

# Agenda

*Presented by Brian C. Eubanks, M.S.C.E., P.E., D.F.E.*

**Development of Design Specifications and Building Codes**

Development of the International Building Code  
Development of the National Design Specification for Wood Construction  
Properties of wood

**Design Values, Requirements and Equations**

Loads  
Load combinations  
Timber modification factors  
Bending members  
Compression members  
Tension members  
Combined loading members

**Structural Use of Sawn Lumber and Timber**

Sawn lumber applications and design values  
Timber poles and piles applications and design values

**Structural Composite Lumber**

Types of products                      Applications and design values

**Structural Glued Laminated Timber**

Types of products                      Applications and design values

**Prefabricated Wood I-Joists**

Types of products                      Applications and design values

**Prefabricated Wood Trusses**

Characteristics of prefabricated wood trusses  
Benefits of prefabricated wood trusses  
Types of prefabricated wood trusses  
Engineered design  
Installation

**Wood Structural Panels**

Material characteristics  
Diaphragms  
Shear walls

**Designing Connections**

Types of fasteners                      Prescriptive connections (IRC)  
Proprietary connections              Engineered connections

**Fire Protection Design**

Types of construction                      Assembly selection

**Common Framing Errors**

**Structural Design for Wood Construction**  
Houston, TX - Thursday, September 13, 2018



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## Learning Objectives

***You'll be able to:***

**Identify** building codes and structural design guidance applicable to wood construction.

**Apply** design values and equations to the design of columns, and to bending, compression and tension members.

**Review** structural applications for sawn lumber and glued-laminated timber.

**Understand** design values and applications for prefabricated wood I-joists and trusses.

**Receive** practical tips on connection design.



# Structural Design for Wood Construction

*Houston, TX - Thursday, September 13, 2018*



**Receive** an overview of building codes and structural design specifications for wood construction

**Receive** tips on working with sawn lumber, timber, and glued-laminated timber

**Examine** applications for structural composite lumber, prefabricated wood I-joists and trusses, and wood structural panels

**Learn** how to design connections and design for fire protection

**Continuing Education Credits**

**Professional Engineers**

7.0 PDHs

**Contractors**

Non-Credit Continuing Ed.

**Architects**

7.0 HSW CEPHs/CE Hours  
7.0 AIA HSW Learning Units

**International Code Council**

.7 CEUs (Building)



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**Brian C. Eubanks, M.S.C.E, P.E, D.F.E.** *Paragon Structural Engineering, LTD*  
Mr. Eubanks is the founder and principal structural engineer of Paragon Structural Engineering, LTD, (PSE) a structural design and forensic investigation firm based in Plano, Texas. He leads a technical staff comprised of professional engineers, graduate engineers, project managers, and field technicians in the structural design and forensic investigation of planned and existing structures. Mr. Eubanks’ structural design services include analysis and engineering of large, custom single-family residences, multi-family apartment/condominium complexes, low-rise commercial facilities, warehouses and ancillary structures (retaining walls, screen walls, and swimming pools). He also performs construction-phase observations of the aforementioned structural systems to verify design compliance. Mr. Eubanks has performed engineering designs for thousands of residential and light commercial structures as well as hundreds of retaining walls, screen walls, and pools. His structural forensic services include investigations concerning soil-structure interactions, performance of structural systems, evaluation of building envelopes, and determination of cause, origin, and extent of peril damage. Soil-structure interaction assessments include claims relating to design, construction, historic/current site effects, and moisture source influences. Structural system assessments include claims relating to current or latent design and construction issues. Building envelope assessments include claims related to roof coverings, veneers, flashing, and weather resistive barriers. Peril assessments include claims relating to hurricane damage, tornado damage, lightning strikes, earthquakes, explosions, fire damage, and vehicle-structure collisions. Mr. Eubanks has performed hundreds of forensic investigations, and he has authored dozens of expert reports for use in mediation, arbitration, and/or litigation. In addition, he has provided expert witness testimony in dozens of mediations, arbitrations, and court cases. Mr. Eubanks is a licensed professional engineer in 10 states and is a board certified diplomate in forensic engineering by the National Academy of Forensic Engineers. He also serves as a member of the American Concrete Institute’s Design of Slabs-on-Ground Committee (360), the American Society of Civil Engineers Committee on Forensic Investigations and the Residential Foundation Investigation and Design Subcommittee (ASCE-Texas Section), the Post-Tensioning Institute’s Structural (DC-10A) and Construction/Maintenance (DC-10D) Subcommittees, and the ASTM International Committees on Concrete Aggregates (C-09), Forensic Engineering (E-58), Soil and Rock (D-18), and Wood (D-07). Additionally, he serves on the Board of Trustees for Prestonwood Christian Academy. Mr. Eubanks aims to educate with regard to soil-structure interaction; the design, performance, and evaluation of structural systems; the evaluation of building envelopes; and causes and origins of damage to new and existing structures, as well as remedial solutions.

