

January 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

Repair of the Tunnel Boring Machine (TBM) that has remained idle since the October 2012 storm is nearing completion. Sections of the trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) were repaired in Ohio, shipped back to the site, and reinstalled in the tunnel. The portion of the TBM that is being repaired on site is nearing completion, and reassembly of the machine is underway. Once the TBM has been reassembled, the equipment will be tested prior to resumption of tunneling operations (anticipated for early 2014).

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012.

Work During December

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - revision of drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy
 - continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)

- Continuation of on- and off-site TBM repairs, including:
 - reinstallation of hoses, electrical system and other components
 - delivery of all refurbished sections of the trailing gear to the site
 - reassembly of the TBM
 - repair and testing of the grout plant
- Continuation of preparation for installation of the TBM power supply, including delivery of equipment and work related to construction of the concrete pad
- Continuation of land piping work in Staten Island, including:
 - completion of two (2) test pits on Van Duzer Street, between St. Julian Place and Hannah Street. This work was in preparation for installation of a 60" water main at this location in summer 2014.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL) and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for January

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of on-site TBM repairs, including:
 - reinstallation of hoses, electrical system and other components
 - reassembly of the TBM
 - repair and testing of the grout plant
- Continuation of preparation for installation of the TBM power supply, including delivery of equipment and work related to construction of the concrete pad
- NOTE: Land piping work in Staten Island is expected to resume in February with construction activities along lower Victory Boulevard, pending removal of two (2) oil tanks in the area by the New York City Department of Design and Construction.
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of BSL, residents and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright
 Community Liaison
 Helen Neuhaus & Associates Inc.
 355 Front Street
 Staten Island, NY 10304
 (516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.



**Work related to test pits on Van Duzer Street
(top and bottom photos)**



February 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

Repair of the Tunnel Boring Machine (TBM) that has remained idle since the October 2012 storm has been completed and reassembly of the machine is under way. The sections that were repaired in Ohio have been shipped back to the site and reinstalled in the tunnel. The portion of the TBM that remained on site has also been repaired and reassembly is expected to be complete by early February. The equipment will then be tested, prior to resumption of tunneling operations, which is anticipated for late February.

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012.

Work During January

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - revision of drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy
 - continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)

- Continuation of TBM repairs, including:
 - restoration of tunnel utilities
 - reassembly of the TBM and initial testing of the equipment
 - repair and testing of the grout plant
- Continuation of activities in support of installation of the TBM power supply, including delivery of equipment and construction of the concrete pad
- **NOTE:** Land piping work in Staten Island is currently suspended pending the removal of two (2) oil tanks in the area of Lyons Pool (on lower Victory Boulevard and Murray Hulbert Avenue) by the New York City Department of Design and Construction and finalization of drawings for installation of a 60" water main on Van Duzer Street (between St. Julian Place and Hannah Street).
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL) and other groups and individuals; distribution of informational materials (Project Update, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for February

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Completion of reassembly of the TBM and testing of equipment
- Completion of work related to installation of the TBM power supply, including delivery of equipment and construction of the concrete pad
- Resumption of tunneling operations
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of BSL, residents and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright
 Community Liaison
 Helen Neuhaus & Associates Inc.
 355 Front Street
 Staten Island, NY 10304
 (516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.

March 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

Repair and reassembly of the Tunnel Boring Machine (TBM) that has remained idle since the October 2012 storm has been completed. Initial testing of the equipment is underway and resumption of tunneling operations is expected to begin in late March.

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. At the time operation ceased, the TBM had progressed approximately 1,600' from its starting point. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is now projected to be fall 2014.

