Southeast Wood Solutions Fair

MARCH 4, 2015
GEORGIA INTERNATIONAL CONVENTION CENTER
2000 Convention Center Concourse
College Park, GA 30337

Earn 6 AIA/CES LUs (HSW) or PDH credits free

Register at woodworks.org
### Southeast Wood Solutions Fair Schedule

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<td>7:00 am</td>
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<tr>
<td>9:10 am – 9:45 am</td>
<td>Break – Exhibit Expo</td>
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<td>9:45 am – 10:45 am</td>
<td>Urban Acoustics</td>
<td>Building as Teacher: Designing with Nature</td>
<td>The Application of Traditional and Modern Heavy Timber Connections</td>
<td>LEED v4 and Credits for Wood Use</td>
<td>Modern Post-Frame Structural Design Practices: An Introduction</td>
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<tr>
<td>10:45 am – 11:00 am</td>
<td>Break – Exhibit Expo</td>
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<tr>
<td>Noon – 1:20 pm</td>
<td>Lunch</td>
<td>Wood Design Awards</td>
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<td>2:20 pm – 2:50 pm</td>
<td>Break – Exhibit Expo</td>
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<td>2:50 pm – 3:50 pm</td>
<td>Urban Acoustics</td>
<td>Building as Teacher: Designing with Nature</td>
<td>The Application of Traditional and Modern Heavy Timber Connections</td>
<td>LEED v4 and Credits for Wood Use</td>
<td>Wind-Resistant Design Considerations for Wood-Frame Structures</td>
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<td>3:50 pm – 4:00 pm</td>
<td>Break</td>
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<td>4:00 pm – 5:00 pm</td>
<td>Building Enclosure Design: Best Practices for Wood-Frame Buildings</td>
<td>Design is in the Details: Solutions to Common Mid-Rise Design Challenges</td>
<td>Energy Code Compliance: Wood-Frame Buildings and the IECC</td>
<td>Forests and Forest Products</td>
<td>Meeting Fire Codes with OSB</td>
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Photos: (cover) Crescent Terminus, Atlanta, Georgia, photo Richard Lubrant; (interior) Burr and Burton Academy’s Mountain Campus, photo Marvin Windows
Seminars and Speakers

ROOM 1

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM

The Evolution of Fire Life Safety in Building Codes
Peter Senez, MEng, PEng, Sereca

Over the last 80 years, prescriptive height and area limitations have remained relatively unchanged in North American building codes while technological advances and fire service capabilities have improved considerably. Through an examination of historical code development and identification of the risk factors on which codes are based, we can set the stage for a re-examination of public perception with regard to combustible construction. This presentation will cover techniques for mitigating fire damage and reducing fire spread while describing how an understanding of code intent can be used to demonstrate equivalent fire performance when wood solutions lie outside typical code-approved applications.

MORNING SESSION 9:45 AM • AFTERNOON SESSION 2:50 PM

Urban Acoustics
Steve Thorburn, PE, LEED AP, CTS-I, CTS-D, Thorburn Associates

As with any issue of building performance, the acoustics of a mixed-use wood-frame structure can be designed to meet or far exceed minimal requirements. It is the responsibility of the design team to determine acoustical expectations for the project and meet them within the available budget. Through the use of case studies, this fast-paced, interactive session will explore how multi-story wood systems can be used to meet acoustical privacy goals. Discussion will focus on the detailing and construction of units, and how consideration of the construction process can help keep acoustical costs down. With the objective of providing implementable solutions, the session will include construction details and photos showing what has and hasn’t worked in actual buildings.

MORNING SESSION 11:00 AM • AFTERNOON SESSION 4:00 PM

Building Enclosure Design: Best Practices for Wood-Frame Buildings
Colin Shane, MEng, PEng, RDH Building Sciences Inc.

Through a combination of building science fundamentals, case studies and current research, this presentation will explore best practices for designing durable, energy-efficient building enclosures for mid-rise buildings constructed using traditional light wood-frame construction. Differences in enclosure design associated with taller wood-frame buildings using mass timber products will also be discussed.

ROOM 2

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM

Wood-Framed School: A Case Study of Possibilities
Blake Dunn, AIA, NCARB, CADM Architecture, Inc.

