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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC
9742 MARYLAND AVENUE
NORFOLK, VA 23511-3095

IN REPLY REFER TO:

5090
OPNEEV/15/6009
October 2, 2006

MEMORANDUM

FOR THE MEMBERS OF THE RESTORATION ADVISORY BOARD (RAB) FOR THE INSTALLATION RESTORATION PROGRAM AT NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP) BETHPAGE, NEW YORK

Enclosed are the meeting minutes from the Restoration Advisory Board (RAB) meeting that was held at the Bethpage Community Center on Wednesday, August 2, 2006.

The Navy requests that you review the meeting minutes and provide any comments that you may have by email to me at susan.clarkel@navy.mil, or to the RAB Community Co-Chair. Based on the comments, the Navy will either revise the minutes accordingly and hand them out or discuss them at the next RAB meeting, which is scheduled for November 1, 2006.

If you have any questions, call me at 757-444-4114 or email me at susan.clarkel@navy.mil.

Sincerely,

A handwritten signature in cursive script, reading "Susan W. Clarke", is written over the typed name.

SUSAN W. CLARKE
Remedial Project Manager
By direction of the
Commanding Officer

Enclosure: (1) Meeting Minutes from the 8-2-06 RAB Meeting

Distribution:

NAVFAC Mid-Atlantic, Susan Clarke
NAVAIR, Joe Kaminski
NYSDEC (Albany), Steve Scharf
NYSDEC (Albany), Henry Wilkie
NYSDEC (Stony Brook), Walter Parish
NYSDOH, Trevor Wescott/Wendy Kuehner
NYSDOT, Vincent Melekian
LIRR, Ken Rydzewski
USEPA Region II, Carol Stein
USEPA Region II, Carla Struble
Nassau County, Tom Maher
Nassau County DOH, John Lovejoy
Nassau County DPW, Tim Kelly
Public Repository
Town of Oyster Bay, Hon. John Venditto
Town of Oyster Bay, Richard Pfaender
Town of Oyster Bay DPW, Tom Clark
Town of Oyster Bay DPW, Matt Russo
Tetra Tech NUS, Dave Brayack
Tetra Tech EC, Stavros Patselas
ECOR Solutions, Al Taormina
Northrop Grumman, Larry Leskovjan
Northrop Grumman, John Cofman
ARCADIS, Carlo San Giovanni
Community Co-Chair, Jim McBride
Community RAB Member, Mike Grello
Community RAB Member, Hon. Ed Mangano
Community RAB Member, Linda Mangano
Community RAB Member, Ed Resch
Community RAB Member, Charles Bevilacqua
Community RAB Member, Roy Tringali
Community RAB Member, Rosemary Styne

**RESTORATION ADVISORY BOARD (RAB) MEETING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE
BETHPAGE COMMUNITY CENTER
BETHPAGE, NEW YORK
WEDNESDAY, AUGUST 2, 2006**

The sixteenth meeting of the RAB began at approximately 7:15 p.m. Meeting attendees included representatives from the Navy (Susan Clarke), Town of Oyster Bay, New York State Department of Transportation, Bethpage Water District, RAB community members (Rosemary Styne and Roy Tringali), and local residents.

WELCOME AND AGENDA REVIEW

The Navy representative, Susan Clarke, Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic, welcomed everyone to the RAB meeting. Ms. Clarke went over the meeting agenda. The agenda for the meeting is included as Attachment 1.

Since the June 2006 RAB meeting, the Navy has been working on arranging site access for construction for the GM-38 remedy. The meeting with the Town of Oyster Bay before the RAB meeting was related to the site access arrangements. For Area of Concern (AOC) 22, the pilot-scale evaluation of an innovative bioremedial technology to remove petroleum contamination from an underground storage tank area is being conducted. The system was operated through June 2006 and Tetra Tech NUS, Inc. (TtNUS) will begin soil and groundwater sampling and analysis to evaluate the effectiveness of the treatment technology.