Work During February

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - revision of drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
- revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Completion of reassembly of the TBM and initial testing of equipment
- Completion of work related to installation of the TBM power supply
- **NOTE:** Land piping work in Staten Island remains suspended pending the removal of two (2) oil tanks in the area of Lyons Pool (on lower Victory Boulevard and Murray Hulbert Avenue) by the New York City Department of Design and Construction (DDC) and finalization of drawings for installation of a 60" water main on Van Duzer Street (between St. Julian Place and Hannah Street). DDC began work on removal of the oil tanks in late February; work is expected to be complete in mid March.
- Community outreach activities, including meeting with Staten Island Community Board #1's Waterfront Committee to present revised plans for the chlorination station; coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL) and other groups and individuals; distribution of informational materials (Project Update, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for March

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Presentation of revised drawings for the chlorination building to the New York City Public Design Commission
- Completion of testing of the TBM
- Resumption of tunneling operations
- Resumption of delivery of precast segment rings (to line the tunnel). Prior to the storm, 560 of the required 2,380 rings had been delivered to the site; 389 rings have been installed.
- Resumption of land piping work in Staten Island, including:
 - completion of work at microtunneling jacking pit (located at the Staten Island shaft site), including installation of pipe, encasement of pipe in concrete and backfilling
 - installation of section of 12" water main on lower Victory Boulevard
 - installation of 12" water main connection (at Victory Boulevard and Minthorne Street)
 - installation of section of sewer on Murray Hulbert Avenue (in vicinity of former Cromwell Center)
 - installation of 24" connections to pump station (adjacent to Lyons Pool)
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of BSL, residents and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright
Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.

April 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

Repair and reassembly of the Tunnel Boring Machine (TBM) that has remained idle since the October 2012 storm has been completed. Testing of the equipment continues and resumption of tunneling operations is anticipated to begin in mid April.

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. At the time operation ceased, the TBM had progressed approximately 1,600' from its starting point. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is now projected to be fall 2014.

Work During March

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - finalization of preliminary drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy. The revised drawings were presented to the New York City Public Design Commission (PDC) and preliminary approval of the

changes was received. Final drawings will be prepared and submitted to PDC for approval in late spring.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
- revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Continuation of testing of TBM equipment
- Resumption of land piping work in Staten Island, including:
 - continuation of work at the microtunneling jacking pit (located at the Staten Island shaft site), including installation of pipe and encasement of pipe in concrete
 - installation of 12" water main connection (on Victory Boulevard at Minthorne Street)
 - excavation of test pit on lower Victory Boulevard (adjacent to Lyons Pool) to test for asbestos. Results indicate the presence of asbestos on the coupling but not the pipe. During excavation, oil was also detected in the water and soil. Alternatives to address installation of the pipe in this area are being reviewed.

NOTE: The New York City Department of Design and Construction completed the removal of two (2) oil tanks in the area of Lyons Pool (on lower Victory Boulevard and Murray Hulbert Avenue), allowing the resumption of work in the area.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL) and other groups and individuals; distribution of informational materials (Project Update, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for April

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Completion of testing of the TBM
- Resumption of tunneling operations (anticipated to begin mid April)
- Resumption of delivery of precast segment rings (to line the tunnel). Prior to the storm, 560 of the required 2,380 rings had been delivered to the site; 389 rings have been installed.
- Resumption of land piping work in Staten Island, including:
 - completion of work at microtunneling jacking pit (located at the Staten Island shaft site), including installation of pipe, encasement of pipe in concrete and backfilling
 - installation of section of 12" water main on lower Victory Boulevard (between the Staten Island Railway tracks and the entrance driveway to BSL)
 - installation of section of 12" sewer on Murray Hulbert Avenue (in vicinity of former Cromwell Center)
 - installation of new 20" connection to pump station (adjacent to Lyons Pool)
 - installation of 10" sewer on Swan Street (between Bay and Van Duzer Streets)

- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of BSL, residents and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright
Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.

May 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that has remained idle since the eve of Superstorm Sandy in October 2012 has resumed operation! After months of repairs and testing of the equipment, the TBM began tunneling on April 14th. The progress of the TBM can be viewed at <http://client.hatchmott.com/siphon>.

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. At the time operation ceased, the TBM had progressed approximately 1,600' from its starting point. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is now projected to be fall 2014.

