



21<sup>ST</sup> ANNUAL  
**FIRE PROTECTION  
& LIFE SAFETY FORUM**

**Principles of Community Risk Reduction**

**Fire Code updates, Fire Protection, Prevention, and Public Education**

**Campus Fire Safety & Campus Community Risk Reduction**



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# Conference Schedule of Events Program and Session Descriptions

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March 17th and 18th, 2025

Hyatt Regency Hotel - Columbus, Ohio





**The Fire Code Academy**  
81 Mill Street – Suite 300  
Gahanna, Ohio 43230  
1-614-416-8077

[www.FireCodeAcademy.com](http://www.FireCodeAcademy.com)

The Fire Code Academy (FCA) provides affordable professional level training, consulting, and continuing education in the fields of *Community Risk Reduction, Code Enforcement, Fire Science, Fire Protection systems, Fire Prevention, High-Rise Fire Safety and Emergency Response*. It is our mission to serve as a leader in advancing professionalism by designing and delivering high quality training and education to members of the fire service and those fire safety and code related fields for competent practice as firefighters, fire inspectors, educators, and beyond.

Through our educational programs, the FCA offers comprehensive and practical education in the administration, application and enforcement of the Ohio Fire Code, the International Fire Code, NFPA 101, Fire Inspection Techniques, Firefighter CEUs, Fire Service Management & Leadership, OSHA required trainings, and related subjects. The FCA encompasses all major model codes and training programs designed for the Fire Service as well as Private Industry (safety and risk management) personnel. The FCA completed a multi-year contract to provide fire code/fire inspector training to federal firefighters including members of the VA Healthcare System, the Army and Airforce.

### **Training and Continuing Education**

We are committed to excellence by offering exceptional educational programs from knowledgeable and experienced instructors for fire and industry professionals to advance their careers.



With our “Close-to-Home” program, the FCA brings training and education to your area of the State. We will train multiple members of your organization in your community for a fraction of the cost you would pay to send them out of town or provide multiple online memberships.

### **Ohio Certified Firefighters and Fire Safety Inspectors**

Programs offered through the FCA meet and/or exceeded the continuing education requirements as set forth in the Ohio Administrative Code (OAC) Sections 4765-20-13 for Firefighters and 4765-20-12 for Fire Safety Inspectors as approved by your Fire Chief or Charter Training Director.

### **Consulting and Fire Inspector Assessment Center & Evaluation**

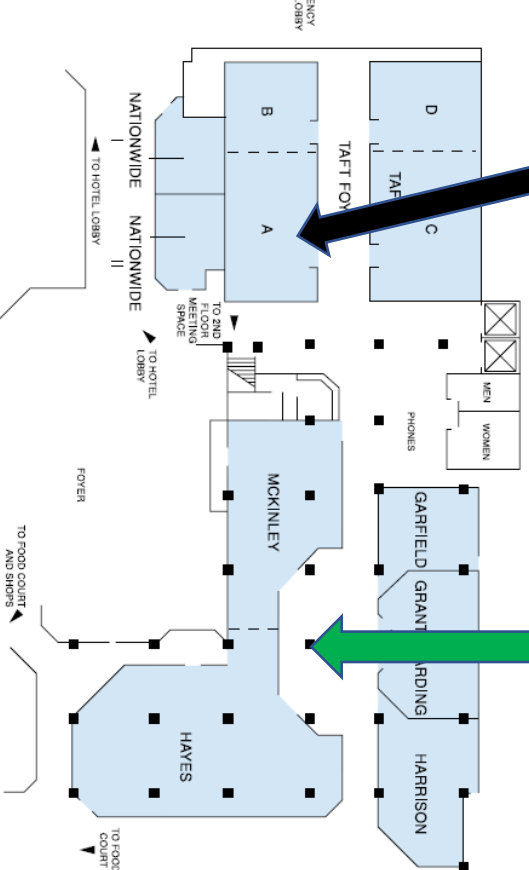
Our cadre of professionals can assist your fire department or business in conducting fire inspections or risk reduction surveys within your community or on your company property. In addition, we also provide fire prevention and fire code management services. The Fire Code Academy conducts professionally operated fire inspector/fire marshal hiring and promotional assessment center evaluations.



## First Floor Rooms

Taft Meetings Room A (1<sup>st</sup> Fl.)

Lunch - Hayes & McKinley (1<sup>st</sup> Fl.)



