J. Brian Anderson, Ph.D., P.E.

Associate Professor, Civil and Environmental Engineering Department Auburn University 238 Harbert Engineering Center, mailing 211 Ramsay Hall, office Auburn, AL 36849

EDUCATION

Ph.D. Civil Engineering, University of Florida, 2001

Advisor: Frank C. Townsend

Dissertation: Finite Element Modeling of Florida Soil with the PENCEL Pressuremeter

M.E. Civil Engineering, University of Florida, 1997

Advisor: Frank C. Townsend

Thesis: A Laterally Loaded Pile Database

B.S. Cum Laude, Civil Engineering, North Carolina State University, 1995

Concentration: Geotechnical and Construction Engineering

ACADEMIC EXPERIENCE

- 2010 pres. Associate Professor Department of Civil and Environmental Engineering Auburn University, Auburn, AL.
- 2007 2009 Associate Professor. Department of Civil and Environmental Engineering, University of North Carolina Charlotte, Charlotte, NC.
- 2002 2007 Assistant Professor. Department of Civil and Environmental Engineering, University of North Carolina Charlotte, Charlotte, NC.
- 2001 2002 Post-Doctoral Research Associate. Department of Civil and Coastal Engineering, University of Florida, Gainesville, Florida.

OTHER PROFESSIONAL EXPERIENCE

- 2011 pres. Vice President, Anderson Burrage Inc. Concord, NC. Land development and geotechnical engineering.
- 2005 2009 University of North Carolina at Charlotte Department of Continuing Education, Instructor, Professional Engineering Examination Review.
- 2000 2002 University of Florida Department of Continuing Education, Instructor. Deep Foundations Analysis, Design, and Testing.

- 1998 pres. Consultant. Provide pressuremeter and dilatometer testing expertise and training to geotechnical engineers. Aid engineers in reducing all types of geotechnical field data. Also provide support for geotechnical software to engineering firms. Assist consultants with foundation and retaining structure design. Representative projects:
- 1998 2001 Department of Civil and Coastal Engineering, University of Florida, Laboratory Instructor. Insitu Measurement of Soil Properties.
- 1996 2001 Department of Civil and Coastal Engineering, University of Florida, Gainesville, Florida. Graduate Research Assistant.
- 1995 1996 Department of Civil Engineering, North Carolina State University, Graduate Teaching Assistant.
- 1994 1995 North Carolina Department of Transportation, Engineering Assistant.

PROFESSIONAL SOCIETIES

- AL/ASCE Montgomery Branch
- NC/ASCE Southern Branch
- ASCE GeoInstitute
- USUCGER U. S. Universities Council on Geotechnical Education and Research
- ISSMGE International Society of Soil Mechanics and Geotechnical Engineering
- Member, ADSC, The International Society for Foundation Drilling
- Member, PDCA, The Pile Driving Contractors Association
- Member, DFI, The Deep Foundations Institute
- Member, Chi Epsilon Auburn University Faculty Advisor
- Member, Tau Beta Pi
- Order of the Engineer

PROFESSIONAL CERTIFICATION

• Professional Engineer, North Carolina, since 2005, License Number 030994.

HONORS, DISTINCTIONS, PROFESSIONAL ACTIVITIES

- Chi Epsilon, National Civil Engineering Honor Society, Cumberland District Chapter Advisor of the Year, 2009-2010.
- John H. Maxheim Faculty Fellowship College of Engineering, University of North Carolina at Charlotte 2007-2008.

B. Research | Creative Work

1. Books edited.

- 4. <u>IFCEE2015: Proceedings of the International Foundations Congress and Equipment Expo</u>, March 17-21, 2015, M. Iskander, M.T. Suleiman, **J. B. Anderson**, and D. F. Laefer, eds. ASCE GSP No. 256.
- 3. <u>The Art of Foundation Engineering Practice</u>, M.H. Hussein, **J.B. Anderson**, and W.M. Camp eds., ASCE GSP 198, Reston, VA, 2010.
- 2. <u>Flat Dilatometer Testing:</u> Proceedings from the Second International Conference on the Flat Dilatometer, R.A. Failmezger and **J.B. Anderson** eds. Washington D.C., 2006.
- Contemporary Issues in Foundation Engineering: Proceedings of Sessions of the Geo-Frontiers 2005 Congress, J.B. Anderson, K.K. Phoon, L.Smith, and J. E. Loehr, eds. ASCE GSP No. 131., Reston, VA, 2005.

2. Article-length publications.

Note: 1. * indicates student contributions.

- 2. The order of authors generally reflects the relative contribution of each author in descending order.
- 3. Percent contribution shown after my name reflects my best estimate of my contribution which includes intellectual ideas and design, actual work performed, preparation of the manuscript, and resources provided.

