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RESTON, VIRGINIA MAY 7TH & 8TH

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Whole Building Airtightness Program
Tuesday Agenda - May 7 [™]
Wednesday Agenda - May 8™
Agenda - Installer & Auditor Training
Agenda - ABAA Committee Meetings
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Information

HYATT REGENCY RESTON

AT RESTON TOWN CENTER

May 7-8, 2024 at the Hyatt Regency Reston (1800 Presidents Street, Reston, VA 20190)

N THE AREA

Restaurants

Capital Burger - Onsite North Italia - 2 min True Food Kitchen - 2 min Sixty Vines - 2 min Potbelly - 3 min Ted's Bulletin- 4 min Jacksons - 4 min Jinya Ramen - 6 min Morton's - 6 min The Counter - 6 min

Outdoor Activities

Reston National Golf Course - 1.2 MI Lake Fairfax - 3.5 MI Reston Zoo - 3.2 MI Frying Pan Park - 5.1 MI

air barrier **a baa** association of america

Who is ABAA?

We Are You, The Members

The Air Barrier Association of America (ABAA) is a national, not-for-profit trade association that consists of a wide cross section of stakeholders in the building enclosure industry.

Our membership include manufacturers, architects, engineers, trade contractors, researchers, testing & audit agencies, consultants and building owners.

ABAA is the national voice of the air barrier industry and has raised the level of quality in the industry through a Quality Assurance Program and offers premier training, certification, product evaluations, contractor accreditation and site quality control audits.

ABAA's mission is to promote the use and benefits of air barrier systems, educate the public about air barrier systems and develop a professional air barrier specialty trade and industry dedicated to the installation of effective air barrier systems in buildings on a nationwide scale.

Why Join ABAA?

ABAA Member Benefits

ABAA's mission is to promote the use and benefits of air barrier systems, educate the public about air barrier systems and develop a professional air barrier specialty trade and industry dedicated to the installation of effective air barrier systems in buildings on a nationwide scale.

When you join ABAA as a member, you will benefit from:

- Industry Leading Quality Assurance Program
- ABAA's Quality Assurance
- Industry and Trade Events
- Professional Development
- Information/News
- Learning Best Practices
- And many more benefits!







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abaaconference.com

JOIN TODAY AND HELP US GROW AND IMPROVE OUR INDUSTRY.

WAYS TO JOIN:

- 1. Scan the QR code
- 2. Stop by show registration booth.



Quality Assurance Program Excellence

ABG Caulking & Waterproofing of Morristown Alcal Specialty Contracting, Inc. Bradleigh Applications, Inc. Brant Freeman & Associates, LLC Jaco Waterproofing J. P. Larsen, Inc. Spray Foam Technologies of KY Standard Waterproofing Summit Insulation & Contracting

ABAA QAP AWARD

This award is presented to ABAA Accredited Contractors who has successfully completed a minimum of five site audits and been assessed a total of zero demerit points, both to the installer and contractor.

OUR MOST PRESTIGIOUS AWARD GOES TO

Summit Insulation & Contracting

Royals Commercial of Maryland, LLC

The criteria to win this most prestigious award of the association really divides the best-of-the best in the world of contractors. We encourage our contractors to be that - and win this award.

This award is presented to an ABAA Accredited Contractor who has a minimum number of audits (10 per year for 2 years, totaling 20) with a minimum percentage (95%) of audits without any demerits. We lost our dear friend Peter in 2020. Not only was he ABAA's QAP Director and Trainer, but he was also a dear friend to all. He was a part of ABAA since inception back in 2001 and trained thousands of installers, working closely with many of our contractors, manufacturers, auditors, and anyone that needed help. He was with the association the entire time ABAA has existed.



To honor Peter, his work ethic, and the quality of installers he encouraged all his students to become, a new award category has been created in Peter's name. It stands for everything Peter would have wanted – the highest level of professionalism and installation by our contractors.

By The Numbers

Building Quality, Reducing Risk, and Mitigating Moisture

91 Million Sq. Ft. of QAP Audited Air Barrier Installation



Quality Assurance Program



23,000+

QAP Specified Projects



2,705

Certified & Registered Installers





Audits



123

Certified Products

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General Information and Reminders

CONFERENCE MEDIA PARTNERS





Name Badges

Don't forget to wear your ABAA Conference issued name badge. All attendees are required to have a name badge to attend this conference. Please use your name badge to gain access to all meals, activities, keynotes and sessions.



