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APA ANNUAL MEETING

Oct. 15–18, 2022
 JW Marriott Miami Turnberry Resort & Spa
 Aventura, Florida

GENERAL SESSION

Monday, Oct. 17, 8:30 – 10:15 a.m.
Keynote Speaker: Cara Brookins, Professional Speaker, Author
 Cara Brookins built software systems for 20 years as a senior analyst, but when her life crumbled around her, she rebuilt in an unconventional way. Brookins built her 3,500-square-foot house from the ground up by watching YouTube tutorials. Her story went viral in more than 75 countries and has been viewed more than 2 billion times. She is the author of eight books, including *Rise: How a House Built a Family*, where she deftly narrates the extreme learning curve she experienced all while putting her family back together again.
 Convinced that by building a house, they could rebuild their broken family, she and her kids poured the concrete, framed the walls, and laid the bricks. In the end, they had built a two-story, five-bedroom home. Brookins' story is an inspiring blueprint that traces her family's rise from battered victims to stronger, better versions of themselves—all thanks to one impossible, extraordinary, do-it-yourself project.
 Brookins uses humor and shares her own lessons. Her podcast, *The General*, has over 1 million followers. Her personality podcast, *The General*, has over 1 million followers. Her personality podcast, *The General*, has over 1 million followers.

SPEAKERS & ROUNDTABLES

Roundtable Discussion
 Monday, Oct. 17, 10:30 – 11:30 a.m.
 In a follow-up to the general session, keynote speaker Cara Brookins will respond to questions and comments from APA members.

APA Safety & Health Workshop
 Monday, Oct. 17, 10:30 a.m. – 4 p.m.
 Mill safety and occupational health is everyone's priority. But how is it actually achieved? This free APA Safety and Health Workshop will seek answers to that important question. Organized by the APA Safety and Health Advisory Committee (SHAC), the workshop will include guest speakers and an information-sharing forum designed to generate discussion of best practices and ideas for improving mill safety programs and standards. There will be a focus on the following topics:

Saturday, October 15

10 AM – 5 PM REGISTRATION DESK OPEN
 Majestic, South Foyer

10:30 – 11:30 AM EWTA ADVISORY COMMITTEE
 Royal Ballroom 3

10:30 AM – NOON INTERNATIONAL MARKET SUBCOMMITTEE (APA Members Only)
 Palmetto 2

11:30 AM – NOON INFO FAIR EXHIBITOR MEETING
 Royal Ballroom 3

12:30 – 2:30 PM GULFMAN MANAGEMENT COMMITTEE (APA Members Only)
 Palmetto 3

3 – 5 PM I-JOIST/SCL MANAGEMENT COMMITTEE (APA Members Only)
 Palmetto 3

4 – 5:30 PM INDUSTRIAL MARKET SUBCOMMITTEE (APA Members Only)
 Palmetto 2

5:30 – 7 PM EWTA RECEPTION
 Magnolia Courtyard

Sunday, October 16

8 AM – 1 PM GOLF TOURNAMENT
 Seifer Cove

9:30 AM – 2 PM TENNIS TOURNAMENT

Monday, October 17

7 – 8:30 AM BUFFET BREAKFAST
 Majestic Foyer & Courtyard

8 AM – 4 PM REGISTRATION DESK OPEN
 Majestic, South Foyer

8:30 – 10:15 AM GENERAL SESSION
 Royal Ballroom 1-2

10:30 – 11:30 AM ROUNDTABLE DISCUSSION
 Palmetto 4

10:30 – NOON RESIDENTIAL MARKET SUBCOMMITTEE (APA Members Only)
 Palmetto 2

10:30 AM – 4 PM SAFETY & HEALTH WORKSHOP
 Palmetto 5

NOON – 1:30 PM BUFFET LUNCH AND INFO FAIR
 Majestic Ballroom & Courtyard

1:30 – 4:00 PM MARKETING ADVISORY COMMITTEE
 Royal Ballroom 1-2

5:30 – 7 PM INFO FAIR AND RECEPTION
 Majestic Ballroom

7 PM CHAIRMAN'S DINNER & SAFETY AWARDS RECOGNITION
 Royal Ballroom

Tuesday, October 18

6:30 AM BOARD OF TRUSTEES BREAKFAST
 (APA Trustees Only)

SAFETY & HEALTH AWARDS

Innovation In Safety Award
 Equipment-Based Innovation Winner: **Jeff Wagner Process-Based Innovation Winner**

Safest Company Award

Company	Avg. WIR	Avg. TIR
Three or fewer member mills	6.42	0.74
Four or more member mills	6.42	0.74

Annual Safety & Health Award

Division	WIR	TIR
Division I – Plywood	1.43	0.36
1ST RayOwain – Ontario, Louisiana	4.15	0.88
2ND Blue-Cascade Company – Cherokee, South Carolina	WIR	TIR
Division II – OSB	0.00	0.00
1ST LP – Duke Group, Brazil	0.00	0.00
2ND RayOwain – Oakdale, Louisiana	WIR	TIR
Division III – Glulam, I-Joist, LVL and SCL	0.00	0.00
1ST Building Forest Products Company – Cherokee, South Carolina	0.00	0.00

RESORT MAP

Conference Center South

FLOOR 1 FLOOR 2

Main Areas

RESTAURANT & BAR, HIBISCUS ROOMS, MADROSA ROOMS, ORCHID ROOMS, LOUNGE, HANDBOOK & VALET, MADROSA COURTYARD, JASPER ROOMS, RESTAURANT & BAR, SPA, CONFERENCE CENTER SOUTH

