November Meeting

SPEAKER: Robert Koerner, Ph. D., P.E., NAE, Emeritus Director Geosynthetic Institute and and Emeritus Professor, Drexel University

TOPIC: In-Situ Stabilization of Soil Slopes Using Nailed or Anchored Geosynthetic

DATE: Tuesday November 18, 2014

LOCATION: Valley Forge Casino (Radisson Valley Forge)
1160 First Avenue, King of Prussia, PA

TIME: 5:30 PM Social Hour, 6:30 PM Dinner and 7:15 PM Presentation

Shallow soil slope stability failures, aka landslides, represent a $2 to 5 B annual expense in America alone and worldwide the situation is obviously far greater. The usual causes are due to gravity, seismicity, surcharges and invariably water. The resulting failure surfaces are either rotational or translational and the geotechnical literature is well positioned for proper design and subsequent forensic analysis in the case of failure. This presentation illustrates the details of an in-situ stabilization method which uses a geosynthetic material (geonet, geotextile or erosion control product) on the slope's surface which is then fixed-in-place and/or tensioned by means of soil nails or ground anchors. The requisite theory (either simplified Bishop or Corps of Engineers methods) is modified for the above mechanisms and numeric examples of improved FS-values using the method are offered. While the technique was dormant for a number of years after it was first developed by the author, it has recently “taken-off” with at least ten companies offering varied approaches for their respective solutions. Each approach will be illustrated and discussed in the context of type of reinforcement, densification capabilities and surface erosion control.

Dr. Robert M. Koerner is Professor Emeritus of Civil Engineering at Drexel University and Founding Director Emeritus of the Geosynthetic Institute. Educated and trained as a geotechnical engineer he segued into geosynthetics in 1977. As a result, the last 37-years were fully focused on teaching, research, writing and advising in geosynthetics. He is a registered Professional Engineer, a Distinguished Member of ASCE, a Diplomate of the GeoInstitute and a member of the National Academy of Engineering. Bob has authored and co-authored about 700 papers on geosynthetics and geotechnical topics in journals and at national and international conferences. His most widely used publication is the sixth edition of the textbook entitled “Designing with Geosynthetics”.

*One Professional Development Hour (PDH) will be provided for attendance at dinner meeting*
Dr. Schmall presented various groundwater controls for underground construction. He started his presentation with a review of several catastrophic failures of projects from around the world. He explained how the impact of groundwater on underground construction can be enormous and should never be underestimated. The extent and method of ground-water control is a function of some or all of the following: the type of soils present in the excavation profile; groundwater hydrology; the size and depth of the excavation; method of excavation, whether there are existing structures in the proximity; and whether contaminants are present in the groundwater. He gave several examples of how the No.1 cause of failures is uncertainty of ground and groundwater conditions. The presentation will provide an overview of the specific techniques that fall within each general category, with discussion of the recent groundwater control methods applied at a number of projects including large transportation projects in the New York area such as the East Side Access Northern Boulevard Crossing, Second Avenue Subway, and the World Trade Center.

Dr. Schmall is a Vice President and Chief Engineer for Moretrench, a nationally recognized company providing a comprehensive range of construction and specialized geotechnical services. He has responsibility for the company’s complex groundwater control projects involving grouting, ground freezing and artificial recharge for underground construction or tunneling. Paul has more than 26 years of geotechnical construction experience and has engineered and managed numerous technically complex projects in the United States and overseas over the course of his career.
2014-2015 Delaware Valley Geo-Institute Scholarship Application

The DVGI website now has the 2014-2015 DVGI scholarship application. Approximately $3,000 in scholarship funds are expected to be distributed with a minimum award of $500 to the successful applicant(s). Award criteria are summarized below.

