



PROPOSED PLAN OF REMEDIAL ACTION

Former Curtis Paper Mill Site
City of Newark, Delaware
DNREC Project No. DE-1153



November 2011

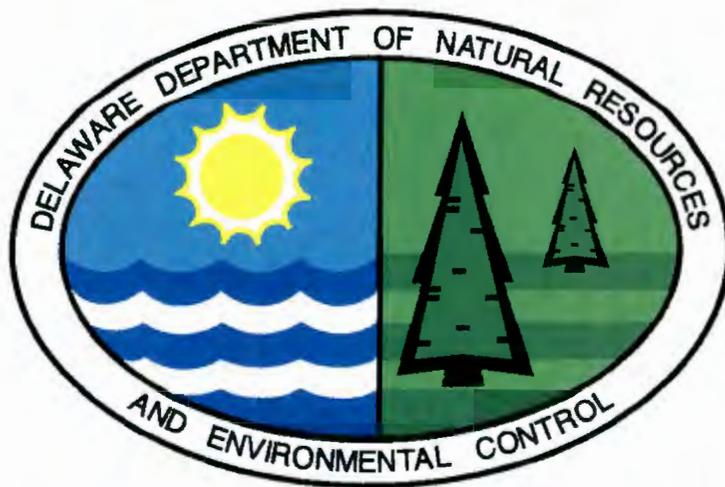
Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

Former Curtis Paper Mill Site
City of Newark, Delaware
DNREC Project No. DE-1153



Approval:

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

Approved by:

Marjorie A. Crofts, Director
Division of Waste & Hazardous Substances

11.28.11

Date



What is the Former Curtis Paper Mill Site? The property is currently vacant; however, it was previously used for high quality paper and cotton pulp manufacturing activity that began in 1848. The property is located at 225 Paper Mill Road and Old Paper Mill Road within the limits of Newark, Delaware. The Site is a certified Brownfield and is being redeveloped into a public park.

Tax Parcel Numbers: 18-014.00-266

Address: 225 Paper Mill Road, Newark, DE

Nearest major intersection: Paper Mill Road and Old Paper Mill Road

Area: 7.48 acres total; 1.48 acres impacted

Surrounding Property: Surrounding land use is a mix of residential and commercial

Zoning: PL – Park Land **Site Utilities:** Public water and sewer is available at the site.

Surface water: White Clay Creek is located to the south

Topography: Elevations at the site range from 60 feet to 90 feet above mean sea level. The lowest elevations occur on the southern portion of the site and highest elevations occur on the northern portion of the site.

Groundwater: Approximately 4 ft. below ground surface (bgs); generally flows to the south-southwest.

What happened at the Former Curtis Paper Mill Site? The Site was previously used as a paper mill since 1848 and was closed in 1997.

The Curtis Paper Mill had been in continuous operation since 1848 until its closure in 1997. The Curtis Paper Mill specialized in manufacturing high quality paper for printing, and used titanium dioxide, starch, glue, polymers, biocides, rosin size, alum, and dyes in the manufacturing process.

What is the environmental problem at the Former Curtis Paper Mill Site?

Previous operations at the Site have resulted in the shallow soils having been impacted by metals and semi-volatile organics exceeding uniform risk-based standards (URS).

Environmental investigations have revealed that Site soils are impacted with metals and PAHs above the DNREC URS. Compounds of Concern include lead, arsenic, chromium, vanadium, and polycyclic aromatic hydrocarbons (PAHs).

Environmental investigations have revealed groundwater impacts beneath the Site. Compounds of concern include iron, manganese, and vanadium.

What does the owner want to do at the Former Curtis Paper Mill Site? The City of Newark is completing a master plan for this Site to be redeveloped into a public park. Initial considerations are being given to park setting that combines passive recreation, skateboard park, gardens, nature trails and a lake.

The City of Newark intends to redevelop this Brownfield Site into a public park with an off street parking area and walking trails (see Figure 3 for conceptual site plan).

What clean-up actions have been taken at the former Former Curtis Paper Mill Site? Other than removal of the former paper mill structure, no cleanup actions have yet to be initiated at the Site.

All formal mill buildings have been demolished and removed from the site except for the historic smoke stack. No environmental remediation activities have occurred.

