September 2020 DVGI Virtual Meeting

SPEAKER: Zia Zafir, Ph.D., P.E.—Kleinfelder

TOPIC: Seismic Updates in the 2018 International Building Code

DATE: Tuesday, September 22, 2020, at 12:00 pm

LOCATION: Webinar Format / Link To Be Provided to all Registered

TIME: 12:00 PM

Meeting Abstract
Seismic requirements in the 2018 International Building Code (IBC) are based on ASCE 7-16. Many states have either adopted or are in the process of adopting 2018 IBC. Changes in seismic requirements in 2018 IBC are significant compared to the previous code version, and these changes may significantly impact the scope and cost of geotechnical design for some parts of the country. Architects, Engineers, Developers, and Owners need to be aware of the impacts the seismic changes in the building code will have on their projects. This presentation will provide the details of these changes in the seismic requirements and how they can impact geotechnical recommendations. Dr. Zafir is the national practice leader and chief engineer for seismic and geotechnical earthquake engineering at Kleinfelder. Dr. Zafir has more than 35 years of experience in the field of geotechnical and earthquake engineering and research. Dr. Zafir serves as the vice chair of Technical Committee 01 of ASCE 7 Seismic Subcommittee (SSC) which updated Chapters 11, 20, and 21 of ASCE 7-16. Dr. Zafir is also a Governor-appointed member of the California State Mining and Geology Board that oversees the California Geological Survey (CGS) Seismic Hazard Mapping (SHM) Program. Dr. Zafir serves on many ASCE national code committees including ASCE 7, ASCE 4, ASCE 43, ASCE 61, and serves as the chair of ASCE 1. He is also a member of the Earthquake Engineering and Soil Dynamics (EESD) committee of the Geo-Institute of ASCE. Dr. Zafir has been actively involved on seismic hazard evaluations and seismic retrofit for renowned national and international projects. He has published and presented more than 40 technical papers in international journals and conferences. He has also been an invited speaker at universities and professional engineering associations across the U.S.

We anticipate One PDH will be awarded for attendance.
This presentation discussed the stabilization of a 100-ft rock slope on the downstream side of a dam in Northeast Washington using post-tensioned tiebacks. The project challenges included limited site access, strict drill tolerances, rope access means and methods, equipment weight restrictions, abnormal rock face geometry, communication, and construction schedule. The presentation included an overview of the design focusing on site access, geotechnical capacities and performance of the brecciated limestone, and tieback tolerances; exploratory rock coring + DTH inspection to inspect fracture planes; and the use of a near real-time 3D modeling to assess risk based on as-built information, and to make field changes based on site observations and contractor requests.
ANNOUNCEMENTS

Upcoming Dates for 2020 Virtual Lunch Meetings and events are as follows:

♦ September 22, 2020, Virtual Meeting: Zia Zafir, Kleinfelder – 2018 IBC/ASCE 7-16 Seismic Code Updates
♦ October 20, 2020, Virtual Meeting: Geo-Institute Cross-Country Lecture (Geotech Data is Now Big Data and We Can’t Handle It) – Robert Bachus, Geosyntec
♦ November 17, 2020, Virtual Meeting: TBD

One PDH will be awarded for most meetings that you attend.

If you are interested in presenting at one of our monthly meetings or have ideas about potential speakers, please get in touch with a DVGI board member.

**DVGI PROJECT OF THE YEAR**

2nd Annual DVGI Geotechnical Project of the Year Competition

Submissions accepted now through April 1, 2021

Project of the Year to be selected in May 2021

Projects to be featured in DVGI Newsletters

Visit dvgi.org to apply now!

Submit Applications to Theresa Loux at tloux@aeroaggregates.com
ANNOUNCEMENTS

2020-2021 Board of Directors

Top Row (L—R): J. Beideman, R. Crawford, J. McKelvey, A. Filshill, W. Petersen, C. Calabria,

Chair
Russ Preuss, P.E.
(rpreuss@gfnet.com)

Past Chair
Archie Filshill, Ph.D.
(archie@aeroaggregates.com)

Vice-Chair
Theresa Loux, Ph.D., P.E.
(tloux@aeroaggregates.com)

Treasurer
James M. Beideman, P.E.
(jbeideman@kleinfelder.com)

Secretary
Eric Backlund, P.E.
(ebacklund@kleinfelder.com)

Newsletter Director
Jeremy Brown, P.E.
(jbrown@schnabel-eng.com)

Web Advisor
Robert Crawford, P.E.
(bobc@jjaconstruction.com)

Academic Liaison
Joseph Coe, Ph.D.
(joseph.coe@temple.edu)

ASCE Liaison
James A. McKelvey III, P.E.
(jaym@earthengineering.com)

At-Large Directors
Jerry (Tse-Wei) Chen
(Jerry.Chen@wsp.com)

