



Culmination of excavation works of the underwater tunnel of the Water Siphon Project between Brooklyn and Staten Island

OHL takes the first step to open the Port of New York to megavessel traffic

. Last January, OHL USA achieved a relevant milestone in the Water Siphon Project (water siphons between Brooklyn and Staten Island), which it is executing for the New York City Economic Development Corporation: completion of excavation works of the underwater tunnel foreseen in the project.

The tunnel, 3 km long, crosses the Bay of New York between the districts of Brooklyn and Staten Island. With its construction, OHL USA has completed the most complex phase in a key project for the city of New York, as it will improve drinking water supply to Staten Island and is the first step to open the Port of New York to megavessel traffic.

The depth at which the tunnel has been excavated, under the mouth of the Hudson River in the Atlantic, will enable local dredging to reach the necessary depth for the access of super post-panamax cargo vessels to the Port of New York, and to New Jersey. The piping along the tunnel will replace the two conducts that are currently supplying drinking water to Staten Island. As the conducts were located in very shallow waters, they prevented dredging and interfered with maritime traffic in the area.

Furthermore, OHL USA has completed a valuable construction milestone in this project. It has used a tunneling machine when executing the tunnel and, for the first time in the city of New York, it has used Earth Pressure Balance (EPB) technology, characterized by keeping at the front of the tunneling machine earth pressure equal to the one that would apply without tunnel excavation.

The project, which OHL USA is executing in a joint venture with the NY construction company Tully Construction, in addition to tunnel construction, includes entry and exit wells, supply and assembly of pipes, connection to existing water networks, both on the Brooklyn and Staten Island side, and the execution of a chlorination station.

Project phases

The tunnel has been constructed over four years, in three phases. The first, between 1 January 2011 and 29 October 2012, involved the design and construction of the tunneling machine and access wells. The second phase began on 30 October 2012 and ended on 13 April 2014. It was a result of the damage caused by Hurricane Sandy in NYC, on 29 October 2012. The third and final phase began on 14 April 2014 and ended on 24 January 2015. Tunnel excavation tasks recommenced, achieving an average monthly production rate of 15 rings a day.

Inside of the Water Siphon tunnel