

Agenda

Presented by Victor Popp, PE, MS, CSL

Examining the Role of Forensic Engineering

- Introductions and backgrounds
- Definition of forensics and structural failure
- 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 and Reviewing Forensic Engineering Reports

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

Understanding Causes of Structural Failures

- Design errors
- Construction errors
- Excessive loadings
- Material deficiencies, deterioration, and degradation
- Testing for material issues

Forensic Examination of Structures

- Investigation of steel structures
- Investigation of wood structures
- Investigation of concrete structures
- Investigation of masonry and building facades

Using Forensic Engineering Information in Litigation

- Presenting forensic engineering information as an expert witness
- Offering testimony as an expert witness

Structural Forensic Engineering
Live, Interactive Webinar - Friday, December 4, 2020

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Learning Objectives

You'll be able to:

Discuss the importance of standards and codes, and examine the legal and economic impacts of structural failures.

Understand the forensic engineering process, including documenting failures, conducting investigation and research, and determining causation and responsibility.

Prepare and **review** forensic engineering reports.

Understand causes of structural failures, including material deficiencies, deterioration, and degradation.

Utilize forensic investigative techniques for steel, wood, and concrete structures.

Discuss the use of forensic engineering information in litigation.



HalfMoon Education Online Learning

Structural Forensic Engineering

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Explain the role of forensic engineering

Understand the forensic engineering process

Evaluate forensic engineering reports

Explore the causes of structural failures, including design and construction errors

Discuss the forensic examination of structures

Examine the use of forensic engineering information in litigation

Continuing Education Credits

Professional Engineers
6.5 PDHs

AIA
6.5 LU|HSW

Architects
6.5 HSW CE Hours

International Code Council
.65 CEUs (Building)



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Victor Popp, PE, MS, CSL *Principal, VPopp Inc.*

Mr. Popp is a licensed professional engineer in New York, Massachusetts, Connecticut, Maine, New Hampshire, Rhode Island and Colorado. He also holds an unrestricted construction supervisor and home inspector license (in Massachusetts). Mr. Popp provides expert technical consulting services based on over three decades of broad-based mechanical and structural engineering experience. He has developed state-of-the-art custom machinery, structures and systems, and he has performed engineering management and consulting services for a wide variety of clients, applications, and industries. These include the consumer, aerospace, materials, testing, biomedical, automotive, and construction markets. Mr. Popp has experience in state-of-the-art design and manufacturing, and in production and research and development environments. He has also performed forensic and failure analysis investigations of material and product failures as well as structural engineering analysis. Mr. Popp holds a master's of science degree in Administrative Studies from Boston College, a bachelor of science degree in Mechanical Engineering from the University of Massachusetts, and a certificate in Engineering Management Development from Worcester Polytechnic Institute. He has also completed other PhD and master's level engineering course work including bio-mechanical engineering, CAD, thermodynamics, and numerical analysis at UMASS and at Northeastern University. As a result of his extensive professional experience and education, Mr. Popp has been an invited presenter at the University of Fair Haven's Graduate School of Forensic Engineering and at the National Academy of Forensic Engineers Annual Convention.

Webinar Information

Log into Webinar 7:00 - 7:30 am CST	Break 11:00 am - 12:00 pm CST
Morning Session 7:30 - 11:00 am CST	Afternoon Session 12:00 - 3:30 pm CST

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Additional Learning

Retaining Wall Design and Global Stability Analysis
- Mon., Nov. 2, 2020 | 9:00 am – 5:00 pm CST

Stormwater Basins and Underground Systems
- Thurs., Nov. 5, 2020 | 12:00 - 4:00 pm CST
- Fri., Nov. 6, 2020 | 12:00 - 3:30 pm CST

2018 International Existing Building Code: Overview and Requirements for all Compliance Methods
- Fri., Nov. 6, 2020 | 10:00 am – 2:30 pm CST

Construction Cost Estimating
- Wed., Nov. 11, 2020 | 7:30 am - 3:30 pm CDT

Shallow Foundation Design
- Wed., Nov. 11, 2020 | 11:00 am - 2:15 pm CST
- Thurs., Nov. 12, 2020 | 11:00 am - 2:15 pm CST

Continuing Education Credit Information
This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects licensed in all states.

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The International Code Council has approved this event for .65 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Wastewater Collection and Treatment System Design
- Mon., Nov. 16, 2020 | 8:30 am - 4:30 pm CST

Geothermal Heating and Cooling: Technology and Applications
- Tues., Nov. 17, 2020, 8:30 am – 4:30 pm CST

Introduction to Dam Safety, Inspection and Rehabilitation
- Tues., Nov. 17, 2020, 8:30 am – 5:00 pm CST

How to Design, Construct and Maintain a Cost Effective Permeable Pavement
- Thurs., Nov. 19, 2020 | 12:00 - 2:00 pm CST

Solar Site Assessment
- Fri., Nov. 20, 2020 | 12:00 - 2:00 pm CDT

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Registration

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