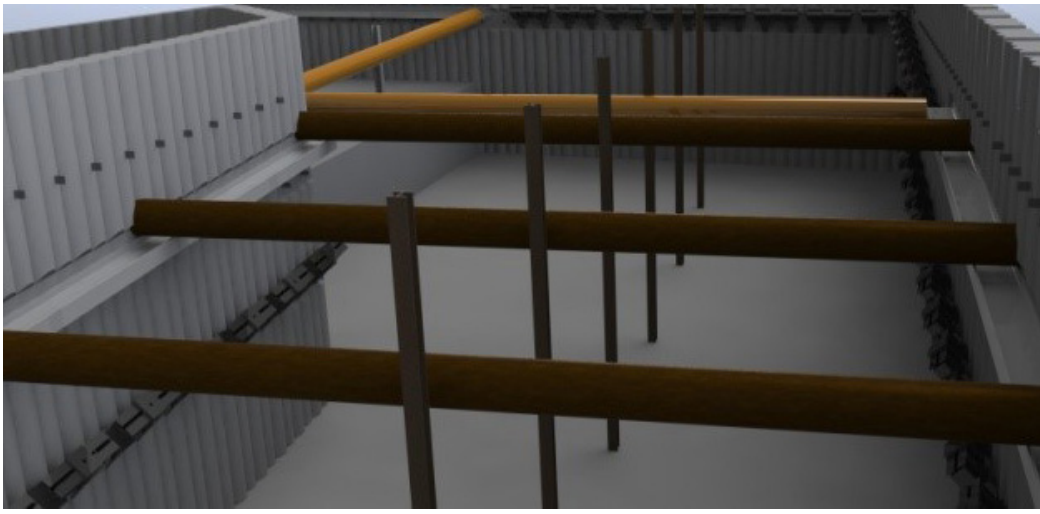
Eglinton LRT Launch Shaft

Piling

Hamilton, ON

Project snapshot

- One of North America's largest infrastructure projects
- LRT will run 19km's through the heart of Toronto
- 3 rigs ran simultaneously, 24 hours a day



Project description

The Eglinton Crosstown, one of North America's largest infrastructure projects, is a light rail transit line (LRT) that will run 19 kilometers through the heart of Toronto, in 2011, Kenaidan subcontracted Soletanche Bachy Canada (SB Canada) for the purpose of constructing caisson walls required for the West Launch shaft - the below ground entry point of multi-million dollar tunnel boring machine.

Site Conditions

A unique challenge of this project was the accuracy with which the deep caisson holes needed to be drilled in terms of verticality and location of the bottom of the hole to be measured at 5mm (less than 1/4 of an inch) precision. With drilling reaching a depth of 36m, this presented added difficulty to the project's scope.

Innovative solutions

In order to address the percise measurement requirements, SB Canada's Jon Brierley designed custom technology capable of delivering the required precise measurements. The new tool allowed SB Canada to monitor the verticality requirements within the strict parameters given. This technique has been added to SB Canada's wealth of practical construction solutions.

Owner
Toronto Transit Commission

Consultant
Aecom

General Contractor
Kenaidan Contracting

Bermingham Personnel
Todd Barlow

Period of work
2011 - 2013

A total of 305 caissons were drilled, ranging in size from 880 to 1300mm in diameter. These caissons were some of the deepest SB Canada had to date. With a range in depth from 20 to 36m, a total of 3 rigs ran simultaneously, 24 hours a day, during optimal production. With focus on precision and keen attention to detail, not only was the project a sucess, but it also estiblished a first for SB Canada.

SB Canada looks forward to continued growth in the area of precision drilling.