REVIEW AND APPROVAL OF MEETING MINUTES

Because of the limited number of RAB community members present at the June 7, 2006 RAB meeting, the review and approval of the April 2005 minutes were tabled until the August 2006 meeting. The April 2005 minutes were included as an attachment to the June 2006 minutes. Ms. Clarke inquired whether the RAB members received the June minutes, which were distributed in July 2006, and whether there were any questions.

Ms. Styne asked whether Route 135 could be used as an access to the GM-38 treatment area. Mr. John Petroff of NYDOT indicated that federal highway regulations would not allow use of Route 135 to access a construction site. Ms. Clarke indicated that the Navy will need to use some of the local roads to access the area and the transportation route is part of the presentation for the GM-38 remedy. Although main roads will be used, the Navy will not be able to avoid residential areas.

A community member saw a well drill rig south of the railroad tracks and wondered whether it was being used as part of any of the Navy's remediation work at NWIRP Bethpage. The Navy said it was not part of any Navy work and that it might be part of a Long Island Power Authority (LIPA) project.

The approval of the minutes was tabled again because of the limited number of RAB community members present at the meeting.

GM-38 REMEDY UPDATE

Mr. Stravros Patselas from Tetra Tech EC, Inc. provided a progress update on the GM-38 Remedy Final Design, including the history of the project, treatment system design, well installations, construction and operation and maintenance. The slides of the presentation of the Groundwater Remediation Project are provided as Attachment 2.

The presentation was similar to the presentation from June 2006. The main updates related to the GM-38 remedy presented at the August 2006 meeting were:

- Wells were installed in 2004 and 2005 and additional wells will be installed during construction. The number of monitoring wells that will be installed was increased and a recovery well will also be installed during construction
- The treatment plant will be installed in the back of a utility easement, near Route 135. Originally, permanent and temporary access roads to the area were planned. However, now the main access will be from Broadway Avenue; Sophia Road will not be used as an access road.
- Some of the esthetic considerations as part of the construction include constructing a berm and planting 100 new trees to minimize the visibility of the treatment plant from nearby homes. Also, a chain link fence with privacy screening will be installed. The Navy will try to maintain as many of the existing trees as possible. Based on community concerns, motion-activated lights will be used for exterior building lighting and no audible exterior alarms will be used. An auto-dial alarm system will be used to contact people when there is an unscheduled shut down of the system. If the system shuts down, it must be manually restarted; therefore, someone needs to go to the treatment plant when the alarm system is triggered.

Mr. Tringali asked whether any Town of Oyster Bay departments would be notified as part of the auto-dial alarm system. Mr. Patselas indicated that only Navy personnel and contractors would be contacted.

Mr. Patselas indicated that there was some delay in the anticipated schedule because the Navy is still working on obtaining real estate access agreements. Once the access agreements are in place, the Navy will competitively bid the project. The bidding process is expected to take up to 2 months and construction is expected to begin in fall 2006. Construction is expected to end summer 2007 and plant start up activities to be conducted from summer to fall 2007. Start of operation and maintenance is anticipated for fall 2007.

CLOSING REMARKS

Ms. Clarke asked whether there were additional questions. There were no further questions. The next meeting will be Wednesday November 1, 2006, at the regularly scheduled time. The meeting was adjourned at approximately 7:50 pm.

ATTACHEMENT 1
AUGUST 2, 2006 MEETING AGENDA

Agenda

Restoration Advisory Board Naval Weapons Industrial Reserve Plant Bethpage

**August 2, 2006
Bethpage Community Center, Bethpage, NY
7:00 p.m.**

Welcome and Agenda Review
Susan Clarke, NAVFAC Mid-Atlantic

Meeting Minutes
All Members

GM-38 Remedy Update
Stavros Patselas, Tetra Tech FW

Closing Remarks
Susan Clarke, NAVFAC Mid-Atlantic

Presenters will be available after the program for questions.