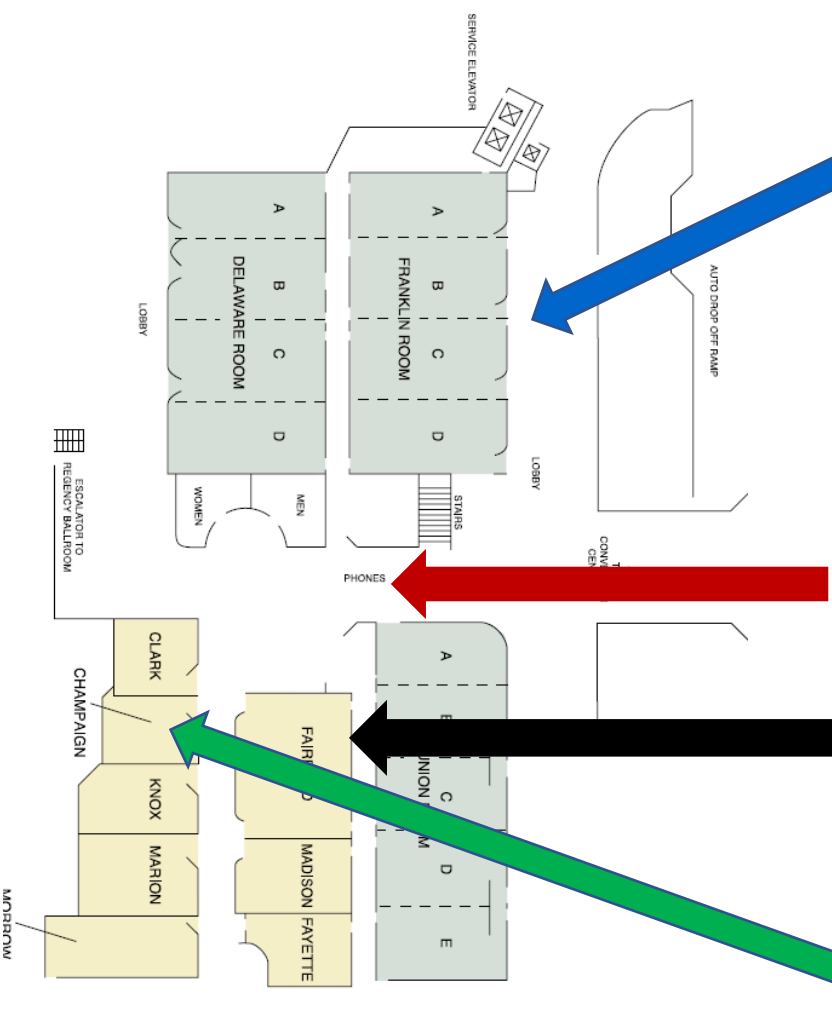
## Second Floor Rooms

Franklin Meeting Rooms A,B,C,D (2<sup>nd</sup> Fl.)

Registration (Champaign Rm) (2<sup>nd</sup> Fl.)

Fairfield Meeting Room (2<sup>nd</sup> Fl.)

Exhibits (2<sup>nd</sup> Fl.)



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**FIRE PROTECTION**  
& LIFE SAFETY FORUM



**FIRE CODE**  
ACADEMY



**STRATEGIES**  
FOR SUCCESS











**3:45pm - 4:45pm**

**Franklin Room - A**

- 109. Food Trucks & Fire Safety

**Franklin Room - B**

- 107. Historic District Fire Sprinkler & Fire Alarm System Retrofit Case Study

**Franklin Room - C**

- 105. Forging Resilient Partnerships: Strengthening Fire Departments, Pre-planning, and Hospitals for Emergency Preparedness

**Franklin Room - D**

- 101. Compliance, Documentation, and IoT – Making Smarter Communities

**Fairfield Room**

- 104. Door Hardware and Building Code Compliance: Essentials for Safety and Security
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**9:30am - 10:30am**

**Franklin Room - A**

- 115. Introduction to Seismic Protection for Sprinkler Systems

**Franklin Room - B**

- 138. How Fire Alarm System Can Assist Fire Departments with Target Hazard Occupancies

**Franklin Room - C**

- 106. The Tesla Ecosystem and the Fire Industry

**Franklin Room - D**

- 145. Industrial Fire Control Concepts Series - Fire Alarm Systems - the Basics and Beyond

**Fairfield Room**

- 129. Hoods and Cooking appliances - NFPA 17A, Standard for Wet Chemical Extinguishing Systems
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**10:45am - 11:45am**

**Franklin Room - A**

- 108. Building and Maintaining a Good Working Relationship with your AHJ

**Franklin Room - B**

- 137. Emergency Responder Communication Coverage and Two-Way System Enhancement

**Franklin Room - C**

- 127. Key Changes to the 2022 NFPA 72

**Franklin Room - D**

- 123. Industrial Fire Control Concepts Series - Understanding the Systems Approach to Fire Safety

**Fairfield Room**

- 130. Hoods and Cooking appliances - NFPA 96 the standard for ventilation control and fire protection of commercial cooking operations

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**12:00pm - 1:00pm**

**Hayes Meeting Room (located on the first floor)**

"Lunch and Learn with Ohio's State Fire Marshal"

*This interactive luncheon will address those issues important to you and Ohio's Fire Service. He will continue the discussion regarding the anticipated "major changes" and "updates" to the Ohio Fire Code.*

**McKinley Meeting Room (located on the first floor)**

Lunch

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**1:00pm - 2:00pm**

**Franklin Room - A**

- 140. Significant Updates to the 2023 Edition of NFPA 25 The Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems

**Franklin Room - B**

- 139. Fire Alarm Systems: Making the fire department part of the solution rather than part of the reaction





challenges, and discusses future trends in fire protection. By leveraging cloud and IoT, communities can significantly enhance the safety and reliability of their fire protection systems, ensuring better protection for residents and properties.

Learning outcomes:

**1. Understand the Role of Cloud Technology and IoT in Fire Protection Systems:**

Learn how cloud technology and IoT can enhance compliance and documentation processes for fire protection systems. Identify the benefits of centralized data management, real-time updates, enhanced security, and scalability provided by cloud solutions.

Recognize the advantages of real-time monitoring, automated alerts, predictive maintenance, and data analytics offered by IoT devices.

