

EXO-TEC Solutions, Inc.

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AIA / CES Presentations Program

The following presentations are offered by EXO-TEC Solutions, Inc. for building construction education programs. Please feel free to fill in proposed presentation dates and fax back to the above number for availability.

Four Barriers For Four Wetting Potentials: How To Design Effective Exterior Wall Systems

This presentation looks at the four wetting potentials that exterior wall assemblies are exposed to due to the climatic difference between the interior and exterior environment. The four barriers needed to effectively separate the two environments and not create moisture problems are identified. The science and physics behind the inclusion and location of these barriers will be discussed. Various exterior wall assemblies will be reviewed and critiqued. The 2018 International Energy Code requirements for insulation exterior wall assemblies will be reviewed and critiqued. Live hygrothermal analyses will be run to show which building enclosure assemblies work and which ones do not based on the assembly, the climate and the interior conditions.

Duration 1 hours

AIA/CES Credits: 1

Handouts: Copy of the Power Point Presentation

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, AIA, CSI, Build Boston, ABAA Convention

Proposed Date: _____

Avoiding Building Enclosure Failures

The presentation will review building enclosure assemblies that have experienced failures as well as building enclosure assembly designs that would have resulted in failures and the changes to the design that avoided the failures. Basic building science and physics will be reviewed. Live hygrothermal analyses will be run to show which building enclosure assemblies work in their respective climate zones and which do not.

Duration: 1 hour

AIA.CES Credits: 1

Handouts: Copy of the Power Point Presentation

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, CSI, ABX

Rainscreen Cladding Attachment Systems

The 2015 International Energy Code does not allow the use of continuous Z-furring for attaching rainscreen claddings to buildings. In response to this change, several manufacturers have developed alternate attachment systems. The presentation will review all code requirements regarding rain screen cladding attachment systems, review the systems available and list the positives and negatives of each system.

Duration: 1 hour

Credits: None. AIA will not accept it because it names the systems that are out there and they want the presentation to be generic.

Handout: Copy of the Power Point Presentation

Sponsor: EXO-TEC Manufacturing, Inc.

Previous Audiences: A, E

Avoiding Pitfalls With Spray Foam

The use of spray polyurethane foam insulation in building construction has increased dramatically over the past decade because of its superior insulating qualities, performance and ability to provide all four barrier needed to effectively separate the interior environment from the exterior environment. As expected, problems have arisen due to improper installation equipment and techniques, a lack of understanding of the properties of the material and improper detailing. We will address these issues as well as show how spray foam provides the most effective means to comply with the 2018 IECC insulation requirements.

Duration: 1 hour

AIA/CES Credits: 1

Handouts: Copy of the Power Point Presentation

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, AIA, CSI, Build Boston, ABAA Convention

Proposed Date: _____

Air Barriers 101: Basic Theory And Design

Research conducted at Oak Ridge National Laboratories in Oak Ridge, TN, the Canadian Mortgage Housing Corporations, Sweden and Germany has concluded that controlling the air flow through building enclosure systems is more important and effective than controlling vapor migration. Air flow has the ability to transport exponentially more moisture into and through the building enclosure system than occurs through vapor migration. The results of controlling air flow are reduced moisture problems such as corrosion, deterioration, and the growth of mold, mildew and fungus. Ancillary benefits are the improvement of the energy efficiency and indoor air quality of the building. The presentation begins with an explanation of air barrier systems. Studies on the benefits of air barrier systems are reviewed. Types and categories of air barrier systems are explained. The performance of above grade vertical building enclosure systems with and without air barrier systems are analyzed. Prescriptive requirements for air barrier systems are reviewed. Finally, industry resources on air barrier systems are offered.

Duration: 1 Hour
AIA / CES Credits: 1
Handouts Provided: Copy of the Power Point Presentation
Presenter: Len Anastasi
Sponsor: Air Barrier Association of America
Previous Audiences: A, E, AIA, CSI, TCA, BSA/BEC, Build Boston

Proposed Date: _____

Air Barriers 102: Design Considerations

As follow up to Air Barriers 101, this presentation focuses on design considerations for air barrier systems. Products and systems are reviewed and critiqued. Ancillary building enclosure system components are discussed. Problematic areas of the building enclosure system are brought to attention. The goal of the presentation is to point out critical considerations that should be addressed prior to commencing with the working drawings for a project.

