

Agenda

Presented by Daniel P. Messmer, P.E., D. GE

Soil Investigation and Classification

Properties of soil in West Virginia

- Importance of recognizing soil properties
- Formation of soils
- Types of soils

Soil investigation

- Site reconnaissance
- Geology and visual observations
- Drilling and boring
- Test pits
- Establishing appropriate investigational methods
- Obtaining and reviewing geotechnical reports

Reviewing Hydraulic and Mechanical Properties of Soils in West Virginia

Soil permeability

Compressibility of soil

Soil hydraulics

- Saturation, hydraulic gradient, and conductivity

Drained and undrained shear strength

- Vertical and lateral earth pressure

Stress and failure in soils

Determining and Increasing Bearing Capacity

Calculating bearing capacity

Bearing capacity of shallow foundations

Bearing capacity of piers and piles

Increasing bearing capacity

- Draining and compaction
- Soil improvement

Determining and Increasing Slope Stability in West Virginia

Natural and engineered slopes

Reviewing basic concepts of slope stability

Understanding slope failures

Impact of surface water and groundwater

Examining slope stabilization methods

- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement

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Soil Mechanics, Bearing Capacity and Slope Stabilization for West Virginia

Live, Interactive Webinar - Monday, December 20, 2021

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HalfMoon Education Inc.
PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Identify properties of soils and discuss soil investigation techniques.

Understand how to obtain and review geotechnical reports.

Calculate bearing capacity for shallow and deep foundations.

Evaluate the stability of natural and engineered slopes.

Explore slope stabilization methods including drainage and compaction, soil improvement and reinforcement.



HalfMoon Education Live Webinars

Soil Mechanics, Bearing Capacity and Slope Stabilization for West Virginia

Live, Interactive Webinar - Monday, December 20, 2021



Understand the properties of soil and explore soil investigation procedures

Review hydraulic and mechanical properties of soils

Examine the bearing capacity of shallow and deep foundations

Study slope failures and consider the impact of surface and groundwater on slope stability

Examine slope stabilization methods including drainage and compaction, reinforcement, and soil improvement

Continuing Education Credits

Professional Engineers

6.5 PDHs

Architects

6.5 HSW CE Hours

6.5 AIA LU | HSW

Landscape Architects

6.5 HSW CE Hours

6.5 LA CES HSW PDHs

International Code Council

.65 CEUs (Sitework)



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Faculty

Daniel P. Messmer, P.E., D. GE
Project Manager with The Gateway Engineers, Inc., in Pittsburgh
Mr. Messmer has over 30 years of engineering experience in analysis, design, plan/ specification development, and project management/personnel supervision for geotechnical, foundation and structural engineering projects in the transportation, industrial, municipal and commercial fields of civil engineering. Throughout his career he has placed an emphasis on quality control and staff training. Mr. Messmer is a member of the American Society of Civil Engineers, the American Concrete Institute, the American Society of Highway Engineers and the Society of American Military Engineers. He earned his B.S. degree in Civil Engineering from the University of Pittsburgh. Mr. Messmer was accepted into the Academy of Geo-Professionals in 2013.

Webinar Information

Log into Webinar 8:00 - 8:30 am EST	Break 12:10 - 12:40 pm EST
Morning Session 8:30 am - 12:10 pm EST	Afternoon Session 12:40 - 3:50 pm EST

Tuition
\$289 for individual registration
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Additional Learning

- Current Issues in the Practice of Geoscience**
- Thurs, Nov 18, 2021 | 8:30 am - 4:00 pm CST

Industrial Stormwater Management
- Fri, Nov 19, 2021 | 9:00 am - 4:00 pm CST

Septic System Design, Construction and Maintenance
- Fri, Nov 19, 2021 | 8:30 am - 4:30 pm CST

Deep Dive into Wetland Creation
- Wed, Dec 1, 2021 | 3:00 - 5:00 pm CST

How to Design, Construct and Maintain a Cost-Effective Permeable Pavement
- Wed, Dec 1, 2021 | 12:00 - 2:00 pm CST

Geothermal Heating and Cooling: Technology, Applications, and Economics
- Tues, Dec 7, 2021 | 9:30 am - 5:00 pm CST
- The Tree Course: Science, Design, and Sustainability**
- Fri, Dec 10, 2021 | 9:00 am - 4:30 pm CST

Retaining Wall Design and Slope Stabilization Techniques
- Mon, Dec 13, 2021 | 8:30 am - 4:15 pm CST

Stormwater Basins and Underground Systems
- Tues, Dec 14, 2021 | 9:00 am - 4:30 pm CST

Practical Site Engineering: Science & Techniques
- Wed, Dec 15, 2021 | 11:00 am - 3:15 pm CST
- Fri, Dec 17, 2021 | 11:00 am - 2:15 pm CST

Focus on The Evolution of Turf Reinforcement Mat Technology
- Wed, Dec 29, 2021 | 10:00 am - 12:00 pm CST

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

Continuing Education Credit Information
This webinar is open to the public and offers 6.5 PDHs to professional engineers, 6.5 HSW continuing education hours to architects and landscape architects in West Virginia. Engineers, architects and landscape architects seeking continuing education credit in other states will be able to claim the hours earned at this webinar, in most cases. Refer to specific state rules to determine eligibility.

The American Institute of Architects Continuing Education System has approved this course for 6.5 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved this course for 6.5 HSW PDHs. Only full participation is reportable to LA CES.

The International Code Council has approved this event for .65 CEUs in the specialty area of Sitework (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Registration

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How to Register Online: www.halfmoonseminars.org Phone: 715-835-5900 Fax: 715-835-6066 Code: Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278 Complete the entire form. Attach duplicates if necessary.	Registrant Information Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred. () I need special accommodations. Please contact me.
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