



# AIA & IIBEC ACCREDITED PRESENTATIONS

FOR MORE INFORMATION, PLEASE CONTACT:

ARCHITECT:

MAMMOUTH EDUCATION & TRAINING PROGRAM

### THE BUILDING ENVELOPE: EVALUATING WEATHER-RESISTIVE BARRIERS

AIA Course: AIA0123002

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



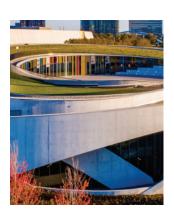
#### Learning Objectives

- Understand why and how weather-resistive barriers (WRBs) play a critical role in building health and longevity
- Learn about the building code requirements applicable to WRBs and how they work together
- Review WRB technology considerations
- Understand the fundamentals of WRBs and construction, including installation considerations

# SUSTAINABILITY AND THE CONTRIBUTIONS OF COMMERCIAL ROOFING

AIA Course: AIA0722001

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Review common terminology and how embodied carbon is measured and the associated changing dynamics with building designs
- Explain the role of sustainability in sourcing: what to look for in terms of roofing products and manufacturing practices
- Review sustainability methods to common industry certifications, such as LEED®
- Review commercial roofing options to maximize product attributes



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### LOW SLOPE ROOFING WIND DESIGN

AIA Course: AIA1023004

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



#### Learning Objectives

- Review code history related to wind design for low-slope roofing
- Review codes required for low-slope roofing wind design
- Review ASCE 7-10 and ASCE 7-16 to determine wind design pressures for lowslope roofing
- Review Wind Pressure Calculators

### GREEN ROOFS: INTEGRATING BLUE AND GRAY INTO GREEN

AIA Course: AIA1021002

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- The components which make up these systems, the range of options for each component type, and their benefits and drawbacks
- Strategies for integrating planting beds with adjacent hardscapes to maximize water detention and retention in green roofs
- Several types of green roof systems, as well as advantages and disadvantages of these systems with regard to site conditions and project goals
- Structural, drainage, and waterproofing considerations at transitions between planted and paved areas



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### SBS ROOFING TECHNOLOGY & DESIGN

AIA Course: AIA1022001

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



#### Learning Objectives

- Review the history and development of SBS-modified bitumen roofing systems
- Understand modified bitumen sheet anatomy and how it relates to performance
- Review the methodology of roof system applications
- Discuss modified bitumen membrane surfacing

### **VEGETATED ROOFING SYSTEMS**

AIA Course: AIA1022002

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Discuss the benefits of vegetative roof systems, including the comprehensive environmental and health and welfare benefits
- Discuss the various considerations inherent in vegetative roof systems, including safety concerns in regard to maintenance of roof system
- Review the history of vegetative systems
- Review the various components of a vegetative roof system, including the many different types of plantings available and their subsequent impact on the health and welfare of building occupants



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### BELOW GRADE WATERPROOFING SYSTEMS & DESIGN

AIA Course: AIA1022003

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



#### Learning Objectives

- History of Below Grade Waterproofing and a review of associated products
- Exploration of possible failure modes and the serious impact they can have on the building and occupant safety
- Spotlight on the importance of Below Grade Waterproofing to maintain energy efficiency and occupant health
- Review the differences between positive side and negative side waterproofing and their effects on the long-term performance of the structure as it pertains to the welfare of the occupants

### SINGLE PLY ROOF SYSTEMS

AIA Course: AIA1022004

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Understand the application and seaming techniques based specific chemistries and the potential impacts on building occupants
- Review the anatomy of single ply membrane and its lifecycle impacts
- Review the single ply roofing market and its history
- Discuss thermoplastic membranes similarities and differences including fire performance



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# PMMA/PMA LIQUID APPLIED ROOFING & WATERPROOFING MEMBRANES

AIA Course: AIA1022005

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



### Learning Objectives

- Differences in application techniques for different liquid applied membranes and their effects on performance and safety
- Highlight the advantages of polymeric liquid applied roofing and waterproofing membranes
- Discuss history and composition of polymeric liquid applied membranes, specifically PMMA and PMA and their service life
- Compare polymeric liquid applied membranes to traditional membrane roofing and waterproofing systems and highlight recover and reroof options to eliminate tear-off, allowing for less use of landfills

