



Eireann Quay - Dockwall Rehabilitation

Sheet Pile Wall

Toronto, ON

+ Project snapshot

- Reconstruction of an existing dockwall
- Part of a 6-phase development on the Bathurst Quay for the City of Toronto
- 100 pairs of SSP and Toe-pins

+ Project Description

This exciting project is part of the City of Toronto's development plan for improvements to the Bathurst Quay Neighbourhood. This first phase of work will include dockwall rehabilitation between the Billy Bishop Airport Terminal and the eastern limit of the existing dockwall as well as enhancements around Ireland Park.

Soletanche Bachy Canada (SB Canada) was awarded this project by the City of Toronto as the General Contractor. We worked closely with our Sub-Contractors; Barclay Construction, Somerville Construction and Trinity Custom Masonry for the successful completion of this project, in an economic and timely manner.

+ Geotechnical & Site Conditions

The lakebed consisted of 1-2 feet of overburden on top of bedrock. A notable challenge was encountering an unexpected 3m variation in bedrock elevation along the sheet pile wall.

Another unique condition to the project site was the the protection of the limestone ship monument as well as the Ireland Park Sculptures. These items were of significant sentimental and economic value to the local community.



Client
City of Toronto

SB Canada Personnel
Jeff Thomson, Leith Hossein, Murad Anani, Pat Axisa, Brian Davies

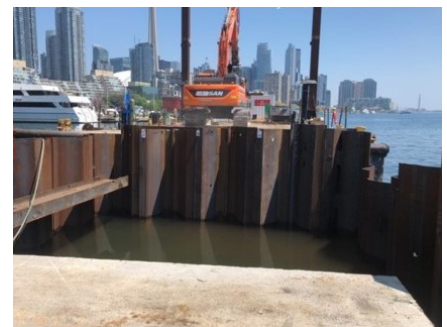
Consultant
WSP

Period of Work
October 2019 - December 2020

+ Innovative Solutions

To overcome the challenges faced in the presence of the 3m elevation change, SB Canada conducted a depth probing test along the entire dockwall to ensure that the remaining areas were of uniform depth. After determining the deeper locations, SB Canada made a design change to the sheet pile wall and utilized longer sheets. We also encountered an obstruction of metallic nature while drilling the toe pins. After unsuccessful drilling attempts using traditional drill bits, we fabricated our own carbide drill bit on site which managed to get through the metallic obstruction.

The sculpture protection system had to be designed by an engineer as per the contract requirements. SB Canada retained InGeo Design for this purpose. The design incorporated the use of steel casings that are traditionally used during the installation of caisson piles.





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