Conrad Cho, P.E.
(ccho@langan.com)

Board Advisors
William K. Petersen, P.E.
(bpetersen@rimkus.com)

Craig Calabria, Ph.D., P.E.
(crcalabria@msn.com)

Robert M. Sabanas, P.E.
(bsabanas@gmail.com)
ANNOUNCEMENTS

Upcoming GSI Webinars for 2020
(1.5 PDH each / upon completion of exam)

11:30 AM—1:00 PM (Eastern Time)

Topics, Dates and Registration at www.geosynthetic-institute.org/webinar.htm

Cost: GSI / GMA Members $200; Nonmembers $250

| September 23 | W-6  | Geosynthetic Applications Used in Heap Leach Mining - Description |
| October 7    | W-12 | Landfill Covers: Past-Present-Emerging - Description           |
| October 14   | W-14 | Lifetime Predictions of Covered and Exposed Geosynthetics - Description |
| October 21   | W-15 | In-Situ Stabilization of Slopes Using Nailed (or Anchored) Geosynthetics - Description |
| October 28   | W-25 | Soil Consolidation Using Wick Drains, aka PVDs - Description   |
| November 4   | W-29 | QA/QC of Geosynthetics - Description                           |
| November 11  | W-31 | Testing of Geosynthetics - Description                         |
| November 18  | W-24 | Disposal of Coal Combustion Residuals - Description            |
| December 2   | W-34 | Geosynthetics Used in Paved and Unpaved Roads - Description    |
| December 9   | W-17 | Geosynthetics in Erosion Control - Description                |
| December 16  | W-27 | Stability Design of Landfill Cover Soils - Description        |

HAVE DVGI PUBLISH YOUR ARTICLE, ADVERTISEMENT, OR JOB POSTING

- Do you have an interesting article on a project or individual in your organization that you would like to have published in the DVGI newsletter?
- Would you like to get the word out about a job opening, new venture, etc. to our membership via the newsletter?

Please submit your articles or news items for consideration in the next edition of the newsletter or get in touch about our reasonably priced advertising by contacting Jeremy Brown (jbrown@schnabel-eng.com).

ASCE/G-I Members:
Read past and present issues of Geo-Strata magazine online at www.asce.org
MEMBER SPOTLIGHT

Ernest R. Hanna, P.E.
GZA GeoEnvironmental, Inc.

GZA GeoEnvironmental, Inc. (GZA) is a Massachusetts-based corporation with about 700 staff in 30 offices within the Northeast quadrant of the United States. GZA’s holding company is GZA GeoEnvironmental Technologies, a Delaware Corporation. The Company focuses on five core service areas – geotechnical, environmental, water, ecology, and construction support.

Ernie is a Senior Principal with GZA and is President of its New York State Affiliate. Ernie started his career with GZA in its Buffalo, New York, office in 1986, starting as a Project Engineer, then relocated to GZA’s Metro Philadelphia Office in 2009 after managing the Buffalo Office for over 10 years. He initially managed GZA’s Metro Philadelphia operations (offices in Fort Washington, PA, and Hammonton, NJ) and worked to expand its geotechnical practice in the Mid-Atlantic Region. Ernie sat on GZA’s Board of Directors from 2013 – 2016 and served as the Mid-Atlantic Region’s Operational Officer from 2012 through 2016. In February 2016, he relocated the GZA Fort Washington, PA, office to its current location in Center City Philadelphia (1515 Market Street, Suite 945) and transitioned the office management.

Ernie is a licensed / registered professional engineer in New York, Pennsylvania, New Jersey, Delaware, and Maryland. He was born in Rochester, NY; happily married to his wife, Peggy, the father of Martha and Roy, and grandfather of Luke. Ernie received his B.S. degree in Biology/Geology from the University of Rochester and his M.S. degree in Engineering from the University of Wisconsin-Madison. Ernie lives in Center City, Philadelphia, enjoys the walk to work, and is extremely happy that both children also live and work in Philadelphia. His professional contributions have covered a range of environmental and geotechnical projects from multi-site due diligence to remedial action; and building foundations, to bridges, dams, and tunnels.

Q & A with Ernie:

Q: What got you first interested in the geo-world?
A: Enjoyed being outside and exploring as I grew up; worked on a land surveying crew and then as a geologist before receiving my engineering degree and realized I also liked being involved in building stuff.

Q: What is your favorite thing about your Alma Mater?
A: I am a strong supporter of continuing education and like that the University of Madison offers a variety of programs: the campus is also located in between 3 lakes, emphasizes outdoor activities, and makes great ice cream.
Q: What is something about yourself that would surprise us?
A: Before marriage and children, I had a private pilot’s license, and also enjoyed SCUBA diving and sky diving.

