



## Mid-Atlantic Wood Solutions Fair

**AUGUST 29, 2017** 

WALTER E. WASHINGTON CONVENTION CENTER

801 MOUNT VERNON PLACE, NW WASHINGTON, DC 20001

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#### Mid-Atlantic Wood Solutions Fair Schedule

| 7:00 am                | Registration Check-In – Exhibit Expo Opens   |   |  |  |  |
|------------------------|--|---|--|--|--|
|                        | ROOM 1<br>Code / Construction  | ROOM 2<br>Design & Detailing  | ROOM 3<br>Exposed Wood   | ROOM 4<br>Mass Timber  | ROOM 5<br>National Partners  |
| 8:00 am –<br>9:10 am   | Sprinklers in Wood-<br>Frame Construction:<br>What Architects<br>and Engineers Need<br>to Know | Connection Design<br>Solutions for Wood-<br>Frame Structures                | Western Red Cedar:<br>Distinctive, Sustainable<br>Design                                   | More with Less: An<br>Overview of the First<br>CLT Hotel in the US | Code-Compliant<br>Exterior Systems for<br>Wood-Frame Building<br>Envelopes     |
| 9:10 am –<br>9:45 am   | Break – Exhibit Expo   |   |  |  |  |
| 9:45 am –<br>10:45 am  | Getting to Yes: Code<br>Alternate Materials<br>and Means and Permit<br>Streamlining            | Building Enclosure<br>Design: Fundamentals,<br>Components and<br>Assemblies | Timber-Frame Design:<br>Structural Timber as an<br>Architectural Feature                   | Exposed Wood in Fire-<br>Resistive Applications                    | Fire Retardant-Treated<br>Wood: Products,<br>Applications & Code<br>Provisions |
| 10:45 am –<br>11:00 am | Break – Exhibit Expo   |   |  |  |  |
| 11:00 am -<br>Noon     | Off-Site Wood<br>Construction:<br>What, Why, How<br>and the Future                             | Code Compliant Fire<br>Resistance Design<br>for Wood Construction           | Cross-Laminated<br>Timber in the Capital:<br>Washington Latin Public<br>Charter School Gym | Structural Design<br>of Mass Timber<br>Framing Systems             | Wood-Framing<br>Methods for Energy<br>Savings                                  |
| Noon –<br>1:20 pm      | Lunch • Wood Design Awards   |   |  |  |  |
| 1:20 pm –<br>2:20 pm   | Sprinklers in Wood-<br>Frame Construction:<br>What Architects<br>and Engineers Need<br>to Know | Connection Design<br>Solutions for Wood-<br>Frame Structures                | Cross-Laminated<br>Timber: Bridging the<br>Designer-Manufacturer<br>Gap                    | More with Less: An<br>Overview of the First<br>CLT Hotel in the US | Integrated Air & Water<br>Barrier Systems                                      |
| 2:20 pm –<br>2:50 pm   | Break – Exhibit Expo – Closes at 3:00 pm   |   |  |  |  |
| 2:50 pm –<br>3:50 pm   | Getting to Yes: Code<br>Alternate Materials<br>and Means and Permit<br>Streamlining            | Advanced Detailing<br>Techniques for Building<br>Enclosures                 | Timber-Frame Design:<br>The Art of Engineering<br>an Exposed Structure                     | Exposed Wood in Fire-<br>Resistive Applications                    | Meeting Fire Code with<br>Oriented Strand Board                                |
| 3:50 pm –<br>4:00 pm   | Break  |   |  |  |  |
| 4:00 pm –<br>5:00 pm   | Off-Site Wood<br>Construction:<br>What, Why, How<br>and the Future                             | Code Compliant Fire<br>Resistance Design<br>for Wood Construction           | Framing Techniques<br>for Builders: Lessons<br>Learned and Best<br>Practices               | Structural Design<br>of Mass Timber<br>Framing Systems             | Mid-Rise Engineering<br>Considerations for<br>Engineered Wood<br>Products      |

# Seminars and Speakers

#### **ROOM 1** – Code / Construction

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

## **Sprinklers in Wood-Frame Construction: What Architects and Engineers Need to Know**

Brian D. Kuhn Jr., PE, Simpson Gumpertz & Heger Inc.

