Credit and Webinar Instructions

Vegetated Green Infrastructure: Plant and Soil Media DesignConsiderations for Improved Compliance (or Outcomes)

This webinar offers 7.0 PDHs to professional engineers and 7.0 HSW continuing education hours to architects in all states. It offers 7.0 HSW continuing education hours to landscape architects in all states, except Florida, New Jersey, or North Carolina.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina (S-0130), and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers, architects, and landscape architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2), §79-1.5(i)(2)). Courses approved by the AIA/CES qualify for Florida and New Jersey architects. Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved HalfMoon Education as a continuing education provider (Sponsor No. J885). Course approval is pending. The Landscape Architecture Continuing Education System has approved HalfMoon Education as a continuing education provider. Course approval is pending. Only full participation is reportable to the AIA/CES and LA CES.

The Association of State Floodplain Managers has approved this event for 7.0 CECs for certified floodplain managers.

This course is approved by the American Planner Association AICP for CM | 7.0 for Certified Planners (9213640).

The International Code Council has approved this webinar for .7 CEUs in the specialty area of Sustainability (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).

Retaining Wall Design and Slope Stabilization Techniques

This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states. It offers 6.5 HSW continuing education hours to landscape architects licensed in all states, except Florida, New Jersey, or North Carolina.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina (S-0130), and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers, architects, and landscape architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2), §79-1.5(i)(2)). Courses approved by the AIA/CES qualify for Florida and New Jersey architects. Other states do not preapprove continuing education providers or courses.

This course has been approved by the American Institute of Architects Continuing Education System for 6.5 LU|HSW (Sponsor No. J885). HalfMoon Education has applied to the Landscape Architect Continuing Education System for course approval, which is pending. Only full participation is reportable to the AIA/CES and LA CES.

The Association of State Floodplain Managers has approved this course for 6.5 CECs.

This course is approved by the International Code Council for .65 CEUs in the specialty are 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).

Live, Interactive Webinars
- Vegetated Green Infrastructure
- Retaining Wall Design and Slope Stabilization Techniques

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Live, Interactive Webinars

Vegetated Green Infrastructure: Plant and Soil Media Design Considerations for Improved Compliance (or Outcomes)
- Thursday, May 20, 2021 | 8:30 am - 4:30 pm CDT

Retaining Wall Design and Slope Stabilization Techniques
- Tuesday, May 25, 2021 | 8:30 am - 4:30 pm CDT

To register, view detailed presenter biographies, and see other learning opportunities, please visit:
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Live, Interactive Webinars

Vegetated Green Infrastructure: Plant and Soil Media Design Considerations for Improved Compliance (or Outcomes)

Thursday, May 20, 2021 | 8:30 am - 4:30 pm CDT

Credits: Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours
AIA: Pending Landscape Architects: 7.0 HSW CE Hours
LA CES: 7.0 HSW PDHs Floodplain Managers: 7.0 ASFPM CECs
Certified Planners: CM|7 International Code Council: .7 CEUs (Sustainability)

Retaining Wall Design and Slope Stabilization Techniques

Tuesday, May 25, 2021 | 8:30 am - 4:30 pm CDT

Credits: Professional Engineers: 6.5 PDHs Architects: 6.5 HSW CE Hours
AIA: 6.5 LU|HSW Landscape Architects: 6.5 HSW CE Hours
LA CES: Pending Floodplain Managers: 6.5 ASFPM CECs
International Code Council: .65 CEUs (Sitework)

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Vegetated Green Infrastructure: Plant and Soil Media Design Considerations for Improved Compliance (or Outcomes)

Thursday, May 20, 2021 | 8:30 am - 4:30 pm CDT (incl. a 60-min. break)

Tuition: $289 per registrant, $199 per registrant for three or more

Credits: Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours
AIA: Pending Landscape Architects: 7.0 HSW CE Hours
LA CES: 7.0 HSW PDHs Floodplain Managers: 7.0 ASFPM CECs
Certified Planners: CM|7 International Code Council: .7 CEUs (Sustainability)

Presented by Mary Ann Uhlmann

Types of Vegetated Green Infrastructure (GI) Practices
- Landscape-integrated and building-integrated GI practices, defined
- Post-development compliance with vegetated green infrastructure practices
- By the numbers: expected RRv and WQv

Purpose of Plants in Green Infrastructure
- Benefits of plants in green infrastructure
- Plant water conservation strategies leading to stormwater managment
- Understanding differences: native, non-native and naturalized plant species
- Publicly available plant lists and their purpose

Engineered Soil Media Types
- Understanding plant/soil ET performance
- Landscape-integrated GI practices: sand-based media vs aggregate-based media
- Building-integrated GI practices: aggregate-based vs organic-based medias

Landscape-Integrated GI Practices Plant Selection Criteria
- Understanding planting zones
- Impact of slope and overflow devices on plant health and run-off reduction

Building-Integrated GI Practices Plant Selection Criteria
- Site constraints leading to plant species selections
- Impact of roof deck slope and drainage systems on plant health
- Understanding planting zones created by microclimates and drainage patterns
- Options for plant material: pre-grown modular, cuttings and individual plants