What additional clean-up actions are needed at the former Former Curtis Paper Mill Site? DNREC's clean-up plan includes excavation and consolidation of metal and PAH contaminated soils and capping as shown on Figure 4.

The following cleanup actions are proposed for the Site:

1. Excavation and consolidation of approximately 800 cubic yards of contaminated soil to beneath a proposed soil cap consisting of a minimum two (2) feet of imported clean fill (Region 1).
2. Excavation and consolidation of approximately 300 cubic yards of contaminated soil to beneath a proposed soil cap consisting of a minimum two (2) feet of imported clean fill (Region 2).
3. Excavation and consolidation of approximately 1,600 cubic yards of contaminated soil to beneath proposed asphalt parking area (Region 3).
4. Capping of impacted soils in Region 4 with a minimum of two (2) feet of imported clean fill.
5. Development of an approved Groundwater Monitoring Plan to monitor contaminant concentrations for a minimum of three (3) years.
6. Compliance with an approved Long Term Stewardship (LTS) Plan
7. Compliance with the Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) restricting disturbance in the consolidated area of the Site.

What are the long term plans for the Site after the cleanup? Following the completion of the soil excavation, consolidation and capping operations, the Site will be redeveloped into a public park.

The City of Newark intends to redevelop this Brownfield Site into a public park. The engineering controls (i.e., asphalt and/or soil caps) will be inspected and maintained by the City of Newark in perpetuity. DNREC plans to issue a Certificate of Completion of Remedy (COCR) for the Site after the completion of clean-up, the redevelopment of the property, and the implementation of the uniform environmental covenants at the Site.

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

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

<http://www.nav.dnrec.delaware.gov/DEN3/>

The 20-day public comment period begins on December 4, 2011 and ends at close of business (4:30 pm) on December 27, 2011. Please send written comments to the DNREC office or call Lawrence Jones, Project Manager, at 302-395-2600.

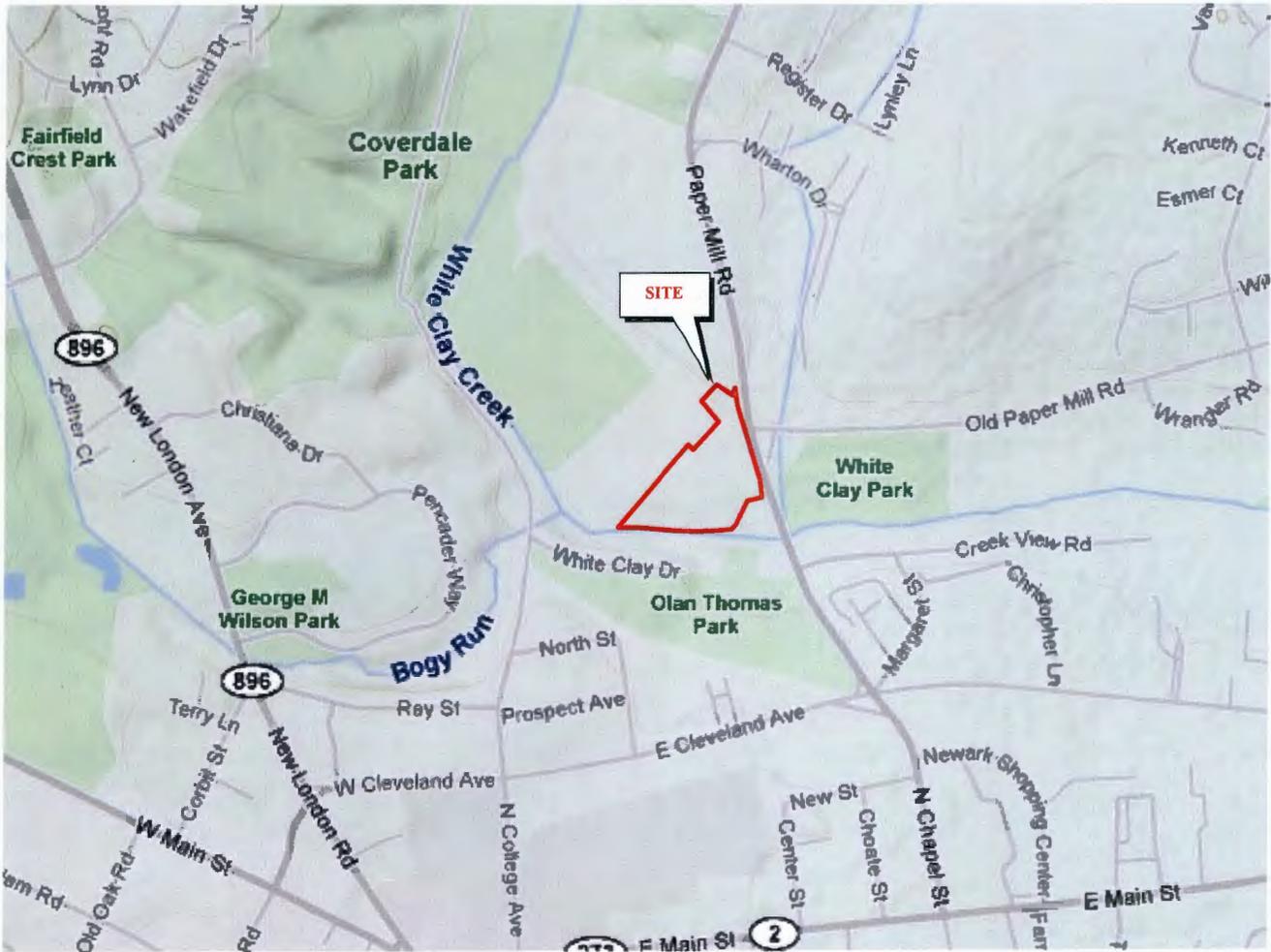
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Figure 1: Location Map