Refereed journals:

- 19. Xuan, M., Montgomery, J., Kennedy, L.P., **Anderson, J.B.** [15%], and Jackson, D.T. (2020). "Shear Strength Determination of Expansive Clay Along Alabama Highway 5 through Ring Shear Testing." Transportation Research Board, submitted.
- 18. Aguilar, V.*, Stallings, J.M., **Anderson, J.B.**, [30%], and Nowak, A. (2020). "History of Transition from ASD to LRFD and Beyond." Transportation Research Board, under review.
- 17. Aguilar, V.*, Stallings, J.M., **Anderson, J.B., [30%]**, and Nowak, A. (2020). "Safety Factor for Drilled Shaft Foundations Subjected to Wind-induced Torsion." DFI Journal, In press.
- 16. Burrage, R.E.* and **Anderson, J.B., [50%],** (2019). "Unsaturated behavior of excavations in residual soil at the Auburn University National Geotechnical Experimentation Site." AIMS Geosciences 5 (4).
- 15. **Anderson, J.B., [50%],** Montgomery, J., Jackson, D.T.*, Kiernan, M.J.* and Shi, C.* (2019). "Auburn University National Geotechnical Experimentation Site in Piedmont Residuum." AIMS Geosciences 5 (3).
- 14. Aguilar, V.*, Stallings, J.M., **Anderson, J.B., [30%],** and Nowak, A. (2019). "Torsional Resistance of Drilled Shaft Foundations: A State of The Art." DFI Journal, 8 (2).
- 13. Aguilar, V.*, Stallings, J.M., **Anderson, J.B., [30%],** and Nowak, A. (2019). "Simplified Method for Laterally Loaded Short Piles in Cohesionless Soil." Transportation Research Record 2627(2).

- 12. Voitenko, P.* and **Anderson J.B., [50%],** (2017). "FEM Based Analysis of Wing Wall to Culvert Connection." Builder Vol 21.
- 11. Marshall, J.D., **Anderson, J.B., [30%],** Meadows, R.L*., Jensen, T.J.*, "Full Scale Testing of Three Sided Precast Concrete Arch Sections." Journal of Bridge Engineering, ASCE, in press. **DOI:** 10.1061/(ASCE)BE.1943-5592.0000630
- 10. Honeycutt, J.N.*, Kiser, S.E., and **Anderson, J.B. [50%]** "Database Evaluation of Energy Transfer for Central Mine Equipment Automatic Hammer Standard Penetration Tests." Journal of Geotechnical and Geoenvironmental Engineering, Vol. 140, No. 1, January 2014, pp. 194-200. **DOI:** 10.1061/(ASCE)GT.1943-5606.0000988
- 9. Bowers, B.F. *, Daniels, J.L., and **Anderson, J.B., [30%]** "Field Considerations for Calcium Chloride Modification of Soil-Cement" Journal of Materials in Civil Engineering, Vol. 26, No. 1, January 2014, pp. 65-70. **DOI:** 10.1061/(ASCE)MT.1943-5533.0000780
- 8. **Anderson, J.B. [80%]** and Babalola, M.R.*, 2011. Lateral load testing micropiles to evaluate the impact of threaded joints and casing embedment on short micropiles in shallow rock, DFI Journal, Vol. 5, No. 2. December. **ISSN:** 1937-5247
- 7. Burrage, R.E.* **Anderson, J.B. [40%]**, Pando, M.A., Ogunro, V.O., and Cottingham, M.A.*, 2011. A cost effective triaxial test method for unsaturated soils, ASTM Geotechnical Testing Journal, Vol. 35, No. 1. January. **DOI:** 10.1520/GTJ103600
- 6. Amburgey, J.E. and **Anderson, J.B., [40%]** 2011. Disposable swim diaper retention of cryptosporidiumsized particles on human subjects in a recreational water setting, Journal of Water and Health, Vol. 09, No. 4. **DOI:** 10.2166/wh.2011.063
- 5. **Anderson, J.B. [80%],** Townsend, F.C., and Rahelison, L., "Load Testing and Settlement Prediction of a Shallow Foundation", ASCE Journal of Geotechnical and Geoenvironmental Engineering. ASCE, Vol. 133, No. 12, 2007.
- 4. **Anderson, J. B. [75%],** Townsend, F. C., and Grajales, B., "Case Histories Evaluation of Laterally Loaded Piles," <u>Journal of Geotechnical and Geoenvironmental Engineering</u>, ASCE, Vol. 129, No. 3, pp 187-196, 2003.
- 3. **Anderson, J. B. [75%]** and Townsend, F. C., "SPT and CPT Testing for Evaluating Lateral Loading of Deep Foundations," <u>Journal of Geotechnical and Geoenvironmental Engineering</u>, ASCE, Vol. 127, No. 11, pp 920-925, 2001.
- 2. Hand, R., Bloomquist, D. G., and **Anderson, J. B. [50%]**, "Development of a Cemented Sand Module for the Electronic Cone Penetrometer," <u>Transportation Research Record</u> 1675, TRB, National Research Council, Washington, D.C., pp 10-16, 1999.