Planting Plan Design Considerations
- Critical decisions regarding plant material size and type
- Creating successful plant communities
- Maintenance issues arising from certain plant combinations
- Sample plant lists and planting plans for Landscape-integrated GI practices
- Sample plant lists and planting plans for Building-integrated GI practices

Important Installation and Maintenance Protocols
- Impact of plant substitutions
- Installation practices necessary for quick establishment and lowered plant mortality
- Avoiding soil preferential flow patterns
- Impact of irrigation on plant/soil stormwater management
- Understanding grounds keeping vs horticultural maintenance effort
- 25 year maintenance cost examples: bioretention vs green roof

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Retaining Wall Design and Slope Stabilization Techniques

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LA CES: Pending Floodplain Managers: 6.5 ASFPM CECs
International Code Council: .65 CEUs (Sitework)

Presented by Bill Simpson, PE

Retaining Walls: What They Do and How They Do It
- Identifying and quantifying forces acting on retaining walls
- Weight of the wall
- Pressure on foundation of wall
- Loads on retained soil
- Equations and examples
- Pressure from retained soil
- Characteristics of soil
- Impacts of water

Geosynthetics and Retaining Walls, Embankments and Slopes
- Calculations and software
- Embankments
- Alternatives
- Slopes
- Exercise
- Types of retaining walls
- Materials
- Learn to visually identify geosynthetics as to type, method of manufacture, relative strength, relative permeability, and relative cost

Slope Stabilization Techniques
- Examining deep seated failures
- Global stability and site layout
- Drainage
- Methods of slope stability analysis
- Stabilization techniques
- Reinforcement/mechanical stabilization
- Fundamental soil characteristics and global instability
- Engineering mechanics underlying global instability
- Field observations to distinguish types of instability
- Construction practices to improve or restore stability
- Site layout practices to improve stability/prevent instability

Retaining Wall/Slope Failures and Fixes
- How to prevent a potential problem or failure through site layout
- How to prevent a potential problem or failure through proper design techniques
- Roles and responsibilities to ensure structure success
- How to recognize a potential problem or failure in the field
- Typical causes of problems or failures with geotechnical structures
- Case studies/examples of failures and repairs

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Faculty

Vegetated Green Infrastructure: Plant and Soil Media Design Considerations for Improved Compliance (or Outcomes)

Mary Ann Uhlmann *Urban Horticulture Consulting*

Ms. Uhlmann is president and founder of Urban Horticulture Consulting. As an environmental horticulturist, Ms. Uhlman has been a practitioner of green infrastructure practices for over 15 years. Her career began as a green roof specialist working on projects across North America, while developing custom training programs. In 2015, she recognized the opportunity to expand into all forms of horticultural stormwater management and formed Urban Horticulture Consulting. A few of her projects include the William J. Clinton Presidential Library, Little Rock, Arkansas; the Harvey and Nancye Kobrin Plaza Roof Garden at M.D. Anderson Cancer Center, Orlando, Florida; and the National Institute of Health Research Library, Bethesda, Maryland.

Retaining Wall Design and Slope Stabilization Techniques

Bill Simpson, PE

Geotechnical Structure Design Specialist at Engineered Earth Solutions, LLC

Mr. Simpson designs and reviews shop drawings for construction and repair of earth structures in the public and private sectors in over 30 states, and consistently works on more than 1,200 projects and 10 million square feet each year. He performs site visits for new project reconnaissance, construction verification, and construction assistance. Mr. Simpson manages, supervises, instructs, and mentors a team of staff engineers to ensure strict deadlines are met for construction schedules while ensuring design and analysis accuracy. He works with owners, site designers, and contractors to provide designs which are not only structurally sufficient but also financially responsible. Mr. Simpson earned his B.S.C.E. and M.S.C.E. degrees from Georgia Institute of Technology.

Additional Learning

Deep Dive Webinar Series

Nine short webinars that each take a look at a single subject in May 2021

Deep Dive into Building Classification and Occupancy
- Tues, May 4, 2021|11:00 am - 2:00 pm CDT

Deep Dive into Protecting Your Openings Using Fire Door and Fire Window Assemblies
- Thurs, May 6, 2021|1:00 - 4:20 pm CDT

Historic Preservation for Designers
- Fri, May 7, 2021|1:30 - 3:30 pm CDT

Deep Dive into Real-Life Construction Failures
- Mon, May 10, 2021|2:00 - 4:00 pm CDT

Deep Dive into Invasive Landscape Plants
- Thurs, May 20, 2021|11:00 am - 12:30 pm CDT

Deep Dive into the Important Changes of the 2021 International Building Code and 2021 International Energy Conservation Code
- Thurs, May 20, 2021|10:00 am - 1:30 pm CDT

Deep Dive into Water Infiltration in Soil
- Fri, May 21, 2021|11:00 am - 1:00 pm CDT

Carbon Credits and Carbon Markets Defined
- Mon, May 24, 2021|10:00 am - 12:00 pm CDT

Deep Dive Into Retaining Wall Layout for Site Designers
- Thurs, May 27, 2021|11:00 am - 1:00 pm CDT

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