

## **GSI W-4 Webinar Entitled:**

### **“Mechanically Stabilized Earth (MSE) Wall, Berm and Slope Construction Inspection”**

#### Webinar Overview

The inspection (aka monitoring) of MSE wall, berm and slope construction using geosynthetic reinforcement is absolutely essential for providing a safe and durability system. Such inspection includes three distinct time frames; before, during and after construction. This webinar is focused on what is felt to be the proper state-of-the-practice in this regard. Integral to this task is the contractual method, the various organizations involved, and the specific inspectors tasks. The materials involved (soils, geosynthetic facings) will be illustrated as will typical inspection costs.

Specific activities before construction (foundation conditions, water regimes, materials conformance testing, meetings and documentation); during construction (leveling pad, drainage, face forming, lift progression and finished soil surface); and after construction (final structure, as-built survey, and periodic future inspections) will be emphasized. An inspector certification program will be described.

#### Learning Objectives

Webinar participants will learn about contractual variations used in the construction of MSE structures with geosynthetic reinforcement. They will also learn about types and conformance testing of materials used in their construction. The major focus, however, is to learn an inspectors duties and obligations before, during and after construction of the MSE system. These separate stages are amply illustrated by many field photos of correct practice.

The implications of a failed MSE structure will be dismissed from the vantage point of remediation costs, negative publicity and loss of confidence in this type of wall, berm and slope system.

#### Webinar Benefits

- Various contracting schemes will be discussed
- General inspector's tasks will be defined
- The different materials involved in construction will be illustrated
- Specifics of activities before construction will be illustrated
- Specifics of activities during construction will be illustrated
- Specifics of activities after construction will be illustrated
- Data on failed MSE systems will be described so as to emphasize various areas of specific attention
- Costs of inspection and remediation of failed walls will be presented

### Intended Audiences

Owners of MSE walls, berms and slopes in both the public and private sectors; federal, state and regional geotechnical, transportation, and environmental engineers; engineers from municipal districts and townships; private and municipal land developers, architectural and landscape designers; general civil consulting engineers; testing laboratories servicing these organizations; manufacturers and representatives of geosynthetic materials; contractors and installers of MSE walls, berms and steep soil slopes; academic and research groups; and others desiring technically related information on this important aspect of our constructed infrastructure.

### Specific Topics Covered

1. Introduction and Background
2. Inspection Activities Before Construction
3. Inspection Activities During Construction
4. Inspection Activities After Construction
5. Summary and Conclusions

### Webinar Instructor

Dr. Robert M. Koerner's (Professor Emeritus of Civil Engineering at Drexel University and Director Emeritus of the Geosynthetic Institute) interest in geosynthetics spans over thirty years of teaching, research, writing and advising. He holds his Ph.D. in Geotechnical Engineering from Duke University. He is a registered Professional Engineer in Pennsylvania, a Distinguished Member of ASCE, a Diplomate of the GeoInstitute and a member of the National Academy of Engineering. Bob has authored and co-authored about 650 papers on geosynthetics and geotechnical topics in journals and at national and international conferences. His most widely used publication is the sixth edition of the textbook entitled "*Designing with Geosynthetics*". He is the founding director of the Geosynthetic Institute which is a nonprofit research and development organization dedicated to the proper use of geosynthetics in its myriad applications. The institute also provides laboratory accreditation and inspection certification programs.