

Second Michael W. O'Neill Lecture – CIGMAT 2007

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Special Considerations for Construction of Large Drilled Shafts

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1:00 p.m. to 2:00 p.m. in the Waldroff Room, University
Hilton, University of Houston

Abstract

Improvements in construction equipment and techniques in recent years have made possible the use of drilled shaft foundations in diameters and lengths not previously considered practical or feasible. Many highway bridge and other structures are now routinely founded on drilled shafts which are 8 to 12 feet in diameter and extending over 200 feet in depth below grade. There are unique challenges associated with constructing such large and deep cast-in-place foundations and engineers should be aware of the special needs associated with site investigation, construction specifications, material requirements, and quality assurance. This paper outlines a number of special considerations for these foundations, along with strategies that may be employed to improve the reliability and quality of large drilled shaft foundations.



Dr. Dan Brown, Assoc. Professor of Civil Engineering, Auburn University, Alabama. He obtained his BSCE and MCE in Civil Engineering from Georgia Tech in 1976/77. After 5 years in practice in Louisiana, he obtained his Ph.D. from The University of Texas in 1985 under the direction of Professor Lymon Reese, with his dissertation work based on experiments with laterally loaded pile groups at the University of Houston. Dr. Mike O'Neill served on his Ph.D. committee and contributed to this research. Dr. Brown has become known for his work on deep foundation design and construction, and is currently working on an update to the FHWA Drilled Shaft Manual, previously co-authored by Mike O'Neill and Lymon Reese.

