

NEW

# WHOLE BUILDING AIRTIGHTNESS TRAINING AND CERTIFICATION PROGRAM IS COMING!

ABAA is hard at work to bring the industry the first ever Whole Building Airtightness Training and Certification Program! Anticipated roll-out date for the first training course is early 2022.

**Make sure to stay in the loop with any updates!**



**➤ SIGN UP TO BE NOTIFIED**

## POSITION PAPER

### STOP WATER FROM GETTING INTO YOUR WALLS DURING CONSTRUCTION!

The condition of the substrate that the air barrier material is installed on plays a major role in the long-term success of the air barrier system. Different air barrier materials have different substrate considerations. Substrate considerations typically fall under 4 main categories:

- Moisture content
- Substrate temperature
- Cleanliness
- Surface profile

#### WHY IS THIS IMPORTANT THAT YOU PROTECT THE TOP OF WALLS?

Each year we see numerous problems and complaints in the air barrier installations across the country due to water entering the wall assemblies. This is primarily due to **no protection at the top of the concrete masonry units during the construction process.**

The resulting damage to some walls has been significant. In many cases, the air barrier is required to be removed where the air barrier materials have delaminated, blistered and lost adhesion. Often it results in the air barrier system being reapplied. The time and materials to remove and replace the system can be enormous.

**Proceeding with the installation of the air barrier system with these undesirable circumstances is significant risk.**

#### WHAT HAPPENS?

In many circumstances, a water-based fluid applied system could re-emulsify, blister and delaminate from the substrate. Self adhered systems can also completely delaminate and form blisters from loss of adhesion.

#### WHAT SHOULD YOU DO?

##### 1. Specifications

Ensure that the project specifications require that the walls be properly protected prior to the installation of the air barrier system. It is imperative that the specification be reviewed and adhered to. If it is not clearly outlined in the construction documents, it is important to have this discussion during the bidding process.

##### 2. Mandatory Pre-Construction Meetings

This should be an agenda item to review with the construction team and outline how this is to be executed, responsibilities and on-going review of the substrate.

##### 3. During Construction:

It is recommended that the air barrier contractor, general contractor or roofer seal the tops of the walls with either:

- a. Temporary measures (application of self-adhered membrane or flashing) with long UV exposure
- b. Complete the roof installation in all areas where the air barrier is going to be installed on the wall surfaces below

**FOR OUR CONCLUSION AND EXAMPLE IMAGES, PLEASE DOWNLOAD & PRINT THE FULL VERSION OF THIS PAPER.**

**➤ DOWNLOAD FULL ARTICLE**

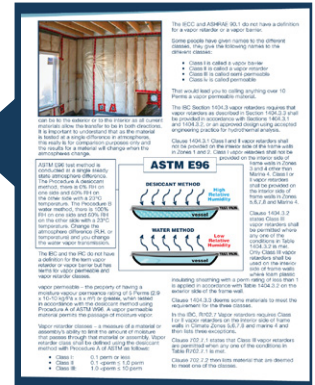
# WEATHER BARRIERS, WATER-RESISTIVE BARRIERS, AIR BARRIERS, AND VAPOR RETARDERS: ARE THEY NOT ALL THE SAME?

BY LAVERNE DALGLEISH

## PART 2: “CODE REQUIREMENTS FOR CONTROL LAYERS”

The building codes have requirements for the control layers and sets performance levels. It is up to the design professional or the builder to show that they have chosen a set of materials that can provide the control layer and that these materials meet the performance requirement set forth in the code. Many control layers require more than

a single material. The control layer will be placed where it needs to provide the control which may be the whole building or part of it. This Part focuses on the requirements included in the International Building Code, the International Residential Code and ASHRAE 90.1.



➤ **Read More:** <https://bit.ly/3ki272y>

## GREETINGS FROM THE CHAIR | BRIAN STROIK

Welcome and thank you for taking the time to read our ABAA quarterly newsletter.

I am continually amazed at everything the volunteers at ABAA are accomplishing. In 2021 we have seen the only Whole Building Airtightness Certification Program come to life. The educational trainings sessions for the program are being planned to start in Q4 of 2021 and the Whole Building Airtightness Certification is anticipated to go live in Q1 of 2022.