Work During April

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy. The New York City Public Design Commission (PDC) has granted preliminary approval of the changes based on initial drawings.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Completion of testing of TBM equipment
- Resumption of tunneling operations on April 14th
- Resumption of delivery of precast segment rings (to line the tunnel). Prior to the storm, 560 of the required 2,380 rings had been delivered to the site with 389 of the rings installed. Since the TBM resumed operation, 76 additional rings have been installed.
- Resumption of land piping work in Staten Island, including:
 - completion of work at the microtunneling jacking pit (located at the Staten Island shaft site), including installation of pipe and encasement of pipe in concrete
 - work related to installation of new 20" water main connection to the pump station on lower Victory Boulevard (adjacent to Lyons Pool), including removal of asbestos-coated coupling
 - installation of section of 12" water main on lower Victory Boulevard (between the Staten Island Railway tracks and the entrance driveway to BSL)
 - installation of section of 12" sewer on Murray Hulbert Avenue (in vicinity of former Cromwell Center)
 - installation of 10" sewer on Swan Street (between Bay and Van Duzer Streets)
 - installation of 60" water main on Swan Street (between Bay and Van Duzer Streets)
- Community outreach activities, including meeting with Brooklyn Community Board #10's Environmental Committee to provide a project update; coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL) and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for May

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of tunneling operations
- Continuation of delivery of precast segment rings
- Continuation of land piping work in Staten Island, including:
 - installation of section of 12" water main on lower Victory Boulevard (between the Staten Island Railway tracks and the entrance driveway to BSL)
 - installation of new 20" water main connection to the pump station on lower Victory Boulevard (adjacent to Lyons Pool)
 - start of permanent restoration of lower Victory Boulevard and Murray Hulbert Avenue
 - installation of 60" water main on Swan Street (between Bay and Van Duzer Streets)

- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of BSL, residents and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright
Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

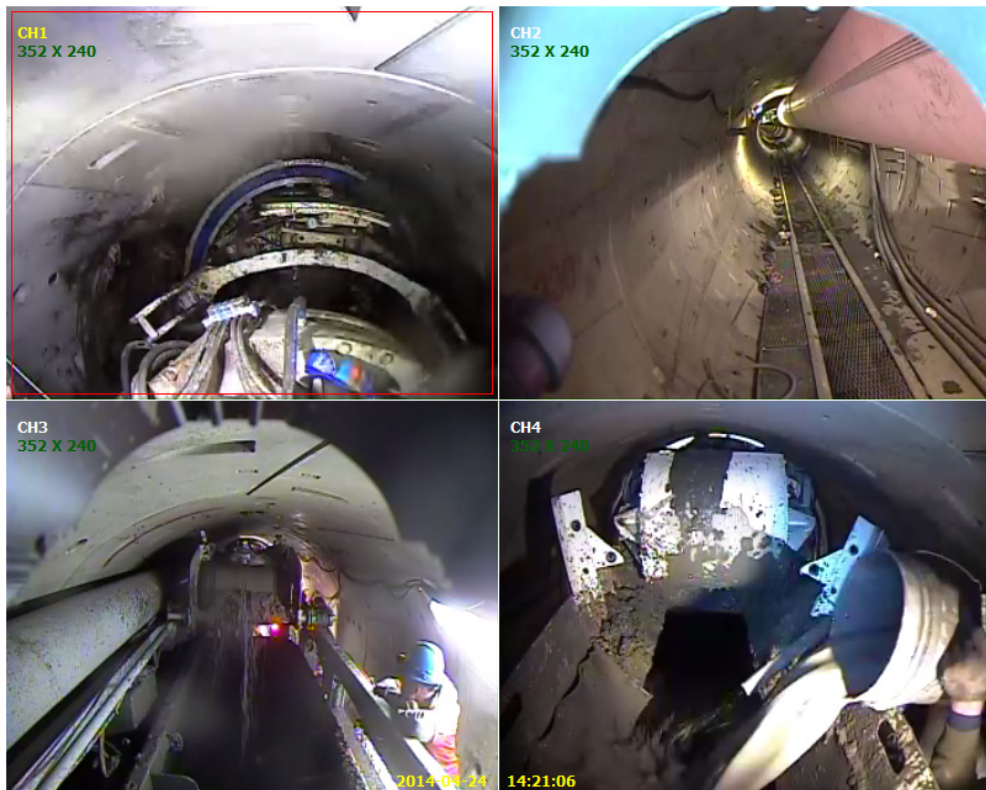
Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.



