

RESEARCH PROJECT: Rock Socketed Drilled Shafts in the Southeastern U.S.

Sponsor: ADSC: The International Association of **Foundation Drilling**

Sponsor References:

Bruce Long (Long Foundation 615-885-5664) Tony Marinucci, Ph.D., P.E. (ADSC 469-359-6000)





Project Highlights:

In order to improve design methods and cost-efficiency of rock-supported drilled shafts in the Southeastern U.S., the Southeast Chapter of ADSC has organized a research project that includes full scale load testing of drilled shafts in various rock formations typical of this region of the country. The objectives of this project are to determine actual performance characteristics of drilled shafts in conditions typical of the rock formations tested through a carefully performed and well documented load test program with reliable measurements and a very thorough site investigation. The tests are intended to measure the performance of drilled shafts in rock that is representative of the lower bound conditions that might be expected for foundations of this type.

Load tests have been conducted at two sites to date: Nashville, Tennessee and Lawrenceville, Georgia. The Nashville site was selected to provide data in hard limestone bearing strata. The Lawrenceville site was selected to provide data in the metamorphic rock formations found in the Piedmont geologic province.

The reports for each site present detailed descriptions of the geologic and geotechnical conditions, the results of the load tests, and recommendations for improving the efficiency of drilled shafts designed in the subject rock formations, including appropriate use of side resistance and adjustments to typical inspection criteria

Technical Publications:

Brown, D.A. (2009). "Load Testing of Drilled Shaft Foundations in Limestone, Nashville, TN", Report for ADSC Southeast Chapter, Feb. 2009.

Thompson, W.R., Brown, D.A., and Hudson, A.B. (2012). "Load Testing of Drilled Shaft Foundations in Piedmont Rock, Lawrenceville, GA, Report for ADSC Southeast Chapter, January, 2012.

Photo Credits: Dan Brown and Associates, PC.

