

Ground Improvement Committee



The DFI Ground Improvement Committee is comprised of government agency representatives, contractors, engineers and researchers who are involved in the practice of technologies that are intended to densify, reinforce or enhance drainage characteristics of ground. The ground improvement technologies covered include, but are not limited to, vibratory stone columns, vibrocompaction, vibro concrete columns, aggregate piers, dynamic compaction, wick drains and grouted inclusions.

The committee recently completed two liquefaction-related projects. One was a survey funded through DFI's Committee Project Fund to define the state of practice of ground improvement for liquefaction mitigation. Tim Siegel of Dan Brown and Associates led this project, which involved preparing and issuing a detailed survey, and compiling and synthesizing the results. Over 150 practitioners from around the world responded to the survey and provided information related to the prevalence of liquefaction as a design consideration, and answered specific technical questions regarding fine-grained soils, site characterization tools, analytical and computational methods, references and resources, mitigation techniques, and verification methods. Dan Brown and Associates also contributed financially to this successful study. The survey results were reported in the August 2013 volume of the *DFI Journal*.

The other project was completed by a task force of committee members, led by William (Billy) Camp of S&ME, Inc. The

group completed a study and report, "Commentary on the Selection, Design and Specification of Ground Improvement for Mitigation of Earthquake-Induced Liquefaction" published in the *DFI Journal* in August 2013. This document reviews the fundamental ground improvement mechanisms for liquefaction mitigation and the applicability of and limitation of the various methods used. This information is needed by designers when recommending and specifying various ground improvement methods for liquefaction mitigation.

The committee has also finalized its wick drain guide specifications. Thanks to Matt Barendse of the New York State Department of Transportation for working with me on the project and to the committee members and DFI Technical Advisory Committee who provided valuable comments. The specification includes suggested text and guidance on the materials, installation and quality control and assurance for wick drain projects, and is available through DFI.

The committee is looking forward to working more closely with the GeoInstitute's Soil Improvement Committee, chaired by Professor Kyle Rollins of Brigham Young University. The committees hope to present joint seminars on ground improvement topics in 2014 and 2015, possibly in conjunction with ASCE Geotechnical Sections. We are also working on initiatives that relate to working platform safety and guidance for preparing ground improvement specifications.

If you have any questions or comments, or if you would like to get involved with the Ground Improvement Committee, please contact DFI headquarters at staff@dfi.org.