



### THANKS TO YOU, FCIA MEMBERS

**C**IA can do what we do because you are an FCIA Member. Without your dues, we can't advocate at trade shows such as NFPA, IFMA, CSI, CSC, ASHE, CHES, NASFM, participate at ASTM, ICC, NFPA and other code and standards development processes, provide a FCIA Education and Committee Action Conference, (ECA) and FCIA Firestop Industry Conference and Trade Show (FIC), FCIA Symposiums in Canada & Middle East and more.

The FCIA Member renewal process is well underway, and payments are flying in. THANK YOU! Membership renewal dues are due by December 31, 2021 to maintain your membership status. If you have questions about your renewal invoice, contact cathy@FCIA.org.



## **BARRIER MANAGEMENT SERVICES?**

**B**uilding Owners are required by the International Fire Code, NFPA 101, NFPA 1, the National Fire Code of Canada, UAE Fire and Life Safety Code, and other codes to maintain continuity of all types of fire-resistance-rated and smoke-resistant assemblies for the life of the building.

At FCIA, there is a growing <u>Barrier Management Services</u> section providing the building owner resources to survey and solve issues – through repair or replacement – to meet code requirements. Past issues of <u>Life Safety Digest</u> also have resources, including articles on building a fire-resistance inventory to manage installed fire-resistance-rated and smoke-resistant systems.



Life Safety Drawings, Tested and Listed Systems – and Manufacturers Installation Instructions are part of the Fire-Resistance Inventory to be maintained for the building life cycle. FCIA Photo Check out FCIA's Barrier Management Services section and <u>Barrier Management Symposium videos</u> at FCIA.org to learn about maintaining fire-resistance-rated and smoke-resistant assemblies in buildings.

FCIA Members: Do you provide Barrier Management services? <u>Contact us</u> to add Barrier Management listings to your member listing at FCIA.org's <u>Member List</u>!



Life Safety Drawings. Koffel Image



(Continued from page 1)







### FIRE & SMOKE DAMPER INSPECTIONS

**D**id you know that NFPA 80 also has a chapter on Fire Dampers in addition to Fire Doors? NFPA 80, Standard for Fire Doors and Other Opening Protectives, is used for many opening protectives in buildings. There are minimum "in service" system inspections required.

For Fire Dampers, the inspection schedule is as follows: upon commissioning, 1-year after commissioning, then every 4-years thereafter in all occupancies except hospitals. In hospitals, fire damper inspection takes place every 6 years.



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### FIRE DOORS & NFPA 80

And, did you know that NFPA 80 requirements Aare not applied by occupancy? The International Fire Code (IFC) requirements are also not driven by building occupancy. In fact, the IFC states that 'opening protectives' [aka fire doors, dampers, windows] shall be inspected and maintained in accordance with NFPA 80. Nowhere in this section of the IFC's Chapter 7, section 705.2, does it mention that only hospitals or schools have fire door inspections.



Fire Doors protect big openings. Door Safety Foundation Photo

#### **Upcoming Events**

December 24	FCIA Office Closed
December 31	FCIA Office Closed
January 12	FCIA Webinar
January 27-28	FCIA Board Meeting
February 16	FCIA Webinar



(Continued from page 2)

### FCIA E-News Volume 23, Issue 9

#### FIRE-RESISTANCE-RATED GLAZING

**D**id you know NFPA 80 also covers fire-rated glazing, both fire-protective and fireresistive? <u>NFPA 80 has a 'Free Access' area</u>, where the standard can be viewed.

There are other codes that require fire-resistance continuity in buildings – such as NFPA 1, *The Fire Code*, NFPA 101, *The Life Safety Code*, and the International Building Code (IBC).







#### BARRIER MANAGEMENT WEBINARS - FIRE DOOR EDUCATION

**C**IA's Barrier Management Webinars include education about all fire-resistance-rated and smoke resistant assemblies and disciplines, including fire doors, fire dampers, fire-resistance-rated glazing, fire-resistance-rated walls, and horizontal assemblies, in addition to firestopping.

