

Agenda

Presented by

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CFCC, CBCP, EDI, PTI, NACHI, F.NAFE, F.ASCE**

Science of Structures

- Superstructure vs substructure
- Typical loads on superstructure
 - Vertical loads (dead, live, snow, roof, etc.)
 - Lateral loads (wind, seismic, etc.)
- Load path to foundation system
- Typical load path on substructure
 - Vertical loads (dead)
 - Lateral loads (soil, hydrostatic, etc.)
- Load path to supporting soils
- Soils testing
 - Code requirements
 - Properties
 - Reporting

Foundation Design

- Foundation types
- Design using soil parameters
 - Prescriptive vs engineered design
 - Spread footing design
 - Deep foundation design
 - Retaining wall design

Assessing a Property

- Discussion of damages
 - Prong 1
 - Prong 2
 - Cause and effect
- Site observations
- Relative level survey
 - Types of equipment and tolerances
 - Performing a survey

Foundation Repair Methods

- Underpinning
 - Verification and proof tests
- Foundation repair
 - Issues
 - Repair details
 - Repaired conditions
- Secondary repairs

Foundation Damage and Repair: Science, Materials and Techniques

Live, Interactive Webinar - Thursday, April 29, 2021

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Learning Objectives

You'll be able to:

Understand typical loads on the super- and substructure and load paths to both the foundation system and the supporting soil.

Consider the benefits of soil testing.

Examine the design of spread footings, deep foundations, and retaining walls.

Assess the condition of foundations.

Explore foundation repair methods, including underpinning.

Discuss the need for secondary repairs caused by foundation problems.



HalfMoon Education Online Learning

Foundation Damage and Repair: Science, Materials and Techniques

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Consider vertical and lateral loads on structures

Follow the load path to the foundation and supporting soils

Discuss the design of spread footings, deep foundations and retaining walls

Determine causes of foundation damage

Learn about foundation repair techniques

Consider the need to make secondary repairs arising from foundation damage

Continuing Education Credits

Professional Engineers
6.0 PDHs

Architects
6.0 HSW CE Hours

AIA
6.0 LU | HSW

International Code Council
.6 CEUs (Building)



Faculty

Edward L. Fronapfel, MSCE, PE, D-IBFES, DFE, CBIE, CFCC, CBCP, EDI, PTI, NACHI, F.NAFE, F.ASCE
Mr. Fronapfel is the chief executive officer of SBSA, LLC, a Golden, Colorado-based engineering and architectural firm that specializes in forensic engineering and architecture, new design, construction management, and redesign of properties. His 30 years of experience in both structural and civil engineering allows him to understand the complex interaction between geotechnical, structural, architectural, and thermal environments. Mr. Fronapfel's experience includes hundreds of deposition testimonies and more than 75 trial testimonies, as well as hundreds of mediations and arbitrations. He is licensed to practice engineering in 39 states and Puerto Rico. Mr. Fronapfel further contributes to the building community by teaching and writing.

Webinar Information

Log into Webinar 9:00 - 9:30 am CDT	Break 12:30 pm - 1:30 pm CDT
Morning Session 9:30 am - 12:30 pm CDT	Afternoon Session 1:30 - 5:00 pm CDT

Tuition
\$289 for individual registration
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Additional Learning

Preventing and Addressing Construction Defects and Failures
- Tues, Mar 23, 2021 | 11:00 am - 2:15 pm CDT
- Wed, Mar 24, 2021 | 11:00 am - 3:15 pm CDT

Designing for Climate Resilience
- Thurs, Mar 25, 2021 | 11:00 am - 2:45 pm CDT
- Fri, Mar 26, 2021 | 11:00 am - 2:45 pm CDT

Composite Steel, Concrete and Mass Timber Buildings
- Fri, Mar 26, 2021 | 9:00 am - 4:25 pm CDT

Handling Ethical Issues in Construction Contracting
- Fri, Mar 26, 2021 | 10:00 - 11:00 am CDT

Special Inspections under the International Building Code Chapter 17
- Tues, Mar 30, 2021 | 9:00 am - 4:00 pm CDT

2021 International Residential Code: Residential Structural Construction
- Thurs, April 1, 2021 | 11:00 am - 3:30 pm CDT

Continuing Education Credit Information
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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Net-Zero Energy Home Design Workshop
- Tues, April 6, 2021 | 11:00 am - 2:15 pm CDT
- Wed, April 7, 2021 | 11:00 am - 2:15 pm CDT
- Fri, April 9, 2021 | 11:00 am - 2:15 pm CDT

IBC International Building Code 2021
- Thurs, April 8, 2021 | 8:30 am - 4:20 pm CDT

Designing for Accessibility under ADA Standards and 2021 IBC
- Mon, April 12, 2021 | 8:30 am - 4:30 pm CDT

Foundations on Expansive Soils
- Wed, April 14, 2021 | 8:30 am - 5:30 pm CDT

International Residential Code 2021
- Thurs, April 15, 2021 | 10:00 am - 2:30 pm CDT
- Fri, April 16, 2021 | 10:00 am - 12:00 pm CDT

Seismic Design and Construction
- Fri, April 16, 2021 | 8:30 am - 5:00 pm CDT

For more information and other online learning opportunities visit: www.halfmoonseminars.org

Registration

Foundation Damage and Repair: Science, Materials and Techniques - Thursday, April 29, 2021

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