Learning Objectives

You’ll be able to:

Understand the properties of soils, and discuss the need to conduct soil investigations to determine the appropriate type of foundation for the building site.

Understand the hydraulic and mechanical properties of site soils, paying particular attention to soil compressibility and permeability and their impact on foundation design.

Calculate soil bearing capacity for shallow foundations, piers and piles.

Increase bearing capacity through draining, compaction and soil improvement.

Learn why slopes fail, and describe slope stabilization methods to prevent slope failure and landslides.

Agenda

Presented by E. Allen Dunn, III, P.E.

Soil Investigation and Classification

Properties of soil
- Importance of recognizing soil properties
- Formation of soils
- Types of soils

Soil investigation
- Site reconnaissance
- Geology and visual observations
- Drilling and boring
- Test pits

Establishing appropriate investigational methods

Obtaining and reviewing geotechnical reports

Reviewing Hydraulic and Mechanical Properties of Soils

Soil permeability

Compressibility of soil

- Saturation, hydraulic gradient, and conductivity

Drained and undrained shear strength
- Vertical and lateral earth pressure

Stress and failure in soils

Determining and Increasing Bearing Capacity

Calculating bearing capacity

Bearing capacity of shallow foundations

Bearing capacity of piers and piles

Increasing bearing capacity
- Draining and compaction
- Soil improvement

Determining and Increasing Slope Stability

Natural and engineered slopes

Reviewing basic concepts of slope stability

Understanding slope failures

Impact of surface water and groundwater

Examining slope stabilization methods
- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement

Soil Mechanics, Bearing Capacity and Slope Stabilization

Austin, TX - Friday, November 15, 2019

Discuss soil characteristics
Learn soil investigation techniques
Understand the importance of soil permeability and compressibility
Increase bearing capacity of soils
Examine slope stabilization techniques

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects & Landscape Architects
6.5 HSW CEPHs/CE Hours
6.5 AIA LU|HSW
6.5 LA CES HSW PDHs

Contractors
Non-Credit Continuing Ed.
Seminar Information

Hilton Garden Inn Downtown
500 North Interstate 35
Austin, TX 78701
(512) 480-8181

Continuing Education Credit Information

This seminar is open to the public. It offers 6.5 PDHs to professional engineers in all states. Educators and courses are not subject to preapproval in Texas. This course offers 6.5 HSW CEHS to Texas architects and landscape architects. The American Institute of Architects has approved this course for 6.5 LU|HSW (Sponsor No. J885), and the Landscape Architecture Continuing Education System has approved it for 6.5 HSW PDHs. Only full attendance can be reported to the AIA/CES and LA/CES. Educators and courses are not subject to preapproval in Texas. Visit www.halfmoonseminars.org for complete AIA information under this course listing.

E. Allen Dunn, III, P.E.
Lead Foundation Engineer, M&S Engineering LLC

Mr. Dunn is a licensed professional engineer with over 20 years of civil engineering and related experience specializing in geotechnical engineering, pavement engineering, forensic and structural engineering, construction materials engineering and testing, and electrical transmission engineering. He is licensed in multiple states and his experience includes projects throughout the contiguous United States. Mr. Dunn has worked for commercial, governmental, military, and private clients. He earned a B.S. degree in Civil Engineering from Texas A&M University, an M.S. degree in Civil Engineering and an M.B.A. degree from the University of Texas at San Antonio. Mr. Dunn earned his Ph.D. in Leadership Studies from Our Lady of the Lake University.

Tuition

$529 for individual registration
$269 for three or more registrations.

Each registration includes a complimentary continental breakfast and preprinted seminar manual.

Registration

Registration: 8:00 - 8:30 am
Morning Session: 8:30 am - 12:15 pm
Lunch (on your own): 12:15 - 1:15 pm
Afternoon Session: 1:15 - 4:30 pm

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Webinar Series

Wetlands Law and Compliance

Introduction to Wetlands Laws and Enforcement

Wed., September 25, 2019, 11:00 AM - 1:00 PM CDT

Thurs., September 26, 2019, 11:00 AM - 2:15 PM CDT

• Component Tolerance Analysis

Component Tolerance Analysis

Introduction to Component Tolerance Analysis

Thurs., October 17, 2019, 11:00 AM - 12:30 PM CDT

• Application of Dimensional Tolerance Analysis

Application of Dimensional Tolerance Analysis

Fri., October 18, 2019, 11:00 AM - 2:15 PM CDT

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

Additional Learning

Solar Photovoltaic Project Design and Development

• Solar Photovoltaic Project Design and Development, Part I

Wed., October 2, 2019, 8:00 - 8:30 am

• Solar Photovoltaic Project Design and Development, Part II

Thurs., October 3, 2019, 11:00 AM - 2:15 PM CDT

Special Inspections

• Introduction to Chapter 17: Special Inspections

Thurs., October 10, 2019, 11:00 AM - 12:30 PM CDT

• Reinforced Concrete and Structural Steel

Fri., October 11, 2019, 1:00 - 2:30 PM CDT

• ACT Ceiling Grid, Epoxy Anchors, and Fire Penetrations

Fri., October 11, 2019, 2:30 - 4:30 PM CDT

Trends and Opportunities in Wetland Preservation, Restoration, Creation and Enhancement

Thurs., September 26, 2019, 1:00 - 3:00 PM CDT

Solar Photovoltaic Project Design and Development

• Solar Photovoltaic Project Design and Development, Part I

Wed., October 2, 2019, 8:00 - 8:30 am

• Solar Photovoltaic Project Design and Development, Part II

Thurs., October 3, 2019, 11:00 AM - 2:15 PM CDT

Tuition

I am not attending.

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Single Registrant - $269.00

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