

# FINAL PLAN OF REMEDIAL ACTION



## Garrett House

*609 Washington Street  
Wilmington, Delaware*

*August 5, 2009  
DNREC Project No. DE-1466*

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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 Garrett House (Site).

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on July 13, 2009 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments or questions from the public. Therefore, the Proposed Plan is adopted as the Final Plan.

Final Plan will consist of the following requirements:

In November 2008, UCPD conducted a preliminary soil investigation. The results of the sampling showed that some of the arsenic concentrations in soil were above the Delaware Uniform Remediation Standards (URS) Default Background Standard of 11/mg/kg (ppm). Also, one of the samples exhibited benzo(a) pyrene (which is a PAH compound) above the Unrestricted Use URS. Additionally, composite surface soil samples collected from areas adjacent to the sides of the building exhibited lead above its Unrestricted Use URS. A subsequent investigation in April 2009 screened the site for a wide-range of possible contaminants and delineated the horizontal and vertical extent of arsenic, lead, and PAH soil contamination over the entire property. Details of the investigations were presented in the Interim Action Work Plan dated May 22, 2009. An Interim Response Activity was conducted during May and June 2009 that removed the

contaminated soil and replaced that soil with certified clean fill. In one area of the property, historical archeological features were noted during the soil excavation activities. The historical area was demarcated and reserved for archeological analysis. DNREC assisted the UCPD's archeologist in the reserved area by segregating the remaining contaminated soil and having it removed for replacement by clean fill.

No additional cleanup actions are required.

United Cerebral Palsy of Delaware wants to develop the property into affordable and accessible housing for people with disabilities.

**Approval:**

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

A handwritten signature in blue ink, appearing to read "Kathleen M. Stiller", is written over a horizontal line.

Kathleen M. Stiller, Program Manager II  
Site Investigation and Restoration Branch



## PROPOSED PLAN OF REMEDIAL ACTION

Garrett House Site  
Wilmington, Delaware  
DNREC Project No. DE-1466



July 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

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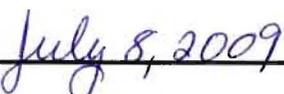
# PROPOSED PLAN OF REMEDIAL ACTION

Garrett House Site  
Wilmington, Delaware  
DNREC Project No. DE-1466



**Approval:**

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

Approved by:	
	_____
James D. Werner, Director Division of Air & Waste Management	
Date 	_____



**What is the Garrett House Site?** The property is a residential building and yard. Portions of the building have been demolished and the existing structure will be renovated and expanded to create affordable and accessible housing for people with disabilities by United Cerebral Palsy of Delaware. The Site is a certified Brownfield and its location is shown in Figure 1. Site features are shown in Figure 2. Site Photographs are presented in Figure 3.

**Tax Parcel Numbers:** 2603510334 and 2603510523

**Address:** 609 Washington Street

**Nearest major intersection:** The Site is bounded by Washington Street and Wollaston Street in the city block between 6<sup>th</sup> and 7<sup>th</sup> Streets.

**Area:** 0.23 acres

**Surrounding Property:** Surrounding land use is mostly residential in a highly urbanized section of the City.

**Zoning:** 26R5-B Apt Houses Medium Density

**Site Utilities:** Public utilities are provided to the general region. The current structure is vacant and being renovated.

**Surface water:** The Christina River is approximately 2,500 feet south of the Site.

**Topography:** The Site slopes west-northwest toward Wollaston Street

**Groundwater:** Groundwater is found in pore spaces within the soils above bedrock and in the fractures within the Wilmington Blue Gneiss bedrock below. Groundwater use in the area is regulated by the City of Wilmington Groundwater Management Zone (GMZ). Drinking water is provided by the City.

Groundwater is expected to flow generally southward toward the Christina River.

**What happened at the Garrett House Site?** The Site was developed as residential before 1884. Previously, there were private garages along the rear portion of the property along Wollaston Street; these were removed some time after 1951. No chemicals or hazardous substances were reportedly used at the Site. However, historic fill may be present on the property, resulting in the presence of contaminants including arsenic and polynuclear aromatic hydrocarbons (PAHs) in soils. Also, lead is present in the soil in portions of the property. The lead is thought to have been derived from chips of lead-based paint associated with the former building structures.

**What is the environmental problem at the Garrett House Site?** Elevated levels of arsenic, lead, and PAHs were detected in soil at the Site. The impacted soils

were removed during an Interim Response Activity (soil excavation and offsite disposal).

