

Lockview CSO Tank St. Catharine's, Ontario

| Challenge

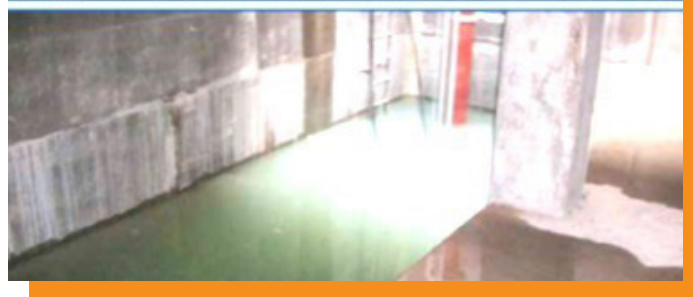
Support was required to a portion of a 2,500-cubic meter combined sewer overflow tank base where disturbed/soft soil conditions existed. The tank base area supported was 10 meters by 21.6 meters with overall tank dimensions of 21.6 meters by 46 meters. The tank base pressures ranged up to 175 kPa at 7m below grade. Subsurface conditions at the site consisted of +/- 4 meters of disturbed, soft and sensitive clay underlain by sandy silt till.

| Solution

The Geopier Rammed Aggregate Pier® system was recommended to support the portion of the tank where the disturbed/soft soils had been identified and to match the portion of the tank where settlement had occurred naturally in more competent clays. The installed Rammed Aggregate Pier® (RAP) elements ranged for up to 5 meters below the ground surface. The RAP elements were installed in caving soils and in limited working space within a very deep excavation.

| Outcome

The Geopier® system was instrumental in getting this project back on track after the client discovered the soft/disturbed soils during shoring and excavation works.



This close-quarters CSO tank with disturbed/soft soil was a significant challenge, one that GeoSolv remedied with ease and significant cost efficiencies

Geotechnical Engineer

Inspec-Sol Inc.

General Contractor

ROMAG Contracting Ltd.

Project Team

Owner

City of St. Catharine's

Architect

Akitt, Swanson + Pearce

Ground Improvement - Rigid Inclusions - Piling Systems - Slope Stability - Ground Reinforcement

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