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## Continuing Education Course Catalog

VERTEX embraces a Lifetime of Learning philosophy, and we are committed to combining academic and practical learning to achieve enriched curricula that adds value to our clients and employees.

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# COMPLIANCE AND REGULATORY

## ENVIRONMENTAL DUE DILIGENCE

### Due Diligence for Acquisitions

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This course will discuss the types of Due Diligence services conducted before a proposed acquisition, their benefits to the potential buyer, and management of risks associated with the acquisitions process. The course will review the common types of due diligence services, and the types of problems and challenges they can uncover. The following items will be covered: types of Due Diligence services, potential Due Diligence findings, risk management during property acquisitions.

### Due Diligence for Development

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This program was developed to communicate some of the most important principles and explains why this process is critical to the developer's proforma and risk evaluation when purchasing a property. We discuss historical research, Recognized Environmental Conditions (RECs), other commonly identified environmental issues, what happens if an environmental issue is identified, data collection techniques, and strategies to consider around complex development planning topics such as the appropriate amount of soil pre-characterization, asbestos and PCB assessment.

### PFAS in Transactional Due Diligence

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The recent announcement of the addition of two PFAS compounds, PFOS and PFOA, to the list of CERCLA-identified hazardous substances has led to significant uncertainty in the Phase I Environmental Site Assessment and transactional due diligence process. New PFAS-related concerns may mean new RECs – and may also mean re-opening of previously-closed sites. VERTEX and DLA Piper will discuss the current state of PFAS in transactional due diligence, with a focus on our recent experiences with PFAS-related concerns identified during the due diligence process, and our view of how PFAS-related concerns are likely to be approached moving forward.

## INDUSTRIAL HYGIENE & BUILDING SCIENCES (IHBS)

### Universal Waste 2-Hour Awareness Training



This program will provide you with the ability to identify the health and environmental hazards of universal wastes; properly label, handle, and store universal wastes; and respond to emergencies.

Universal Waste Training Requirement for Small Quantity Handlers: A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.



The purpose of this program is to review workers compensation policies and actions. The presentation will focus on proactive methods/actions and reactive methods/actions. The presenters will review the importance of workers compensation policies, what can be included within the policies, and what activities could be conducted following a workers compensation claim. The presentation will include case studies.

## INSURANCE SERVICES

### ASTM Standard E1527-21 and How the Standard Changes Affect Risk

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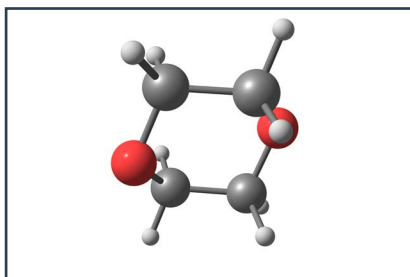
This presentation will address the new ASTM E1527-21 standard changes and how the changes will affect Phase I Environmental Site Assessments and the associated risk for environmental consulting firms who perform them and their insurance carriers.

### Background, Sources, and Evaluation of 1,4-Dioxane

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The presentation will focus on 1,4-Dioxane background, regulatory history and environment, and exposure and health effects and how each of these categories can impact underwriting and claims. The presenters will discuss investigation and remediation case studies.

### Background, Sources, and Evaluation of Polyfluorinated and Perfluorinated Chemicals

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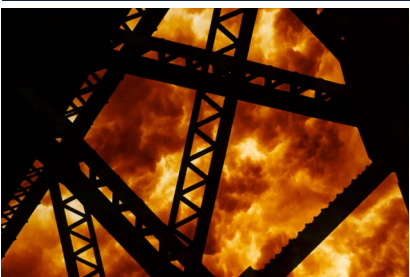
The presentation will focus on PFAS background, regulatory history and environment, and exposure and health effects and how each of these categories can impact underwriting and claims. The presenters will discuss investigation and remediation case studies.

### Chemical Fire Claim Management

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This presentation will provide an overview of chemical fire claims and the various steps to obtain and review information, identification of key issues, and an overview of several claim scenarios.



## Climate Related Claims: Wildfires, Wind and Water Damage, and Temperature Extremes

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This presentation will provide an overview of potential claim scenarios associated with wildfires, wind and water damage, and temperature extremes, as well as considerations for underwriting.

## Conditions for Reopening Closed Remedial Sites

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This presentation provides an overview of 5 different ways that claim sites may be reopened and the reasoning why to help provide an understanding to claim handlers and what to expect.

## Construction Related Mold Claims

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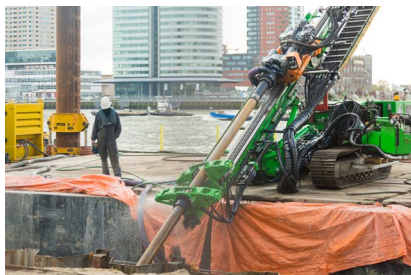


The presentation will provide an overview of various types of construction, potential for mold impacts, considerations for underwriters, and case studies which evaluate subrogation, allocation and improvement scenarios.

## Directional Drilling

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This presentation will provide an overview of directional drilling including the various applicable uses, advantages/disadvantages compared to other drilling methods, and associated costs. It will also discuss the risks/hazards of directional drilling and subrogation and claim resolution, including three case studies associated with directional drilling related claims.

## Emerging Contaminant Overview

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This course will provide attendees a general overview on emerging contaminants (Per and Polyfluoroalkyl Substances (PFAS), Ethylene Oxide, -6-ppdQuinone, Pharmaceuticals and Personal Care Products (PPCP), and microplastics) that are becoming the focus of the national and international communities. The course will provide a brief overview, the regulatory horizon, and how five categories of emerging contaminants may impact underwriting and future claims management.

## Environmental Hazards in Construction - Part 1

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This presentation will provide an overview of some of the chemical, physical, and environmental hazards which can be encountered during construction activities and their potential impact on underwriting and claims.

## Environmental Hazards in Construction - Part 2

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This course will discuss additional common environmental hazards that can be encountered during construction activities and environmental hazards that can be caused by improper construction methods that were not previously addressed in Part 1 of this series. The course will familiarize participants with what these hazards are, what stage of construction the environmental hazards are typically encountered, worker/public exposure pathways, and what the potential human health risks are. The course will provide an overview of how to identify adverse conditions prior to an adverse exposure, how to mitigate the environmental hazards during construction, and how these environmental hazards may impact underwriting and claims management.