Education on each of these aspects of Barrier Management is much needed. For example, a recent webinar by Keith Pardoe (Door Safety, LLC) was so highly attended and had such great questions and content that the program went over the time stated by almost an extra hour! Clearly the FCIA and friends are interested in fire-door education. FCIA Scheduled an extended "Part II" of the session in January. Stay tuned to www.fcia.org and your inbox for registration information.

Innovative products for life safety and code compliance.





(Continued from page 3)

## **ULC STP MEETS**

For the first time in several years, UL Canada's CAN/ULC-S101, Standard Methods of Fire Endurance Tests of Building Construction and Materials, Standards Technical Panel (STP) met and discussed recent changes and future proposals for the Standard. This CAN/ULC-S101 STP also covers CAN/ULC-S115, Standard Method of Fire Tests of Firestop Systems, which incorporates all of UL1479 for penetrations and UL2079 for Joints, as well as ASTM E2307, for perimeter fire containment assemblies.

## FIRESTOP SPECS

**S**omething we hear frequently is, "Where do we specify firestopping?". The International Building Code indicates that Firestopping – Penetrations, Joints, and Perimeter Fire Barriers – are to be installed in accordance with the tested and listed system and manufacturer's installation instructions.

Communicating these requirements through construction documents requires a Specification. Firestopping's Master Specification Section is in CSI/CSC MasterFormat Division 7 – specifically 07-84-00 Firestopping. Including this 07-84-00 FIRESTOPPING Specification from the outset helps ensure compliance by keeping all requirements to a single section and work result.

Specifiers, while some projects are procured via a single source Specialty Firestop Installation Contractor, there are projects that have multiple contractors installing their own firestopping. Consider a reference from the mechanical, electrical, plumbing, construction joints, and communications sections in Specification Sections 22, 23, 26, and 27 to the 07-84-00 FIRESTOPPING specification. In addition, consider adding a FCIA Member, FM 4991 Approved, and UL Qualified Firestop Contractor requirement in those sections for clarity.

Specifiers, remember to also include Firestop Special Inspection in accordance with ASTM E2174, and ASTM E2393, as it's required by the International Building Code for High-Rise Buildings, those buildings referenced in Chapter 16's Table 1604.5. And, now for the 2021 code, it is also required for multifamily occupancies with occupant load greater than 250.

The 07-84-00 Specification is available for FREE at <u>www.fcia.org</u>. And, for our Canada friends, it's in both English AND French in a Canada version!

# **FIRE-RATED GYPSUM PANELS**

**G**ypsum panels are a component of the fire-resistancerated assembly, used in many multifamily and industrial occupancies. The Gypsum Association has resources available for gypsum panels used in fire-resistance-rated assemblies. The GA600 document "Fire Resistance and Sound Control Design Manual", updated in 2021, has many options with Type X and Type C Gypsum panels used in many configurations.

Note: "Scab patches" are not allowed by major organizations either. Why, the GA225, "Repair of Fire-Rated Gypsum Panel Product Systems" document from the Gypsum Association outlines the patching procedure for fire-resistance-rated gypsum panel assemblies. To learn more, visit www.Gypsum.org.



(Continued from page 4)

## **INTERNATIONAL BUILDING & FIRE CODES**

**CIA's** International Building and Fire Code Development Process went well this year. FCIA's proposals covered several topics, including:

<u>Installation Instructions, Listings</u> – We focused on firestopping installation in accordance with the tested and listed system (listing criteria) and manufacturer's installation instructions for joints and voids. We had already added this requirement for penetrations in previous cycles. It is always important to reference the tested and listed system.

Fire-Resistance-Rated Walls Meeting Non-Rated Roofs -This condition, found in single story healthcare and other types of facilities, happens a lot. ASTM E2837, Standard Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems Installed between Rated Wall Assemblies and Nonrated Horizontal Assembles, was designed just for this purpose and is now an option in the IBC for 2024. Rich Walke (Creative Technologies, Inc.), a consultant to FCIA, but not on this issue, drove this proposal.

The International Firestop Council worked with the ICC's Fire Code Action Committee to remove the T-Rating requirement for firestop systems where concrete grout or mortar is used. The T-rating exception is limited to penetrations in a single concrete floor by steel, ferrous, or copper conduits pipes, tubes, or vents with a max. 6" diameter – provided the area on each floor of these doesn't exceed 144 square inches.

