

January 2013 Update

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

NOTE: Although land piping work in Staten Island, as well as work on the Brooklyn Shaft site resumed following October's superstorm, the tunnel boring machine (TBM) remains out of service. The TBM, which was flooded during the storm, has been inspected by the manufacturer to determine the extent of the damage. The project team is currently evaluating the damage report and repair options.

Please find below a summary of completed and projected work related to the Siphon Project. The New York City Economic Development Corporation (EDC) is administering the 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

To date, work has focused on project mobilization and site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. In May 2012, the project team began to move pieces of the TBM to the starter trench for final assembly and testing. The TBM began tunneling operations on July 25, 2012. Although it was expected to reach the Brooklyn Shaft site in 2013, that date is now dependent on the extent of repairs required as a result of the storm.

Work During December

(NOTE: Due to the holidays, the project's contractors did not work between Saturday, December 22nd and Sunday, January 6th.)

- Tunneling operations, which were suspended on the evening of October 28, 2012 in advance of the storm, have not resumed pending assessment of damage. (At the time operations ceased, the TBM had progressed approximately 1,600' from its starting point.)

- Delivery of precast segment rings (to line the tunnel) remains suspended pending resumption of tunneling operations. To date, 560 of the required 2,380 rings have been delivered to the site; 388 rings have been installed.
- 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
- Land piping work in Staten Island, including:
 - completion of microtunneling activities related to installation of a new water main beneath the Staten Island Railway (SIR) tracks:
 - Victory Boulevard crossing – continuation of work on Victory Boulevard on the west side of the SIR tracks and initiation of work east of the tracks, including installation of pipe beneath the tracks and excavation and installation of the 60" water main
 - Swan Street crossing – completion of microtunneling beneath the SIR tracks; the equipment "broke through" to the jacking pit on Bay Street (at Swan Street) on December 7, 2012
 - continuation of work related to installation of the 60" water main along Victory Boulevard and Murray Hulbert Avenue. To date, 102 of the approximately 110 piles to be installed along Murray Hulbert Avenue are in place.
 - continuation of work related to shutdown of the existing siphon (Siphon #1) and installation of a 20" water main within Siphon #1
- Completion of excavation of the Brooklyn Shaft to its full depth of approximately 155'. A rebar mat has been installed at the bottom of the shaft.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL); 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

- Completion of installation of a concrete slab at the bottom of the Brooklyn Shaft to seal the shaft pending arrival of the TBM
- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main, including drilling of piles along Front Street (19 piles to be installed), excavation and installation of pipe on lower Victory Boulevard and Murray Hulbert Avenue
 - continuation of work related to shutdown of Siphon #1 and installation of a 20" water main
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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
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(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 60" water main at crossing with 72" sewer
(Victory Boulevard, immediately east of tracks)



Work related to installation of 60" water main along Victory Boulevard,
between tracks and Bay Street



Pile drilling operation on Murray Hulbert Avenue, at Hannah Street

February 2013 Update

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

NOTE: Although land piping work in Staten Island and work on the Brooklyn Shaft site continues, the tunnel boring machine (TBM) remains out of service following the October superstorm. The project team continues to assess the extent of damage to the equipment. Based on a preliminary assessment, a minimum eight (8) month delay in tunneling operations is expected.

Please find below a summary of completed and projected work related to the Siphon Project. The New York City Economic Development Corporation (EDC) is administering the 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

To date, work has focused on project mobilization and site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012. In May 2012, the project team began to move pieces of the TBM to the starter trench for final assembly and testing. The TBM began tunneling operations on July 25, 2012. Although it was expected to reach the Brooklyn Shaft site in 2013, that date is now dependent on the extent of repairs required as a result of the storm.

Work During January

(NOTE: The project's contractors resumed work on Monday, January 7th following the holiday hiatus.)

- Tunneling operations, which were suspended on the evening of October 28, 2012 in advance of the storm, have not resumed pending assessment of damage. (At the time operations ceased, the TBM had progressed approximately 1,600' from its starting point.)

