

Max. 14.75 PDHs

Day 1 - 7.67 PDHs

Day 2 - 7.08 PDHs

The 10th Geo³T² Conference Program

Update: 4/7/2019

Program A - Geotechnical

Tuesday - April 9, 2019

Program B - GeoEnvironmental/GeoPhysical/Geotechnical

Tuesday - April 9, 2019

7:00 am - 3:00 pm	Registration Desk Open (Early Check-in: Monday, April 8, 5:00 pm - 7:00 pm)	
8:00 am - 8:10 am	Opening Remarks - John Pilipchuk (Carolina Ballroom / Exhibit Area)	
8:10 am - 10:05 am	Session 1 - Combined General Session (Carolina Ballroom) Moderator: John Pilipchuk	
1.92 PDHs	<p>1-1 Bring it: Your A-GaME and Other Current National FHWA Geotechnical Initiatives Benjamin Rivers, FHWA</p> <p>1-2 A-GaME, A State Perspective on Implementation Krystle Pelham, NHDOT</p> <p>1-3 Executive Order 80, North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy Colin Mellor, NCDOT</p> <p>1-4 ATLAS Advancing Transportation through Linkage, Automation, and Screening Michelle Warf, NCDOT</p>	
10:05 am - 10:35 am	Refreshment Break - Carolina Ballroom / Exhibit Area	
10:35 am - 12:20 pm	Session 2A - Geotechnical I - Walls & Foundation Reuse (Traingle Ballroom) Moderator: Jamey Batts	Session 2B - GeoEnvironmental I (Pinehurst & Tanglewood) - Moderator: Ashley Cox
1.75 PDHs	<p>2A-1 19019 AASHTO Update and How Changes Affect NCDOT Scott A. Hidden, NCDOT</p> <p>2A-2 19038 VDOT Route 29 Rio Road Intersection – Innovative Retaining Walls Nathan C. Dumas & Brian K. Banks, Schnabel Engineering</p> <p>2A-3 19008 Design of Geosynthetic Reinforced MSE as Integral Bridge Abutment Walls Michael R. Simac, Earth Improvement Technologies; & David J. Elton, Auburn University</p> <p>2A-4 19041 Integrated Bridge Load Rating Allowing Rational Assessment of Foundation Reuse Sayed M. Sayed, GCI; Hisham N. Sunna, Ayres Associates; & Pamela R. Moore, GCI</p>	<p>2B-1 19032 PFAS Site Inspection: A North Carolina Case Study Helen Corley & Bonani Langan, Wood E&IS</p> <p>2B-2 19026 Impacts of the Emerging Contaminants Per- and Polyfluoroalkyl Substances (PFAS) on New Hampshire Department of Transportation (NHDOT) Construction Projects and Maintenance Operations Stephanie Monette, New Hampshire DOT</p> <p>2B-3 19021 Brassworks “Digs” Into NC DOT Budget Matt Bramblett & David Graham, Hart & Hickman; & Gordon Box, NCDOT</p> <p>2B-4 19024 From Aged Funeral Home to Elegant Apartment Building Darin McClure, Mid-Atlantic Associates, Inc.</p>
12:20 pm - 1:30 pm	Lunch - Provided (Carolina Ballroom / Exhibit Area)	
12:40 pm - 1:10 pm	Luncheon Keynote Presentation (Carolina / Exhibit Area) Moderator: Cyrus Parker	
0.50 PDHs	SP-1 19045 PFAS State Regulatory Climate & Developments Michael E. Scott, NCDEQ	
1:35 pm - 3:20 pm	Session 3A - Geotechnical II - Piles (Triangle Ballroom) Moderator: Eric Williams	Session 3B - GeoEnvironmental II (Pinehurst & Tanglewood) - Moderator: Craig Haden
1.75 PDHs	3A-1 19005 LRFD Interactions between Geotechnical and Structural Engineers Bon Lien, Wood E&IS	3B-1 19030 A Unique Approach to In-Situ Soil Stabilization William M. “Matt” Flinchum, Duncklee & Dunham