**Installation of 10" sewer on Swan Street,
between Bay and Van Duzer Streets**



Work related to installation of new 20" water main connection to pump station on lower Victory Boulevard, adjacent to Lyons Pool



Photos from inside the TBM

June 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014 and is currently tunneling beneath the harbor around-the-clock. (View the progress of the TBM at <http://client.hatchmott.com/siphon>.)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. At the time operation ceased, the TBM had progressed approximately 1,600'. The TBM has progressed another 1,900' since resuming operations on April 14th. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be fall 2014.

Work During May

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy. The New York City Public Design Commission (PDC) has approved the changes.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Continuation of tunneling operations, including installation of a “California Switch” that increases efficiency by allowing introduction of a third train so that an empty train can be kept closer to the TBM while one is being filled and the third is being emptied in the shaft
- Continuation of delivery of precast segment rings (to line the tunnel). As of May 31st, 1,035 of the required 2,380 rings had been delivered to the site and 866 of the rings installed. The tunneling operation is approximately 37% complete.
- Continuation of land piping work in Staten Island, including:
 - completion of work related to installation of a new 20” water main connection to the pump station on lower Victory Boulevard (adjacent to Lyons Pool)
 - start of permanent restoration of lower Victory Boulevard and Murray Hulbert Avenue, including installation of new curbs and sidewalks along the north side of lower Victory Boulevard and the east side of Murray Hulbert Avenue
 - continuation of installation of a 60” water main on Swan Street (between Bay and Van Duzer Streets), including construction of three (3) large underground chambers
- Community outreach activities, including meetings with Bay Street Landing (BSL) and the New York City Department of Parks and Recreation to discuss upcoming street restoration work along lower Victory Boulevard and Murray Hulbert Avenue; coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of BSL and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for June

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of tunneling operations
- Continuation of delivery of precast segment rings
- Continuation of land piping work in Staten Island, including:
 - continuation of permanent restoration of lower Victory Boulevard and Murray Hulbert Avenue, including installation of new curbs and sidewalks; demolition of the existing street pavement; and installation of a new roadway surface (NOTE: Street restoration work is being done one-half width at a time.)
 - completion of installation of the 60” water main and chambers on Swan Street (between Bay and Van Duzer Streets)
 - installation of a 60” trunk main on Van Duzer Street Extension (at Bay Street)
 - start of permanent restoration of Victory Boulevard, between the Staten Island Railway tracks and Bay Street and along a small section of Minthorne Street (at Victory Boulevard)

- Temporary pavement of Shore Road, between 86th and 83rd Streets
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of BSL, residents and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright
Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.



Preparing precast segment rings for lowering into tunnel shaft



Installation of new curb and sidewalk along north side of lower Victory Boulevard



Work related to installation of new 20" water main connection to pump station on lower Victory Boulevard (adjacent to Lyons Pool)

July 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014 and is currently tunneling beneath the harbor around-the-clock. (View the progress of the TBM at <http://client.hatchmott.com/siphon>.)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. Following repair, reassembly and testing of the TBM, tunneling operations resumed on April 14, 2014. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be fall 2014.