Photography

Photos will be taken throughout this event. ABAA reserves the right to use these photos for the promotion of future ABAA events and/or social media.



Get Social

Stay connected to the latest industry innovations and events. Find us on Facebook, Twitter & LinkedIn. Also make your way to our website or scan the QR code and sign up for our popular and free industry webinars and newsletter.

Convention Map Exhibitor Booths





19	Intertek
20	Tremco CPG Inc.
21	WTI/Canam Building Enclosure Specialists
22	Soprema Inc.
23	Polyglass
24	Prosoco
25	Henry, a Carlisle Company
26	Emseal
27	3M
28	-
29	ABAA
30	ABAA
31	-
32	-
33	-
34	-
35	-
36	-
37	-
38	RAiNA
39	ABAA Contractors Corner

AIA Continuing Education Provider

Continuing Educational Credits

Educational presentations are registered to provide learning units and HSW credits. You will receive one credit per one hour of the presentations you attend.

Attend all two days and be eligible for 11 AIA LU/HSW's.



Track Concentrations

To ensure you get the most out of the conference, we have created two tracks and color-coded these tracks throughout this booklet. Please make a note of the color below to know which sessions will be most applicable to you. Attendees are not bound by specific tracks and can attend any presentation they are interested in.

Track 1

Track 2



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Whole Building Airtightness Program Is Here!

The purpose of the ABAA Blower Door Technician Training Program is to educate both entry-level and more experienced blower door technicians on the planning, preparation, and execution of airtightness testing for commercial and large buildings in conformance with industry standard test methods.

The training aims to equip blower door technicians with the knowledge and skills necessary to appropriately evaluate, prepare, test, analyze, and report on a building's airtightness performance. The ABAA Blower Door Technician Training Program is a 40-hour training program delivered over 5 days by subject matter experts retained by ABAA who are guided by detailed lesson plans. In addition to receiving instruction from experienced experts, the trainees will also have the opportunity to plan and carry out simulated building airtightness tests on physical mock-ups during the training program.

5 DAYS OF INTENSIVE TRAINING

Join the waitlist





Whole Building Airtightness Program™

Agenda



Tuesday May 7TH Grand Ballroom

08:00 AM	Opening Remarks: ABAA Initiatives, Goals
08:30 AM	and a message from our Platinum Sponsor
08:30 AM	Future Ready Design Considerations for Building Enclosure Design
09:30 AM	Paul Totten
09:30 AM 10:00 AM	BREAK
10:00 AM	Building Enclosure Vulnerabilities in Commercial Construction
11:00 AM	Sarah Rentfro & Sierra Stewart
11:00 AM 11:15 AM	BREAK
11:15 AM	ABAA UPDATES &
12:00 PM	ABAA AWARDS CEREMONY
12:00 PM 01:15 PM	LUNCH

BUILDING ENCLOSURE CONFERENCE

Tuesday May 7TH Grand Ballroom

01:15 PM	"What If": A Review of Case Studies to Aid in Low-Slope Roof Systems Selection
02:15 PM	Kristin Westover & Andrea Wagner Watts
02:15 PM 02:45 PM	BREAK
02:45 PM	Peeling Back the Onion
03:45 PM	Nathan O. Taylor
03:45 PM 04:00 PM	BREAK
04:00 PM	Building Envelope Case Study from Initial Constructability Review Through Occupancy
05:00 PM	Corey Zussman
06:00 PM 09:00 PM	BOARD MEET & GREET: CAPITAL BURGER "Onsite"

