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As of January 1st, 2022



Waterproofing 101

Course Number - SWT101

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation will illustrate industry best practices related to performing quality control activities associated with multi-family construction. It will also identify common, high fail conditions related to multi-family construction. And finally, it will provide standard details that will assist in the construction of common multi-family conditions.

Pre-Requisite Knowledge: Industry knowledge and basic construction knowledge. Ability to understand architectural plans.

Learning Objectives:

- ⇒ Identify common building enclosure issues that occur in multi-family construction
- ⇒ Explain typical building enclosure QC processes that are employed to prevent a compromised building enclosure.
- ⇒ Demonstrate the ability to recognize the proper installation masonry and stucco claddings.
- ⇒ Discuss typical building enclosure testing methods.

TOPICS

- Category: Project Management
- Subcategory: Project Quality Control
- Keywords: water, proofing, quality control, building enclosure, masonry, stucco.



Role of the Consultant

Course Number - C101

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a summary of Best practices for performing Building Enclosure Consulting services for a variety of building types (Healthcare, Multi-Family, Commercial, Institutional...etc.). The presentation will also identify common problem-resolutions associated with new construction, existing properties and is intended to assist contractors, developers, designers and property owner/managers.

Pre-Requisite Knowledge: Basic understanding of architectural plans, the overall construction processes and general maintenance of existing properties.

Learning Objectives:

- ⇒ Identify standard definitions related to the Building Enclosure and Property Maintenance.
- ⇒ Explain typical Building Enclosure Services, Best Practices and How to Interrogate the Consultant's Services in your projects.
- ⇒ The Building Enclosure Consultant's Role of Existing Property's
- ⇒ Explain the Bidding Process, Communications and How to Select a Contractor to Perform the Work.

TOPICS

- **Category:** Construction and Evaluation
- **Keywords:** building enclosure, architectural plans, building process, contractor, property maintenance.



The Myth of the Roof Warranty

Course Number - RW1200

Course Delivery Type - **Live**

Course Level - **Intermediate**

This course is **1 LU**

About this Course:

This presentation will inform attendees about the history of the roof warranty, clarify what is covered under this warranty and what to do to limit their legal liability exposure. The presentation will also help identify how owners, manufacturers and contractors utilize the roofing warranty, and help to clarify some misunderstandings and protect each party's interest.

Pre-Requisite Knowledge: Basic understanding of safety and construction. Basic understanding of legally enforceable contracts.

Learning Objectives:

- ⇒ Review what the Roof Warranty is and what it means for the different parties in construction.
- ⇒ Explain what is covered, for how long and what is not covered under the roof warranty.
- ⇒ Understand what to do to avoid roof warranty pitfalls.
- ⇒ Explain the value of documenting and educating yourself regarding this process.

TOPICS

- Category: Project Planning & Design
- Sub -Category: Building Systems, Materials & Assemblies
- Keywords: roof warranty, legal, disclosure, manufacturer, building, enclosure.



Exterior Wall Assembly—Best Practice for Stucco Cladding

Course Number - SBP1901

Course Delivery Type - **Live**

Course Level - **Intermediate**

This course is **1 LU | HSW**

About this Course:

Program will focus on the Best Practices for the Design and Construction of Exterior Wall Assemblies with a focus on Stucco Cladding.

Pre-Requisite Knowledge: Basic understanding of the Detailing and Construction of Exterior Wall Assemblies. including substrates, weather barriers, insulation and claddings.

Learning Objectives:

- ⇒ Better understand Terminology related to the Exterior Wall Assembly, specifically terms related to Stucco Cladding.
- ⇒ Better understand which Codes and Standards are related to the Exterior Wall Assembly, specifically those related to the Design and Construction of Stucco Cladding.
- ⇒ Develop a better basis for the appropriate Detailing and Design of the Exterior Wall Assembly, specifically related to Stucco Cladding.
- ⇒ Better understand Opportunities during Construction where appropriate Quality Assurance Observations can help to prevent common errors within the Exterior Wall Assembly, specifically related to Stucco Cladding.

