



2011 - 2012

November Meeting Notice

Minnesota Geotechnical Society
Duluth Chapter

Prediction of Sand Aging Effects

Dr. David Saftner
Assistant Professor
Department of Civil Engineering
University of Minnesota Duluth

This presentation describes field and laboratory geotechnical investigations of time-dependent increases in the strength of sand following disturbance, a phenomenon commonly called “sand aging.” While numerous case histories documenting sand aging exist, it is not completely understood. Strength increases typically manifest themselves as changes to cone penetration test (CPT) tip resistance, standard penetration test (SPT) N-value, or shear wave velocity (Vs) with time. Because in-situ test results are commonly used for quality assurance in soil improvement, understanding their time-dependence could prevent construction delays and decrease the amount of effort required to improve soil. As part of this project, three different instrumented soil improvements were conducted, including explosive compaction, GeoPier Impact Pier installation, and induction of liquefaction using a Network for Earthquake Engineering Simulation (NEES) mobile vibroseis system. Comparing the results from these field projects and laboratory tests isolated some of the proposed aging mechanisms and allowed for the development of a more detailed sand aging prediction method than was previously available.

Date: Thursday, November 10, 2011
Location: Grandma's Canal Park: 425 South Lake Avenue, Duluth, MN
Time: 11:45 am Registration and begin lunch buffet, including:

Grandma's Marathon Spaghetti

Grandma's famous Marathon Spaghetti with meat and meatless sauces. Served with our fresh house salad and freshly baked Italian breadsticks.

12:00 pm Presentation: Dr. David Saftner, University of Minnesota Duluth

Cost: \$17.00 members and non-members, and \$10 full-time students, payable to MGS at the door.

Reservations: Requested by 12 Noon, Friday, November 4, 2011

Please register via the website at <http://www.mngeotechnicalsociety.com/eventsduluth.asp>

Please print, fill out and bring the New Membership Application to the next meeting. The form is at: <http://www.mngeotechnicalsociety.com/newmemberapp.asp>

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