Our Certified Air Barrier Specialist (CABS – <https://www.airbarrier.org/cabs/>) program continues to gain recognition by industry and our association peers, as it has recently been recognized by IIBEC as an option for their points-based application requirement for their CBECxP Program.

Finally, and perhaps most importantly, our industry leading Quality Assurance Program (QAP – <https://www.airbarrier.org/qap/>) continues to gain recognition by specifiers, architects, and construction managers as the affordable risk avoidance program to assist in ensuring proper air barrier installations are happening out on your projects.

The ABAA is also continuing to be sought out for our high level professional educational courses. Our Learning Unit Café (<https://www.airbarrier.org/abaa-learning-unit-cafe/>) has more requests coming in every week and is providing education for both small and large groups alike. While our weekly webinars (<https://www.airbarrier.org/events/category/webinars/>) continue to bring in the top presenters in the nation regarding building enclosures.

This summer the ABAA has also seen efforts by other industries to partner with us. The International Masonry Institute (IMI) has reached out to ABAA to re-engage in educational training sessions at their facilities focusing on their upcoming apprentices. Along with EIMA having recently inquired about providing joint presentations around the country.

As Chair, I am impressed with the efforts from our Education and Training Committee. They are currently working on presentations and informational programs aimed at strengthening the skills of Construction Managers. Like Contractor Members, soon Construction Managers will see dedicated presentations specifically created to assist in their role of ensuring air barriers are installed properly.

As always, I cannot thank our volunteers enough, especially our dedicated Chairs, for the time they are spending to move the building enclosure industry forward – thank you, you are making a difference in our industry!

Stay safe,

**Brian Stroik**

Chair: Air Barrier Association of America  
American Contractors Insurance Group  
Performance Excellence & Quality Consultant

## ABAA QAP CALCULATOR



Take advantage of our online tool, the QAP Calculator, to help you better understand the REAL cost associated with the ABAA Quality Assurance Program – learn why it's only a fraction of the construction cost. The ABAA QAP was carefully designed to limit the repair expenses associated with an air barrier that has already been buried in construction.

Save time, save money, and build a sustainable building in the process.

## EXTERNAL MEMBER ARTICLE: THE AIR BARRIER PRE-INSTALLATION MEETING

BY COREY ZUSSMAN OF  
PEPPER CONSTRUCTION

The air barrier installing contractor has sent in their submittal package for review, the building envelope coordination meeting has been held, and installation will begin in a few short weeks. Now, it is time for the air barrier pre-installation meeting where the installation of the specified product is discussed with all contractors associated. It provides the broader team an opportunity for open discussion regarding the air barrier and its complexities to ensure a successful installation.

➤ **Read More:** <https://bit.ly/3hAtLWV>



### The Air Barrier Pre-installation Meeting

By Corey Zussman  
Pepper Construction

**THE AIR BARRIER INSTALLING CONTRACTOR HAS SENT IN THEIR SUBMITTAL PACKAGE FOR REVIEW, THE BUILDING ENVELOPE COORDINATION MEETING HAS BEEN HELD, AND INSTALLATION WILL BEGIN IN A FEW SHORT WEEKS. NOW, IT IS TIME FOR THE AIR BARRIER PRE-INSTALLATION MEETING WHERE THE INSTALLATION OF THE SPECIFIED PRODUCT IS DISCUSSED WITH ALL CONTRACTORS ASSOCIATED. IT PROVIDES THE BROADCASTER TEAM AN OPPORTUNITY FOR OPEN DISCUSSION REGARDING THE AIR BARRIER AND ITS COMPLEXITIES TO ENSURE A SUCCESSFUL INSTALLATION.**

The air barrier is one of the most significant items on any building exterior. The installation and process should reflect the importance of the system and its intricate installation and integration of non-air barrier system components, such as waterproofing, structural elements, windows, and roofing systems. The air barrier pre-installation meeting should be designed to:

- review and confirm job-specific product data, shop drawings, and the job-specific quality plan (IQCP);
- review building envelope meeting minutes and contract document details and specifications;
- review and confirm product warranty, testing requirements, and protocols.