TOPICS

- Category: Art & Architecture
- Keywords: Exterior, Wall, Stucco



Common Building Enclosure Issues & Forensic Testing

Course Number - ENFOR104

Course Delivery Type - **Live**

Course Level - **Intermediate**

This course is **1 LU**

About this Course:

This presentation includes a discussion that defines building enclosure, a case study of forensic testing a typical multifamily structure to determine the cause of water intrusion behind newly installed stucco panels, a short description of BIA Tech Note 7 and ASTM C1063 and multiple examples of typical failures and the causes for the failures commonly found in commercial construction.

Pre-Requisite Knowledge: A basic understanding of current commercial construction methods, commercial waterproofing systems and exterior cladding systems.

Learning Objectives:

- ⇒ Gain basic knowledge of forensic testing strategies and testing methods.
- ⇒ Identify conditions that present themselves on commercial buildings that may indicate a water intrusion issue.
- ⇒ Gain a basic understanding of how to determine the proper forensic testing method to employ for the given building enclosure failure.
- ⇒ Explain how an adequately design waterproofing system can fail due to sub-standard workmanship.

TOPICS

- **Category:** Construction & Evaluation
- **Keywords:** Forensic, Testing, Multi-Family, Structure, Commercial, Construction, Stucco Panels, Cladding Systems



Key Factors for the Selection, Design, Detailing and Maintenance related to Roofing

Course Number - SDDMR01

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

TOPICS

- Category: Construction & Evaluation
- Keywords: Forensic, Testing, Multi-Family, Structure, Commercial, Construction, Stucco Panels, Cladding Systems

About this Course:

This presentation includes a summary of Best Practices related to the selection, design, detailing and maintenance for roofing. The presentation will also identify common problem-resolutions associated with new construction, existing properties and is intended to assist contractors, developers, designers and property owner/managers.

Pre-Requisite Knowledge: Basic understanding of architectural plans, the overall construction processes and general maintenance of existing properties.

Learning Objectives:

- ⇒ Identify standard definitions related to Building Enclosure, Roofing and Property Maintenance.
- ⇒ Explain typical Building Enclosure Services, Best Practices and How to Interrogate the Consultant's Services in your projects.
- ⇒ The Building Enclosure Consultant's Role in existing and new construction projects.
- ⇒ Explain the Bidding Process, Communications and How to Select a Contractor to Perform the Work.



Historic Preservation

Course Number - HP-52920

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

TOPICS

- Category: Construction & Evaluation
- Keywords: Restoration, Preservation, Rehabilitation, Stabilization, Historical Impact, Cultural District, Architectural Style, Preservation Advocacy.

About this Course:

This presentation includes multiple discussions that defines the various types of historic preservation projects, preservation philosophies, means and methods and when to engage this information. This will enable the attendee to protect significant structures in a methodology that is consistent to its architectural heritage, physical environment and the parts and details that create the whole arrangement. This course utilizes project specific examples and discussions to inform the attendees.

Pre-Requisite Knowledge: A basic understanding of when to consider historic preservationist principles and the importance of protecting architectural and cultural fabric.

Learning Objectives:

- ⇒ To understand a basic historic preservation philosophy including preservation technology and how and why it is necessary that historic preservation philosophy differs from that of new construction.
- ⇒ Gain basic understanding of the three different types of preservation projects .
- ⇒ Be able to identify projects where a historic preservation philosophy would be integral to achieve best practices.
- ⇒ Basic knowledge of references for preservationist means and methods, such as the U.S. Department of the Interior's National Parks Service Preservation Briefs.
- ⇒ Knowledge of common problems and issues that can occur during the preservation process due to improper maintenance and repair methods.
- ⇒ Gain a basic understanding of various roles that historic preservationists can perform.



Below Grade Waterproofing

Course Number – BG - 6920

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion that defines Below Grade Waterproofing, types of Below Grade Waterproofing, common installation procedures, and multiple examples of typical failures and the causes for these failures commonly found in commercial construction.

Pre-Requisite Knowledge: A basic understanding of current commercial construction methods and commercial waterproofing systems.

Learning Objectives:

- ⇒ Gain basic knowledge of Below Grade Waterproofing and visual installation quality control process.
- ⇒ Identify installation methods that will avoid future water intrusion issues.
- ⇒ Gain a basic understanding of the various types of Below Grade Waterproofing and how to determine which type of Below Grade Waterproofing to specify for a given condition.
- ⇒ Explain how an adequately designed Below Grade Waterproofing system can fail due to sub-standard workmanship.