**2. Identify the Challenges and Solutions in Traditional Compliance and Documentation:**

Understand the limitations and challenges associated with traditional methods of compliance and documentation, such as manual record-keeping and susceptibility to errors. Explore how cloud-based solutions address these challenges by providing secure, accessible, and up-to-date records. Examine the role of IoT in overcoming traditional compliance issues through continuous monitoring and automated data collection.

**3. Implement and Integrate Cloud and IoT Technologies for Enhanced Compliance:**

Learn the steps required to successfully implement cloud and IoT technologies in fire protection systems, including planning, assessment, and choosing the right technology. Understand the integration process of cloud and IoT for seamless data flow and improved accuracy.

Explore strategies for overcoming common implementation challenges and future trends in fire protection technology.

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**102. Fire Safety: From Classroom to Community - Building Partnerships for Success**

Presented by: Holliston Fire Department, Massachusetts

As community risk reduction specialists, we are on the frontlines of protecting our communities from fire and other hazards. But what about our youngest citizens? Ensuring safety at school is paramount, and this workshop will explore the vital role fire departments can play in partnering with classroom teachers to minimize laboratory risk and maximize preparedness. Across the country, students in school science classrooms and other laboratory settings have been burned and injured when mishaps occurred during science

demonstrations. Using the latest codes and standards developed by experts from around the world establishes minimum levels of safety to protect people and property. This case study will detail how a fire chief worked with science department faculty to review policies and procedures after a demonstration resulted in both the activation of the sprinkler system and response of the state hazmat team to a local high school. He will highlight how the requirements of NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals, and the elements of a U.S. Chemical Safety Board (CSB) Safety Bulletin can be used to ensure the health and safety of staff and students in school settings. He will also explain how attendees can implement a similar approach in their own communities.

Learning outcomes:

- Uncover the critical need for collaborative efforts: Delve into the common mishaps that can occur during classroom demonstrations involving fire and safety equipment, and how these incidents can be avoided.
- Explore the value of teacher training: Gain valuable insights on how to effectively partner with teachers to develop safe and engaging demonstrations that prioritize student learning and safety.
- Develop practical strategies for collaboration: Learn about effective communication techniques, resource sharing, and best practices for establishing ongoing partnerships between fire departments and school staff.
- Discover the importance of pre-planning and communication: Gain the knowledge and tools to effectively plan and execute fire safety demonstrations, ensuring the safety of both teachers and students.

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### **103. Changes & Application of NFPA 80 - The Standard for Fire Doors and Other Opening Protectives**

Presented by: Merchantville Overhead Door Co. Inc.



This training series was developed for those involved with the inspection, approval, design and certification of rolling fire doors.

This program presents building owner responsibilities, critical standards, records responsibilities and assembly inspection topics. It will teach you how to understand design evolutions and performance advantages that will help you to make best fit recommendations.



This training session was created by a well-recognized industry team of installation and maintenance, fire inspection, manufacturing and code development experts. It was developed with the ultimate goal of educating Fire Inspectors, State Fire Marshals, AHJ's and other building inspection officials with the key fundamentals and critical knowledge necessary to fairly evaluate a rolling steel fire door assembly in the field.

Whether you take this class to expand your own level of expertise or to introduce your colleagues to the essential directives of coiling fire door protection, this is an unvarnished training session that any fire protection or building inspection related professional will find to be indispensable.

Topics Presented:

- Changes to NFPA 80
- Rolling fire door installation principles
- Rolling fire door design variations
- Integrated versus stand-alone FACP's
- Electrical versus thermal activation
- Applicable codes and standards
- Periodic inspection and drop test principles
- Record keeping requirements

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#### **104. Door Hardware and Building Code Compliance: Essentials for Safety and Security**

Presented by: Dormakaba



This course provides an in-depth understanding of door hardware systems and their critical role in ensuring compliance with building codes, particularly related to safety, accessibility, and security. Participants will learn how various hardware components—such as locks, hinges, door closers, and panic devices—are governed by local, national, and international building standards. The course covers essential code requirements, including fire safety, ADA accessibility, and egress standards, ensuring that professionals can make informed decisions when selecting and installing door hardware. This course is ideal for architects, contractors, facility managers, and building inspectors.

Learning outcomes:

Understand Key Building Codes and Standards-

Identify and interpret the relevant building codes, such as NFPA 80 (Fire Doors), NFPA 101 (Life Safety Code), and the Americans with Disabilities Act (ADA), that govern the selection and installation of door hardware.

Evaluate Fire and Life Safety Requirements-

Assess door hardware for compliance with fire resistance and egress standards, including the correct use of panic devices, fire-rated doors, and door closers to ensure occupant safety during emergencies.

Ensure ADA Compliance in Door Hardware Selection-

Determine the appropriate hardware that meets ADA requirements for accessible design, focusing on door opening forces, handle designs, and automatic door operators to enhance accessibility for all building occupants.

Integrate Security and Building Code Requirements-

Balance security needs with code compliance by selecting hardware solutions that meet the security standards while also fulfilling safety, fire, and accessibility regulations.

