
Groundhog

From the Chair

It has been a busy time for the Seattle Section Geotechnical Group. The Planning Committee has been meeting at least monthly since August. In August and September, our primary focus was finding speakers for the dinner meetings and making arrangements for a new dinner location in Bellevue. The speakers for the remaining meetings of this year are included in the "Geo-Schedule." We have worked hard to find who we think would be good speakers with something our member's would be interested in hearing. If you have suggestions for other dinner meeting topics, please let one of the group officers know.

Since October, the committee has been planning the spring seminar. This year's seminar, Practical Aspects of Slope Stabilization & Erosion Control (Biotechnical and Soil BioEngineering), will be held on April 28 at the University of Washington. Once the program has been finalized and speakers contacted, more information will be published in future issues of the Groundhog and posted to the Section's website.

There were about 50 people that took advantage of the "Terzaghi Day" at the ASCE Seattle2000 Convention. Bob Holtz from the University of Washington and current Geo-Institute president was instrumental in arranging this for the local geotechnical community. Terzaghi Day provided a unique opportunity to meet geotechnical engineers from other parts of

the United States, and to attend the Terzaghi Lecture in person. Many thanks to Bob, and the staff of the Geo-Institute!

As I mentioned before, the Planning Committee has been busy arranging the monthly dinner meetings and the annual spring seminar. I would like to take this opportunity to thank them for their time that they generously give to the Geotechnical Group. In addition to the group officers listed below, the other members of the planning committee include Aaron Bradshaw (Hart Crowser), Monique Nykamp (Shannon & Wilson), Jen Schaeffer (CH2M Hill), the ubiquitous Bob Holtz, Jim McElroy (CDM Jessberger), and Keith Cross. As always, everyone is welcome to participate in the planning committee. If you are interested in attending, please contact me for the meeting schedule.

In addition to arranging the dinner meetings and the spring seminar, the planning committee is also trying to resurrect the landslide prevention seminars; producing a video of the landslide prevention seminars; and funding small research projects such as the pipe pile and soil nail projects. These projects are an important part our mission, which is to serve our members and the public. We are always looking for new projects.

Good Luck to everyone in the new Millennium! I hope to see you at a dinner meeting this year.

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GEO-SCHEDULE

The new millennium has brought some interesting meeting, and there are more to come. If you have suggestions for meetings, please contact one of the group officers with your suggestions.

Meeting Schedule**January 2001**

- 25 ASCE Dinner Meeting: Use of Geocellular Confinement to Improve Stability of a 1,700-foot-long, 60-foot-high Slope**, presented by **Stan Boyle, Ph.D., P.E.**, Shannon & Wilson, and **Mark Hillyard**, Wilder Construction. Location: Rock Salt Steak House, Seattle.

February 2001

- 12-14 Geosynthetics Conference 2001**, Portland, Oregon (For more Information: www.ifai.com)
- 22 ASCE Dinner Meeting: Seismic Stability of Slopes and Walls**, presented by **Faiz Makdisi, Ph.D., P.E.**, Geomatrix Consultants. Location: Bellevue Inn, Bellevue.

March 2001

- 14 ASCE Dinner Meeting: Results of Kingdome Implosion Monitoring**, presented by **Susan Chang, Ph.D., P.E.**, Shannon & Wilson, and **John Hooper, P.E.**, Skilling, Ward, Magnusson and Barkshire. Location: Yankee Diner, Seattle. (Note: This will be a joint ASCE Seattle Section/SEAW meeting.)
- 15 AEG Dinner Meeting: Modeling of Rapid Motion Landslides**, presented by **Oldrich Hungr**, UBC.

- 19-21 Planning for Successful Underground Projects: Applying the Lessons Learned.** In Seattle. (for more information: www.auca.org)

April 2001

- 19 AEG Dinner Meeting: Slope Stability of Cascade Volcanoes**, presented by **Bob Watters**, University of Nevada – Reno.
- 26 ASCE Dinner Meeting: Geotechnical Aspects of the Seatac 3rd Runway**, presented by **Mike Bailey, P.E.**, HartCrowser. Location: Bellevue Inn, Bellevue.
- 28 Spring Seminar: Practical Aspects of Slope Stabilization & Erosion Control (Biotechnical and Soil BioEngineering)**

May 2001

- 24 ASCE Dinner Meeting: Laterally Loaded Drilled Shafts in Liquefied Soils**, presented by **Scott Ashford, Ph.D., P.E.**, University of California at San Diego. Location: Bellevue Inn, Bellevue.
- 25 Land Reclamation Geotechnique: Vancouver, British Columbia.** The presentations will emphasize the geotechnical and hydrogeological aspects of reclaiming land either to a natural state, or to meet public or industrial needs. For registration, exhibiting and sponsoring information, please contact the Symposium Chair, Rod Kostaschuk, Knight Piesold Ltd, 604-685-0543, Fax: 604-685-0147, e-mail: rkostaschuk@knightpiesold.com.