## Environmental Insurance Concerns in Urban Redevelopment

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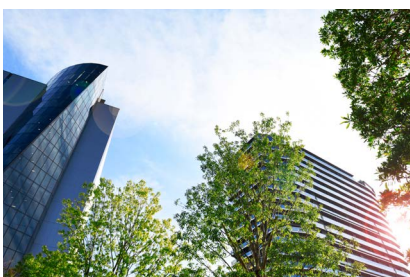


The presentation will focus in on redevelopment sites that have an environmental component associated with the presence of a hazardous substance(s), pollutant(s), or contaminant(s). The presenters will discuss general site risks, the importance of due diligence, and several case studies.

## Environmental Liability Protection Tools\*

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This presentation will address environmental liability protection tools for the real estate practice including due diligence, environmental insurance products, and forensic accounting. The speaker will discuss Phase I Environmental Site Assessments including investigation, risk quantification, and mitigation; RCRA, PCBs and Asbestos; policy options; and uses of forensic accounting.

## Ethylene Dioxide and Microplastics

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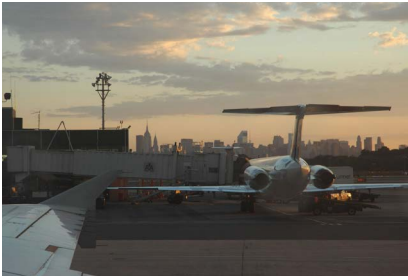
This presentation will provide an overview of two emerging contaminants, ethylene dioxide and microplastics. The speaker will provide a description of each component, where they are used, the environmental disposition, health impacts, and what regulations exist regarding each.

## Perchlorate: An Overview

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The course will discuss various technical aspects of perchlorate, including how these relate to some of the issues commonly faced by claims analysts handling claims made on environmental/pollution insurance policies including the review of costs submitted with respect to reasonableness and necessity, and applicable exclusions; the potential for bodily injury claims; issues regarding the source and timing of pollution that may affect coverage; occurrence vs. claims made policies and new vs. pre-existing conditions coverage considerations; the setting of reserves; and the possible use of structured settlements to resolve perchlorate-related claims, as the associated cleanups are often costly and long-tailed.

## PFAS: Insurance Considerations

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This presentation covers the current developments in PFAS litigation and insurance. It addresses the growing wave of lawsuits targeting manufacturers, distributors, and retailers, alongside state and EPA legal actions. Key issues include insurance coverage under General Liability, Pollution Legal Liability, Product Liability, and Directors and Officers Liability policies, with a focus on bodily injury, property damage, and pollution cleanup. We will cover recent trends in insurance coverage disputes regarding PFAS.

## Residential No. 2 Fuel Oil Systems

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The purpose of this presentation is to provide an overview of the components of a residential heating system including aboveground and underground storage tanks. The presenters will discuss common causes of No. 2 Fuel Oil losses and the steps involved in Cause & Origin investigations.

## Underground Storage Tanks

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The presentation will provide an overview of an Underground Storage Tank (UST) system, common points of release, investigative techniques and remedial technology options.



# EXPERT SERVICES

## CONSTRUCTION CLAIMS

### Builders Risk Delay in Completion Claims –Quantifying Time Related Impacts

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Builders Risk Delay in Completion Claims – Quantifying Time Related Impacts” is applicable to professionals involved with Builders Risk Property Insurance. During this 1-hour instructor led course, licensees will gain an understanding of the types of delay, how delay is established, and the necessary elements of proof for a delay in completion claim. Instructors will exhibit simple case studies that demonstrate the quantification methodologies utilized by delay experts during the claims adjustment process to validate and price time-related delay impacts.

### Calculating and Presenting Construction Delay and Productivity Damages

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The purpose of this program is review two common types of construction damages: delay and productivity. While the underlying methods for proving entitlement to damages may be similar, the methodologies for calculating these damages and the documentation required to do so varies. The presenters will review the common categories of delay damages – from both a contractor and owner perspective – and how documentation is used to calculate and present them. The session will also review productivity damages, and the various methodologies available for estimating lost productivity, the favorability of these methodologies, and potential pitfalls. Finally, the decision of *Turner v. Smithsonian*, a case which featured multiple parties presenting loss of productivity claims using different methodologies, will be discussed.

### Calculating Productivity Loss on Disrupted Construction Projects

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The purpose of this program is to review considerations in calculating productivity loss and delay impacts on disrupted construction projects with a focus on the presentation of damages. The objectives of the presentation are to: ① introduce productivity and CPM scheduling basics relevant to time-related impacts; ② discuss the claim evaluation process from the evaluator's perspective; ③ identify common impacts to construction projects; and ④ review key concepts relating to the presentation of damages. The presenters will also walkthrough examples to demonstrate how to apply the discussed principles.

### Construction Claim Awareness & Mitigation Techniques

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AIA



This course will discuss red flags on construction projects that could signal a potential claim. In addition to identifying signs of trouble, this course will discuss potential claim elements including: time-related impacts, acceleration impacts, productivity and disruption impacts and disputed change orders. Finally, claims avoidance recommended practices will be discussed. The following items will be covered: know the contract, respond to problems timely, maintain complete and accurate project records, word change orders carefully, and utilize critical path method scheduling effectively.



## Construction Contracts and Their Associated Risks

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The purpose of this program is to review the construction contracting process and the risks associated with the various construction contract types. The presenters will review in detail the following topics associated with construction contracting: ① the building process, ② common project delivery methods, ③ construction contract sources, ④ contract types, and ⑤ risk associated with the various contract types.

## Construction Defect and Delay Risk Mitigation

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The purpose of this program is to help pension fund clients better understand why construction projects fail and provide attendees with tools to mitigate those risks from VERTEX's experience. The presentation will review construction risk factors, tools for prevention and detailed case studies.

## Delay Claims – Preparing and Quantifying Time Related Impacts

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During this 1-hour instructor led course, participants will gain an understanding of the types of delay, the necessary elements of proof for a delay claim, and the quantification methodologies to price a time-related delay impacts.

## Differential Foundation Movement: Construction Means & Methods to Implement Repair

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Differential movement in both residential and commercial projects can cause extensive structural and cosmetic damage oftentimes requiring significant costs to repair the existing damage and to mitigate further differential movement. The visible damage and high cost of repair oftentimes result in litigation.

The purpose of this program is to review common terminology and repair methods involving foundation underpinning when differential movement exceeds allowable tolerances. The objectives of this presentation are to: ① understand common terminology; ② understand common foundation and finishes configurations and their impact on construction repair costs; and ③ strategic means and methods to minimize cost while addressing structural concerns.