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[www.constructioninspector.com](https://www.constructioninspector.com)

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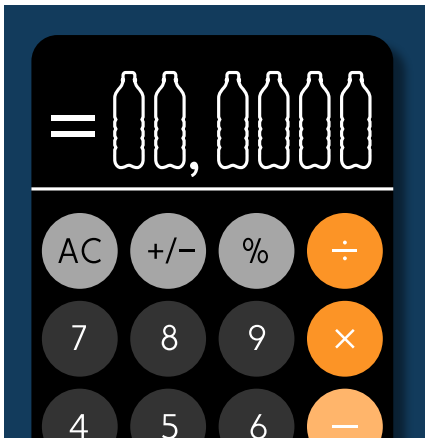
## HAVE AN INDUSTRY RELATED ARTICLE YOU WOULD LIKE TO SEE FEATURED IN OUR NEWSLETTER?

Submit it to us for review and you could see your work published in the next newsletter! Also, we would love to hear your feedback on our newsletters and any content you want to see more or less of?

Email it to us at: [abaa@airbarrier.org](mailto:abaa@airbarrier.org)

# THE BAIT AND SWITCH OF AIR LEAKAGE CONTROL IN BUILDINGS

BY RYAN DALGLEISH, CHIEF OPERATING OFFICER, ABAA



Due to our harsh winter climates, builders in Northern Climates have a special appreciation of insulation, air barriers, high performance windows and other tools to ensure an effective building envelope. We usually do not have a say in it, as

mother nature reminds us each winter that living in this climate can be a bit harsh. It's a dry cold right?

It has been said many times that people build energy efficient buildings, not for the money saved each year, but the other benefits of a draft free environment, the reduction in the risk of mold, being able to live comfortably and not be freezing when you get down to very cold temperatures. Saving some money each month ends up just being the icing on the cake. Local electricity prices can be pretty low and so can natural gas, so it has been hard to transform building owners to move to more efficient buildings – there is just not the driving force, other than the building code.

During these cold snaps, condensation issues can arise due to the holes that we were provided, free of charge, by the subtrade working on the envelope. These unintended holes have the ability to transport a significant amount of moisture through the wall assembly via the mechanism of air leakage. The question has become, how much?

I can tell you that owners care about moisture issues more than anything else. This tends to be one of the largest insurance claims in the building industry – water ingress, mold, mildew and rot.

So, can we make a case to building owners to save money on energy, provide a more comfortable indoor environment and be more sustainable by scaring them that they if don't, they can have moisture problems?

## WELL, HELP HAS ARRIVED!

A research program funded by the U.S. Department of Energy (US DOE) and Air Barrier Association of America (ABAA) was conducted by Oak Ridge National Laboratories (ORNL) and the National Institute of Science and Technology (NIST). Together, they developed a free tool to assess the impact that a reduction in how leaky a building is will have on moisture movement through the building envelope.

This tool will help quantify both energy savings and moisture transport for a variety of locations across both the U.S. and Canada.

The tool allows for a variety of architectural types and is a very straight forward online calculator to use. With just a few user inputs, you can create a report to help make a case for a more airtight building to save money, energy, carbon output and deal with water. It can be used for both new construction and retrofit construction. Most older building stock is quite “leaky” and would benefit the most from undertaking strategic air sealing. So, let's take a look at a scenario for a cold climate and what this could mean:

**Building Type:** Secondary School  
**Size / floor:** One-story with a fairly large square footage footprint of around 210,900 sq.ft  
**Typical Base Case of Air Leakage:**  
1.07 cfm/ft<sup>2</sup> @ 1.57 psf  
**Better than Energy Code Air Leakage Target:**  
0.25 cfm/ft<sup>2</sup> @ 1.57 psf  
**Energy Savings (electricity and gas):**  
\$31,000 per year  
**Reduction in Moisture Transfer Due to Air Leakage:**  
2.38 gal/ft<sup>2</sup>/year (converts to 9 litres)

That is a hole lotta moisture! (see my pun?)