- Delivery of precast segment rings (to line the tunnel) remains suspended pending resumption of tunneling operations. To date, 560 of the required 2,380 rings have been delivered to the site; 388 rings have been installed.
- 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
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main along Victory Boulevard, Murray Hulbert Avenue and Front Street, including:
 - drilling of piles: to date, 110 piles have been installed along Murray Hulbert Avenue, and 19 piles have been installed along Front Street, west of Hannah Street
 - excavation and installation of 60" pipe on lower Victory Boulevard and Murray Hulbert Avenue
 - installation of a new valve (20" water main) and a section of the 12" water main on the north side of lower Victory Boulevard
 - continuation of work related to shutdown of the existing siphon (Siphon #1) and installation of a 20" water main within Siphon #1

NOTE: During this time, National Grid also relocated a gas line along the south side of lower Victory Boulevard.
- Completion of work at the Brooklyn Shaft site, including:
 - excavation of the shaft (25' in diameter and approximately 155' deep)
 - installation of a concrete slab (January 15th) at the bottom of the shaft to seal it pending arrival of the TBM
 - demobilization of the site, including removal of heavy equipment and trailers, installation of a long-term cover over the shaft and cleanup of the site. The shaft cover consists of seven (7) timber mats, each comprised of five (5) 1' x 1' x 38' timbers bolted together. Each mat weighs approximately five (5) tons and requires a crane to move it.

NOTE: There will be no further work at the Brooklyn Shaft site until shortly before the TBM approaches the shaft. The shaft site, as well as the overall work zone, will remain fenced.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL); 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 February

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main, including excavation and installation of pipe on lower Victory Boulevard and Murray Hulbert Avenue
 - continuation of work related to shutdown of Siphon #1 and installation of a 20" water main

- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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

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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 pile on Front Street, opposite tunnel site



Installation of 60" water main -- proceeding from lower Victory Boulevard towards Murray Hulbert Avenue



National Grid's gas line relocation work (narrow trench along south side of lower Victory Boulevard, adjacent to 60" water main)

March 2013 Update

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

NOTE: Although land piping work in Staten Island continues (work on the Brooklyn Shaft site was recently completed), the tunnel boring machine (TBM) remains out of service following the October superstorm. The project team is completing its assessment of the damage to the TBM equipment, tunneling operation and overall project schedule.

Please find below a summary of completed and projected work related to the Siphon Project. The New York City Economic Development Corporation (EDC) is administering the 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

Ongoing work includes project mobilization and site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012 and was completed in early 2013. The TBM began tunneling operations on July 25, 2012. Although it was expected to reach the Brooklyn Shaft site in 2013, that date is now dependent on the extent of repairs required as a result of the storm.

Work During February

- Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. At the time operations ceased, the TBM had progressed approximately 1,600' from its starting point.
- Delivery of precast segment rings (to line the tunnel) remain suspended pending resumption of tunneling operations. To date, 560 of the required 2,380 rings have been delivered to the site; 388 rings have been installed.
- 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

- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main along Victory Boulevard, Murray Hulbert Avenue and Front Street, including:
 - completion of installation of the 60" pipe on lower Victory Boulevard
 - excavation and installation of pipe on Murray Hulbert Avenue
 - installation of a new valve (20" water main) and a section of the 12" water main on the north side of lower Victory Boulevard
- Work at the Brooklyn Shaft site has been completed. There will be no further work at the site until shortly before the TBM approaches the shaft. The shaft site, as well as the overall work zone, will remain fenced. (The shaft cover consists of seven timber mats, each comprised of five timbers (1' x 1' x 38') bolted together. Each mat weights approximately five tons and requires a crane to move it.)
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing (BSL); 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 March

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main, including excavation and installation of pipe on Murray Hulbert Avenue and Front Street
 - construction of the valve chamber on lower Victory Boulevard
 - continuation of work related to shutdown of Siphon #1 and installation of a 20" water main to connect the new siphon to a pump station on lower Victory Boulevard, adjacent to Lyons Pool
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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

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April 2013 Update

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

NOTE: Although land piping work in Staten Island continues (work on the Brooklyn Shaft site was completed in January 2013), the tunnel boring machine (TBM) remains out of service following the October superstorm. The project team is completing its assessment of the damage to the TBM equipment, tunneling operation and overall project schedule.