Groundwater Remediation Project

Naval Weapons Industrial Reserve Plant

Bethpage, NY

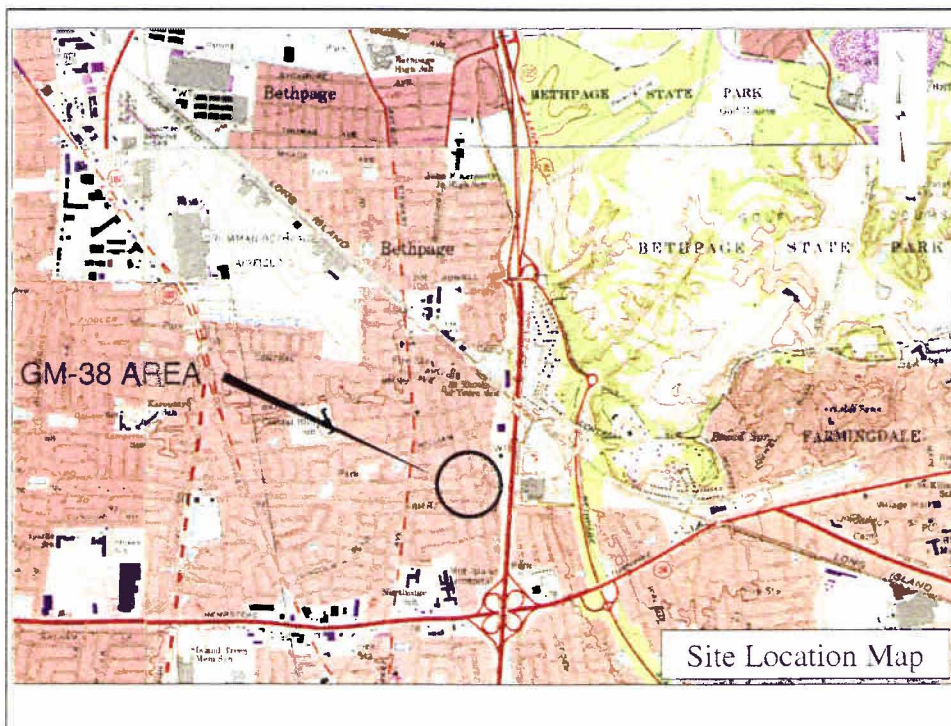
GM-38 Area

Restoration Advisory Board Meeting

August 2, 2006



TETRA TECH EC, INC.



Groundwater Remediation Project

- Site History
- Treatment System Design
- Well Installations
- Construction
- Operation & Maintenance



Groundwater Remediation Project

- Project History
- Treatment System Design
- Well Installations
- Construction
- Operation & Maintenance



Project History

- Chlorinated solvents detected in GW
- GW pump & treat system installed on Northrop Grumman property (Nov 1998)
- GM-38 Area delineated (June 2000-April 2002)
- Conceptual Plans to design and build GWTP in GM-38 Area for mass removal (February 2003)



Project History (cont'd)

- Community Workshop (September 2004)
- Pre-design investigation (Nov 04 – May 05)
- Draft Remedial Design (February 2005)
 - Reviewed by Navy and Third Party Consultant
- Sampled the GM-38 Area wells (July 2005)
- 90% Draft Final Design (November 2005)
 - Reviewed by same plus NYS DEC, TOB, Nassau County, and public



Project History (cont'd)

- Received all public review comments (mid - January 2006)
- Response to comments letter (March 2006)
- NYS DEC requests to finalize design (April 10, 2006)
- Final Design (May 8, 2006)
- RAB Meeting presents final design (June 7, 2006)
- Construction phase planning (November 2005 – ongoing)



Groundwater Remediation Project

- Site History
- Treatment System Design
- Well Installations
- Construction
- Operation & Maintenance