Sprinklers are the most common form of active fire protection in multi-family and commercial buildings. However, there is a misunderstanding among many building designers that sprinkler code requirements apply differently to wood-frame buildings vs. other types of construction. This presentation will cover code provisions related to the use of sprinklers in wood structures, including when and where they're required.

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

#### Getting to Yes: Code Alternate Materials and Means and Permit Streamlining

Michael F. Malinowski, FAIA, Applied Architecture Inc., Streamline Institute Inc.

Alternate Materials and Means (AMMRs) can be used on any size project to establish code conformance. This session will cover principles and strategy for effectively navigating the building permit process when materials or designs don't comfortably fit with conventional code application. Includes case study examples of actual AMMRs.

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

#### Off-Site Wood Construction: What, Why, How and the Future

Randall Walter, AIA, LEED AP, Bensonwood

This presentation will cover the unique design and construction techniques associated with pre-fabricated and off-site panelized wood systems. An introduction to the different levels of off-site construction and review of associated products and services will be followed by a demonstration of cost and schedule benefits based on real-world projects. A step-by-step process will be presented for designers new to this approach.

Visit **woodworks.org** for full seminar descriptions, speaker bios, registration and more.

#### ROOM 2 - Design & Detailing

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

#### Connection Design Solutions for Wood-Frame Structures

Robert (Bob) Kuserk PE, APA

This session will feature a discussion of wood connection design and specification, including common fastener types and their design values. Topics will include the orthotropic nature of wood and its role in connection design, commodity and specialty connectors, the use of steel connectors in wood-frame construction, and best practice connection details.

MORNING SESSION 9:45 PM

#### Building Enclosure Design: Fundamentals, Components and Assemblies

Colin Shane MEng, PEng, RDH Building Science Inc.

Building enclosures are responsible for controlling heat flow, air flow, vapor flow and a number of other elements. Through a combination of building science fundamentals and current research, this presentation will explore design considerations associated with wood-frame building enclosures and the role of control layers. Discussion will focus on best practices for designing durable, energy-efficient enclosures using traditional light wood-frame construction.

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

#### Code Compliant Fire Resistance Design for Wood Construction

Paul Coats, PE, CBO, American Wood Council

In a building environment where the ability to maximize height and area is key to cost effectiveness, designers must understand the gamut of fire protection considerations applicable to mid- and low-rise wood structures. This presentation will include code requirements, compliance options and nuances related to assembly selection for required fire resistance-rated floor/ceiling assemblies, exterior walls, fire barriers, fire partitions, and fire walls.

AFTERNOON SESSION 2:50 PM

## **Advanced Detailing Techniques for Building Enclosures**

Colin Shane MEng, PEng, RDH Building Science Inc.

This presentation will provide an in-depth look at a variety of wood-frame building enclosure assemblies and details. Beginning with a review of building enclosure design fundamentals and considerations, it will then focus on best practices with references from technical guidelines and case studies. Finally, the critical detail interfaces between different enclosure assemblies (i.e., walls, roofs, balconies, windows) will be reviewed with a focus on continuity of critical barriers.

#### **ROOM 3** – Exposed Wood

MORNING SESSION 9:45 AM

#### Timber-Frame Design: Structural Timber as an Architectural Feature

Jim DeStefano, P.E., AIA, F.SEI, DeStefano & Chamberlain Inc.

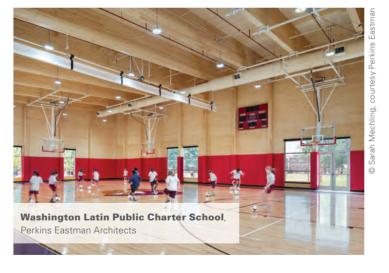
This entertaining and informative presentation will demonstrate how heavy timber has been used to great effect on a variety of projects. Emphasizing the need for form to follow function, it will cover traditional vs. contemporary design approaches, how to select the right species and construction type, and available timber systems.