Doing simulations in other cities will show that the energy savings in real dollars will change, depending on the harshness of the climate, but the reduction in moisture transport is pretty close in the majority of cases.



## SO, THE MORAL OF THE STORY IS:

If you want to convince an owner to design a more energy efficient building, bring about 5 bottles of pop with you to the meeting and say “imagine pouring this soda into every square foot of building envelope area each year”.

I will bet you they will ask for an energy efficient building.

The old bait and switch and they will not even realize it.

**TO TRY OUT THIS FREE ONLINE CALCULATOR, GO TO:**

 <https://bit.ly/3ActoZK>



# WHAT HAS ABAA BEEN DOING FOR OUR INDUSTRY?



**AIR BARRIER  
EDUCATION  
FOR THE  
CONSTRUCTION  
INDUSTRY**

JANUARY THRU  
SEPTEMBER

ATTENDEES  
**5900+**

CONTINUING EDUCATION UNITS  
**5900**

EVENTS  
**80**

## SOME OF THIS PAST QUARTER'S FREE ABAA WEBINARS

- Mock-Ups: The Crash Test Dummy for Building Enclosures
- Air Barrier Shop Drawing Review
- Resolutions to the Most Common Building Science Challenges
- Managing Project Specific Details
- Understanding Difficult Critical Transitions
- Interfacing of Glazing Assemblies
- Multizonal Infiltration Modeling of an Existing Building
- ABAA T0002 Pull Adhesion Test Method
- Through Wall Flashings
- Preconstruction Meetings & Construction Quality
- The Big Disconnect: Roof to Wall Connections
- Waterproofing as the Air Barrier
- BNP Media Webinar; The Real Imperfect Air Barrier Details
- Air Barrier Continuity and Constructability Challenges
- Moisture Durability in Low Slope Roofing
- Five Key Considerations for an Effective Commissioning Process
- Continuity of Control Layers in Building Systems
- It's Not Raining—Where is the Water Coming From? Moisture Movement in Building Enclosures



**Nourishment  
for the Mind**

# MENU

**ORDER ONLINE NOW!**

**MAIN COURSE** 1.0 LU/HSW/GBCI

**Oh Not What Did I Miss? How to Properly Specify an Air Barrier**  
By Roy Schuchman, FCSI, CCRP, ABAA, CABE

**The Big Disconnect: The Importance of Wall to Roof Connections for Your Air Barrier**  
By Roy Schuchman, FCSI, CCRP, ABAA, CABE

**Please Proceed with Confidence: Ensure Your Building Enclosure is Sustainable and Performs**  
By Brian Smith, American Contractors Insurance Group, Performance Excellence & Quality Council, Chair of the ABAA, Past Chair - BEC National

**Trust, but Verify - Quality Control for your Air Barriers**  
By Lorenne Duganish, ABAA Executive Director

**New Tools to Help Drive Decisions in your Air Barrier Specifications**  
By Lorenne Duganish, CCI, CCI

**Air Barrier Material Testing - Why Peanut Butter is Good for a Sandwich, but NOT for your Air Barrier**  
By Lorenne Duganish, ABAA Executive Director

**Live Presentations can be scheduled 8am-8pm EST**

**DESSERT**

**On-Demand Presentations 24/7**

**Certified Air Barrier Specialist (CABS) LAUNCH WEBINAR**  
By Roy Schuchman, FCSI, CCRP, ABAA, CABE  
(see learning units)

**TAKE-OUT** 1.0 LU/HSW/IBEC

**On-demand presentations available to stream 24/7**

**Specifying Air Barriers to Achieve Airtightness**  
By Lorenne Duganish, ABAA Executive Director

**Game Plan to Getting Air Barriers Right**  
By Brian Smith, American Contractors Insurance Group, Performance Excellence & Quality Council, Chair of the ABAA, Past Chair - BEC National

**"By Others" - The Elusive Subcontractor Responsible for Transitions + GBCI**  
By Andrew Dattop, AIA, CDT, LEED AP, NCARB, Principal, SmithGroup, Inc.

