.

#### 5.2 USEPA

On September 22, 2005, a written inquiry was submitted to the USEPA Region II Freedom of Information Act ("FOIA") Coordinator, Wanda Vasquez, requesting any information the USEPA may have on file regarding illegal waste discharges, Notice of Violations and current regulatory status for the Subject Property or on adjacent properties (refer to Appendix G - Applicable Inquiries).

On October 6, 2005, Marathon received a letter from Adolph Everett, P.E., Acting Chief of the USEPA RCRA Programs Branch. Mr. Everett indicated

that the USEPA found no hazardous waste (RCRA) information pertaining to the Subject Property.

#### 5.3 NJDEP

On September 22, 2005, a written inquiry was submitted online to the NJDEP in accordance with the Open Public Records Act ("OPRA"). Marathon requested information the NJDEP may have received regarding illegal waste discharges, USTs and/or ASTs, environmental contamination and violations of environmental laws and/or permits at the Subject Property or on adjacent properties. Marathon also requested any information regarding prior uses of the Subject Property, events related to the environmental condition of the Subject Property, prior assessments of the Subject Property, and any proceedings involving the Subject Property (refer to Appendix G - Applicable Inquiries).

On October 3, 2005, Marathon received a response from the NJDEP's Office of the Records Custodian indicating that files pertaining to the Subject Property were available for review. Marathon requested that copies be made of this information and sent to our offices.

Our review of NJDEP files supplied to Marathon reveals that there is information on the closure and remediation of three (3) of five (5) USTs. No information provided concerning two (2) tanks or their closure. The NJDEP wrote off on the three (3) tanks (not a formal NFA, as these did not exist in 1988); however, the remediation standards used for the three (3) tanks are much different than those in effect today. For example, the soils were investigated for total petroleum hydrocarbons and polycyclic aromatic hydrocarbons. Today, the NJDEP would require TPH, volatile organic compounds and lead (it was noted that leaded gasoline was stored in the tanks). Further, the groundwater investigation noted that benzene was present at a concentration of 6 parts per billion. The current standard for benzene is 1 part per billion.

Additionally, our review of NJDEP files reveals that there was historic soil staining associated with an aboveground storage tank ("AST") previously containing waste oil located adjacent to the garage.

On September 22, 2005, Marathon conducted an on-line search of the NJDEP's database of Known Contaminated Sites in New Jersey. The Subject Property was not listed in the aforementioned database. Additionally, Marathon conducted an on-line search of the NJDEP's database of Site Remediation and Waste Management in New Jersey. The Subject Property was not listed in the aforementioned database.

# 5.4 Gloucester County

On September 22, 2005, a written inquiry was submitted to Robert N. Di Lella, County Custodian of Records for the County of Gloucester requesting information the county may have received regarding illegal waste discharges, USTs and/or ASTs, environmental contamination and violations of environmental laws and/or permits regarding the Subject Property or adjacent properties. Marathon also requested any information regarding prior uses of the Subject Property, events related to the environmental condition of the Subject Property, prior assessments of the Subject Property, and any proceedings involving the Subject Property (refer to Appendix G - Applicable Inquiries).

On October 5, 2005, Marathon received a response from William D. Atkinson, the Chief Sanitary Inspector for Gloucester County's Department of Health and Senior Services indicating that "a search of our records did not reveal the presence of the information requested based on the information submitted for the file search."

# 5.5 Borough of Woodbury Heights

On September 22, 2005, a written inquiry was submitted to Janet Pizzi, Borough Clerk for the Borough of Woodbury Heights, in accordance with OPRA. Marathon requested information the Borough of Woodbury Heights may have received regarding illegal waste discharges, USTs and/or ASTs, environmental contamination and violations of environmental laws and/or permits regarding the Subject Property or adjacent properties. Marathon also requested any information regarding prior uses of the Subject Property, events related to the environmental condition of the Subject Property, prior assessments of the Subject Property, and any proceedings involving the Subject Property (refer to Appendix G - Applicable Inquiries).

On October 5, 2005, Marathon received a response from Janet Pizzi indicating that "there are no records indicating any prior use of this property".

# 5.6 Public Utility Company Inquiries

#### 5.6.1 Sewer

Sanitary sewer is provided to the Subject Property by Gloucester County Utilities Authority ("GCMUA").

# 5.6.2 Water

Public water is provided to the Subject Property by the Woodbury Heights Water Utility.

# 5.6.3 Electric

PSE&G provides electrical service to the Subject Property.

# 5.6.4 Natural Gas

PSE&G supplies natural gas service to the Subject Property.

#### 6.0 SITE INSPECTION

The following is a summary of observations made by Marathon during the site reconnaissance performed on September 28, 2005. Photographs of the Subject Property are provided in Appendix H.

#### 6.1 USTs

Marathon observed no evidence of USTs on the Subject Property during the site reconnaissance. As discussed previously, our review of NJDEP files reveals that there is information on the closure and remediation of three (3) of five (5) USTs previously located on site. No information provided concerning the other two (2) USTs tanks or their closure was identified. These locations were investigated as part of the Phase II activities for this report. Please see section 7.0 for more information.

# 6.2 ASTs

Marathon observed one (1) propane AST on the Subject Property during the site reconnaissance. No other ASTs were observed. Our review of NJDEP files reveals that there was historic soil staining associated with an aboveground storage tank ("AST") previously containing waste oil. This location was investigated as part of the Phase II activities for this report. Please see section 7.0 for more information.

#### 6.3 PCBs

PCBs were mainly used as dielectric fluids and are generally found in electrical equipment such as transformers and fluorescent light ballasts. PCBs, to a lesser extent, were also used in lubricating oils and hydraulic oils. Marathon observed fluorescent light ballasts throughout the building during the site reconnaissance; however no staining or other evidence of a discharge such as fire damage was observed. Three (3) PSE&G-owned pole-mounted transformers were identified on utility poles along the property boundaries. Two (2) are located to the south along Chestnut Avenue and one (1) to the north between the parking area and the wooded portion of the site. One (1) PSE&G-owned pad-mounted transformer was observed along the eastern wall of the warehouse. No evidence of leaks or staining associated with the transformers was identified.

# 6.4 Chemical and Raw Material Storage

Marathon observed no chemical or raw material storage on the Subject Property during the site reconnaissance.

#### 6.5 Waste Generation

The site is vacant. As such, no waste is currently generated on site.

#### 6.6 Surficial Disturbances

Marathon observed no surficial disturbances on the Subject Property during the site reconnaissance.

# 6.7 Pits, Ponds or Lagoons

Marathon observed no pits, ponds or lagoons on the Subject Property during the site reconnaissance.

# 6.8 Floor Drains/Sumps

There are floor drains located in the garage building. One (1) of the floor drains exhibited a petroleum odor. Marathon has investigated the drains to determine whether soils in this area have been impacted and to determine the discharge point of the floor drains. See Section 7.0 for additional information. Marathon confirmed that the floor drains discharge to a sanitary sewer located east of the garage.

No sumps were observed during the site reconnaissance.

# 6.9 Stressed Vegetation, Stained Soils or Pavement

Marathon observed no stressed vegetation, stained soils or pavement on the Subject Property during the site reconnaissance. Marathon observed minor staining along the rail spur tracks, but considers it to be a deminimis condition.

# 6.10 Septic System

No evidence of septic systems on the Subject Property was observed during the site reconnaissance. The Subject Property is serviced by public sanitary sewer.

#### 6.11 Railroads

There is an inactive rail spur located along the western edge of the Subject Property. As mentioned previously, Marathon observed minor staining along the rail spur tracks previously, but consider it to be a deminimis quantity.

#### 6.12 Wells

Marathon observed no wells on the Subject Property during the site reconnaissance. The Subject Property is serviced by public water.