## Interpreting Payment Applications for Use in Claims Investigations

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Information is vital when it comes to investigating construction claims, whether that be contract claims between two involved parties or a surety performance bond claim. Applications for payment, also known as "Payment Applications" or "pay apps," are commonly used during construction for the purpose of invoicing project owners or general contractors for completed work, and they contain a wealth of information that is helpful in evaluating claims. This presentation aims to help claims professionals better understand the data contained in Applications for Payment and how to utilize this data to better understand the bigger picture of a construction project.

## Issues and Challenges in Preparing and Presenting Delay Claims

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Delays are one of the most costly issues on construction projects. For contractors and subcontractors, delays can mean exposure to Owner damages and extended costs of their own. For Owners, it can mean lost revenue or being unable to commence necessary operations. When delays occur and cannot be resolved at the project level, oftentimes experts are engaged to prepare a delay analysis or evaluate the delay claims of the adverse parties. Competing experts often have diverging opinions, due to the manner in which the delays are evaluated. The purpose of this program is for licensed adjusters and attorneys to review and discuss common issues and challenges parties face when claiming delays and that experts face

when evaluating delays. By understanding the issues and challenges, steps can be taken to improve documentation and potential for recovery. The presenters will explain available methodologies and their benefits and disadvantages, typical documentation issues, concepts which affect delay calculations, and other decisions which can impact the outcome of a delay analysis.

## Negotiating a Settlement for a Termination for Convenience

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During this 1-hour instructor led course, participants will gain an understanding of the best practices when facing a termination for convenience and the remedies available to the contractor.

## Productivity Analysis Methodologies

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Calculation of lost productivity is often one of the most contentious areas in construction claims. This webinar will cover the challenges and recommendations for productivity claims as well as select methodologies for calculating lost productivity.

## Proving and Quantifying Disruption Claims

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During this 1-hour instructor led course, participants will gain an understanding of the types of disruption, the necessary elements of proof for a disruption claim, and the quantification methodologies to price a disruption claim.

## Schedule Analysis Methods

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The purpose of this program is to review the main considerations in project schedule analysis, which includes reviewing the key characteristics of construction delay claims and discussing the forensic schedule analysis methodologies commonly employed throughout the industry. The presenters explain the implementation of each of the discussed methods and identify scenarios under which each may be appropriate.

## The Critical Path Method (CPM) and Common Scheduling Deficiencies

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During this program, the presenters will review the Critical Path Method (CPM) scheduling technique and its role in evaluating construction claims. The objectives of this presentation are to: ① understand the key characteristics of a CPM schedule and its role in project planning; and ② provide the audience with an overview of common schedule deficiencies and discuss best practices to achieving high quality, more reliable schedules. The presenters will also discuss contractual considerations, scheduling tools, evaluating schedule quality, and delay claim submissions.

## Untimely Granting of Time Extensions

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AIA



Presenters Jeffrey Katz, PE, PSP, CCM, CCA, and Andrew Sargent, PSP, will review: ① common scenarios where owner fails to timely grant time extensions during construction when delays are encountered; ② Contractors typically have burden of proof for quantifying impact, and in some cases, are required to prepare and submit a Time Impact Analysis (TIA); ③ the risks Owners take by failing to timely grant time extensions, and ④ options the contractor has when an owner fails to address the contractor's TIA submission(s), and the risks and benefits to better educate license adjusters and licensed attorneys on best practices for handling construction delays.

## COMMERCIAL DAMAGES & INVESTIGATIONS

### Emerging Trends in PFAS Litigation

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This presentation, "Emerging Trends in PFAS Litigation," explores key aspects of PFAS (Per- and Polyfluoroalkyl Substances) litigation, focusing on consumer fraud cases, regulatory trends, and financial impacts on manufacturers. It begins with an introduction to PFAS, covering its uses, health risks, and environmental concerns. Notable consumer fraud cases and emerging state and federal regulations are then discussed, highlighting their influence on litigation. The presentation then turns to the financial and legal consequences of PFAS litigation, including damages, case types, and costs for manufacturers. Concluding with major case examples and settlement impacts, the session evaluates the future trajectory of PFAS litigation and its potential resemblance to asbestos.



## False Claims Act: What AEC Firms Need to Know

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As \$1.2 trillion in infrastructure funding flows to AEC/construction firms across the country, our clients need to be aware of the “strings” that come with accepting government money. The False Claims Act is the government’s primary tool for combatting fraud on government-funded programs at both state and federal levels. This webinar will explain the basics of the FCA and ‘red flags’ of potential false claims related to government-funded infrastructure and construction projects.

## Fraud Investigations

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The purpose of this program is to review the fundamentals of fraud. The objectives of this presentation are to: ① understand the fundamentals of fraud, ② understand the profile of a fraudster, ③ understand the types of fraud and how they can be caught, and ④ understand a forensic accountant’s role in detecting fraud. Additionally, the presenters will review a variety of case studies to provide real life examples of what surety providers and claim adjusters may encounter.

## Fundamentals of Business Interruption Claims

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The purpose of this program is to review the fundamentals of business interruption claims. The objectives of this presentation are to: ① understand the fundamentals of a business interruption claim; ② understand a forensic accountant’s role in the claim process; ③ understand the documents needed to evaluate a claim; and ④ understand how business interruption loss is calculated. Additionally, the presenters will review a variety of case studies to provide real life examples of what surety providers and claim adjusters may encounter.

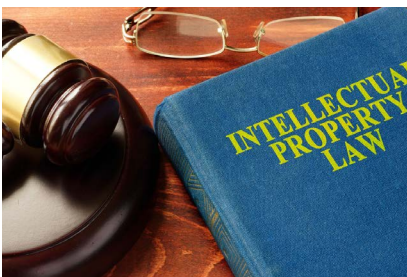
## Intellectual Property 101

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The purpose of this program is to introduce Intellectual Property (IP) to an audience of individuals who may not have been aware of it in a litigation setting. The presenters will review common types of IP, from both the inventor and the implementors perspective. The session will also review methods of estimating damages related to the infringement of IP rights and the available remedies for those types of infringement.

## PFAS Litigation

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This course will provide an overview of litigation involving per- and polyfluoroalkyl substances (“PFAS”). This course will provide a brief history of PFAS litigation to date, as well as key legal cases currently pending within the courts. This course will also describe the multidistrict litigation (“MDL”) and bellwether processes as they pertain to PFAS litigation. Further, this course will discuss elements of economic damages associated with PFAS litigation, potential pitfalls when quantifying economic damages, and recent settlements. Finally, this course will cover a brief outlook for the future of PFAS litigation.