Please find below a summary of completed and projected work related to the Siphon Project. The New York City Economic Development Corporation (EDC) is administering the 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

Ongoing work includes project mobilization and site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012 and was completed in early 2013.

The TBM began tunneling operations on July 25, 2012. Although it was expected to reach the Brooklyn Shaft site in 2013, that date is now dependent on the extent of repairs required as a result of the storm. Tunneling operations were suspended on the evening of October 28, 2012 in advance of the storm. At the time operations ceased, the TBM had progressed approximately 1,600' from its starting point. Delivery of precast segment rings (to line the tunnel) remains suspended pending resumption of tunneling operations. (Prior to the storm, 560 of the required 2,380 rings had been delivered to the site; 388 rings have been installed.)

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 testing of existing sections of pipe for asbestos prior to replacement and 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
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main along Victory Boulevard, Murray Hulbert Avenue and Front Street, including:
 - completion of installation of the 60" pipe on Murray Hulbert Avenue
 - excavation and installation of pipe on Front Street
 - construction of a valve chamber on lower Victory Boulevard
 - continuation of work related to shutdown of Siphon #1 and installation of a 20" water main to connect the new siphon to a pump station on lower Victory Boulevard, adjacent to Lyons Pool
- Work at the Brooklyn Shaft site has been completed. There will be no further work at the site until shortly before the TBM approaches the shaft. The shaft site, as well as the overall work zone, will remain fenced. (The shaft cover consists of seven timber mats, each comprised of five timbers (1' x 1' x 38') bolted together. Each mat weights approximately five tons and requires a crane to move it.)
- Community outreach activities, including a meeting with representatives of Bay Street Landing (BSL); coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of BSL; 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 April

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main on Murray Hulbert Avenue and Front Street, including temporary restoration of street
 - completion of work related to construction of a valve chamber on lower Victory Boulevard
 - continuation of work related to shutdown of Siphon #1 and installation of a 20" water main to connect the new siphon to a pump station on lower Victory Boulevard, adjacent to Lyons Pool
 - resumption of work related to installation of the 60" water main on Victory Boulevard between Bay Street and the Staten Island Railroad tracks
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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

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Installation of valve chamber on lower Victory Boulevard



Installation of 60" water main along Murray Hulbert Avenue,
looking north towards lower Victory Boulevard



Newly installed 60" water main along Front Street,
just south of Hannah Street

May 2013 Update

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

NOTE: As land piping work in Staten Island winds down in advance of the mandated summer work hiatus, the contractor will be focusing efforts on returning to Brooklyn this summer to resume water and sewer work along Shore Road. The Tunnel Boring Machine (TBM) remains out of service. After months of technical investigations and meetings with the manufacturer (Caterpillar) and representatives of the insurance companies, it has been determined that the TBM that has remained idle since the storm will be repaired. The trailing gear, or rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) will be removed from the tunnel and transported to Toronto for repair and replacement, as necessary. At the same time, the TBM that remains in the tunnel will also be repaired, including replacement of the drive motor and electrical work. A detailed schedule from Caterpillar will be received shortly, and this information will be included in the next Update.

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

Ongoing work includes project mobilization and site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012 and was completed in early 2013.

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:

- 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
 - development of procedures for removal and disposal of a small section of pipe on Van Duzer Street, between St. Julian Place and Swan Street, that was identified as being asbestos-coated last month
 - completion of borings and continuation of design for modifications to the Staten Island starter trench
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main along Victory Boulevard, Murray Hulbert Avenue and Front Street, including:
 - installation of a section of the 60" pipe on Front Street, just south of Hannah Street; the remaining section of pipe, which will connect to the new siphon, will be installed at a future date
 - completion of construction of valve chambers on lower Victory Boulevard
 - resumption of work related to installation of the 60" water main on Victory Boulevard, between Bay Street and the Staten Island Railroad (SIR) tracks
 - continuation of work related to shutdown of Siphon #1 and installation of a 20" water main to connect the new siphon to a pump station on lower Victory Boulevard, adjacent to Lyons Pool
- Work at the Brooklyn Shaft site has been completed. There will be no further work at the site until shortly before the TBM approaches the shaft. The shaft site, as well as the overall work zone, remains fenced. (The shaft cover consists of seven timber mats, each comprised of five timbers (1' x 1' x 38') bolted together. Each mat weights approximately five tons and requires a crane to move it.)
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of BSL; 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
- Land piping work in Staten Island, including:
 - continuation of work related to installation of the 60" water main on Victory Boulevard (Bay Street – Murray Hulbert Avenue), Murray Hulbert Avenue and Front Street, including temporary street restoration
 - continuation of work related to the shutdown of Siphon #1. In preparation for the shutdown of Siphon #2, Siphon #1 will be temporarily reactivated (by May 15th); final shutdown of Siphon #1 will occur once the new siphon is activated.

NOTE: As stipulated by the City, work on Victory Boulevard will be suspended during the summer while the Lyons Pool is in operation. (The contractor expects to leave the site by the end of May.) Although the project team's goal had been to complete restoration of lower Victory Boulevard and Murray Hulbert Avenue before the summer hiatus, final street restoration has been delayed until removal of the oil tank at Lyons Pool has been

completed. This will preclude the need to repave lower Victory Boulevard twice (this Spring and following removal of the tank).

- Preparation for resumption of land piping activities in Brooklyn, including mobilization; activities related to shutdown of the existing 42" siphon (Siphon #2), which ties into the water distribution system at 86th Street; and work related to installation of water and sewer lines along Shore Road, between 86th and 83rd Streets.

NOTE: The Brooklyn Shaft site will be used as a staging area during the land piping work.

- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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

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Installation of 60" water main along Victory Boulevard (looking east from Bay Street)



Work related to installation of valve chambers on lower Victory Boulevard
(top and bottom photos)





Installation of 60" water main along Victory Boulevard
(looking west from Staten Island Railway tracks)



Installation of valve chamber on Victory Boulevard, east of Bay Street

June 2013 Update

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

The contractor is finishing land piping work in Staten Island in advance of the mandated summer work hiatus and has begun mobilization prior to resuming work along Shore Road in Brooklyn this summer. As indicated last month, the Tunnel Boring Machine (TBM) that has remained idle since last October's storm will be repaired. Work is underway to remove the trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) from the tunnel. The trailing gear will be transported to the manufacturer (Caterpillar) in Toronto for repair and parts replacement, as needed. Once the trailing gear has been removed, work will begin on repairing the section of TBM that remains in the tunnel. This will involve replacement of the drive motors, electrical work and general maintenance of the TBM within the confines of the 12' diameter tunnel. Based on the preliminary repair schedule, tunneling operations are anticipated to resume in early 2014.

Background Information

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Major components of the project include the following:

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- 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

Ongoing work includes project mobilization and site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and application for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012 and was completed in early 2013.

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:
 - 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
 - development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Swan Street
- Land piping work in Staten Island, including:
 - completion of work related to installation of the 60" water main along Victory Boulevard and Murray Hulbert Avenue, including construction of valve chambers
 - installation of a 12" water main along Victory Boulevard, between Bay Street and the Staten Island Railroad (SIR) tracks
 - initiation of installation of a sewer connection on Murray Hulbert Avenue (vicinity of Cromwell Center)
 - completion of work related to the shutdown of Siphon #1 (the existing 36" siphon), which was temporarily reactivated in preparation for the shutdown of Siphon #2 (the existing 42" siphon) on May 31st. Siphon #1 work involved testing, sampling and chlorination of the line prior to putting it back in service.

NOTE: As stipulated by the City, work on Victory Boulevard will be suspended during the summer while the Lyons Pool is in operation. Prior to leaving the site for the summer hiatus (no later than June 15th), the contractor will temporarily restore lower Victory Boulevard and Murray Hulbert Avenue. Construction will resume after Labor Day.