Figure 2: Site Photos

Figure 3: Proposed End Use Plan

Figure 4: Consolidation and Capping Plan

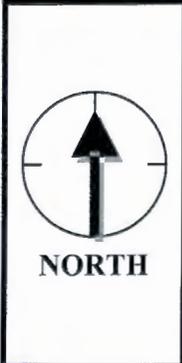


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 CONSULTING ENGINEERS

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 Suite 207
 Newark, DE 19713

Proposed Plan

**Former Curtis Paper Mill
 225 Paper Mill Road
 Newark, Delaware 19711**



JOB No.:
 CNEW 1111

SCALE:
 NOT TO SCALE

FIGURE 1: Site Location Map (2007)



Photograph 1: View of the southern portion of the site. Historic fill can be seen in the foreground.



Photograph 2: View of the southeast portion of the site. Historic fill and concrete pads are visible.



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Date Taken: August 4, 2008

FIGURE 2 SITE PHOTOS



Photograph 3: Lagoons adjacent to the northwest of the site.



Photograph 4: View of the western portion of the site from the north. Historic fill and concrete pads can be seen in the foreground.



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FIGURE 2 SITE PHOTOS



Photograph 5: View of the southeast portion of the site. Historic fill and concrete pads are visible.



Photograph 6: View of historic fill of the northeastern portion of the site.

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		Former Curtis Paper Mill 225 Paper Mill Road Newark, Delaware 19711	
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			FIGURE 2 SITE PHOTOS



Photograph 7: Aboveground storage tank on the northern portion of the site.



Photograph 8: View of the northern portion of the site from the asphalt parking lot.

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Photograph 9: Remaining smokestack and historic fill debris on the site, looking northwesterly.



Photograph 10: Remaining smokestack and historic fill debris on the site, looking northwesterly.

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Photograph 11: View of western portion of the site from the south.



