



SmartStop Storage Facility

Etobicoke, Ontario

SmartStop Storage Facility in Etobicoke

Project Team

General Contractor
Maple Reinders

Structural Engineers
Tacoma Engineering

Geotechnical Engineer
Forward Engineering

Owner
Smart Centres partnered with
SmartStop

The Ground Improvement People™

Challenge

The SmartStop Self Storage project involved the construction of several 2-storey storage buildings with an upper layer of loose sand/silt fill soil along with intermittent organic soils found throughout the proposed site. Concerns over the risk of increased cost and schedule delays made over-excavation methods an inefficient solution to these challenging soils.

Solution

The project team selected the Geopier Impact® solution as the cost-effective answer for its overall performance and schedule surety

Outcome

The Geopier system was installed using a displacement mandrel and 30 tons of direct vertical crowd pressure augmented by vertical ramming energy to create stiff columns of compacted granular surrounded by improved soil. The unique vertical crowd and ramming energy of the Geopier installation method provided superior capacity and settlement control when compared to other aggregate-based reinforcement systems that rely solely on horizontal vibrations. For this project, the very loose-fill soils were reinforced to deliver an improved bearing capacity of 200 kPa at Serviceability Limit States (SLS).

Contact The Ground Improvement People®
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Email us at solutions@geosolv.ca

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