Wednesday May 8TH

TRACK 1 Grand Ballroom

08:30 AM	Invisible Improvement: Air Tightening an Office in a Historic Timber Pier
09:30 AM	Jeff Speert
09:30 AM 09:45 AM	BREAK
09:45 AM	Challenges of Building Envelope Airtightness Testing Using Only a Portion of a Building
10:45 AM	Stephen Wong
10:45 AM 11:00 AM	BREAK
11:00 AM	Resolving Complex Geometries for Iconic Towers: Combining Unitized and Stick Built Curtain Wall Systems in High-Rise Designs
12:00 PM	Manan Raval
12:00 PM 01:00 PM	LUNCH
01:00 PM	Diagnosing Air Leaks in Building Enclosures
02:00 PM	Mike Poirier
02:00 PM 02:15 PM	BREAK
02:15 PM	The Key to a Successful Project: Preconstruction Building Enclosure Co-ordination Meetings
03:15 PM	Derek Ziese
03:15 PM 03:30 PM	BREAK
03:30 PM	A Case Study in Enclosure Coordination: How the Academy for Global Citizenship Achieved Passive House Air Leakage Rates
04:30 PM	Leonard Sciarra & Steve Black

Wednesday May 8TH

TRACK 2 Regency Ballroom

08:30 AM	Building Expansion Joints: When Movement and Air Tightness must go Hand-in-Hand
09:30 AM	Renae Kwon & Josh Hakimian
09:30 AM 09:45 AM	BREAK
09:45 AM	Re-thinking Your Insulation Strategies
10:45 AM	Len Anastasi
10:45 AM 11:00 AM	BREAK
11:00 AM	What is High Temperature?
12:00 PM	Benjamin A. Meyer & Luke Geoffrion
12:00 PM 01:00 PM	LUNCH
01:00 PM	Buildings Move, Buildings Leak: Revisiting the Critical Link Between Engineering Mechanics and Enclosure Performance
02:00 PM	Jon Porter
02:00 PM 02:15 PM	BREAK
02:15 PM	Glazing Systems: I have been doing it this way for 30 years, it's gotta be right!?
03:15 PM	Adam Ugliuzza & Jeff Dalaba
03:15 PM 03:30 PM	BREAK





Agenda

Installer & Auditor Training

COURSE LENGTH FROM **MAY 7-9 3 DAYS**

(May 9 will be at an off-site location to offer hands-on practical training for Installers and Auditors).



08:00 AM	Self Adhered and Fluid Applied Training	ROOM
04:00 PM	ABAA	Lake Thoreau
08:00 AM	Spray Polyurethane Foam Training and Field Auditor Training	ROOM
04:00 PM	ABAA	Fairfax A & B

Advanced WUFI Workshop WUFI Pro Workshop FROM **COURSE LENGTH** FROM **COURSE LENGTH MAY 7-8 MAY 9-10** 2 DAYS 2 DAYS

08:00 AM	WUFI(R) Hygrothermal Modeling Software Workshops
04:00 PM	Andre Desjarlais of ORNL (Oak Ridge National Laboratory)
	Achilles Karagiozis of National Renewable energy Laboratory (NREL)

ROOM Lake Audubon

Agenda

Committee Meetings

Thursday, May 9[™]

Light breakfast, lunch and coffee breaks are being provided on the third day of the conference (committee meeting day).

08:00 AM	Research	ROOM
09:30 AM	Sarah Flock & Andrew Dunlap	Lake Anne
08:00 AM	Marketing	ROOM
09:30 AM	Matt Nelson & Craig Wetmore	Lake Thoreau
10:00 AM	Technical	ROOM
12:00 PM	Andrea Wagner Watts & Cody Shelner	Lake Anne
10:00 AM	Education and Training	ROOM
11:00 AM	Matt Hollingsworth & David Holtzclaw	Lake Thoreau
12:30 PM	Transitions, Terminations, and Flashings Ad Hoc Group	ROOM
(WORKING LUNCH)	Adam Ugliuzza & Craig Wetmore	Lake Anne
11:30 AM	Contractors	ROOM
12:30 PM	Matt Giambrone	Lake Thoreau

General Education Tuesday, May 7TH

08:30 AM - 09:30 AM Grand Ballroom

Future Ready Design Considerations for Building Enclosure Design



Paul E. Totten, *PE*, *LEED AP* WSP, ARLINGTON VA



In an ever-changing climate, with advances in materials and requirements for better long term durability and resiliency, enclosures are being asked to sustain more over the long term. From storm risk, to flooding and increased heat and propensity to radiation, the detailing of systems requires additional thought process.

