Types of Retaining Walls
- Traditional cantilevered retaining walls
- Reinforced concrete walls
- Reinforced concrete masonry walls
- Soldier pile and lagging walls
- Sheet pile
- Traditional timber walls
- Traditional gravity walls
- Counterfort and buttress
- Anchored retaining walls (tie-backs, soil nailing, etc.)
- Prefabricated modular – bin walls (metal, concrete), crib walls, gabion walls
- Others – cellular, slurry, secant, tangent
- Permanent vs. temporary retaining walls
- Private-sector vs. highway retaining wall systems
- Cost of retaining walls

Retaining Wall Design – Part I
- Soil design parameters and backfill
- Lateral earth pressure
- Factors of safety
- External stability
  - Sliding
  - Bearing capacity
  - Scour
- Internal stability
  - Overturning
- Global stability

Retaining Wall Design – Part II
- Internal stability
- Global stability
- Special considerations for tiered retaining walls
- Groundwater
- Service life
- Design software

Slope Stabilization
- Science of slope stability
- Surficial vs. deep-seated slope stability
- Long term vs. short term stability
- Slope stabilization techniques
  - Regrading
  - Excavation and replacement
  - Slope reinforcement/pinning
  - Ground improvement
  - Retaining structures
- Monitoring options

Retaining Wall and Slope Stabilization Case Histories
- Various commercial, residential projects
- Various highway and institutional projects

Learning Objectives
You’ll be able to:
- Analyze different types of retaining walls including traditional cantilevered walls, timber walls and gravity walls.
- Identify and quantify the forces that act on retaining walls.
- Understand how retaining wall design impacts external stability, internal stability and global stability.
- Discuss the factors that impact slope stability and can lead to slope failures.
- Evaluate crucial slope stabilization techniques including regrading, reinforcement and ground improvement.

Anchorage, AK
Thursday, April 14, 2016

Identify types of retaining walls and understand when to use each
Review soil design parameters
Recognize the forces acting on retaining walls including pressure from retained soil and the impacts of groundwater
Design retaining walls for external, internal and global stability
Analyze key factors that influence long term and short term slope stability
Discover how to utilize slope stabilization techniques such as reinforcement and ground improvement

Continuing Education Credits
Architects
7.0 HSW PDHs
7.0 AIA HSW Learning Units
Landscape Architects
7.0 HSW PDHs
7.0 LACES HSW PDHs
Professional Engineers
7.0 HSW PDHs
Alaska Contractors - Residential Endorsement Pending
Faculty

Steven M. Halcomb, P.E., G.E., Senior Engineer, P(A)O Engineers, Inc.
Mr. Halcomb, P.E., G.E., has nearly ten years of geotechnical, structural, marine, and cold regions engineering experience and is currently employed by PND Engineers, Inc. He regularly oversees the geotechnical efforts on projects ranging from several hundred thousand to multi-million dollars in various environments including the arctic, subarctic, and marine. He has experience in shallow and deep foundation design, construction, and inspection, including pile driving analyzer, and has worked in ideal and adverse conditions including liquefiable and expansive soils, and frozen ground. In addition, his geotechnical knowledge includes site planning and explorations; laboratory testing; slope stability; geotechnical earthquake engineering; ground improvement; earth retaining structures; reinforced soil and geosynthetics; braced and unbraced excavations; pavement geotechnical instrumentation; construction testing, observation, and monitoring; foundations in frozen ground; and thermal analyses. He is a member of the American Society of Civil Engineers and the Geo-Institute. He earned his B.S., M.S., and M.C.E. degrees, and his earthquake graduate certificate from the University of Alaska Anchorage and is currently pursuing a distance doctoral degree.

About the Seminar

Westmark Anchorage
720 West 5th Avenue
Anchorage, AK 99501
(907) 276-7676

Tuition
$299 for individual registration
$249 for three or more simultaneous registrations. Each registration includes one copy of the seminar manual.

Receive a reduced tuition rate of $107 by registering to be our on-site coordinator for the day. For availability and a job description, go online to www.halfmoonseminars.org.

Four Easy Ways to Register Today!

Register online at www.halfmoonseminars.org.

Complete the entire form. Attach duplicates if necessary.

For more information visit: www.halfmoonseminars.org/webinars/

Additional Learning

Webinar Series

Foundation Damage and Repair
• Introduction to the Science of Structures and Soil
  Wed., March 2, 12:00 - 2:00 PM EST
  Foundation Design and Construction
  Wed., March 2, 2:30 - 3:30 PM EST
  Diagnosing Foundation and Slab Damage and Evaluating Repair Methods
  Thurs., March 3, 12:00 - 1:30 PM EST
  Diagnosing Basement Wall Damage and Evaluating Repair Methods
  Thurs., March 3, 2:00 - 3:30 PM EST

Residential Solar Introduction and Design
• Introduction to Residential Solar
  Wed., March 9, 12:00 - 3:15 PM EST
  Design Your Solar Roof
  Wed., March 16, 12:00 - 3:15 PM EST

SketchUp: In-depth Modeling
Techniques for Building Professionals
• SketchUp Good Modeling Practices and Techniques
  Wed., March 30, 12:00 - 1:30 PM EST
  Resolving Complex Roots in SketchUp
  Fri., April 1, 12:00 - 1:30 PM EST
  Creating Animations and Movies in Sketch
  Mon., April 4, 12:00 - 1:30 PM EST
  Continuous Backgrounds for the SketchUp Model or Animation
  Wed., April 6, 12:00 - 1:30 PM EST
  Introducing Google Earth Geolocation into the Model
  Fri., April 8, 12:00 - 1:30 PM EST

CD/Manual Package
• An audio recording of this seminar is available for $279 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

Retaining Wall Design and Slope Stabilization Techniques
Anchorage, AK - Thursday, April 14, 2016

How to Register

Online:
www.halfmoonseminars.org
Phone: 715-835-5900
Fax: 715-835-6066

City:                           State:                            Zip:
Phone: (   )        I need special accommodations. Please contact me.

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 - $249.00 each.

( ) I am not attending. Please send me the CD manual package for $279.00.

Checks: Make payable to HalfMoon Education Inc.

Credit Card: Mastercard, Visa, American Express, or Discover
Credit Card Number: _______________________
Expiration Date: CVV2 Code: _______________________
Cardholder Name: _______________________
Billing Address: _______________________
City: _______________________
State: _______________________
Zip: _______________________
Signature: _______________________
Email: _______________________

© 2016 HEI RB #16H AKRWDSST 4 14 ANCH