

Agenda

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

Soil Mechanics, Bearing Capacity, and Earth Retention

- Understanding soil characteristics
- Bearing capacity
- Basic earth pressure theory
- Bracing systems
- Tieback anchors
- Soil nail walls
- Sheet pile and soldier pile walls
- Secant pile and diaphragm walls
- Top-down excavations
- Using cofferdams

Reviewing Deep Foundation Types

- Types of deep foundations
 - Driven piles
 - Drilled shafts
 - Auger cast piles
 - Others
- Hybrid foundations
 - Grouping piles
 - Selecting foundation type
 - Life expectancy, cost, soil conditions

Pile Design

- Effective stress
- Skin friction
 - Granular soils and cohesive soils
- End bearing
 - Soil and rock
- Uplift capacity
- Down drag
- Lateral capacity design
- Battered piles

Installation and Testing

- Construction preparation
- Construction techniques
- Quality assurance/quality control
- Field records
- Performance/integrity
 - Load test, PDA, CAP/WAP, PIT/PET
- Restriking

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Deep Foundations and Excavations

Live, Interactive Webinar - Wednesday, June 8, 2022

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

- Review** basic earth pressure theory and determine bearing capacity of foundations.
- Evaluate** different earth retention systems, including tieback anchors, soil nail walls and soldier pile walls.
- Explore** different types of deep foundations, including driven piles, auger cast piles, drilled shafts and hybrid foundations.
- Consider** skin friction, end bearing, uplift capacity and down drag when designing piles.
- Discuss** construction techniques, quality control and testing.



HalfMoon Education Live Webinars

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- Understand** how soil characteristics affect deep foundations
- Get tips on** using soil retention systems in deep excavations
- Explore** deep foundation types including piles and hybrid foundations
- Evaluate** life expectancy and cost of foundation systems
- Consider** skin friction, end bearing and uplift capacity in pile design
- Discuss** construction techniques and quality control

Continuing Education Credits

- Professional Engineers**
7.0 PDHs
- Architects**
7.0 HSW CE Hours
7.0 AIA LU | HSW
- International Code Council**
.7 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 CDT	Break 12:15 - 12:45 pm CDT
Morning Session 8:30 am - 12:15 pm CDT	Afternoon Session 12:45 - 4:30 pm CDT

Tuition
\$319 for individual registration
\$289 for two 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

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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.

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Additional Learning

- Retaining Wall Design and Slope Stabilization Techniques**
- Thurs, May 5, 2022 | 11:00 am - 2:15 pm CDT
- Fri, May 6, 2022 | 11:00 am - 2:15 pm CDT
- Construction Management for Highway and Road Projects**
- Mon, May 9, 2022 | 9:00 am - 12:15 pm CDT
- Tues, May 10, 2022 | 9:00 am - 12:15 pm CDT
- Design Considerations and Mixed Occupancy Options for Speculative Buildings**
- Tues, May 10, 2022 | 9:00 am - 3:40 pm CDT
- Structural Design Loads under the ASCE 7-22 Standard**
- Thurs, May 12, 2022 | 9:00 am - 4:30 pm CDT
- Urban Stormwater System Design and Construction**
- Thurs, May 12, 2022 | 8:30 am - 4:30 pm CDT
- IBC Significant Changes: Accessibility, Systems, and Materials**
- Fri, May 13, 2022 | 11:00 am - 3:30 pm CDT
- Revit Basics of Building Modeling**
- Fri, May 13, 2022 | 9:00 am - 1:00 pm CDT
- Fri, May 20, 2022 | 9:00 am - 1:00 pm CDT
- International Existing Building Code 2021**
- Tues, May 17, 2022 | 9:00 am - 4:30 pm CDT
- Managing Construction Projects**
- Thurs, May 19, 2022 | 8:30 am - 5:00 pm CDT
- Site Design: Grading and Drainage**
- Fri, May 20, 2022 | 8:30 am - 4:30 pm CDT
- Designing a Smarter Home**
- Mon,, May 23, 2022 | 8:00 am - 4:00 pm CDT
- How to Design a Stormwater Management System for Residential Sites**
- Tues, May 24, 2022 | 2:00 - 4:00 pm CDT
- 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 and 7.0 HSW continuing education hours to licensed architects in all states.

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.

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The International Code Council has approved this event for .7 CEUs in the specialty area of Sitework (Preferred Provider No. 1232).

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

Added Value:
Enhance your learning - a recording of this webinar will be available for attendees to stream online for two weeks after the program date.
(Must attend live webinar to earn live webinar credits)

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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