This case study presentation will review the possibilities of wood-frame schools by providing an in-depth look at the design and construction of a 322,500-square-foot, $44 million high school in El Dorado, Arkansas, completed in 2011. Attendees will learn how wood framing impacted not only the pedagogy of the new school but also assisted to alleviate financial constraints in the project. A thorough review of how wood framing was used to create large, open, inviting spaces—including a 165-foot primary gymnasium, auxiliary gymnasium, dining area, and two-story “main street corridor” with 23-foot-wide hallways and skylights that bring in natural light—will be provided. Safety considerations will be discussed, and the unique visual appeal that exposed wood framing provides will be demonstrated.

MORNING SESSION 9:45 AM • AFTERNOON SESSION 2:50 PM

Building as Teacher: Designing with Nature
Randall Walter, AIA, LEED AP, Bensonwood

Built and opened to students in 2012, Burr and Burton Academy’s Mountain Campus is an innovative model for place-based environmental education. From campus and building design and construction to curriculum design, topics will include concepts that helped the campus achieve “net zero” targets, biophilic wood-based design inspirations, student experiences monitoring the building’s energy performance, living in and caring for the space, and the ripple effects of student experiences during the first two years of operation.

MORNING SESSION 11:00 AM • AFTERNOON SESSION 4:00 PM

Design is in the Details: Solutions to Common Mid-Rise Design Challenges
Matthew S. Church, PE, Davis & Church, LLC

This session will use recent mid-rise projects to examine a variety of design solutions for multi-story wood construction. Discussion will focus on areas of design and detailing that often challenge designers of Type III and Type V mixed-use projects—such as designing wood and masonry shaft walls, connecting 2-hour rated walls to 1-hour rated floor/ceiling systems, and balcony construction—and offer possible solutions. Opportunities and advantages to using cross laminated timber in mid-rise buildings will also be explored.
Seminars and Speakers (continued)

ROOM 3

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM
Redux: Re-Examining Wood’s Role as a Sustainable Material
Peter Busby, CM, FRAIC, MAIBC, LEED Fellow, Perkins+Will

High performance sustainable design is often linked to advancements in materials and new technologies; however, in the context of global warming and non-renewable resource depletion, traditional wood products are increasingly taking a leadership role. In this presentation, acclaimed green architect, Peter Busby, will focus on the use of wood as a structural building material in two innovative higher education projects. Both are located at the University of British Columbia: the Earth Sciences Building and the Centre for Interactive Research on Sustainability. Building on the case studies, the discussion will explore how lessons learned from these projects can translate to other campuses to empower higher education institutions to utilize this traditional building material in innovative ways.

MORNING SESSION 9:45 AM • AFTERNOON SESSION 2:50 PM
The Application of Traditional and Modern Heavy Timber Connections
R.L. “Ben” Brungraber, PhD, PE, Fire Tower Engineered Timber

The selection of heavy timber connections can be challenging, even for designers experienced with these types of building projects. This presentation will provide a thorough discussion of traditional and modern heavy timber connectors and connections, including their design and application. Topics will include some of the connection types and methods used to repair or reinforce existing heavy timber members, such as wooden pegs, wooden wedges, and fully-threaded screws. Discussion will also include a review of European connectors and their selection for specific design applications including cross laminated timber.

MORNING SESSION 11:00 AM • AFTERNOON SESSION 4:00 PM
Energy Code Compliance: Wood-Frame Buildings and the IECC
Andrew Klein, PE, CEM, A S Klein Engineering, PLLC

This presentation focuses on the challenges of meeting 2012 International Energy Conservation Code (IECC) requirements in modern wood-frame buildings, and related design considerations. Topics will include the code’s scope, content and significant changes since the 2009 edition. Compliance path options will be discussed in the context of specific building systems and features.

ROOM 4

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM
Getting to Yes: Code Alternate Materials and Means and Permit Streamlining
Michael F. Malinowski, AIA, Applied Architecture, Inc.

This session will cover principles and strategy for effective navigation of the building permit process when materials or designs don’t comfortably fit with conventional code application, as well as the use of permit streamlining for more effective and efficient processing. Alternate Materials and Means Requests (AMMR) can be used for various reasons including: use of innovative products and systems, new design concepts, complex geometries, code conundrums, political problem solving and the resolution of interpretation differences. Project examples will be used to demonstrate how to approach the AMMR process and demystify the concept of an alternate design. Permit streamlining concepts will also be discussed.

