

# ***CUY-480-0.93 Noise Barrier Replacement*** ***Cuyahoga County, Ohio***

## ***Project Description***

Pro Geotech, Inc. (PGI) was retained by Burgess & Niple, Inc. to provide subsurface exploration services for the design and construction of the noise barrier replacement project in the vicinity of the I-480/Stearns Road Interchange in Cuyahoga County, Ohio. The project plan called for the design and construction of three separate noise barriers totaling approximately 7,950 feet in length and running along both sides of I-480. A total of 36 structural test borings were advanced across the project site to depths ranging from 20.0 to 25.0 feet for noise barrier foundation design purposes. All test borings were advanced in accordance with the ODOT Specifications for Subsurface Investigations. Groundwater conditions were monitored during and upon completion of the drilling operations. Numerous soil and rock samples were obtained for testing purposes. The laboratory testing program consisted of performing Unconfined Compressive Strength of Cohesive Soil, soil classification and engineering properties tests on selected soil samples, and classifying the soils in accordance with the ODOT Soil Classification System. The Noise Barrier foundation design was performed in accordance with the design procedure specified in the ODOT "Noise Barrier Details" plan insert sheets to determine the drilled shaft foundation depth. N-values obtained at depths of 5.0, 10.0, 15.0, 20.0, and 25.0 feet from the Standard Penetration Test were corrected for overburden pressure. PGI prepared a detailed subsurface exploration report which included, geology of the site, typed drilling logs and laboratory test results, recommendations and discussions pertaining to drilled shaft foundations, earthwork considerations, groundwater management, and construction monitoring. Also, prepared were soil profile drawing sheets in accordance with the ODOT Specifications.

**Client:**  
ODOT District 12  
Burgess & Niple, Inc.  
100 Erie Street  
Painesville, OH 44077

**Contact:**  
Mr. David Leake, PE  
(440) 354-9700

**Performance Period:**  
April to July 2007

**Project Costs:**  
\$85,832 (Fee)

**PGI's Role:**  
Subsurface Exploration  
Laboratory Testing  
Geotechnical Report