Here’s what past attendees had to say about the program and presenter Brian Eubanks:

“Best seminar I have attended.” — *Civil Engineer*  
“Very well presented and organized.” — *Architecture/Interior Design*

Seminar Information

**Marriott West Loop - By the Galleria**  
1750 West Loop South  
Houston, TX 77027  
(713) 960-0111

**Tuition**  
**\$279** for individual registration  
**\$259** for three or more registrations.  
*Each registration includes a complimentary continental breakfast and printed seminar manual.*

**How to Register**

- Visit us online at [www.halfmoonseminars.org](http://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 (CDT), 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 CD/manual package. You may also send another person to take your place.



**Continuing Education Credit Information**

This seminar is open to the public and offers 7.0 PDHs to professional engineers and 7.0 HSW CEPHs/continuing education hours to architects in all states, excluding Florida architects. Educators and courses are not subject to preapproval in Texas.

The American Institute of Architects has approved this event for 7.0 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey, New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved architect continuing education sponsor in New York.

The International Code Council has approved this event for .7 CEUs in the specialty area of Building.

This seminar offers contractors a non-credit continuing education opportunity. It has not been submitted to any state contractor licensing entity for continuing education approval.

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.

Additional Learning

- Webinar Series**
- Community Solar and Rooftop Solar**
- **Community Solar**  
Wed., Sept. 5, 2018, 11:00 AM - 2:15 PM CDT
  - **Design Your Solar Roof**  
Thurs., Sept. 6, 2018, 11:00 AM - 2:15 PM CDT

- Seismic Design and Construction**
- **Seismology and Building Codes**  
Wed., Sept. 12, 2018, 11:00 AM - 3:30 PM CDT
  - **Seismic Design of Building Structures**  
Thurs., Sept. 13, 2018, 11:00 AM - 3:30 PM CDT

- Small Wind Energy Systems**
- **Small Wind Energy System Components**  
Thurs., Sept. 20, 2018, 11:00 AM - 1:00 PM CDT
  - **Small Wind Energy Siting and Sizing**  
Fri., Sept. 21, 2018, 11:00 AM - 1:00 PM CDT

- International Green Construction Code**
- **Introduction to the International Green Construction Code (IgCC)**  
Thurs., Sept. 20, 2018, 11:00 AM - 12:30 PM CDT
  - **Chapters 4-5: Site Development and Material Use**  
Thurs., Sept. 20, 2018, 1:00 - 2:30 PM CDT
  - **Chapters 6-9: Energy, Water, Environmental Quality and Building Commissioning**  
Fri., Sept. 21, 2018, 11:00 AM - 12:30 PM CDT
  - **Chapters 10-11: Existing Buildings**  
Fri., Sept. 21, 2018, 1:00 - 2:30 PM CDT

- Slope Stabilization and Landslide Prevention**
- **Analyzing the Stability of Slopes**  
Tues., Sept. 25, 2018, 11:00 AM - 2:15 PM CDT
  - **Slope Stabilization Methods**  
Thurs., Sept. 27, 2018, 11:00 AM - 2:15 PM CDT

For more information and other online learning opportunities visit:  
**[www.halfmoonseminars.org/webinars/](http://www.halfmoonseminars.org/webinars/)**

**Can’t Attend? Order the CD/Manual Package:**  
An audio recording of this seminar is available for \$289 (including shipping). Allow five 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

**Structural Design for Wood Construction**  
Houston, TX - Thursday, September 13, 2018

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| <b>Online:</b><br><a href="http://www.halfmoonseminars.org">www.halfmoonseminars.org</a> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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**Tuition**

( ) **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.

( ) **I am not attending.** Please send me the CD manual package for **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

**Checks:** Make payable to HalfMoon Education Inc.

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