



BARRY J. MEYER, P.E.
Senior Principal Engineer



Professional Experience

Joined DBA 2012

Total years of experience: 42

Principal Geotechnical Engineer, HDR Engineering, Tampa, FL (1999-2012)

Principal Geotechnical Engineer, Law Engineering (Leroy Crandall), Los Angeles, CA (1989-1999)

Senior Engineer, Leighton and Associates, Irvine, CA (1987-1989)

Project Engineer, Marathon Oil, Houston, TX (1984-1987)

Project Engineer, McClelland Engineering, Houston, TX (1978-1984)

Education

M.S., Civil Engineering, University of Texas, 1978

B.S., Civil Engineering, Tulane University, 1976

Professional Licensure and Certifications

Licensed Professional Engineer in Alaska, Arizona, Florida, Hawaii, Louisiana, Maryland, and Texas

Fields of Expertise

Design, construction, and load testing of deep foundations

Seismic analysis and design of deep foundations

Ground improvement to mitigate seismic hazards and improve soft ground

Slope stability analysis and stabilization

Design and construction of levees and earthen dam embankments

Geotechnical site investigation and soil/rock characterization

Major Projects

US 231 Emergency Slide Repair – Morgan County, AL (2020) – Senior Principal Engineer assisting in the design for emergency landslide repair on major US route south of Huntsville, Alabama. Designed rock-socketed drilled shaft foundations for a bridge to replace almost 1000 feet of roadway that was lost. Evaluated the cause of the slide and several alternate repair solutions that included considerations of cost, complexity, and schedule impacts in order to determine the preferred solution to re-open the major route quickly while providing a permanent solution that would remain in service after future slope movements. A robust instrumentation system was designed and installed to monitor the drilled shafts and the slope to provide data for evaluating structure safety for future slides.

Purple Line Light Rail Transit System, – Montgomery County, MD (2020) – The Purple Line is a 16-mile light rail line that will extend from Bethesda in Montgomery County to New Carrollton in Prince George's County. The project consists of 36 bridges and underpass structures with a variety of foundation systems founded on soil and rock.

Pawleys Swamp Bridge – Horry County, SC (2015) – Design of ground improvement system to mitigate soil liquefaction and stabilize bridge approach embankments. Stone columns were utilized to both mitigate soil liquefaction and strengthen the soil to achieve the required slope stability.

El Segundo Segment of the Norwalk-El Segundo Metro Green Line, for the Los Angeles County Transportation Commission – Los Angeles County, CA (1997) – Provided geotechnical engineering services for design and construction of the proposed alignment, including approximately two miles of elevated guideways, bridge abutments, and some at-grade alignment. Recommendations were also provided for the construction of five stations and a yard and shop area near the south end of the alignment.

H-3 Windward Viaduct Haiku Valley – Oahu, HI (1992) – Principal Geotechnical Engineer for the 1.3-mile elevated interstate system located on the north side of Oahu Island. Redesign of the foundation system from driven piles to drilled shafts in the highly variable residual soil and volcanic rock. This was the first time high capacity drilled shafts were used in Hawaii.

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Riyadh Metro System – Saudi Arabia (2015) – Preliminary design of single drilled shaft foundations for the elevated light-rail guide way. The transit system consists of over 175 km of lines throughout the Riyadh metropolitan area of which 70 km will be elevated.

Sheikh Jaber Al Ahmed Al Sabah Causeway – Kuwait (2011) – Design of large-diameter driven cylinder piles in soft ground for a design-bid proposal for a causeway over Kuwait Bay.

Santa Catarina Cable Stayed Bridge (Puente de la Unidad) – Monterey, Mexico (2005)– Design of a large mat foundation on conglomerate to support a cantilever spar cable-stayed bridge over the Santa Catarina River.

Bang Na-Bang Pli-Bang Pakong Expressway – Bangkok, Thailand (1996) – Consultant for the design and construction of driven spun-cast concrete pile foundations for support of one of the longest elevated viaducts in the world. Downdrag loads from the Bangkok clay was a significant design consideration.

Vancouver Skytrain Millennium Line – Vancouver, Canada (1995) – Consultant for the redesign of foundation system from driven pile groups to single 3.0-m drilled shafts. Single foundation supports were specially challenging because of the high lateral loads and poor ground conditions.

Confederation Bridge between New Brunswick and Prince Edward Island – NB/PE, Canada (1995) – Design of bridge foundations consisting of a circular array of battered drilled shafts socketed into sandstone.

Purple Line Light Rail Transit System, – Montgomery County, MD (2020) – The Purple Line is a 16-mile light rail line that will extend from Bethesda in Montgomery County to New Carrollton in Prince George's County. The project consists of 36 bridges and underpass structures with a variety of foundation systems founded on soil and rock.

Professional Memberships

Deep Foundation Institute (DFI)
American Society of Civil Engineers (ASCE)
Association of Drilled Shaft Contractors

Selected Publications and Presentations

Meyer, B.J., and Schade, P. R. (1996). "Drilled Shaft Load Testing - Los Angeles Coliseum," *Proceedings of Structures Congress XIV*, ASCE, Reston, VA, pp. 574.

Meyer, B.J., and Schade, P. R. (1995). "Touchdown for the O-Cell," *Civil Engineering*, Vol. 65, No. 2, pp. 57-59.

Young, J.A.G., Remmes, B.D., and Meyer, B.J. (1984). "Foundation Performance of Offshore Jack-Up Drilling Rigs," *Journal of Geotechnical Engineering*, Vol. 110, No. 7.

Briaud, J.L., and Meyer, B. (1983). "In Situ Tests and Their Application in Offshore Design," *Proceedings of the Conference on Geotechnical Practice in Offshore Engineering, Geotechnical Engineering Division of the American Society of Civil Engineers*, University of Texas at Austin, April 1983, pp. 244-266.

Briaud, J.L., Smith, T.D., and Meyer, B. J. (1983). "Using the Pressuremeter Curve to Design Laterally Loaded Pile," *Proceedings of the Offshore Technology Conference*, Houston, Texas, May 1983.

Briaud, J.L., Smith, T., and Meyer, B. (1983). "Laterally Loaded Piles and the Pressuremeter: Comparison of Existing Methods," *Laterally Loaded Deep Foundations: Analysis and Performance*, Special Technical Publication 835, ASTM International, West Conshohocken, PA, pp. 97-111.

Meyer, B.J. (1979). "Analysis of Single Piles Under Lateral Loading," Center for Transportation Research No. 244-1, for Project 3-5-78-244, Bureau of engineering Research, University of Texas at Austin.