TOPICS

- Category: Codes and Regulations
- Keywords: Below, Grade, Waterproofing, Testing, Installation, Water, Intrusion,.



EFVM & ELD Testing

Course Number – EFVMELDT001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation will provide a general overview of Electronic Field Vector Mapping (EFVM) and Electronic Leak Detection (ELD) methods and the equipment associated with each type of testing. It will discuss the history of this type of testing and well as the basic electronic principals associated with these procedures. It will discuss industry best practices related to performing quality control and forensic testing utilizing EFVM and ELD. And finally, it will provide a “hands-on” demonstration of the set up of both the EFVM and ELD equipment.

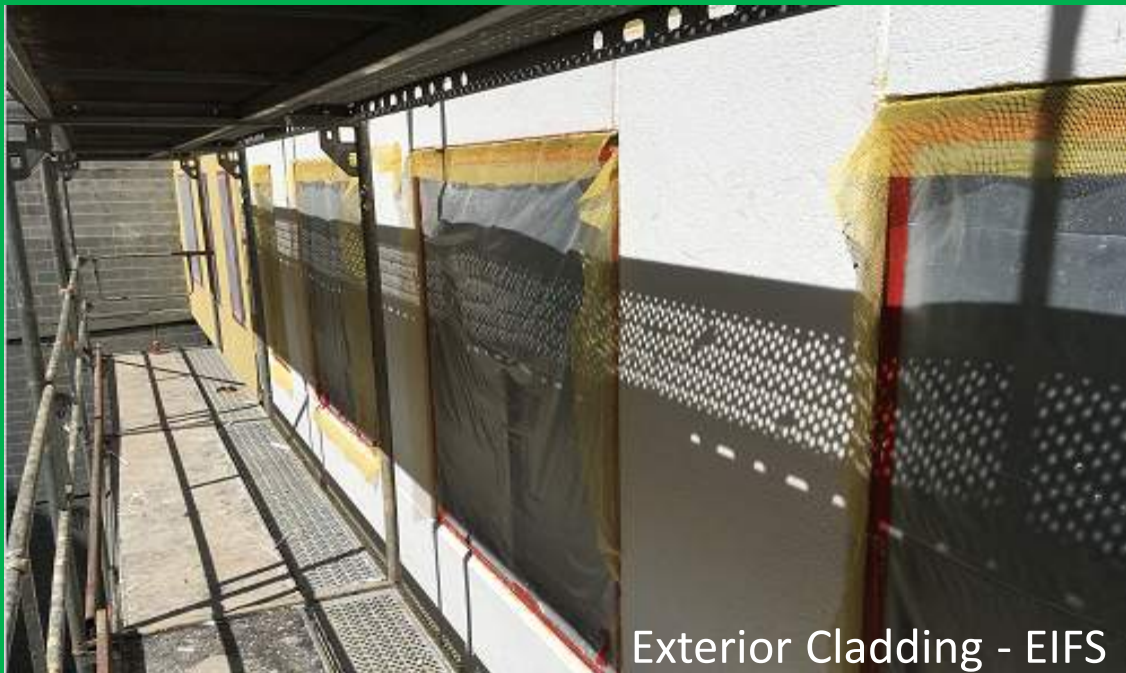
Pre-Requisite Knowledge: Industry knowledge and basic construction knowledge related to flat roof and plaza deck waterproofing.

Learning Objectives:

- ⇒ Gain a basic understanding of how to perform EFVM and ELD testing.
- ⇒ Gain a basic understanding of electronic principals that EFVM and ELD testing employs.
- ⇒ Demonstrate the ability to document the results of EFVM and ELD testing.
- ⇒ Discuss the advantages and disadvantages of EFVM and ELD testing.

