

IDENTIFYING AND TREATING COLLAPSIBLE SOILS

THURSDAY, FEBRUARY 8, 2024, 5³⁰–8 PM



PRESENTATION SUMMARY

Collapsible soils are stiff and strong in their dry natural state but can lose strength and settle dramatically when wetted. A variety of methods have been developed to identify collapsible soils, including geologic environment, soil type, and correlations with void ratio and water content. However, these methods are not always successful in clearly quantifying the hazard. Additional methods for quantifying behavior are laboratory collapse tests, downhole collapse tests, and pressuremeter collapse testing. Once the hazard has been evaluated, several ground improvement strategies can help reduce collapse strain, including preventing wetting, excavation and replacement, pre-wetting, pre-loading with pre-wetting, deep dynamic compaction, compaction grouting, and deep foundations. Professor Rollins will summarize identification and treatment methods, then highlight a field research study that compared a variety of improvement strategies.

DR. KYLE M. ROLLINS
Brigham Young University

REGISTER NOW

5³⁰ PM CHECK-IN/HAPPY HOUR
6 PM DINNER | 7 PM TALK

THE GRAND
4101 E WILLOW STREET
LONG BEACH, CA 90815

PRICING

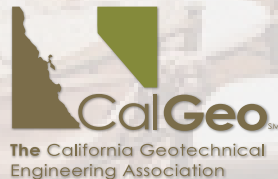
\$125 ASCE/CALGEO MEMBERS
\$100 EMERGING PRO MEMBERS
\$175 NON-MEMBERS
\$25 STUDENTS**

Kyle Rollins earned his BS degree from Brigham Young University and his PhD from the University of California, Berkeley. After working as a geotechnical consultant, he joined the Civil Engineering faculty at BYU in 1987, following his father who was previously a geotechnical professor. He has supervised more than 130 graduate students and published over 200 papers. His research has involved liquefaction assessment of gravels, ground improvement, lateral resistance of piles and pile groups, passive resistance of bridge abutments, and lightweight cellular concrete. His studies typically involve full-scale testing to determine “ground truth” behavior. Professor Rollins was the chair of the Geo-Institute Technical Committee on Soil Improvement, and ASCE has recognized his work with the Huber Research Prize, the Wellington Prize, the Wallace Hayward Baker Award, and the H. Bolton Seed Medal. In 2009, he was the Cross-Canada Geotechnical lecturer for the Canadian Geotechnical Society.

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* Government employees receive member pricing. Emerging Professionals (<10 years experience) attend for \$75. Registration includes talk, dinner, and non-alcoholic drinks. Registrations are transferrable but non-refundable.

** First 10 students will have their registration fee refunded upon attendance. To qualify, the student must pay upon registration and attend the event.