# 6.13 Adjacent Property

Adjacent property usage can be a vital consideration in evaluating property conditions, since surface water and groundwater flow create potential pathways for migration of contaminants from off-site sources. The observed adjacent property uses are listed as follows:

North Dense woods with the Woodbury Heights Grammar School

located beyond;

<u>East</u> Academy Avenue with residences located beyond;

South Chestnut Avenue with residences located beyond; and,

West Inactive rail line (formerly the Penn-Central Reading

Seashore Line) with residences located beyond.

None of these adjacent property uses is expected to have impacted the Subject Property.

# 7.0 SITE INVESTIGATION

Through a review of the previous environmental studies referenced in Section 4.4 and completion of this Phase I for the Subject Property, Marathon identified the following RECs and/or AOCs associated with the Subject Property:

- AOC 1: Former Location of Gasoline UST System;
- AOC 2: Former Location of Waste Oil AST;
- AOC 3: Former Location of 2,000-gallon Heating Oil UST;
   AOC 4 Former Location of 1,000-gallon Heating Oil UST;
- AOC 4 Former Location of 1,000-gallon Heating Oil UST;
   AOC-5 Floor drain system in maintenance garage.

The following subsections provide summaries of the investigations completed by Marathon on November 11, 2005, pertaining to these RECs/AOCs.

# 7.1 AOC 1: Former Location of Gasoline UST System

Marathon retained Enviroprobe Service, Inc., ("Enviroprobe") a New Jersey licensed well driller, to advance eight (8) small-diameter direct push points (i.e. soil borings) using a truck-mounted direct push, Geoprobe® hydraulic sampling device. The boreholes were advanced in selected locations in the former location of three (3) 4,000-gallon gasoline USTs and vent lines which were reportedly removed in 1988. The boreholes were designated GT-1 through GT-8 and were advanced under the supervision of a Marathon Professional Geologist and NJDEP Subsurface Evaluator.

Continuous split-spoon soil samples were collected by Marathon and logged for lithology and field screened for the presence of volatile organic compounds ("VOCs") with a photoionization detector ("PID") calibrated with 100 parts per million ("ppm") of isobutylene. The soil borings were advanced to depths up to 12.0 feet bgs. Groundwater was encountered at depths ranging from 9.0 feet to 12.0 feet bgs.

Marathon collected one (1) soil sample from each of the eight (8) soil borings, designated GT-1 through GT-8. In accordance with the NJDEP's Field Sampling Procedures Manual, dated August 2005, the samples were collected from each boring from the 6-inch interval that revealed the highest PID reading and/or visual observations of petroleum hydrocarbons (i.e., staining or odors), or the 6-inch interval above the groundwater table if no PID readings, staining or odor were observed. In addition, the soil borings with the two (2) highest PID readings, GT-2 and GT-8, were converted into temporary monitoring wells for the purpose of obtaining groundwater samples from each. The groundwater samples, designated

GW2-1 and GW8-1, were collected in accordance with the NJDEP's Alternative Groundwater Sampling Techniques Guide, dated April 1994.

The eight (8) soil and two (2) groundwater samples were delivered to STL in a cooler chilled to 4-degrees Celsius under proper chain of custody procedures. The groundwater samples were analyzed for VO+10, methyl tertiary butyl ether ("MTBE") and tertiary butyl alcohol ("TBA") by USEPA Method 624, and lead (filtered and unfiltered) by USEPA 200 series.

No petroleum impacted soils were encountered in the eight (8) soil borings. GW8-1, the groundwater sample collected from a noted overfill (vent area) adjacent to the garage building revealed an elevated concentration of 895 ug/l of TICs in the groundwater. The NJDEP's Specific Groundwater Quality Criteria for Class II-A Aquifers ("GWQS") for total TICs is 500 ug/l. Benzene was also detected in GW8-1 at a concentration of 1.7 ug/l. The NJDEP's GWQS for benzene is 1 ug/l. No concentrations of VO+10 constituents above the NJDEP's GWQS were detected in GW2-1. In addition, no lead concentrations above the NJDEP's GWQS were detected in GW8-1 or GW2-1. The analytical results as well as a Soil Sample Location Plan are provided in Appendix I.

#### 7.2 AOC 2: Former Location of Waste Oil AST

Two (2) soil borings were advanced in the vicinity of a former waste oil `above ground storage tank located immediately north of the garage. The boreholes were designated WO-1 and WO -2.

Both soil borings were advanced to a depth of 12.0 feet bgs. Groundwater was encountered at a depth of 7.0 feet bgs. Continuous split-spoon soil samples were collected, logged and field screened for the presence of VOCs with a PID. One (1) soil sample was collected from both locations. WO-1 was collected from just below the crushed stone lots surface and WO-2 was collected at the soil/water interface. STL was directed to analyze the soil samples for TPH by USEPA Method 418.1; VO+10 by USEPA Method 8260B; BN+15 by USEPA Method 8270; polychlorinated biphenyls ("PCBs") by USEPA Method 8082; and Priority Pollutant Metals ("PPMs") by USEPA Method 6010.

A TPH concentration of 1,160 mg/kg was detected in sample WO-1. The NJDEP does not have soil cleanup criteria for TPH; however, the NJDEP's standard for total organic contamination is 10,000 mg/kg. None of the remaining constituents were detected above the NJDEP's Impact to Groundwater Soil Cleanup Criteria ("IGWSCC") or the Residential Direct

Contact Soil Cleanup Criteria (RDCSCC"). The analytical results as well as a Soil Sample Location Plan are provided in Appendix I.

# 7.3 AOC 3: Former Location of 2,000-gallon Heating Oil UST

Two (2) soil borings were advanced in the vicinity of a 2,000-gallon heating oil UST formerly located immediately north of the northern wall of the warehouse. The boreholes were designated OT2-1 and OT2 -2.

Both soil borings were advanced to a depth of 8.0 feet bgs. Groundwater was encountered at a depth of 7.0 feet bgs. Continuous split-spoon soil samples were collected, logged and field screened for the presence of VOCs with a PID. One (1) soil sample was collected from both locations at the soil/water interface. STL was directed to analyze both soil samples for TPH by USEPA Method with the soil sample exhibiting the highest TPH concentration analyzed for VO+10 by USEPA Method 8260B.

TPH concentrations were detected in sample OT2-1 and OT2-2 at 257 mg/kg and 645 mg/kg, respectively. Sample OT2-2 was also analyzed for VO+10 by USEPA Method 8260B. No VO+10e constituent concentrations were detected above the laboratory method detection limit ("MDL"). The analytical results as well as a Soil Sample Location Plan are provided in Appendix I.

Marathon found no documentation indicating that this UST had been removed.

# 7.4 AOC 4: Former Location of 1,000-gallon Heating Oil UST

Two (2) soil borings were advanced in the vicinity of a 1,000-gallon heating oil UST formerly located immediately east of the eastern wall of the warehouse. The boreholes were designated OT1-1 and OT1-2.

Both soil borings were advanced to a depth of 8.0 feet bgs. Groundwater was encountered at a depth of 4.0 feet bgs. Continuous split-spoon soil samples were collected, logged and field screened for the presence of VOCs with a PID. One (1) soil sample was collected from both locations at the soil/water interface. STL was directed to analyze both soil samples for TPH by USEPA Method with the soil sample exhibiting the highest TPH concentration analyzed for VO+10 by USEPA Method 8260B.

TPH concentrations were detected in sample OT1-1 and OT1-2 at 328 mg/kg and 216 mg/kg respectively. In addition, sample OT1-1 was analyzed for VO+10 by USEPA Method 8260B. No VO+10 constituent

concentrations were detected above the laboratory MDL. The analytical results as well as a Soil Sample Location Plan are provided in Appendix I.

