



Vancouver Geotechnical Society

A Local Section of the Canadian Geotechnical Society

Visit : www.v-g-s.ca

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NOTICE OF UPCOMING DINNER PRESENTATION

THURSDAY, JUNE 28, 2012

SUBJECT: Site characterization for cohesive soil deposits using combined in situ and laboratory testing

SPEAKER: Don J. DeGroot, Sc.D., P.E.
Professor
Department of Civil and Environmental Engineering
University of Massachusetts Amherst, Amherst, MA USA.



Dr. Don J. DeGroot is a professor in the Department of Civil and Environmental Engineering at the University of Massachusetts Amherst. He received his Doctor of Science degree in Civil Engineering with specialization in geotechnical engineering at the Massachusetts Institute of Technology in 1989. His teaching, research and consultancy experience is primarily in the area of soil behavior with an emphasis on field and laboratory measurements for geotechnical engineering site characterization programs. He has been a Principal/Co-Principal Investigator on numerous geotechnical engineering research projects that included research on drilling and sampling of soils, in situ testing, laboratory measurement of soil behavior, and selection of soil design parameters. His consultancy work has largely involved conduct and interpretation of in situ and laboratory tests of soils. He has published findings from this research and consultancy work in many of the major geotechnical engineering journals, American Society of Civil Engineers (ASCE) Geotechnical Special Publications, American Society for Testing and Materials (ASTM) Special Technical Publications and Transportation Research Board (TRB) publications. National and international conference activities include invited Keynote and State-of-the-Art papers and presentations on site characterization and soil behavior. He has served on the editorial boards of the Journal of Geotechnical and Geoenvironmental Engineering and the Geotechnical Testing Journal and served as Chair of the ASCE Geotechnical Institute Soil Properties and Modeling Committee.

CONTENT: This presentation gives recommendations for conducting geotechnical site characterizations to obtain design parameters for settlement and stability analyses. It focuses on relatively uniform, saturated terrestrial cohesive soil deposits with near zero Standard Penetration Test blow counts and soft ground conditions, which means that construction will load the foundation soil beyond its preconsolidation stress. The site characterization program should select an appropriate combination of in situ tests for soil profiling (identify soil types and their relative state) and laboratory tests on undisturbed samples for strength-deformation-flow properties. Although the tools, procedures, and interpretation methods needed to conduct a reliable site characterization program are well developed, general practice often ignores this knowledge. Thus a prime objective of the paper is to provide recommendations for moving practice closer to the state of the art. Components of site characterization covered include site stratigraphy, drilling and undisturbed sampling, in situ testing, and laboratory consolidation and strength testing. Key recommendations include: fixed piston sampling using drilling mud and tubes with an appropriate geometry, piezocone testing for determination of site stratigraphy, radiography of sample tubes, debonding of samples from tubes, evaluation of sample quality, CRS testing to measure consolidation behavior, and anisotropic or K₀ consolidated strength tests to measure undrained shear strength behavior.

DETAILS

LOCATION: University of British Columbia, Room 1250, UBC-CIRS Building

Address: Centre for Interactive Research on Sustainability, 2260 West Mall, Vancouver, BC V6T 1Z4

See the map below

http://www.maps.ubc.ca/PROD/index_detail.php?show=y,n,n,n,n,y&bldg2Search=n&locat1=633

Social Hour: 5:30 to 6:30 pm (drinks available at the hotel bar)

Technical Presentation: 6:30 to 7:30 pm

Dinner: 7:45pm (\$30 will be charged for dinner)

RSVP: Dinner reservation to ali.amini@shaw.ca by Wednesday, June 27, 2012