MORNING SESSION 11:00 AM

## Cross-Laminated Timber in the Capital: Washington Latin Public Charter School Gym

Ann Neeriemer, AIA, LEED AP, Perkins Eastman

The new gymnasium at the Washington Latin Public Charter School demonstrates how mass timber can be used to cost-effectively create extraordinary spaces that support student well-being. This case study presentation by the project architect will include details on the structure, which features cross-laminated timber (CLT) and glued-laminated timber (glulam), as well as lessons learned.



AFTERNOON SESSION 2:50 PM

## Timber-Frame Design: The Art of Engineering an Exposed Structure

Jim DeStefano, PE, AIA, F.SEI, DeStefano & Chamberlain Inc.

With this presentation, attendees have an opportunity to learn timber-frame design from a specialist involved in award winning projects throughout the northeast. Topics will include the design of heavy timber trusses, glulam elements, joinery and connections, as well as exterior wall systems and designing for fire protection.

#### **ROOM 4** – Mass Timber

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

#### More with Less: An Overview of the First CLT Hotel in the US

Jeff Morrow, Lendlease

This presentation will review the economic, environmental and social benefits realized through the use of CLT on the 4-story Candlewood Suites hotel at Redstone Arsenal. Discussion will include lessons learned during design and construction, perceived hurdles, and associated solutions related to using CLT as a whole building system.

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

#### **Exposed Wood in Fire-Resistive Applications**

David Barber, Arup

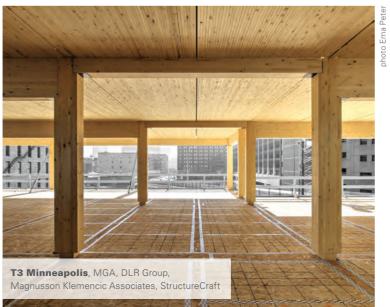
In building codes, the fire resistance of structural elements is often dictated by construction type. Wood structures are unique in that they can be unprotected while still providing fire resistance. This presentation will cover the use of exposed structural wood products —solid sawn, glulam, nail-laminated timber (NLT) and CLT—in fire-resistant applications for Types III, IV and V.

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

#### Structural Design of Mass Timber Framing Systems

Tanya Luthi, PE, Fast + Epp

This presentation will provide a detailed look at the structural design processes associated with a variety of mass timber products, including glulam, CLT, and NLT. Applications for the use of these products in gravity force-resisting systems under modern building codes will be discussed.



#### PARTNER PRESENTATIONS

See schedule grid for room numbers and times. Visit **woodworks.org** for session descriptions and partner profiles.

## Western Red Cedar: Distinctive, Sustainable Design

Western Red Cedar Lumber Association

Cross-Laminated Timber:
Bridging the Designer-Manufacturer Gap
Smartl am

#### Framing Techniques for Builders: Lessons Learned and Best Practices

Weyerhaeuser

## Code-Compliant Exterior Systems for Wood-Frame Building Envelopes

Huber Engineered Woods

## Fire Retardant-Treated Wood: Products, Applications & Code Provisions Hoover Treated Wood Products. Inc

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**Wood-Framing Methods for Energy Savings**Norbord Inc.

Integrated Air & Water Barrier Systems
Georgia-Pacific

#### Meeting Fire Code with Oriented Strand Board

LP Building Products

## Mid-Rise Engineering Considerations for Engineered Wood Products

Boise Cascade

With a full day of seminars and a trade exposition, the Mid-Atlantic Wood Solutions Fair will pack an informational punch for architects, engineers, developers, code officials and anyone else interested in wood's exciting design possibilities. During the day access wood design experts, informative seminars, technical information from manufacturers, engineering consultants and industry associations, and exhibits featuring a wide range of structural and finishing products.

**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. To help make your choices, speaker bios and full seminar descriptions are available on the website.

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

**Education Credits**: Attendees can earn up to 6 AIA/CES HSW LUs or PDH credits (one per attended seminar). AIA/CES forms and professional development certificates will be available on site.

Visit woodworks.org





## Free design and engineering support for non-residential and multi-family wood buildings

For project assistance please contact:

Terry Pattillo, AIA

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Email: terryp@woodworks.org

For resources, such as CAD/REVIT details, span tables, design examples and more, email help@woodworks.org or visit **woodworks.org**.