Marathon found no documentation indicating that this UST had been removed.

# 7.5 AOC-5: Floor Drain System

# 7.5.1 Geophysical Survey

Marathon retained Enviroprobe Service, Inc. ("Enviroprobe) to conduct a geophysical investigation of the garage floor drain system to determine the orientation of the piping system and the system's ultimate discharge point using electromagnetic ("EM") and/or ground penetrating radar ("GPR"). The results of the limited EM/GPR of the floor drain system indicate that the floor drains in the former maintenance garage are connected to one another by a single pipe which runs in an easterly direction to Academy Avenue where it discharges to the sanitary sewer. The sanitary sewer ultimately discharges to the GCMUA.

# 7.5.2 Soil Borings

Upon completion of the EM/GPR survey of the floor drain system, Marathon conducted an investigation of the three (3) floor drains within the garage in accordance with N.J.A.C. 7:26E-3:9 (d) 1 iv. Three (3) soil borings were advanced adjacent to each floor drain using the Geoprobe<sup>®</sup>. Soils from the borings were inspected for discoloration, odor or other signs of contamination. The borings were continuously field screened by Marathon for the presence of volatile organic compounds using the PID.

A soil sample was collected from each of the borings from the interval exhibiting the highest PID reading or the soil/water interface in accordance with the NJDEP's Field Sampling Procedures Manual, dated May 1999. The soil samples were analyzed for TPH by USEPA Method 418.1, modified for soil; VO+10 by USEPA Method 8260B; B/N+15 by USEPA Method 8270C; PCBs by USEPA Method 8082; and PPMs by USEPA Method 6010/7000. Low concentrations of TPH ranging from 52.2 mg/kg to 64.5 mg/kg were detected in soils adjacent to the floor drains. The analytical results as well as a Soil Sample Location Plan are provided in Appendix I.

#### 8.0 CONCLUSIONS

Based on historical site use, government agency records review, site reconnaissance, adjacent property usage, and site investigation, Marathon's findings are as follows:

- The Subject Property consists of one (1) lot encompassing 17.5 acres which includes two (2) masonry structures and a crushed stone lot with some paved areas. The main structure is a single story warehouse approximately 230,000 square feet in size. There is a three-bay garage approximately 2,500 square feet in size located approximately 50 feet north of the warehouse. A railroad spur form the inactive Penn-Central Reading Seashore Line parallels the western edge of the warehouse.
- 2. Marathon submitted an inquiry for Sanborn Fire Insurance Maps for the Subject Property. The InfoMap database service has reported that there is no Sanborn Fire Insurance Map coverage for the Subject Property.
- 3. Marathon obtained historical USGS Map coverage of the Subject Property from InfoMap. The USGS Maps reviewed for this Phase I included the Pleasantville, New Jersey USGS Maps, dated 1967, 1986, 1990, 1994 and 1995. The review of these maps did not reveal areas of concern associated with the Subject Property.
- 4. A review of aerial photographs of the Subject Property and adjacent properties from 1940, 1951, 1965, 1975, 1985, and 2002 did not reveal areas of concern associated with the Subject Property.
- 5. Marathon reviewed a Phase I Environmental Site Assessment and Limited Asbestos Sampling report for the Subject Property, prepared by ENSR Corporation ("ENSR"), dated April 19, 2000. ENSR identified the following RECs and/or AOCs: 1) Five (5) former USTs located on site; 2) a lack of information regarding the handling and disposal practices of the hazardous waste generated by the previous occupants; 3) surface staining along a short section of the railroad spur, located west of the subject building; 4) floor drains located within the garage; 5) a former AST located adjacent to the garage; and 6) asbestos containing pipe insulation located within a return air plenum.
- 6. Marathon also reviewed a Soil and Groundwater Sampling and Analysis Report for the Subject Property, prepared by Demaio's, Inc., dated December 2002. Demaio's conducted soil and groundwater sampling and analysis at five (5) AOCs. A total of eleven (11) borings were advanced. One (1) soil sample was collected at each boring and analyzed for TPH. Additionally, one (1) groundwater sample each was collected from each of the five (5) AOCs. One (1) soil sample collected at a depth of 24 inches

adjacent to the western edge of the garage revealed a TPH level of 1870 parts per million. The sample was further analyzed for VO+10 and revealed no detectable concentrations. The five (5) groundwater samples were analyzed for VO+10 and Base Neutrals ("BN+15"). According to the report, the levels were "within acceptable NJDEP guidelines".

- 7. A review of the chain of title for the Subject Property did not reveal items of environmental concern.
- 8. The Subject Property is listed once in the InfoMap Report as a LUST site and once as a UST site. The InfoMap report indicates that "Robbins Door & Sash" received a NFA from the NJDEP on December 3, 1991 in regards to its LUST designation. No additional information relative to the Subject Property's LUST designation was included in the InfoMap report's LUST summary, however the information included in the UST summary indicated that five (5) USTs were previously located on site. Three (3) 4,000-gallon diesel USTs were reportedly removed in 1988; one (1) 1,000-gallon heating oil UST was reportedly removed in 1989; and one (1) 2,000-gallon heating oil UST was reportedly removed in 1989.
- 9. The Subject Property was also listed five (5) times as a State Spills Site. The five (5) "spills" are in fact not actual spills associated with an environmental incident or release, but instead revolve around citizen complaints regarding noise associated with tractor trailers previously located on site. The incidents were the result of citizen complaints over a three (3) month period in 1994. The complaints had to do with excessive truck idling, pressure washing of vehicles, horns, etc., not actual spills of any hazardous substances.
- A review of the InfoMap report did not identify facilities and operations within a specified distances considered being RECs as related to the Subject Property.
- 11. On October 6, 2005, Marathon received a letter from Adolph Everett, P.E., Acting Chief of the USEPA RCRA Programs Branch. Mr. Everett indicated that the USEPA found no hazardous waste (RCRA) information pertaining to the Subject Property.
- 12. Our review of NJDEP file reveals that there is information on the closure and remediation of three (3) of five (5) USTs. No information provided concerning two (2) tanks or their closure. The NJDEP wrote off on the three (3) tanks (not a formal NFA, as these didn't exist in 1988); however, the remediation standards used for the three (3) tanks are much different than those in effect today. For example, the soils were investigated for total petroleum hydrocarbons and polycyclic aromatic hydrocarbons. Today, the NJDEP would require TPH, volatile organic compounds and

lead (it was noted that leaded gasoline was stored in the tanks). Further, the groundwater investigation noted that benzene was present at a concentration of 6 parts per billion. The current standard for benzene is 1 part per billion.

- 13. On September 22, 2005, Marathon conducted an on-line search of the NJDEP's database of Known Contaminated Sites in New Jersey. The Subject Property was not listed in the aforementioned database. Additionally, Marathon conducted an on-line search of the NJDEP's database of Site Remediation and Waste Management in New Jersey. The Subject Property was not listed in the aforementioned database.
- 14. On October 5, 2005, Marathon received a response from William D. Atkinson, the Chief Sanitary Inspector for Gloucester County's Department of Health and Senior Services indicating that "a search of our records did not reveal the presence of the information requested based on the information submitted for the file search".
- 15. On October 5, 2005, Marathon received a response from Janet Pizzi, Borough Clerk for the Borough of Woodbury Heights, indicating that "there are no records indicating any prior use of this property."
- 16. Marathon observed no evidence of USTs on the Subject Property during the site reconnaissance. However, our review of NJDEP files reveals that there is information on the closure and remediation of three (3) of five (5) USTs previously located on site. No information provided concerning the other two (2) USTs tanks or their closure was identified.
- 17. Marathon observed one (1) propane AST on the Subject Property during the site reconnaissance. No other ASTs were observed. Our review of NJDEP files reveals that there was historic soil staining associated with an AST previously containing waste oil.
- 18. Marathon observed fluorescent light ballasts throughout the building during the site reconnaissance; however no staining or other evidence of a discharge such as fire damage was observed.
- 19. Three (3) PSE&G-owned pole-mounted transformers were identified on utility poles along the property boundaries. Two (2) are located to the south along Chestnut Avenue and one (1) to the north between the parking area and the wooded portion of the site. One (1) PSE&G-owned pad-mounted transformer was observed along the eastern wall of the warehouse. No evidence of leaks or staining associated with the transformers was identified.