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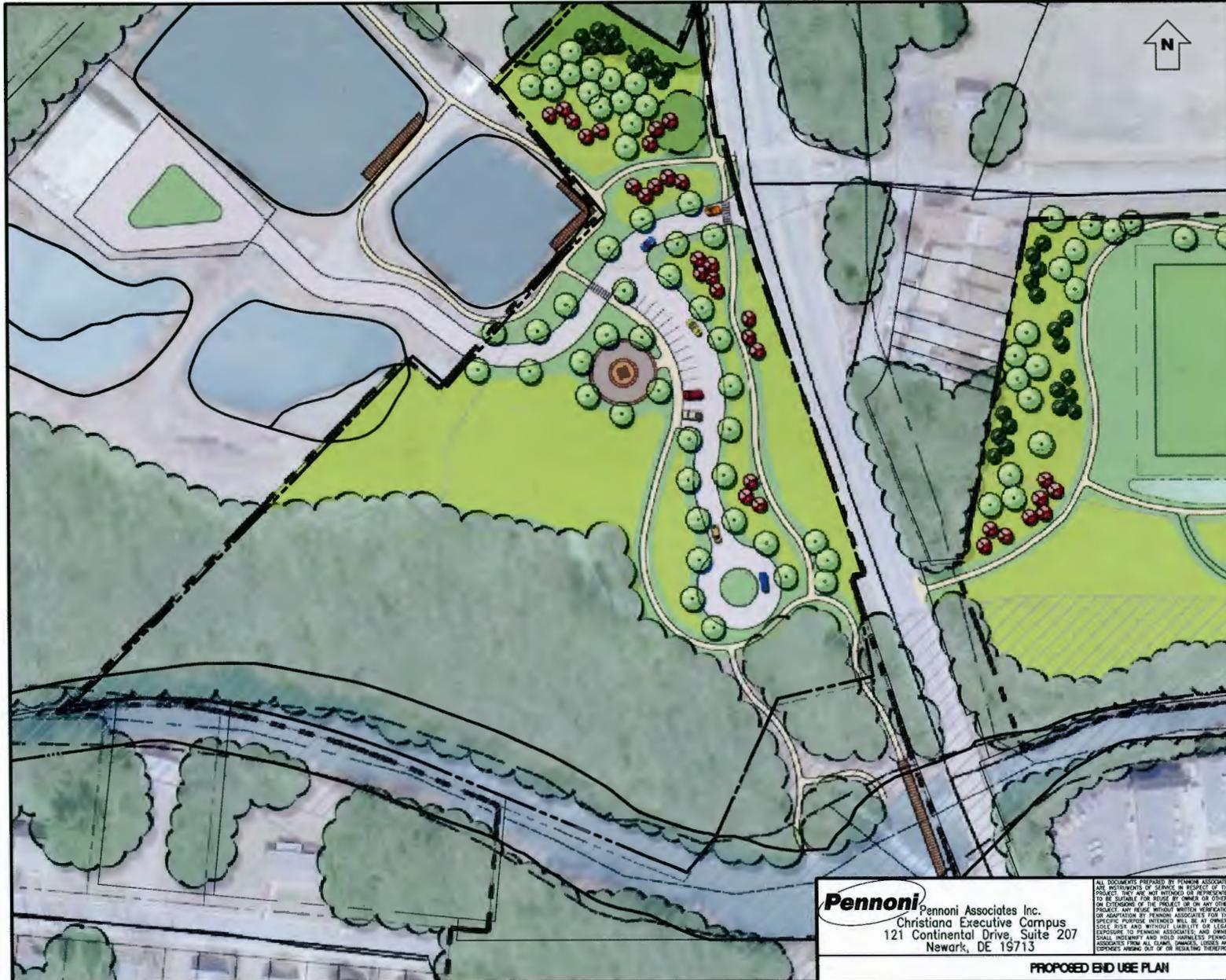
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FIGURE 2 SITE PHOTOS



