FINAL PLAN OF REMEDIAL ACTION

605 Vandever Avenue

605 Vandever Avenue *August 30, 2009*
Wilmington, DE *DNREC Project No. DE-1444*

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) requirements to address environmental contamination at the 605 Vandever Avenue Site (Site).

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on August 5, 2009 and opened a 20-day public comment period, which ended on August 24, 2009. The Proposed Plan is attached. There were no comments or questions from the public. Therefore, the Proposed Plan is adopted as the Final Plan.

The Final Plan requirements consist of restricting the installation of wells and use of any groundwater at the site.

Approval:
This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.

Kathleen Stiller, Program Manager II
Site Investigation and Restoration Branch

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PROPOSED PLAN OF REMEDIAL ACTION

605 Vandever Avenue Property
Wilmington, Delaware
DNREC Project No. DE-1444

August 2009

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

CONTENTS

- Proposed Plan: Questions and Answers
- Figure 1
- Glossary of Terms
- Attachment: *What is a Proposed Plan?*

PROPOSED PLAN OF REMEDIAL ACTION

605 Vandever Avenue Property
Wilmington, Delaware
DNREC Project No. DE-1444

Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

Marjorie A. Crofts, Acting Director
Division of Air & Waste Management

8/3/09
Date

What is the 605 Vandever Avenue Property?

The 605 Vandever Avenue site is a Delaware Department of Natural Resources and Environmental Control (DNREC) certified Brownfield property located at 605 Vandever Avenue in Wilmington, Delaware (Figure 1). The owner of the property, Our Youth, Inc., plans to redevelop the property into ten residential townhomes. The site is currently vacant with scattered litter and debris.

Tax Parcel Numbers: The site is comprised of one tax parcel (parcel number 26-029.20-323).
Address: 605 Vandever Avenue
Nearest major intersection: Vandever Avenue and Pine Street
Area: Approximately 0.52 acres
Surrounding Property: Surrounding land use is primarily residential.
Zoning: 26R-3 – Single Family Row Homes
Site Utilities: None at this time
Surface water: The closest surface water body to the property is the Brandywine Creek, which is located approximately 850 feet southeast of the site.
Topography: Relatively flat
Groundwater: Groundwater was measured at approximately 13 feet below ground surface (bgs) in the monitoring wells installed on the site. Based on groundwater elevations, groundwater appears to flow to the northwest away from the Brandywine Creek.

What happened at the 605 Vandever Avenue Property?

Based on the review of available historical records, a gas station and auto repair facility was operated at the site from approximately 1954 until 1992. The building on the property was demolished, and the property has since remained vacant. The site was granted "No Further Action" status from DNREC-Tank Management Branch (TMB) in 1993 for the removal and subsequent over-excavation of six various sized underground storage tanks (USTs). A separate "No Further Action" letter was issued by DNREC-TMB in 2002 for the removal of two additional hydraulic lift USTs and over-excavation of impacted soil.

What is the environmental problem at the 605 Vandever Avenue Property?

A Brownfield Investigation (BFI) of the site found benzo(a)pyrene and three other polycyclic aromatic hydrocarbons (PAHs) in the surface soil on the eastern portion of the site above the levels acceptable for residential use. Naphthalene, 2-methylnaphthalene, and 1,3,5-trimethylbenzene are present in the groundwater above levels acceptable for the site. However, groundwater is not being used at the site and the site is located in a Groundwater Management Zone (GMZ), which prohibits the installation and use of potable water wells. An evaluation of

the potential intrusion of subsurface vapors from groundwater into the future buildings indicated that there is no risk above DNREC's acceptable risk standard.

The BFI performed at the site indicated that surface soil showed environmental impacts from PAHs, including benzo(a)pyrene (3.8 mg/kg), benz(a)anthracene (5.2 mg/kg), and dibenz(a,h)anthracene (0.58 mg/kg), primarily in the northeastern/eastern corner of the site. The subsurface soil showed minor detections of contaminants. Groundwater beneath the site is impacted by 2-methylnaphthalene (58 ug/L) and naphthalene (60 ug/L) in one monitoring well and 1,3,5-trimethylbenzene (420 ug/L) in three monitoring wells.

A human health risk assessment demonstrated that exposure to surface site soil from the eastern portion of the site may pose a risk above DNREC's acceptable risk standard if the soil remained uncovered and the site was occupied by residential homeowners. The risk assessment showed no risk from subsurface soil above DNREC's acceptable risk standard. The risk assessment showed that groundwater may pose a risk above DNREC's acceptable risk standard. However, the groundwater at the site is not being used. Moreover, the property is also within the Wilmington Groundwater Management Zone, which does not allow public or domestic supply wells to be installed.

What does the owner want to do at the 605 Vandever Avenue Property?

The owner of the property plans to redevelop this property into townhomes with concrete floor crawl spaces.

The development plan for the townhomes includes site grading, installing utilities (i.e. water, gas, electric), paving, installation of footers, construction of hardscaped areas (sidewalks, driveways, etc.), townhome construction, and landscaping.

What clean-up actions have been taken at the 605 Vandever Avenue Property?

An interim action to remediate the eastern portion of the site by excavating the impacted top two feet of soil and reusing it at an appropriate offsite location was completed in July 2009. The excavated portion of the property was backfilled with DNREC-approved material compatible with residential reuse of the site. The interim action removed the impacted soil from the site. Prior to recent work for the BFI and supplemental investigations, 6 underground storage tanks of various sizes were removed in 1992 and two (2) hydraulic lift underground storage tanks were removed in 2000.