- 20. Marathon observed no chemical or raw material storage on the Subject Property during the site reconnaissance.
- 21. The site is vacant. As such, no waste is currently generated on site.
- 22. Marathon observed no surficial disturbances on the Subject Property during the site reconnaissance.
- 23. Marathon observed no pits, ponds or lagoons on the Subject Property during the site reconnaissance.
- 24. There are floor drains located in the garage building. One (1) of the floor drains exhibited a petroleum odor.
- 25. No sumps were observed during the site reconnaissance.
- 26. Marathon observed no stressed vegetation, stained soils or pavement on the Subject Property during the site reconnaissance. Marathon observed minor staining along the rail spur tracks, but consider it to be a deminimis condition.
- 27. No evidence of septic systems on the Subject Property was observed during the site reconnaissance. The Subject Property is serviced by public sanitary sewer.
- 28. There is an inactive rail spur located along the western edge of the Subject Property. As mentioned previously, Marathon observed minor staining along the rail spur tracks previously, but consider it to be a deminimis condition.
- 29. Marathon observed no wells on the Subject Property during the site reconnaissance. The Subject Property is serviced by public water.
- 30. None of the adjacent property uses is expected to have impacted the Subject Property.
- 31. Marathon retained Enviroprobe, a New Jersey licensed well driller, to advance eight (8) small-diameter soil borings using a truck-mounted direct push, Geoprobe® hydraulic sampling device in selected locations at the former location of three (3) 4,000-gallon gasoline USTs and vent lines. Marathon collected one (1) soil sample from each of the eight (8) soil borings and submitted the soil samples for VO+10 by EPA Method 8260B and lead by EPA Method 6010B. Additionally, the soil borings with the two (2) highest PID readings were converted into a temporary monitoring wells for the purpose of obtaining groundwater samples from each. The groundwater samples were analyzed for VO+10, MTBE and TBA by EPA

Method 624, and lead (filtered and unfiltered). No petroleum impacted soils were encountered. GW8-1, the groundwater sample collected from a noted overfill area adjacent to the garage building revealed elevated concentrations of tentatively identified compounds ("TICs") in the groundwater at a concentration of 895 micrograms per liter ("ug/l"). The NJDEP's standard for TICs is 500 ug/l. Benzene was also detected at a concentration of 1.7 ug/l. The NJDEP's standard for benzene in the groundwater is 1 ug/l.

- 32. Two (2) soil borings were advanced in the vicinity of a former waste oil above ground storage tank located immediately north of the garage. The soil samples were analyzed for TPH; VO+10; BN+15; PCBs; and PPMs. A TPH concentration of 1,160 mg/kg was detected in sample WO-1. The NJDEP does not have a standard for TPH; however, the NJDEP's standard for total organic contamination is 10,000 mg/kg. None of the remaining compounds were detected above the NJDEP's standards. No further action is proposed for this area of concern.
- 33. Two (2) soil borings were advanced in the vicinity of a 2,000-gallon heating oil UST formerly located immediately north of the northern wall of the warehouse. One (1) soil sample was collected from both locations at the soil/water interface. STL was directed to analyze both soil samples for TPH with the soil sample exhibiting the highest TPH concentration analyzed for VO+10. TPH concentrations were detected in sample OT2-1 and OT2-2 at 257 mg/kg and 645 mg/kg respectively. As such, sample OT2-2 was analyzed for VO+10 by EPA Method 8260B. No volatile constituent concentrations were detected above the laboratory MDL. Marathon found no documentation indicating that this UST had been removed. The EM survey showed an anomaly in this area but there was interference due to the proximity of the building. Marathon recommends completing a test pit in this area to confirm the presence of the tanks and tank closure.
- 34. Two (2) soil borings were advanced in the vicinity of a 1,000-gallon heating oil UST formerly located immediately east of the eastern wall of the warehouse. One (1) soil sample was collected from both locations at the soil/water interface. STL was directed to analyze both soil samples for TPH with the soil sample exhibiting the highest TPH concentration analyzed for VO+10. TPH concentrations were detected in sample OT1-1 and OT1-2 at 328 mg/kg and 216 mg/kg respectively. As such, sample OT1-1 was analyzed for VO+10. No volatile constituent concentrations were detected above the laboratory MDL. Marathon found no documentation indicating that this UST had been removed.
- 35. Marathon completed a limited EM/GPR survey of the garage floor drain system to determine the orientation of the piping system and the system's

ultimate discharge point. The results of the limited EM/GPR of the floor drain system indicate that the system travels in an easterly direction where it ultimately discharges to the sanitary sewer.

- 36. Marathon conducted an investigation of the three (3) floor drains within the garage in accordance with N.J.A.C. 7:26E-3:9 (d) 1 iv. Three (3) soil borings were advanced adjacent to each floor drain using the Geoprobe<sup>®</sup>. A soil sample was collected from each of the borings from the interval exhibiting the highest PID reading or the soil/water interface. The soil samples were analyzed for TPH; VO+10; B/N+15; PCBs; and PPM. Low concentrations of TPH ranging from 52.2 mg/kg to 64.5 mg/kg were detected in the soil adjacent to the floor drains. No further action is proposed for the floor drains.
- 37. We have performed a Phase I/II Environmental Site Assessment in conformance with the scope and limitations of ASTM E 1527-00. Any exceptions to or deletions from the practice are described in Section 1.0 (Introduction) of this report. This assessment has revealed no RECs and/or AOCs associated with the Subject Property with the exception of the following:
  - Groundwater sampling at the former location of three (3) 4,000-gallon gasoline USTs and vent lines revealed elevated concentrations of tentatively identified compounds ("TICs") in the groundwater at a concentration of 895 micrograms per liter ("ug/l"). The NJDEP's standard for TICs is 500 ug/l. Benzene was also detected at a concentration of 1.7 ug/l. The NJDEP's standard for benzene in the groundwater is 1 ug/l.

### <u>Recommendation</u>

Marathon recommends that a groundwater investigation be conducted pursuant to N.J.A.C. 7:26E 4.0 under a Memorandum of Agreement with the NJDEP.

The potential presence of an abandoned heating oil UST located immediately north of the northern wall of the warehouse.

#### Recommendation

Marathon recommends that test pits be completed in the area of the suspect UST. If encountered, Marathon recommends that the UST be closed in accordance with N.J.A.C. 7:14B <u>et. seq.</u> and N.J.A.C. 7:26E <u>et. seq.</u>

The potential presence of an abandoned heating oil UST located immediately east of the eastern wall of the warehouse.