ANNUAL MEETING MATERIALS

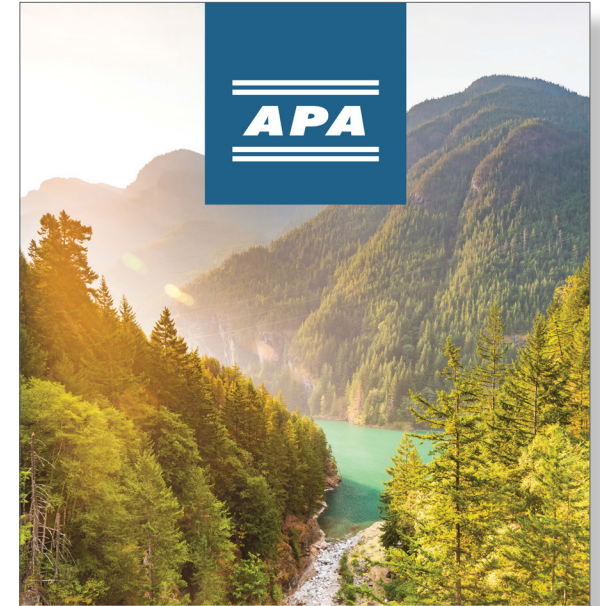
8-Page Agenda



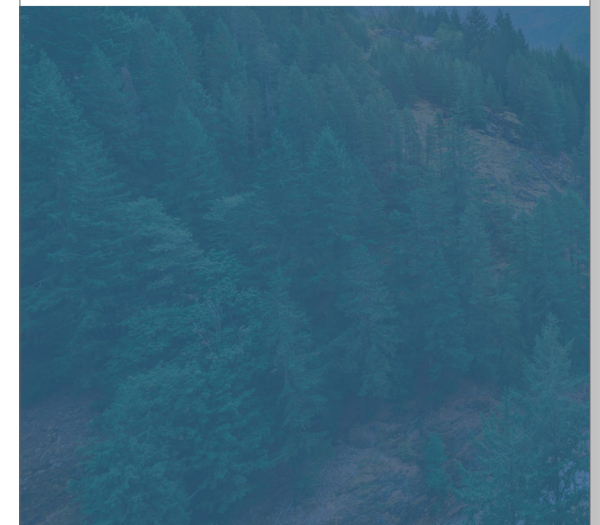
Welcome
TO THE APA ANNUAL MEETING

ANNUAL MEETING MATERIALS

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Welcome
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STRATEGIC PILLARS

2024-2029 STRATEGIC PLAN



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- Advance and protect our core competencies and reputation
- Maintain integrity and credibility of APA's research
- Assure member compliance to industry standards
- Develop a clear and measurable path for leadership succession and knowledge transfer
- Deliver a superior experience to all APA stakeholders



Broaden Influence Through Technical Expertise

- Foster relationships with others to further member interests
- Create and share powerful fact-based messages that resonate with target audiences
- Develop digital strategy to improve visibility and utilization of technical expertise



Promote Technical Solutions

- Advance the resiliency of engineered wood-based building products
- Prioritize resources to focus on engineering and code challenges
- Provide accurate and consumable data to our members

APA

OUR PRINCIPLES



Safe – Priorities change and shift: Safety is at the core and supersedes all other considerations. We constantly challenge ourselves and our teammates to improve how we work safely. Productivity never trumps safety.



Unified – Operate as a team behind shared principles, goals and mission. We leverage our varied strengths and perspectives, aligning our actions to achieve what we cannot individually.



Integrity – Uphold honesty, transparency and ethical behavior in all aspects of our work. We maintain and build upon the trust of our stakeholders.



Collaborative – Communicate openly and encourage teamwork and knowledge-sharing. We reward collaboration, recognizing it fuels innovation and growth.



Forward-Thinkers – Find new opportunities and embrace change. We are uncomfortable with the status quo; we seek ways to improve and are comfortable with the uncertainty of change.



Ethical – Decisions and actions align with our values. We hold ourselves to the highest standards and expect our members to respect and support our independent judgment.

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For nearly 90 years, APA has proudly supported the industry in creating structural wood products of exceptional strength, quality and reliability and helped building professionals create resilient, sustainable and code-compliant structures.



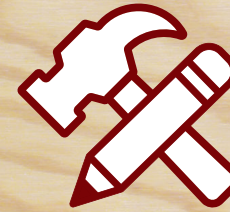
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A GUIDE TO THE 2018 IRC® WOOD WALL BRACING PROVISIONS



APA/ICC LARGE PUBLICATION Printed 200+ Page Book

*Due to the content in this manual it is only available for purchase to view entire document

CHAPTER 4

SUMMARY

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2018 IRC BRACING PROVISIONS 219

FIGURE 4.15
First-story plan with bracing methods wood structural panel (WSP) and gypsum board (GB) lateral braced wall (LBW) lateral wall panels

TABLE 4.22
Calculations for the first story to determine the required bracing length based on

Exposure Category	Roof Snow-to-Ridge Height	Wind Height	Numbered Wall Lines	Lettered Wall Lines
1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00
0.95	0.95	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00

FIGURE 7.80
Simplified wall bracing distribution rules

FIGURE 802.12.5
Bracing Unit Distribution

248 CHAPTER 4 TWO-STOREY HOUSE IN SDC B

FIGURE 8.4
No wall of common wall line

266 APPENDICES ATTACHMENTS B, D AND F AND L-THRU-BUILDINGS

A.5. The length of regional bracing shall be the higher value of all moment-resisting bracing methods used in accordance with Table 802.10.3(1) or 802.10.3(2) or adjusted by Tables 802.10.3(2) and 802.10.3(4), respectively.

5. If a physical wall is not available at the common wall location, then all of the bracing for both rectangles must be placed at the exterior extension of the common wall. If the non-common common wall or opening in that common wall exceeds 10 feet in length, an engineered self-supporting stud (discussed in APPENDIX A) must be used at the exterior extension of the common wall. See FIGURE 8.4. As an alternative, in Step 1, divide the structure in each way that there is a physical wall along the common wall. This will provide a location for braced wall panels.

232 CHAPTER 4 SINGLE-STOREY HOUSE IN SDC A

EXAMPLES USING WALL BRACING METHOD

Example 4.4: Single story house in SDC A

The ultimate design wind speed is 115 mph with Exposure Category C. The roof has an ultimate height of 12 feet. Intermediate wood structural panel (WSP) and gypsum board (GB) will be used for bracing material on the braced wall lines.

All braced walls have a height of 12 feet.