Q: What advice would you give to students studying a geo-profession?
A: Get a variety of field experiences, ask a lot of questions, and confirm assumptions.

Q: What are three career lessons you’ve learned thus far?
A: Communicate, communicate, and communicate – most project issues can be traced back to a lack of communication (or miscommunication). Understand what is expected, ask questions to clarify and confirm assumptions.

Try to plan and think what is needed / required next; then work to get it done ahead of schedule.

Understand that as a consultant, you are expected to be the expert, so be prepared. But, also understand that you are part of a business, and the business needs to be profitable to survive.

Q: What are your hopes for our industry?
A: I am optimistic - The industry is in good hands; there are many younger, talented engineers waiting for us to transition senior responsibility / ownership. There will likely be a demand for geo-professionals well into the future; but we need to continue to show value for our services.

Q: What is your favorite thing to do in Philadelphia?
I enjoy biking around the City and going to street events, trying different restaurants, food, and refreshments.

Q: What aspect of your job do you enjoy the most?
A: The whole package is fun to me – meeting people, searching out project opportunities, mentoring younger staff, and being part of a team that gets a project built.
Q: What is the most challenging aspect of your job?

A: Balancing the business needs with the staff needs – unfortunately we are not a manufacturer, we make money based on peoples’ time, our expertise, and experiences. At times, it can be a challenge getting work, training / mentoring staff, doing the work within budget and schedule, and then getting paid for what we accomplished.

Q: What do you like most about GZA?

A: Like the Army, at GZA you can “Be All You Can Be.” The Company offers an opportunity for staff to excel by supporting professional registration, activity in professional organizations, and training / continuing education.

Q: What has been your favorite project that you have been a part of?

A: There are many, including: the successful permit application and design / construction of a landfill expansion in Niagara Falls, NY; a brownfield project in Rochester, NY; pedestrian bridge across the Mohawk River in Amsterdam, NY; natural gas compressor station upgrades in Central PA; and equipment foundations at the Navy Yard in Philadelphia. Each had challenges; but in working together with good clients and a strong team, we met the challenges and the projects were successful.

(All images courtesy of E. Hanna)
You are invited to participate in RamJack’s L&L seminar. The presentation includes discussion of principles and the underlying assumptions, and explanations of the theories behind geotechnical analyses of helical (Screw) piles/anchors. References to sources of uncertainties in geotechnical analyses will be made to avoid a false sense of accuracy. The application of engineering principles to practical problems will be illustrated using Case Histories. The presentation touches on the use of computer software.

For more information, please contact Taylor Rizzotte – taylor@ramjacktri.com or Cindy MacKay – cindy@ramjacktri.com to schedule your L&L seminar.

CMT is a locally Owned and Operated WBE Geotechnical, Environmental and Special Inspections Corporation. Our West Conshohocken, PA office is seeking a self-motivated and qualified Mid to Senior Level Geotechnical Engineer to join our professional staff full time. Our firm has a diverse client base offering a variety of interesting and challenging projects. We desire to add engineers that have good communication skills and experience taking a project from start to finish, such as writing proposals, performing field explorations, logging borings and test pits, completing lab test assignment requests, performing geotechnical calculations and preparing client ready reports.

Applicants MUST have a PE License in Delaware, Pennsylvania or New Jersey with minimum 5 to 10 years of progressive experience in the geotechnical engineering consulting industry.

Our firm provides employee growth and advancement opportunities. We offer an excellent compensation and benefits package, including: medical, dental, vision, life insurance, 401(k) plan, paid time off and paid holidays.

Please forward inquiries and a resume to v.moody@cmtservicesgroup.com for consideration.
North America Keller companies Bencor, Case Atlantic, Case Foundation, Hayward Baker, HJ Foundation, Keller Canada, McIneney Drilling and Moretrench have joined together and rebranded to Keller.

Martin McDermott, PG
Business Development Manager
908-209-3914 • mmcdermott@keller-na.com

Bearing capacity/settlement control • Seepage control • Liquefaction mitigation • Underpinning
Excavation support • Heavy foundations • Releveling • Slope stabilization • Design-build

Philadelphia office T: 610-353-0600

Todd Culp
Operations Manager Keller Northeast
484-428-2519 • tdculp@keller-na.com

www.keller-na.com
EVENTS AND CONFERENCES

DFI45
ANNUAL CONFERENCE ON DEEP FOUNDATIONS
OCTOBER 27-30, 2020 | AN ONLINE CONFERENCE

2021 TRB
ANNUAL MEETING
Transportation Research Board
100th Annual Meeting
A Virtual Event
January 2021

IFCEE
INTERNATIONAL FOUNDATIONS CONGRESS & EQUIPMENT EXPO
MAY 10-14, 2021 | IFCEEexpo.com | DALLAS, TEXAS