### Recommendation

Marathon recommends that test pits be completed in the area of the suspect UST. If encountered, Marathon recommends that the UST be closed in accordance with N.J.A.C. 7:14B <u>et. seq.</u> and N.J.A.C. 7:26E <u>et. seq.</u>

#### 9.0 REFERENCES

The following documents, publications, maps, etc. were used as source materials for this Phase I/II:

- The American Society of Testing and Materials Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-00).
- Technical Requirements for Site Remediation, N.J.A.C. 7:26E et seq.
- Woodbury, New Jersey-Pennsylvania, United States Geological Survey, 7.5-Minute Topographic Quadrangles, dated 1967, 1986, 1990, 1994 and 1995.
- Tax Map of the Borough of Woodbury Heights, Sheet 7.
- Soil Survey for Gloucester County, New Jersey, United States Department of Agriculture-Soil Conservation Service, issued April 1978.
- Environmental FirstSearch<sup>TM</sup> Report, InfoMap Technologies, Inc., dated September 22, 2005.
- Sanborn Map Report, dated September 23, 2005.
- USGS Open File Report 95-254, Plate 1- Southern Sheet, Geologic Map.
- 1940 and 1951 Aerial Photographs, Aerial Viewpoint, Scale of 1"=1,667.
- 1965, 1975 and 1985 Aerial Photographs, Delaware Valley Regional Planning Commission Aerial Photographs, Scale 1"=400'
- NJDEP's GIS Resource Data, Series 1, Volume 2 and Series 4, Volume 1.
- NJDEP's Digital Data, 2002 Color Infrared Digital Imagery, Scale of 1"=400".
- Phase I Environmental Site Assessment and Limited Asbestos Sampling Report for Adam's Wholesaler's, prepared by ENSR Corporation ("ENSR"), dated April 19, 2000.
- Soil and Groundwater Sampling and Analysis Report, Chestnut & Academy Avenues, prepared by Demaio's, Inc., dated December 2002

## APPENDIX A QUALIFICATIONS

### David J. Fennimore

### **CREDENTIALS:**

□ B.S., Environmental Planning and Design, Cook College, Rutgers University

### PROFESSIONAL REGISTRATIONS/CERTIFICATIONS:

- □ OSHA 40 Hour Health and Safety Training
- ☐ USEPA AHERA Certified Building Inspector
- ☐ City of Philadelphia Licensed Building Inspector
- ☐ Certified NJDEP Subsurface Evaluator
- ☐ First Aid/CPR

### **EXPERIENCE SUMMARY:**

Mr. Fennimore has over 15 years of experience in the environmental consulting field and related technologies. His responsibilities include the coordination, execution, and supervision of environmental investigations both nationally and internationally, and the subsequent preparation of technical documents. He has managed several environmental building surveys; prepared risk assessments/recommendations; developed cost estimates in preparation for remedial activities; developed plans and specifications for addressing items of environmental concern; and monitored abatement projects throughout the Philadelphia region. Mr. Fennimore has prepared several Phase I ASTM reports for a variety of properties to include industrial, commercial, agricultural, and residential uses; supervised the installation of soil borings and groundwater monitoring wells; performed groundwater sampling/slug testing; maintained oversight of soil investigations; and performed electromagnetic/ground penetrating radar field surveys. He has also prepared several Environmental Impact Statements and submitted successful grant applications to the USEPA for acquisition of Brownfields redevelopment funding for local entities. Mr. Fennimore has recently expanded his base of knowledge and experience to include ISO 14001 Environmental Management System implementation consulting.

### REPRESENTATIVE PROJECT EXPERIENCE:

### **BROWNFIELDS REDEVELOPMENT**

### Brownfields Assessment Demonstration Pilot Application – Atlantic City, NJ

Prepared successful Brownfields Assessment Demonstration Pilot Application to the USEPA on behalf of the City of Atlantic City's Engineering Department for the funding of site investigations/remedial investigations. This involved a description of the effects of Brownfields on certain neighborhoods; the identification of blighted properties as candidates for redevelopment; the solicitation of support and involvement of local community groups and government entities; and the preparation of a project budget detailing the proposed distribution of the demonstration pilot funds. The application was successful and resulted in the USEPA

granting funds to Atlantic City for investigations of several properties.

### Transportation and Safety Building Investigation, Remediation Design, and Abatement Monitoring – Harrisburg, Pennsylvania

Part of a team that provided environmental engineering and consulting services relative to hazardous materials identified within the 700,000 square foot Transportation and Safety Building which had been damaged by fire in 1994. Preliminary investigations revealed that environmental contaminants such as asbestos, PCBs, dioxins and dibenzofurans were present throughout the building. Conducted bulk and wipe sampling utilizing SCBA on "fire floors" and other floors to characterize the extent of contamination throughout the building. This information was used in preparing detailed plans and specifications to remove building contaminants prior to implosion and provide data for cost recovery from the manufacturer of the PCBcontaminated/asbestos-containing spray-applied fireproofing. The abatement and remediation design addressed interior demolition activities as well as the removal, transportation and disposal of PCBs, dioxins, lamps, ballasts, switches, and USTs. Abatement monitoring activities conducted over the four (4) month cleanup included documentation of contractor work activities and practices; monitoring of containment integrity; and environmental and clearance sampling in accordance with USEPA protocols and project-specific QA/QC. Health and Safety. and Monitoring Plans.

### Former RCA "Nipper" Building Investigation, Remediation Design, and Abatement Monitoring – Camden, New Jersey

Part of a team that provided environmental engineering and consulting services relative to the conversion of the former RCA facility or "Nipper" building located in Camden, New Jersey into Remedial investigation activities included a soil and groundwater luxury apartments. investigation, as well as an investigation of interior surfaces and building components. The site investigation revealed contamination in soil, groundwater and building interiors. Contaminants identified on the property included chlorinated solvents, polychlorinated biphenyls, heavy metals, lead-based paint, and asbestos. Prepared a remedial action workplan, and assisted in selecting an environmental contractor for the remediation of the property in accordance with applicable federal and state requirements. Detailed plans and specifications were prepared to address the various contaminants identified prior to conversion to apartments. Abatement monitoring activities were conducted during the \$7 million cleanup that included the documentation of contractor work activities and practices; monitoring of containment integrity; and environmental and clearance sampling in accordance with regulatory requirements. The property was successfully redeveloped in to a \$60 million state-of-the-art luxury loft apartment building with an exquisite lobby, a clubroom, fitness center, private parking garage, and 27,000 square feet of retail space. The building was opened to the public in March 2004.

#### Subsurface Soil and Groundwater Contamination Delineation – Absecon, NJ

Conducted a Ground Penetrating Radar/Electromagnetic ("GPR/EM") Survey of an abandoned car dealership and adjacent residential property for the presence of USTs. Upon completion of the GPR/EM Survey, coordinated the removal of identified USTs, hydraulic lifts, and asbestoscontaining materials and a subsequent soil and groundwater investigation. A Remedial Investigation report was prepared and a natural attenuation proposal was submitted to the NJDEP. Property was successfully redeveloped into a bank.

### ASBESTOS CONSULTING SERVICES

### City Hall, Asbestos Abatement Design & Monitoring, Atlantic City, New Jersey

Provided emergency response services relative to the disturbance of asbestos-containing fireproofing disturbed with the lobby of Atlantic City City Hall. Coordinated the immediate cleanup of the impacted area and established critical barriers around the zone of contamination through air sampling. The building was evacuated as a precaution while the sampling was performed and regulatory agencies notified. After the initial cleanup and re-opening of the building, plans and specifications were developed for the removal and replacement of the fireproofing in accordance with the regulatory requirements. Assisted the client in obtaining and evaluating qualified bidders for the project. Developed a sequencing of the project so that the building could remain open. The plan included the performance of the project while allowing occupancy of the upper floors through the use of tunnels to the stairwells and elevators.