Treatment System Design

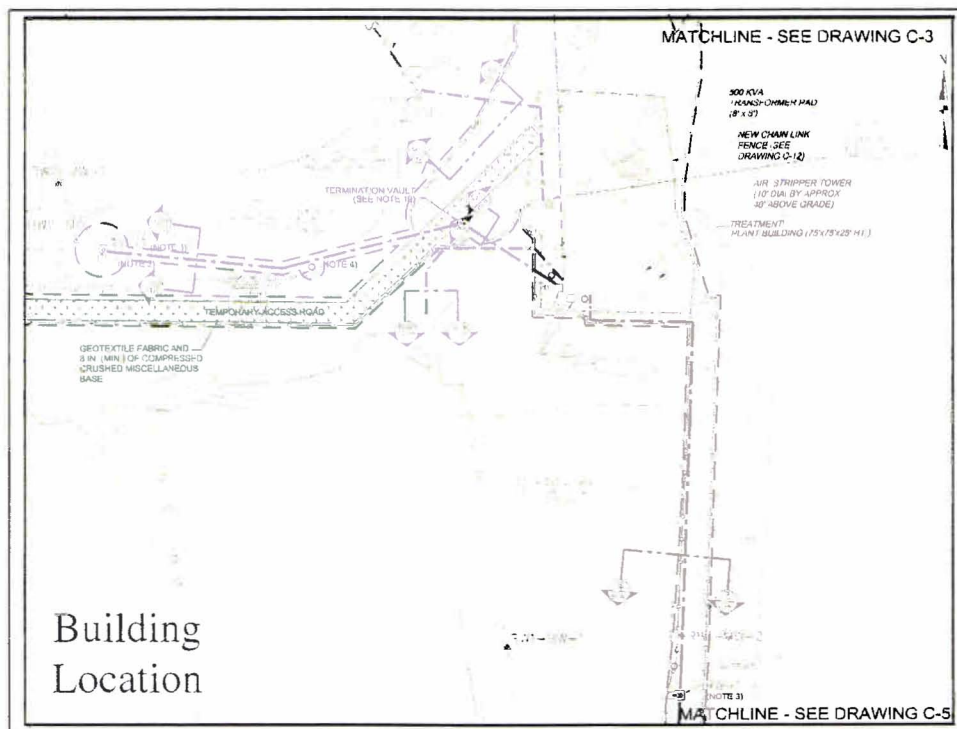
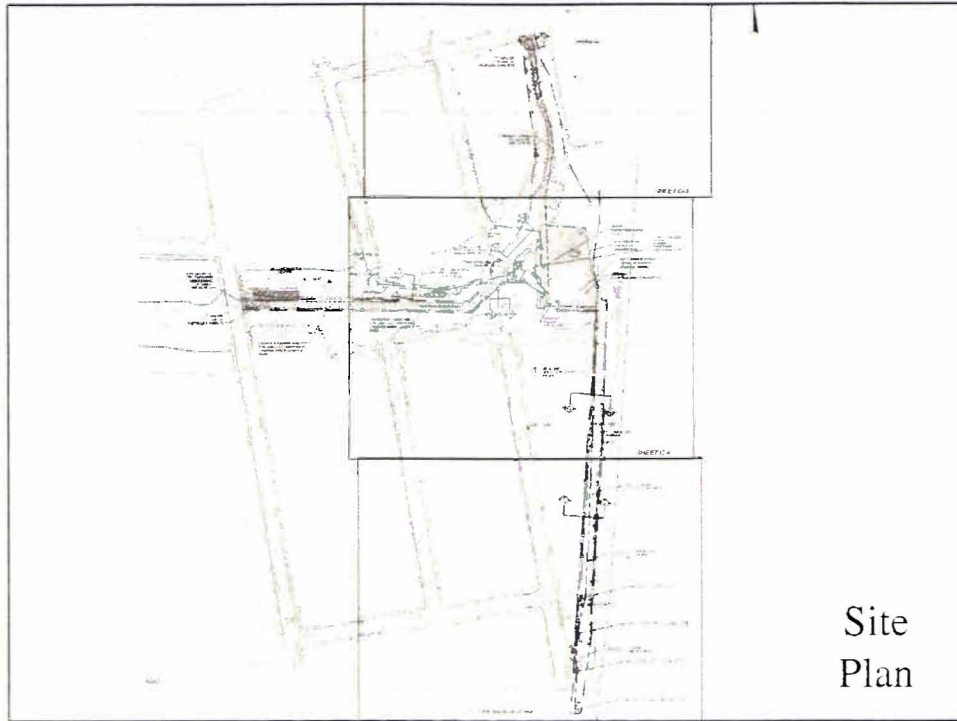
- Mass Removal of Volatile Organic Compounds (VOC's) from groundwater
- Process Flow Rate = 1,100 gallons per minute (gpm)
- Max. Design Flow Rate = 1,375 gpm
- Pumping from two or three recovery wells