Example 4.4 Highlights:

- The amount of bracing required is based on 115 mph ultimate design wind speed (IRC Table 602.10.3(1) and 802.10.3(2)).
- Wind Exposure Category C – increase bracing by factor of 1.2 for single story dwellings (Table 602.12.4).
- Interpreted roof over eave height (IRC Table 602.10.3(2)).
- Use of walls greater than 10 feet tall (IRC Table 802.10.3(2)).
- Use of more than 2 braced wall lines (IRC Table 802.10.3(2)).
- Use of braced wall lines at interior of structure, with wood structural WSP and GB.

The maximum allowed height of a braced wall panel is 12 feet. The story wall in this example considered an opening in the braced wall line, because the distance between the inside edge of adjacent wall bracing panels is less than 20 feet. FIGURE 4.8 shows the house with braced wall panels. TABLES 4.10-4.17 summarize the amount of bracing required and the spacing of bracing panels on each braced wall line.

This example is an example to show the shortest required length of bracing, instead of displaying many available bracing options.

Maximum bracing required is 4 feet for braced wall lines 16 feet or less in length, 8 feet for walls greater than 16 feet long. All braced wall lines over the maximum length requirement (less than 20 feet long). All braced wall lines over the maximum length requirement (less than 20 feet long). All braced wall lines over the maximum length requirement (less than 20 feet long). All braced wall lines over the maximum length requirement (less than 20 feet long).

2018 IRC® WOOD WALL BRACING PROVISIONS

This illustrative guide was developed to help building designers, builders, building officials and others using the code in the application of the typical bracing requirements of the 2018 International Residential Code (IRC).

While bracing is just one of many important factors to consider when designing, performing plan review, building, or inspecting a structure, it is a discrete area of confusion and misapplication. The authors identify and apply the key elements of bracing and thereby help practitioners better understand the requirements of the IRC.

TOPICS COVERED INCLUDING:

- Understanding the code and specific forces that act on a house
- History of bracing and how it works
- Learning the “language” of bracing
- The physical limits under which bracing can be used
- Bracing options available to the builder/designer
- Rules for the use of bracing
- Determining how much bracing is required with appendices and options
- Connection details for bracing units
- Cripple walls and foundations
- Special bracing provisions for stone and masonry veneer
- Whole house considerations

The basic concepts, technical perspective and the correct application of the IRC bracing provisions are presented in a logical format. Incorporating numerous examples, specific applications and suggested solutions.



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APA CASE STUDY

Going for Bold: Window into Affordability

Long Beach looks to an inclusive future with Las Ventanas development



To help address the local homelessness crisis, Long Beach, California, enacted the "Everyone Home Long Beach" plan—an initiative that encouraged innovative, low-income housing solutions for the community. This plan sparked the bold vision for the development of a modern, affordable housing complex dubbed Las Ventanas, which means "the windows," a fitting name for a project that provides new windows of opportunity to low-income residents looking for housing options.

With a modest \$28 million budget, it was vital for the designers and contractors to provide creative and strategic planning and construction of the affordable housing complex. Three local companies

brought their unique expertise to tackle the project: AMCAL General Contractors, of Agoura Hills; CORE Structure Inc., with locations in Laguna Hills and the Bay Area; and William Hezmalhalch Architects (WHA), with offices in Orange County, Los Angeles and the Bay Area. These firms came equipped with decades-long histories of providing creative and cost-efficient multifamily construction solutions.

The striking bright red, four-story apartment complex was designed by WHA and CORE Structure Inc., though AMCAL was involved during the early design stage and provided regular feedback to the design team.



PROJECT SPOTLIGHT

Project Name: Las Ventanas

Location: 1795 Long Beach Boulevard, Long Beach, California

Completed: Spring 2021

Type: Multi-family/Mixed Use

Size: 148,000 total square feet

Architect: William Hezmalhalch Architects

Structural Engineers: CORE Structure Inc.

Contractor: AMCAL General Contractors



Las Ventanas received unanimous approval from the City of Long Beach Planning Commission in December of 2017. "It was vital that all the window openings remained true to the original design presented to the community, so determining shear wall locations and minimizing hold-downs was my primary coordination with CORE Structure," said former WHA Architect for WHA. "I remember reviewing the framing plans and was pleasantly surprised that no windows were jeopardized."

Set on just over an acre off the Pacific Coast Highway in Long Beach, directly adjacent to the Metro A Line (Blue), the complex features 102 residential units with an additional 3,962 square feet of retail space and a semi-subterranean podium parking garage. True to the name "Las Ventanas," plans with patios or balconies. On-site amenities include a children's play area, outdoor grilling space, locked bicycle storage, a pet wash, community room, media center and project lounge, grandly opened in July 2019 and for completion in spring 2021.

Las Ventanas integrates traditional wood with engineered wood products from Norbord, Tolko, Boise Cascade, Pacific and Resbond. Oriented strand board (OSB) and plywood continuous sheathing on the exterior served as an integral part of lateral force-resisting system. Glued-laminated beams (glulam) and laminated veneer lumber (LVL) were used as headers, and LVL and rim joists throughout the structure.



When a challenge arose with the plan, the designers found a cost-effective solution using engineered wood framing. Due to the sloped site, the top of the post-tensioned concrete podium was elevated at the retail spaces on the uphill side, so the floor on the third level includes areas of both concrete and wood construction. The wood shear walls above did not align with the concrete walls below, presenting a unique challenge. The design team's innovative solution to the alignment problem was specifying glulam and LVL floor beams to transfer the load from levels above and providing a seismic gap at the concrete/wood floor interface.

"The engineered wood beams allowed us to simplify the connection design while maintaining the ceiling height we needed," said Executive Tavalliti, Vice President of Production at CORE Structure. "Steel is also more expensive, so we were able to save them a lot of money."



Heavily loaded cross-ties, incorporated glulam beams.



Force Transfer Around Openings

Wood structural panel sheathed shear walls are the primary lateral-load-resisting elements in wood-frame construction. As wood-frame construction is continuously evolving, design solutions that require the understanding of force transfer between elements in the lateral load-resisting system. Engineers are facing design challenges as it is becoming more common for buildings to incorporate larger and more numerous door and window openings. The increased openings present a challenge for designers because they reduce the area available for lateral resistance throughout the structure.