1. Pinto, P. L., **Anderson, J. B. [40%]**, and Townsend, F. C., "Comparison of Horizontal Load Transfer Curves From Strain Gages and Slope Inclinometer: A Case Study," <u>Symposium on Field Instrumentation for Soil and Rock</u>, *ASTM STP 1358*, G.N. Durham and W.A. Marr, Eds., American Society for Testing and Materials, pp 3-15, 1999.

Refereed conference proceedings:

- 25. Hogan, R.J.*, Pirando, R.X., **Anderson, J.B. [20%],** and Montgomery, J., "Construction and Monitoring of Alabama's First Geosynthetic Reinforced Soil–Integrated Bridge System." Proc. Eighth International Conference on Case Histories in Geotechnical Engineering, Philadelphia, PA, GSP 306, ASCE GeoInstitute, March 24-27, 2019.
- 24. Tamang, S. K.*, Song, W.*, Fang, X., Vasconcelos, J.G., and **Anderson, J.B. [10%],** "Framework for Quantifying Flow and Sediment Yield to Diagnose and Solve the Aggradation Problem of an Ungauged Catchment." Proc. International Association of Hydrological Sciences; Gottingen, Germany, Vol. 379.
- 23. Stallings, E.G.*, **Anderson, J.B. [30%]**, and Jackson, D.T.*, "Swelling Properties of Expansive Clays from the Mooreville Chalk Formation in Perry County, Alabama." Proc. 7th International Conference on Unsaturated Soils, Hong Kong, August 3-5, 2018.
- 22. Marshall, J.D., **Anderson, J.B. [40%],** Campbell, J.*, and Skinner, Z.C.*, "Weak Axis Lateral Load Testing of a Four H Pile Bent." Proc. International Foundations Congress and Equipment Expo, Orlando, FL, GSP 256, ASCE GeoInstitute, March 5-10, 2018.
- 21. Jackson, D.T.*, Jones, D.T.*, and **Anderson, J.B. [40%],** "Instrumentation and Monitoring of Distress Remediation Strategies at Alabama Highway 5." Proc. International Foundations Congress and Equipment Expo, Orlando, FL, GSP 256, ASCE GeoInstitute, March 5-10, 2018.
- 20. Montgomery, J., Chao, S.*, and **Anderson, J.B. [20%],** "An Updated Database for the Spring Villa National Geotechnical Experimentation Site" Proc. International Foundations Congress and Equipment Expo, Orlando, FL, GSP 256, ASCE GeoInstitute, March 5-10, 2018.
- 19. Morales-Velez, A.C.*, Baxter, C.D., Pando, M.A., and **Anderson, J.B. [10%],** "Comparison of the Cyclic Resistance of a Calcareous Sand Deposit from Puerto Rico from Seismic Dilatometer (SDMT) and Seismic Cone Penetration Tests (SCPTu)." Proc. 3rd International Conference on the Flat Dilatometer. June 14-16, 2015.
- 18. Voitenko P.* and **Anderson, J.B. [50%],** "FEM Based Analysis of Novel Tabbed Culvert Wing Wall Connection." Compendium, TRB 96th Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 17. **Anderson, J.B. [85%],** Babalola, M.*, Hardister, D., Fargher, J., and Pilipchuk, J., "Lateral Load Testing Micropiles to Evaluate the Impact of Threaded Joints and Casing Embedment on Short Micropiles in Shallow Rock" TRB 90th Annual Meeting of the Transportation Research Board, Washington, D.C., January 23-27, 2011.
- 16. Burrage R.E.*, **Anderson, J.B. [70%]**, and Ogunro, V. O. "Sheet Pile Wall Load Testing to Measure Earth Pressure in Residual Soil" <u>IFCEE 2009: International Foundations Congress and Equipment Expo</u> ASCE GeoInstitute GSP 187.