Work During June

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy. The New York City Public Design Commission (PDC) has approved the changes.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Continuation of tunneling operations
- Continuation of delivery of precast segment rings (to line the tunnel). As of June 30th, 1,475 of the required 2,380 rings had been delivered to the site and 1,264 of the rings installed. The tunneling operation is approximately 53% complete.
- Continuation of land piping work in Staten Island, including:
 - completion of permanent restoration of lower Victory Boulevard and Murray Hulbert Avenue, including installation of new curbs and sidewalks
 - start of permanent restoration of Victory Boulevard, between the Staten Island Railway tracks and Bay Street and along a small section of Minthorne Street (at Victory Boulevard)
 - continuation of installation of a 60" water main on Swan Street (between Bay and Van Duzer Streets), including construction of three (3) large underground chambers
 - work related to installation of a 60" trunk main on Van Duzer Street Extension (at Bay Street)
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for July

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of tunneling operations
- Continuation of delivery of precast segment rings
- Continuation of land piping work in Staten Island, including:
 - completion of installation of the 60" water main and chambers on Swan Street (between Bay and Van Duzer Streets)
 - installation of a 60" trunk main on Van Duzer Street Extension (at Bay Street)
 - installation of a 72" water main along Van Duzer Street, between St. Julian Place and Swan Street
 - completion of permanent restoration of Victory Boulevard, between the Staten Island Railway tracks and Bay Street and along a small section of Minthorne Street (at Victory Boulevard)
- Temporary pavement of Shore Road, between 86th and 83rd Streets
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, and other groups and individuals, as needed; preparation and distribution of informational materials (Project

Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright, Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.



Restoration of lower Victory Boulevard



Newly restored lower Victory Boulevard
(looking east from Staten Island Railway tracks)



Restoration of upper Victory Boulevard
(looking west towards Bay Street)

August 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014 and continues to tunnel beneath the harbor around-the-clock. (View the progress of the TBM at <http://client.hatchmott.com/siphon>.)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. Following repair, reassembly and testing of the TBM, tunneling operations resumed on April 14, 2014. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be September 2014.

Work During July

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency (FEMA) in response to Superstorm Sandy. The New York City Public Design Commission (PDC) has approved the changes.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Continuation of tunneling operations
- Continuation of delivery of precast segment rings (to line the tunnel). As of July 31st, 1,920 of the required 2,364 rings had been delivered to the site and 1,696 of the rings installed. The tunneling operation is approximately 71% complete.
- Continuation of land piping work in Staten Island, including:
 - completion of permanent restoration of Victory Boulevard, between the Staten Island Railway tracks and Bay Street and along a small section of Minthorne Street (at Victory Boulevard)
 - continuation of installation of a 60" water main on Swan Street (between Bay and Van Duzer Streets), including construction of three (3) large underground chambers
 - work related to installation of a 60" trunk main on Van Duzer Street Extension (at Bay Street)
- Temporary pavement of Shore Road, between 86th and 83rd Streets
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for August

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of tunneling operations
- Continuation of delivery of precast segment rings
- Continuation of land piping work in Staten Island, including:
 - completion of installation of the 60" water main and chambers on Swan Street (between Bay and Van Duzer Streets)
 - completion of installation of the 60" trunk main on Van Duzer Street Extension (at Bay Street)
 - start of removal of the existing asbestos coated pipe and installation of a new 72" water main along Van Duzer Street, between St. Julian Place and Swan Street
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright, Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.



Preparing segment rings for delivery to tunnel



Installation of new chamber on Swan Street,
between Van Duzer and Bay Streets



Newly restored Murray Hulbert Avenue
 (photo on left: at Hannah Street; photo on right: looking north towards Victory Boulevard)



Newly restored upper Victory Boulevard
 (looking west from Staten Island Railway (SIRR) tracks towards Bay Street) (looking east towards SIRR tracks and Minthorne Street)

September 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014 and continues to tunnel beneath the harbor around-the-clock. The TBM is currently expected to break through at the Brooklyn Shaft in September. (View the progress of the TBM at <http://client.hatchmott.com/siphon.>)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. Following repair, reassembly and testing of the TBM, tunneling operations resumed on April 14, 2014. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be September 2014.

