Agenda

Presented by Vincent F. Fratinardo, P.E., S.E., RRC

Distinguishing between Construction Defects and Failures

Defining defects

Causes of defects: problems with design, materials and/or construction

Causes of failures: deterioration, unintended use, "Acts of God"

Examining Common Defects and Failures, Part I

Analyzing defects and failures for methodology and causality Site selection and engineering Building design

Examining Common Defects and Failures, Part 2

Foundation design and construction Design and construction of floors, walls and roofing Exploring defects and failures in mechanical and electrical systems

Adopting Practices that Reduce Defects and Failures

Reviewing proposed use and preparing construction documents Complying with building codes and standards

Choosing materials and construction techniques

- Investigating new materials and construction techniques

Monitoring construction

Correcting problems before project completion

Building commissioning, operation and maintenance

Using Construction Defect and Failure Investigations in Litigation

Examining the nature of post-failure and defect conflicts and disputes Understanding the use of information in arbitration, litigation and mediation

Presenting information as an expert witness

Expert witness qualifications

Offering testimony as an expert witness

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

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Friday, February 21, 2020

Failures

and

Defects

Construction

Preventing and Addressing

HalfMoon Education Inc. PO Box 278 Altoona, WI 54720-0278 East Lansing, MI -



Learning Objectives

You'll be able to:

Differentiate between construction defects and failures

Describe their common causes, including design problems, faulty materials, construction practices, unintended use, and deterioration.

Discuss common defects and failures in foundations, floors, walls, roofing, and mechanical and electrical systems.

Reduce construction defects and failures by understanding proposed use, preparing timely and accurate construction documents, complying with building codes, selecting quality materials, monitoring construction, correcting problems before construction completion, and participating in building commissioning.



Preventing and Addressing Construction Defects and Failures

East Lansing, MI - Friday, February 21, 2020



Understand the difference between construction defects and construction techniques failures

Identify common defects and failures

Examine building codes and standards

Explore materials and

Resolve disputes generated by defects and failures

Get tips on presenting evidence as an expert witness

Continuing Education Credits

Professional Engineers

6.5 Continuing Ed. Hours

Contractors

Non-Credit Continuing Ed.

Architects

6.5 HSW CE Hours 6.5 AIA LU|HSW





Faculty

Vincent F. Fratinardo P.E., S.E., RRC

Mr. Fratinardo is a civil/structural engineer and roof consultant. His 20 years of experience includes civil and structural engineering analysis, design, construction administration, field investigation, and project management, and 13 years of experience specific to forensic engineering and the investigation and analysis of building damage and failures. Mr. Fratinardo has designed numerous new buildings, building additions, building renovations, and mechanical platforms and supports. He has designed and analyzed roof, wall and floor framing systems utilizing steel, concrete, masonry, and wood construction. Mr. Fratinardo has vast expertise in commercial, industrial, agricultural, municipal, educational and residential building damage investigations, including on-site investigations after 25 different tornado events, and Hurricanes Irene, Sandy, Matthew, Harvey, Irma, Maria and Florence. He has legal experience in depositions, arbitration hearings and trials. He has prepared and performed numerous continuing education presentations, including on an array of topics in forensic engineering, structural engineering and building codes for HalfMoon Education Inc., in multiple states since 2014. Mr. Fratinardo graduated from Michigan State University with a bachelor of science degree in Civil Engineering, and he also holds a master of engineering degree in Civil Engineering from Texas A&M University. He is a registered professional engineer in multiple states and a licensed structural engineer in Illinois.

Here's what past attendees had to say about the program and presenter Vince Fratinardo:

"Excellent!" — Engineer

"Enjoyed presentation; good mix of technical & examples." — Engineer

"I've attended a couple of Vince's seminars and he delivers a well-thought presentation." Architect

Additional Learning

Webinar Series

Pumping and Piping Systems

- Introduction to Pumps: **Operation, Principles and Calculations** Thurs., Feb. 6, 2020, 11:00 AM - 1:00 PM CST
- Pumping and Piping Design **Standards and Codes** Thurs., Feb. 6, 2020, 1:30 - 2:30 PM CST
- Piping System Components, **Materials and Calculations** Fri., Feb. 7, 2020, 11:00 AM - 1:00 PM CST
- Handling Pump and Piping System Problems Fri., Feb. 7, 2020, 1:30 - 2:30 PM CST

Pavement Design

- Principles of Pavement Design Wed., Feb. 12, 2020, 11:00 AM - 12:00 PM CST
- Flexible Pavement Design Wed., Feb. 12, 2020, 12:30 - 2:30 PM CST
- Rigid Pavement Design Thurs., Feb. 13, 2020, 11:00 AM - 1:00 PM CST
- Maintenance, Rehabilitation and Sustainability of Pavements Thurs., Feb. 13, 2020, 1:30 - 3:30 PM CST

Ethical Issues for Engineers

- Resolving Disputes and Handling Ethical **Issues in Government Projects** Fri., Jan. 31, 2020, 12:00 - 1:00 PM CST
- Complying with Rules of Professional Conduct

Fri., Feb. 14, 2020, 12:00 - 1:00 PM CST

Foundations in Cold Regions

• Introduction to Foundations in Cold Regions

Thurs., Feb. 20, 2020, 11:00 AM - 12:30 PM CST

 Shallow Foundation Design in Cold Regions

Thurs., Feb. 20, 2020, 1:00 - 2:30 PM CST

- Deep Foundation Design in Cold Regions Fri., Feb. 21, 2020, 11:00 AM - 12:30 PM CST
- Foundation Construction in Cold Regions Fri., Feb. 21, 2020, 1:00 - 2:00 PM CST

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

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Registration

How to Register

East Lansing, MI - Friday, February 21, 2020

Code:

Complete the entire form. Attach duplicates if necessary.

Registrant Information Company/Firm: ____ Address: _ __State: ______ Zip___ Occupation: Email: Phone: **Additional Registrants:** Name: Occupation: Email: Phone: Occupation: Email: Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold

Seminar Information

Marriott at University Place

300 Michigan Agricultural College Ave. East Lansing, MI 48823 (517) 337-4440

Registration 8:00 - 8:30 am Morning Session

8:30 am - 12:00 pm

Lunch (On your own)

12:00 - 1:00 pm Afternoon Session 1:00 - 4:30 pm

Tuition

\$289 for individual registration

\$269 for three or more simultaneous 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

- · 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

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 self-study package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 continuing education hours/PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states. Educators and courses are not subject to pre-approval in Michigan.

This course has been approved by the American Institute of Architects Continuing Education System for 6.5 LU|HSW (Provider No. J885). Only full attendance is reportable to the AIA/CES. Visit www.halfmoonseminars.org to view complete AIA/CES information under this course listing.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects.

This seminar offers contractors a non-credit continuing education opportunity. It has not been approved by any state contractor licensing entity with a 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.

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() 🖧 I need special accommodations. Please contact me.
Tuition
() I will be attending the live seminar. Single Registrant - \$289.00. Three or more
registrants from the same company registering at the same time - \$269.00 each.
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Downloadable MP3 Audio/PDF Manual for \$269.00 .
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(S&H included. Please allow five weeks from seminar date for delivery)
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