Duration: 1 Hour
AIA / CES Credits: 1
Handouts Provided: Copy of the Power Point Presentation
Presenter: Len Anastasi
Sponsor: Air Barrier Association of America
Previous Audiences: A, AIA, CSI, Build Boston

Proposed Date: _____

Masonry Veneer Anchors And Air Barrier Systems

As follow up to Air Barriers 101 and 102, this presentation focuses on the one building envelope system component that has the potential to be the most detrimental to the air barrier system. The installation of masonry veneer anchors creates, by far, the most penetrations in the air barrier system. Leaks that can occur due to improper anchor selection, installation and sequencing have the most potential to render the air barrier system ineffective. Requirements for masonry veneer anchors used with air barrier systems are reviewed. The various anchor systems currently available on the market are exhibited and critiqued. Finally, testing and inspections methods and protocols are offered to insure an effective air barrier system.

Duration: 1 Hour
AIA / CES Credits: None. AIA will not accept it because it names the systems that are out there and they want the presentation to be generic.
Handouts Provided: Copy of the Power Point Presentation
Presenter: Len Anastasi
Sponsor: Air Barrier Association of America
Previous Audiences: A, E, CSI, BSA/BEC, Build Boston, ABAA Conference

Proposed Date: _____

Air Barriers 103: Avoiding Pitfalls With Air Barrier

With the proliferation of the use of air barriers in building enclosure systems the potential for problems exists in the industry. This workshop will review the proper planning, product selection, specifications, details and field quality assurance needed for a successful air barrier installation. The program starts with a list of steps to be taken during each phase of design and construction. Proper exterior wall design based on type of construction and proper material selection based on type of construction will then be reviewed. Details for specific wall construction type and product selection will be then be offered and reviewed. Poor detail examples will also be reviewed and discussed. Finally, quality assurance guidelines will be offered including pre-construction meetings, mock-up review and field inspection recommendations. Examples of problem installations will also be offered with explanations of the problems.

Duration: 1 Hour

AIA / CES Credits: 1

Handouts Provided: Copy of the Power Point Presentation

Presenter: Len Anastasi

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, CSI, Build Boston

Proposed Date: _____

Presenter Background:

Len Anastasi has worked in the construction industry for over 40 years in masonry, waterproofing and restoration work. He currently owns EXO-TEC Manufacturing, Inc. which manufactures specialty construction products, EXO-TEC Solutions, Inc. which performs marketing work for various quality and innovative manufacturers of construction products and EXO-TEC Consulting, Inc. which performs consulting services on building enclosure issues for building owners, managers, design professionals and lawyers. In his construction and consulting work, he has performed inspections and / or repairs on over 300 buildings as well as giving expert testimony in trials and reviews on dozens of legal cases. He is a member of ASTM's E 06 Committee on Building Performance where he has authored both proposed standards as well as proposed changes to existing standards. He is a member of the Boston Society of Architects' Building Enclosure Council where he has presented on several topics. He has also presented at the Build Boston Exposition, the Architecture Boston Exposition, the AIA National Convention, CSI National Convention, ABAA Annual Conference & Trade Show and at the National Institute for Building Sciences conferences. He has authored several articles and papers on building enclosure performance. He is a founding member, Fellow, past President and past Director of the Air Barrier Association of America (ABAA). He is the Chairman of the ABAA Conference Committee, a member of the Marketing Committee, the Technical Committee, Research Committee and chairs the Ad Hoc Committee for Technical Notes where he is currently authoring Technical Notes for the ABAA. He is also a member of the Construction Specifications Institute (CSI), current Northeast Region President of the CSI and Director for the Boston Chapter of the CSI. He is also a guest lecturer at the Boston Architectural Center.

Previous Audience Legends:

- A Architectural firms
- E Engineering firms
- AIA American Institute of Architects
- CSI Construction Specifications Institute
- ASTM American Society For Testing Materials
- TCA Trade contractor associations

Organization Name: _____

Address: _____

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