DFI 45 ONLINE CONFERENCE PROGRAM

PRESENTATIONS (live and recorded/on demand content)

Business Aspects of Deep Foundations
A Collaborative Approach to the Design and Delivery of the Most Heavily Loaded Piles Ever Constructed in the UK
Andrew Bell, CEng FICE | Cementation Skanska

Switching from Monetary Process Management to Critical Success Factors Using an Appropriate Process Information System
Jochen Maurer | fielddata.io GmbH

Risk Management for Dam Rehabilitation Projects
David Paul, P.E. | Paul GeoTek Engineering, LLC

Geospatial Project Information Management System at Herbert Hoover Dike
Jamey Rosen | Geosyntec Consultants

DC-Area Mega Projects
Excessive Pile Breakage During Construction of the Gaylord National Resort and Conference Center, A Look Back 15 Years Later
Karl Higgins, P.E., D.GE | ECS

Large Diameter Auger Cast Piles at Audi Field, DC United's New Soccer Stadium
Christophe Locussol, P.E. | GEI Consultants, Inc.

Deflection-Based Design for the Capitol Crossing Support of Excavation
Harald Ludwig, P.E., Ph.D | Schnabel Foundation Company

2100 L Street Underpinning & Support of Excavation
Harry Schnabel, P.E. | Schnabel Foundation Company
Experimental Research in Deep Foundations

Centrifuge Modeling of the Axial Behavior of Helical Piles
Mohamed Abdelaziz | Almita Piling

Review of Axial Design Methodologies of Auger Cast Piles Bearing in Yorktown Formation in Southeastern Region of Virginia
Kashyap Chaturvedula, P.E. | Jacobs

Large-Scale Shake Table Experiment on the Performance of Helical Piles in Liquefiable Soils
Ramin Motamed, Ph.D., P.E. | University of Nevada Reno

DFI Research Project: The Effect of Confining Stresses on the Mechanical Properties of Soil Mixed Materials
George Onorato, P.E. | GEI Consultants

Geophysics for Subsurface and Foundation Characterization

Geophysical Investigations Enhance Geologic Characterization in Support of Pile Foundation Program
Mario Carnevale, P.G. | Hager GeoScience Inc.

Non-Destructive Testing of Unknown Bridge Foundation Lengths using Parallel Seismic Testing
Mike Muchard | Applied Foundation Testing

Bring Your A-GaME! How Deep Foundation Contractors and Practitioners Benefit by Advocating for Advanced Geotechnical Exploration Methods
Mary Nodine | GEI Consultants, Inc.

Geophysical Applications for Highway infrastructure, A Retrospective
William Owen, PGP | California Department of Transportation

National Case Histories

Case Study: the Use of Post Tensioned Piles for Wind Turbine Foundations
Mohamed Alrowaimi, Ph.D., P.E. | NV5, Inc.

Boston Waterfront Redevelopment: Re-Use of Existing Pier Piles to House Future Generations
John Briand, P.E. | CDM Smith, Inc.
National Case Histories (cont.)

NYCT’s 207th St Yard Floodwall
Christian Escalera | MLJ Contracting Corp.

A Case Study: Soil Setup For Piles Driven into Eastern Coastal Plain Deposits in Virginia
Deniz Karadeniz, Ph.D., P.G., P.E. | Terracon

Installing and Testing Multi-Bar High Capacity Rock Tiedowns
Steven Lowe, P.E. | Mueser Rutledge Consulting Engineers

Texas Capitol Complex Phase 1 Expansion - Retention System Design & Construction
Charles Luxford, P.E., S.E. | Brierley Associates

Stabilizing a 100 ft Rock Slope with Limited Access and Tight Construction Tolerances
Using Observational Method and Real-Time 3D Modeling
Travis Shoemaker, E.I.T. | Schnabel Engineering

Innovative SOE Solutions for Shaft Construction: Getting to Depth with Diaphragm Walls
at Westerly Storage Tunnel
Jewels Stover | Nicholson Construction

Use of Instrumentation in QA/QC

The Potential Impacts of Unreliable Instrumentation Data
Sean Johnson, P.E. | GEI Consultants, Inc.