The Force Transfer Around Opening (FTAO) method of shear wall analysis meets this challenge by providing more design flexibility, because it allows for narrower wall segments to be used to meet required height-to-width ratios. Traditional segmented shear wall designs ignores any sheathing used above or below a window opening. When continuously sheathing a building, FTAO deflection equations account for the additional stiffness provided by wood structural panels below the opening, thereby reducing the calculated building required, reducing material costs.

APA Force Transfer Around Openings Technical Note and FTAO Calculator

APA Technical Note, Design for Force Transfer Around Openings presents a national analysis for applying FTAO to walls with asymmetric areas and walls with multiple openings. It is based upon APA modeling and testing and uses professional engineering for the required sheathing, nailing, hold-downs, straps and maximum deflection.

The FTAO calculator is an Excel-based tool for professional designers that uses FTAO methodology to calculate maximum hold-down force for uplift resistance, the required horizontal shear force for the tension straps above and below openings, the maximum deflection of the wall system. The calculator includes worksheets for shear walls with one, two and three openings and a design example. Get the technical note and calculator and learn more about FTAO at www.apawood.com/ftao.

"The engineered wood beams allowed us to simplify the connection design while maintaining the ceiling height we needed." —Hooman Tavalliti, Vice President of Production at CORE Structure



This decision kept the budget for Las Ventanas in bounds for reasons beyond material costs: choosing engineered wood over steel also improved construction efficiency. Using engineered wood products allowed the team to eliminate the need to hire additional laborers for the erection, fireproofing and inspection of steel.

"The elimination of steel beams was a big advantage with regard to both cost and construction time," said Dan Ralston, Superintendent of AMCAL General Contractors. "The engineered wood products were easily used by the framer and inspected with the rest of the framing. The need for an extra trade to erect steel was a factor."



FTAO


By adding horizontal sheathing around the shear wall openings on the interior of Las Ventanas, the engineer was able to eliminate vertical sheathing and hold-downs at either side of the openings, while maintaining construction.

APA Case Study: Going for Bold: Window into Affordability


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Technical Topics
TECHNICAL TOPICS JANUARY 2019

Exemption of Special Inspection on Glulam Based on the 2019 California Building Code

For many years, the California Division of State Architect (DSA) has required continuous special inspection of structural glulam (laminated timber) glulam) used under its jurisdiction. The DSA has exempted this requirement pursuant to all of California's 16.22 schools and community colleges in the California Building Code (CBC) for a range of glulam products since 2007.

In Section 1705.5.4 of the 2019 CBC, a special inspection on glulam is exempted as follows:

1705.5.4 Exempted glulam members

(S)FPD 16.2-0-15 Members of all structural glulam timber shall be continuously inspected by an approved agency.

The approved agency shall verify that proper quality control procedures and tests have been used for all materials and that manufacturing processes and field practices meet the requirements of the product's field inspection number. The approved agency shall verify that the glulam is installed in accordance with the approved design.

Example: Special inspection is not required for members meeting all of the following conditions:

This exemption from the exception of Section 1705.5.4 is intended to permit typical "stock" glulam beams, as specified, to be used without a special inspection.

When the exemption was initially approved, it was intended as a communication with DSA staff that the specified member with is intended to cover material of glulam members, which are typically manufactured in a size width of 5 through 5.10 inches.

APA RECOMMENDATION: To verify that the exemption applies to the specific glulam product, the user should consult the manufacturer's technical data sheet for the product. The manufacturer should specify the exemption conditions and the specific glulam product that is exempted from special inspection.

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TECHNICAL TOPICS: Exemption of Special Inspection on Glulam Based on the 2019 California Building Code

Clarifies the intent of the California Building Code exemption for special inspection on glulam outlined in Section 1705.5.4.

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In residential construction, glulam beams are often chosen for their beauty in exposed designs, such as where in vaulted ceilings or long clear-span single beams. But the large range of glulam beams are hidden in structural applications, such as floor beams and headers.

Glulam and the New Home

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PORTLAND GETS BACK TO ITS ROOTS

Main terminal redevelopment features mass timber roof

PAGE 9

FEDERAL RESERVE'S INFLATION FIGHT POSES CONCERN

Multiple factors contribute to recent housing industry outlook

PAGE 15

OPTIMISM CONTINUES

Annual survey suggests improved business projections for 2022

PAGE 21



STRENGTH THROUGH CONNECTIONS

THE OFFICIAL PUBLICATION OF THE ENGINEERED WOOD TECHNOLOGY ASSOCIATION

PRIME LINES

IN THIS ISSUE...

It appears that the pandemic we have been living through the past two years has taken a pause. No one knows when or if another variant might put restrictions back in place, but for now, mask requirements are relaxed or have been removed, and people are traveling and meeting in person. Conventions and events are happening!

At the 2022 International Mass Timber Conference held recently in Portland, Oregon, the design, engineering and construction of mass timber projects was shared, and examples of its beauty displayed. In this issue, we feature how mass timber is used in the redevelopment of the Portland International Airport's main terminal. Turn to page 9 to read how two Pacific Northwest companies worked together to create a brand new, stunning mass timber roof.

Looking ahead, AIA Market Research Director Joe Elting provides an outlook on how recent steps put in place by the Federal Reserve may impact the housing industry. What lies ahead for our industry? Flip to page 15 for complete details.

Check out the Supplier of the Year Award winners! The 2021 winners were once again chosen through online balloting by AIA member representatives. Turn to page 27 to read about the four award recipients.

Earlier this year I attended PELICE (Panel & Engineered Lumber International Conference & Expo), in Atlanta, Georgia, and the International Mass Timber Conference in Portland. The energy at both events was filled with positive outlooks, played interest in new products and services, and a sense of collaboration as in-person connections were re-established with industry friends and colleagues.

Speaking of reconnecting, we are excited for our 2022 Annual Meeting and EWTA Info For is set for the JW Marriott Miami Turnberry Resort. The online registration link is currently up and the exhibitor site available late May and the AIA exhibitor site available in August. Complete details will be available in the next issue. It has been fun to meet members and industry professionals at events and gatherings and I look forward to seeing you in Miami. Until then, let's connect via email or social media.