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**105. "Forging Resilient Partnerships: Strengthening Fire Departments, Pre-planning, and Hospitals for Emergency Preparedness"**

Presented by: Sussex County Public Safety Academy

Healthcare Facilities Pre-Incident Planning and Fire Prevention

The program discusses the need to prepare pre-planning documents. Using NFPA-1620 as a guide, we will discuss the required parts of a pre-plan, who should have access, and other requirements of the pre-planning process for healthcare facilities. Common Hazards to Firefighters in healthcare facilities and the potential health and life safety issues associated with them. This presentation systematically identifies potential fire hazards, implements preventive measures, and establishes effective emergency response protocols. It covers various aspects such as fire risk assessments, fire safety education

and training, installation, and maintenance of fire detection and suppression systems, evacuation planning, and coordination with local emergency services.

Learning outcomes: Pre-Incident Collaboration

1 Joint Fire Safety Inspections: Regular inspections of the hospital by the local fire department to ensure compliance with fire codes and safety standards. This includes checking fire alarms, suppression systems, evacuation routes, and exits.

2 Risk Assessment Assistance: Fire departments often assist hospitals in identifying potential fire hazards, such as high-risk areas (e.g., operating rooms, labs, oxygen storage) and recommending mitigation strategies.

3. Fire Safety Planning: The fire department helps develop and review the hospital's fire safety and emergency evacuation plans, ensuring they align with local codes and best practices.

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### **106. The Tesla Ecosystem and the Fire Industry**

Presented by: Tesla

This program description is in the approval process

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### **107. Historic District Fire Sprinkler & Fire Alarm System Retrofit Case Study**

Presented by: City of West Des Moines, Iowa

Changes of use can greatly affect economic development projects in existing buildings by increasing costs due to fire sprinkler and fire alarm requirements. This is especially true in historic buildings and/or districts. The City of West Des Moines, Iowa has a 6 square block historic district that for years experienced little to no revitalization due to fire code requirements for use changes. The city proactively formed a team that applied for grants, worked with business owners, and created legal easements inside buildings to install shared fire sprinkler systems and fire alarm systems that stretched all or part of certain city blocks to help revitalize an area of our city that was seeing increased vacancies and no growth. As a result of these efforts, 3 grants were awarded, and this class will give specific

details of our project and help motivate jurisdictions to think out of the box to do something similar.

Learning outcomes:

1. When fire codes become a roadblock to growth, learn to find solutions to help fix the problem.
  2. Learn creative ways to form relationships with businesses in your jurisdiction.
  3. Learn creative ways to share fire sprinkler and fire alarm systems among businesses that help spur positive use changes and increased economic development.
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### **108. Building and Maintaining a Good Working Relationship with your AHJ**

Presented by: SenezCo

This presentation will show and discuss proven examples on how Campus Based Communities including Colleges/Universities can build and maintain a good, professional working relationship with their state and local Fire Departments and Fire Marshal offices. From hosting events, ongoing training, and general meetings with these AHJ's can help ensure all stakeholders are involved in a mutual mission of having a safer campus community. These relationships are key to ensure all goals are met by the college/university and AHJ's.

Learning outcomes:

- I. Strategies in working with State and Local AHJ's
  - II. Preplanning and Inspection Relationships with the AHJ
  - III. Campus events including the AHJ
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### **109. Food Trucks & Fire Safety**

Presented by: SenezCo

This presentation will discuss the importance of fire safety in regards to food truck. We will talk about things to look for on the food trucks, how to inspect the food trucks, and ensuring that we as fire safety personnel stay ahead of the game.

Learning outcomes:

- I. History and Lesson Learned from Food Truck Incidents
- II. Supporting codes for Fire Trucks
- III. Inspection process of Food Trucks

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### **110. Creating and Maintaining a Successful Campus Based Organization ITM Program**

Presented by: SenezCo

This presentation will discuss the importance of a successful Inspection, Testing, and Maintenance fire and life safety program. An in depth look into the code requirements of a ITM program, why a successful ITM program is important, helpful hints for vendor selection processes, and how to overcome challenges that can arise in a campus environment.

Learning outcomes:

Components of an ITM Program, challenges in a campus environmental, vendor selection for ITM programs

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### **111. NFPA 72 Requirements for isolation protection on Signaling Line Circuits (NFAP 72 - National Fire Alarm and Signaling Code**

Presented by: Fire Tech Productions



Addressable Fire Alarm System Installations must provide proper isolation protection devices on the Signaling Line Circuits to ensure that a single fault does not cause an impairment of the whole system. Since the 2013 Edition, NFPA 72 has required these devices to be installed. Still today many designers and AHJ's are not aware of the requirements for these devices and they are not being provided during the design and installation of the system. AHJ's performing plan review and acceptance testing need to ensure that these protective devices are being provided and tested during the acceptance test conducted for installed systems.

Learning outcomes:

- I. Determine the appropriate hardware that meets ADA requirements for accessible design, focusing on door opening forces, handle designs, and automatic door operators to enhance accessibility for all building occupants.
- II. Integrate Security and Building Code Requirements
- III. Balance security needs with code compliance by selecting hardware solutions that meet the security standards while also fulfilling safety, fire, and accessibility regulations.

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## **112. Understanding the Basics of Fireblocking**

Presented by: Code Consultation and Plan Review Services



This course is designed to take the code official/fire inspector/building inspector/design professional through the history of wood frame construction and what led to the need for fireblocking.