- Work at the Brooklyn Shaft site has been completed. The shaft site, as well as the overall work zone, remains fenced. (The shaft cover consists of seven timber mats, each comprised of five timbers (1' x 1' x 38') bolted together. Each mat weights approximately five tons and requires a crane to move it.)
- Preparation for resumption of land piping activities in Brooklyn, including mobilization; activities related to shutdown of Siphon #2, which ties into the water distribution system at 86th Street; and work related to installation of a new 72" water main along Shore Road, between 86th and 83rd Streets. The Brooklyn Shaft site will be used as a staging area during the land piping work.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of BSL; 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
- Land piping work in Staten Island, including:
 - installation of a section of 12" water main (approximately 100') along the north curb of lower Victory Boulevard
- Land piping work in Brooklyn, including:
 - activities related to shutdown of the existing 42" siphon (Siphon #2), which ties into the water distribution system at 86th Street

- initiation of installation of a 72" water main along Shore Road, between 86th and 83rd Streets, including excavation, placement of pipe and backfilling
- Preparatory work in support of construction of a receiving plug to support the walls once the TBM reaches the Brooklyn Shaft. This involves pumping out the shaft; repairing any leaks; and installing approximately 50' of sand, a reinforced cover and a ring beam.
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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:

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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 installation of 20" water main
on lower Victory Boulevard



Work related to installation of 12" water main along
north side of Victory Boulevard (at Bay Street)
(top and bottom photos)



July 2013 Update

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

The contractor resumed work along Shore Road in Brooklyn and has been finishing land piping work in Staten Island in advance of the mandated summer work hiatus on lower Victory Boulevard. As previously indicated, the Tunnel Boring Machine (TBM) that has remained idle since last October's storm will be repaired. The trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) has been removed from the tunnel. Repair of the trailing gear, as well as the section of the TBM that remains in the tunnel, will begin shortly. Based on the current repair schedule, tunneling operations are anticipated to resume in 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

Ongoing work includes site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; work at the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012 and was completed in early 2013.

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:
 - 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
 - development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Swan Street

- Land piping work in Staten Island, including:
 - completion of installation of a 12" water main along Victory Boulevard, between Bay Street and the Staten Island Railroad tracks
 - initiation of work related to construction of a valve chamber on the east side of Minthorne Street, just south of Victory Boulevard
 - installation of a section of 12" water main (approximately 100') along the north curb of lower Victory Boulevard
 - initiation of installation of a sewer connection on Murray Hulbert Avenue (vicinity of the Cromwell Center)

NOTE: As stipulated by the City, land piping work on lower Victory Boulevard has been suspended for the summer while the Lyons Pool is in operation. Lower Victory Boulevard and Murray Hulbert Avenue are being temporarily restored until construction resumes in the fall. Permanent restoration of the area is anticipated to occur in spring 2014.

- Work at the Brooklyn Shaft site will resume in July. This will include all required inspection and repair in preparation for construction of a receiving plug to support the walls once the TBM arrives at the site. For the duration of this work, additional fencing will be installed around the shaft, and crane mats (large timber mats bolted together) will be used to close the shaft each night.
- Resumption of land piping activities in Brooklyn, including:
 - activities related to the shutdown of Siphon #2, which ties into the water distribution system at 86th Street
 - initiation of installation of a new 72" water main along Shore Road, between 86th and 83rd Streets, including excavation, placement of pipe and backfilling (work began at 86th Street and is progressing north)

NOTE: The Brooklyn Shaft site is being used as a staging area during the land piping work.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of BSL; 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
- Land piping work in Staten Island, including continuation of work related to construction of a valve chamber on Minthorne Street
- Land piping work in Brooklyn, including:
 - completion of installation of a 72" water main along Shore Road, between 86th Street and Shore Road Lane, including excavation, placement of pipe and backfilling
 - initiation of installation of a 72" water main along Shore Road, between Shore Road Lane and 83rd Street, including excavation, placement of pipe and backfilling
 - work related to reconnection of an existing storm drain at Fort Hamilton High School
- Initiation of work in support of construction of a receiving plug at the Brooklyn Shaft. This work will involve pumping out the shaft; inspecting and repairing the joints and floor slab, as needed;

and constructing the plug, which will consist of sand, a slab and a support ring at the bottom of the shaft.

- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, residents of BSL, representatives of Fort Hamilton High School 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:

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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.



Sections of trailing gear removed from tunnel for repair
(top and bottom photos)





Work related to installation of 60" water main along Shore Road, between
86th Street and Shore Road Lane
(top and bottom photos)



August 2013 Update

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

As previously indicated, the Tunnel Boring Machine (TBM) that has remained idle since last October's storm will be repaired. The trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) has been removed from the tunnel and will be shipped off-site for repairs. The section of the TBM remaining in the tunnel will be repaired on-site beginning in early August. Based on the current repair schedule, tunneling operations are anticipated to resume in 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

Ongoing work includes site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. Construction began in August 2011, with work on the starter trench in Staten Island; construction of the Brooklyn shaft site, located in Shore Road Park (just south of 83rd Street, opposite Fort Hamilton High School), began in February 2012 and was completed in early 2013.

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:
 - 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
 - development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Swan Street

- Land piping work in Staten Island, including:
 - completion of work related to construction of a valve chamber on the east side of Minthorne Street, just south of Victory Boulevard
 - videotaping of a section of the 8" water main on Victory Boulevard, beneath the Staten Island Railroad tracks

NOTE: As stipulated by the City, land piping work on lower Victory Boulevard has been suspended for the summer while the Lyons Pool is in operation. Lower Victory Boulevard and Murray Hulbert Avenue have been temporarily restored until construction resumes in the fall. Permanent restoration of the area is anticipated to occur in spring 2014.

- Preliminary work in support of construction of a receiving plug at the Brooklyn Shaft site, including pumping out the shaft; inspecting and repairing the joints and floor slab; and activities related to finalizing construction of the plug. NOTE: For the duration of this work, additional fencing has been installed around the shaft and crane mats (large timber mats bolted together) are used to close the shaft each night.
- Continuation of land piping activities in Brooklyn, including:
 - continuation of installation of a new 72" water main along Shore Road, between 86th and 83rd Streets, including excavation, placement of pipe and backfilling (work began at 86th Street and is progressing north)
 - work related to reconnection of an existing storm drain at Fort Hamilton High School
 - initiation of construction of a valve chamber on Shore Road, just south of 83rd Street
NOTE: The Brooklyn Shaft site is being used as a staging area during the land piping work.
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing; 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
- Initiation of TBM repairs, including transporting the trailing gear to the factory for repair and repairing and replacing segments of the trailing gear and TBM that will remain in the tunnel
- Land piping work in Brooklyn, including completion of installation of the 72" water main along Shore Road, between 86th and 83rd Streets and temporary restoration of the area. Additional water and sewer lines along Shore Road, north of 83rd Street, will be installed in the future.
- Completion of work in support of construction of a receiving plug at the Brooklyn Shaft.
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of Fort Hamilton High School, 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

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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 installation of valve chamber on Minthorne Street, just south of Victory Boulevard



Work related to installation of 72" water main along Shore Road,
vicinity of Fort Hamilton High School
(top and bottom photos)



September 2013 Update

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

As previously indicated, the Tunnel Boring Machine (TBM) that has remained idle since last October's storm will be repaired. The trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) has been removed from the tunnel and shipped to Ohio for repairs. The section of the TBM remaining in the tunnel is being repaired on-site. Based on the current repair schedule, tunneling operations are anticipated to resume in 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

Ongoing work includes site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. 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 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:
 - 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
 - development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Swan Street