All applications should be sent to:

James Beideman, P.E.
Kleinfelder
180 Sheree Boulevard
Suite 3800
Exton, PA 19341
e-mail to: jbeideman@kleinfelder.com

Applications must be received by January 23, 2015 for consideration

Eligibility:

1. The applicant must be a student member of ASCE or one of the American Geosciences Institute’ (AGI’s) Geoscientific Member Societies (www.agiweb.org/members/index).
2. The applicant must be enrolled in a four-year college program leading to a bachelor's degree or a master's degree in a program related to Civil/Geotechnical Engineering or Applied Geoscience.
3. Preference is given to students who have not previously received a scholarship from DVGI.
4. Applicants must submit their most recent college transcripts, including grades for the most recent semester completed. Unofficial copies are acceptable.

Evaluation: Each applicant will be evaluated on a point system as follows:

1. Performance Factors - 20 points maximum.
   Applicants will be rated on the cumulative grade point average at the time they apply for the scholarship.

2. Evaluation of Applicant - 80 points maximum.
   Evaluation of the applicant’s activities and honors, work experience, leadership positions and distinguishing qualifications (40 points maximum).
   Evaluation of career goals, based on content, clarity of ambitions, grammar, spelling and neatness (40 points maximum).

E-mail James Beideman (jbeideman@kleinfelder.com) with any questions related to the application or to request an electronic version of the application.

Please encourage any local student meeting the above criteria to submit an application.
Kleinfelder has nearly 2,000 employee-owners with offices nationwide and abroad. With over 50 years of experience, Kleinfelder’s reputation for providing innovative, commonsense solutions to the most complex challenges has solidified its status as a trusted partner to its global clients and a leader in the industry.

Working as a team, Kleinfelder’s bright people will deliver the right solutions.

Kleinfelder’s Cranberry office (Pittsburgh, PA) is seeking a Senior Geotechnical Engineer to lead its geotechnical engineering discipline in our exciting Marcellus-Utica Shale Program. We are currently providing our clients with multi-disciplinary professional engineering services on the most challenging pipeline, well-pad, and facility development projects in the rapidly expanding Marcellus and Utica Shale plays. Kleinfelder’s Marcellus-Utica Program offers a wide range of challenging project work and a great opportunity to develop professionally.

The ideal candidate will have the following skills and experience:

- Pro-actively troubleshoot and problem-solve with practical, client-focused solutions
- Demonstrate technical expertise in geotechnics, slope stability, foundation design and earthwork
- Excellent verbal and written communication skills
- Lead a team of geotechnical engineers and professionally develop staff at all levels
- Interface with the civil design team to develop and value-engineer practical, fit-for-use grading plans
- Develop strategic pursuits and proposals
- Organize priorities and multi-task effectively
- Collaborate with Regional leadership and Project Managers to resource delivery effectively
- Manage projects from cradle-to-grave in a fast-paced and dynamic environment
- External focus to grow client relationships and develop business through the work

Possess a thirst to learn and achieve continuous improvement in a team environment

Requirements

- Candidates are required to have 12+ years of related experience.
- Proven experience in geotechnical design, slope stability, foundation design and earthwork
- Past experience in leading diverse project teams
Proven experience in business development opportunities and preparing proposals

Education: Bachelor’s degree in civil engineering, MS degree geotechnical engineering or equivalent required. Professional Engineering license required.

Kleinfelder offers an excellent compensation and benefits package, including: medical, dental, vision, life insurance, 401(k) plan, paid holidays, and employee-ownership. Kleinfelder is an Equal Opportunity Employer.
Employment Opportunities

GEOTECHNICAL ENGINEERING JOB POSTING

Mid-Level Geotechnical Engineer: Solid geotechnical engineering background w/ 2- to 4-years experience on foundation design projects. AutoCAD & PennDOT experience, with construction inspection experience and MS-degree preferred, along with a solid analytical background in soil mechanics and foundation engineering. Seeking motivated and enthusiastic team player. Salary commensurate with applicable experience and background. Please email or fax resumes to ybiqbal@yahoo.com or 610.777.4276, respectively.

Position available in Green Hills, just south of Reading, PA.