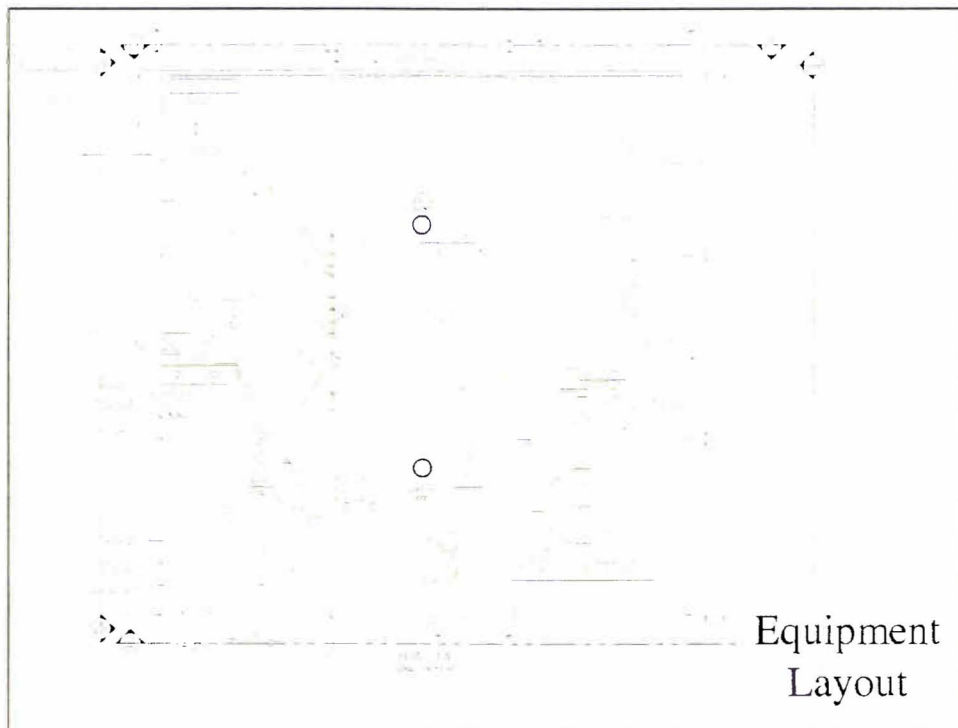
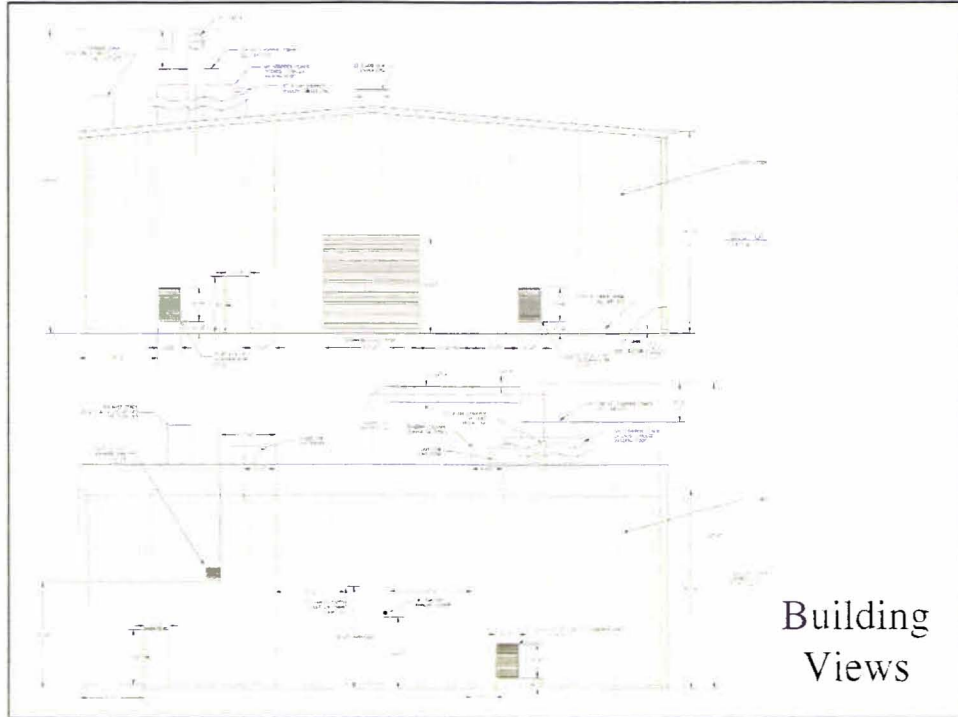