- 15. Cottingham M. A.* and **Anderson, J.B. [70%].** "Results of Consolidated Drained Triaxial Tests on Granitic Residual Soil" <u>IFCEE 2009: International Foundations Congress and Equipment Expo ASCE GeoInstitute GSP 187.</u>
- 14. **Anderson**, **J.B.** [70%], Cottingham, M. A.* and Cosentino P.J. "Pencel Pressuremeter Testing for the Development of P-y Curves for Deep Foundations: Case Histories and Results" <u>IFCEE</u> 2009: International Foundations Congress and Equipment Expo ASCE GeoInstitute GSP 186.
- 13. Ogunro, V. O., **Anderson, J. B. [70%],** Starnes, J. R.* and Burrage R.E.* "Characterization and Geotechnical Properties of Piedmont Residual Soils", GeoCongress 2008: The Challenge of Sustainability in the Geoenvironment, March 9-12, 2007, New Orleans, Louisiana.GeoCongress 2008: Characterization, Monitoring, and Modeling of GeoSystems (GSP 179)
- 12. **Anderson**, **J. B.[70%]**, Ogunro, V.O., Starnes J. R. *, and Detwiler, J. M. * "Field Monitoring of Two Research Sheet Pile Walls During Excavation", Transportation Research Board Annual Meeting, Washington, DC, January 21 25, 2007.
- 11. Chen, S., Young, D., Boyajian, D., Gergely, J., and **Anderson, J.B.[5%]**. "Benchmarking Forensic Engineering Practice A Philosophical Discussion", 4th Forensic Congress, ASCE, Clevland, OH, October 6-9, 2006.
- 10. **Anderson, J. B.[70%],** Townsend, F.C.,and Grajales, B. "Prediction of P-y Curves from Dilatometer Tests Case Histories and Results", DMT06 The Second International Conference on the Flat Dilatometer, Washington, D.C., 2-5 April, 2006.
- 9. **Anderson**, **J. B.** [70%], Ogunro, V.O., Detwiler, J. M. *, and Starnes, J. R. *, "DMT Testing for the Estimation of Lateral Earth Pressure in Piedmont Residual Soils", DMT06 The Second International Conference on the Flat Dilatometer, Washington, D.C., 2-5 April, 2006.
- 8. **Anderson**, **J. B. [70%]**, Rahelison, L., and Townsend, F. C., "Finite Element Analysis of a Sheet Pile Wall Using Insitu Test Based Soil Parameters", Pressio 2005 50 Years of Pressuremeters International Symposium, Paris, France, 22-24 August, 2005.
- 7. **Anderson**, **J.B.**[70%], Townsend, F.C., Horta, E., and Sandoval, J., "Effects of Modified Probes and Methods on PENCEL Pressuremeter Tests", Pressio 2005 50 Years of Pressuremeters International Symposium, Paris, France, 22-24 August, 2005.
- 6. **Anderson, J.B. [70%],** Townsend, F.C., Cosentino, P. and Horhota, D. "Multi-Agency Evaluation of the PENCEL Pressuremeter", Pressio 2005 50 Years of Pressuremeters International Symposium, Paris, France, 22-24 August, 2005.
- 5. **Anderson, J. B. [80%],** and F.C. Townsend, "Calibration of Constitutive Models for Typical Florida Sands by Drained Triaxial and Pushed-In Pressuremeter Tests" GeoFrontiers Austin Texas, January 2005.
- 4. **Anderson, J.B. [70%],** Townsend, F.C., and Horta, E. "Variation and Repeatability of Insitu Tests at the Florida Department of Transportation Deep Foundations Research Site in Orlando, Florida, USA", Second International Conference on Geotechnical Site Characterization (ISC-2), Porto,

- Portugal, September 20-22, 2004.
- 3. **Anderson, J.B. [70%]** and Townsend, F.C. "A Laterally Loaded Pile Database", Deep Foundations 2002: An International Perspective on Theory, Design, Construction, and Performance (GSP 116)
- 2. **Anderson, J. B. [60%]**, Grajales, B., Townsend, F. C. and Brown, D., "Validation of P-y Curves from Pressuremeter and Dilatometer Tests at Auburn, Alabama," Behavioral Characteristics of Residual Soils, ASCE GSP 92, Bill Edelen ed., American Society of Civil Engineers, 1999, pp77-87.
- 1. **Anderson, J. B.[65%]** and Townsend, F. C., "Validation of P-y Curves from Pressuremeter Tests at Pascagoula, Mississippi," XI Panamerican Conference on Soil Mechanics and Geotechnical Engineering ,1999.

Technical Reports:

- 26. **Anderson, J.B.,** Barnes, R.W., Voitenko, P.*, and Lee, H. L.*, "Culvert Wing Tab Design Loads." Submitted to the Auburn University Highway Research Center and ALDOT, July 2021.
- 25. Montgomery, J., Jackson, D.T.*, Kiernan, M.J.*, and **Anderson, J.B.,** "Use of Geophysical Methods in Sinkhole Exploration." Submitted to the Auburn University Highway Research Center and ALDOT, July 2020.
- 24. Marshall, J.D., **Anderson, J.B.,** Barnes, R.W., Barr, M.D.*, Quinn, A.J.*, and Wu. H.* "Experimental Determination of Braking Force Distribution for Steel Pile Bridge Bents." Submitted to the Auburn University Highway Research Center and ALDOT, April 2020.
- 23. McLaughlin, J.B.*, Nemiroff J.M.*, Schindler, A.K., and **Anderson, J.B.**, "Evaluation of Methods to Assess the Strength of Soil Cement Base: Phase 1." Submitted to the Auburn University Highway Research Center and ALDOT, December 2019.
- 22. Pokharel, S.*, Fang, X, and **Anderson, J.B.** "Evaluating and Understanding of Bridge Scour Calculation." Submitted to the Auburn University Highway Research Center, February 2019.
- 21. Wooten, R.L., **Anderson, J.B.,** Inci, G., Jafari, N.H., Kuhne, J.C., Montoya, B.M. Ravichandran, N., Stark, T.D., Ahsanuzzama, M., Do, J., Jackson, D.T.*, Jadid, R., Liu, F., and Vo, L.. "Geotechnical Effects of Hurricane Florence." Submitted to the GEER Association Report No. GEER-063., June 2019.
- 20. Vasconcelos, J.G., Fang, X., **Anderson, J.B.,** Tamang, S.* and Song, W.*, "Analysis and Potential Solutions to Sediment Deposition in Dean Road Bridge Watershed, Midland City, AL." Submitted to the Auburn University Highway Research Center and ALDOT, November 2018.
- 19. Aguilar, V.H.*, Stallings, J.M., **Anderson, J.B.** and Nowak, A.S. "Torsional Resistance of Drilled Shaft Foundations." Submitted to the Auburn University Highway Research Center, October 2018.
- 18. Marshall, J.D., **Anderson, J.B.,** Campbell, J.*, Skinner, Z.C.*, and Hammett, S.T.*, "Experimental Validation of Analysis Methods for Steel Pile Bridge Bents." Submitted to the Auburn University Highway Research Center and ALDOT, April 2017.

