

Agenda

Presented by Michael J. Drerup, P.E.

Examining the Role of Forensic Engineering

- Causes and consequences of structural failures
- Importance of good design
- Impact of codes and standards
- Legal and economic impacts of failures
- Results and consequences of forensic engineering

Understanding the Forensic Engineering Process

- Documenting the failure
- Conducting investigation and research
- Test protocols and tests
- Determining causation and responsibility
- Learning from failure

Preparing the Forensic Engineering Report

- Identifying the report's purpose and its audience
- Examining content
- Organizing the report
- Evaluating sample reports

Understanding Causes of Structural Failures

- Material deficiencies
- Design errors
- Construction errors
- Excessive loadings
- Deterioration and degradation

Forensic Examination of Structures

- Investigation of steel structures
- Investigation of wood structures
- Investigation of concrete structures
- Investigation of masonry and building facades
- Load testing and instrumentation of existing structures

Using Forensic Engineering Information in Litigation

- Examining the nature of post-failure conflicts and disputes
- Understanding the use of forensic engineering information in arbitration, litigation and mediation
- Presenting forensic engineering information as an expert witness
 - Expert witness qualifications
 - Offering testimony as an expert witness

Structural Forensic Engineering
Norfolk, VA - Thursday, August 13, 2020

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Learning Objectives

You'll be able to:

Understand the importance of good design and the impact of codes and standards as tools to minimize structural failures.

Discuss how forensic research and investigation can be used to determine the causes of failures.

Evaluate the format and content of forensic engineering reports.

Identify the causes of structural failure including material deficiencies, deterioration, and design and construction errors.

Compare forensic investigation procedures for various types of structures including steel, wood, and concrete.

Discuss the use of forensic engineering information during the litigation process.



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Understand causes and consequences of structural failures

Explore the forensic engineering process

Identify key points in forensic engineering reports

Learn the causes of structural failures

Understand forensic investigations of wood, steel and concrete structures

Review the use of forensic engineering information during the litigation process

Continuing Education Credits

Professional Engineers

6.5 Continuing Ed. Hours

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6.5 Continuing Ed. Hours

6.5 AIA LU|HSW

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Faculty

 **Michael Drerup, P.E., F.ASCE**, has nearly 25 years of structural engineering and building technology experience, with an emphasis on the performance, maintenance, repair, and retrofit of existing buildings and structures. He has planned and directed field and laboratory studies to evaluate the performance and durability of a variety of building systems, components, and materials, including structural systems, facades, and flooring. Mr. Drerup often works closely with specialists in other disciplines to assemble and manage teams tailored for larger and more complex assignments. He has also investigated numerous damage claims resulting from a variety of natural and man-made causes, including earthquakes, weather events, explosions, fire, impact, construction activities, and defective design or construction. Mr. Drerup has served as an expert witness in numerous cases, and he has testified at deposition, trial, and mediation.

Mr. Drerup has served on ASCE’s Technical Council on Forensic Engineering for 13 years, and recently completed his term as council chair. During that time, he has led the development of continuing education seminars for engineers and architects, chaired ASCE’s Fifth Congress on Forensic Engineering in Washington, DC, and served on the steering committee for the Sixth Congress in San Francisco. Mr. Drerup has also represented ASCE internationally, including two sponsored trips to forensic engineering conferences in India, and collaboration with the Institution of Forensic Engineers in the United Kingdom. He has served as a reviewer for ASCE’s *Journal of Performance of Constructed Facilities* for more than 10 years, and he was guest editor for a special topic issue on non-destructive evaluation of existing buildings and infrastructure. Mr. Drerup regularly publishes and presents on a range of topics including technical issues, professional practice, and architectural and engineering history.

Testimonials from Recent HalfMoon Education Seminars Taught by Michael Drerup:

“Well presented with numerous examples” – *Engineer* “Very passionate about subject matter” – *Engineer*
“Good speaker, knowledgeable” – *Civil Engineer* “It was a very great and informative class” – *Architect/Engineer*

Seminar Information

Doubletree by Hilton
1500 North Military Highway
Norfolk, VA 23502
(757) 466-8000

Tuition
\$299 for individual registration
\$279 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.

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 - 4:45 pm

Continuing Education Credit Information
This seminar is open to the public and offers 6.5 continuing education hours to professional engineers and architects in all states. Educators and courses are not subject to preapproval in Virginia.

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

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.



Additional Learning

- Webinar Series**
- Low Impact Development**
- **Introduction to Low Impact Development and Bioretention System Design**
Wed, May 20, 2020, 11:00 AM - 1:00 PM CDT
 - **LID Residential Development and Case Studies**
Thurs., May 21, 2020, 11:00 AM - 1:00 PM CDT
- Construction Scheduling**
- **Construction Project Selection, Scheduling, and Time Management**
Wed, May 27, 2020, 11:00 AM - 1:00 PM CDT
 - **Critical Path Method (CPM) Scheduling and Diagram**
Wed, May 27, 2020, 1:30 - 3:30 PM CDT
 - **Construction Cost Management**
Thurs., May 28, 2020, 11:00 AM - 1:00 PM CDT
 - **Fine-Tuning and Changing the Construction Schedule**
Thurs., May 28, 2020, 1:30 - 3:30 PM CDT

- Onsite Wastewater Treatment Systems**
- **Onsite Wastewater Treatment Technologies and Contaminant Removal**
Thurs., May 28, 2020, 11:00 AM - 12:30 PM CDT
 - **Evaluating OSWW Sites, Setting Treatment Goals and System Design**
Thurs., May 28, 2020, 1:00 - 2:30 PM CDT
 - **Alternative and Sustainable OSWW Treatment Technologies**
Fri., May 29, 2020, 11:00 AM - 12:30 PM CDT
 - **Management Programs for Onsite Wastewater Treatment Systems**
Fri., May 29, 2020, 1:00 - 2:30 PM CDT
- For more information and other online learning opportunities visit:
www.halfmoonseminars.org/webinars/

Can’t Attend? Order the Manual and the Audio from the Live Seminar as a Self-Study Package!
An audio recording of this seminar is available for \$279. Allow four 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 Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ 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.
Online: www.halfmoonseminars.org		
Phone: 715-835-5900		
Fax: 715-835-6066	Code:	
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Complete the entire form. Attach duplicates if necessary.		

Tuition
() **I will be attending the live seminar.** Single Registrant - **\$299.00**. Three or more registrants from the same company registering at the same time - **\$279.00** each.
() **I am not attending.** Please send me the self-study package:
☐ Downloadable MP3 Audio/PDF Manual for **\$279.00**.
☐ CD/Manual Package for **\$299.00**. ☐ USB/Manual Package **\$299.00**.
(Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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