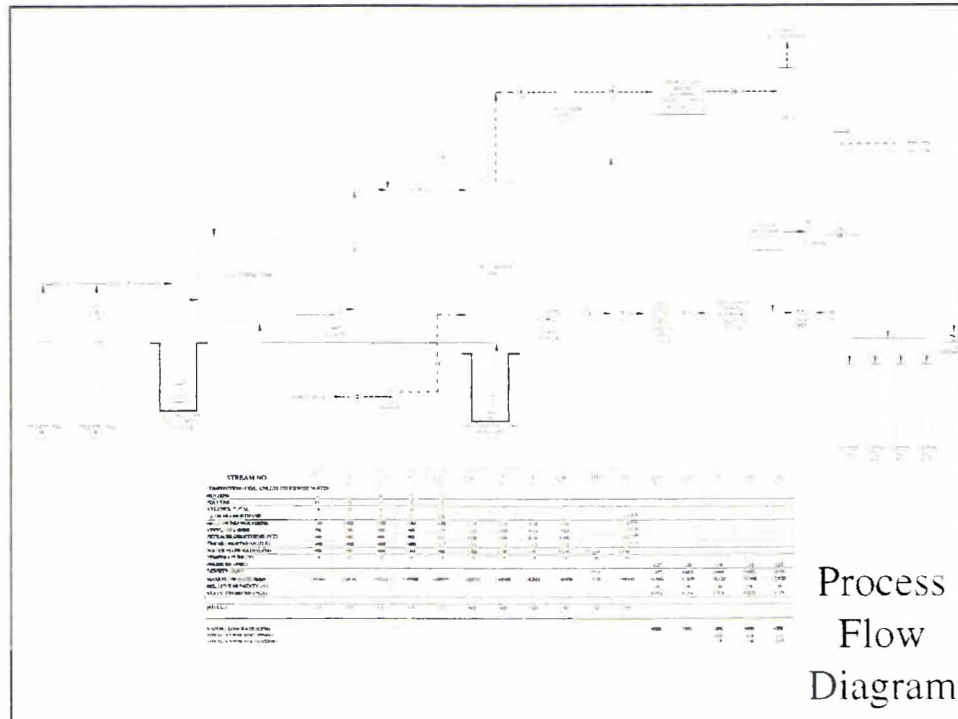
Treatment System Design (cont'd)