LEGEND

----- PROPERTY BOUNDARY



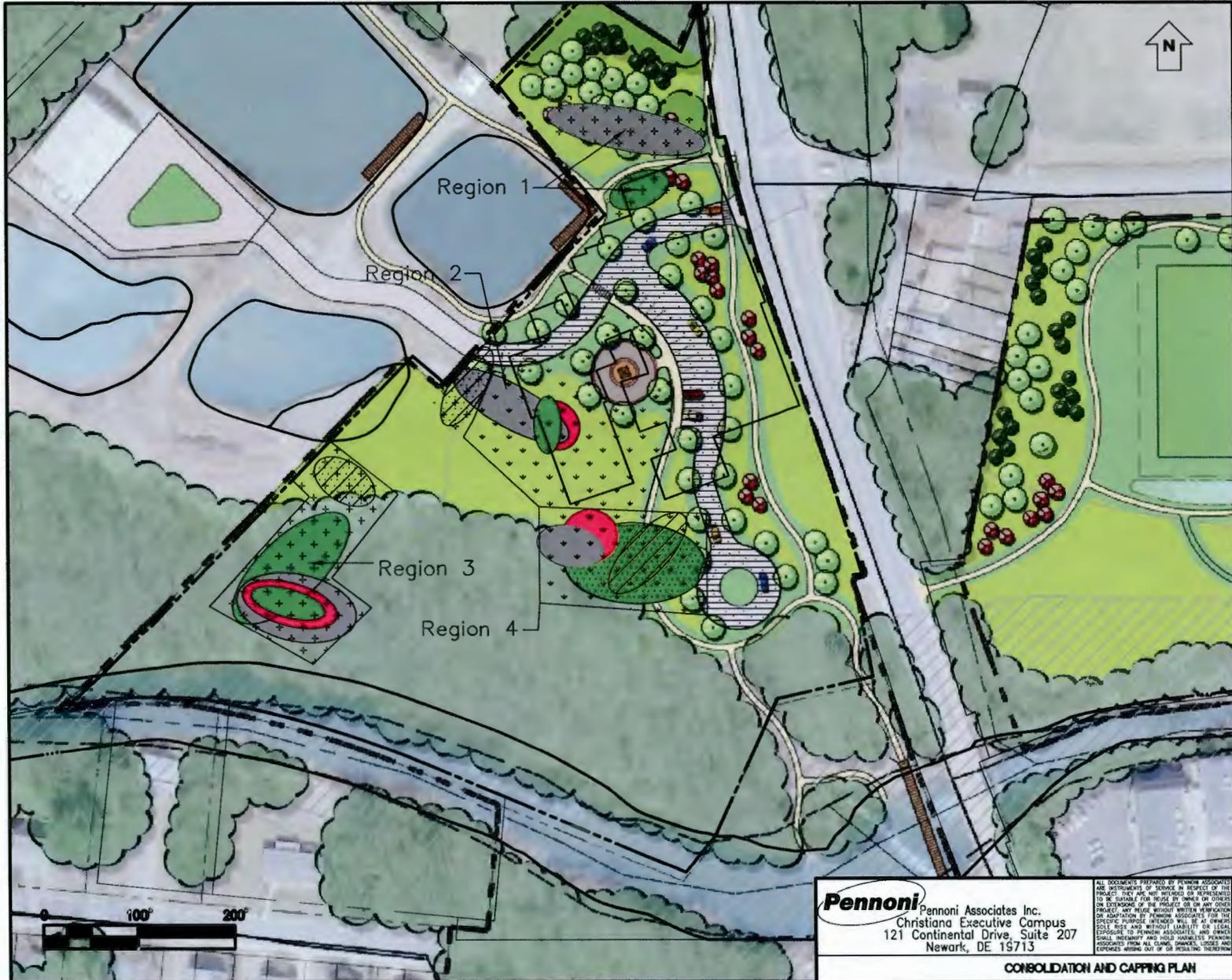
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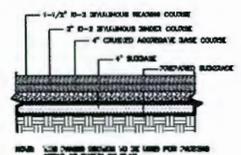
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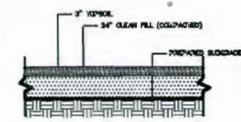
PROPOSED END USE PLAN



- LEGEND**
- PROPERTY BOUNDARY
 - ▲ TEST PIT LOCATION (1999)
 - SOIL SAMPLE LOCATION (2009)
 - SEDIMENT SAMPLE LOCATION (2009)
 - ⊗ GROUNDWATER MONITORING WELL
 - ARSENIC AOC
 - ◌ CHROMIUM AOC
 - LEAD AOC
 - PAH AOC
 - ◌ VANADIUM AOC
 - ⊗ AREA TO BE EXCAVATED AND RELOCATED
 - ▨ ASPHALT CAP
 - ◌ 24" SOIL CAP, 6" TOPSOIL, SEEDED



PARKING LOT
PROPOSED BITUMINOUS PAVING SECTION
 N.Y.S.



PROPOSED SOIL CAP SECTION
 N.Y.S.

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CONSOLIDATION AND CAPPING PLAN

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.
*Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
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.
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.
Uniform Risk-Based Standard (URS)	A set of concentration criteria for various contaminants potentially present in site media that are developed for protection of human health and the environment

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.nav.dnrec.delaware.gov/DEN3/>

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.
