

Agenda

Presented by Michael Perlow Jr., P.E.

Structure Loads, Soils, Groundwater and Drainage

Structural foundation, slab, basement, and retaining wall loading
Extreme weather, man's activities, geohazard impacts
Soil mechanics and structures

- Soil properties
- Groundwater and site drainage
- Underground utilities and roof drains
- Foundation bearing capacity and settlement
- Soil loads on basement and retaining walls

Foundation Design and Construction

Design-construction of shallow, deep and intermediate foundations
Continuous wall footings, column footings types
Overview of basement wall types, construction, and design
Overview of retaining wall types, construction, and design
Foundation underpinning using micropiles, helical piles

Evaluation of Foundation/Slab Damage and Repair Alternatives

Inspection, monitoring, and damage assessment

- Settlement
- Frost heave
- Expansive soils
- Shrinkage
- Subsurface erosion
- Sinkhole subsidence
- Mine subsidence
- Pumping-dewatering
- Cracking
- Utility failures

Repair methods and example case histories

- Piers, piles
- Soil tiebacks
- Underpinning
- Ground improvement

Evaluation of Wall Damage and Repair Alternatives

Inspection, monitoring, and damage assessment

- Settlement
- Frost loading
- Expansive soils
- Shrinkage
- Poor drainage
- Utility failures
- Failure of connections to supporting diaphragms

Repair methods and example case histories

- Piers, piles
- Soil tiebacks
- Carbon fibers
- Soldier beams
- Crack repair
- Secant-tangent walls
- Underpinning
- Reconstruction

**Residential, Commercial, Institutional, and Industrial
Foundation Damage Assessment and Repair Alternatives:
Science, Materials and Techniques**
Secaucus, NJ - Wednesday, December 19, 2018



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Altoona, WI 54720-0278

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Learning Objectives

You'll be able to:

Understand structural foundation, slab, basement and retaining wall loading.

Study the design of different types of foundations, including continuous footings, column footings, and basement walls.

Explore procedures for foundation inspection, monitoring, and damage assessment.

Repair damage caused by settlement, expansive soils and frost heave.

Review repair methods, including piers, piles, soil tiebacks and underpinning.



Residential, Commercial, Institutional, and Industrial Foundation Damage Assessment and Repair Alternatives: Science, Materials and Techniques

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Examine foundation design and construction

Understand the effects of structure loads, soils, groundwater and drainage

Identify types of foundation/slab damage and review repair alternatives

Learn about damage from settlement, expansive soils and shrinkage

Explore repair methods, including piers, piles and carbon fibers

Continuing Education Credits

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Non-Credit Continuing Ed.

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6.0 HSW Continuing Ed. Hours
6.0 AIA HSW Learning Units



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Faculty

Michael Perlow Jr., P.E.

Mr. Perlow is a retired civil and geotechnical engineer with more than 40 years of experience in foundation and marine geotechnical engineering with special technical expertise in geo-environmental hazard assessments, failure investigations, sinkhole stabilization, foundation and utility infrastructure repair. Mr. Perlow is a registered professional engineer and a graduate of Lehigh University with BSCE and MSCE degrees. He is also the author of some 30 technical publications and has presented at numerous conferences, seminars and meetings.

Mr. Perlow has extensive previous North American and international marine geotechnical experience with coastal and offshore projects including regional sewer systems, power plants, numerous outfall-intake pipelines, and offshore platforms. He also participated in the 1976 USGS (AMCOR) Atlantic Margin Coring Project and the Lehigh University Marine Geotechnical Laboratory (MGL) research program to develop geotechnical test areas for the US Navy using deep diving submersibles and a tethered test platform.

Mr. Perlow retired from full-time consulting in April 2015 and continues to work part-time in retirement. He remains the owner of EKMLLC - Engineering Knowledge Management LLC and is completing publications and an Elsevier book on geo-environmental hazard risk management. In addition, Mr. Perlow is also completing publications on a two-year applied research project focusing on drilled foundation limit state design and pile capacity verification.

Seminar Information

Holiday Inn Secaucus Meadowlands

300 Plaza Drive
Secaucus, NJ 07094
(201) 348-2000

Tuition

\$279 for individual registration

\$259 for three or more registrations.

Included with your registration:

Complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

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- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

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

Continuing Education Credit Information

This seminar is open to the public and offers up to 6.0 CPC credits/PDHs to professional engineers and 6.0 HSW continuing education hours to architects in all states, except Florida architects. HalfMoon Education is an approved continuing education provider for New Jersey engineers (Approval No. 24GP00000700).

This event has been approved by the American Institute of Architects for 6.0 Learning Units (Sponsor No. J885). Courses approved by the AIA qualify for New Jersey architects. Only full attendance can be reported to the AIA/CES.

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This seminar offers a non-credit continuing education opportunity to contractors; it has not been approved in any state that has a contractor continuing education requirement.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Cogeneration System Principles and Practice

- **Understanding the Benefits of Cogeneration**
Thurs., Nov. 8, 2018, 11:00 AM - 12:30 PM CST
- **Laws, Regulations and Building Codes Impacting Cogeneration**
Thurs., Nov. 8, 2018, 1:00 PM - 2:30 PM CST
- **Examining Cogeneration Technologies**
Fri., Nov. 9, 2018, 11:00 AM - 12:30 PM CST
- **Moving to Cogeneration: Analysis, Modeling and Case Studies**
Fri., Nov. 9, 2018, 1:00 - 2:30 PM CST

Shallow Foundation Design and Construction

- **Evaluating Building Sites**
Wed., Nov. 14, 2018, 11:00 AM - 12:30 PM CST
- **Shallow Foundation Design**
Wed., Nov. 14, 2018, 1:00 - 2:30 PM CST
- **Special Considerations in Foundation Design and Construction**
Thurs., Nov. 15, 2018, 11:00 AM - 12:30 PM CST
- **Soil Improvement and Foundation Diagnosis and Repair**
Thurs., Nov. 15, 2018, 1:00 - 2:30 PM CST

Roadway Design

- **Roadway Design**
Thurs., Nov. 29, 2018, 11:00 AM - 12:30 PM CST
- **Roadway Design Process**
Thurs., Nov. 29, 2018, 1:00 - 2:00 PM CST
- **Typical Roadway Sections and Alignment**
Fri., Nov. 30, 2018, 11:00 AM - 1:30 PM CST
- **Intersections, Drainage and Pedestrian-Bicycle Facilities**
Fri., Nov. 30, 2018, 2:00 - 3:30 PM CST

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

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An audio recording of this seminar is available for \$289 (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

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How to Register		Registrant Information
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Complete the entire form. Attach duplicates if necessary.		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.
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Tuition

- () **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.
- () **I am not attending.** Please send me the CD manual package for **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

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