- Primary treatment is Air Stripping
- Secondary treatment (polish) is Carbon Media
- Vapors from Air Stripping Treated w/ Carbon Media
- Inject treated water into four injection wells









Groundwater Remediation Project

- Well Installations

Well Installations

- Currently installed (Nov 2004 - May 2005)
 - 2 Recovery Wells
 - 1 Injection Well
 - 6 Monitoring Wells
- To be installed during construction
 - 3 Injection Wells
 - 1 Recovery Well
 - 8 Monitoring Wells



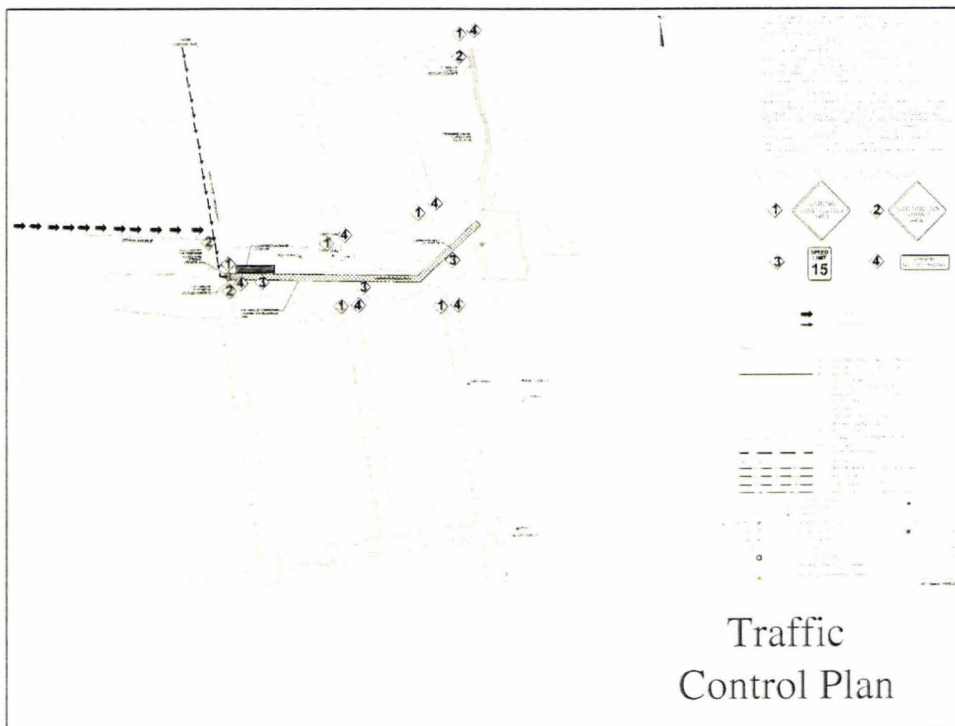
Groundwater Remediation Project

- Site History
- Treatment System Design
- Well Installations
- Construction
- Operation & Maintenance