MORNING SESSION 9:45 AM • AFTERNOON SESSION 2:50 PM
LEED v4 and Credits for Wood Use

This presentation examines changes in the latest version of LEED (LEED v4) and their implications for wood use. Particular attention is given to the Materials and Resources section of the standard, where the greatest changes have been made. Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs)—both of which are prominent within LEED v4—are explained, and their use, as well as potential issues associated with their use, are discussed.

MORNING SESSION 11:00 AM • AFTERNOON SESSION 4:00 PM
Forests and Forest Products
Kathryn Fernholz, Dovetail Partners, Inc.

This presentation will answer many questions about forests and forest products, such as: Where do our trees and forests grow? How have forests changed over time? What is the relationship between people and forests—now and in the past? How are forests managed—and are they being managed responsibly? Are our forests and forest products sustainable? Why is wood an environmental-friendly choice?
ROOM 5

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM

IBC Essentials for Wood Construction
Michelle Kam-Biron, PE, SE, SECB, M. ASCE, American Wood Council (AWC)

Based on the new AWC/International Code Council publication, Code Conforming Wood Design (CCWD), this presentation takes the mystery out of International Building Code (IBC) parameters for wood in non-residential and multi-residential construction. Topics include maximum building sizes (participants will receive pre-calculated tables for eight occupancies, with and without frontage and sprinkler increases); alternatives for establishing required fire resistance; special provisions for pedestal buildings; precautionary recommendations for buildings under construction; criteria for finishes, exterior coverings, appendages, and other wood features; and the use of AWC design standards in relation to the IBC. Participants may download a complimentary copy of the CCWD at www.awc.org/codes/ccwdindex.html.

MORNING SESSION 9:45 AM

Modern Post-Frame Structural Design Practices: An Introduction
Dr. Harvey Manbeck, PE, National Frame Building Association

This session is intended for architects and designers who want to understand basic structural design methods for an engineered post-frame building system. Without delving into engineering details or calculation procedures, it covers components of the post-frame building system, as well as key structural design concepts. Two approaches are highlighted in particular: one for post-frame systems without diaphragm action, the other for post-frame systems with diaphragm action. Procedures for designing isolated pier foundations for post-frame buildings are also discussed, as are technical resources available to design professionals.

MORNING SESSION 11:00 AM

Sustainable Designs: Western Red Cedar
Paul Mackie, Western Red Cedar Lumber Association

This presentation will include some information basic to lumber and forest products while it features the nature of western red cedar lumber, the benefits unique to these products, and how they are appropriate for incorporation in any sustainable design. The presentation will also touch on information about western red cedar lumber grades, installation, and finishing. Forest certification will be discussed, as will reasons why using western red cedar affords your clients the best environmental and sustainable products for their design requirements.

AFTERNOON SESSION 2:50 PM

Wind-Resistant Design Considerations for Wood-Frame Structures
Bryan Readling, PE, APA

The overall strength of a building is a function of all of its components—roof, walls, floors, and foundation—working together as a unit. This session will provide a top-to-bottom overview of lateral design for wood-frame structures with a focus on wind-resistant detailing. Topics will include lessons learned from natural disasters, load path continuity, and updates to the IBC affecting structural design. Damage photos taken by the speaker during field inspections after hurricanes and tornadoes will also be reviewed.

AFTERNOON SESSION 4:00 PM

Meeting Fire Codes with OSB
Bob Palardy, LP Building Products

This presentation will provide an overview of fire-rated cementitious coated oriented strand board (OSB) sheathing for wall and roof sheathing applications. Topics will include its structural and performance properties and contribution to enhancing the sustainable built environment.
Who Should Attend?
With a full day of seminars and a trade exposition, the Southeast Wood Solutions Fair will pack an informational punch for architects, engineers, developers, code officials and anyone else interested in wood's exciting design possibilities. Register today if you'd like access to wood design experts for one-on-one support, informative seminars, technical information from manufacturers, engineering consultants and industry associations, and exhibits featuring a wide range of structural and finishing products.

How to Register
To register, visit woodworks.org and look under "Education" on the home page. As part of the registration process, you will be asked to choose which seminar you plan to attend in each time slot. Once your request has been processed, you will receive an email confirmation that your registration is complete. To help make your choices, speaker bios are available on the website.

Cost
There is no cost to attend and complimentary lunch will be provided.

Education Credits
Attendees can earn up to 6 AIA/CES LUs (HSW) or PDH credits (one per attended seminar). CEUs are FBPE board-approved. Visit woodworks.org for details and learning objectives. AIA/CES forms and professional development certificates will be available on site.

More Information
Visit woodworks.org

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