TOPICS

- Category: Construction & Evaluation
- Keywords: EFVM ELD Testing



Exterior Cladding - EIFS

TOPICS

- Category: Construction & Evaluation
- Keywords: Exterior Walls, Exterior Cladding, EIFS

Course Number – ECS001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

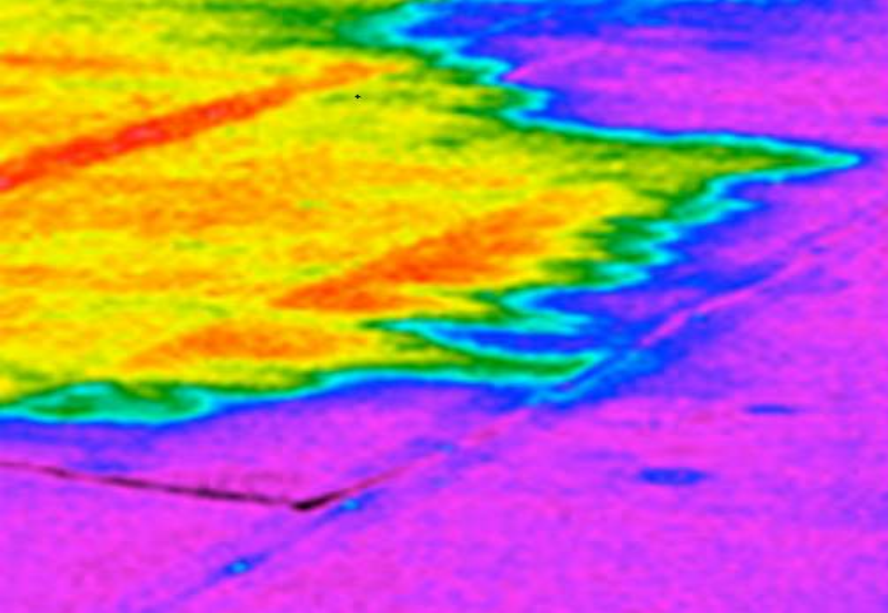
About this Course:

This presentation includes a discussion that defines EIFS Cladding, types of EIFS, common installation procedures, and criteria that should be considered during design.

Pre-Requisite Knowledge: A basic understanding of wall assembly construction.

Learning Objectives:

- ⇒ Gain basic knowledge of the different types of EIFS cladding along with its benefits and misconceptions.
- ⇒ Identify the different installation methods as well as develop an understanding of the code requirements for drainage efficiency.
- ⇒ Gain a basic understanding of how specific conditions should be detailed to avoid failure and future issues.
- ⇒ Explain the basic criteria that should be considered when designing an EIFS clad system.



TOPICS

- Category: Construction & Evaluation
- Keywords: Infrared Thermography

Introduction to Infrared Thermography

Course Number – IIT001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion that defines Infrared Thermography (IR), the science behind IR, and common applications for building enclosures, and how to interpret IR images.

Pre-Requisite Knowledge: A basic understanding of current commercial construction methods and commercial waterproofing systems.

Learning Objectives:

- ⇒ Gain basic knowledge of the electromagnetic spectrum and the fundamentals of Infrared radiation.
- ⇒ Understand the basics of IR cameras and thermographic images.
- ⇒ Gain basic knowledge on how to utilize IR cameras to diagnose problems related to air and moisture intrusion in the building enclosure industry.
- ⇒ Explain how IR anomalies can be indicative of problems, but also may be due to other factors. Discuss how to interpret IR images correctly and common pitfalls in interpreting IR images.



Introduction to Building Enclosure Testing Services

TOPICS

- Category: Construction & Evaluation
- Keywords: Building Enclosure, Building Enclosure Testing

Course Number – IBETS001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion of the overall requirements for multiple exterior enclosure testing services performed in the field.

Pre-Requisite Knowledge: A basic understanding of the building enclosure components.

Learning Objectives:

- ⇒ Gain basic knowledge and obtain a better understanding of the testing services offered.
- ⇒ Understand the purpose of the associated tests and general procedures.
- ⇒ Understand how each type of testing brings VALUE to the Client.
- ⇒ Become comfortable enough with the various types of testing to discuss and recommend additional services to Clients.



Diagnosing a Leak

Course Number – DAL001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion on leak investigations, applicable industry standards, the scientific approach to an investigation, and case studies. It will go over the logic behind the approach, how some results can be misleading, and how to make your investigation repeatable.

Pre-Requisite Knowledge: A basic understanding of current commercial construction methods and commercial waterproofing systems.