### Battleship USS New Jersey, Asbestos Survey and Abatement Design/Monitoring - City of Camden Waterfront

Provided a room-by-room environmental inspection including an asbestos survey throughout the Battleship USS New Jersey. After compilation of the inspection data, prepared detailed abatement plans and specifications for the removal of asbestos-containing materials, PCB-containing items/fluids, and ozone-depleting substances. The design detailed special concerns and conditions relating to performing abatement in a ship environment. The abatement process had to be carefully scheduled around the planned renovation to the battleship in preparation for its opening as a museum. Served as the on-site environmental project representative to coordinate the work, perform air monitoring and wipe sampling, and document that abatement activities were being performed in accordance with the project specifications and applicable regulations. Prepared abatement activities report to USEPA that documented remediation activities.

### <u>ENVIRONMENTAL SITE ASSESSMENTS</u>

#### Phase I Environmental Site Assessments – Worldwide

Has conducted numerous due diligence American Society for Testing and Materials ("ASTM") environmental site assessments for various clients (i.e., developers, attorneys, lenders, government, military, etc.) in New Jersey, Pennsylvania, New York, Delaware, South Carolina, Indiana, Illinois, Kansas, Oklahoma, California, Puerto Rico, and Japan. These site assessments have included multiple site usages such as agricultural, residential, commercial, military installations, and industrial properties. Responsible for conducting site inspections to identify recognized environmental conditions, evaluating historic information; conducting interviews; conducting regulatory database review; and, report preparation.

### Preliminary Assessments – New Jersey

Conducts preliminary assessments in accordance with NJ Technical Requirements for Site Remediation. Responsible for site inspections to identify environmental areas of concern that may be addressed during the follow up Site Investigations.

### Industrial Site Recovery Act Sites – New Jersey

Conducts preliminary assessments, site investigations, remedial investigation, and remedial actions of properties subject to the Industrial Site Recovery Act ("ISRA"). Has performed investigations subject to ISRA on properties throughout New Jersey, including pharmaceutical,

printing, electroplating, and sheet metal fabrication facilities.

### STORAGE TANK MANAGEMENT:

### Underground Storage Tank Removal and Replacement – Jersey City, New Jersey

Part of a team that provided environmental and engineering design services for the removal and replacement of 27 USTs at 23 locations within the Jersey City Public School District. This included the preparation of bid specifications and drawings for removal procedures and replacement of the USTs to include monitoring, leak detection, corrosion, and overfill protection. Provided removal and replacement oversight and addressed contamination issues during UST removals. Coordinated the preparation and submittal of closure reports for the 23 individual schools to the NJDEP.

### Closure Investigations Relative to USTs

Field operations experience includes supervising the removal of USTs, and collecting confirmatory soil and groundwater samples. Delineating vertical and lateral extent of soil and groundwater contamination. He is also responsible for preparing subsurface soil and groundwater sampling plans, closure reports and project reports associated with UST activities.

### SOIL AND GROUNDWATER INVESTIGATIONS

### Historic Pesticide Soil Investigations

Develops and implements surface soil sampling plans on properties in order to address client's concerns regarding historic pesticide applications on agricultural properties. Experience includes implementing soil sampling plans, data analysis, remedial action, and report preparation in order to obtain a "no further action" from the NJDEP. Conducts background investigations, where appropriate, to document naturally occurring metals (i.e., arsenic, beryllium and cadmium) in soil and groundwater in order to receive a "no further action" determination from the NJDEP on the basis that a discharge has not occurred.

### Subsurface Soil Sampling and Analysis

Develops and implements subsurface soil sampling plans in order to delineate the horizontal and vertical extent of various constituents in the substratum. The work was performed to address the impact to the environment from leaking underground storage tanks, septic systems, oil water separators, sump pump discharges, chemical storage areas, stormwater conveyance systems.

### <u>ENVIRONMENTAL SCIENCE:</u>

### Former Publicker Industries National Priorities List Site – Philadelphia, PA

Part of a multidisciplinary team that acquired state and federal permits for the construction of a cellular steel bulkhead along the Delaware River for the purpose of creating an inter-modal marine terminal at the former location of Publicker Industries, a USEPA "National Priorities List" site located along the Philadelphia waterfront. The Publicker Industries facility was a liquor and alcohol distillation process plant with several waterfront piers extending into the Delaware River. Field Project Manager during the collection of environmental samples from soil borings in AOCs to be disturbed as part of construction. Approvals for the construction were required under Section 10 of

the U.S. River and Harbors Act, as well as Section 404 of the Federal Clean Water Act and PA Title 25 relating to Dam Safety and Waterway Management.

### Atlantic City Racetrack Environmental Impact Statement - Hamilton Township, NJ

Coordinated and prepared an Environmental Impact Statement for a proposed conversion of the Atlantic City Race Track into a NASCAR-sanctioned speedway. The EIS involved the coordination of several consultants' individual expertises into a combined report outlining the potential impacts to the environment in accordance with the municipal Land Development Ordinance. Impacts addressed as part of the EIS included noise, traffic, fiscal, air, and land use considerations.

### Hardings Run Environmental Impact Statement - Hamilton Township, NJ

Preparation of a Pinelands Certificate of Filing application for 730-unit residential project in Hamilton Township. A comprehensive Environmental Impact Statement was prepared in accordance with the municipal Land Development Ordinance.

### Fort Mifflin - Philadelphia, PA

Preliminary wetland feasibility study and environmental assessment for updating the Fort Mifflin Master Plan. Fort Mifflin is listed on the National Historic Register and therefore the project involved coordination with the National Park Service.

### **INDOOR AIR QUALITY**

### Sharon Savings Bank, Microbiological Investigation & Risk Assessment – Darby, PA

Provided environmental consulting services to assist Sharon Savings Bank in assessing the potential risk involved with handling the documents that had been impacted by the flood waters of Darby Creek during Hurricane Floyd on September 16, and 17, 1999. The goal for this project was to assess the human risk associated with handling impacted bank documents and offer recommendations for the safe handling of the documents by bank personnel. The investigation included wipe sampling of impacted documents for the presence of bacteria, followed by air sampling to determine if aerosolized materials presented a risk to human health. The results of the investigation showed that the documents were statistically clear of targeted bacteria. The materials were returned following the investigation.

### Catholic Charities, Baseline Indoor Air Quality Study of Two Buildings - Trenton, New Jersey

Implemented a multi-task approach to investigate and sample IAQ parameters and constituents in two (2) buildings owned and operated by Catholic Charities. The investigation was initiated because of complaints of illness from facility employees. Investigations of IAQ included chemical constituent sampling and analysis using Dräger Tubes, colorimetric direct-reading measurements, and laboratory analysis of collected samples using NIOSH methodology. In addition, temperature and relative humidity measurements were collected along with visual inspection of building components. Microbial and fungal sampling and analysis was also performed in one of the two buildings. Species of fungus that are known to be airborne irritants and pathogens were identified and additional sampling was recommended, to determine the source of the fungi, which will allow site-specific remediation.

### Bucks County Health Department, Indoor Air Quality Investigations - Bucks County, Pennsylvania

Performed various IAQ investigations at county facilities for the Bucks County Health Department. The investigations included volatile organic compound air sampling and ventilation measurements at a print shop. The investigation was implemented to assess VOC exposure to an employee that was newly pregnant. The analyses revealed concentrations of VOC below OSHA limits. Recommendations included closer attention to management practices and to reduce VOC-containing inks and solvents as possible.

### Bucks County Prison, Indoor Air Quality Investigations - Bucks County, Pennsylvania

Completed a limited indoor air quality investigation for a medium security county prison. The investigation included screening for volatile organic compounds using a photoionization device, and microbiological swabs sampling for the determination of Legionelle species. Recommendations included that the HVAC system be reengineered to account for the current inmate population and that a more stringent smoking policy be instituted with prison inmates to reduce the amount of smoking related particulates and irritants.

