

Agenda

Presented by James D'Aloisio, P.E., SECB, LEED AP

Designing and Constructing to Prevent Failures

- Importance of standards and codes
- Design professional duties and the design process
- Understanding the standard of care
- Legal and economic impacts of failures
- Purpose of forensic engineering

Understanding Causes of Structural Failures

- Lessons learned from historic failures
- Design errors
- Defective construction
- Material deficiencies
- Excessive loadings
- Deterioration and degradation

Understanding the Forensic Engineering Process

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

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

- Examining the forensic engineering report
- Impact of forensic engineering information on post-failure disputes
- Use of forensic engineering information in mediation, arbitration and litigation
- The forensic engineer as consultant, expert and witness

Ethical Issues in Structural Engineering

- Design responsibilities that are exclusively duties for engineers
- Practicing only in areas of competence
- Adopting new materials/techniques: due diligence
- Duty to disclose potential problems

Structural Forensic Engineering and Ethics

Poughkeepsie, NY - Thursday, March 12, 2020



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Learning Objectives

You'll be able to:

Discuss the importance of good design and code compliance.

Describe the legal and economic consequences of structural failures.

Explore the forensic engineering process, from failure documentation, through investigation and testing, to determination of causation.

Review the contents of forensic engineering reports.

Identify common causes of structural failures, including material deficiencies, design errors, construction errors, excessive loadings, deterioration and degradation.

Discuss the forensic engineering examination of steel, wood, concrete and masonry structures.



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Understand the role of the forensic engineer

Explore the forensic engineering process and review forensic engineering reports

Learn the causes of structural failures

Examine the legal and economic impacts of failures

Review the use of forensic engineering during litigation

Continuing Education Credits

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7.0 Continuing Ed. Hours
Including 1.0 Ethics Hour

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7.0 HSW Continuing Ed. Hours
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Faculty

James D’Aloisio, P.E., SECB, LEED AP *Principal with Klepper, Hahn & Hyatt in Syracuse*

Mr. D’Aloisio is a principal with Klepper, Hahn & Hyatt, a structural engineering, landscape architecture, and building envelope services firm in East Syracuse, New York. A graduate of Rensselaer Polytechnic Institute, Mr. D’Aloisio is a registered professional engineer in New York and Massachusetts, and he has been certified by the Structural Engineering Certification Board (SECB) since its inception in 2007. He is a member and past president (1997-1998) of the American Society of Civil Engineers (ASCE) Syracuse Section, and a member of the American Institute of Steel Construction (AISC), the American Concrete Institute (ACI), the National Society of Professional Engineers (NSPE), and the Structural Engineers Association of New York State (SEAoNY). Mr. D’Aloisio is a member of ASCE/SEI’s Frost-Protected Shallow Foundations Committee, the Structural Condition Assessment of Existing Buildings Committee, and the Sustainability Committee, and he is a member of Committee ACI 318-N. He is a trained infrared thermographer. Mr. D’Aloisio received the Order of the Engineer at Syracuse University in 1997. His 30-plus years’ experience as a consulting structural engineer has primarily involved the design of new building structures, additions, and modifications, and analyses, assessments, and investigations of structures and facades. Specialties include detailing to minimize structural thermal bridging, the use of alternative structural systems and design approaches that can reduce the CO₂ emissions of structures and foundations. Mr. D’Aloisio has been involved in numerous special inspection projects, including developing statements of special inspections, performing inspections, and facilitating discrepancy resolutions. He has also performed over 150 structural forensic investigations, and he has presented over 300 times.

Seminar Information

Hyatt Place Poughkeepsie 2165 South Road Poughkeepsie, NY 12601 (845) 632-3100	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 - 5:00 pm
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Tuition
\$299 for individual registration
\$279 for three or more simultaneous registrations.

Included with your registration:
Complimentary continental breakfast and printed seminar manual.

How to Register

- Visit us online at www.halfmoonseminars.org
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Additional Learning

- Webinar Series**
- 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

- Soil Mechanics and Slope Stability**
- **Soil Investigation and Classification**
Tues., Feb. 25, 2020, 11:00 AM - 1:00 PM CST
 - **Reviewing Hydraulic and Mechanical Properties of Soils**
Tues., Feb. 25, 2020, 1:30 - 3:00 PM CST
 - **Determining and Increasing Bearing Capacity**
Wed., Feb. 26, 2020, 11:00 AM - 1:00 PM CST
 - **Determining and Increasing Slope Stability**
Wed., Feb. 26, 2020, 1:30 - 3:00 PM CST

- Designing for Climate Resilience**
- **Current and Anticipated Climate Effects on Structures and Communities**
Thurs., Feb. 27, 2020, 11:00 AM - 12:30 PM CST
 - **Assessing the Impact of Sea Level Rise, Changing Temperature and Changing Weather Patterns**
Thurs., Feb. 27, 2020, 1:00 - 3:00 PM CST
 - **Studying the Impact of Extreme Weather**
 - **Events on Structures and Communities**
Fri., Feb. 28, 2020, 11:00 AM - 12:30 PM CST
 - **Adapting Sites, Outdoor Spaces, New Construction and Existing Buildings to Withstand Extreme Weather Events**
Fri., Feb. 28, 2020, 1:00 - 3:00 PM CST

For more information and other online learning opportunities visit:
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Continuing Education Credit Information

This seminar is open to the public and offers up to 7.0 continuing education hours, including 1.0 ethics hour, to professional engineers and 7.0 HSW continuing education hours to architects in all states.

HalfMoon Education is deemed a New York-approved continuing education provider for engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)).

The American Institute of Architects Continuing Education System has approved this course for 7.0 LU|HSW (Sponsor No. J885). Courses approved by the AIA qualify for New Jersey architects. Visit www.halfmoonseminars.org to see complete AIA/CES course information under this seminar listing. Only full attendance is reportable to the AIA/CES.

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.

This event offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state with a continuing education requirement for contractors.

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.

Registration

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How to Register	
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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.
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