Stay safe and healthy and keep those connections strong!

LaDeanna Wilson
EWTA Program Manager
l.wilson@engwood.org
ewta@engwood.org

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INDUSTRY CONNECTIONS



U.S. HOUSING STARTS AVERAGE 1.75 MILLION ANNUAL RATE IN FIRST QUARTER

Housing starts in the U.S. ran at a seasonally adjusted annual rate of 1.75 million units in the first quarter of 2022.

A product recognition makes Portland strides in Taiwan

PORTLAND GETS BACK TO ITS ROOTS

Main terminal redevelopment features mass timber roof

By Larry Conning, P.E.

Passengers traveling through the Portland International Airport (PDX) are in for a stunning surprise. The 81-year-old airport is undergoing a major transformation as part of the \$2 billion PDX Next overhaul project. For the past de decade, the main terminal building is getting equipped with a brand new stunning mass timber roof.

The \$1.2 billion main terminal redevelopment has been in the works for the last four years, as the Port of Portland has worked closely with local design firm ZGF Architects and KPFF Consulting Engineers to develop and perfect their vision. Aiming to incorporate more Pacific Northwest-inspired architecture that is both sustainable and earthquake resilient, designers looked to mass timber.

The extensive 300,000-square-foot roof renovation features approximately 2.5 million board feet of timber. But the real star of the show is the nearly 300 magnificent 80-foot arched glulam beams from APA member Zap-O-Laminators.

The custom glulam beams feature various sized arches that will be intentionally placed to create a domed or vaulted effect in the ceiling. The display is constructed from 2-inch mass plywood panels from Lutzler Co., which will be installed glulam. MPP is a large-scale, mass-produced engineered wood panel that can cross-laminated timber (CLT).

"Being able to use their product and support a great family-owned company is a really cool way to showcase that Oregon history."

- Sam Dicke, business development representative with Timberlab
Rendering courtesy: Port of Portland/ZGF Architects



Inspired by a walk through a rolling Pacific Northwest forest, the design team began to create a relaxing and awe-inspiring canopy over the main terminal building. The design team began to create a relaxing and awe-inspiring canopy over the main terminal building.

Two local companies specializing in mass timber joined production to help bring the Port's vision to life. "We've met every week with the design team and they've been very helpful in making sure we're on track with the project," said Dicke.

Timberlab, Swanton Building Company, is serving as the general contractor for the project. "These are complex, and unique projects in the region that require special capabilities to execute," said Dicke.

The roof is being processed in cassettes that will be installed on the existing roof in a sequential manner. Each cassette is approximately 100 feet by 100 feet and is installed in a staggered pattern.

The project is a testament to the power of mass timber and the ability of local companies to bring innovative solutions to the construction industry.

EWTA MAGAZINE

Bi-Annual 80+ Page Digital Magazine



ON-DEMAND WEBINAR

How to Specify Engineered Wood

VIEW ►

RECENT PUBLICATIONS

1.24.23 [ANSI 405-2023 Standard for Adhesives for Use in Structural Glued Laminated Timber](#)

1.19.23 [Stapled Sheet Metal Blocking for APA Panel Diaphragms](#)

1.9.23 [ANSI/APA PRS 610.1-2023 Standard for Performance-Rated Structural Insulated Panels in Wall Applications](#)

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[ANSI Standard Development](#)
APA is accredited by the American National Standards Institute (ANSI) to develop national consensus standards for engineered wood products.

[APA Product Reports®](#)

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[Green Verification Reports](#)

APA HOMEPAGE SLIDESHOW

Website Slides



EPIC LOGO

Contracted Design



2015 APA ANNUAL MEETING MARKETING ADVISORY COMMITTEE

Coeur d'Alene Golf & Spa Resort | Coeur d'Alene, Idaho | October 19, 2015



2015 APA ANNUAL MEETING TABLE OF CONTENTS

SUPPORTING PROGRAMS

Cross-market activities, outlined in the Supporting Programs section of the APA Strategic Marketing Plan, increase overall awareness of APA products and applications and facilitate the distribution of information to members and key customer groups. A strong web presence, maintenance of APA's library of product and design publications, ongoing education activities, publicity, and continued diligence with respect to building code updates and recommendations are primary activities addressed through the Supporting Programs objectives. For more detailed reporting on publication, website, and publicity activities, see Tab 6.

OBJECTIVE I: EDUCATION

COMMUNICATE THE ADVANTAGES OF WOOD.

OBJECTIVE I: EDUCATION (CONTINUED)

- Completed a five-module training series on engineered wood products. Pending final review by the APA glulam and I-joint task groups, the training modules will be deployed via website building material distributor and wholesaler audiences.
- Distributed engineered wood sample kits to university professors, on request.
- Responded to approximately 5,500 inquiries regarding members' products through the Support Help Desk.
- As part of an initiative to update the APA Product Support Help Desk database, APA accepted PHPKS knowledge base management software in 2014. The software will allow select PHPKS knowledge base management software in 2014. The software also has the capability to export select knowledge data to the Help database and also has the capability to import and update the basic system operational by the end of the 2014. Help Desk staff began populating the database in 2015. Review and updating of knowledge data from the old system and the new PHPKS database is approximately 20 percent complete. We expect complete data population process by the end of the year. Formal training of new and veteran PHPKS and APA IT support staff was completed in the 3rd quarter of 2015. Training was provided by the PHPKS publisher.

OBJECTIVE II: GREEN MESSAGING

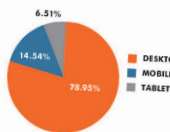
PROMOTE THE ENVIRONMENTAL BENEFITS OF WOOD IN ALL MARKETING AND PARTICIPATE WITH INDUSTRY GROUPS WORKING TO BUILD RECOGNITION OF WOOD AS A GREEN BUILDING PRODUCT.

