



MAKING A GLOBAL IMPACT

Project Report

EQUIPMENT	RIC
LOCATION	Washington, DC
PURPOSE	Infrastructure Development



With the opening of its new 99,000 square foot facility, St. Coletta plans to be Washington DC’s leading education facility for children with mental retardation and autism.

Funded by a one million dollar grant by the Freddie Mac Foundation, the school was designed by world-renowned architect, Michael Graves, and will open during the fourth quarter of 2006

Poor fill soils and the proximity of the site near an existing Metrorail tunnel required the use of several ground improvement systems. Specifically, Geopier elements and Rapid Impact Compaction (RIC) were used to improve the strength of nonuniform fills, up to 22 feet in depth, with N values ranging from 5 to 87. Geopier elements were used to support column loads up to 280 kips, while Rapid Impact Compaction (RIC) was used to densify fill soils in-situ for floor slab support. In addition, helical micro-pulldown piles were used to resist uplift forces on footings located near a Metrorail tunnel.

The Geopier & RIC Advantage

- GeoStructures provide a comprehensive ground improvement solution by incorporating Geopier elements, RIC and Helical Micro-Pulldown Piles.
- The use of RIC allowed the floor slab to be supported economically and identified buried concrete foundations previously undiscovered
- The use of Helical Micropiles provided foundation support without adding stress to the Metro tunnel.

GENERAL CONTRACTOR	Whiting Turner Contracting Co.
OWNER	St. Coletta of Greater Washington
ARCHITECT	Michael Graves
STRUCTURAL ENGINEER	Desimone
GEOTECHNICAL ENGINEER	ECS, Ltd.

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