## Preparing and Quantifying Claims for Lost Profits

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During this 1-hour instructor led course, participants will gain an understanding of Lost Profits and Lost Savings claims. The presentation discusses the elements of proof, the role of the financial damages expert, economic assessment and damage quantification methodologies, and case-study examples of Lost Profits and Lost Savings claims.

## FORENSIC

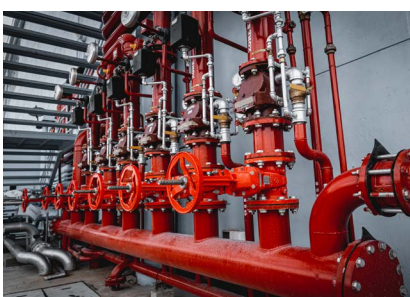
### Antifreeze in Fire Suppression Systems

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This presentation will discuss the use of antifreeze in fire suppression systems, focusing on its advantages and disadvantages. License adjusters and licensed attorneys will gain insights into the code requirements associated with antifreeze systems, potential risks associated with its use including issues with acid corrosion, and alternatives to enhance system reliability in cold environments.

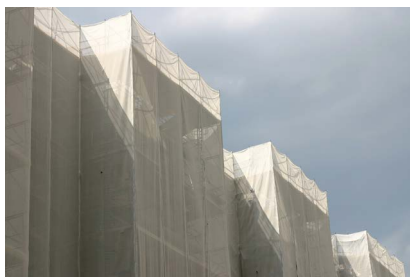
### Building Envelope Basics- Control Layers and Where and Why Common Failures Occur

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The purpose of this program is to introduce the audience to the concept of the Building Envelope, its fundamental components, and locations and causes of common failures. A general understanding of building roofs and wall is common among most building owners and occupants, but while today's building materials are high performing, they are also increasingly specialized and single-purpose, making the correct specification, design, and construction techniques very important to ensure proper performance of building materials over their lifetimes. The presenter will introduce the concept of the building envelope, a breakdown of the control layers that make up the building envelope, prototypical high-performing assemblies, and common mistakes that lead to poor-performance or failures of building assemblies. Finally, real world examples will showcase the consequential effects of the issues presented.

### Building Envelope Trends & Associated Construction Defects

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This course will share the results of two studies conducted by VERTEX related to building envelope material/assembly trends and commonly cited deficiencies in low-rise to mid-rise, multi-family, residential construction. The first study involved surveying the prevalence of specific building envelope materials and assemblies based on our assessment of 100 different projects situated throughout the country. This portion of the course will discuss which materials were most frequently specified as related to exterior cladding and cladding combinations, windows, roofs, balconies, and amenity decks. The second part of the course will provide a general summary of the most commonly cited deficiencies related to the most prevalent materials/assemblies, based on our study of construction defect cases nationwide.

## Buyer Beware: A Guide to Selecting Fire Experts

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AIA



This course is designed to instruct the audience in the basic standards and requirements that must be met by fire claim investigators. Explanation of standards and performance requirements, experience, certifications, and education/training. The common pitfalls of expert selection and associated costs is explained.

## Case Studies in Dangerous Conditions and Lessons Learned



The course is intended for an audience of property insurance carriers, their managers, in-house examiners, and adjusters as well as outside independent adjusters. The course is developed at a basic-to-intermediate level of complexity/difficulty. The learning objectives of the course are as follows: 1) Obtaining an overview of the engineer's code of ethics; 2) Looking at relevant terminology / definitions and examples of dangerous conditions; 3) Covering specific building code language related to dangerous conditions; 4) Examining case studies related to dangerous conditions; 5) Reviewing actions to take if dangerous conditions are discovered; 6) Discussing consequences of not acting on dangerous conditions; and 7) Determining and comparing a relative risk assessment vs level of notification that occurs, and lessons learned.

## Commercial Roofing: Parts 1 and 2

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CLE



The purpose of this presentation is to introduce commercial roofing systems. The presentation will introduce the different types of roofing and will discuss proper codes and guidelines to be utilized when installing. The presenters will also discuss potential storm damage to the different types of roofing systems along with potential defects which are often mistaken for storm damage.

## Common Civil Engineering Disputes

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The purpose of this program is to provide a quick review of civil engineering projects and presenting the associated common disputes. The objectives of this presentation are to: ① provide a concise review of civil engineering projects; and ② discuss current trends as it relates to civil and heavy civil engineering disputes; and ③ Discuss measures to mitigate exposure to liability claims related to civil and heavy civil engineering projects. This will be an interactive presentation with multiple case studies showing real world examples of disputes that Dr. VanDemark, PE, has been involved in.

## Concrete Deficiencies

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The purpose of this course is to provide a general overview of the most common concrete deficiencies and their causes. The objectives of this presentation are to: ① review concrete basics, ② discuss common concrete surface defects and their causes, and ③ troubleshoot finishing and mix design issues. Code and industry standard references will be provided throughout the presentation to provide context and background behind common issues.



## Decks and Balconies

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The purpose of this course is to provide a general overview of decks and balconies. Collapsed decks and balconies along with their guard rail components represent one of the leading causes of personal injuries resulting in property, liability, and negligence claims. The objectives of this presentation are to: ① identify the key components of decks and balconies and their purpose, ② review the applicable building code requirements, ③ highlight importance of guardrail detailing, and ④ discuss the role of property owners and deferred maintenance issues. Examples of common failures will be provided throughout the presentation to reinforce topics covered.

## Engineered Wood Construction

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The construction industry has seen a recent explosion in the use of wood-framed construction. The purpose of this presentation is to provide an overview of the different engineered wood components and highlight advantages and challenges of building more and higher with wood framing. Objectives during this presentation will include: ① progression of wood construction, ② conventional wood framing, ③ types of engineered wood products, ④ advantages and challenges of wood construction, and ⑤ future growth and code adoptions.

## Fire Investigation Basics

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The purpose of this presentation is to explain Fire Investigations and Investigators as well as legally mandated and professionally required actions to insurance industry claims and adjusting personnel. The program highlights the Codes, Standards, Guidelines, Court Decisions and Case Law along with investigator training, education and experience that together guide the investigative process in the quest to determine the Origin and Cause of a fire. The presentation also includes discussion of investigative terms including evidence, spoliation, subrogation and the Scientific Method of the investigation.