Using building science, whole building system knowledge, and in depth experience in detailing of systems, the speakers will use project examples of how we can better prepare our building enclosures to be future ready. They will discuss simple solutions that can be implemented, as well as methodologies of designing details. They will provide examples from numerous climate zones within the US, covering sectors such as office, mixed-use, specialty buildings, health care, science and technology and sport facilities. They will offer up new ways to look at data included in hygrothermal and thermal modeling of enclosures. They will discuss changes needed within the building code and the importance of climate considerations in the code.

Scan QR code for complete description, learning objectives and presenter bios. -

10:00 AM - 11:00 AM Grand Ballroom

Building Enclosure Vulnerabilities in Commercial Construction



Sarah Rentfro, *P.E.* SIMPSON, GUMPERTZ & HEGER, WASHINGTON DC

Sierra Stewart, *P.E.* SIMPSON, GUMPERTZ & HEGER, WASHINGTON DC



Given ever increasing performance demands of commercial building enclosures, combined with increasingly sophisticated installation and tie-in details, careful scrutiny is required to mitigate vulnerabilities that can contribute to long-term recurring performance issues such as air and water leakage, condensation, and thermal inefficiencies.

In addition to management of design vulnerabilities, successful building enclosure performance requires careful oversight and management of construction vulnerabilities, including those associated with installation and workmanship, trade coordination and sequencing, and implementation of quality assurance/quality control (QA/QC) programs. Having a holistic understanding of how various building enclosure systems interact with one another, as well as manufacturer's requirements and common QA/QC and diagnostic tools, can help project teams achieve buy-in from all parties involved, proactively mitigate risks of building enclosure failures, and troubleshoot issues that arise during construction. This presentation will utilize case studies to explore common building enclosure vulnerabilities in commercial construction and proactive mitigation measures based on our design consulting and construction administration experience as well as our experience investigating building enclosure failures.



01:15 PM - 02:15 PM Grand Ballroom

"What If": A Review of Case Studies to Aid in Low-Slope Roof Systems Selection



Kristin Westover, P.E., LEED AP O+M GAF, PARSIPPANY, NJ

Andrea Wagner Watts, LEED Green Associate GAF, ARLINGTON, VA



It's just a roof, right? And buildings or designs never change. Not quite.

Roofing plays an important role in protecting the building from the elements as well as insulating to preserve occupant comfort. With a wide variety of roof systems used on commercial buildings, selecting low-slope roofing assemblies can be complicated.

Starting with four unique roofing case studies to review design team considerations and decisions, we will ask the infamous question "What if?". You will leave this interactive session with a better understanding of best practices in low-slope roof system design and selection, including ways to establish air tightness, reduce moisture intrusion, and lower the overall risk of failure to ensure you are able to appropriately evaluate design change requests on your next project.

Scan QR code for complete description, learning objectives and presenter bios. —

02:45 PM - 03:45 PM Grand Ballroom

Peeling Back the Onion



Nathan O. Taylor, CSI, CDT DTR CONSULTING SERVICES, ROSEVILLE, CA



An in-depth dive into a leak investigation at a high school Industrial Arts and Horticulture Building that snowballed into a remedial architecture project and then escalated further with discoveries that raised structural red flags and created an expansion to the original scope of work.

While investigating water damage, additional nonconforming conditions were uncovered and additional areas had to be opened, revealing even more questionable building practices. In the end, the structure of the south façade was replaced, as well as 1/3 of the roof structure, and the entire building was "re-skinned". Due to the nature of the failures, this project also became a case for litigation.

This presentation is presented as a Case Study that covers the timeline of the project from the initial investigation, the layers of additional discoveries, the remedial design, and the construction process while briefly covering the litigation that followed. Throughout the timeline, each layer of the onion is pulled back for discussion, as well as to inform attendees of how each of those issues was overcome.

General Education Tuesday, May 7TH

04:00 PM - 05:00 PM Grand Ballroom

Building Envelope Case Study from Initial Constructability Review through Occupancy



Corey Zussman, AIA, NCARB, ALA, RBEC, RRC, REWC, RWC, RRO, CDT, CQM, CXA+BE, BECXP, CABS, LEED® AP BD+C Level II Thermographer PEPPER CONSTRUCTION, BARRINGTON, IL



Join me as I recount my building envelope journey with a large fourstory CMU and masonry higher-educational building for a large university in the Midwest.

