J. ERIK LOEHR, Ph.D., P.E.
Senior Principal Engineer

Professional Experience

Joined DBA 2005
Total years of experience: 31
Faculty, The University of Missouri, Columbia, Missouri (1998-Present)
Field Engineer, Superconducting Supercollider Site, Waxahachie, Texas (1992-1993)
Assistant Estimator, Coffee Excavation, Inc., Buda, Texas (1989-1990)

Education

Ph.D., Civil Engineering, University of Texas, 1998
M.S., Civil Engineering, University of Texas, 1993
B.S., Civil Engineering, University of Texas, 1990

Professional Licensure and Certifications

Licensed Professional Engineer in Missouri

Fields of Expertise

Design analysis and construction of deep foundations, including specialty foundations
Earth retention systems design and construction
Complex slope stability and excavation stability analyses in soil and/or rock.
Analysis of slope stability involving deep foundations
Geotechnical assessment of earth dams
Reliability analysis for site characterization and design
Remote sensing for assessing performance of geotechnical features

Major Projects

Slope Stabilization for Reconstruction of I-90 Bridges – Bonner, MT (2018) – Analysis and design of remedial measures to improve stability of embankment slopes as part of design-build bridge reconstruction.

Sheet Pile Stabilization of River Bank Slide – Louisville, KY (2015) – Oversight, guidance, and technical review for design of sheet pile stabilization measures for river bank terminal facility on Ohio River.

Numerical Analyses for Design of Shallow Foundations for Wind Turbine Structures – Grant County, KS (2013) – finite element stress-deformation analyses for 50-ft diameter "gravity base" foundation for wind turbine structures under normal and abnormal loading conditions.

Staged Construction of Bridge Approach Embankment – St. Louis, MO (2012) – forensic investigation of MSE Wall movements and remedial design of staged construction sequence for 50-ft high approach embankment for New Mississippi River Bridge.

Micropile Stabilization for Union Pacific Railroad – Hermann, MO (2009) – Designer of stabilization measures for unstable bank slope along the Missouri River.

Independent Assessment of Wolf Creek Dam – Russell County, KY (2008) – Service on Independent Review Panel to assess condition of Wolf Creek Dam as part of ongoing and planned remedial work.

Professional Memberships

American Society of Civil Engineers and Geo-Institute (former Chair of Embankments, Dams, and Slope Committee)
Deep Foundations Institute (Trustee; former Chair of Committee on Deep Foundations for Landslides/Slopes)
Transportation Research Board
International Society of Soil Mechanics and Geotechnical Engineering

ASCE Geo-Institute Harry Schnabel Jr. Award for Career Excellence in Earth Retaining Structures, 2019
Fellow, American Society of Civil Engineers, 2017
K.B. Woods Award for Outstanding Paper in Design and Construction, Transportation Research Board, 2015
Innovative Researcher Achievement Award, Missouri Department of Transportation, 2011
Outstanding Service Award – ADSC: The International Association of Foundation Drilling, 2010
National Science Foundation CAREER Award, 2001

Selected Publications and Presentations

Ding, D., and J.E. Loehr (2019). "Variability and Bias in Undrained Shear Strength from Different Sampling and Testing Methods," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 145, No. 10. https://doi.org/10.1061/(ASCE)GT.1943-5606.0002121

Gomez, F., B.L. Rosenblad, J.E. Loehr, and B. Lowry (2019). "Long-term Monitoring of a Slow Moving Landslide before and after Remediation using Ground-Based Radar Interferometry," *Geo-Characterization and Modeling for Sustainability, Proceedings of the 2019 Geo-Congress*, ASCE.

Loehr, J.E., D. Ding, and W.J. Likos (2015). "Effect of Number of Soil Strength Measurements on Reliability of Spread Footing Designs," *Transportation Research Record: Journal of the Transportation Research Board*, TRR No. 2511, Transportation Research Board, pp. 37-44. http://dx.doi.org/10.3141/2511-05 (2015 K.B. Woods Award)

Orton, S.L., J.E. Loehr, A.Z. Boeckmann, and G. Havens (2015). "Live Load Effect in Reinforced Concrete Box Culverts Under Soil Fill," *Journal of Bridge Engineering*, ASCE, Vol. 20, No. 11, http://dx.doi.org/10.1061/(ASCE)BE.1943-5592.0000745.

Loehr, J.E., J.J. Bowders, B.L. Rosenblad, R. Luna, N. Maerz, R.W. Stephenson, W.J. Likos, and L. Ge (2013). "Implementation of LRFD Methods to Quantify Value of Site Characterization Activities," *Proceedings of the XVIII International Conference on Soil Mechanics and Geotechnical Engineering*, September, Paris, France, pp. 1831-1834.

Loehr, J.E., and D. Huaco (2009). "Probabilistic Calibration of Resistance Factors for Slope Stability," *Contemporary Topics in In Situ Testing*, Analysis, and Reliability of Foundations, Proceedings of the 2009 International Foundation Congress and Equipment Expo, ASCE, GSP 186, pp. 466-473.

Boeckmann, A.Z., and J.E. Loehr (2007). "Load Transfer in Flexible and Stiff Piles for Landslide Stabilization from Large Scale Physical Models," *Proceedings of the 1st North American Landslide Conference*, Vail, Colorado, AEG Special Publication No. 23, pp. 1195-1204.

Brown, D.A., and J.E. Loehr (2007). "A simple solution for slope stabilization using micropiles," *Proceedings of the 32nd Annual Conference on Deep Foundations*, Deep Foundations Institute, Colorado Springs, Colorado, October 11-13, 2007, pp. 93-104.

Loehr, J.E., B.F. McCoy, and S.G. Wright (2004). "Quasi 3-D Method for Slope Stability Analysis of General Sliding Bodies," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 130, No. 6, pp. 551-560.

Sanford Bernhardt, K.L., J.E. Loehr, and D. Huaco (2003). "An Asset Management Framework for Geotechnical Infrastructure," *Journal of Infrastructure Systems*, ASCE, Vol. 9, No. 3, pp. 107-116.