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Employment Opportunities

DiGioia Gray & Associates (Pottstown, PA)

PROJECT MANAGER

Project Management experience needed in geotechnical/structural/civil engineering projects, primarily in relation to transmission line design, including geotechnical & geologic investigations, foundation design, line inspections, structure and line modeling, and the preparation of construction documents. Experience in power generation, Oil & Gas, and other markets is a plus.

Plans, organizes, and controls the activities of projects, as well as his/her own activities to best accomplish the successful completion of all assigned projects while operating within the guidelines established by the Company and Office Manager and within the policies and procedures established for Project Management. Strong communication skills (verbal and written) are required.

EDUCATION
Minimum: Bachelor's degree in Civil Engineering, with focus on Geotechnical or Structural engineering from an ABET accredited program (or other degree with significant transmission line experience)
Preferred: Master's degree in Civil/Structural Engineering.

EXPERIENCE
Minimum: 10 years of experience.
Preferred: Structural and/or geotechnical engineering. Experience with power transmission line projects and a consulting services environment.

Interested candidates should e-mail their resumes and cover letters to Keith S. Yamatani (Pottstown Office Branch Manager) at kyamatani@digioiagray.com

For more information about DiGioia Gray and Associates, please visit our website: www.digioiagray.com
Employment Opportunities

DiGioia Gray & Associates (Pottstown, PA)

ENGINEER / ENGINEERING GEOLOGIST

Experience needed in geotechnical/structural/civil engineering projects, primarily in relation to transmission line design, including geotechnical & geologic investigations, foundation design, preparation of construction documents, and construction monitoring. Experience in power generation, Oil & Gas, and other markets is a plus.

Performs work with specific and detailed instructions; Works on small projects or portions of larger projects; Collects data and gathers information or documents; Performs field assignments (boring observation and construction monitoring); Performs standard computations or analysis; Prepares drawings and visual aids; Performs basic survey work; Assists on other tasks such as: preparation of permit applications, reports, material testing, drawings, and CAD work; Edits specifications; Performs research and investigations as assigned; Assists on other tasks as required; Strong communication skills (verbal and written) are required. Travel is required.

EDUCATION
Minimum: Bachelor's degree in Civil Engineering (with focus on Geotechnical or Structural engineering) or Geology from an ABET accredited program.
Preferred: Master's degree in Civil/Structural Engineering or Engineering Geology

EXPERIENCE
Minimum: 0 years of experience.
Preferred: 2+ years of structural and/or geotechnical engineering experience with power transmission line projects and a consulting services environment.

Interested candidates should e-mail their resumes and cover letters to Keith S. Yamatani (Pottstown Office Branch Manager) at kyamatani@digioiagray.com

For more information about DiGioia Gray and Associates, please visit our website: www.digioiagray.com
Employment Opportunities

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TECHNICIAN
Experience needed in civil engineering projects, primarily in relation to transmission line design, including geotechnical boring logging, foundation construction observation, excavation/compaction observation/testing, concrete testing, and construction monitoring. Experience in power generation, Oil & Gas, and other markets is a plus.

Performs work with specific and detailed instructions; Works on small projects or portions of larger projects; Collects data and gathers information or documents; Performs field assignments (boring observation, construction monitoring, and field testing of concrete/compaction); Clearly and readily communicates with contractors/owners/office engineers to proactively resolve potential field issues; Performs standard computations or analysis; Prepares field reports, draft boring logs and other visual aids; Performs basic survey work; Assists on other tasks as required; Strong communication skills (verbal and written) are required. Travel is required. Civil/Structural engineering experience is a plus.

EDUCATION
Minimum: Associate’s degree or equivalent experience.

CERTIFICATION
Required: ACI Concrete Field Testing Technician – Grade I; OSHA 10-hour Construction Safety
Preferred: Nuclear Gauge Safety Certification;

EXPERIENCE
Minimum: 5 years of experience.
Preferred: 2+ years of structural and/or geotechnical engineering experience with power transmission line projects and a consulting services environment.