### Pep Boys, Indoor Air Quality Study, Pep Boys Corporate Office Building - Philadelphia, Pennsylvania

Based upon complaints of sick building syndrome (SBS), measurements and samples were collected from each of the four (4) floors in the west wing and each of the five (5) floors in the east wing of the building. Investigations of IAQ included chemical constituent sampling and analysis; nuisance dust sampling and analysis; temperature and relative humidity measurement; microbiological sampling and analysis; and, ventilation measurements. No IAQ problems were revealed however, the investigation was used to qualm employees concerns (IAQ Risk Management).

### Lower Township School District Indoor Air Quality Investigation - Lower Township, New Jersey

Based upon complaints over sick building syndrome, a limited indoor air quality investigation of an elementary school was performed. The investigation included biological air sampling; wipe sampling for the presence of fungi and bacterium, along with temperature and relative humidity measurements. The investigation revealed concentrations of airborne fungi that could be a cause of concern. The fungi were related to previous water damage and recommendations for cleaning and disinfecting affected surfaces were made.

### ISO 14001 CONSULTING

### Subaru of America – Cherry Hill, New Jersey

Providing on-site consultation, training, and oversight relative to the successful implementation and execution of Subaru of America's ("SOA's") Environmental Management System ("EMS"). Coordinated the identification of legal requirements and environmental aspects associated with site operations; developed methods for establishing operational control over them; established procedures relative to the operations and activities at satellite facilities; trained management and staff on concepts relative to ISO and EMS requirements; assisted SOA's Corporate Lead Internal Auditor in coordinating internal and external auditing requirements; maintained, updated and trained SOA personnel in Intelex "ISOsoft" EMS web-based software. Ongoing responsibilities include the coordination and continued roll-out to three additional SOA locations;

communicating targets and objectives to all SOA facilities; monitoring each site's progress; maintaining and monitoring EMS software system; document controls; and scheduling, coordinating, and composing agenda in preparation for Management Reviews.

### Robert L. Carter Jr.

### **CREDENTIALS:**

■ B.S., Environmental Science/Geosciences, Richard Stockton State College of New Jersey

### PROFESSIONAL AFFILIATIONS:

- □ National Ground Water Association Member
- □ Builders' League of South Jersey Community Redevelopment Subcommittee Member
- □ Borough of Mount Ephraim Planning Board

### PROFESSIONAL REGISTRATIONS/CERTIFICATIONS:

- □ OSHA 40 Hour Health and Safety Training
- OSHA 8 Hour Health and Safety Supervisor Training
- ☐ Certified NJDEP Subsurface Evaluator
- ☐ First Aid/CPR

### **EXPERIENCE SUMMARY:**

Mr. Carter's experience in the environmental engineering and science industry focuses on soil and groundwater issues throughout PA, NJ, NY and DE. He is involved with completing and managing soil and groundwater projects including sampling and analysis; report preparation; and coordinating and negotiating approvals with the appropriate environmental regulatory agencies. He has experience in storage tank management, asbestos, environmental site assessments, remedial investigations and remedial actions, geological/hydrogeological investigations and wetlands permitting. Mr. Carter also has experience with Brownfields redevelopment projects including identifying various funding mechanisms, determining appropriate cleanup levels and establishing appropriate engineering and institutional controls.

### REPRESENTATIVE PROJECT EXPERIENCE:

### Industrial Site Recovery Act Sites

Conducts preliminary assessments, site investigations, remedial investigation, and remedial actions of properties subject to the Industrial Site Recovery Act ("ISRA"). Has performed investigations subject to ISRA on properties throughout New Jersey, including pharmaceutical, printing, electroplating, and sheet metal fabrication facilities.

### STORAGE TANK MANAGEMENT:

### Closure Investigations Relative to USTs

Field operations experience includes supervising the removal of USTs, and collecting confirmatory soil and groundwater samples. Delineating vertical and lateral extent of soil and groundwater contamination. He is also responsible for preparing subsurface soil and groundwater sampling plans, closure reports and project reports associated with UST activities.

### **ENVIRONMENTAL SITE ASSESSMENTS**

#### Phase I Environmental Site Assessments - Nationwide

Has conducted environmental site assessments in accordance with, at a minimum, the American Society for Testing and Materials ("ASTM") standards in NJ, PA, NY, DE, TX, AR, and MD. Has conducted site assessments of agricultural, residential, commercial and industrial properties. Responsible for conducting site inspections to identify recognized environmental conditions, evaluating historic information; conducting interviews; conducting regulatory database review; and, report preparation.

### Preliminary Assessments - NJ

Conducts preliminary assessments in accordance with NJ Technical Requirements for Site Remediation. Responsible for site inspections to identify environmental areas of concern that may be addressed during the follow up Site Investigations.

### SOIL AND GROUNDWATER INVESTIGATIONS

### Surface Soil Sampling and Analysis

Develops and implements surface soil sampling plans on properties in order to address client's concerns regarding historic pesticide applications on agricultural properties. Experience includes implementing soil sampling plans, data analysis, remedial action, and report preparation in order to obtain a "no further action" from the NJDEP. Conducts background investigations, where appropriate, to document naturally occurring metals (i.e., arsenic, beryllium and cadmium) in soil and groundwater in order to receive a "no further action" determination from the NJDEP on the basis that a discharge has not occurred.

### Subsurface Soil Sampling and Analysis

Develops and implements subsurface soil sampling plans in order to delineate the horizontal and vertical extent of various constituents in the substratum. The work was performed to address the impact to the environment from leaking underground storage tanks, septic systems, oil water separators, sump pump discharges, chemical storage areas, stormwater conveyance systems.

### **Groundwater Investigations**

Oversees the installation of monitoring wells. He was responsible for determining location and depth of monitoring wells as well as construction specifications. In addition, has extensive experience in acquisition of groundwater samples in accordance with applicable regulations, performance of aquifer characteristic tests, fate and transport and advection and dispersion

modeling, using Risk Based Corrective Action ("RBCA") protocols such as fate and transport; and advection and dispersion to document natural attenuation of groundwater contamination and potential impacts to sensitive receptors.

### Baseline Ecological Evaluations

Performs Tier I Baseline Ecological Evaluations to identify contaminants of concern, the presence or absence of environmentally sensitive areas and pathways for contaminants of concern to adversely impact environmentally sensitive areas. Has conducted sediment sampling, when required, to document that freshwater wetlands/state open waters have not been impacted by a discharge of contaminants upgradient. Has conducted sediment sampling and analysis programs consisting of a 10-day sediment test to determine whether metal concentrations were toxic to *Hyallela azteca* (freshwater amphipod) and *Chironimus tentans* (midge fly) when compared against control sediments, in accordance with EPA method EPA/600/R-94/024.

### Soils Testing - Pinelands, NJ

Performed profile pits and borings for septic system, basement and stormwater detention pond designs. Has performed soil percolation tests and tube permeameter tests and also designed septic systems pursuant to N.J.A.C. 7:9A.

