



## Construction and Building Envelope Inspection Training

### Description

#### Course Description

Inspection is observation of construction for conformance with the approved design documents. This course will enable individuals, who are in the inspection and testing field or want to become a special inspector, to understand the nature and the importance of this business.

This course will help you to know and understand the types of inspection and testing involved in a construction project, which for the most part are mandatory to assure the quality of materials used as well as the workmanship. Further, this course will provide guidance and recommendations for design and inspection consideration in an effort to provide a long-lasting exterior building envelope system.

#### Course Objective

To familiarize participants with testing and inspection techniques of engineering materials and workmanship in building construction

#### Who Should attend?

Architects, engineers, practicing building construction inspectors, project engineers, NDE lab personnel, and technicians and technologists involved with building construction. This course will also benefit contractors and building owners, who wish to become more effective by better understanding the requirements for inspections as well as the role and responsibilities of construction inspectors.

#### Course Outline

##### Introduction

- what is inspection
- Why is inspection needed
- what components require special inspection
- what are the role and responsibilities of special inspectors

### **General Inspection Guidelines – Part 1**

- Field inspectors
- Earthwork inspection
- Concrete inspection
- Structural masonry inspection
- Asphaltic concrete inspection
- Shotcrete inspection

### **General Inspection Guidelines – Part 2**

- Structural steel inspection
- Anchor bolts, dowels, and holdown system inspections
- Non-destructive testing
- Fireproofing inspection
- Test method for determining concrete floor flatness and levelness (F-Numbers) Classification of soils for engineering purposes

### **Building Envelope Inspection Guidelines**

- what makes up the building envelope?
- Roofing and architectural sheet metal
- Types of air and weather barriers
- Exterior cladding systems
- Flashings systems that work
- Deck and below-grade waterproofing
- Doors, windows, and other wall penetrations
- Compatibility of building envelope components
- Case Study: Five case studies addressing design, installation and integration of the building envelope components.