- 17. **Anderson, J.B.,** Fang, X., Walker, M.E.*, Wright, W.W.*, and Chen, G.*, "Evaluation of Scour Potential of Cohesive Soils Phase 2." Submitted to the Auburn University Highway Research Center and ALDOT, January 2015.
- 16. Cahill, M.S., Zee, R., **Anderson, J.B,** and Brooks, R.*, "Trenching and Emplacement of Fiber-Optic Cable in Operational Environments." Submitted to US Army Corps of Engineers, Engineering Research and Development Center. September 2014.
- 15. Elton, D.J., Jannett, R. B.*, and **Anderson, J.B.,** "Evaluation of Causes of Pavement Distress in U.S. 331 in Montgomery County." Submitted to the Auburn University Highway Research Center, February 2014.
- 14. Marshall, J.D., **Anderson, J.B.,** Law, J.D.*, Panzer, J.L.*, and Kane. K.M.*, "Update of Bridge Design Standards in Alabama for AASHTO LRFD Seismic Design Requirements." Submitted to the Auburn University Highway Research Center and ALDOT, November 2013.
- 13. Hayworth, J.S., Clement, P., **Anderson J.B.**, and LeBleu, C.M, "Administrative & Technical Support in Evaluating Public Input on Potential Enhancements to the State Solid Waste Program." Submitted to the Alabama Department of Environmental Management, November 2013.
- 12. Marshall, J.D., **Anderson, J.B.**, Meadows, R.L.*, Jensen, T.J.*, "Foley Arch Bottomless Precast Bridge Validation: Testing, Analysis and Design." Research Report prepared for Foley Products, May 2012.
- 11. **Anderson J.B.** and Babalola, M.R.*, "Behavior of Micropiles in Bridge Bent Applications." Submitted to the North Carolina Department of Transportation, December 31, 2010.
- 10. Daniels, J.L., Janardhanam, R., **Anderson, J.B.,** Lei, S.*, Baucom, I.K.*, DeBlasis, N.J.*, and Bowers, B.F.*, "Subgrade Stabilization Alternatives to Lime and Cement." Submitted to the North Carolina Department of Transportation, December 31, 2009.
- 9. **Anderson, J.B.,** Ogunro, V.O., Detwiler, J.M.*, Starnes, J.R.*, and Burrage, R.E.*, "Development of an Earth Pressure Model for Design of Retaining Structures in Piedmont Soils." Submitted to the North Carolina Department of Transportation, September 22, 2008.
- 8. Cosentino, P., Kalajian, E., **Anderson, J.B.**, "Automating the Pressuremeter for Predicting the Soil Response to Lateral Loads." Submitted to the Florida Department of Transportation, June 2006.
- 7. Townsend F.C. and **Anderson, J.B.,** "A Compendium of Ground Modification Techniques." Submitted to the Florida Department of Transportation, April 2004.
- 6. Townsend, F.C., **Anderson, J.B.**, and Horta, E.*, "Characterization of a Florida Department of Transportation Geotechnical Research Site." Submitted to the Florida Department of Transportation, August 2002.
- 5. Townsend, F.C., **Anderson, J.B.**, and Rahelison, L.*, "Evaluation of FEM Engineering Parameters from Insitu Tests." Submitted to the Florida Department of Transportation, December 2001.
- 4. Townsend, F.C., **Anderson, J.B.,** and Grajales, B., "Insitu Testing for Evaluating Lateral Load Capacity of Deep Foundations." Submitted to the Florida Department of Transportation, November 1999.

- 3. **Anderson, J.B.,** Confidential Report on Determination of Lateral Stresses in a Tailings Dam with Dilatometer Tests for a mid-western firm, November 1999.
- 2. **Anderson**, **J.B.**, "Wilmington By-Pass Supplemental Soil Exploration Program." Submitted to Law/Gibb Engineering Inc. and the North Carolina Department of Transportation, April 1999.
- 1. Townsend, F.C., **Anderson, J.B.,** Spoor, K.B., and Guzman, I.L., "Pressuremeter and Dilatometer Testing at Puerto Nuevo Flood Control Project San Juan, Puerto Rico." Submitted to the United States Army Corps of Engineers Jacksonville District, March 1998.

