

Credit Information

Retaining Wall Design and Slope Stabilization Techniques

This webinar offers 6.0 PDHs to professional engineers and 6.0 HSW continuing education hours to architects licensed in all states.

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The Landscape Architecture Continuing Education System has approved this course for 6.0 HSW PDHs. Only full participation is reportable to the LA CES.

This webinar has been approved by the Association of State Floodplain Managers for 6.0 CECs for floodplain managers.

The International Code Council has approved this event for .6 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).

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Live, Interactive Webinars

- Retaining Wall Design and Slope Stabilization Techniques
- Practical Site Engineering: Science & Techniques

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Live, Interactive Webinars

Retaining Wall Design and Slope Stabilization Techniques

- Monday, December 13, 2021 | 8:30 am - 4:15 pm CST

Practical Site Engineering: Science & Techniques

- Wednesday, December 15, 2021 | 11:00 am - 3:15 pm CST
- Friday, December 17, 2021 | 11:00 am - 2:15 pm CST

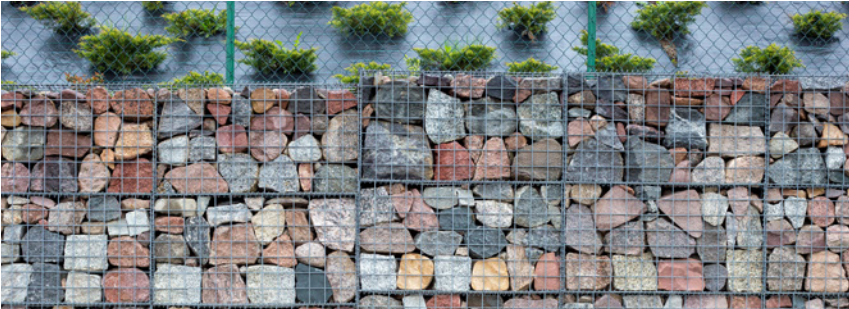
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HalfMoon Education Live Webinars



Retaining Wall Design and Slope Stabilization Techniques

Monday, December 13, 2021 | 8:30 am - 4:15 pm CST

Credits: Professional Engineers: 6.0 PDHs Architects: 6.0 HSW CE Hours
AIA: 6.0 LU|HSW Landscape Architects: 6.0 HSW CE Hours
LA CES: 6.0 HSW PDHs Floodplain Managers: 6.0 ASFPM CECs
International Code Council: .6 CEUs (Sitework)



Practical Site Engineering: Science & Techniques

Wednesday, December 15, 2021 | 11:00 am - 3:15 pm CST
Friday, December 17, 2021 | 11:00 am - 2:15 pm CST

Credits: Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours
AIA: 7.0 LU|HSW Landscape Architects: 7.0 HSW CE Hours
LA CES: 7.0 HSW PDHs International Code Council: .7 CEUs (Sitework)



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Retaining Wall Design and Slope Stabilization Techniques

Monday, December 13, 2021 | 8:30 am - 4:15 pm CST (incl. a 60-min break)

Tuition: \$289 per registrant, \$239 per registrant for three or more

Credits: Professional Engineers: 6.0 PDHs Architects: 6.0 HSW CE Hours
AIA: 6.0 LU|HSW Landscape Architects: 6.0 HSW CE Hours
LA CES: 6.0 HSW PDHs Floodplain Managers: 6.0 ASFPM CECs
International Code Council: .6 CEUs (Sitework)

Agenda

Types of Retaining Walls, Soil Mechanics Review, Earth Pressures on Walls

- Types of retaining walls
 - Cut walls
- Soil mechanics review
 - Soil classification
 - Shear strength
 - Permeability
- Earth pressures on walls
 - Soil and hydrostatic pressures
 - Surcharge loads
 - Seepage
- Fill walls
 - Fill walls
- Physical properties
 - Physical properties
 - Deformation properties
 - Lateral earth pressures
- Influence of slopes
 - Influence of slopes
- Seismic
 - Seismic

Modes of Failure, Retaining Wall Theory and Design, Geosynthetic Design

- Modes of failure
 - External failure modes
 - Serviceability failure
- Retaining wall theory and design
 - Overturning
 - Sliding
 - Deformation
- Geosynthetic design
 - MSE walls and slopes
 - Allowable strength
 - Geosynthetics in walls and slopes deformation
- Internal failure modes
 - Internal failure modes
- Eccentricity
 - Eccentricity
- Bearing capacity
 - Bearing capacity
- Geosynthetic materials
 - Geosynthetic materials
- Anchorage capacity
 - Anchorage capacity

Retaining wall and slope software

Slope Stability and Slope Stabilization

- Slope stability
 - Theory
 - Wedge failures
- Slope stabilization
 - Types of failures
 - Drainage relief
 - Geosynthetic reinforcement
 - Soil nails and rock anchors
- Circular failures
 - Circular failures