[WWW.AIRBARRIER.ORG](http://WWW.AIRBARRIER.ORG)

## HUNGRY FOR MORE EDUCATION?

Sample our Learning Unit Café, an online menu of our most requested air barrier courses that any architectural firm, BEC, CSI, or AIA chapter can schedule at their convenience.

The menu consists of both Live and On-Demand presentations and all are 1 LU/HSW, and many are GBCI.

For more information, please visit our website:

<https://www.airbarrier.org/abaa-learning-unit-cafe/>

## 2021 UPCOMING INSTALLER TRAINING

### SPRAYED POLYURETHANE FOAM INSTALLER TRAINING

Dec 7-9, 2021      Virtual  
May 10-12, 2022      Reston, VA

### FIELD AUDITOR TRAINING

Oct 26-28, 2021      Virtual  
May 10-12, 2022      Reston, VA

### SELF-ADHERED & FLUID APPLIED TRAINING

Oct 5-7, 2021      Virtual  
Nov 16-18, 2021      Virtual  
May 10-12, 2022      Reston, VA



**REGISTER!**

**REGISTER YOUR TEAM & GET CERTIFIED!**

➤ [www.airbarrier.org/education/installer-courses/](http://www.airbarrier.org/education/installer-courses/)

## 2021 UPCOMING WEBINARS

Sept 23 – The Elusive Subcontractor Responsible for Transitions  
Sept 30 – What Makes Rainscreen Walls Work?  
Oct 07 – Why Willis Carrier Forever Changed Buildings  
Oct 07 – The Integrated Building Envelope: Design and Installation of Sheet Applied Air Barriers  
Oct 14 – Alchemy of Architecture  
Oct 15 – The Big Disconnect – Roof to Wall Connections  
Oct 21 – Introduction to Existing Building Retrofits  
Nov 03 – The Elusive Subcontractor Responsible for Transitions  
Nov 08 & 09 – The Big Disconnect: Roof to Wall Connections  
Dec 14 – ABAA Update  
Dec 16 – Architectural Koyaanisqatsi: 10-yr, 100-yr, 1000-yr buildings

**REGISTER!**

**FOR DETAILS ON UPCOMING FREE WEBINARS, VISIT THE ABAA WEBSITE!**

➤ [www.airbarrier.org/events/category/webinars/](http://www.airbarrier.org/events/category/webinars/)

## ON-DEMAND WEBINARS AVAILABLE NOW

Specifying Air Barriers To Achieve Air Tightness - <https://bit.ly/3kbpyp>  
Trust, But Verify – Quality Control For Your Air Barrier - <https://bit.ly/3kcae0i>  
The Importance Of Wall To Roof Connections For The Air Barrier - <https://bit.ly/3lnziyl>  
Game Plan To Getting Air Barriers Right - <https://bit.ly/3loz5zq>  
The Elusive Sub-Contractor Responsible For Transitions - <https://bit.ly/2xdrost>  
New Tools, Research & Site Quality In The Air Barrier Industry - <https://bit.ly/3nha6yw>  
Navigating The Real, Imperfect Air Barrier Details - <https://bit.ly/2xnejw8>

## UPCOMING SYMPOSIUMS AND PRESENTATIONS

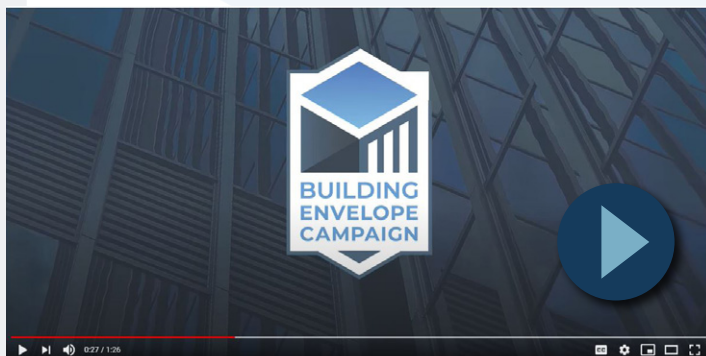
| DATE    | ORGANIZATIONS                            | LOCATION        |
|---------|--|-----------------|
| Sept 21 | CSI Memphis Air Barrier Rodeo            | Memphis, TN     |
| Sept 22 | Wagdy Anis Symposium on Building Science | Virtual         |
| Sept 24 | CSI National Conference                  | Nashville, TN   |
| Oct 19  | BEC Detroit                              | Detroit, MI     |
| Nov 01  | SCIP                                     | Dallas, TX      |
| Jan 01  | BEC Minnesota                            | Minneapolis, MN |
| Jan 22  | CSI Great Lakes Regional Conference      | Cincinnati, OH  |
| May 10  | ABAA Building Enclosure Conference       | Reston, VA      |