In November 2008, UCPD conducted a preliminary soil investigation. The results of the sampling showed that some of the arsenic concentrations in soil were above the Delaware Uniform Remediation Standards (URS) Default Background Standard of 11/mg/kg (ppm). Also, one of the samples exhibited benzo(a) pyrene (which is a PAH compound) above the Unrestricted Use URS. Additionally, composite surface soil samples collected from areas adjacent to the sides of the building exhibited lead above its Unrestricted Use URS. A subsequent investigation in April 2009 screened the site for a wide-range of possible contaminants and delineated the horizontal and vertical extent of arsenic, lead, and PAH soil contamination over the entire property. Details of the investigations were presented in the Interim Action Work Plan dated May 22, 2009. An Interim Response Activity was conducted during May and June 2009 that removed the contaminated soil and replaced that soil with certified clean fill. In one area of the property, historical archeological features were noted during the soil excavation activities. The historical area was demarcated and reserved for archeological analysis. DNREC assisted the UCPD's archeologist in the reserved area by segregating the remaining contaminated soil and having it removed for replacement by clean fill.

**What does the owner want to do at the Garrett House Site?** United Cerebral Palsy of Delaware wants to develop the property into affordable and accessible housing for people with disabilities.

The owner has demolished an unstable portion of the building and is renovating and expanding the existing structure.

**What clean-up actions have been taken at the Garrett House Site?** Contaminated soil has been removed and replaced with clean fill as part of an Interim Response Activity.

**What additional clean-up actions are needed at the Garrett House Site?** No additional cleanup actions are required.

**What are the long term plans for the Site after the cleanup?** United Cerebral Palsy of Delaware wants to develop the property into affordable and accessible housing for people with disabilities.

Based on information presented in the BFI Work Plan and the results of the Interim Response Activity, DNREC plans to issue a Certificate of Completion of Remedy (COCR) for the site.

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

The complete file on the site including the Brownfields Investigation Work Plan and Interim Action Report are 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 [date] and ends at close of business (4:30 pm) on [date 20 business days later]. Please send written comments to the DNREC office or call Randall S. Wolfe, Project Manager, at: 302-395-2600.

Figure 1      Location Map

Figure 2      Site Plan/Development Plan

Figure 3      Site Photos

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## Glossary of Terms Used in this Proposed Plan

<b>Brownfield</b>	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
<b>Certified Brownfield</b>	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
<b>Contaminant of Concern (COC)</b>	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
<b>Certificate of Completion of Remedy (COCR)</b>	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
<b>Environmental Covenant</b>	Also known as a deed restriction to prevent future exposure of persons using the Site to impacted soils and groundwater.
<b>*Exposure</b>	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
<b>Final Plan of Remedial Action</b>	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
<b>Hazardous Substance Cleanup Act (HSCA)</b>	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.
<b>Human Health Risk Assessment (HHRA)</b>	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
<b>Proposed Plan of Remedial Action</b>	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
<b>Risk</b>	Likelihood or probability of injury, disease, or death.
<b>Risk Assessment Guidance for Superfund (RAGS)</b>	An EPA guidance document for superfund sites
<b>Site Specific Assessment (SSA) and Site Inspection (SI)</b>	Environmental studies of a site including sampling of soils, groundwater, surface water, sediment and/or wastes on the property.

## **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://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp> .

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.