3A-2	19027 Design & Construction Optimization of Driven Precast/Prestressed Concrete Piles David Tomley, Thompson Engineering	3B-2	19031 Field Application of a Remedial Strategy that Used Temperature-Activated Auto-Decomposition Reactions for Chlorinated Ethanes Donald R. Malone, Duncklee & Dunham
3A-3	19002 Comparison of Theoretical vs. PDA Measured Axial Resistance for Jetted and Driven 36 inch Square Prestressed Concrete Piles Beth Howey & Mike Batten, HDR Engineering	3B-3	19025 The Sustainable Reuse of Concrete Byproducts from Road Resurfacing Sheri Knox, Rob Willcox, Dave Dan Line, & Dan J. O'Connor, Wood E&IS
3A-4	19006 Helical Piles Design & Construction – Their Advantages & Limitations Raja S. El-Awar, FES Group	3B-4	19023 Tips on Making a Better GeoEnvironmental Phase II Report Cyrus Parker, NCDOT

3:20 pm – 3:45 pm

Refreshment Break - Carolina Ballroom / Exhibit Area

3:45 pm – 5:30 pm	Session 4A - Geotechnical III - Rock (Triangle Ballroom) Moderator: Dean Hardister	Session 4B - Geotechnical IV - Geomaterial, Subgrade, & Ground Improvement (Pinehurst & Tanglewood) - Moderator: Scott Hidden
1.75 PDHs	<p>4A-1 19012 Using New and Old Technologies for an Economic Approach to Rock Slope Stabilization on TN I-75 Saieb Haddad, Thompson Engineering</p> <p>4A-2 19020 Design and Construction Considerations for Innovative Rockfall Protection Solutions Martin J. Woodard, GeoStabilization International</p> <p>4A-3 19013 MD 135 Slope Hazard Study – A Risky Approach Brian K. Banks, Schnabel Engineering</p> <p>4A-4 19015 Rock Slope Stability Assessment of an Abandoned Quarry for Reclamation to Recreational Use Warren T. "Ted" Dean, Ethen Truman, & David Barton, Draper Aden Associates</p>	<p>4B-1 19007 Can Locally Produced Steel Slag in Eastern North Carolina be used as a Geomaterial? George Wang, Shangyue Guan, & Rui Wu, East Carolina University</p> <p>4B-2 19011 Mechanical Stabilization of Unsuitable Subgrade Soils During Interstate 95 Lane Widening Bryan C. Gee, Tensar; Eric Klein, RK&K; Willaim T. Maier, Tensar; Gregory K. Goins, RK&K</p> <p>4B-3 19004 Ground Modification Techniques for the Christina River Bridge Approaches Eric M. Klein & Bibek B. Shrestha, RK&K</p> <p>4B-4 19022 Application of a Wick Drainage System for a Roadway Project Gabe Lang, Zahra Aghazadeh, & Ryan Doyle, AECOM</p>

