Assunpink Daylighting Project Public Meeting
Sponsored by New Jersey Future

September 15, 2014
5:00 p.m. – 7:00 p.m.

Prudence Hall
Thomas Edison State College
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The 7 Most Interesting Things about the Lower Assunpink Environmental Restoration Project

Presented by BRS, Inc. for the City of Trenton
No. 1
Provides 2 Acres of New Public Green Space in Downtown Trenton!
• The project will “**Daylight**” the Assunpink Creek by restoring a naturalized stream channel for the Creek to flow through.

• New naturalized stream channel will be constructed with native plants and shrubs, and locally sourced river stone and boulders.

• Access to creek by general public.

• Tie-in with Mill Hill Park features including brick plazas on South Broad Street and matching bollards and lighting.

• Extension of Assunpink Greenway.
No. 2
Removes a Blight and a Public Safety Hazard
No. 3
Improves the Environment!
Fish will Migrate to the Delaware River
Water will be Cleaner
No. 4
Will Not Impact Area Flooding
Area Flooding

• NJDEP Flood Hazard Area Permit
  • Won’t Make it Better
  • Won’t Make it Worse
No. 5
George Washington Slept Here!

Not really...
Historic Preservation

- The Project is located in an area of great historical and cultural significance. The site borders the Mill Hill Historic District, which is listed on the National Register of Historic Places (NRHP). The Broad Street Bridge, which is located on the Project site’s eastern border is a NRHP-eligible structure as well as a contributing element to the Mill Hill Historic District’s NRHP listing.
- The Project site itself has been identified as the site of early Native American activity and the location of some of the earliest industrial development in the United States. Artifacts of this era have been identified at the Project area in some of the less-disturbed sections outside of the zone of the Assunpink’s channel.
- Due to historical and cultural significance, SHPO approval is required on all plans. SHPO requirements include: No visual impact on South Broad Street Bridge; Aged concrete wall finishes; No use of rip-rap or gabions.
- Project will not impact identified resources.
- Archaeologist will provide oversight during project.
No. 6
A Short Piece of the Culvert will Remain in Place
Veolia Thermal Energy Pipes
Veolia Utility Relocation

• The utility relocation addresses a network of thermal energy pipes that carry steam, hot water and chilled water as part of a district heating and cooling system operated by Veolia Energy Trenton (“Veolia Energy”).

• A portion of this network of pipes currently cross the culvert in an area approximately 20 feet wide and 200 feet long that adjoins the Broad Street Bridge on the east portion of the Project site. The network of pipes are buried within loose media directly on top of the culvert which is covered with several feet of fill and turf.

• Veolia Energy Trenton owns and maintains two (2) 10-inch 350°F and 400 pounds per square-inch (psig) hot water pipes, two (2) 4-inch 280° and 300 psig hot water pipes, two (2) 18-inch chilled water pipes and (2) 4-inch communication conduits that cross over the culvert; therefore, removal of the culvert would require the relocation of these utilities.
Veolia Utility Relocation

- Design Restrictions: Historical and culturally sensitive area, flood plain conditions, safety issues due to high-temperature/high-pressure lines, and schedule of outages.
- Five Alternatives Considered:
  1. Maintain pipes in current location.
  2. Relocate pipes to Broad Street Bridge
     - Install piping in existing roadbed.
     - Reconstruct bridge and relocate utilities.
     - Relocate historic arch face.
  3. Relocate pipes to S. Warren Street Bridge.
  4. Cross pipes under the Assunpink Creek.
  5. Construct utility bridge over the Assunpink Creek
     - Pedestrian Bridge.
     - Bridge pipe rack west of Broad Street Bridge.
     - Bridge pipe rack east of Broad Street Bridge.
     - Relocate pipes to top of new culvert section
Veolia Utility Relocation

• Preferred Alternative: Maintain pipes in current location on a section of culvert to remain in place.
  • Lowest cost
  • Least impact on historical and cultural resources.
  • No impact on flood plain conditions.