We will start with the initial pre-bid constructability review and go through construction and turnover. We will review the air/vapor barrier, masonry flashing, waterproofing, window installation, and roof transitions. We will learn what was initially missing in the Contraction Documents through mock-ups and first-work-in-place reviews. Once construction starts, we will review the building construction and perform testing throughout.

Scan QR code for complete description, learning objectives and presenter bios.



BUILDING ENCLOSURE CONFERENCE

May 7TH **BOARD MEMBER** MEET & GREET

All are welcome to drop by this casual get-together where you can have one on one chats with the board members and enjoy a variety of complimentary cocktails and appetizers.

CAPITAL BURGER 06:00 PM - 09:00 PM Ground Floor @ The Hyatt Regency Reston 11853 Market Street



08:30 AM - 09:30 AM Grand Ballroom

Invisible Improvement: Air Tightening an Office in a Historic Timber Pier



Jeff Speert, AIA, LEED AP 4EA BUILDING SCIENCE SEATTLE, WA



Historic structures provide a significant cultural value and in the case of the Seattle waterfront, link the maritime period around Seattle's founding to the current tourist and commercial center of the city. In addition to contributing to the local heritage and historic fabric, existing buildings generally also contribute disproportionately to the energy consumption of our building stock. Pier 56 was constructed in 1900 over Elliott Bay as a timber structure and for much of its history was a base for nautical transportation. Today, the lower floor of the building houses several retail and restaurant tenants. The upper floor, approximately 30,000 square feet, is leased by the architecture firm Mithun, winner of the 2023 AIA Architecture Firm Award.

Mithun leased the space in 2000 and as part of a lease renewal in 2020, completed tenant improvements including air sealing. The goal of the air tightening measures was to reduce energy use and improve occupant comfort, which was a challenge for a vaulted exposed timber structure with no cooling and no perimeter heat distribution.

This session is a case study covering the pre-improvement multi-fan air barrier testing, diagnostics completed during testing to determine leak locations, remedial work completed during construction...

Scan QR code for complete description, learning objectives and presenter bios.

09:45 AM - 10:45 AM Grand Ballroom

Building Envelope Airtightness Quantification – Challenges Applying Sectional, Sampling, or Wall Assembly Testing Methods



Stephen Wong, *P.E.* MORRISON HERSHFIELD BURNABY, BC



Currently there are standards (ASTM E-779, USACE Air Leakage Protocol) outlining the methodology and procedures to quantifying building envelope airtightness, using the building as a whole. However, there is currently no widely accepted standard that outlines the methodology and procedures that can be used to quantify building envelope airtightness using only a portion of the building (also known as sectional or sampling methods.) Due to the lack of standards for this procedure and method, individual consultants/testers are having to come up with the variations of approaches, which are currently not standardized.

Sectional or sampling approaches can have inaccurate and widely misleading building envelope (BE) airtightness results due to unknown factors that are different for every building.

Most people using these approaches are not aware that there are different levels of uncontrolled or challenging conditions that are manipulating variables (different for every building) and can lead to reporting inaccurate airtightness results...

11:00 AM - 12:00 PM Grand Ballroom

Resolving Complex Geometries for Iconic Towers: Combining Unitized and Stick Built Curtain Wall Systems in High-Rise Designs



Manan Raval, P.E. HATFIELD GROUP NEW YORK, NY



Explore curtain wall detailing, fabrication, testing, and installation oversight strategies for resolving complex geometries involved in iconic high-rise tower design that combine stick-built and unitized systems. We'll begin with a general overview of the key differences between stick-built and unitized curtain wall systems, covering the pros and cons of both in terms of water and air barrier performance, schedule and cost efficiency, quality control, installation time, construction equipment and labor demands, and inspection requirements.

Explore why, though unitized curtain wall systems are typically preferred for high-rise design, combining unitized and stick-built systems can yield better performance and aesthetic results, and how by rationalizing the facade design the systems can be combined effectively.