- Initiation of TBM repairs, including transport of the trailing gear to a factory in Ohio for repair, evaluation of the segments of the trailing gear and TBM that will remain in the tunnel and refurbishment of the equipment
- Completion of work in support of construction of a receiving plug at the Brooklyn Shaft site, including inspection and repair of the joints and floor slab and construction of the plug
- Continuation of land piping activities in Brooklyn, including:
 - completion of installation of a new 72" water main along Shore Road, between 86th and 83rd Streets, including excavation, placement of pipe, and backfilling
 - beginning of temporary restoration of the area
 - construction of two (2) valve chambers on Shore Road, just south of 83rd Street
- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Bay Street Landing; 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
- Continuation of TBM repairs (work is being performed on- and off-site)
- Completion of land piping activities in Brooklyn, including:
 - testing, flushing and chlorination of the newly installed 72" water main along Shore Road, between 86th and 83rd Streets
 - completion of temporary restoration of the area

Additional water and sewer lines along Shore Road, north of 83rd Street, will be installed in the future.
- Resumption of land piping work in Staten Island, including:
 - installation of water main in previously microtunneled area (December 2012) beneath the Staten Island Railway tracks and Bay Street (at Swan Street)
 - test pits on Van Duzer Street, between St. Julian Place and Hannah Street

NOTE: Although the majority of land piping work on lower Victory Boulevard and Murray Hulbert Avenue has been completed, some additional water and sewer work remains. (This work is anticipated to begin early next year.) Permanent restoration of the area is anticipated to occur in spring 2014.
- Continuation of community outreach program, including coordination and meetings with Staten Island Community Board #1, Brooklyn Community Board #10, representatives of Fort Hamilton High School, 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

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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 installation of 72" water main along Shore Road,
between 86th and 83rd Streets



Installation of valve chamber on Shore Road
(vicinity of Fort Hamilton High School)

October 2013 Update

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

As previously indicated, the Tunnel Boring Machine (TBM) that has remained idle since last October's storm is being repaired. The trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) has been removed from the tunnel and shipped to Ohio for repairs. The section of the TBM remaining in the tunnel is being repaired on-site. Based on the current repair schedule, tunneling operations are anticipated to resume in 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

Ongoing work includes site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. 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 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:
 - 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
 - development of procedures for removal and disposal of a section of asbestos-coated pipe on Van Duzer Street, between St. Julian Place and Swan Street
- Continuation of TBM repairs, including refurbishment of the trailing gear that was sent to the factory in Ohio and repair and cleaning of the equipment that remains in the tunnel
- Completion of land piping activities in Brooklyn, including testing, flushing, chlorination and activation of the newly installed 72" water main along Shore Road, between 86th and 83rd

Streets. **NOTE:** Additional water and sewer lines along Shore Road, north of 83rd Street, will be installed following arrival of the TBM in Brooklyn.

- Continuation of temporary restoration of Shore Road, between 86th Street and 83rd Street
- Resumption of land piping work in Staten Island, including:
 - preparation for installation of water main in area microtunneled in December 2012 beneath the Staten Island Railway tracks and Bay Street (at Swan Street)
 - repair of valve on Bay Street (at Victory Boulevard)

NOTE: Although the majority of land piping on lower Victory Boulevard and Murray Hulbert Avenue has been completed, some additional water and sewer work remains. (This work is expected to begin early next year.) Permanent restoration of the area is anticipated to occur in spring 2014.

- Community outreach activities, including coordination with Staten Island Community Board #1, Brooklyn Community Board #10 and representatives of Fort Hamilton High School and Bay Street Landing (BSL); 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 TBM repairs (work is being performed on- and off-site), including cleaning, painting of equipment and reinstallation of hoses and other components
- Completion of temporary restoration of Shore Road, between 86th and 83rd Streets
- Continuation of land piping work in Staten Island, including:
 - installation of water main in area microtunneled in December 2012 beneath the Staten Island Railway tracks and Bay Street (at Swan Street)
 - test pits on Van Duzer Street, between St. Julian Place and Hannah Street
 - completion of valve repair on Bay Street (at Victory Boulevard)
- 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:

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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 2013 Update