• Two sub-alternatives considered:
  1. Use steel inserts to support pipe
  2. Replace roof deck with new, pre-cast concrete panel

• Final design includes a temporary relocation of the pipes off of the culvert, then replacing them after new roof panel is installed. Culvert section will be approximately 35-feet and will be located adjoining the Broad Street Bridge (current location of pipe crossing).
• Pipe relocation work will be overseen directly by Veolia.

• Temporary outages will be minimized or eliminated as much as possible. All temporary outages will announced and scheduled in advance. All customers will be notified in advance.
No. 7
Project is a Joint Effort of the City of Trenton and the US Army Corps of Engineers
• Federal construction project of the U.S. Army Corps of Engineers, Philadelphia District (USACE).

• Authorized under Section 1135 of the Water Resources Development Act of 1986, which provides authority for modifying the structure or operation of an existing USACE project to improve the quality of the environment in the public interest.
City’s Role in the Project

- Real estate: contribution, acquisition, easements.
- Utility relocations.
- Environmental remediation.
- Landscape design.
- 25% of project cost funded through $1M grant received from the NJDEP. (May 2010).
- Remaining 75% to be funded by USACE.
The Role of BRS as the City’s Project Manager for the Project

- Prepared and submitted successful $1M NJDEP grant application.
- Manages the City’s NJDEP grant program.
- Represents the City on Project Coordination Team.
- Manages the City’s professional services and construction contracts associated with the project.
- Coordinates with City Departments.
- Manages Public Outreach.
Design Timeline

- Jun 2007: Army Corps Schematic Designs (30-percent plans)
- Jan 2011: Topographic survey and geotechnical Investigation
- Mar 2011: Preliminary Design Documents (60-percent plans)
- July 2014: Final Design Documents (90-percent plans)
- Oct. 2014: Final budget estimate and contract documents, advertise*
- Nov. 2014: Federal construction contract *
- Dec. 2014: Mobilization / start of construction*
Governmental Stakeholders

Mercer County
- Planning Division
- Engineering, Transportation and Infrastructure
- Division of Cultural and Heritage
- Soil Conservation District (MCSCD)
- Mercer County Improvement Authority (MCIA)

State of New Jersey
- Department of Environmental Protection (NJDEP)
- State Historical Preservation Office (SHPO)
- Department of Transportation (NJDOT)
- Department of Treasury, Division of Property Management and Construction (DPM&C)
- Economic Development Authority (NJEDA)
Civic Stakeholders

- New Jersey Future
- Trenton Historical Society
- Old Mill Hill Society
- Crossroads of the American Revolution Association
- Preservation New Jersey
- Monmouth University, Department of History and Anthropology
- New Jersey State Museum
- Trenton Downtown Association, Inc.
- Isles, Inc.
Other Project Information

- Broad Street Bridge Reconstruction Project
- Contractor Access, Staging and Storage
Broad Street Bridge Reconstruction Project

• The Broad Street Bridge was originally built in the mid-1800's and is the oldest bridge in the City of Trenton.
• In the late 1800's, the bridge was widened to each side of the original arch, including a cantilevered sidewalk to the east.
• Mercer County owns and maintains the Broad Street Bridge over Assunpink Creek.
• From 2001 - 2004 a structural analysis of the bridge was completed by the New Jersey Department of Transportation (NJDOT). The structure overall was found to be in critical condition due to severe deterioration of the stone structure.
• A load reduction rating was implemented. Vehicular and pedestrian traffic were restricted from using the east and west arch segments of the bridge until repairs to the bridge could be completed.
The selected recommendation for rehabilitation of the bridge was removal of existing exterior arches and widening of the original center arch to the downstream (west) side with a modern structure.

Shifting the entire roadway to the downstream side would impact the culvert and the Veolia Energy thermal pipes.

The proposed alignment shift would also provide an opportunity for mitigation measures that could improve pedestrian connectivity to the Mill Hill Historic District. The recommendation has received positive support from the City of Trenton and Mercer County.

To date, no decision has been reached on the rehabilitation of the Broad Street Bridge and no work beyond the original measures put in place in 2002 have been completed.

The design of the Daylighting project was reviewed by NJDOT and found to have no impact on the Broad Street Bridge Reconstruction.
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