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Legend

★ Site Location

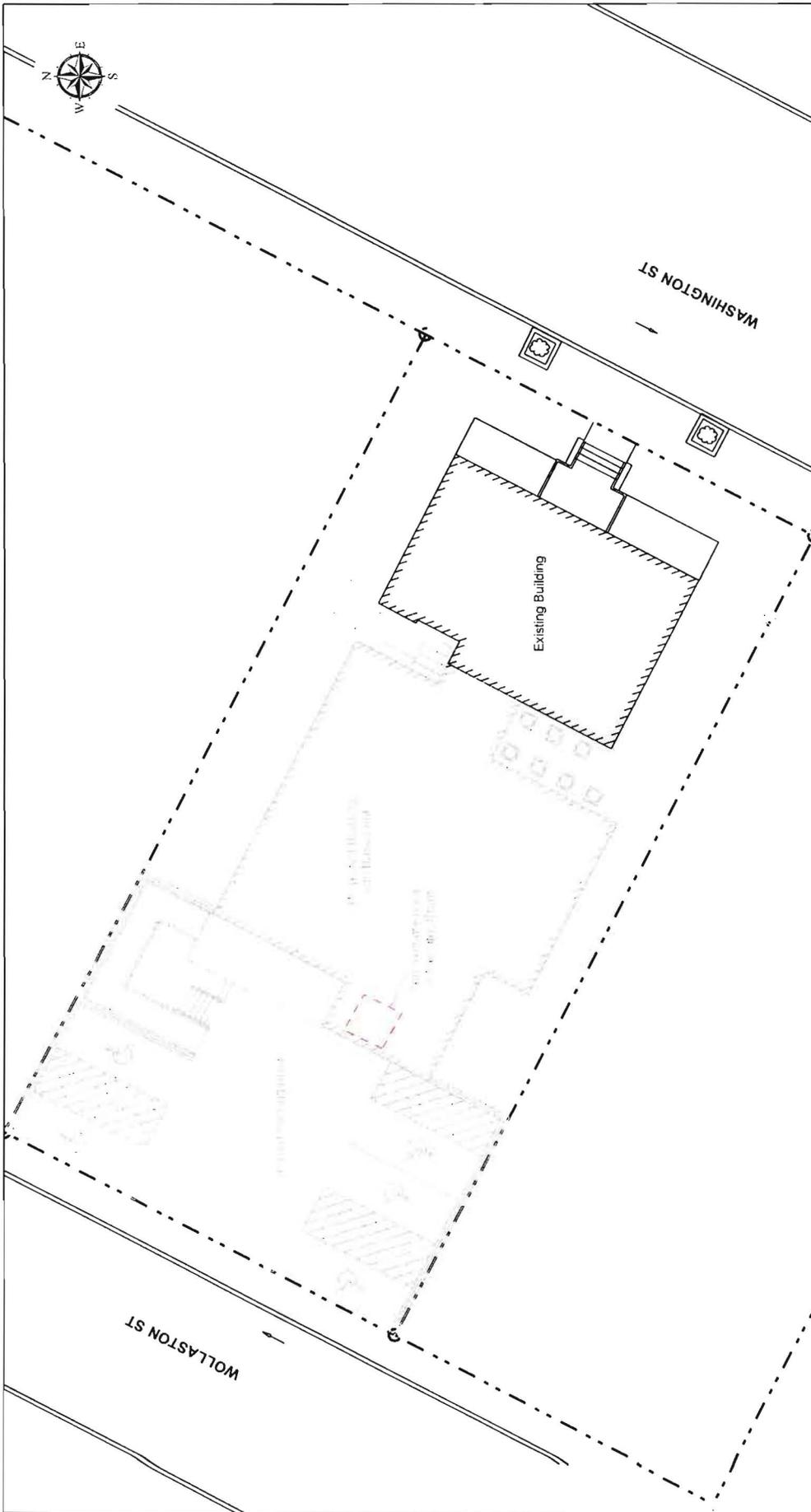


Source: USGS Topo Quad New Castle Co. Delaware

Garrett House  
609 Washington Street  
Wilmington, Delaware 19801

Site Location Map

DESIGNED BY: SKJ	DRAWN BY: SKJ	UPDATED BY: ---	FIGURE NO.:
APPROVED BY:	PROJECT NO.:	DATE:	1
	2774	04/30/2009	



**Legend**

- - - Property Line
- - - Proposed Site Features
- Existing Site Features

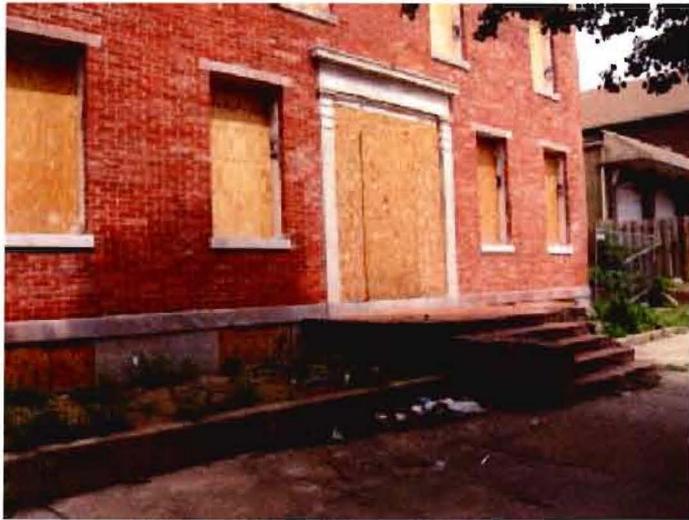
Source: - Site feature lines based on DCI Site Plan

0 15 30 Feet

**Garrett House**  
609 Washington Street  
Wilmington, Delaware 19801

Site Base Map / Development Plan

DESIGNED BY	DATE	PROJECT NO.	SCALE	NO. OF SHEETS
APPREVED BY	DATE	PROJECT NO.	SCALE	NO. OF SHEETS
				2



View of front of building on Washington Street.



View of building from Wollaston Street.



Excavation along Wollaston Street.



Excavation of planter box soils.

Figure 3 Site Photos