What's strange is that a metal penetrating item transmits heat quickly from one assembly to the next, possibly causing fire spread to combustibles stored on the floor above a fire. Why should the code allow this for concrete used in a breach where a penetrating item passes?

Occupiable Roofs for High-Rise Buildings – There was a big debate at both the Committee Action Hearings and Public Comment Hearings about Occupiable Rooftops. Is it a floor, or is it a roof? If the occupiable roof is located at 76' above lowest fire department access, is this now considered a high-rise building? The answer, based on G15, is YES.

This means that when a building has an alteration that activates use of the requirements for new construction,

the rooftop is fire-resistance-rated, protecting occupants as if they were standing on the floor below. Be on the lookout for this, as occupiable rooftops are being added to take advantage of views, and healthy environments.

At the ICC Public Comment Hearings in Pittsburgh, there were a lot more proposals vetted that affect fire-resistance. The main concepts had to do with consistency in areas where risks seemed to be the same, but requirements did not. This is especially true in open parking garages, where penetrations and perimeter fire containment requirements were removed. With new battery powered cars now starting to gain popularity, charging stations and the enhanced fire risks from these vehicles might justify more study for future code cycles.









#### **NEW FIRESTOP "M" RATING**

n 2008, FCIA's Board of Directors wrote to the firestop manufacturers and requested research be done to address movement issues, specifically the movement of penetrating items or the assembly moving and penetrating item staying static. The movement we mentioned was water hammer, expansion, and contraction. While the movement could be considered minor, a Standard needed to be developed to reflect what happens in the building.

The result of this is ASTM E3037-16, Standard Test Method for Measuring Relative Movement Capabilities of Through Penetration Firestop Systems, published in 2016. Now, firestop product manufacturers are beginning to test and list this new rating in various firestop directories.

A key point is that the ASTM E3037 Standard is not to protect against movement caused by workers trampling on pipes,

cables, or ducts as they pass through a breach in a fireresistance-rated wall or horizontal assembly. According to the manufacturers, it's for movement expected from water hammer, expansion and contraction, or floor movement from which penetrating items are hanging.

We understand there are tested and listed firestop systems using sealant products with up to 100% movement capabilities, and there are devices that have passed the movement and fire tests as well. This is a big advancement for the industry and for fire and life safety. It's nice to see the manufacturers working together to build a standard that better reflects what happens to their products during the building's life cycle.

Watch for more on this in upcoming issues of *Life Safety Digest*.

# NCMA'S WEBSITE FIRE-RESISTANCE RESOURCES

n addition to the UL Fire-Resistance Directory at UL's Product iQ <u>www.UL.com/piq</u>, the National Concrete Masonry Association has resources available to calculate fire-resistance-ratings for concrete masonry assemblies.

Visit their <u>TEK</u> section on fire-resistance covering steel column protection, evaluations of fire-exposed concrete masonry walls, foam plastic insulation in concrete masonry walls, and fire-resistance-ratings of concrete masonry assemblies. This

can help FCIA Members and design professionals who work in existing buildings.

In Canada, visit the Canada Masonry Centre, <u>https://</u> <u>canadamasonrycentre.com/</u>.





(Continued from page 6)





## FCIA WELCOMES NEW MEMBERS

**CIA** works hard to spread the word of the <u>'DIIM' of</u> <u>Firestopping</u> around the world, encouraging all interested Specialty Firestop Installation Contractors, Special Inspection Agencies, Associates, Manufacturers, and more to become involved to grow the industry's call for better fire and life safety.

FCIA proudly welcomes new members, and we thank them for their support and commitment to the Firestop industry.

Thank you to all current members, as well, for helping to grow FCIA and the Specialty Firestop trade, resulting in improved fire- and life-safety systems.



#### **FCIA New Associate Members**

• AKF Group - Boston, MA

FCIA Members: Do you have more than one Branch location? Make it easier to be found worldwide with a 'Branch Membership and Listing' at <u>www.FCIA.org</u>. Questions? Email <u>cathy@fcia.org</u> and we'll fill you in.



(Continued from page 9)



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