DAN A. BROWN, P.E., Ph.D., D.GE

Senior Principal Engineer

Professional Experience

Joined DBA 2004
Faculty, Auburn University, Auburn, Alabama (1987-2009)
Geotechnical Consultant, Soil Testing Engineers, Baton Rouge, Louisiana (1977-1986)

Education

Ph.D., Civil Engineering, University of Texas, 1985
M.S., Civil Engineering, Georgia Institute of Technology, 1977
B.S., Civil Engineering, Georgia Institute of Technology, 1976

Professional Registration and Licensure

Licensed Professional Engineer in 34 states and the District of Columbia
Diplomate, Geotechnical Engineering – The Academy of Geo-Professionals

Fields of Expertise

Design, construction, and load testing of deep foundations, including specialty foundations
Design of deep foundations and pile groups for complex axial, lateral, and dynamic loading scenarios
Design and construction of post grouted drilled shafts
Slope stability and excavation stability analyses in soil and/or rock
Ground improvement techniques

Recent Major Projects

Gordie Howe Bridge, Detroit, MI to Windsor, ON. (2020) Served as owner's engineer on the foundation design, testing, and construction of a long span cable-stayed bridge across the Detroit River, founded on large diameter drilled shafts.

SR53 Bridge, Virginia, MN. (2017) Foundation design of long span bridge across an active iron mine in Northern Minnesota, founded on minipiles drilled through mine waste materials and embedded into hard rock.

Goethals Bridge – NY/NJ (2014) – Foundation design for P3 project delivery of new cable stayed bridge crossing the Arthur Kill for Port Authority of NY/NJ; pylons and approach piers supported on large diameter drilled shafts.

St. Croix River Bridge – Stillwater, MN (2013) – Foundation design for new extradosed bridge crossing the St. Croix River; pylons supported on groups of drilled shafts and other piers on driven steel pipe piles.

Sellwood Bridge – Portland, OR (2013) – Foundation design for new Willamette River crossing founded on large drilled shafts in highly variable rock conditions.

Gilmerton Bridge – Chesapeake, VA (2011) – Foundation design for new bridge crossing the S. Fork of the Elizabeth River, constructed with 12ft diameter drilled shafts in close proximity to existing bascule rail and highway bridges.

Hastings Mississippi River Bridge – Hastings, MN (2010) – Foundation design for new arch bridge river crossing including driven pipe piles, drilled shafts, and pile supported embankment.

New Mississippi River Bridge – St. Louis, MO (2009) – Foundation design via alternate technical concept (ATC) and load testing for a new cable-stayed bridge founded on large diameter drilled shafts socketed into Limestone bedrock.

I-15 Beck St. Bridge – Salt Lake City, UT (2009) – Lead geotechnical designer for bridge crossing, with large diameter drilled shaft foundations in liquefaction-prone area.

Christopher S. Bond Bridge - Kansas City, MO (2006) – Lead geotechnical designer for cable-stayed Missouri River crossing, with drilled shaft foundations socketed into rock.

Professional Memberships and Honors

American Society of Civil Engineers (ASCE) and Geo-Institute (GI) of the ASCE
- 2010 Martin Kapp Foundation Engineering Award
- 1995 Walter L. Huber Research Prize for: “deep foundations for bridges"
- Past Chair, Deep Foundations Committee

Deep Foundations Institute (DFI) – President and Trustee
- 2011 Distinguished Service Award

The Moles, an Association of Individuals Engaged in Heavy Construction

The Beavers, A Heavy Engineering Construction Association
- 2018 Golden Beaver Award for Engineering

ADSC: The International Association of Foundation Drilling
- 1994 Outstanding Service Award
- 1995 Honorary Technical Affiliate

Pile Driving Contractor’s Association (PDCA) - Honorary Member

Transportation Research Board (TRB)
- Committee on Foundations of Bridges and Other Structures

2012 Academy of Distinguished Alumni, Dept. of Civil Engineering, University of Texas

2009/10/11 Instructor of Excellence Award, National Highway Institute

2015 Lymon C. Reese Lecture, University of Texas

2012 Osterberg Lecture, DFI

2007 Mike O’Neill Lecture at University of Houston

2005 Converse-Ware Lecture at New Jersey Institute of Technology

1998 Recipient of the Auburn University Gottlieb Professorship

Selected Peer- Reviewed Publications and Presentations

Brown, D., Wulleman, T and Battieu, M. 2016. “A Comparison of Design Practice of Bored Piles / Drilled Shafts between Europe and North America”, DFI Journal – The Journal of the Deep Foundations Institute, 10:2, 54-63.

Brown, D., and Thompson, W.R., 2015. “NCHRP Synthesis 478, Design and Load Testing of Large Diameter Open-Ended Driven Piles”, Transportation Research Board, National Academies, Washington, D.C., 136p.

Brown, D., and Saye, S., 2013. “Effective Practices for Geotechnical Information in Design-Build,” Invited presentation to the Design-Build Institute Annual Conference, Design-Build in Transportation, Orlando.

Brown, D., 2012. “Recent Advances in the Selection and Use of Drilled Foundations,” Invited State-of-the-Practice Lecture, Geotechnical Special Publication No. 226, ASCE, pp519-548.

Brown, D., 2012. “Factors Affecting the Selection and Use of Drilled Shafts for Transportation Infrastructure,” Proceedings of Geo-Construction Conference, ADSC Expo2012, San Antonio, pp. 25-36.

Brown, D.A., Axtell, P.J., and Kelley, J. (2011) “The Alternate Technical Concept Process for Foundations at the New Mississippi River Bridge, St. Louis,” *Proceedings: Deep Foundations Institute 36th Annual Conference*, pp. 171-177.

Brown, D. and Thompson, R. 2011. “NCHRP Project 20-5, Synthesis Topic 41-10, Developing Production Pile Driving Criteria from Test Pile Data,” Report to the National Cooperative Highway Research Program, 145p.

Brown, D., Turner, J., and Castelli, R. (2010). “Drilled Shafts: Construction Procedures and LRFD Design Methods,” FHWA/NHI Publication 10-016, Reference Manual and Participants Guide for NHI Course 132014, 972p.

Brown, D., Faust, P., and Santos, J. (2010). “Construction of the Drilled Shaft Foundations for the Huey P. Long Mississippi River Bridge, New Orleans,” Proceedings of the Deep Foundation Inst. 35th Annual Meeting, Hollywood, CA, 8p.

Brown, D. (2010). “Constructability Considerations in the Selection and Design of Drilled Shafts for Bridges.” Proc, 7th Int’l Bridge Conf, Transportation Research Board, San Antonio, TX, 8p.

Brown, D. (2009). “Management of Risk in Deep Foundations with Design-Build.” Invited keynote lecture, Int’l Foundations Congress, Orlando and GSP 185, ASCE, p 1-11.