Abstracts and Non-Refereed Conference proceedings:

- 5. Jackson, D.T.*, Kiernan, M.J.* **Anderson, J.B.**, and Montgomery, J., "Investigation of a Slope Failure Using Seismic Full Waveform Inversion." SAGEEP 2019-32nd Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems, Denver CO, March 29-April 2, 2020.
- 4. Jackson, D.T.*, Kiernan, M.J.* **Anderson, J.B.**, and Montgomery, J., "Mapping a Sinkhole Site Using Electrical Resistivity and Seismic Based Methods." SAGEEP 2019-32nd Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems Denver, CO, March 29-April 2, 2020.
- 3. Belk, N.A.*, **Anderson, J.B.**, and Lien, B. "Evaluating the Definition of Fixity for Laterally Loaded Drilled Shafts and Piles." Joint Congress of ASCE Structures Institute and GeoInstitute. Phoenix, AZ, February 14-17, 2016.
- 2. Ogunro, V.O., Ayoola, M.G.*, Inyang, H.I., **Anderson, J.B.**, and Daniels, J.L., "On the Geotechnical Properties of Coal Combustion By-Products under Different Stress Conditions." Twenty-Third Annual International Pittsburgh Coal Conference, Pittsburgh, PA, September 25-28, 2006.
- 1. **Anderson**, **J.B.** "Analysis of Bridge Substructures under Extreme Event Loading in the Context of Lateral Pile Load Tests" International Conference on Energy, Environment and Disasters, Charlotte, NC, July 24 30, 2005.

3. Papers or lectures.

Invited Lectures

- 36. "Lateral Testing and Analysis of Steel Pile Bent Bridges." (with Steve Hammett) 62nd Annual Alabama Transportation Conference, Montgomery, AL, February 12, 2019.
- 35. "The Challenges and Rewards of Soil-Structure Testing at Full Scale A 20 Year Perspective." Invited Lecture, Georgia Tech, April 6. 2018.
- 34. "Construction of Alabama's First GRS Bridge in Marshall County." (with Bob Pirando) 61st Annual Alabama Transportation Conference, Montgomery, AL, February 13, 2018.
- 33. "Evaluation of Remediation Strategies for Shrink-Swell Clays in Western Alabama." (with Elizabeth Stallings and Dan Jackson) 60th Annual Alabama Transportation Conference, Montgomery, AL, February 10, 2017.
- 32. "Experimental Testing and Modeling of Steel Pile Bridge Bents." (with Justin Marshall) 59th Annual Alabama Transportation Conference, Montgomery, AL, February 9, 2016.

- 31. "Alabama Solid Waste Study" (with Joel Hayworth) Alabama Recycling Coalition Conference and Expo, July 16, 2015.
- 30. "Scour Potential of Alabama Hard Cohesive Soils of the Black Belt and Coastal Plain." 45th Southeastern Transportation Geotechnical Engineering Conference, Mobile, AL, October 30, 2014.
- 29. "Database Evaluation of Energy Transfer for CME Automatic Hammer Standard Penetration Tests." 45th Southeastern Transportation Geotechnical Engineering Conference, Mobile, AL, October 28, 2014.
- 28. "Energy Calibration for ALDOT Test Equipment and Operators" 57th Annual Alabama Transportation Conference, Montgomery, AL, February 12, 2014.
- 27. "Large Database Evaluation of Hammer Efficiency for Automatic Hammer Standard Penetration Tests" Earthquake Engineering Research Institute University of Puerto Rico Mayaguez, Mayaguez, PR, March 11, 2013.
- 26. "Using FB-MultiPier for Deep Foundation Soil-Structure Interaction" Deep Foundations Institute, Short Course, Houston, TX, October 16, 2012.
- 25. "Estimation and Measurement of Earth Pressure in Piedmont Residual Soils" Georgia Institute of Technology, Atlanta, GA, September 27, 2012.
- 24. "Micropiles for Bridge Bent Foundations: Lateral Load Testing to Evaluate the Impact of Threaded Joints and Casing Embedment on Micropiles in Shallow Rock" Deep Foundations Institute, Super Pile, Portland, OR, May 17, 2012.
- 23. "Lightweight Concrete in Prestressed Concrete Piles" Pile Driving Contractors Association, South Carolina Chapter, Charleston, SC, December 6, 2011.
- 22. "Pile Length Optimization and Fixity with FB-Multipier" Design of Cost Efficient Driven Piles, Pile Driving Contractors Association, Orlando, FL, November 3, 2011.
- 21. "Micropiles for Bridge Bent Foundations: Lateral Load Testing to Evaluate the Impact of Threaded Joints and Casing Embedment on Micropiles in Shallow Rock." The Sixth Annual Geotechnical, Geophysical, and Geoenvironmental Engineering Technology Transfer Conference and Exposition by the North Carolina Department of Transportation, Raleigh, NC, April 5, 2011.
- 20. "Lateral Load Testing Micropiles to Evaluate the Impact of Threaded Joints and Casing Embedment on Short Micropiles in Shallow Rock" 54th Annual Alabama Transportation Conference, Montgomery, AL, February 23, 2011.
- 19. "Micropiles for Bridge Bent Applications Research" University of Coimbra, Coimbra, Portugal, October 2, 2009.
- 18. "Coupling Agents for Geotechnical and Geoenvironmental Applications" Seminar on Re-use of Waste in Geotechnical Works, University of Aveiro, Aveiro, Portugal, September 28, 2009.

