

Agenda

Presented by David Harmanos

Soil Investigation and Classification

Soil classification

- Importance of recognizing soil properties
- Virginia geology
- 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

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

Complying with Building Code Provisions on Soils in Virginia

International Building Code (IBC)

International Residential Code (IRC)

Infrastructure standards and guidelines

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
- Grouting

Determining and Improving Slope Stability

Natural and engineered slopes

Reviewing basic concepts of slope stability

Understanding slope failures

Impact of surface water and groundwater

Examining slope stabilization methods

- Covering
- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement

Can't Attend? Order the Webinar as a Self-Study Package!

Recordings of this webinar are available for purchase. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit. Self-study packages do not qualify for AIA or LA CES credit.

Soils in Construction in Virginia

Live, Interactive Webinar - Tuesday, December 21, 2021

NON-PROFIT
U.S. POSTAGE PAID
EAU CLAIRE, WI
PERMIT NO. 2016

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



Learning Objectives

You'll be able to:

Study Virginia geology and common types of soils in Virginia.

Describe techniques used to conduct onsite soil investigations.

Explore the hydraulic and mechanical properties of soils, and learn how they impact soil strength.

Comply with building code provisions on soils.

Calculate the bearing capacity of soils, and evaluate methods of soil improvement.

Examine basic concepts of slope stabilization and consider slope stabilization techniques.



HalfMoon Education Live Webinars

Soils in Construction in Virginia

Live, Interactive Webinar - Tuesday, December 21, 2021



Understand soil investigation and classification procedures

Review hydraulic and mechanical properties of soils

Comply with building code provisions on soils

Determine and increase bearing capacity

Understand slope stability and learn stabilization methods

Continuing Education Credits

Professional Engineers

7.0 PDHs

Architects

7.0 HSW CE Hours

7.0 AIA LU | HSW

Landscape Architects

7.0 HSW CE Hours

7.0 LA CES HSW PDHs

International Code Council

.7 CEUs (Sitework)



AIA
Continuing
Education
Provider



PREFERRED
EDUCATION
PROVIDER



HalfMoon Education Inc.
WWW.HALFMOONSEMINARS.ORG

Faculty

David Harmanos *P.E. Branch Manager at Hillis-Carnes Engineering Associates, Inc.*
Mr. Harmanos is a professional engineer with extensive experience in subsurface exploration, soil testing, infiltration testing, geosynthetics, and seismic and advanced analysis. His expertise includes commercial, industrial and institutional foundation design; retaining wall and steep slope design; sinkhole remediation; landfill design; site work; forensic engineering; LEED consulting; and construction quality control/assurance (CQA/QC). Mr. Harmanos is a graduate of Drexel University where he received both his BS and MS degrees in Civil Engineering (Geosynthetics and Geotechnical). Hillis-Carnes performs geotechnical engineering consulting and laboratory testing services. Its construction services include evaluation of bearing materials, inspection of pile driving, slope inclinometer installation and monitoring, and retaining wall construction observation.

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 - 4:20 pm EST

Tuition
\$289 for individual registration
\$239 for three or more registrants from the same company at the same time.
Included with your registration: PDF seminar manual.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAQ section of our website, or visit www.gotowebinar.com.

Cancellations: Cancel at least 48 hours before the start of the webinar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another webinar or the self-study package. You may also authorize another person to take your place.

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

Special Inspections under the International Building Code Chapter 17
- Mon, Nov 29, 2021 | 10:00 am - 2:30 pm CST
- Tues, Nov 30, 2021 | 10:00 am - 1:15 pm CST

Residential Accessibility: Designing for Multi-Family Housing
- Wed, Dec 1, 2021 | 8:30 am - 12:15 pm CST
- Thurs, Dec 2, 2021 | 8:30 am - 12:15 pm CST

Geothermal Heating and Cooling: Technology, Applications, and Economics
- Tues, Dec 7, 2021 | 9:30 am - 5:00 pm CST

Climate Action for Architects and Engineers
- Thurs, Dec 9, 2021 | 7:30 am - 2:50 pm CST

The Tree Course: Science, Design, and Sustainability
- Fri, Dec 10, 2021 | 9:00 am - 4:30 pm CST

Engineered Lumber Design and Construction
- Mon, Dec 13, 2021 | 8:30 am - 12:10 pm CST
- Tues, Dec 14, 2021 | 8:30 am - 12:10 pm CST

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

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 7.0 PDHs to professional engineers, 7.0 HSW continuing education hours to architects and landscape architects in 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 7.0 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved HalfMoon Education as a provider of continuing education. This course has been submitted for LA CES approval and is currently pending. Only full participation is reportable to LA CES.

The Landscape Architecture Continuing Education System has approved this course for 7.0 HSW PDHs. Only full participation is reportable to LA CES.

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).

Can't Attend? Order the Webinar as a Self-Study Package!
Recordings of this webinar are available for purchase. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit. Self-study packages do not qualify for AIA or LA CES credit.

Registration

Soils in Construction in Virginia
Live, Interactive Webinar - Tuesday, December 21, 2021

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.
Tuition () I will be attending the live webinar. Single Registrant - \$289.00. Three or more registrants from the same company registering at the same time - \$239.00 each. () I am not attending. Please send me the webinar recording: ☐ Streamable MP4 Video/PDF Manual for \$299.00. ☐ USB Video/PDF Manual for \$299.00. Checks: Make payable to HalfMoon Education Inc. Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____	
© 2021 HEI #21 VASOILIC 12 21 WEBR LH	