Learning outcomes:

1. This course will explain the difference between fireblocking, draftstopping and firestopping.
  2. This class will illustrate real world examples to further guide the code official and inspector in what to look for in the field.
  3. Illustrate the importance of fireblocking in residential and commercial applications.
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## **115. Introduction to Seismic Protection for Sprinkler Systems**

Presented by: American Fire Sprinkler Association



This presentation will provide a high-level overview of the principles of seismic design. During the presentation, attendees will discuss the model codes and referenced standards that tell us when and how to install seismic protection. In addition, this presentation will review the four main principles of seismic design – flexibility, clearance, bracing, and restraint – and the applicable requirements for each.

Learning Outcomes:

1. Identify the seismic design categories that require seismic protection
2. Determine the seismic coefficient
3. Identify and apply the requirements for flexibility and clearance
4. Determine the zone of influence for a seismic brace
5. Determine the individual components of a sway brace that need to be calculated
6. Identify system locations that require restraint

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## **116. A Look Into School Safety**

Presented by: Springfield Township Fire Department, Ohio

Over the past three years I have presented new types of school safety designs. In our community we have three different types of school systems that have varying degrees of funding. This is a continuation of how these schools have continued to provide security to the students at different levels. There is a public and private school system and then a school run by the juvenile court system.

All three have unique perspectives. The public system is in the process of building a new high school. We are going to compare this to what they learned from the elementary school they built a year ago. even if you have not seen any of the presentations prior you will be able to learn from the beginning.



Learning outcomes:

- I. Compare 3 Different school types in a community.
- II. How School design can help or hamper school security and safety.
- III. What new materials are being offered and the cost associated with them.

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### **117. The Benefits of Combining Fire Code and Code Enforcement**

Presented by: Springfield Township Fire Department, Ohio

We are preparing to share with other municipalities and discuss the effects of combining different inspection divisions into one. We have had many success stories with this along with the occasional setback other municipalities may encounter as well. I will discuss how we worked through those, and answer questions others may have pertaining to their municipality.

Combining enforcement divisions was a new innovative way we found to provide better services to our residents and business owners while reducing cost. We understand this is an "outside of the box" concept that may or may not benefit other communities. Buy in or collaboration of internal departments from their own municipality is crucial and another topic we will discuss.

Learning outcomes:

- I. How combining the two enforcement divisions into one benefited Springfield Township.
- II. Will this work for your municipality and what to expect from combining divisions?
- III. What we learned from our experience with trying different innovative ideas.

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### **118. Basic Fire Inspection Principles: Company Level Inspections**

Presented by: American Wood Council

This program has been designed for company officers, firefighters, new fire inspectors, and fire marshals. The presentation will cover fire key code provisions regarding egress, passive and active fire protection, notification, and fire department access.

The program will also outline inspection techniques, documentation, and follow-up for

company level fire inspections. The program also serves as a “Train the Trainer” for seasoned inspectors and fire marshals to train company officers and line firefighters.

Learning outcomes:

- a. How to set up and prepare for the inspection, sequence of the inspection, documentation and follow up.
- b. Define the means of egress, discuss codes involved with signage, lighting, and doors.
- c. Identify passive fire protection and review the codes involving them. Discuss the various types of active fire protection and its required inspection, maintenance, and testing.
- d. Identify the components of a fire alarm system. Discuss FD access issues and the code requirements associated.
- e. Discuss the various occupancy classifications and how those classifications impact code enforcement.
- f. Review fire codes that regulate wiring, use of electrical equipment, extension cords, electrical rooms, and panels
- g. Identify fire codes that cover underground buildings, membrane structures, temporary structures, tents, and high-rises.
- h. Discuss fire codes that regulate portable generators, food trucks, outdoor propane heaters, storage, and interior finishes.

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## **121. NFPA 13 and NFPA 72: Uncomplicating the Complicated**

Presented by: National Fire Sprinkler Association



NFPA 72 - National Fire Alarm and Signaling Code

NFPA 13 - Standard for the Installation of Sprinkler Systems

This course will highlight some of the more challenging issues and misinterpreted sections in NFPA 13 and NFPA 72. Topics to be discussed include sprinkler placement in relation to obstructions, sprinkler protection and high-piled storage, NFPA 72 detection placement criteria for high ceiling spaces, changes in notification requirements, and compliant vs. non-compliant methods for transmitting the fire alarm signal to the supervising station.

Learning outcomes:

1. Review criteria from NFPA 13 related to sprinkler placement and obstructions
2. Review sprinkler requirements related to high piled storage occupancies.
3. Review criteria from NFPA 72 related to detector placement, notification appliances, and fire alarm monitoring and supervising stations.

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## **122. Understanding Fire Protection Inspection, Testing, and Maintenance: Third-Party Online Reporting**

Presented by: Brycer

The electronic and digital world has changed how a code official and AHJs can receive and review fire protection inspection reports. The practice of a fire protection (fire alarm, sprinkler, fire pump, hood suppression, etc..) contractor uploading a report through a third-party reporting platform using standards such as NFPA 25 and NFPA 72 is becoming very popular as half of the United states have adopted this method.

Third-party reporting solutions provide a secure cloud environment in which third party contractors who inspect, test, and maintain fire protections systems submit their reports via a web portal directly to the AHJ. This facilitates a more efficient review, tracking and follow-up process with occupants to correct deficiencies and maintain systems.

The result is a comprehensive and accurate aggregation of data around which buildings have what types of systems, when they were last tested, and if there are any open deficiencies that could jeopardize their successful deployment in the event of an incident. All in all, the AHJ is better equipped to do more with less in their mission to drive 100% code compliance on life safety systems.