WEBSITES

APAWOOD.ORG QUICK STATS

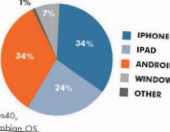
JANUARY-AUGUST 2015

DEVICE CATEGORY



Device Category	Percentage
Desktop	78.95%
Mobile	14.54%
Tablet	6.51%

MOBILE SESSIONS BY DEVICE TYPE




Device Type	Percentage
iPhone	34%
iPad	7%
Android	34%
Windows	24%
Other	1%

Other Includes: Blackberry, Symbian, Windows Phone, Firefox OS, Ubuntu OS

Desktop, Mobile and Tablet
 iPhone: 17,908
 iPad: 12,912
 Android: 18,155
 Windows: 3,655
 Other: 513

2015 APA EDITORIAL COVERAGE (CONTINUED)

MEDIA	COVERAGE/HEADLINE	CIRCULATION/IMPRESSIONS
Building Products Digest	APA Member Mills Earn Safety Award	15,322 print
Panel World	APA Announces 2014 Safety Award Winners	9,300 print
LBM Journal	Simple Solutions to Help Homes Withstand High Winds	24,034 print
The Merchant	Moore & Shubert: David S. Hendry named APA The Engineered Wood Association	4,092 print
The Merchant	Industry Experts Rising Demand for EWP	4,092 print
The Merchant	Meeting Fire Protection Requirements for I-Joint Floor Systems	4,092 print
The Merchant	Wall Bracing Made Easy	4,092 print
The Merchant	APA Roundtable Glides Use of Specs for Wood Structural Panels	4,092 print
The Merchant	APA Member Mills Earn Safety Award	4,092 print
The Merchant	@APAwood Outlook: Increasing Demand for Engineered Wood Products	2,296 followers
Twitter/LBM	APA Outlook: Increasing Demand for Engineered Wood Products	38,125 subscribers
LBM Journal Online	APA Roundtable Glides Use of Specs for Wood Structural Panels	34,034 print
	APA Roundtable Glides Use of Specs for Wood Structural Panels	30,532 monthly UV
	APA Roundtable Glides Use of Specs for Wood Structural Panels	42,733 monthly UV
	APA Roundtable Glides Use of Specs for Wood Structural Panels	38,125 subscribers
	APA Roundtable Glides Use of Specs for Wood Structural Panels	34,034 print



2015 APA ANNUAL MEETING

Coeur d'Alene Golf & Spa Resort | Coeur d'Alene, Idaho | October 19, 2015

ANNUAL MEETING MATERIALS
80+ Marketing Report



ANNUAL MEETING MATERIALS

33-inch by 80-inch Retractable Stage Banners



ANNUAL MEETING MATERIALS

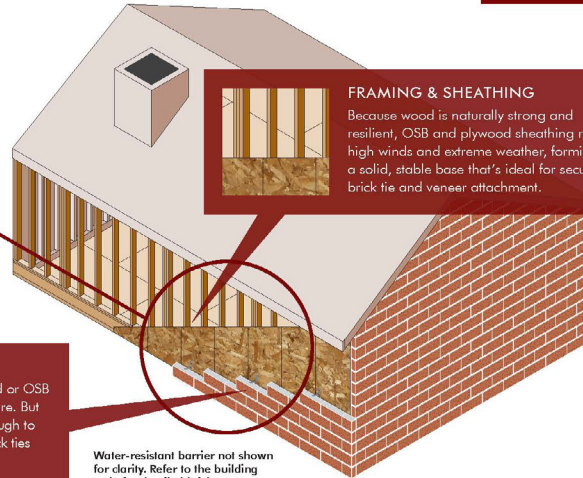
Set of 2 | 33-inch by 80-inch Retractable Stage Banners

A brick house is strong, right? **Not always.**

Brick veneer is beautiful, but it doesn't lend structural strength to a building. Buildings get their strength from the framing and sheathing underneath a brick façade. Using wood structural panels like plywood and OSB make a strong, secure base for brick veneer.

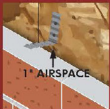


This flexible sheathing cast off its cladding of brick veneer during a Texas windstorm.



FRAMING & SHEATHING
Because wood is naturally strong and resilient, OSB and plywood sheathing resist high winds and extreme weather, forming a solid, stable base that's ideal for secure brick tie and veneer attachment.

BRICK VENEER
Brick veneer anchored to plywood or OSB sheathing holds on tight and secure. But flexible sheathing is unstable enough to move in high winds, stressing brick ties and veneer to the breaking point.



1" AIRSPACE

Water-resistant barrier not shown for clarity. Refer to the building code for detailed brick veneer installation requirements.

Visit our website for more information
www.apawood.org



APA – The Engineered Wood Association
7011 So. 19th St., Tacoma, Washington 98466
Phone: (253) 565-6600 / Fax: (253) 565-7265

Form No. F5007

APA PROMOTIONAL MATERIALS

Printed Double Sided Half-Page Flyer

ENGINEEREDWOOD

AUTUMN 2020

Journal

COATINGS & ENGINEERED WOOD

A Necessity or a Luxury?

PAGE 9

ENTERING 2021 WITH MOMENTUM

Housing Leading the Economic Recovery

PAGE 17

SOCIAL MEDIA MARKETING

Adapting to the Pandemic

PAGE 25



EWTA
STRENGTH THROUGH CONNECTIONS

THE OFFICIAL PUBLICATION OF THE ENGINEERED WOOD TECHNOLOGY ASSOCIATION

EWTA MAGAZINE

Bi-Annual 80+ Page Digital Magazine

ENGINEEREDWOOD
Journal

VOLUME 26, NO. 2
AUTUMN 2020

Departments
 PRIMERIES
 INDUSTRY CONNECTIONS
 ASSOCIATION CONNECTIONS
 MEMBER CONNECTIONS
 READER SERVICES
 ADVERTISER CONNECTIONS

Features
 COATINGS & ENGINEERED WOOD
 A Necessity or a Luxury?
 ENTERING 2021 WITH MOMENTUM
 Housing Leading the Economic Recovery

INDUSTRY CONNECTIONS

USDA CERTIFIED BIOBASED PRODUCT 100%

MANY APA-CERTIFIED PRODUCTS ELIGIBLE FOR BIOPREFERRED® LABEL

Most APA-certified products are now eligible for labeling using the USDA-certified biobased product and Rural Investments Act of 2002 (known as the Biobased Product Label).