5:30 pm – 6:30 pm

Poster Session (PS) - Carolina Ballroom / Exhibit Area
Moderator: Chris Kreider

0.00 PDHs	<p>PS-1 19028 Variability and Uncertainty in Near-Surface Attenuation Estimations: Effects of Azimuth, Focal Depth and Earthquake Type Chunyang Ji, Ashly Cabas, Fabrice Cotton, Marco Pilz, & Dino Bindu; NCSU & GFZ</p> <p>PS-2 19033 Ground Motion Selection for Regions Exposed to Diverse Seismic Sources Ishika Nawrin Chowdhury, Ashly Cabas, James Kaklamanos, Albert Kottke, & Nick Gregor; NCSU</p> <p>PS-3 19034 Exploring The Shear Response of Bio-Cemented Sands Ashkan Nafisi & Brina Montoya; NCSU</p> <p>PS-4 19044 Benzene Migration in Unsaturated Profile with Subsurface Concrete Utility Pipe Zahra Faeli, Mohammed Gabr, & Mohammad Pour-Ghaz, NCSU; Cyrus Parker, NCDOT; Alison Alcott, Rockware</p> <p>PS-5 19047 Effective Dispersion Analysis of Reflections: A Nondestructive Evaluation Method for Estimating Embedded Pile Length Vivek Samu & Murthy Guddati, NCSU</p> <p>PS-6 19048 Field-Scale Evaluation of Vetiver Grass for Landfill Leachate Management Banafsheh Saghaei, UNCC</p>	<p>PS-7 19049 Synthesis of Layered Double Hydroxides for Application in Halide Sequestration using Paste Encapsulation Technology Abhisek Manikonda, UNCC</p> <p>PS-8 19050 State of Practice of Drilled Shaft Foundation Analysis and Design for Support of Mast Arm Traffic Signal Structures in Coastal Environments Carlos Rodriguez, UNCC</p> <p>PS-9 19051 Scour Mitigation using Bio-cementation Jinung Do, Brina Montoya, and Mohammed Gabr, NCSU</p> <p>PS-10 19052 Assessing the Axial Behavior of Hollow-bar Micropiles (HBM) for Anchoring Ocean Renewable Energy Devices in Sandy Soil off the Coast of North Carolina Md Ahsanuzzaman (Ahsan), Mohammed A. Gabr, & Roy H. Borden, NCSU</p> <p>PS-11 19053 Analysis of Global Shear Failure of Submarine Slopes under Storm Waves Amin Rafiei, NCSU</p> <p>PS-12 19054 Understanding Key Ground Motion Intensity Measures for Seismic Hazard Assessment of Lifelines: Lessons Learned from Loma Prieta Earthquake Maria E. Ramos-Sepulveda & Ashly Cabas, NCSU</p>
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6:00 pm – 9:00 pm

Reception - Heavy Hors d'oeuvres Provided / Social Hour - (Room: Carolina Ballroom / Exhibit Area)

6:45 pm – 7:15 pm	Social Hour Presentation (Room: Carolina Ballroom) Moderator: John Pilipchuk
	SH-1 19009 Buffalo Creek Road Landslide, Rutherford County NC, January 2019 Jody Kuhne, NCDOT; Justin Wilson & Matt Moler, S&ME



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Wednesday – April 10, 2019

Program B - GeoEnvironmental/GeoPhysical/Geotechnical

Wednesday – April 10, 2019

7:00 am – 10:00 am	Registration Desk Open
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7:00 am – 9:00 am	Continental Breakfast - Exhibit Areas (Carolina Ballroom)
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8:00 am – 10:15 am	Session 5A - Geotechnical V - Shafts & Micropiles (Triangle Ballroom) - Moderator: Sayed M. Sayed	Session 5B - Geophysical & Investigation (Carolina Ballroom) - Moderator: Ned Billington
	<p>2.25 PDHs</p> <p>5A-1 19036 ERI-60-3.100 Bridge in Erie County, Ohio – PART I: Drilled Shafts for Slope Stabilization and Bridge Support Case History Jamal Nusairat, E.L. Robinson Engineering</p> <p>5A-2 19037 ERI-60-3.100 Bridge in Erie County, Ohio – PART II: Instrumentation and Long-term Monitoring Case History Jamal Nusairat, E.L. Robinson Engineering</p> <p>5A-3 19039 A Presentation on Bi-Directional Static Load Testing Test Pier 2 Replacement of Bridge No. 16 over ICWW on NC 50/210, Pender County, Surf City, North Carolina Gerzan Nunez, John E. Greis, & Donald Robertson, AFT</p> <p>5A-4 19014 LRFD Micropile Design and Testing for Major Urban Bridges Mike Batten, HDR Engineering</p> <p>5A-5 19042 Bridge 103 over Brunswick River on US 17 / 74 / 76 Tom Santee, NCDOT</p>	<p>5B-1 19010 Electromagnetic (EM) Ground Conductivity Mapping: Using Secondary Geophysical Methods and Invasive Testing to Ground-Truth EM Results Eric Cross, Pyramid</p> <p>5B-2 19018 The Combined Use of Non-invasive Geophysical Methods with Invasive Geotechnical Sampling for Karst Characterization Johanna M. Vaughan, Draper Aden Associates</p> <p>5B-3 19016 Geotechnical Evaluation of a Pedestrian Bridge Using Aquatic Resistivity Imaging to Supplement Drilling Data John Z. Ding & Warren T. "Ted" Dean, Draper Aden Associates</p> <p>5B-4 19001 Geotechnical Investigation Execution for the Durham-Orange Light Rail Chris Jones, HDR Engineering</p> <p>5B-5 19029 3D Geologic Modeling – Applications for Design of Roadways and Retaining Walls – An Example from West Virginia Route 2 Frederic Snider, Kirsten L. Wilde, Brian Banks, & B. Philip Shull, Schnabel Engineering</p>

