

# Troubleshooting the Building Envelope:

Problem Solving and Problem Prevention

**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 May Qualify for PDH's  
for Engineers Depending on State Licensing  
Board Requirements**



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# AIA Birmingham

Presents

## Troubleshooting the Building Envelope:

Problem Solving and Problem Prevention

*A Day of Continuing Education*

**Troubleshooting Sealant Applications in Wall Systems  
Troubleshooting Cracks in Concrete  
Troubleshooting Masonry Construction  
Troubleshooting EIFS Cladding**

*Earn 5 AIA Approved HSW  
Learning Units for Architects*

*AIA Learning Units  
May Qualify for PDH's for Engineers  
Depending on State Licensing Board  
Requirements*

### **Date and Location**

**Tuesday, September 11, 2007  
8:30 AM to 3:15 PM**

**Flower Stem  
213 Richard Arrington Jr. Blvd. S.  
Birmingham, AL  
205/870-8809**

# Troubleshooting the Building Envelope: Problem Solving and Problem Prevention

September 11, 2007 – Birmingham

- 8:30 a.m. Registration**
- 9:00 a.m. Opening Remarks**
- 9:15 a.m. Troubleshooting Cracks in Concrete: Identification and Resolution by Dayton Superior**
  - Does concrete crack?
    - How? Why? Where?
  - Basics
    - Causes
      - Concrete Mix Design, Environmental Conditions, Stress, Movement, Load, Corrosion, Chemical
    - Types
      - Movement, Load, Deterioration, Locations Horizontal, Vertical
    - Testing to Confirm Diagnosis
      - Litmus Tests, Field Tests
    - Repair Strategy
      - Sealing
        - Methyl methacrylate, Urethane, Polyurea
      - Structural Repair
        - Products
          - Epoxy
        - Methods
          - Gravity, Paste, Injection
- 10:30 a.m. Break**
  - Meet speakers
- 10:45 a.m. Troubleshooting Sealant Applications in Wall Systems by May National**
  - Analyzing sealant contribution to prevention of air and water infiltration
    - Failure analysis
    - Test Methods
      - Evaluating
      - Specifying
      - Field and shop quality control
  - Understanding rain screens and pressure equalization
    - Proper sealant design detailing
    - Coordination of building trades
  - Using adhesives/sealants in wall and window systems
    - Energy considerations
    - Wall performance requirements
    - Preventing catastrophic failures in high wind load and seismic regions
  - Problem prevention in new construction
  - Problems in renovation repair

12:00 p.m.

Lunch

12:45 p.m.

- Troubleshooting EIFS Cladding by Dryvit Systems, Inc.**
  - Exterior Insulation and Finish Systems (EIFS)
    - Barrier Type vs. Drainage Type
  - EIFS Architectural Features
    - Insulation (R) Value
    - Flexible, Monolithic, Lightweight, Durable
  - EIFS Cost Effectiveness
    - Energy Savings, Reduced Structural Demands
    - Competitive Cladding Choice
  - EIFS Curb Appeal
    - Design Freedom
    - Surface, Texture and Color Variety
  - EIFS Clad Envelope Renewal – Problem Solving
    - Inspection / Observation, Cleaning
    - Sealant Replacement, Damage Repair
    - Architectural Coatings
    - Over-Cladding - Specialty Finish Options
  - EIFS Cladding – Problem Prevention
    - It is all in the details
  - EIFS Clad Critical Design Guidelines / Detailing
  - EIFS Proper Installation Practices

2:00 p.m.

- Troubleshooting Masonry Construction by PROSOCO Incorporated**
  - Why building owners like masonry
    - Appearance and Performance
  - Types of masonry trouble
    - Appearance-related
    - Performance-related
  - Stopping trouble before it starts
    - New construction clean-down
    - Water repellents
    - Air barriers
    - Maintenance cleaning
  - Dealing with trouble if it happens
    - Fixing damage from improper cleaning
    - Graffiti removal
    - Fixing water-related problems
  - Reversing decades of trouble
    - Restoration cleaning, Consolidation, Protection from acid rain
  - Why masonry is worth the trouble
    - Appearance and Performance

3:15 p.m.

Close

## Registration

(Continental Breakfast and Lunch Included)  
September 11, 2007

**AIA Members:** \$ 75.00 \$ \_\_\_\_\_

**AIA Associate Members:** \$ 50.00 \$ \_\_\_\_\_

**Non-Members:** \$100.00 \$ \_\_\_\_\_

**Name(s):** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**E-mail:** \_\_\_\_\_

(Please Print)

**Profession:** \_\_\_\_\_

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**Cancellation Policy:** 100% refund for cancellation made 14 days or more before event. 50% refund for cancellation made less than 14 days before event. No refund for cancellation made 7 days or less before the event.