TerraCana Installs (312) 7" O.D. Helical Piles for 11-15 Story Multi-Use Buildings in Richmond, BC

July 2019

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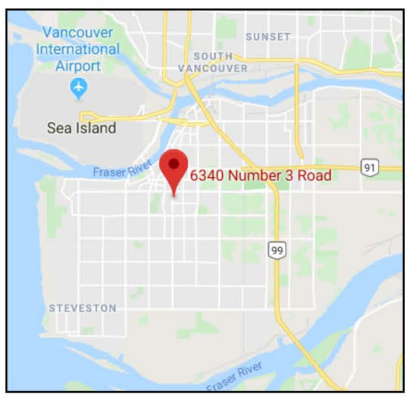
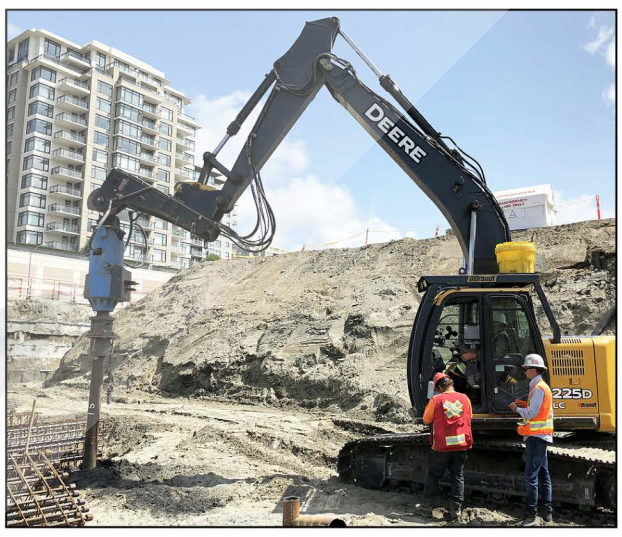


Project Name & Location:	Raft Slab Foundation - Richmond, British Columbia
Project Date:	July 2019
Project Type:	Buoyancy Support for Raft Slab Foundation
Helical Pile Installation Contractor:	**TerraCana Foundation Solutions -** Richmond, BC
Helical Piles Specifications:	(312) 7.00" O.D. Helical Anchors with (2) 24" Dia Helix Bearing Plates, Non-Galvanized; 150 KIP Ultimate Tension Capacity; 70,000 ft. lbs. Torque Measured with CTS Torque Pin
Soils & Embedment Depth:	Dense Clay with Random Fill Debris. Average 33 ft. Embedment Depth; Deepest 45 ft.
Project Timeline:	????
Helical Pile Manufacturer:	Manufactured by Inland Screw Piling

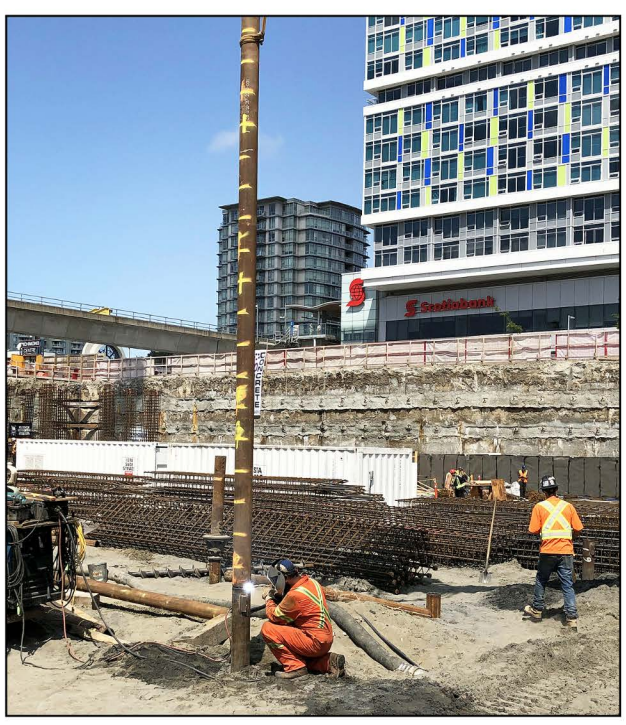
Project

A new development by Oriental Yuhong (Canada) Developments Ltd. proposed to build a commercial and residential multi-use mixed tower development at 6340 No. 3 Road in Richmond. A total of 4 11-15 story buildings are to be developed over top of 2 levels of underground parking. TerraCana and Rush Contracting decided to team up and provide a solution for the foundation requirements.



Challenges

The project site presented a few challenges. Previously, the site received stone columns to increase the soil density. So this meant that we had to install our anchors through the dense soils. As well as in some cases being installed directly through the stone columns. Another challenge faced was the level of the water table in Richmond, which created the challenge of bouyancy controls. Especially with the varying loads over the entire slab. Another challenge was coordinating work with the multiple other trades working inside of the excavation.



Solution

TerraCana was responsible for the design, testing, and installation of the tie down anchors. This resolved the buoyancy challenges and uneven loads over the raft slab. Additionally, we also conducted tests on 5% of all production piles. Our team has had extensive experience installing tie down anchors in soils with a large range of densities. Our foreman coordinated work with other contractors on site allowing him to complete installation 1 week ahead of schedule. The raft slab is now ready to support the new buildings.