## U.S. DEPARTMENT OF ENERGY (DOE) BUILDING ENVELOPE CAMPAIGN

The Air Barrier Association of America (ABAA) has joined with other industry leaders—the AIA, IIBEC, and the IFMA—as an organizing partner of the U.S. Department of Energy (DOE) Building Envelope Campaign.

ABAA members are encouraged to participate in the Building Envelope Campaign. The BEC provides a new building envelope assessment tool for determining your building's BEP-value and identifying areas for potential envelope improvement.

For the introduction to the campaign, click below:



➤ **LINK TO THIS PROGRAM BELOW:**  
<https://ec.ornl.gov/>

### The goals of the Building Envelope Campaign are to better the industry by:

- Motivate action and increase awareness of the value of investing in high-performance building enclosure technologies for both new and existing commercial buildings,
- Recognize leaders adopting and achieving high performing building enclosure systems, and
- Demonstrate and document energy and cost savings with integrated design, construction, commissioning, and maintenance from the implementation of high performing enclosure systems.

### The benefits of joining the Building Envelope Campaign include:

- Achieve energy savings through an improved building envelope
- Get technical assistance from Oak Ridge National Laboratory
- Gain recognition for your organization's participation
- Win a national award from the U.S. Department of Energy

**“IIBEC is happy to recognize the CABS (Certified Air Barrier Specialist) certification as one of the options for their points-based application requirements for the IIBEC Certified Building Enclosure Commissioning Provider (CBECxP®) program.”**



### WHO SHOULD BECOME CABS CERTIFIED?

Anyone who advises architects, owners, installers, inspectors/auditors, and other building stakeholders in the use, design, and installation of air barriers. Typically these individuals would be:

- Building Envelope Consultants
- Manufacturer Representatives
- Technical Field Representatives
- Architects
- Sales Professionals
- Technical Directors



## FEATURE QAP PROJECT

**ARCHITECT:** HED Associates

**GENERAL CONTRACTOR:** Barton Malow

**LOCATION:** 1109 Geddes Ave, Ann Arbor, MI

**TYPE:** University Addition & Renovation

**VALUE:** \$150,000,000

**BUILDING AREA (sq. ft.):** 100,000

**TOTAL AIR BARRIER AREA (sq. ft.):** 36,700

**ACCREDITED CONTRACTOR:** Industrial Services Inc.

**ACCREDITED INSTALLERS:** Cody Wilson, Jake Jarvis,  
TJ Martolock, Rick Morais

This historic renovation project included AVB of masonry back up walls that transitioned to numerous dissimilar materials at or below various exterior facade types including terracotta, stone, metal panels, glazing systems, and roofing. Coordination, communication, and precise execution were key to the project's success for IS1, and affected sub trades. > **MORE**



**ABAA is always looking for ways to promote the QAP with projects such as these. If you have a QAP project to showcase, email Louise at:**

[lhardman@airbarrier.org](mailto:lhardman@airbarrier.org)

**Projects will be reviewed and upon acceptance, will be showcased on our weekly email and social media outlets.**

air barrier  
**abaa**  
association of  
america  
**BUILDING  
ENCLOSURE  
CONFERENCE**

**AIR BARRIER EDUCATION  
AT THE HIGHEST TECHNICAL LEVEL**

**RESCHEDULED**

**RESTON  
VIRGINIA | MAY 10-11  
2022**

**MORE INFO:** [abaaconference.com](http://abaaconference.com)

**LOCATION:** THE HYATT REGENCY RESTON