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### **123. Industrial Fire Control Concepts Series - Understanding the Systems Approach to Fire Safety**

Presented by: Fire Mark Fire Protection Consulting



Fire protection and fire safety science have advanced in leaps and bounds in the past fifty years. Fire research has analyzed and developed solutions for a myriad of fire protection challenges, ranging from early fire detection to taming the hazards of multi-acre warehouses. However, as fire science and fire protection knowledge advances, our fire losses continue escalating. Why? A quick analysis of fire incidents, past and present, shows that we continue to ignore the lessons learned from past fire disasters. This presentation explores the fundamental fire protection concepts known for decades but still ignored today.

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### **124. Industrial Fire Control Concepts Series - Why Can't We Learn?**

Presented by: Fire Mark Fire Protection Consulting



Effective fire safety in modern facilities is not simply compliance with the local building and fire codes. It's a complex system of decisions made after careful analysis of the site-specific needs and conditions in each individual facility. This presentation explores the systems approach to analyzing and providing effective fire protection through the appropriate use of published fire safety codes and standards and fundamental common sense fire safety concepts.

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## **126. Alarm Transmission – When Seconds Matter**

Presented by: Honeywell



When Seconds Matter - A Wholistic Look at the Journey of the Fire Alarm Signal

In less than 30 seconds, a small flame can turn into a major fire. To prevent small incidents from turning into major emergencies, new technologies are delivering alarm signals to the fire service quickly, reliably, and accurately with enhanced information at each step of the alarm journey.

During this session, we'll take a wholistic look at the journey of a fire alarm signal and how technology can be leveraged to reduce the time it takes to deliver these signals to first responders.. HERE is a link to a short video clip that helps explains the technology.

Presentation Agenda:

1. First Responder challenges
2. Fire Department response requirements as outlined in NFPA 1710
3. An overview of recent technology enhancements in the alarm signal journey from detector to first responder
4. An overview of the value to first responders including why seconds matter and the economic impact to the community and local investment in the fire service
5. What you can do to improve first responder response outcomes
6. What a code compliant Emergency Responder Communication Enhancement System (ERCES) looks like and recent programs that will improve industry competency.

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## **127. Key Changes to the 2022 NFPA 72**

Presented by: Honeywell



NFPA 72 - The National Fire Alarm and Signaling Code

The 2022 Edition of NFPA 72, National Fire Alarm and Signaling Code, was published by NFPA in 2021. It includes many significant changes regarding fire alarm systems and other signaling systems. This session will discuss some of the more significant changes and updates.

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## **128. Summary of Key Changes to the 2021 ICC Model Codes**

Presented by Honeywell



An informative 60 minute discussion that provides an overview of the new requirements in the International Code Council (ICC) and National Fire Protection Association (NFPA) model codes for in-building emergency responder radio enhancements systems (ERCES), pull stations, low frequency audible fire alarm signal, visible notification appliances, emergency voice alarm communication (EVAC) systems, carbon monoxide (CO) detection systems and smoke detection.

I-Code Changes Discussed:

1. International Fire Code (IFC)
2. International Building Code (IBC)
3. International Existing Building Code (IEBC)

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## **129. Hoods and Cooking appliances - NFPA 17A, Standard for Wet Chemical Extinguishing Systems**

Presented by: Precision Kleen, Inc, PKI Fire Protection

In this session we will discuss overall system inspections and talk about the problems found in suppression systems during systems inspection, testing and general service. We will also cover improper cleaning and the fire dangers of improperly maintained commercial cooking systems and hoods.

An overview of just how NFPA 96 and 17A work together.

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### **130. Hoods and Cooking appliances - NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations**

Presented by: Precision Kleen, Inc, PKI Fire Protection

In this session we will discuss overall system inspections and talk about the problems found in suppression systems during systems inspection, testing and general service. We will also cover improper cleaning and the fire dangers of improperly maintained commercial cooking systems and hoods.

An overview of just how NFPA 96 and 17A work together.

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### **131. Let's Take A Quick Look at Consumer Fireworks & Other Useful Information**

Presented by: Phantom Fireworks Showrooms

This presentation will cover some important elements about the history of the 1.4G consumer fireworks industry. Including how and what consumer fireworks are made of, a brief look at the manufacturing process, how they are regulated by the many agencies and shipped in commerce for retail & wholesale distribution in the USA.

Attendees will get an inside look as well as a clearer understanding of consumer fireworks and novelties retail and wholesale sales facilities whether you are in the fire service, law enforcement special investigators or any other public safety position.

This program is a good refresher for all new, intermediate and veteran persons who have to deal with fireworks as part of your job in the fire service, public safety, and enforcement communities.

We will also look at some new and improved national safety tools now available for educating the buying public as well as local and state officials.

The primary intent is to better educate & partner with industry for a safer tomorrow.

1. A much better understanding of consumer fireworks
2. To partner with industry for all the right reasons
3. To achieve the highest degree of safety, compliance and education to better serve & protect the public
4. A look at what the future holds for the fireworks industry and some of the biggest, upcoming celebration years we have ever seen for 2025 & 2026.