Learning Objectives:

- ⇒ Gain knowledge of how deficiencies in the exterior enclosure can lead to water intrusion in the interior.
- ⇒ Gain knowledge on how to approach an investigation into the root cause or causes.
- ⇒ Review industry standard ASTM E2128 – Standard Guide for Evaluating Water Leakage of Building Walls.
- ⇒ Gain knowledge of the reporting process before, during, and after an investigation.

TOPICS

- Category: Construction & Evaluation
- Keywords: Diagnosing a Leak



An Introduction to Masonry Cladding

Course Number – AITMC001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes an introduction to Masonry Cladding. It reviews the various uses for Masonry Cladding, Types of Masonry Cladding, and how to Detail Masonry Cladding. Additionally, the presentation reviews some of the causes for failures commonly found in multi-family and commercial construction.

Pre-Requisite Knowledge: A basic understanding of current multi-family and commercial construction methods and wall systems.

Learning Objectives:

- ⇒ Gain a basic knowledge of the History, Types, and Uses of Masonry Cladding.
- ⇒ Understand the design principles of Masonry Cladding and how it functions within the wall assembly.
- ⇒ Gain an understanding of the appropriate details associated with Masonry Cladding within various wall assemblies.
- ⇒ Understand the standard installation methods that will avoid future issues and visual indicators of these methods to identify workmanship issues during the quality assurance process.

TOPICS

- Category: Construction & Evaluation
- Keywords: Masonry Cladding



Negative Pressure Wind Uplift Testing

TOPICS

- Category: Construction & Evaluation
- Keywords: Negative Pressure, Wind Uplift Testing

Course Number – NPWUT001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion on negative pressure roof testing, the standards and equipment utilized to perform the testing, case studies, and interpretation of testing results.

Pre-Requisite Knowledge: A basic understanding of low sloped roof assemblies both modified bitumen and single ply.

Learning Objectives:

- ⇒ Gain basic knowledge of Roof Uplift Testing and relevant standards.
- ⇒ Understanding the various equipment that is part of the uplift chamber and its relationship with the test procedure.
- ⇒ The recording of roof movement during testing and interpretation of results.
- ⇒ Examining and documenting roof failures that occur during testing.



Stucco Cladding Systems

TOPICS

- Category: Construction & Evaluation
- Keywords: Stucco Cladding

Course Number – SCS001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion on a typical cladding type for exterior walls, Stucco. We will review industry standards for metal lath and Portland cement plaster installation, typical details and conditions for stucco, and typical mistakes made in the field.

Pre-Requisite Knowledge: A basic understanding of current commercial construction methods and commercial waterproofing systems.

Learning Objectives:

- ⇒ Review Industry standard ASTM C1063 – Standard specification for installation of lathing and furring to receive interior and exterior Portland cement-based plaster.
- ⇒ Review industry standard ASTM C926 – Standard specification for application of Portland cement-based plaster.
- ⇒ Review of typical stucco cladding details and conditions.
- ⇒ Gain knowledge of typical mistakes made in the field, how to identify them, and what to recommend in terms of fixing them.



Water Testing 101 – Standards, Protocols, Policies, Troubleshooting

TOPICS

- Category: Construction & Evaluation
- Keywords: Water Testing

Course Number – IWT001

Course Delivery Type - **Live**

Course Level - **Introductory**

This course is **1 LU**

About this Course:

This presentation includes a discussion on the most common water penetration resistance field testing methods, standards, and equipment. This presentation will discuss the standards at which field water penetration resistance testing is performed to, the industry standards and their uses, and the equipment used to perform the testing. The presentation will also cover problem solving and troubleshooting of what may be typically encountered during field water penetration resistance testing.

Pre-Requisite Knowledge: A basic understanding of current commercial construction testing methods and commercial waterproofing systems.

Learning Objectives:

- ⇒ Gain basic knowledge of water penetration resistance testing.
- ⇒ Identify industry standards and their uses and implementation.
- ⇒ Gain a basic understanding of the various materials and equipment used to perform the field water penetration resistance testing.
- ⇒ Review and gain knowledge of on-site procedures and troubleshooting during field water penetration resistance testing.