Quality Control and Estimation of Axial Resistance by using an Expander Body, A Large-
Scale Pressuremeter
Antonio Marinucci, Ph.D., MBA, P.E. | V2C Strategists LLC

Determining Length of Pile Foundations by Analyzing Response
to Lateral Hammer Impact
Vivek Samu | North Carolina State University

Mindful Monitoring of a Variable SOE System
Johanna Simon, P.E. | Schnabel Engineering
Quick Fire

On Driven Piles in the Arabian Gulf – Imperfections, Potential Challenges, and Lessons Learned
Waddah Akili, Ph.D., P.E., M. ASCE | Geotechnical Engineering

On Driven Piles in Coralline Deposits: A Selected Case from the Red Sea Coast of Saudi Arabia
Waddah Akili, Ph.D., P.E., M. ASCE | Geotechnical Engineering

Evaluation of Degree of Overconservatism in API Shaft Friction of Piles in Marine Sand of the Arabian Gulf
Naser Al-Shayea, Ph.D. | King Fahd University of Petroleum & Minerals

Case Histories in Geotechnical Engineering: Enhancing the Practice in an Interactive Learning Environment
Waddah Akili, Ph.D., P.E., M. ASCE | Geotechnical Engineering

A Case Study Detailing the Use of Rigid Inclusions, Helical Piles and Micropiles to Facilitate the Revitalization of 1600 Smallman Street
Nina Carney | Menard USA

Design and Specification Considerations for Environmental Cutoff Walls
Jeffrey Evans, Ph.D., P.E., D.GE, F.ASCE | Bucknell University

DCP Investigation of Strength increases in Polyurethane and Acrylate Treated Soils
Andreu Ferrero, P.E. | GCP Applied Technologies

Diaphragm Wall Technique Used in A Different Way – Cutting Trenches Up to 823 Ft (251 M) for an Exploration and Bulk Sampling Program
Franz-Werner Gerressen | BAUER Maschinen GmbH

Lessons Learned from Construction of a Tire Plant in Karst
Robert Goehring, P.E., D.GE | ECS Southeast, LLP

Collaborative Foundation Value Engineering Redesign
Jeffrey Goodwin, P.E. | Foundation Test Group, Inc.

Acceptance of Timber Piles based on Equivalent Driving Energy
Chu Ho, Sc.D., M.ASCE, P.E. | Arup
Quick Fire (con’t)

Simulation of Soil-Structure Interaction with Sheet Pile and Retained Soil
*Sina Javankhoshdel, Ph.D. | Rocscience*

Costa Rica Circunvalacion Norte Project: Lessons Learned from Foundation Drilling
*Bernardo Jiménez, MGP | H Solis*

Foundation Soil Strength Characterization of Coastal Plain Deposits
Along I-64 Corridor in Virginia
*Deniz Karadeniz, Ph.D., P.G., P.E. | Terracon*

Geotechnical Assessment of the Manhattan Cruise Terminal Piers:
Analysis of Timber Piles in Soft Organic Silts
*Rodrigue Karam, P.E. | Pennoni Associates*

Trencher Method vs. Slurry Trenching: A Pros & Cons Comparison of Case Studies.
Charlie Krug | Geo-Solutions, Inc.

One Seam at a Time: Interactive QA/QC to Identify Coal Seams
During Foundation Construction
*Christopher Lawler, P.G. | Quanta Subsurface*

Cost Analysis of Multiline Ring Anchor System for Offshore Wind Farm
*Junho Lee | Texas A&M University*

Improvement of toe Resistance of Drilled Shaft Foundations using Smart Cells
*Antonio Marinucci, Ph.D., MBA, P.E. | V2C Strategists LLC*

Building Above and Excavating Below an Iconic Building in Manhattan
*Seth Martin, P.E. | Langan Engineering*

Large Diameter Drilled Shafts For Landslide Control in Pakistan-A Case Study
*Asim Masud, P.E. | Nespak*

Controlling Vibrations from Close-in Pile Driving
*David Miller, P.G. | Seismic Surveys, Inc.*

A Modified Soil Quake Davisson Offset Method for Drilled Foundations
*Michael Perlow Jr. | EKMLLC - Retired*
Quick Fire (con’t)

Pile Diameter Effects on Initial Modulus of Subgrade Reaction for Laterally Loaded Piles
Amin Rahmani, Ph.D., P.E. | Earth Mechanics Inc.

Ideas to Improve Driven Pile Foundation Design and Installation Procedures
Steven Saye, P.E. | Kiewit Engineering Group Inc.

Delving Deeper into Foundation Slurry Rheology
Justin Seago | CETCO

Lateral Behavior of Post Grouted Drilled Shafts
Ehab Shatnawi, Ph.D., P.E. | Jacobs

Evaluating Bending Failure of Floating Soil-Cement (SC) Columns Under Road Embankments Using 3D FEA.
Sailesh Shrestha, Ph.D. | Kyushu Piling Company Pvt. Ltd.

Prevention of Landslides with Rows of Pressed-in Pipe Piles on Steep Slope
Takefumi Takuma | Giken Ltd.

Estimation of Maximum Unit Side Resistance in Drilled Shaft Foundations from Partially Mobilized Load-Displacement Data
Joseph Toth, P.E. | University of Nevada Reno

Trouble in Paradise: Micropiles as a Solution to Challenging Geotech and Steep, Rugged Terrain on the Island of Oahu
Scott Tunison | Crux Subsurface

Tomographic DST Algorithm for Stone Column Site Imaging and Characterization
Gerald Verbeek | BCE