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## **134. Fire Sprinkler High-Rise Retrofit- The Marco Polo Story**

Presented by: National Fire Sprinkler Association



We continue to grapple with the challenges posed by modern-day fires in structures lacking modern-day fire protection features. This was clearly on display long before the July 14th, 2017, tragic Marco Polo Condominium building fire in Honolulu, Hawaii, that injured 14 and ultimately claim four lives.

This presentation will attempt to answer the “why retrofit high-rise buildings with automatic fire sprinklers” question. We will examine the history of high-rise changes made to building construction methods that perpetuated the requirement to provide automatic fire sprinklers in all of today’s high-rise buildings.

We will examine the Marco Polo building and its original fire protection features, discuss several fires in the building and why it was finally retrofit with automatic fire sprinklers -the July 14th, 2017, fire. We will conclude with some of the problems facing retrofit projects, best practices and challenges moving forward in answering the main question, is it enough to prevent future tragedies.

Learning outcomes:

1. The design history of the modern high-rise building
  2. Overview of typically early fire protection design and the impact of modern fires in aging infrastructure
  3. Discuss several fires in the Marco Polo Condominium
  4. Cover the overview of the retrofit project and ponder the question- Is it enough?
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## **135. Maximize Fire Event Communication Reliability with Multi-Carrier Cellular Technology**

Presented by: Telguard



Fire systems that remotely supervised require a communication pathway to the supervising station. For decades, the preferred option has been redundant analog phone lines. Starting in 2010

Fire systems that are remotely supervised require a communication pathway to the supervising station. While for decades, the preferred option has been redundant analog phone lines, Cellular has now become the new standard. In this class, you will learn about the different options that are available for communications, how Cellular meets code and excels as the most reliable option, and also how the newer technologies, like Multi-carrier, make it an even more reliable solution.

Learning outcomes:

- Understand the NFPA code requirements for Remote supervision communication and the options that are available
  - Understand the pros and cons of technologies currently being used to replace antiquated redundant phone lines
  - Distinguish the enhancements that new/emerging technologies like Multi-Carrier technology are making to the reliability of communication pathways like Cellular
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## **136. Modern Fires...Modern Fire Protection...Are We Ready?**

Presented by: National Fire Sprinkler Association



The modern fire environment has changed so much in the past 20 years that fire departments struggle to keep up. Changes in the uses, contents, and configuration of these buildings are causing unique challenges to both fire protection and the fire service.

From homes to high-rises, mega-warehouses, and ever-increasing big box stores that support our lifestyles, the unintended consequence is a modern fire environment that is overwhelming some of the best-staffed, equipped, and trained fire departments in America.

The modern fire environment requires firefighters and fire officers to understand fire protection features of the building, especially active fire protection systems. Fire sprinklers and Firefighters equal an unbeatable team.

At the conclusion of this seminar, the participants will:

- Understand the difference between public vs. private fire hydrants to support the fire department connection (FDC),
  - Evaluate the difference between “supply” vs. “supplemental” water to the fire protection system and fire department connection (FDC),
  - Implement the proper sequence of introducing mechanical smoke removal systems in gaining control of the fire during the critical stage the final extinguishment of the fire and the ventilation of the building,
  - Understand the difference between hose connections supplied from the sprinkler system in contrast to those supplied from a standpipe system.
  - Understand the importance of following NFPA 13E, Recommended Practice for Fire Department Operations in Protected Properties Protected by Sprinkler and Standpipe Systems.
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### **137. Emergency Responder Communication Coverage and Two-Way System Enhancement**

Presented by: Underwriters Laboratories (UL) - UL Solutions



This presentation focuses on the code requirements pertaining to emergency radio responder coverage and, if adequate coverage is not anticipated, the subsequent two-way radio communications enhancement system. The presentation covers both procedural and technical aspects of the numerous codes including International Building Code (IBC), International Fire Code (IFC), NFPA 1 - Fire Code, NFPA 72 – National Fire Alarm and Signaling Code, and NFPA 1221 – Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, and NFPA 1225 – Standards for Emergency Services Communications regarding minimum radio coverage requirements and radio enhancement system design concepts and capabilities as a result. The presentation contains a heavy focus on code compliance for new and existing buildings.

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### **138. How Fire Alarm System Can Assist Fire Departments with Target Hazard Occupancies**

Presented by: Underwriters Laboratories (UL) - UL Solutions



This session highlights the importance of fire alarm systems installed within Target Hazard occupancies focused on Supervising Station Alarm system types. Target Hazards are typically locations/occupancies that can strain or overwhelm fire department resources and vary based on activity or classification. Typical target hazards are buildings containing or identified as High-Rise, Energy Storage Systems, Data Centers, Schools, Assemblies, Hospitals, Hazardous Materials, etc... The session will identify fire alarm aspects associated with Supervising Station types, which can greatly assist in preventing loss of life, property damage, and impacts to communities should fire occur. The information presented is based on model codes and NFPA 72.

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### **139. Fire Alarm Systems: Making the fire department part of the solution rather than part of the reaction**

Presented by: Underwriters Laboratories (UL) - UL Solutions



This session highlights the importance of fire alarm systems and signal monitoring as well as the numerous responses that originate from system activations. Not all fire alarm signals are the same nor do they have the same meaning and outcome. Understanding signal types and ultimately response classifications, along with Supervising Station Alarm System Types and requisite requirements can best assist fire officials in establishing a solutions-based methodology to forwardly assist with the reduction of unwanted fire alarms rather than simply reaction to responses. Information presented is based on model codes, NFPA 72, and covers signal types, classification (impairments, nuisance, needless, false, actual, etc...) Supervising Station types, requirements, service, impairments, inspection, testing, and maintenance, and monitoring of fire alarm systems.