What additional clean-up actions are needed at the 605 Vandever Avenue Property?

The following cleanup actions are proposed for the Site:

1. A Groundwater Management Zone (GMZ) is already in place for the City of Wilmington (July 2007). The Site is within Wilmington GMZ, which prohibits the installation of any water wells or groundwater usage at the Site without prior written approval from DNREC. In addition, the City prohibits drinking water wells to be installed within the City limits.
2. The site owner will record an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act, UECA (Title 7, Del. Code Chapter 79, Subtitle II). The environmental covenant will prohibit the installation of wells and use of any groundwater at the Site.

What are the long term plans for the Property after the cleanup?

The property owner/developer plans to construct townhomes on the property. An environmental covenant will be recorded in order to prevent the use of groundwater for potable use.

DNREC plans to issue a Certificate of Completion of Remedy for the site after the completion of the remedial actions.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site, including the Brownfield Remedial Investigation, is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/

The 20-day public comment period begins on August 5, 2009 and ends at close of business (4:30 pm) on August 24, 2009. Please send written comments to the DNREC office or call Stephanie Scholl, Project Manager, at: 302-395-2600.

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Glossary of Terms
Used in this Proposed Plan

Brownfield	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
Certified Brownfield	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
Contaminant of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
Certificate of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure to site related chemicals.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Risk	Likelihood or probability of injury, disease, or death.

What is a *Proposed Plan?*

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

http://docs.dnrec.delaware.gov/sirbsitefiles.cfm

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.

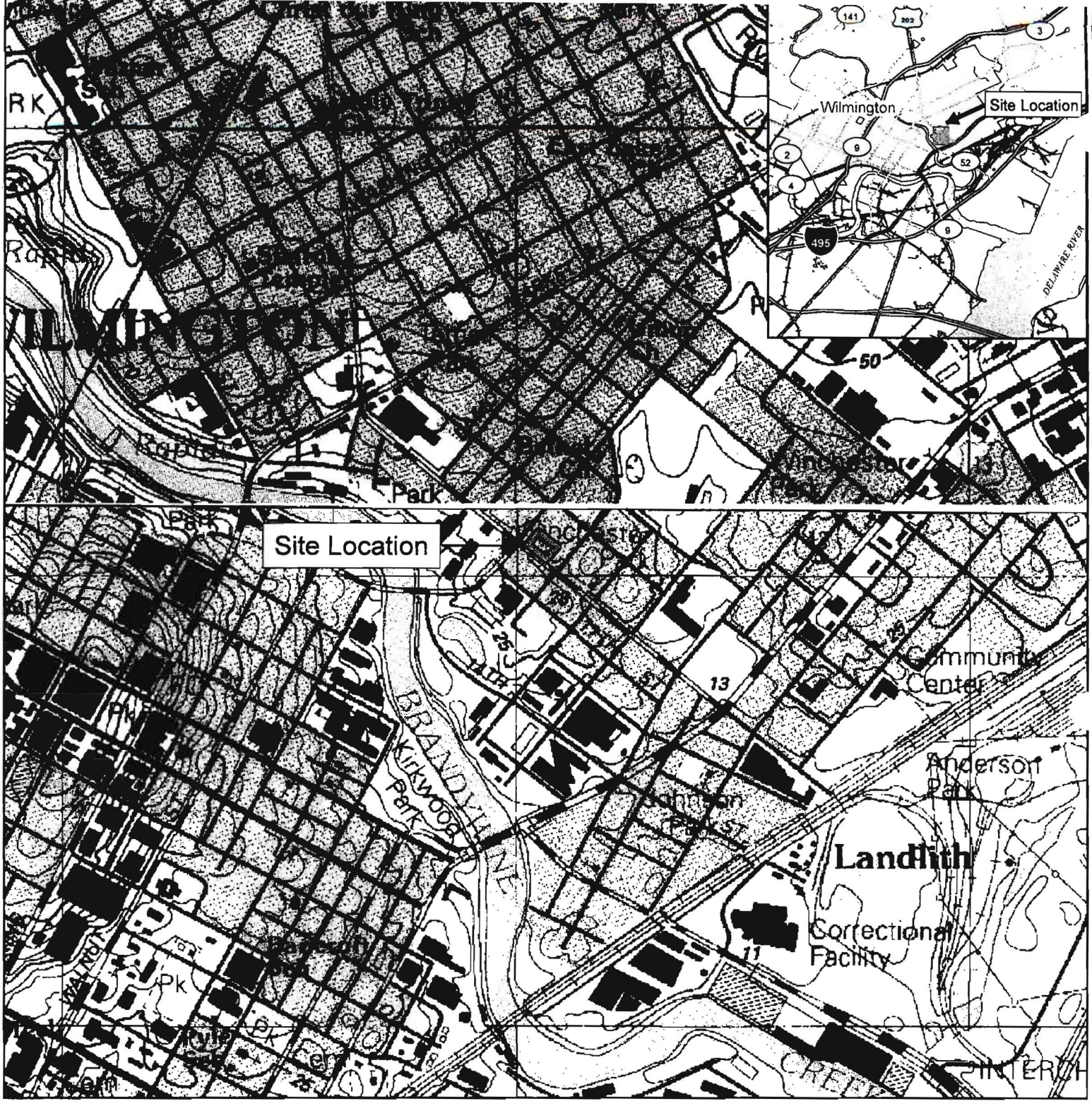

FIGURE 1
Site Location/Topographic Map
USGS Topographic Quadrangle, Wilmington South, DE, 1993

605 Vandever Avenue Property

Wilmington, Delaware