Work During August

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency in

response to Superstorm Sandy. The New York City Public Design Commission has approved the changes.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
 - Continuation of tunneling operations
 - Completion of delivery of precast segment rings (to line the tunnel). As of August 31st, all of the required 2,364 rings had been delivered to the site and 2,081 of the rings installed. The tunneling operation is approximately 88% complete.
 - Continuation of land piping work in Staten Island, including:
 - completion of installation of the 60" water main on Swan Street (between Bay and Van Duzer Streets), including construction of three (3) large underground chambers
 - completion of installation of the 60" trunk main on Van Duzer Street Extension (at Bay Street)
 - temporary restoration of Swan Street, between Bay and Van Duzer Streets, and Van Duzer Street Extension
- NOTE:** Although work related to installation of the 72" water main along Van Duzer Street, between St. Julian Place and Hannah Street, was originally scheduled to begin during the week of August 11th, the work has been postponed pending DEP approval of the shutdown needed to complete the work.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for September

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
 - Completion of tunneling
 - Initiation of work related to disassembly of the TBM
 - Continuation of land piping work in Staten Island, including:
 - work related to installation of a new 60" water main on Front Street, between Hannah Street and the vicinity of the Staten Island shaft site
- NOTE:** Work is expected to begin the week of September 15th but is contingent on DEP approval of a shutdown of Siphon #1.
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright, Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.

October 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014 and continues to tunnel beneath the harbor around-the-clock. The TBM is currently expected to break through at the Brooklyn Shaft in November. (View the progress of the TBM at <http://client.hatchmott.com/siphon>.)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. Following repair, reassembly and testing of the TBM, tunneling operations resumed on April 14, 2014. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be November 2014.

Work During September

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency in response to Superstorm Sandy. The New York City Public Design Commission has approved the changes.

- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
- revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Continuation of tunneling operations. As of September 30th, 2,149 of the precast segment rings (to line the tunnel) had been installed. The tunneling operation is approximately 90% complete.
- Land piping work in Staten Island is currently on hold

NOTE: Work related to installation of a new 72" water main along Van Duzer Street (St. Julian Place to Hannah Street) and a new 60" water main in Front Street (Hannah Street to the vicinity of the Staten Island shaft site) was originally scheduled to begin in September. This work has been postponed pending DEP approval of the shutdown needed to complete the work.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for October

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of tunneling
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright, Community Liaison
 Helen Neuhaus & Associates Inc.
 355 Front Street
 Staten Island, NY 10304
 (516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.

November 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014. Preparations for the second scheduled maintenance of the tunneling equipment are currently underway; this work is expected to begin in early November. Tunneling operations are expected to resume in late November following completion of maintenance and any necessary repairs. It is anticipated that the TBM will break through at the Brooklyn Shaft in December. (View the progress of the TBM at <http://client.hatchmott.com/siphon.>)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. Following repair, reassembly and testing of the TBM, tunneling operations resumed on April 14, 2014. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be December 2014.

Work During October

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:

- preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency in response to Superstorm Sandy. The New York City Public Design Commission has approved the changes.
- continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
- revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)
- Continuation of tunneling operations. As of October 16th, 2,188 of the precast segment rings (to line the tunnel) had been installed (approximately 93% complete). On October 14th, the TBM's computer system notified the team of the need to inspect the condition of the cutting tools and replace them, as needed. Preparations for this maintenance operation are currently underway. Due to the depth of the TBM (approximately 100' below the surface), inspection, maintenance and repair of the TBM must be performed by divers in a compressed air environment to ensure the health and safety of the workers.
- Land piping work in Staten Island is currently on hold

NOTE: Work related to installation of a new 72" water main along Van Duzer Street (St. Julian Place to Hannah Street) and a new 60" water main in Front Street (Hannah Street to the vicinity of the Staten Island shaft site) was originally scheduled to begin in September but was postponed pending DEP approval of the shutdown needed to complete the work. It is currently anticipated that installation of the water mains will begin early next year.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing and other groups and individuals; distribution of informational materials (Project Update, construction notices, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for November

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Completion of preparatory work for inspection of the TBM cutting tools and performance of maintenance and repair of the equipment, as needed
- Resumption of tunneling operations
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright, Community Liaison
Helen Neuhaus & Associates Inc.
355 Front Street
Staten Island, NY 10304
(516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.