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### **140. Significant Updates to the 2023 Edition of NFPA 25 The Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems**

Presented by: Koorsen Fire and Security



This seminar will discuss the changes made to the 2023 edition of NFPA 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. This presentation will help you stay ahead of the game with the ever-changing requirements in NFPA 25.

Remember — there is no retroactivity clause!

Learning outcomes:

1. Determine the qualifications for a competent person
  2. Identify and apply new definitions for “Floor Level” and “Exercise”
  3. Identify updated frequencies for the testing of sprinklers
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## **141. Safeguarding our Future: Unpacking Ohio Senate Bill 112 (Ohio Childhood Safety Act) and Its Impact on Ohio Schools**

Presented by: Central Midwest Carpenters Union (Ohio, Kentucky, and Indiana)

The Ohio Childhood Safety Act will be signed into law in October 2024, requiring all school facilities to undergo a thorough inspection of fire doors and openings. Schools have 18 months from the effective date to identify and remedy any issues, ensuring full compliance with this crucial safety regulation.

What does this mean - Mandatory Inspections: All doors and openings must be inspected to meet safety standards as outlined by Senate Bill 112. Reporting to Fire Marshal: Schools will need to present the findings from this survey to their local fire marshal, demonstrating compliance.

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## **142. Plan Review: From Preliminary Design to Permit Issuance**

Presented by: City of Redlands Fire Department, California



Effective community fire prevention for all stakeholders in the built environment begins at the initial site planning phase. Communication between design teams and AHJ personnel is key to ensure development projects incorporate the required site fire protection features early to promote well-coordinated delivery, as well as a time efficient plan review process.

This presentation highlights a variety of resources in NFPA standards to help projects and AHJ personnel effectively navigate the site development plan review process. Attendees will be guided through common sense approaches to ensure site development plans accurately account for emergency vehicle and personnel access, fire protection water supply and hydrant coverage, as well as related passive fire protection design features. Best practices for collaborating with Community Planning and Public Works Agencies when reviewing performance-based compliance approaches will also be highlighted.

Learning Outcomes:

- 1) At the conclusion of this presentation attendees will be able to identify the required fire department access and water supply aspects applicable to a new site development.
- 2) At the conclusion of this presentation attendees will be able to identify the required

passive features of fire protection aspects applicable to a new site development.

3) At the conclusion of this presentation attendees will be familiar with utilizing the performance-based design approach to evaluate alternative compliance proposals if extenuating site conditions impact new site development.

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### **143. Plan Review: Jump-Started and Streamlined**

Presented by: City of Redlands Fire Department, California



At initial glance the plan review process can seem confusing and complicated. Not to worry! This presentation highlights a variety of resources in NFPA standards to help fire protection system designers as well as AHJ personnel effectively navigate the plan review process. Attendees will be guided through the requirements of plan submittal construction documents and associated acceptance tests for some of the most common fire protection systems including: Fire Sprinkler Systems (NFPA 13, 13D, & 13R), Fire Alarm Systems (NFPA 72), & Kitchen Hood Systems (NFPA 17A). The best practices from this class will provide all stakeholders involved in the plan review process enhance their service delivery for clients and communities alike.

At the conclusion of this presentation attendees will be able to identify:

1. The aspects required in a complete set of plans and construction documents for fire sprinkler systems (NFPA 13, 13D, & 13R)
  2. The aspects required in a complete set of plans and construction documents for Fire Alarm Systems (NFPA 72)
  3. The aspects required in a complete set of plans and construction documents for kitchen hood fire suppression systems (NFPA 17A)
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## **144. Industrial Fire Control Concepts Series - Understanding Common Industrial Hazards**

Presented by: Fire Mark Fire Protection Consulting



While every facility has unique fire control problems, there are hazards common to most facilities regardless of their operations or size. These include potential hazards related to information technology (IT) equipment, warehousing and storage, combustible and flammable liquids, and combustible dust. Not only do these four items cause concern across the broad spectrum of operating facilities, but they are also responsible for some of the most significant losses recorded each year in terms of both property damage and mission disruption.

This presentation introduces the fire protection concerns of these four hazards. It is not intended and should not be looked at as a comprehensive guide for protecting these hazards. There are entire books devoted to analyzing and protecting the hazards discussed here. Instead, this presentation introduces these four hazards and offers general information required by facility management to understand them and recognize when a problem potentially exists so that they can seek assistance from a licensed fire protection engineer or other qualified fire protection professional.

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## **145. Industrial Fire Control Concepts Series - Fire Alarm Systems - the Basics and Beyond**

Presented by: Fire Mark Fire Protection Consulting



The primary functions of a fire alarm system are to detect a hostile fire, notify building occupants of the need for evacuation or relocation, and alert manual fire suppression forces. However, a properly designed, installed, and maintained fire alarm system can do much more. Think of a modern fire detection and alarm system as an extension of facility management. Not only can the fire alarm system detect a fire and sound an alarm, but it can also monitor the status of all other facility fire protection and life safety systems. For example, facility managers rely on a fire alarm system to tell them if a fire pump loses power, if an automatic sprinkler system valve is closed, or if someone fails to refill a fire