- 17. "Load Testing and Settlement Prediction of a Shallow Foundation", North Carolina ASCE Southern Branch Meeting, Charlotte, NC, December 17, 2007.
- 16. "Appreciating and Understanding Piedmont Soils", North Carolina ASCE Section Annual Meeting, Wrightsville Beach, NC, September 15, 2007.
- 15. "Estimation and Measurement of Earth Pressure in Piedmont Residual Soil Second Year Update." The Fourth Annual Geotechnical, Geophysical, and Geoenvironmental Engineering Technology Transfer Conference and Exposition by the North Carolina Department of Transportation, Charlotte, NC, April 12, 2007.
- 14. "Estimation and Measurement of Earth Pressure in Piedmont Residual Soil", The Third Annual Geotechnical, Geophysical, and Geoenvironmental Engineering Technology Transfer Conference and Exposition by the North Carolina Department of Transportation, Charlotte, NC, April 20, 2006.
- 13. "Low Cost Load Testing of a Shallow Foundation." The Third Annual Geotechnical, Geophysical, and Geoenvironmental Engineering Technology Transfer Conference and Exposition by the North Carolina Department of Transportation, Charlotte, NC, April 21, 2006.
- 12. "Saving the Bridge Maintenance Unit money by Considering All Foundation Alternatives." The Third Annual Geotechnical, Geophysical, and Geoenvironmental Engineering Technology Transfer Conference and Exposition by the North Carolina Department of Transportation, Charlotte, NC, April 21, 2006.
- 11. "Development of P-y Curves from Pile Load and In-situ Soil Tests: Analysis and Case Studies", University of Florida, February 3, 2006.
- 10. "Earth Pressure in Piedmont Soils A Work in Progress", Virginia ASCE Geotechnical Section Richmond, VA, December 9, 2005.
- 9. "Retaining Structures, Deep Foundations, and Insitu Testing", North Carolina ASCE Section Southern Branch Lunch Meeting, Charlotte, October 18, 2005.
- 8. "Design of Efficient Pile Foundations Using FB-MultiPier", Pile Driving Contractors Association Design of Cost-Efficient Driven Piles, Boston, MA, September 15-16, 2005.
- 7. "Deep Foundation Lateral Load Analysis and Testing –What, Why, and How?", North Carolina ASCE 2005 Technical Seminar, April 13, 2005.
- 6. "Variation and Repeatability of Insitu Tests at the FDOT Geotechnical Research Site at the University of Central Florida." The First Annual Geotechnical, Geophysical, and Geoenvironmental Engineering Technology Transfer Conference and Exposition by the North Carolina Department of Transportation, Charlotte, NC, April 15, 2004.
- 5. "Dead Weight Static and StatNAMIC Load Tests on a Shallow Foundation", North Carolina Section ASCE Technical Seminar, Greensboro, North Carolina, April 2003.

- 4. "Variation and Repeatability of Insitu Tests at the FDOT Geotechnical Research Site at the University of Central Florida", S&ME Inc. Geotechnical Engineering Seminar, Charlotte, North Carolina, January 2003.
- 3. "Dead Weight Static and StatNAMIC Load Tests on a Shallow Foundation", South Carolina Section ASCE Semi-Annual Technical Sessions, Greenville, South Carolina, October 2002.
- 2. "Soil Pile Interaction in FloridaPier" Florida Geotechnical and Materials Engineer Council Conference, Orlando, Florida, May 2000.
- 1. "Validation of P-y Curves from Pressuremeter Tests at Pascagoula, Mississippi" Young Engineer Paper, Minnesota Geotechnical Society, St. Paul, Minnesota, February 1999.

