

**COURSE NUMBER**

FHWA-NHI-134204

**COURSE TITLE****Construction of Mechanically Stabilized Earth (MSE) Walls -- Web-based**

This training was developed by the Transportation Curriculum Coordination Council (TCCC) in partnership with AASHTO and NHI.

This training contains a collection of best practices from various agencies, including FHWA training rules, laws, policies, and procedures.

This Web-based training course begins with an overview of MSE walls: why we use them; how they work; and how they are constructed. The course emphasizes the need for inspection and explores practices to help improve inspection techniques. Participants examine the roles of the inspector, engineer, and contractor and study relevant safety procedures. The course materials present considerations for design and information contained in a geotechnical report. This course also familiarizes participants with typical project drawings and typical specifications.

The course duration is approximately 5 hours. The ten individual modules do not need to be completed at one time.

OUTCOMES

Upon completion of the course, participants will be able to:

- Identify the four major components of a MSE wall
- Describe the basic construction sequence for MSE
- Describe why MSE wall construction inspection is needed
- Describe the appropriate applications of MSE walls
- Describe the advantages and limitations of MSE walls
- Describe the basic design concepts used during construction
- Describe the failure modes analyzed during design
- Describe the key sections of the geotechnical report
- Describe how the geotechnical report can help familiarize the MSE wall inspector with site conditions
- Describe how reviewing the geotechnical report can help mitigate construction problems and delays
- Describe the difference between plan, elevation, and cross-section view drawings
- Describe the differences between, and the details included within, shop and contract drawings
- Identify how each type of drawing illustrates where and how MSE walls, and associated or adjacent parts, are constructed
- Describe construction inspectors' responsibilities before and during excavation
- Describe foundation preparation techniques necessary for addressing field conditions
- Identify the components of a welded wire faced MSE wall
- Describe the construction steps for a welded wire faced MSE wall
- Describe equipment and procedures necessary to prepare concrete panels for construction of a MSE wall
- Describe the steps in constructing MSE walls with concrete panel facing
- Describe the sections within the specifications document
- Identify the relevant information contained within each specification section

TARGET AUDIENCE

This training is ideal for highway construction teams, specifically the highway workers and inspectors involved in the construction of MSE walls. This training is recommended for the Transportation Curriculum Coordination Council levels II, III, and IV.

TRAINING LEVEL: Basic

FEE: 2016: \$50 Per Person; 2017: N/A

LENGTH: 5 HOURS (CEU: 0 UNITS)

CLASS SIZE: MINIMUM: 1; MAXIMUM: 500

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