This presentation will provide valuable insights into economical procurement options for curtain walls, as well as the structural performance of curtain walls and how various anchorage systems affect it. The presentation will also explore common pitfalls in curtain wall installation that threaten to compromise building performance

Scan QR code for complete description, learning objectives and presenter bios. —

01:00 PM - 02:00 PM Grand Ballroom

Diagnosing Air Leaks in Building Enclosures



Mike Poirier, Level 3 Certified Blower Door Test Technician, Level 2 Certified Thermographer QED LAB TROUTDALE, OR



The need for new construction airtightness has been growing for decades, but has been booming in the last 10 years specifically. While airtightness testing is required in some jurisdictions by energy codes, other projects may have a specification requirement or an energy program requirement. In these cases, a whole-building, or partial-building test will occur.

When airtightness testing results in a failing grade, diagnostic testing is typically performed to locate the breaches so they can be repaired. This presentation will help identify how these diagnostic tests are performed along with their pros and cons.

02:15 PM - 03:15 PM Grand Ballroom

The Key to a Successful Project: Preconstruction Building Enclosure Coordination Meetings



Derek Ziese, P.E., BECxP, CxA+BE GALE ASSOCIATES, INC., TOWSON, MD



An air barrier is a system of materials designed to control the flow of air between conditioned and non-conditioned spaces. While air barriers have been incorporated into wall assemblies for decades, it is important to note that the building envelope includes all sides of the building, including the exterior walls, the lowest-level floor, and the roof or ceiling assembly.

Once additional sides of a building are included the detail becomes a challenge because not only is there a transition between air barrier materials, but there are also different trades involved, and sequencing becomes important.

This presentation will review the importance of a preconstruction coordination meeting in identifying material transition ownership and installation sequence. The presentation will review how the buy-out process of the sub-contractors can impact the air barrier detailing. The speaker will review case studies and lessons learned from the "by other" syndrome. The speaker will also identify potential gaps between trades that are likely to require further coordination.

Scan QR code for complete description, learning objectives and presenter bios.

03:30 PM - 04:30 PM Grand Ballroom

A Case Study in Enclosure Coordination: How the Academy for Global Citizenship Achieved Passive House Air Leakage Rates



Leonard Sciarra , AIA, AS-HRAE, CPHC, LEED f/ap+ FARR, CHICAGO, IL

Steve Black POWER CONSTRUCTION, CHICAGO, IL



Join Leonard Sciarra (FARR) and Steve Black (Power Construction) as they showcase the Academy for Global Citizenship, a 70,000 square foot, two-story K-8 school located on the Southwest Side of Chicago.

The school achieves the air tightness required to achieve both Living Building Challenge and PHIUS 2021. The team will discuss strategies employed and challenges faced from design and procurement to construction and site observation. Attendees will learn about the multiple types of envelope components, designing for complex geometries, and penetrations through different materials.

The team will discuss the communication and strategy involved in managing a large project with multiple trades—coordinating their overlap in a seamless way to ensure proper envelop enclosure.

The school, part of the Chicago Public School system, was delivered on budget and in a shorter timeframe than a typical CPS school, with a high percentage of local, Minority and Women-owned contractors.

Enhance your credibility Consult with more clients Stand out from your peers

Become a Certified Air Barrier Specialist Today!



Registration and exams are available OnDemand 24/7. Visit: airbarrier.org/CABS

air barrier **a b a a** association of america

08:30 AM - 09:30 AM Regency Ballroom

Building Expansion Joints: When Movement and Air Tightness must go Hand-in-Hand



Renae Kwon, *RA* WISS, JANNEY, ELSTNER AND ASSOCIATES INC., NORTHBROOK, IL

Josh Hakimian WISS, JANNEY, ELSTNER AND ASSOCIATES, INC., NORTHBROOK, IL



Building expansion joints are a necessity to accommodate differential movement between structures to prevent damage to both the structure, as well as building cladding and finish systems. Expansion joints within the realm of the building enclosure can be some of the most complicated detailing within a project; however, many times there is simply not enough information at the time the design documents are prepared to provide a completely integrated system. This is particularly true when a new structure is to be constructed adjacent to an existing structure where as-built conditions are not known.

Further, multiple subcontractors/trades are often involved. How is an expansion joint concept turned into a constructable air, water-tight, thermal and fire-rated system that is both continuous at transitions, fully integrated with adjacent systems, and still accommodate necessary movement, sometimes in multiple directions? Additionally, who is responsible for taking the design concept to this level of detail; the design of record, the manufacturer, the contractor(s), the enclosure consultant, a collaboration of these entities?