### **ENVIRONMENTAL SCIENCE:**

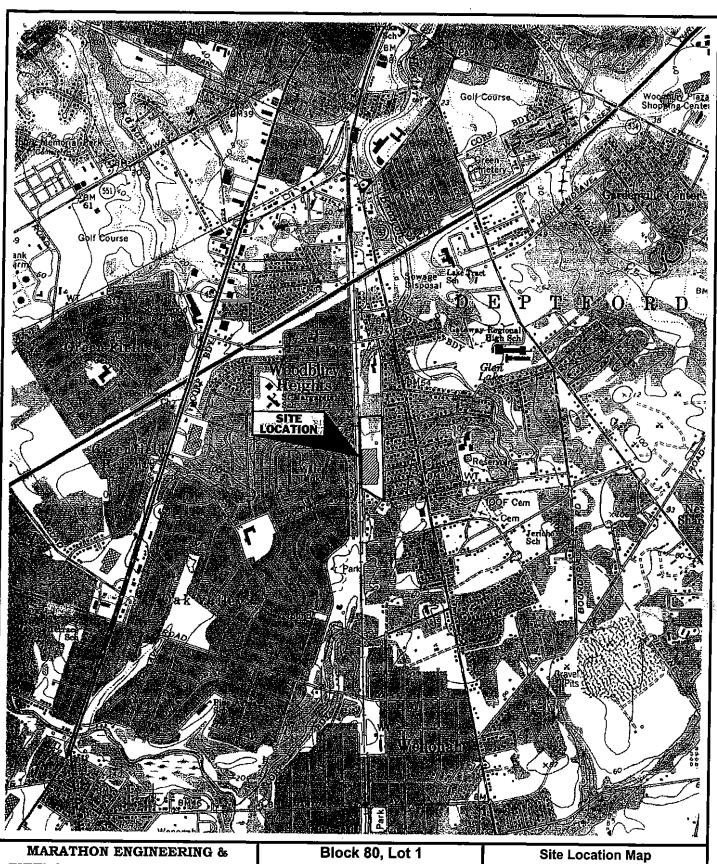
### Wetland Delineation - New Jersey, Pennsylvania and New York

Conducts wetland delineations for properties in New Jersey, Pennsylvania and New York. Upon completion of the wetland delineation, has prepared Wetland Evaluation Report for submission to various regulatory agencies justifying the establishment of the limits of regulated wetlands.

### New Jersey Freshwater Wetlands Protection Act

Prepares applications for Letters of Interpretation, Statewide General Permits, and Transition Area Waiver Averaging Plans. Assisted in preliminary wetland evaluations to include identification, delineation and permitting activities.

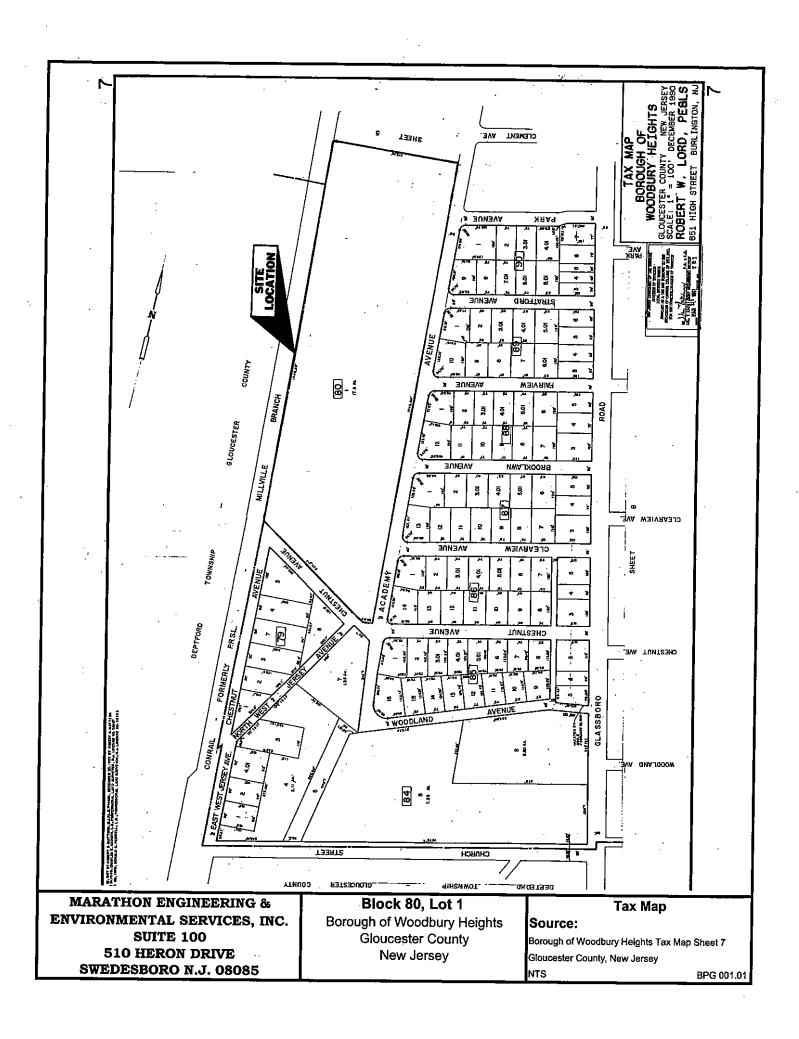
# APPENDIX B SITE LOCATION MAP, TAX MAP AND 2002 AERIAL PHOTOGRAPH

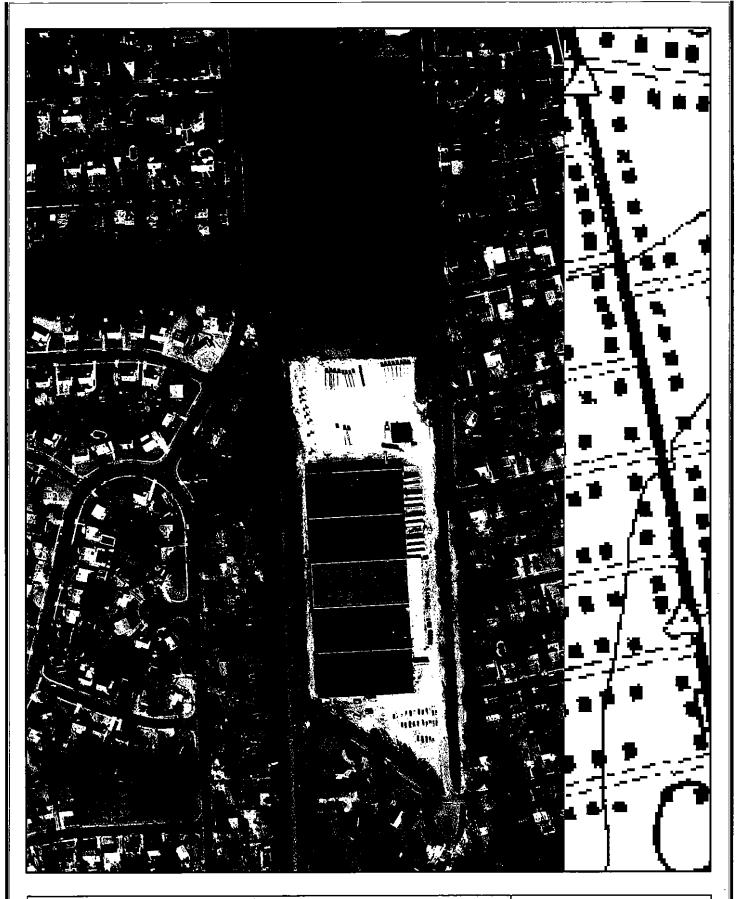


MARATHON ENGINEERING & ENVIRONMENTAL SERVICES, INC. SUITE 100
510 HERON DRIVE
SWEDESBORO N.J. 08085

Borough of Woodbury Heights
Gloucester County
New Jersey

Site Location Map Source: USGS Topographic Quadrangle for Woodbury, N.J.-PA. 1"=2,000' BPG 001.01





MARATHON ENGINEERING & ENVIRONMENTAL SERVICES INC. 510 HERON DRIVE, SUITE 100 SWEDESBORO, NJ 08085

Adams Wholesalers, Inc.
Chestnut & Academy Avenues
Woodbury Heights,
New Jersey

### 2002 Aerial Photograph

Source: NJDEP GIS Resource Data Series 1, Volume 2

1:3,600



PRO 05-288

# APPENDIX C HISTORICAL USGS MAPS