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

As previously indicated, the Tunnel Boring Machine (TBM) that has remained idle since the October 2012 storm is being repaired. The trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) is currently being repaired in Ohio with completed sections beginning to ship back to the site this month. The section of the TBM remaining in the tunnel is being repaired on-site. Based on the current repair schedule, tunneling operations are anticipated to resume in 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

Ongoing work includes site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. 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 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:
 - 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 Swan 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:
 - refurbishment of the trailing gear that was sent to the factory in Ohio; the first piece has been shipped to the site
 - repair and cleaning of the equipment that remains in the tunnel
 - initial reassembly of the TBM
- Completion of temporary restoration of Shore Road, between 86th and 83rd Streets
NOTE: Additional water and sewer lines along Shore Road, north of 83rd Street, will be installed following arrival of the TBM in Brooklyn. Permanent restoration of the area will follow.
- Continuation of land piping work in Staten Island, including:
 - completion of installation of water main in area microtunneled in December 2012 beneath the Staten Island Railway tracks and Bay Street (at Swan Street), including installation of pipe, welding and grouting
 - completion of valve repair on Bay Street (at Victory Boulevard)**NOTE:** Although the majority of land piping on lower Victory Boulevard and Murray Hulbert Avenue has been completed, some additional water and sewer work remains. (This work is expected to begin early next year.) Permanent restoration of the area is anticipated to occur in spring 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 November

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of TBM repairs, including:
 - cleaning, painting of equipment and reinstallation of hoses and other components
 - shipping of refurbished sections of the trailing gear to the site; all remaining pieces are scheduled to be on-site by mid-December
 - reassembly of the TBM
- Preparation for installation of TBM power supply, including delivery of equipment and work related to construction of concrete pad
- Continuation of land piping work in Staten Island, including:
 - test pits on Van Duzer Street, between St. Julian Place and Hannah Street
 - temporary restoration of the area on Bay Street (at Victory Boulevard) following valve repair; permanent restoration of Victory Boulevard, between Bay Street and the SIR tracks, is anticipated to occur in spring 2014

- 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

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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 2013 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. The trailing gear, the rear part of the TBM that houses essential equipment (electrical and guidance systems, motors, pumps, etc.) is currently being repaired in Ohio with some completed sections already shipped back to the site. The section of the TBM remaining in the tunnel continues to be repaired on site. 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

Ongoing work includes site preparation (Staten Island and Brooklyn), collection of baseline data (Staten Island and Brooklyn), coordination with ConEdison and National Grid regarding relocation of gas and electric lines, and applications for permits. 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 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:
 - 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 Swan 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:
 - cleaning, painting of equipment and reinstallation of hoses and other components
 - refurbishment of the trailing gear that was sent to the factory in Ohio
 - shipping of refurbished sections of the trailing gear to the site; all remaining pieces are scheduled to be on-site by mid-December
 - repair and cleaning of equipment that remains in the tunnel
 - reassembly of the TBM
- Preparation for installation of TBM power supply, including delivery of equipment and work related to construction of concrete pad
- Continuation of land piping work in Staten Island, including:
 - reopening of Van Duzer Street Extension following grouting and welding of water main in area microtunneled beneath the Staten Island Railway tracks (SIR) and Bay Street (at Swan Street)
 - temporary restoration of Bay Street (at Victory Boulevard) following valve repair; permanent restoration of Victory Boulevard, between Bay Street and the SIR tracks, is anticipated to occur in spring 2014
 - Relocation of utility pole on the south side of lower Victory Boulevard (in front of the entrance to Lyons Pool) by ConEdison
- 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 December

- Continuation of preparatory work (drawings, permit applications and other submittals) in support of land piping activities in Staten Island and Brooklyn
- Continuation of TBM repairs, including:
 - reinstallation of hoses, electrical system and other components
 - shipping of refurbished sections of the trailing gear to the site
 - reassembly of the TBM
 - initial repair and testing of the grout plant
- Continuation of preparation for installation of TBM power supply, including delivery of equipment and work related to construction of concrete pad
- Continuation of land piping work in Staten Island, including:
 - test pits on Van Duzer Street, between St. Julian Place and Hannah Street
- 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:

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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.