Using two case studies this presentation will outline both challenges and solutions to tackling complex building expansion joints...

Scan QR code for complete description, learning objectives and presenter bios. —

09:45 AM - 10:45 AM Regency Ballroom

Re-thinking Your Insulation Strategies



Len Anastasi, FABAA, CSI, CDT, WUFI® Certified, WUFI® Advanced Certified EXO-TEC CONSULTING, INC. WEYMOUTH, MA

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Many people in the construction industry involved with the design of exterior wall assemblies rely on the prescriptive requirements of the International Building Energy Code (IEC) in designing exterior wall assemblies. What could be wrong with the strategy of complying with prescriptive code requirements? Actually, a lot.

This presentation will address the shortcomings of the IEC's prescriptive requirements and show through hygrothermal analyses when compliance with such requirement can result in exterior wall assembly failures, discuss why they fail and offer solutions to avoid such failures.

11:00 AM - 12:00 PM

Regency Ballroom

What is High Temperature?



Benjamin Meyer, AIA, LEED AP SIPLAST, DALLAS, TX

Luke Geoffrion, Ph.D SIPLAST, DALLAS, TX



This session will aim to answer a few questions: what does 'high temperature' mean; are the standards that are currently being used enough to support those claims; and do materials that claim high temperature have the best chance of meeting the physical requirements of today's built environment?

Existing standards addressing elements of elevated temperature, such as accelerated aging, sample conditioning (AAMA 711 section 5.5), and visual assessment (ASTM D1970 section 7.6) are generally inadequate and incomplete.

This presentation will look at common standards and claims regarding "high-temperature" and put them in the context of their respective applications.

Scan QR code for complete description, learning objectives and presenter bios. -

01:00 PM - 02:00 PM Regency Ballroom

Buildings Move, Buildings Leak: Revisiting the Critical Link Between Engineering Mechanics and Enclosure Performance



Jon Porter, *P.E. (MN), Associate AIA* KRAUS-ANDERSON CONSTRUCTION COMPANY, MINNEAPOLIS, MN



"Systems thinking" is a term that is discussed at times in Building Science. But what if systems thinking asks us to consider more factors in the long term viability of enclosure integrity? While the relationship between structural movement and a structure's usefulness to its intended purpose has been well developed throughout the history of design and construction, that understanding has not always translated well into satisfactory enclosure performance.

Drawing on experiences in post-construction forensic investigations, troubleshooting during construction, and efforts to influence design detailing, this presentation will discuss key factors in applying engineering mechanics for the benefit (or detriment) of enclosure performance.

Specific aspects to be shared will include the cross-party dynamics in design and construction that give rise to current challenges, case studies of failures as a result of insufficient consideration, and areas for improvement across the design and construction industry.

02:15 PM - 03:15 PM Regency Ballroom

Glazing Systems: I Have Been Doing It This Way for 30 Years, It's Gotta Be Right!?



Adam Ugliuzza, P.E. SUSTAINABLE BUILDING PARTNERS LEMOYNE, PA

Jeff Dalaba ADMINISTRATIVE MANAGEMENT SYSTEMS, INC. (AMS) SACKETS HARBOR, NY



From water penetration and air leakage to occupant comfort, thermal controls to acoustics, building performance begins with the enclosure. Problems at material interfaces, glazing system complexities, and struggles with installer competency along with a lack of quality system process controls can increase opportunities for failures and defects in glazing projects.

In general, many facets of installation in the construction industry rely on a contractors trust that their people will control quality. Many times, we hear "Bob makes sure the frames are installed right because he has been doing this for years". In other words, too often, the people are the process, which allows room for inconsistency. With the growing complexities of glazing systems and less availability of skilled labor, defined quality systems and written process controls are needed to provide a cognitive net to avoid enclosure defects and failures.

This presentation will provide insight specifically on glazing contractor and stakeholder perspectives with a focused panel presentation to address how a well thought out and implemented quality systems approach can raise the glazing industry...

Scan QR code for complete description, learning objectives and presenter bios.





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Designing Walls for Control of Air, Water, Thermal, and Vapor

- · Sponsored by Air Barrier Association of America (ABAA)
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