

Replacement of Outlet Structure Hydraulic Valve Line System

**Bear Gap Reservoir
Ralpho and Cleveland Townships, PA
AQUA, PA**

SUBAQUEOUS INSPECTION

Atlantic Engineering, LLC was contracted to replace the existing upstream outlet structure hydraulic operating system with a pneumatic system. An underwater inspection was performed to determine the extent of work necessary to remove the old system, design and install the components for the new system. The existing (4) lines of 3/4" stainless steel conduit

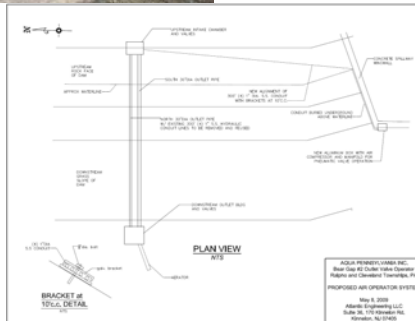
were removed from the 400' long outlet pipe and reused from the operator at the top of dam to the upstream intake structure.



CONSTRUCTION/INSTALLATION

Construction of the new system included:

- Temporary installation of pneumatic line for operation of valve.
- Removal of 1,200lf of accessible stainless steel conduit.
- Installation of 1,200lf of new stainless steel conduit.
- Installation of stainless steel cabinet containing air compressor for operating the valves.



UNDERWATER CAPABILITIES

- DETAILED INSPECTION SURVEYS
- CONSTRUCTION INSPECTION
- VIDEO & 35mm PHOTOGRAPHY
- HYDROGRAPHIC SURVEYS
- CONFINED SPACE & PENETRATIONS
- P.E. DIVER INSPECTION
- ULTRASONIC THICKNESS MEASUREMENTS

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Underwater Bridge Repair and Construction

Roosevelt Island Bridge
Roosevelt Island, NY

DESIGN & UNDERWATER CONSTRUCTION



Atlantic Engineering, LLC was contracted by Unicorn Construction Enterprises, INC. to install the underwater portion of pier encasement and a new timber fender system for the bridge spanning the east channel of the east river from Queens to Roosevelt Island in New York. Construction work included cleaning of the piers, installation of anchors and formwork for encasement, installation of a turbidity barrier, concrete placement and fender installation.

In addition, underwater debris was removed from the site. Lines were set to three (3) separate automobiles on the river bottom for removal by crane.

Atlantic Engineering, LLC has performed inspections during construction at numerous job sites and is proficient in all aspects of underwater inspection, design, and construction. We serve as the “eyes” for the client who is personally unable to observe the underwater work being performed.



DEBRIS REMOVAL

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Underwater Construction and Rehabilitation of Marine Structures

Coalco Bulkhead and Pier Repairs Brooklyn, New York

STEEL PILE JACKETING AND BULKHEAD ENCAPSULATION

Atlantic Engineering, LLC repaired and encapsulated 50 piles with steel jackets. Additionally 350 Linear feet of steel bulkhead was repaired with steel plates and both the sheeting and piles were coated with a marine epoxy to protect the steel from corrosion. All underwater welding and fabrication was conducted in house by AE personnel. All construction was in accordance with stringent DEP standards



COALCO

Completion Date: 2008
Construction Cost: \$500,000

Roosevelt Island Bridge Rehabilitation East River, New York, New York

PILE ENCAPSULATION, SUBSTRUCTURAL INSPECTION AND VEHICLE REMOVAL



Atlantic Engineering, LLC was contracted to complete various parts of the Roosevelt Island Bridge rehabilitation project. After completing an intensive sub-structural inspection and evaluation AE was contracted to encapsulate five piers in concrete to improve structural and integrity. Additionally, AE was contracted to excavate and remove various vehicles buried in the mud below the bridge that were a detriment to the success of the rehabilitation project.



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