Construction

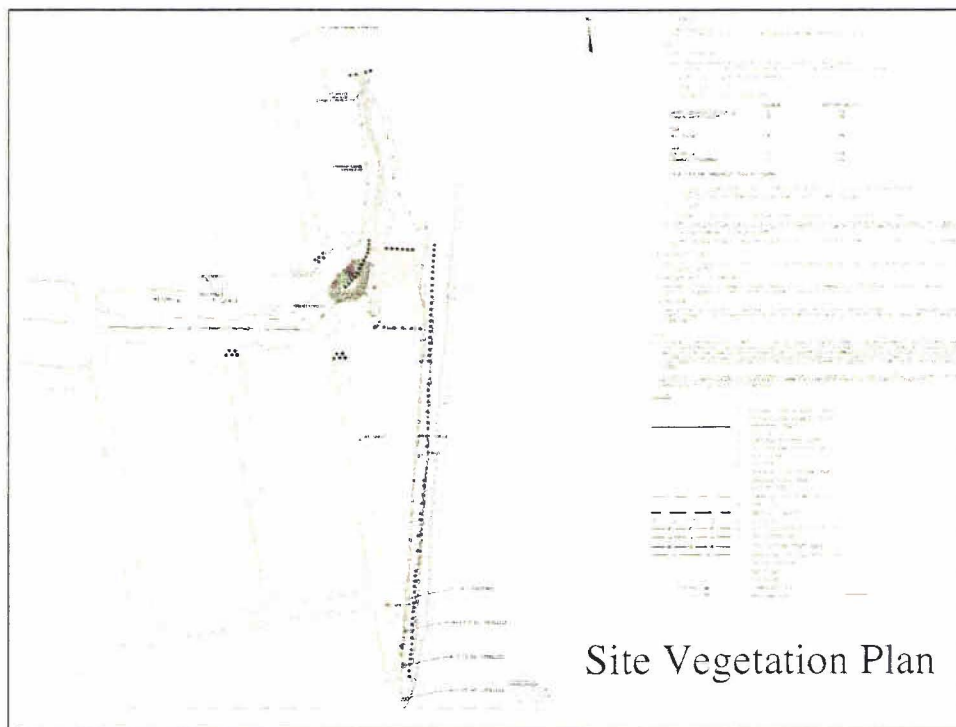
- Project Signage and Traffic Controls
- Erosion and Sediment Controls
- Access Roads (permanent and temporary)
- Install Building Footers and Foundation
- Trenching to Recovery and Injection Wells
- Utility Tie-in Connections (electric, phone, water, and sanitary sewer)
- Building Floor



Traffic
Control Plan

Construction (cont'd)

- Set Large Equipment with Crane
- Erect Building Structure
- Interior Piping and Electric
- Install Fire Alarm and Security Systems
- Install and Test Instrumentation
- Test and Balance All Systems
- Site Restoration



Esthetic Considerations

- Excavated soil used to construct berm
- Maintain as many existing trees as possible
- 100 new trees to be planted
- Building exterior to be a natural color
- Exterior building lights are motion activated
- No audible exterior alarms
- Chain link fence with privacy screening



Groundwater Remediation Project

- Site History
- Treatment System Design
- Well Installations
- Construction
- Operation & Maintenance



Operation & Maintenance

- Operate 24 hours per day
- Trained personnel visits
 - 3 days per week during initial 6 months
 - Additional visits as needed



Operation, Maintenance and Monitoring Plan

- Monitoring plan currently being developed
- Operation & Maintenance plan to follow
- Establishes method of operating & tracking progress of GWTP
- Sampling frequency (system & wells)
- Modify GW model with analytical results
 - Decrease in Total VOC over time
- Emergency response and troubleshooting



Safety Considerations

- Double-walled extraction piping and access ports
- GWTP sloped floor to sump – contain spills
- Liquid-phase carbon units – Total VOC polish
- Backflow preventor on influent potable water line
- Instrumentation
 - Monitor key operating parameters
 - Redundant controls to ensure safe operation
 - Automatic system shut-down signals
 - Requires manual restart
 - Telemonitoring system



Future Operating Considerations

- Piping to termination vaults
 - One vault for future discharge location
- Current GWTP flow will be 1100 gpm
 - Maximum capacity = 1375 gpm (+25%)
- GWTP can treat future development water
 - Water piped/transported to GWTP sump



Project Status

- Obtain real estate access agreements from three property owners – Town of Oyster Bay, NYS DOT and Long Island Railroad
- Obtain all necessary local permits
- Competitive bidding for all subcontracted work and equipment
- Notice to Proceed from NYS DEC
- Mobilize and start construction



Anticipated Schedule

Milestones	Date
Project Planning	On-going
Mobilization & Start of Construction	Fall 2006
End of Construction	Summer 2007
Plant Start-Up and Shakedown	Summer - Fall 2007
Start of Operation & Maintenance	Fall 2007



Wrap-up

Questions?