Papers at professional meetings

- 27. "GEER Report: Geotechnical Impacts of Hurricane Florence in Rich Media." Hurricon, Greenville, NC, Feb 27-28, 2020.
- 26. "Auburn University National Geotechnical Experimentation Site in Piedmont Residuum." (with Dan Jackson) ISGTS First International Symposium on GeoTest Sites, Oslo, Norway, June 12-14, 2019.
- 25. "Weak Axis Lateral Load Testing of a Four H Pile Bent." International Foundations Congress and Equipment Expo, Orlando, FL, ASCE GeoInstitute, March 5-10, 2018.
- 24. "Instrumentation and Monitoring of Distress Remediation Strategies at Alabama Highway 5." International Foundations Congress and Equipment Expo, Orlando, FL, ASCE GeoInstitute, March 5-10, 2018.
- 23. "An Updated Database for the Spring Villa National Geotechnical Experimentation Site." International Foundations Congress and Equipment Expo, Orlando, FL, ASCE GeoInstitute, March 5-10, 2018.
- 22. "The Use of Lime Columns as a Remediation Technique for Pavements on Expansive Clay Subgrades." (with Dan Jackson) TRB 97th Annual Meeting of the Transportation Research Board, Washington, D.C., January 7–11, 2018.
- 21. "Numerical Simulation of Wing Wall to Culvert Connection Behavior." (with Pavel Voitenko) TRB 97th Annual Meeting of the Transportation Research Board, Washington, D.C., January 7–11, 2018.
- 20. "FEM Based Analysis of Novel Tabbed Culvert Wing Wall Connection." (with Pavel Voitenko). TRB 96th Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 19. "Evaluating the Definition of Fixity for Laterally Loaded Drilled Shafts and Piles." (with Neill Belk and Bon Lien) Joint Congress of ASCE Structures Institute and GeoInstitute, Phoenix, AZ, February 14-17, 2016.

- 18. "Lateral Load Testing Micropiles to Evaluate the Impact of Threaded Joints and Casing Embedment on Short Micropiles in Shallow Rock" TRB 90th Annual Meeting of the Transportation Research Board, Washington, D.C., January 23-27, 2011.
- 17. "PENCEL Pressuremeter Testing for the Development of P-y Curves for Deep Foundations: Examination and Comparison of Case Histories", 2009 GeoCongress International Foundations Congress and Equipment EXPO, Orlando FL, March 15-19, 2009.
- 16. "Results of Drained Triaxial Tests on Granitic Residual Soil", 2009 GeoCongress International Foundations Congress and Equipment EXPO, Orlando FL, March 15-19, 2009.
- 15. "Instrumented Sheet Pile Wall Load Test to Indirectly Measure Earth Pressure", 2009 GeoCongress International Foundations Congress and Equipment EXPO, Orlando FL, March 15-19, 2009.
- 14. "REU Site Geotechnical and Geoenvironmental Engineering through Laboratory, Field and Computational Investigation" Engineering Education NSF Awardees Conference, February 1-3, 2009. Reston, VA.
- 13. "Characterization and Geotechnical Properties of Piedmont Residual Soils", GeoCongress 2008, New Orleans, LA, March 9-12, 2008.
- 12. "Field Monitoring of Two Research Sheet Pile Walls During Excavation", TRB 86th Annual Meeting of the Transportation Research Board, Washington, D.C., January 22, 2007.
- 11. "DMT Testing for the Estimation of Lateral Earth Pressure in Piedmont Residual Soils", DMT06 The Second International Conference on the Flat Dilatometer, Washington, D.C., April 5, 2006.
- 10. "Prediction of P-y Curves from Dilatometer Tests Case Histories and Results", DMT06 The Second International Conference on the Flat Dilatometer, Washington, D.C., April 4, 2006.
- 9. "Analysis of Bridge Substructures under Extreme Event Loading in the Context of Lateral Pile Load Tests", International Conference on Energy, Environment and Disasters, Charlotte, NC, July 24 30, 2005.
- 8. "Calibration of Constitutive Models for Typical Florida Sands by Drained Triaxial and Pushed-In Pressuremeter Tests" GeoFrontiers, Austin, Texas, January 2005.
- 7. "Variation and Repeatability of Insitu Tests at the Florida Department of Transportation Deep Foundations Research Site in Orlando, Florida, USA", Second International Conference on Geotechnical Site Characterization (ISC-2), Porto, Portugal, September 20-22, 2004.
- 6. "Characterization of a Florida Department of Transportation Geotechnical Research Site", Florida Department of Transportation and Others, Geotechnical Research In Progress Meeting, Orlando, May 2002.

- 5. "A Laterally Loaded Pile Database", GeoInstitute International Deep Foundations Congress, Orlando, Florida, February 2002.
- 4. "Validation of P-y Curves from Pressuremeter and Dilatometer Tests at Auburn, Alabama", ASCE National Convention, Charlotte, NC, October 1999
- 3. "Determination of P-y Curves for Laterally Loaded Piles from Insitu Tests Final Report", Florida Department of Transportation and Others, Geotechnical Research In Progress Meeting, Tampa, July 1999.
- 2. "Development of a Cemented Sand Module for the Electronic Cone Penetrometer", Transportation Research Board Annual Meeting, Washington, DC, January 1999.
- 1. "Comparison of Horizontal Load Transfer Curves From Strain Gages and Slope Inclinometer: A Case Study", ASTM Annual Meeting, Committee D-18, Atlanta, Georgia, May 1998.