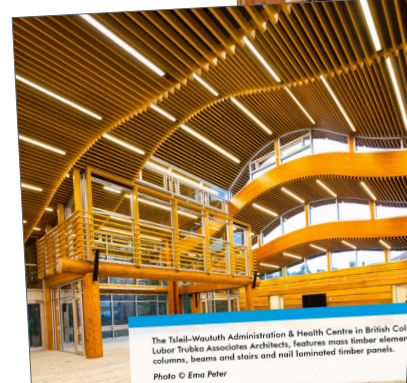
PROGRAM MANAGER
 Melissa Wilson
 MARKET COMMUNICATIONS DIRECTOR
 Lisa Hartline

ENGINEERED WOOD TECHNOLOGY ASSOCIATION
 2011 South 10th Street
 Seattle, WA 98148
 Phone: 206.400.7453
 www.enginedwood.org

Photo courtesy of Samsin Corporation

About the cover photo:
 The Tall-Tall-Waukath Administration & Health Centre in British Columbia features mass timber elements including columns, beams and stairs and nail laminated timber panels.

EWTA
STRENGTH THROUGH CONNECTIONS



The Tall-Tall-Waukath Administration & Health Centre in British Columbia features mass timber elements including columns, beams and stairs and nail laminated timber panels.
 Photo © Ema Peter

COATINGS & ENGINEERED WOOD

A Necessity or a Luxury?

By Sjoerd Bos, Managing Director, Samsin Corporation

As wood buildings rise ever taller, we are reminded how flexible, strong and beautiful wood is as a building material. For architects, wood presents the opportunity to get creative with buildings in ways that aren't possible with steel or concrete.

According to ResearchAndMarkets.com, the global cross-laminated timber (CLT) market was valued at \$664M (USD) in 2018 and is projected to reach \$1.4B (USD) by 2024. Overall, tall timber construction is gaining in popularity for several reasons, ranging from economic and aesthetic to environmental.

Tall timber structures offer strong seismic and wind performance, and woods natural properties—combined with the sheer size of the wood—lead to fire resistance. This is especially true for mass timbers due to charring and the fact that wood actually gets stronger as it dries from heat.

From an economic standpoint, mass timber allows for prefabrication, leading to shorter construction schedules and reduced costs. Environmentally, wood is the only building material that has the ability to remove carbon from the atmosphere throughout its lifecycle, even after disposal when wood fiber is recycled.

Another encouraging development is that the building code is lining up to support more mass timber construction. Starting in 2021, the International Building Code will allow for buildings up to 18 stories tall, depending on the exposure and fire rating.

Pages, wood is simply beautiful. If it weren't for snow, we would all let wood just do its thing and building owners want to see it last for the life of the building. This is an important role from construction to end-user.



Glulam panels are coated in the controlled environment of a factory setting.
 Photo courtesy of Samsin Corporation

It is also important for jobsite managers to insist that engineered wood be stored and handled with the same care as millwork material. The best storage plan is to minimize storage altogether with deliveries coordinated between the fabricator and the contractor to coincide with erection timelines. When that is not possible, minimize inventory at the construction site and store the mass timber products in a covered area. Other best practices include preventing contact with wet ground, keeping the packaging intact so water can't get inside and carefully handling the engineered wood panels to prevent damage.

APPLICATION BEST PRACTICES

When coating all mass timber at the construction site, keep in mind that surface preparation is the best predictor of finish performance. Proper sanding is a critical first step. Sand the surface with an appropriate machine capable of sanding efficiently to an appropriate texture, and then clean using compressed air or a vacuum. When coating large-surface engineered wood, well-attired product is key (and continue

drying so throughout the application process). Test on an inconspicuous area to ensure proper color and penetration.

Apply the finish in as close to ideal temperatures as possible (70 degrees F/20 degrees C) and with humidity levels at 50 percent. Application on mass timber is best with a flood coats-type applicator, such as an HVLP orless applicator or a Jutec Kox sprayer. With sanding and flood coating, water-borne, penetrating finishes will dive into the wood for better and longer protection. Under-application of product only leads to later disappointment in performance.

When applying in controlled factory conditions, drying times should be dependable, based on the manufacturer's product data sheet. Utilizing drying racks and Infra-Red heat or ovens can speed up that process.

It is a good idea to take wet mill measurements to ensure the product is applied per the product data sheet and matches expected coverage. Also, retain control samples for later assessment, if needed.



APA FTAO CALCULATOR

RESOURCES & TOOLS

Force Transfer Around Openings (FTAO)

LEARN MORE ▶

FORCE TRANSFER AROUND OPENINGS

RECENT PUBLICATIONS

1.24.23 [ANSI 405-2023 Standard for Adhesives for Use in Structural Glued Laminated Timber](#)

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[APA Product Reports®](#)

[APA System Reports](#)

[Green Verification Reports](#)

APA HOMEPAGE SLIDESHOW

Website Slides

A square advertisement featuring a background of wooden joists and OSB sheathing. A white diagonal shape is overlaid on the left side. In the top right corner, there is a red square with the white text "APA" and two horizontal lines above and below it. The main text is in bold black font: "PROTECTED I-Joists" on the first line, "PROTECTING Firefighters" on the second line. At the bottom, there is a red button with the white text "LEARN MORE" and a white right-pointing triangle.

A horizontal advertisement with a background of wooden joists and OSB sheathing. On the left, there is a red rectangular area containing the white "APA" logo (with two horizontal lines above and below) and the website address "www.apawood.org" in white text. To the right of this area, the text "PROTECTED I-Joists" and "PROTECTING Firefighters" is displayed in bold black font. On the far right, there is a red button with the white text "LEARN MORE" and a white right-pointing triangle.

APA ADVERTISING
Digital Ad Campaign for Magazine



Sustainable Buildings, Sustainable Future

WOOD AND THE ENVIRONMENT



GREEN STARTS WITH TREES

Wood's environmental benefits take root in the forest. Growing trees produce oxygen while absorbing carbon dioxide, purifying the environment for years before the tree ever becomes a building material. Growing trees also store carbon, pulling a million tons of CO₂ from the atmosphere each year by absorbing CO₂, helping to offset the carbon we add to the atmosphere through fossil fuel energy use.