Interested candidates should e-mail their resumes and cover letters to Keith S. Yamatani (Pottstown Office Branch Manager) at kyamatani@digioiagray.com

For more information about DiGioia Gray and Associates, please visit our website: www.digioiagray.com
Geosynthetic Webinars

ASCE Webinar via the Geosynthetic Institute
11:30 AM – 1:00 PM (Eastern Time Zone)
Registration at www.asce.org/webinars

1.5 Professional Development Hours; Cost $400

ASCE 1 – October 3, 2014 “Geotextile Tubes”
ASCE 2 – November 13, 2014 “Geosynthetic in Basal Reinforcement”
ASCE 3 – December 9, 2014 “Geosynthetic Pond Liners”
ASCE 4 – January 16, 2015 “Geotextile Filter Failures”
ASCE 5 – February 25, 2015 “Geosynthetics in Roads”
ASCE 6 – March 16, 2015 “Geosynthetics in MSE Walls and Slopes”

Geosynthetic Institute Webinars
(Second Wednesday of Every Month)
11:30 AM – 1:00 PM (Eastern Time Zone)
Registration at www.geosynthetic-institute.org/webinar.htm

1.5 Professional Development Hours; Cost $250

W5 – October 8, 2014 “GSs in Hydraulic Applications”
W6 – November 12, 2014 “GSs in Heap Leach Mining”
W14 – December 10, 2014 “In-Situ Stabilization of Soil Slopes Using Geosynthetics”
Earn PDHs at 2014-2015 DVGI Events

Upcoming Dates for 2015 Dinner Meetings and events are as follows:

♦ January 20, 2015 - Joint meeting with the NY-Philadelphia Section of AEG
♦ February 17, 2015 - Student Night at Villanova University
♦ 2nd Annual Golf Outing - TBA

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

Looking for a Geotechnical Career Opportunity?

Have you considered a student internship or a co-op position? It’s a great way to “get your foot in the door” while gaining practical professional experience. Check the new geotechnical co-op and internship links on the G-I Student page at: http://content.geoinstitute.org/student.html.

G-I Chapters and Local Geotechnical Groups

As a 21st Century professional organization, the G-I aims to collaborate with local, national, and international geo-professional organizations. To meet that goal, the G-I has developed a strategic plan for outreach to local geotechnical groups to assist them in becoming a Geo-Institute Chapter. Check out this great link to other G-I Chapters and local Geotech Groups across the country:

http://content.geoinstitute.org/groups/index.html.

The University of Delaware has a Student Chapter. Please contact the Chapter President, Lauren Lobo at email address llobo@Udel.edu for more information.

Congratulations to the GIUD!

G-I Twitter Brings You Quick News Updates

Twitter is a social networking tool for posting very brief updates, or “tweets.” The G-I launched its Twitter feed in April 2009 to announce updates to its website and other relevant news items. Since then, over 150 updates have been posted and more than 144 persons have become registered G-I followers. Visit our Twitter feed at http://twitter.com/GeoInstitute. You can check for updates or “follow” us using a Twitter account, an RSS reader, or one of the many other web applications that work with Twitter. Spread the word. Also check out the DVGI link at www.linkedin.com. Set up an account and keep up to date with business associates.
UPDATE: New DVGI Website

Over the last several months we have added some additional content to the DVGI web site located at www.dvgi.org. The web site now includes links to our corporate sponsors web pages, past newsletters, the 2014-2015 DVGI events calendar, industry related links and events, and most notably a form for online reservations to our monthly meetings.

Please e-mail any of the DVGI Board members if you would like additional information added to the website.

HAVE DVGI PUBLISH YOUR ARTICLE

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? Please submit your articles for consideration in an upcoming edition to Archie Filshill at archie_filshill@golder.com

DVGI Merchandise Available for Purchase

1 GB memory sticks ($12); coffee mugs ($8); and lapel pins with the DVGI logo ($5) are available for purchase. See Ara Mouradian if you are interested in purchasing any of these items.

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