# WALL SYSTEMS & DESIGN: UNDERSTANDING THE CRITICAL ELEMENTS OF AIR & VAPOR BARRIERS

AIA Course: AIA1022006

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Explore the science of wall systems, including the potential impact on energy savings and the beneficial health effects of controlling moisture migration into living environments
- Determine the proper wall system to use for a given climate in order to limit air and moisture movement and ensure the comfort and safety of building occupants
- Define wall system terms, specifically the difference an air barrier and a vapor barrier
- Explore the detrimental impact of moisture infiltration into building materials and the safety concerns inherent in unsafe structures



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### PRE-APPLIED/BLINDSIDE WATERPROOFING BEST PRACTICES

AIA Course: AIA1023001

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



#### Learning Objectives

- Understand the science behind pre-applied/blindside waterproofing and why proper waterproofing is critical during below grade installations
- Understand the importance of planning throughout the pre-applied specifying process
- Learn about the design and decision-making process for selecting the best preapplied product for the situation, including the pros/cons of the different product technologies available
- Review best practices for sequencing/installing blindside waterproofing

# MAXIMIZING THE LIFE AND QUALITY OF YOUR ROOFS: WHEN TO SPECIFY COATINGS

AIA Course: AIA1023003

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Define when and how roof coatings should be used under various situations: new construction, repair and renovation situations
- Explain the different types of roof coatings and chemistries available, including acrylic, silicone, urethane and PMMA â€" and the benefits of using each
- Review the benefits of reflective roofs, including how they contribute to higher energy efficiencies for building owners and reduce urban heat islands
- Explain the most common errors that are made when specifying roof coatings and how to overcome them

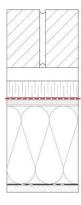


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# THE IMPACT OF PERMEANCE ON CONDENSATION IN EXTERIOR WALL ASSEMBLIES

AIA Course: AIA421001

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



#### Learning Objectives

- Understand how vapor permeance is measured using standard test method ASTM E96 and why results obtained from procedure A may not be compared to results obtained from procedure B
- A highly permeable water-resistive barrier / air barrier is not as effective in a wall assembly if the vapor diffusion is restricted by other materials of the assembly
- For wall assemblies insulated in the stud space only, using water-resistive barriers
  / air barriers with vapor permeances lower than 5 Perm or higher than 20 Perm
  increase the risk of condensation and mold growth
- For split-insulated wall assemblies, the vapor permeance of the water-resistive barrier / air barrier has little or no impact on the hygrothermal performance of the assembly

### UNLOCKING THE PUZZLE OF BUILDING ENVELOPE CONTINUITY

AIA Course: AIA421002

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Put the science behind positive side waterproofing to use in effective planning
- Reinforce available technologies for above and below grade applications of waterproofing as well as performance-based wall systems
- Understand the science behind performance-based wall systems
- Provide continuity between wall and waterproofing systems through proper product selection and detailing



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# SEALANT TECHNOLOGY BASICS: USAGE THROUGHOUT YOUR BUILDING ENVELOPE

AIA Course: AIACL121002

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



#### Learning Objectives

- Understand the differences between caulks and sealants
- Understand different types of sealants
- Understand the benefits of Polyether vs. other sealant and adhesive technologies
- Compare important performance properties for sealants

### THE IMPORTANCE OF SEALANTS IN BUILDING DESIGN

AIA Course: AIACL820001

Credits: 1.0 AIA LU/HSW; 1.0 IIBEC CEH



- Understand how sealants can aid in making fenestrations and joints watertight
- Understand how sealants can aid in making a building more energy efficient
- Understand the benefits of different types of sealant technologies in different design and build applications
- Understand the lingo associated with sealant usage and how knowing the lingo can aid in decision making