10:15 am-10:30 am	Refreshment Break - Carolina Ballroom / Exhibit Area
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10:30 pm–12:35 pm	Session 6 - Combined Geophysical & Spread Footings Session (Triangle Ballroom) Moderator: Shane Clark
2.08 PDHs	<p>6-1 19040 Increase use of Spread Footings on Soils to Support Highway Bridge Projects Naser Abu-Hejleh, FHWA</p> <p>6-2 19003 Geotechnical Geophysics for Transportation Projects Jorgen Bergstrom, GEL Solutions</p> <p>6-3 19043 Geophysical Investigations of Roadway Settlement Edward (Ned) Billington, ESP Associates</p> <p>6-4 19035 Highway Geophysical Applications – from the Rocky Mountains to the Volcano National Park Jacob Sheehan & Phil Sirles, Collier Geophysics</p>

	6-5 19017 Assessment of Rippability: Weathered Rock and Bedrock Excavation Volumes from Combining Drilling and Geophysical Methods Chris M. Printz, Draper Aden Associates
12:35 pm – 1:15 pm	Lunch - Box Lunch Provided for Workshop Attendees Only (Carolina Ballroom / Exhibit Area)
1:15 pm – 4:00 pm	Session 7 - Workshop - Investigation (Carolina Ballroom) Moderator: Cheryl Youngblood
2.75 PDHs	7-1 19046 Geotechnical Borehole Logging & Field Concepts Cheryl Youngblood, Christina Bruinsma, Jaime Love, Nick Moore, & Clay Elliott, NCDOT

SUMMARY:

Day 1:	Total - 30 Presentations + 12 Posters
	C 1 Combined Session - 4 Presentations
	A 3 Sessions - 12 Presentations (Concurrent A Sessions)
	B 3 Sessions - 12 Presentations (Concurrent B Sessions)
	P 1 Poster Session - 12 Posters
	O 1 Luncheon Keynote Presentation & 1 Social Hour Presentation
Day 2:	Total - 15 Presentations + 1 Workshop
	A 1 Session - 5 Presentations (Concurrent A Session)
	B 1 Session - 5 Presentations (Concurrent B Session)
	C 1 Combined Session - 5 Presentations
	W 1 Workshop

PDH Record Max. PDHs Can Be Claimed: 14.75 PDHs (see details below)

Tuesday: 7.67 PDHs

Session	Hours
1	1.92
2A or 2B	1.75
Luncheon Presentation	0.50
3A or 3B	1.75
4A or 4B	1.75
Sum	7.67

Wednesday: 7.08 PDHs

Session	Hours
5A or 5B	2.25
6	2.08
7	2.75
Sum	7.08