December 2014 Update

Replacement of the Existing Water Siphons between Brooklyn and Staten Island "Siphon Project"

The Tunnel Boring Machine (TBM) that was idled on the eve of Superstorm Sandy in October 2012 resumed operation on April 14, 2014. The second scheduled maintenance of the tunneling equipment was completed in late November, and tunneling operations resumed on December 1st. It is anticipated that the TBM will break through at the Brooklyn Shaft by the end of the year. (View the progress of the TBM at <http://client.hatchmott.com/siphon>.)

Background Information

The New York City Economic Development Corporation (EDC) is administering the Siphon Project, which is being funded by the New York City Department of Environmental Protection (DEP) and the Port Authority of New York & New Jersey (PANYNJ).

Major components of the project include the following:

- use of a TBM to install a new 72" water siphon
- installation of land piping (new water mains and sewers) in Staten Island and Brooklyn using open cut and microtunneling techniques
- construction of a new "green building" chlorination station in Staten Island
- implementation of an extensive community outreach program, including development of informational materials and ongoing liaison with residents, businesses and other stakeholders

Construction began in August 2011, with work on the starter trench in Staten Island. Construction of the Brooklyn shaft, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. The TBM initially began tunneling operations on July 25, 2012. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. Following repair, reassembly and testing of the TBM, tunneling operations resumed on April 14, 2014. Although the TBM was originally expected to reach the Brooklyn Shaft in summer 2013, that date is currently projected to be December 2014.

Work During November

- Continuation of collection of instrumentation data (noise, vibrations, groundwater levels) in Staten Island and Brooklyn
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn, including:
 - preparation of final drawings for the chlorination building to reflect new flood elevation levels released by the Federal Emergency Management Agency in response to Superstorm Sandy. The New York City Public Design Commission has approved the changes.
 - continuation of development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Hannah Street (Staten Island)
 - revision of drawings for new water mains along 79th Street and Shore Road (Brooklyn)

- Continuation of tunneling operations. As of October 16th, 2,188 of the precast segment rings (to line the tunnel) had been installed (approximately 93% complete). On October 14th, the TBM's maintenance system alerted the team of the need to inspect the condition of the cutting tools and replace them, as needed. Due to the depth of the TBM (approximately 100' below the surface), inspection, maintenance and repair of the TBM must be performed by divers in a compressed air environment to ensure the health and safety of the workers. Following extensive preparations, the maintenance operation began on November 14th and was completed on November 26th.
- Land piping work in Staten Island is currently on hold
NOTE: Work related to installation of a new 72" water main along Van Duzer Street (St. Julian Place to Hannah Street) and a new 60" water main in Front Street (Hannah Street to the vicinity of the Staten Island shaft site) was originally scheduled to begin in September, but was postponed pending DEP approval of the shutdown needed to complete the work. It is currently anticipated that installation of the water mains will begin early next year.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing and other groups and individuals; distribution of informational materials (Project Update, etc.); updating of the project web site; and liaison with residents, businesses, and stakeholders in the project area

Work Projected for December

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Resumption of tunneling operations; the TBM is expected to reach the Brooklyn Shaft by the end of the month
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, and other groups and individuals, as needed; preparation and distribution of informational materials (Project Update, construction notices, etc.); updating of project web site; and ongoing liaison with residents, businesses and other interested stakeholders and constituencies

For additional information concerning these activities or other aspects of the Siphon construction project, please contact:

Anita Wright, Community Liaison
 Helen Neuhaus & Associates Inc.
 355 Front Street
 Staten Island, NY 10304
 (516) 712-5864 [cell phone]

Or visit the project website at: <http://www.nycedc.com/project/replacement-anchorage-channel-water-siphons>. See website for video that illustrates how the 110-ton, 300-foot long TBM will drill a distance of nearly two (2) miles, 100 feet beneath New York Harbor.