## Fireplace & Chimney Inspections

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The purpose of this presentation is to: ① discuss common types of fireplace and chimneys, including a discussion of fuel types, ② provide an overview of the construction of common residential fireplace and chimney structures, ③ discuss common forms of fireplace and chimney losses, including fires, weather related damage, and foundation settlement, ④ discuss common inspection techniques, and ⑤ and finally discuss repair methods. The presentation includes many photographic examples and our goal is for a claims adjuster to leave the presentation with an increased level of comfort with the construction, operation, and inspection of chimneys and fireplaces.

## Fire Protection Concepts for Building and Industrial Facilities

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The purpose of this program is to provide an overview for licensed attorneys and adjusters of fire protection concepts, the variety of fire protection systems available, as well as common issues and concerns with fire protection systems.



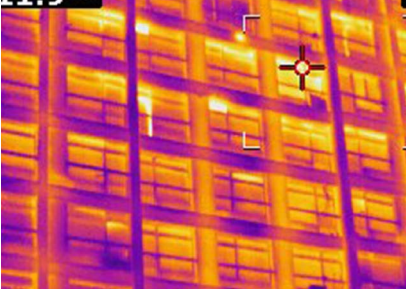
The purpose of this program is to introduce the technology and the concepts behind effective investigations employing IR equipment. The objectives of this presentation are to: ① explain what IR is and what it is not, ② when it is desirable to use the tool, ③ how it can be employed effectively, ④ what good results look like and how they can inform decisions, and ⑤ provide examples of successful studies using the technology.

## Infrared Investigations Introduction: Appropriateness and Limitations

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The purpose of this program is to introduce the technology and the concepts behind effective investigations employing IR equipment. The objectives of this presentation are to: ① explain what IR is and what it is not, ② when it is desirable to use the tool, ③ how it can be employed effectively, ④ what good results look like and how they can inform decisions, and ⑤ provide examples of successful studies using the technology.

## Mid-Rise / High-Rise Construction: Typical Building Envelope Defects

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The purpose of this course is to provide an overview of typical building envelope construction defects related to Mid-Rise and High-Rise buildings. The objective of the presentation is to discuss common building envelope assemblies associated with these building types and identify common deficiencies related to each.

## Overview of Structural Collapses

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The purpose of this course is to provide an overview of structural collapse evaluations for claims professionals, attorneys, and building construction professionals involved in evaluating the cause, extent of damage, and loss mitigation for the collapse of structures and their components. The objectives of this course are to: ① discuss relevant definitions for collapse and dangerous conditions, ② review the basic components of a structural system, ③ identify common collapse contributors, ④ highlight critical issues that should be considered in collapse evaluations, and ⑤ discuss strategies for collapse mitigation and future changes. Examples of common failures will be provided throughout the presentation to illustrate the topics discussed.

## Pre-Loss Versus Code Upgrade Repairs

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The purpose of this presentation is to unpack the often-confusing determination of when repair to building damage can simply restore the components to pre-damage conditions versus when repair to building damage requires additional code upgrades. This presentation will present a simple flowchart ("cheat sheet") that covers the requirements for all 50 states and DC for repairs to both residential and commercial buildings.



## Proper Evaluation of Water Leakage at Building Walls

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The purpose of this course is to provide a general overview of water leakage sources through exterior building walls. The objectives of this presentation are to: ① maximize non-invasive inspection procedures, ② discuss industry standards for evaluating building wall leakage, and ③ implementing ASTM 2128.

## Roof Mounted Solar Panels

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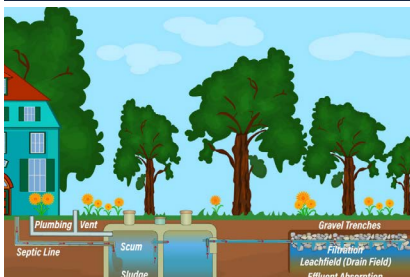
With the recent exponential growth in renewable energy technologies and installations, the rate of installation of roof-mounted solar panels is outpacing code adoptions and understanding of the structural requirements by the parties involved. This can lead to design errors, construction defects, contractor liability, or property damage that owners, insurance carriers, attorneys, and designers have to navigate. This presentation aims to outline the relevant structural building code requirements and provide some examples of common failures. The presentation will provide an overview of: ① basics and components of roof-mounted solar panels, ② codes and references, ③ common structural issues leading to failure, ④ building envelope issues, and ⑤ troubleshooting design and liability claims.

## Septic System Basics

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The purpose of this presentation is to become familiar with the basic components of a subsurface sewage disposal system (septic system) and review some common modes of failure. The objectives of this presentation are to: ① review the components of a typical septic system, ② become familiar with information provided on a typical plan/drawing, and ③ review common modes of failure. The presenters will also discuss potential repair methods for some of the more common failures.

## Snow Loading and Ice Dam Considerations

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CE

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The purpose of this course is to provide a general overview of common roof construction issues that can lead to moisture intrusion and/or framing damage during ice dam or snow accumulation. The objectives of this presentation are to: ① review flashing requirements for roof and siding, ② discuss mechanism of ice dam formations, ③ highlight the role of attic insulation and ventilation, ④ discuss roof sheathing types and spacing requirements, and ⑤ provide overview of common failure mechanisms of structural framing during snow load event.

## Stucco and EIFS

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The purpose of this presentation is to introduce the participant to traditional stucco and EIFS. With much of the U.S. accepting and widely using stucco, especially in humid regions, the understanding of the system and its intention is critical. The presentation will introduce the different materials which are included within a traditional stucco system and the importance of each. The presenters will discuss proper codes and guidelines to be utilized when installing. The presentation will also review potential defects and installation issues which have caused historical problems. Lastly, we will provide inspection guidance and items to be concerned with when inspecting.

## The Path to SB 721 Compliance

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This program will provide you with an understanding the impact of California's exterior elevated element inspection laws on apartment owners, lenders and asset managers.

## Tile Flooring Debonding & Buckling

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CE

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The purpose of this course is to provide a general overview of tile flooring and the common failure modes of non-bonding and buckling. The objectives of this presentation are to: ① review tile flooring types and installation, ② identify tile flooring debonding and buckling, ③ study causes of tile flooring failure, ④ outline approaches on how to assess flooring for debonding and buckling, and ⑤ review various case studies.

## Trends in Fire Claims and Fire Investigation

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AIA



This course is designed to instruct the audience in the current trends surrounding the origin and cause investigation of fire incidents in the United States. An Update to claims handlers in current trends and issues affecting fire claims. types of anticipated losses, subrogation and liability matters, and fire investigations.

