Web Conference Lunch-and-Learn

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Quality Programs for Rigid Inclusions and Load Transfer Platforms

Ken Kniss, P.E., M.ASCE, and Chelsea Riddle, Keller – North America

In the early 2020s, the Deep Foundations Institute (DFI) and the American Society of Civil Engineers (ASCE) started to develop guidelines and standards related to ground improvement technologies, including Rigid Inclusion (RI) systems composed of RI elements and Load Transfer Platforms (LTPs). The analysis and design of RIs and LTPs are well covered by representatives from academia, consulting, and specialty contracting. However, quality assurance and quality control practices related to RIs and LTPs are not thoroughly addressed in the recent literature.

For RI projects, quality control of RIs and LTPs during installation, rather than incorrect or ineffective design is a common cause for structure performance issues, additional construction costs, and schedule delays. A robust inspection and testing program can identify both construction defects and potential issues with the design which ultimately reduces the risk for all stakeholders.

During the lecture, the presenters will provide a brief introduction to RI systems and industry initiatives specific to RI systems. The lecture will focus on both quality assurance and quality control for RIs and LTPs including how the stakeholders change for each component of the system and suggestions for roles and responsibilities. Key quality control practices will also be discussed. Finally, a project summary is presented to demonstrate how a quality program was implemented for a RI project in North Philadelphia, PA.