

The Geo-Institute Grouting Technical Committee will live-stream the *session "Developments in Geotechnical Grouting"* on Tuesday, December 8, at 2 PM EST. The talks include:

Talk #1: Verification in Geotechnical Grouting (presented by Adam Paisley, P.E., M.ASCE – Keller North America)

TBD

Talk #2: Specialty Low-Density Cellular Grouts (Presented by Milton Gomez, M.ASCE – Aerix Industries)

Low-density cellular grout is an engineered, lightweight, flowable cementitious fill used as an alternative to compacted granular materials where excessive loads, settlement, limited access, groundwater, or compaction requirements create construction challenges. This presentation reviews the engineering principles governing density, strength, flowability, pumpability, loading conditions, groundwater considerations, and quality control. Case studies from transportation, utility, retaining wall, bridge approach, tunneling, and infrastructure projects will demonstrate performance under challenging site conditions. Attendees will gain practical guidance for evaluating, specifying, and implementing cellular grout to reduce settlement risk, simplify construction, accelerate project schedules, and improve overall project delivery.

Talk #3: Stabilization of Interstate 80 (Presented by Lucian Spiteri, P.E., M.ASCE – Keller North America)

Mine subsidence resulted in a series of sinkholes which eventually closed interstate 80 in both directions through the town of Mine Hill, forcing upwards of 150,000 cars and trucks each day into the surrounding neighborhoods. The underlying geohazard was a mine with history dating back to the late 1700's which had operated for greater than 100 years. Historical records showed the general presence of the mine and indicated that the workings were several hundred feet deep but provided little other information from which to design and implement a remediation strategy. This presentation will highlight the process undertaken to conduct remediation and investigation in parallel under geotechnical conditions which were constantly evolving due to continued subsidence, discussing the initial stabilization, investigation and design and implementation of the final repair which led to the staged re-opening of this vital artery.

Talk #4: Polyurethan Grouting for Ground Improvement Addressing Engineering Questions Through Design and Verification (Presented by Rex Klentzman, P.E, M.ASCE – NCFI Geotechnical)

TBD

Talk #5: Permeation Grouting of Cohesionless Soils for Trenchless Undercrossing (Presented by Jack Pappas, P.G, M.ASCE – Budinger & Associates)

Tunneling through cohesionless soil presents a unique set of challenges and risks to existing infrastructure such as railroads and highways. The injection of cementitious grout into the pore spaces of the soil above the crown of the tunnel reduces the risk of caving soils and damage to existing infrastructure during tunneling operations. This presentation covers the basis for design, implementation, quality control, and final product through a series of case studies.