## Understanding Civil Engineering Disputes

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CLE



The objectives of this presentation are to: ① attain a better understanding of civil engineering plans and the information contained within them; ② Educate the audience to the key components of the same plans; ③ Discuss current trends as it relates to civil and heavy civil engineering claims; and ④ Discuss measures to mitigate exposure to liability claims related to civil and heavy civil engineering projects. This will be an interactive presentation with multiple case studies showing real world examples of projects and claims that Dr. VanDemark has been involved in.

## Understanding Curtain Wall: An Overview of Design and Performance Considerations

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AIA



This is an overview of design and performance attributes of curtain wall options frequently used in commercial fenestration. While focusing on "unitized curtain wall" and defining what that term means, this fenestration type will be analyzed, terminologies will be covered, and basic design and construction elements will be reviewed. Intended for a mixed audience, the seminar will consider performance goals of framing systems and glazing and will explore examples and testing for curtain wall when used as a major component of a building enclosure.

## Vibration Damage Claims

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The purpose of this presentation is to introduce damage claims from construction and blast loading for property and liability claim professionals. The objectives of the program will be to: ① provide basics of vibration due to construction and blasting activities, ② research and thresholds for vibration damage, ③ evaluating damage claims, and ④ preventing and mitigating vibration damage claims.

## Why Retain an Expert Pre-litigation and Tools Available to Experts

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AIA



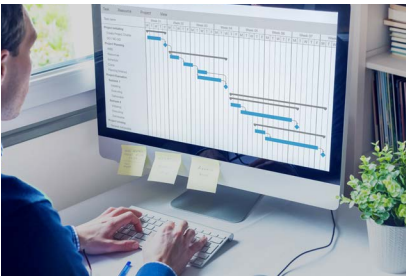
The purpose of this presentation is to provide insight for licensed adjusters and licensed attorneys of why it may be beneficial to retain an expert early in a claim. The instructor will discuss the different types of experts available and why each type may or could be useful. Along with the different types of experts, the instructor will review in detail inspection protocols, proper guidance, and tools that can be used by experts. These tools and information provide requirements and recommendations for forensic type work. The tools the instructor will discuss include non-invasive, invasive, and testing standards which can be used during an inspection and by experts. Would you hire an expert prior to a claim if you could find the smoking gun and prove no fault?

## Xactimate Tips/Tricks and Mitigation Invoice Analysis

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CE

CLE



The purpose of this program is to assist Xactimate Users on how to enhance their estimate preparation by utilizing best practices when writing an estimate in the Xactimate software. Utilizing best practices will aid the user in preparing a more efficient estimate and will subsequently lower the amount of time it takes to write an estimate. Additionally, we will be discussing what an adjuster should look for when reviewing a contractor's mitigation or emergency service invoice.



# REAL ESTATE & CONSTRUCTION SERVICES

## Construction Draw Risk Management

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AIA



Draw documentation requirements on construction projects have become more stringent over recent years. If the project delivery team provides incomplete or inaccurate information, it can result in delayed payments to the developer, general contractor, subcontractors, suppliers, architects, engineers, and all other vendors. This webinar will assist you in expediting the funding process, improving your company's reputation, and ultimately increasing your profitability!

This webinar is a perfect opportunity for licensed adjusters, attorneys, architects, and persons responsible for developing or reviewing construction draw documentation (hard and soft costs). In this webinar, Senior Project Manager, Lisa

F. Noll, will cover the flow of the draw process, typical causes of delayed funding, offsite stored materials and what the banks look for in documentation and an overview of Lien Waiver tracking.

## Converting Assets from Office to Residential?- What You Need to Know\*

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AIA



As the dynamics of the real estate market continue to evolve, repurposing commercial office spaces into residential properties has become an attractive option for landlords and property owners. However, the conversion process is fraught with complexities that require careful planning and execution. During this webinar, we will explore the intricacies of commercial office conversions to residential and highlight how VERTEX and Stantec Architecture, industry leading AEC companies in the field, can assist landlords and property owners in the repositioning process.

## Exterior Elevated Elements - Evaluation & Design Considerations\*

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AIA



After the fatal collapse of a balcony with concealed wood framing at a relatively new apartment building in Berkeley, California, the State has now mandated the inspection, evaluation, and repair, of a broad range of building assemblies at existing multifamily residential properties prior to January 1, 2025. This course will provide a review of the recently updated laws and new building code requirements applicable to what are now collectively referred to "Exterior Elevated Elements" (or "EEEs"). The course will also use case studies and experience from investigating many thousands of EEE assemblies and will educate course attendees on a variety of lessons learned, to be applied in active practice. Discussion of the major risk

factors for these types of assemblies, the challenge in evaluating many EEE types due to concealed structural components protected by often poorly maintained waterproofing systems, and considerations for protecting future assets and building occupants will also be addressed. Through proper evaluation of the true condition of critical structural components that may be otherwise concealed from view, at a randomly selected sampling, building owners can establish plans to mitigate potential risks to occupant and public safety, and property as well.



## Management of Polychlorinated Biphenyls (PCBs) and Hazardous Building Materials\*

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AIA



This course will cover how to identify hazardous materials in advance of construction prevents against accidental exposure, for both building occupants and workers, as well as assists in managing project costs. Hazardous materials include: Asbestos, Lead, Polychlorinated biphenyls (PCBs), Chlorofluorocarbons (CFCs), Heavy Metals and Radioactivity.

## Sustainable Development in Higher Education: A Comprehensive Exploration

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AIA



Embark on a comprehensive journey through sustainable development practices in higher education. This webinar brings together diverse perspectives from Boston University (BU) experts in various fields to provide a holistic understanding of sustainable initiatives. From climate action plans and architectural transformations to engineering solutions and geothermal innovations, this course dives deep into BU's commitment to sustainability.

# SURETY

## Construction 101

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The purpose of this presentation is to explain the building process through a discussion of the pre-construction, construction and post-construction phases. This program highlights the keys to a successful project during all three phases and will also include a detailed explanation and examples of conceptualization, design, construction documentation, construction, and closeout / evaluation.

## Construction Contract Administration & Common Occurrences of Maladministration

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The purpose of this presentation is to review standard construction contract administration procedures, and also discuss common occurrences of maladministration. The presenters will discuss: ① issues that commonly arise with the administration of a contract which may not be in compliance with contract procedures, thus potentially offering a surety and their counsel with defenses against a performance bond claim; and ② strategies to identify occurrences of maladministration will also be discussed.