Case Histories

- Stabilization of failed slope
- MSE failures
- MSE stabilization with soil nails
- MSE stabilization with buttress wall
- Slope stabilization with piles
- Shotcrete walls with tiebacks
- Slope stabilization with shotcrete and soil nails
- Geosynthetic reinforced slope

Practical Site Engineering: Science & Techniques

Wednesday, December 15, 2021 | 11:00 am - 3:15 pm CST (incl. a 15-min break)

Friday, December 17, 2021 | 11:00 am - 2:15 pm CST (incl. a 15-min break)

Tuition: \$289 per registrant, \$239 per registrant for three or more

Credits: Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours
AIA: 7.0 LU|HSW Landscape Architects: 7.0 HSW CE Hours
LA CES: 7.0 HSW PDHs International Code Council: .7 CEUs (Sitework)

Agenda Day One

Science of Soils

- Physical properties of soil
- Soil structure
- Subsurface structure
- Blocky structure
- Bulk densities
- Macroporosity and micropores

Storm Water Management

- State and local rule requirements
- Drainage system controls
- Sediment traps and basins
- Buffer zone requirements
- Slope stabilization
- Homebuilder lot BMP compliance
- Establish proper building materials handling and storage areas
- Establish proper equipment/vehicle fueling and maintenance practices
- Develop spill prevention and response plan

Earthwork Safety (by Design)

- What is safety by design?
- Weight of soil and excavation hazards
- Underground installations
- Water accumulation
- Protection of employees and related problems
- Soil classification and definitions

Agenda Day Two

Site Plans

- What site plans must include
- Compacting and soil testing
- Primary soil considerations
- Surface water, groundwater, paving and surfacing
- Excavation specs and haul payments
- Construction grade staking

Site Program Management

- Strategic vs. tactical thinking
- Program governance
- Three themes of program management
- Project phases

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Faculty

Retaining Wall Design and Slope Stabilization Techniques

James "Jay" A. McKelvey, III, P.E.,D.GE, F.ASCE

Director- Geotechnical Design Division at Earth Engineering Inc.

Mr. McKelvey is the director of the Geotechnical Design Division at Earth Engineering Inc. in East Norriton, Pennsylvania. He is a registered professional engineer (P.E.) in California, Delaware, Maryland, New Jersey, Pennsylvania, Virginia and the District of Columbia. Mr. McKelvey is also a Diplomate (D.GE) of the Academy of Geo-Professionals and a Fellow of the American Society of Civil Engineers (F.ASCE).

Mr. McKelvey has extensive experience in geotechnical engineering including site assessment and field investigations; deep and shallow foundation design for buildings, bridges and other structures; retaining wall design; embankment stability; mechanically stabilized soil structures; and subsurface hydrology.

He also has significant experience in mitigating heavy construction claims and litigation support pertaining to impacted heavy construction projects. Mr. McKelvey has also handled construction support and construction quality assurance projects. His environmental engineering experience includes technical contributions to the remediation of many Superfund sites and over 50 landfill design projects.

Mr. McKelvey has published over 30 technical papers in journals, conference proceedings and trade magazines. He is the past chair for the Delaware Valley Geo-Institute (DVGI) and is a voting member in ASTM committees Soil and Rock (D18), and Geosynthetics (D35) and is an editorial board member of the *Geotechnical Testing Journal*. Mr. McKelvey also serves on two Geo-Institute committees, Earth Structures and Embankments and Dams, the latter of which he is a member of the Subcommittee On Landslide Risk Assessment.

Practical Site Engineering: Science & Techniques

Joseph W. Delaney, P.E., PgMP, CCM, LEED AP

Dr. Delaney is the general manager of the construction management services group at Delaney CMS in Poplarville, Mississippi, and is the president of Delaney Parametric Design. He is the former president of C&S Design Build Inc., where he started the agency construction management business. At C&S, Dr. Delaney was responsible for more than \$1 billion in completed projects in the education, municipal, wastewater, airport, and private development sectors.

Dr. Delaney is a licensed professional engineer (New York and Mississippi), holds the Program Management Professional (PgMP®) credential, is a Certified Construction Manager (CCM®), and is a Leadership in Energy and Environmental Design (LEED®) Accredited Professional. Dr. Delaney received his bachelor's, master's, and PhD degrees in Civil Engineering from the State University of New York at Buffalo.

Dr. Delaney enjoys sharing his experience leading teams, and he has provided leadership training to senior management including his colleagues at the American Council of Engineering Companies (ACEC) Senior Executive Institute and at Fortune 500 companies, including Johnson & Johnson, Inc., and L3 Communications. Dr. Delaney was recently the keynote speaker at the Tri-State Diversity Summit where he shared Delaney CMS's (a New York State Certified Minority/Woman-Owned Business Enterprise - MWBE) vision for equality and empowerment.

Dr. Delaney is a faculty member and the Program Coordinator for the CM Department at the University of Southern Mississippi. He recently wrote a textbook titled *Construction Program Management* which was published by CRC Press. The textbook is used to teach undergraduate and graduate students and by practitioners to help them formulate a process-based approach for management of large projects and programs.