Agenda

Presented by
Ibraheem Shunnar, PE at The Mannik & Smith Group, Inc.

Introduction to Soil Mechanics
An overview of soil mechanics

Retaining Walls – Stability and Types
Loads and forces
- Lateral earth pressure
- Water pressure
- Surcharge and traffic loading
- Seismic loading
External stability of retaining walls
- Sliding
- Overturning
- Bearing capacity
- Global stability
- Settlement
LRFD vs ASD
Types of stability of retaining walls
- Conventional gravity walls
- Segmental retaining walls
- MSE
- Cellular confinement wall
- Gabions
- Cantilevered walls
- Sheet pile wall
Selection of wall type

Internal Stability of Retaining Walls
Cantilevered retaining walls
MSE walls
Cellular confinement walls

Slope Stability and Stabilization
Slope stability analysis
Evaluation of slope failures
Stabilization techniques and monitoring
- Unloading
- Drainage
- Buttressing
- Reinforcement
- Monitoring methods and criteria

Biotechnical Slope Stabilization
Introduction
Principles of biotechnical stabilization
Case studies

Learning Objectives

You’ll be able to:

Identify the loads and forces that act on retaining walls, including lateral earth pressure, water pressure, surcharge and traffic loading, and seismic loading.

Describe different types of retaining walls, including conventional gravity walls, segmental retaining walls, mechanically-stabilized earth walls, cellular confinement walls, cantilevered walls and sheet pile walls.

Design for internal and external stability of retaining walls.

Evaluate common slope failures and appropriate slope stabilization techniques, such as unloading, drainage, buttressing and reinforcement.

Discuss the benefits and drawbacks of biotechnical slope stabilization, which uses live and dead plant material.

Retaining Wall Design and Slope Stabilization Techniques
Middleburg Heights, OH - Friday, May 8, 2020

Understand internal and external stability of retaining walls

Review the forces acting on retaining walls including pressure from soil and water

Learn about gravity walls, MSE, gabions, cantilevered walls and sheet pile walls

Examine key factors that influence slope stability

Learn about slope stabilization techniques

Discuss retaining wall and slope stabilization case histories with our experienced faculty

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects
6.5 HSW Continuing Ed. Hours
6.5 AIA LU|HSW

Landscape Architects
6.5 HSW Contact Hours
6.5 LA/CES HSW PDHs

Construction Contractors
Non-Credit Continuing Ed.

Floodplain Managers
6.5 ASFPM CECs

Find us on Facebook
Faculty

Ibraheem Shunnar  Director of Engineering at The Mannik & Smith Group

Mr. Shunnar has more than 25 years of experience in geotechnical engineering with expertise in specialty foundations, ground improvement, slope stability, instrumentation and waste management. He has a master’s degree in Geotechnical Engineering from the University of Michigan, and he is a registered professional engineer. He is the author of many articles and papers on geotechnical engineering. He was the project manager for the Fairlane Green redevelopment project, winner of the 2008 National Phoenix Award. He is also the recipient of the distinguished achievement award from the University of Michigan.

Here’s what past attendees had to say about the program and presenter Ibraheem Shunnar:

“Good speaker, enjoyable. Clearly had a good ‘real-world’ understanding of the material.” — PE, Geotech

“Excellent speaker; very knowledgeable.” — Transportation Engineer

“Very good.” — Structural Engineer

Seminar Information

Crowne Plaza Cleveland Airport
7230 Engle Road
Middleburg Heights, OH 44130
(440) 246-4040

How to Register

Complimentary continental breakfast and printed seminar manual. Included with your registration:

$279.00 for three or more simultaneous registrations.

For more information and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

Continuing Education Credit Information

This live lecture presentation is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW for continuing education units to landscape architects in most states, including Ohio. Educators and courses are subject to approval by the board of the state in which the course is offered.

This seminar is approved by the American Institute of Architects Continuing Education System for 6.5 LUs (Sponsor No. J885) and the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Visit www.halfmoonseminars.org for complete AIA/CES information under this course listing. Only full attendance is reportable to the AIA/CES and LA/CES.

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The Association of State Floodplain Managers has approved this event for 6.5 CECS.

This course offers a continuing education opportunity to construction contractors. It has not been approved by any state contractor licensing board.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Registration

Retaining Wall Design and Slope Stabilization Techniques

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Tuition

I will be attending the live seminar. Single Registrant: $299.00. Three or more registrants from the same company registering at the same time: $279.00 each.

I am not attending. Please send me the self-study package: Downloadable MP3 Audio/PDF Manual for $279.00.

CD/Manual Package for $299.00. USB/Manual Package $299.00. (S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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