## Construction Contract Change Order Clauses and Bearing the Risk of Cost Overruns

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CLE



The purpose of this program is to understand the change order process, different change order forms and their structures, and how to mitigate the risk of incurring unrecoverable cost overruns. To fully understand the contract change process, surety professionals should understand the components of change orders and understand how the language included in the contract general conditions can impact project execution. Additionally, understanding the risks associated with scope changes and unforeseen conditions during construction can assist the surety professional with determining how to address an Obligatee's bond claims and develop an effective resolution strategy. The presenters will also review several case studies to demonstrate how poorly written or under-negotiated change orders can impact a project and/or the surety's principal.

## Construction Process Overview "Evaluating Specialty Contractors" Considerations for Claims/Underwriting

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CE

CLE



The purpose of this presentation is to explain the building process through a discussion of the pre-construction, construction, and post-construction phases. This program highlights the keys to a successful project during all three phases and will also include a detailed explanation and examples of conceptualization, design, construction documentation, construction, and closeout / evaluation.

## Construction Quality Control

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This presentation will inform audience members about project quality control and review some of the prevalent issues in the construction industry regarding quality control, testing and inspections, company culture and vendor/supplier challenges. The presenters will review the following project topics where risk is greatest: ① Construction team management of quality; ② agencies having jurisdiction regulations and limits to conformity of work; ③ communication challenges; ④ material, equipment, and systems procurement; ⑤ start-up testing and commissioning; ⑥ quality control pre-planning and pre-installation meetings; ⑦ quality management & different roles; ⑧ inspections and testing on projects.

## Contract Dispute Resolution for Federal Projects [Joint presentation with counsel, Watt Tieder]

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The purpose of this program is to review contract dispute resolution on federal projects. The objectives of this presentation are to: ① provide a background of the common types of claims and how the Federal Acquisition Regulations address these claims; ② describe in detail the evolution of a claim; ③ outline the dispute resolution process; and ④ provide strategies for claim resolution. Additionally, the presenters will review several case studies and the outcome of each to provide real life examples of what surety providers and claim adjusters may encounter.

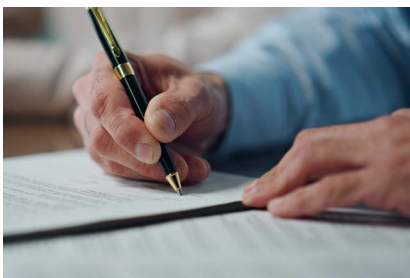
## Contract Modifications: Their Implications in Surety Claims

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Understanding contract modifications and their impacts to surety claims is vital when it comes to dealing with construction claims and completing a defaulted project. This presentation aims to help claims professionals better understand what contract modifications are, the different types of contract modifications, timeline for submission and how to better understand the extent of these modifications.

## Cost-to-Complete Analysis & Closing Out Projects

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The purpose of this program is to review a cost-to-complete analysis and the project closeout process. The objectives of this presentation are to: ① review the fundamentals of a cost to complete analysis and how this loss analysis report is prepared, ② identify key closeout components, ③ discuss how to successfully track the closeout process and ④ discuss how to avoid potential closeout pitfalls.

## Current Trends: Technology in Construction & Claims

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The purpose of this program is to review current and recent technological developments in the construction industry and advise the audience how those technologies can be utilized in the Surety industry. The objectives of this presentation are to: ① review technological developments and state-of-the-art equipment recently released in the construction industry; ② discuss potential applications of the new technologies as they relate to the Surety bonding and claims industry; and ③ explain how the implementation of these methodologies can mitigate both risk and loss in a claim, and how they can aid with development of cost estimations and completion studies.



## Estimating Completion Costs on Defaulted Projects

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In this course, the presenters will cover the considerations necessary to quickly and accurately estimate the total cost to complete a defaulted project, and inform the strategy and decisions required to develop a completion scenario. The speakers will review the methods for estimating costs associated with many components of a construction project, including: ① subcontractors, ② deficiency correction, ③ self-performance, ④ supervision, ⑤ temporary requirements, ⑥ warranties, and ⑦ contingencies.

## Failure by Design: Issues with Plans, Specifications, and Submittals

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The purpose of this presentation is to review and discuss the impact of contract documents, such as Plans and Specifications, and other project documents, such as RFI's and Submittal's with respect to design responsibility and resulting liabilities. Common contract language is specifically highlighted to present potential pitfalls. The presentation will review: ① understanding design responsibility in various project delivery methods; ② how to deal with ambiguities in Plans and Specifications; ③ Contractor obligations with respect to the review of contract documents; ④ the role of submittals, shop drawings and RFI's; ⑤ Surety defenses under common scenarios involving issues with Plans, Specs and submittals; and ⑥ other considerations for a Completing Surety. With a thorough understanding of the key project documents, the presenters will provide both underwriters and claim

## Fundamentals of an Effective Cost-to-Complete Analysis

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The purpose of this program is to review the fundamentals of a Cost-to-Complete Analysis. The goals of this presentation are ① to discuss the key components of a cost to complete analysis including but not limited to subcontractor and vendor balances, remaining buyout estimates, self-performance estimates, general conditions, accounts payable including earned retainages, and potential back charges and claims and ② to discuss project risks and exposures and how to reflect same in the cost to complete analysis.

## Fundamentals of Insurance Risk Products for the Construction Industry

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The purpose of this program is to provide an overview of the most common types of underwritten risk products used in the construction industry today. The objectives of the presentation are to: 1) Discuss the fundamentals of underwritten risk products such as: Contractor Commercial General Liability (CGL); Contract Surety Bonds - Payment and Performance; Builders Risk Insurance; OCIP/CCIP Policies; Contractor Professional Liability (E&O) Insurance; & Subcontractor Default (SubGuard) Insurance; 2) and to discuss how these different products are triggered when a Construction Defect Claim arises.

## Handicapping Affirmative Claims

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The purpose of this course is to review how to evaluate and handicap affirmative claims that are presented to sureties by their principals. The surety professional needs to understand whether its Principal's claims against the Obligee may have merit and could result in recovery. This is a key consideration to determine the path forward for claim settlement, to determine how to include the principal's claim(s) in the surety's loss analysis. There are several variables to consider when handicapping an affirmative claim, such as compliance with notice provisions entitlement analysis, schedule impact analysis, and the damages quantification.