NEWS ABOUT GEO-TOWN

The use of the **Groundhog** to inform others in the Geotechnical Community as to what is happening at your firm is encouraged. Anyone interested in announcing news in future issues of the **Groundhog** should send articles to Mark Ahlstrom (mahlstrom@landauinc.com).

CH2M Hill

The City of Austin, Texas **Upper Walnut Creek Interceptor Project** will be bid in January 2001. The project involves approximately 14,000 LF of 36-inch sewer with approximately 7000 LF in rock tunnel. The project has many geotechnical challenges including the crossing of major geologic faults, limestone with solution cavities, and groundwater levels above the tunnel arch. CH2M HILL managed the geotechnical exploration, prepared the Geotechnical Baseline Report and prepared the Tunneling Specification at the request of the City of Austin. **Dick Coon** from CH2M HILL's Bellevue office, Steve Smith from Austin office and Tim Hassett from Dallas Forth Worth office have contributed to this assignment.

Dick Coon has also been working on the **Maadi Sewer Tunnel Project** in Cairo, Egypt. This project, designed by others, has 3.2 km of 4 m ID and 1.2 km of 2 m ID concrete segment lined tunnel and five concrete segment lined shafts. The tunnel is entirely in a soft limestone similar to the rock from which the Sphinx of Giza was carved. Dick has been coordinating review of submittals by the contractor, Zublin of Stuttgart, Germany, and he has made two site visits. Issues on this project have included alignment changes, use of shotcrete shaft linings, repair of cracked tunnel linings and measures to deal with unexpectedly corrosive groundwater.

King Sampaco from CH2M HILL's Bellevue office presented a paper entitled "*Settlements of a Preloading Embankment on PV Drain-Improved*

Chewelah Clay" at the *ASCE Specialty Conference on Performance Confirmation of Constructed Geotechnical Facilities (AMHERST 2K)* held at the University of Massachusetts in Amherst on April 10-12, 2000. This paper is an outgrowth of the **Chewelah Wastewater Treatment Plant (WWTP) Project** in which CH2M HILL was hired by the City of Chewelah (located about 50 miles northwest of Spokane, WA) to provide engineering design services for the proposed facility.

Golder Associates

Golder's Redmond office engineering group was very busy in 2000. Project highlights include: Golder developed geotechnical recommendations for the downtown and Rainier Valley segments of Sound Transit Link Light Rail; Developed geotechnical design recommendations for infrastructure developments at the Cougar Mountain East Village Project in Issaquah, construction is proceeding through this winter; Completed a rock fall hazard mitigation study at Blewett and Stevens Pass for WSDOT; Construction is underway on an 85 foot deep soil nail wall, the deepest in US, at the Bellevue Technology Center; The Weowna Park Stream Stabilization Project, designed by Golder, won the ASCE Seattle Section Local Outstanding Civil Engineering Achievement Award for 2000.

Golder would like to take this opportunity to welcome the following new technical staff members: **Steve McCullough**, Staff Engineer; **Mike Mengelt**, Staff Engineer and **Sara Marxen**, Project Water Resources Engineer. Steve McCullough received a bachelors degree in geological engineering from University of Wisconsin, Madison. Mike Mengelt received his Master's degree in geological engineering also from University of Wisconsin, Madison. Sara Marxen just received her Master's degree from University of Washington.

Hart Crowser

Hart Crowser's geotechnical group has been working steadily through the fall and the outlook for winter months is "considerably busy".

Promotions:

Mike Bailey, P.E., was recently promoted to Senior Principal Geotechnical Engineer. This year marks Mike's 20th year anniversary with Hart Crowser. During that time, Mike has provided a wide variety of expertise to his projects including mining, tunneling, embankments, environmental issues, and the wide range of traditional geotechnical engineering. Mike has been the Hart Crowser's project manager for the Third Runway project for the past two years.

Doug Lindquist was promoted to Senior Staff Geotechnical Engineer. Doug has provided considerable support in the areas of FLAC modeling and earthquake engineering.

Project Notes:

Hart Crowser recently finished Phase II Construction Observations of the soil nail walls at Lincoln Square in Bellevue. The soil nails effectively "underpinned" the PACCAR parking garage on the east side of the site. Measured wall deflections were near to those predicted during Hart Crowser's design of the system. The project will include construction of the two highest towers (i.e., 42 stories) in Bellevue.

