



Philadelphia, PA

Biddle Hall Annex and Townhomes



Project Description: This historical landmark located in the heart of Center City and University City in Philadelphia originally served as the first home of the U.S. Naval Academy and as the nation's first retirement home for sailors and marines. Toll Brothers is developing the Naval Square project site into up-scale condominium units close to Center City Philadelphia. The site is strewn with "historical" debris fills which required extensive undercutting and replacement.



To minimize the amount of over-excavation and to improve the bearing capacity of the supporting fills, Geopier Intermediate Foundation Support was utilized for the heavily loaded 7 ksf spread footings and Rapid Impact Compaction (RIC) for 4 ksf continuous wall footings. The required 4 ksf allowable bearing pressure was confirmed with post- RIC borings. Rapid Impact Compaction was selected to maintain a fast-track construction schedule and save approximately \$75,000 in ground improvement costs. RIC work was performed in April/May 2005.

THE RIC ADVANTAGE

- Maintain a Fast-Track Construction Schedule
- Provide Substantial Ground Improvement Cost Savings
- Minimize Noise and Vibration levels over conventional Deep Dynamic Compaction (DDC)

General Contractor: J.J. DeLuca Company Inc., Springfield, PA

Owner: Toll Brothers, Inc., Philadelphia, PA

Structural Engineer: Alliance, Vienna, VA

Geotechnical Engineer: Earth Engineering, Inc., East Norriton, PA

GeoStructures, Inc.
Engineered Earth Structures & Foundations

Corporate Office, 107 Loudoun St., S.E. • Leesburg, VA 20175 • 1-877-846-3165 • ehilberath@geostructures.com

Northeast Regional Office, East Greenville, PA 18041 • tele 215-679-3820 • mperlow@geostructures.com

Southeast Regional Office, Raleigh, NC • tele 919-557-9069 • nhothem@geostructures.com

www.geostructures.com