## Handicapping Completion Contingencies

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The purpose of this program is to review how to evaluate cost contingencies on projects. The objectives of this presentation are to: ① review the various areas where unknown costs can arise in order to properly estimate completion costs and set reserves which take into consideration various latent and patent factors; ② demonstrate to the audience how to anticipate cost risk not only relating to the root reason of default but also consider the long list of stakeholders to a project and in turn their own impacts that can potentially be pushed back through the contract onto the contractor and/or surety. ③ Once the project becomes substantially complete what potential costs can arise during warranty and close

out of a project not only within the contract but to other subcontractors, vendors, and owner representatives. ④ The presenters will review the steps involved, which include handicapping contingencies based on probabilities, past experiences and percent of risk remaining including evaluating performance to date by various parties to determine likelihood of potential future costs and durations to undertake them. ⑤ The presenters will evaluate past projects and contingency impacts that arose both known and unknown.

## Key Considerations for Projects in Foreign & Remote Locations

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The purpose of this presentation is to review the key considerations for projects in foreign and remote locations, specifically as applicable to U.S. contractors performing work in foreign or remote locations. The presenters will review in detail the following project topics where risks and associated cost increases are the greatest: ① construction team management staff, ② construction team labor force, ③ location regulations and laws, ④ communication challenges, ⑤ material, equipment, and systems procurement, ⑥ project specific & administrative requirements and ⑦ performance bond claims & surety takeovers. Additionally, the presenters will review a variety of case studies and the outcome of each to provide real life examples of what surety providers and claim adjusters may encounter.

## Main Considerations in Project Schedule Analysis

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The purpose of this program is to review the main considerations in project schedule analysis, which includes reviewing the key characteristics and common causes of delay claims, types of resultant delay damages, and forensic scheduling methodologies. The presenters will also discuss contractual considerations, example scheduling tools, the quality of schedules encountered, and supporting documentation requirements.

## Managing Costs to Address Deficient Work in Takeover Agreements

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Addressing defective work left by a defaulted contractor can have a huge impact on costs to complete. Ideally all the defective work is identified prior to a Takeover Agreement and is included in the completion contractor's lump sum. Unfortunately, this is never the case, and contractors responding to RFP's are reluctant to take on the risk that all defective work has been identified. It is important to identify what may come to haunt you and budget accordingly.



## Mid-Rise and High-Rise Residential – Construction Defects and Impacts to the Surety

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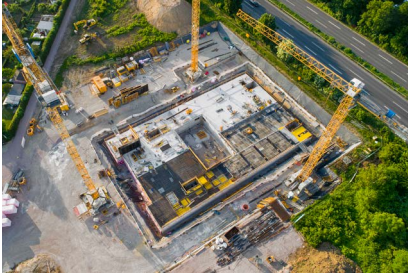
The purpose of this presentation is to review construction defects common to mid-rise and high-rise residential construction. The presenters will identify common issues that occur as a result of vulnerable technical details and poor workmanship. The impact of these defects will be reviewed: from how they are investigated and identified, to how they are remediated, and the resulting costs. Strategies to avoid these defects and to mitigate the costs of remediation will also be discussed.

## Navigating the Relet Process

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Often the surety elects to perform and complete the remaining work through the use of a completing contractor. The purpose of this program is to explain the entire process of preparing a relet, potential pitfalls to avoid and strategies of the various relet scenarios we have encountered as consultants. Time (through exposure to potential liquidated damages and other claim exposure) and relet/ratification premiums present some of the highest potential exposure. Understanding these components, their potential impact through the relet process and the most advantageous options to minimize cost exposure will be discussed. We will review these topics and explore them within the unique challenges we've encountered in our multiple relet situations and how we overcame those challenges.

## Primary Considerations and Factors When Contracting in Foreign & Remote Locations

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The planning and execution of an international or remote project requires many special considerations not usually encountered when planning within your own country. There are obvious differences, such as wage rates, productivity, duties, and taxes, but many more differences may be overlooked. For projects located in a foreign, remote, or unique location in many cases, project failure is predetermined long before construction has started. Contractors take on these projects, based on the significant profit margins they offer but see it lost from failing to properly plan and mitigate the risks associated with projects in these locations. The simple kinds of risks that we encounter every day in more routine types of projects are suddenly

compounded by complexity. They become dynamic; they change over time; they change through the course of the project. In this presentation, we will discuss areas of major risk underestimated by many of the Principal's we have worked with and provide case studies involving these risks.

## Project Closeout

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The Closeout process is probably the last thing on the mind when negotiating a Takeover Agreement. However, failure to contemplate closeout procedures can result in additional time and costs if the Obligatee's expectations and the contractual requirements are not considered. Understanding the requirements of the prime contract and obligations of the individual subcontracts is essential when estimating completion costs.



## Ratification of Subcontract Agreements

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In the presentation, the speakers will review: ① the basics of a ratification agreement, ② the preparation of a ratification and evaluation of a subcontractor payment bond claim, and ③ common challenges encountered during the ratification process and practical considerations for how to address them.

## Technical Claim Evaluation - The Complex Payment Bond Claim

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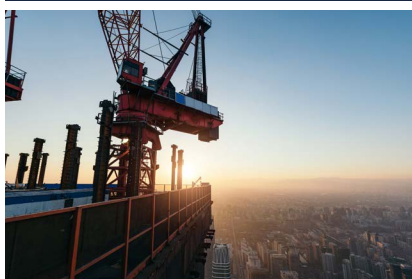
The purpose of this program is to review how to evaluate technical claims. The objectives of this presentation are to: ① review the proper way to prepare/evaluate affirmative claims; ② teach the audience how to use this methodology to help negotiate a quick and reasonable settlement of payment bond claims; and ③ if settlement fails, explain how this methodology will position a surety and insurance carriers well for dispute resolution. Additionally, the presenters will review the steps involved, which include: evaluating the nature of a claim; entitlement; damages; compiling a damages summary to outline the earned but unpaid contract funds, earned but unpaid retainage, pending charge orders, loss of productivity, delay damages, lost profits, interest / fees and setoffs for defective work; compiling a report and exhibits to explain findings; and settling the claim.

## The First 90 Days

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The purpose of this program is to review key events and decisions that occur within the first 90 days following a contractor termination. The objectives of this presentation are to: ① assess a project immediately following a contractor default; ② discuss methods of acquiring necessary Project information and instituting temporary measures to protect the work-in-place; and ③ define some criteria for developing the optimal path forward. Throughout the presentation, the presenters will review the steps involved, which include: responding to the initial claim; securing the jobsite; securing project records and documentation; preliminary investigation; collecting insurance certificates; settling a payment bond claim; subcontractor ratification; defect resolution; reletting a project; and tendering or taking over a project.

# Contact

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regarding comments or questions.

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