Landau Associates, Inc.

Landau Associates is a 75-person consulting firm specializing in geotechnical engineering and environmental services. Our geotechnical engineering group continues to grow and is headed by Dennis Stettler, P.E., Principal, who has recently been elected as Chair of the Board.

Dave Fischer, P.E., has also been named to the Board of Directors. Recent hires in our Portland office include **Dave Thielen**, P.E., a Principal, and **Julio Vela**, Ph.D., P.E., a Senior Engineer. In our Edmonds office, **Reid Carscadden**, P.E., has returned as a Senior Engineer, and recent hires include **Sean Cool**, a University of Washington geotechnical engineering graduate and **Ken Reid**, an engineering geologist. **Steve Wright**, P.E., has been promoted to Senior Engineer and **Mark Ahlstrom** has been promoted to Project Engineer. Our environmental engineering and natural resources groups also continue to grow in size and diversity of expertise.

Projects that involve a diverse range of geotechnical expertise currently keeping our engineers and geologists engaged include Port of Olympia's Cascade Pole Site, Washington State Department of Transportation's North Spokane Corridor, and numerous other building and site development, roadway, landslide, utility, waterfront, and resource projects throughout the Pacific Northwest. The Cascade Pole work involves significant geotechnical engineering design for a large sediment containment and remediation project in the Port of Olympia. Offshore and onshore investigation and design enable us to benefit our client by combining our sediment expertise and geotechnical engineering services with environmental engineering design.

Associated Earth Sciences, Inc.

For the past several years Associated Earth Sciences (AESI) of Kirkland and Bainbridge Island, Washington has been growing at a steady pace from 15 employees in 1992 to over 80 employees in early 2000. "This growth has mandated changes in the way we manage our business. We will continue to maintain the family friendly environment with hands-on management from the principals, but we have come to realize that we can't do it all effectively and still have a balance with our life outside work." Ron Parker,

Principal admits. "After struggling with this issue, we decided to concentrate on doing what each of us does best, focusing on our projects and clients. To alleviate this problem, we have chosen to hire a professional to manage the financial and administrative sides of our business."

Ron Parker will now be responsible for directing the business development activities for Associated Earth Sciences in addition to project management of erosion control, geologic assessments and geotechnical engineering projects. Principal **Gary Flowers** will be responsible for project management of geotechnical engineering projects and hazardous waste projects for the Kirkland office. **Brenda Nunes** has been promoted to Director of Strategic Planning and will work with key company employees to develop and implement the company vision. **Aaron McMichael, P.E.** has been promoted to senior geotechnical engineer. He has been the geotechnical engineer on the Redmond Ridge project, an 1800 home development in Eastern King County. **Jamey Battermann, P.E.** has also been promoted to Senior Geotechnical engineer. He is a Certified Professional Erosion and Sediment Control (CPESC) and for the past 7 years has been the full time erosion control inspector and geotechnical engineer for the Snoqualmie Ridge Development in Snoqualmie Washington.

New Hires: Susan Harrison, P.E., Project Geotechnical Engineer. Ms. Harrison has several years of local experience in geotechnical engineering, water resources, and environmental projects.

Shannon & Wilson, Inc.

New Hires:

Gayle Guadarrama, Senior Associate and Corporate Marketing Director, has more than 20

years of experience as a marketing professional in the architecture/engineering/construction industry.

David Winter, Vice President, has a 20-year Seattle career that has included oversight of major geotechnical and environmental projects for both public and private sector clients. David will be responsible for marketing and business development of geotechnical, environmental, and natural resource services at Shannon & Wilson.

CDM Jessberger

CDM Jessberger, a division of Camp Dresser & McKee, Inc. (formerly AGI Technologies), has had a busy fall and winter. Recent projects include Northeast Interceptor Sewer Project in Los Angeles, Lords Lake Dam, and Marston Water Treatment Plant in Denver. Recent hires include:

Dave Wilkinson, a recent graduate of the University of Washington. He has been heading up the laboratory in Bellevue, and assisting with construction monitoring and field work. **Nils Lindwall,** a current graduate student at the University of Washington, has been working on the design of an excavation support system, and other geotechnical projects. **Rick Smith, P.E.,** joined the group in September. He has been managing projects, and assisting with new business development.

GeoEngineers

GeoEngineers celebrated its 20th Anniversary this year as well as the retirement of founding Principal, **Jack Tuttle.** Jack started the firm 20

years ago along with Jon Koloski and Gary Henderson who are still with the firm. To celebrate Jack's retirement and the milestone of turning 20 years old in 2000, the company celebrated with clients on November 15th at the Experience Music Project (EMP). The event was a great tribute to the firm and to Jack and included more than 500 clients and staff.

