

# Improving Energy Performance in the Building Envelope

**For Architects, Engineers,  
Specifiers, Contractors,  
Building Owners and  
Managers, and Building Code  
Officials**

**Earn 5 AIA Approved HSW  
Learning Units for Architects**

**AIA Learning Units Qualify for PDH's for  
Professional Engineers in New York State, and  
May Qualify for PDH's in Other States  
Depending on State Licensing Board  
Requirements**



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# AIA North Carolina

Presents

## Improving Energy Performance in the Building Envelope

*A Day of Continuing Education*

**Delivering Energy Efficient Air and Vapor Barrier Systems  
Achieving Energy Efficient Roofing with Building Integrated  
Photovoltaics, Green Roofs, and Energy Star Design  
Insulated Cladding Solutions for High Performance Buildings  
Elements of Commissioning and Testing for High Performance  
Building Enclosures**

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Engineers in New York State, and May Qualify for PDH's in  
Other States Depending on State Licensing Board  
Requirements*

**Tuesday, April 27, 2010**

**Trane Asheville  
1400 Sweeten Creek Road  
Asheville, NC 28803**



**Tuesday, May 4, 2010**

**Clarion Greensboro Airport  
415 Swing Road  
Greensboro, NC 27409**



**Wednesday, May 5, 2010**

**Clarion Hotel State Capitol  
320 Hillsborough Street  
Raleigh, NC 27603**

# Improving Energy Performance in the Building Envelope

April 27, 2010 – Asheville  
 May 4, 2010 – Greensboro  
 May 5, 2010 – Raleigh

**7:30 a.m. Registration**

**8:00 a.m. Opening Remarks**

**8:15 a.m. Delivering Energy Efficient Air and Vapor Barrier Systems by Tremco Global Sealants Group**  
 Economic and Environmental Benefits of Air Barrier Systems  
     Impact of Energy Efficiency  
 Functions of an Air Barrier System  
     Control Functions of a Wall  
     Why Managing Air Flow is Critical to Sustainable Design  
 System Components  
     Permeable and Impermeable Systems  
     Contrast Sheet and Fluid Applied Systems  
 Common Design and Construction Issues  
     Specifications  
     Design  
     Sequence of Installation  
     Verification  
 Integrating Windows and Curtain-Walls into an Air Barrier System

**9:30 a.m. Achieving Energy Efficient Roofing with Building Integrated Photovoltaics, Green Roofs, and Energy Star Design by Tremco Roofing Division**  
 Building Integrated Photovoltaics (Solar)  
 Green (Vegetative) Roofs  
 Energy Star/Cool Roofs  
 Environmental Concerns  
     Urban Heat Island & Pollution  
     Energy Infrastructure  
     Carbon Impacts  
     Interior comfort  
     Sustainability Impacts  
 Economic Benefits  
     Energy Reduction  
     Storm Water Issues  
     Renewable Energy/RECS  
     Cap and Trade  
     Waste Stream/Roof Life Cycle  
     Impacting building value  
 Major components and functions  
     Energy & Sustainable Focused  
     Roofing Solutions  
 Design Considerations  
     Cost(s), Maintenance, Life Cycle,  
     Legislation Impacts

**10:45 a.m. Break**  
 Meet speakers

**11:00 a.m. Insulated Cladding Solutions for High Performance Buildings by Dryvit Systems, Inc.**  
 High Performance Building Envelopes  
     What does it mean?  
 The Energy Challenge  
     Governmental Policy  
     Building Influences  
 Building Envelope Performance Solutions  
     Managing Air Leakage  
         Air / Weather / Vapor Barriers  
         Testing Compliance  
     Improving Insulation Value  
         Addressing Thermal Bridging  
         Placement / Thickness  
         Energy Code and Climate  
     Moisture Protection  
         Insulated Claddings  
         Systems and Finishes  
 Retrofit / Restoration Construction Options  
     EIFS as a Retrofit Cladding  
     Existing EIFS Restoration  
 New Wall Assembly Research / Data  
     ORNL Net Facility Study  
 Leadership in Energy and Environmental Design  
     Envelope Performance and LEED  
     Building Cost Factors  
     Environmental Impact  
     Life Cycle Analysis

**12:15 p.m. Lunch**

**12:45 p.m. Elements of Commissioning and Testing for High Performance Building Enclosures by CanAm Building Envelope Specialists**  
 Commissioning  
     Architects  
     Contractors  
     Commissioning Agent  
 Roof / Wall Intersections  
 Empirical Observations  
     Stack Effect  
     Mechanical Venting  
     Wind Effect  
 Inspections  
     Roof Inspector  
     Air Barrier Inspector  
     Window Inspector  
     Wall & Ceiling Inspector  
     Sealant/Waterproofing Inspector  
 Testing  
     Blower Door Testing  
     Thermography  
     Full Building Testing

**2:00 p.m. Close**

## Registration (Continental Breakfast and Lunch Included)

### Please Check Workshop You Will Be Attending

- Asheville, NC Workshop – April 27, 2010
- Greensboro, NC Workshop – May 4, 2010
- Raleigh, NC Workshop – May 5, 2010

**AIA Members:**  
 By: April 20, 2008                      \$85.00                      \$ \_\_\_\_\_  
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**Non-Members:**  
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