As a young forest matures, its growth slows, its CO₂ absorption drops, and its carbon storage capacity increases. As young trees become mature trees, they store more carbon in their trunks and branches. As a young forest matures, its growth slows, its CO₂ absorption drops, and its carbon storage capacity increases. As young trees become mature trees, they store more carbon in their trunks and branches.

Demand for Wood Keeps Forests Growing

Forest of a nation forest allows replanting of young trees, allowing a continuous cycle that regenerates growth increases oxygen production and CO₂ absorption. And when the tree is harvested, the carbon is stored for generations in the wood, which keeps it from being released into the atmosphere. In fact, a 2,000-square-foot wood-frame house locks carbon from 28.5 tons of CO₂ in the wood. That is the same as neutralizing seven years of CO₂ emissions from a small car¹.

Wood is renewable, and the forest products industry takes full advantage of that benefit. In fact, a small forest grows more trees and absorbs more CO₂ than a large forest grows in the same time. In the past 50 years, there are more trees in the U.S. today than there were in the early 1900s.

Investment to make the wood products manufacturing process more energy efficient than ever before. In the U.S., today 80

THE WORLD IS GREENER THAN YOU MIGHT THINK

Don't believe it when they say the world is running out of trees. A 20-year study published in 2015² provided new insights into the global timber story. From 1993 to 2002, the amount of the world's total timber supply was declining. But between 2002 and 2012, that trend reversed itself. One year's growth in China and Russia and a drop in tropical deforestation. The result was a net growth in the amount of carbon-storing green matter on earth, good news for the environment. China's growth was the most significant.

LCA: THE ENVIRONMENTAL CALCULATOR

Life Cycle Assessment (LCA) is a performance-based method used to quantify and evaluate the environmental impact of a product, assembly or structure, works by measuring the energy required for a product or structure over its period of use and its end-of-life disposal and recycling through distribution, use, maintenance and disposal.

The LCA methodology takes a holistic view, although the complexity of modern building products can make it difficult to measure environmental impact. While the technology has come a long way, LCA is still an emerging tool. While the technology has come a long way, LCA is still an emerging tool. While the technology has come a long way, LCA is still an emerging tool.

STUDY CONFIRMS TIMBER AS A MORE ENVIRONMENTALLY FRIENDLY CHOICE

A 2015 study³ compared the environmental impacts of six common building materials: steel, concrete, brick, wood, glass and insulation. The study found that wood is the most environmentally friendly choice. The study found that wood is the most environmentally friendly choice. The study found that wood is the most environmentally friendly choice.

BENEFITS EXTEND BEYOND THE FOREST

One of the key objectives in sustainable design is value from environmentally responsible building products. While the inherent benefits of wood extend beyond its natural design and construction, wood building components offer a number of additional environmental benefits.

- The most efficient use of natural resources. The industrial sector uses 20% of the nation's resources. The industrial sector uses 20% of the nation's resources. The industrial sector uses 20% of the nation's resources.
- The manufacturing process itself is efficient. About 90 percent of mill residues generated in the United States are recycled and used in high-value fiber products, such as hardboard, medium-density fiberboard, particleboard and other wood composites or products.⁴
- Engineered wood products can be manufactured from smaller, fast-growing trees or species not commonly used for construction, some of which can be sustainably harvested and used in high-value fiber products, such as hardboard, medium-density fiberboard, particleboard and other wood composites or products.⁴
- Engineered wood products allow predictability through, properties and are produced under strictly quality control measures, which allows efficient installation and maintenance in the field.
- Engineered wood products allow predictability through, properties and are produced under strictly quality control measures, which allows efficient installation and maintenance in the field.
- Engineered wood products allow predictability through, properties and are produced under strictly quality control measures, which allows efficient installation and maintenance in the field.

33%

Forest land comprises about 33 percent of the total land area of the United States.

33%

Building with wood is about 33% more energy efficient than steel.

33%

The volume of annual net timber growth in the U.S. is 26 percent higher than the volume of annual net timber harvest.

33%

American manufacturers produce more than 33 billion cubic feet of wood products annually.

33%

Forest in the United States produce 33 percent of the nation's oxygen and absorb 33 percent of the nation's CO₂.

33%

Forest in the United States produce 33 percent of the nation's oxygen and absorb 33 percent of the nation's CO₂.

33%

Forest in the United States produce 33 percent of the nation's oxygen and absorb 33 percent of the nation's CO₂.

APA SUSTAINABILITY GUIDE

Printed and Digital Multi-Page Publication

¹ U.S. Forest Service, Forest and Rangeland Resilience Report, 2015. ² Forest and Rangeland Resilience Report, 2015. ³ Forest and Rangeland Resilience Report, 2015. ⁴ Forest and Rangeland Resilience Report, 2015.



Advertisement for advertising in EWJ. The background is orange and features a laptop and a smartphone. A white square icon on the left contains an orange outline of a computer monitor and a smartphone. The text is white and positioned on the right side of the graphic.

ADVERTISE IN EWJ

EWTA's *Engineered Wood Journal* provides a highly cost-effective method to deliver your advertising message to a target-rich readership of your customers.

[LEARN MORE ►](#)

www.engineeredwood.org



Advertisement for joining EWTA. The background is blue and features a crowd of people at an outdoor event. A white square icon on the left contains a blue outline of three stylized human figures. The text is white and positioned on the right side of the graphic.

JOIN EWTA

EWTA membership provides vital connections with your customers in the North American engineered wood industry through a variety of networking platforms.

[LEARN MORE ►](#)

www.engineeredwood.org



Advertisement for supplier exhibition. The background is blue and features a busy trade show floor. A white square icon on the left contains a blue outline of two hands shaking. The text is white and positioned on the right side of the graphic.

SUPPLIER EXHIBITION

EWTA's supplier exhibition, held in conjunction with APA – The Engineered Wood Association's annual meeting, provides face-to-face opportunities with key decision-makers.

[LEARN MORE ►](#)

www.engineeredwood.org



EWTA SOCIAL MEDIA

Weekly LinkedIn Posts