GeoEngineers recently opened an office in Olympia and in Everett, Washington. There are now 11 offices located in Alaska, California, Idaho, Oregon, and Washington. **Deb Overbay** was recently promoted to Associate Geotechnical Engineer and she resides in our Everett office. Congratulations Deb!

Moore and Taber

Moore and Taber is announcing their expansion into the Pacific Northwest. Moore and Taber is an established soil improvement contractor established in 1972. Their traditional service area has been Los Angeles and San Diego California. Starting in January, 2001 they are opening a branch in the San Francisco Bay Area and later in the year a Northwest office will be opened in Sumner, Washington. Moore and Taber specializes in soil improvement grouting using Compaction Grout, Chemical Grout, Cement Slurry Grout, Superfine Cement and/or Structural Grout. For more information, contact Ken Faught at (866) 779-7001 toll free.

Seattle Public Utilities Materials Laboratory

The Seattle Public Utilities (SPU) Materials Laboratory geotechnical group has undergone some staff changes this summer. Al Rice remains a constant as our Laboratory Manager, having been with the lab on and off for over 30 years. **Daniel Huang** has moved on to supervise SPU's Dam Safety group, and has been replaced by **Henry Haselton**. Henry comes to the lab as a

senior geotechnical engineer from the local private sector, having worked for Converse Consultants, AGI Technologies, and PacRim Geotechnical Inc. **Jeff Fowler**, who had been a temporary employee with the lab for the past 3 years, is now a permanent fixture, having recently received his geotechnical Masters Degree from UW.

We have had our hands full this summer with a variety of interesting utility, transportation, and landslide projects, among others. We are currently working on the design and construction of sanitary and storm sewer replacement projects in Pioneer Square, Westlake Greenwood and Carkeek Park. We are also working on the design and construction of several bridge replacement projects in the Cedar River watershed and in town, an office complex in the South Park Transfer Station, safety improvements at the Tolt Dam, and a tunnel portal extension project at Boundary Dam, in addition to several small retaining wall replacements, watershed enhancements and landslide repairs. Some interesting construction projects of note this summer include a microtunneling drive beneath the Snohomish River for the Tolt No. 2 pipeline eastern segment and a slide remediation on Norway Hill in Bothell related to the phase 4 construction of the Tolt No. 2 pipeline. The slide on Norway Hill was an emergency situation that involved over 2,000 cubic yards of material, and was designed and built within 5 days, working around the clock. Finally, we conducted a stability evaluation of an embankment (supporting the Tolt No. 1 and No. 2 pipelines) in the Tolt watershed that revealed marginally stable conditions. We designed stabilization measures, prepared the project documents, advertised the project on a fast track, and hope to have it constructed before Thanksgiving.

The renovation of our Materials Laboratory is coming to completion, and through the dedicated efforts of our staff, we have received AASHTO accreditation for soil, concrete and asphalt testing.

A ribbon cutting ceremony is planned for this October to celebrate our new look and accreditation. The lab continues to be involved with testing and materials submittal review for numerous SPU and SEATRANS construction projects.

Slope Indicator

Bob Kenly reports that Slope Indicator has been acquired by Durham Geo-Enterprises of Atlanta GA. Durham Geo manufactures a broad range of field and laboratory equipment for testing soils, concrete, asphalt and geosynthetics, and also makes specialty pumps for groundwater remediation and sampling.

Slope Indicator will remain in the Seattle area for "business as usual."

Slope Indicator is also offering its short course on Inclinometer Data Reduction and Error Correction on Feb 2-3. Additional information about the course is available on Slope's website at:

www.slopeindicator.com

Help Wanted

Associate Geotechnical Engineer

Consulting firm established in 1991 in Puget Sound with significant growth potential is expanding and seeks a geotechnical engineering practice leader for water resources, transportation, wastewater, and land development projects. Successful candidate must have a B.S. in civil or geological engineering, preferably an M.S. or Ph.D. in geotechnical or related engineering, and a minimum of 5 years directly related experience. Environmental experience a plus. Primary responsibilities will include project oversight, client relations, marketing, and group management. Requires strong communication skills and professional registration in Washington. Compensation DOE. Equity potential. Resume to Sandra Johnson, Hydro-Geosciences, 7981 168th Avenue N.E., Redmond, WA 98052. EOE.

The **Groundhog** is the official publication of the **Seattle Section Geotechnical Group of the ASCE**.

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