FCIA Webinar Series

M is for Maintenance & Barrier Management Systems

Bill McHugh, FCIA
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Objective – Keep Buildings Safe

• Barriers are for Safety – DIIM
  • Properly Designed and Specified
    – Tested and Listed Systems – Directories, Tables
    – Specified
  • Professional Installation Companies
  • Properly Inspected – Commissioned, by Companies
  • Maintained –
    – NFPA 101 - 2012 (TJC, CMS)
    – International Fire Code - IFC 2018 – Annually, Inventory

• Effective Compartmentation for Fire & Life Safety
Facility Budget Line Item?

- Fire-Sprinklers, Pumps, etc…YES
- Fire-Detection & Alarms…YES
- Barriers?
  - Penetrations, Doors, Dampers, Glazing, Walls/Floors
  - In-House Staff?
  - Barriers Services Contractor?
“TOTAL FIRE PROTECTION”

• Effective Compartmentation
  – Fire Barriers, Fire Walls/Floors, Smoke Barriers
  – Firestopping, Fire Dampers, Swinging and Rolling Fire Doors, Fire Rated Glazing

• Detection & Alarm Systems

• Sprinkler Suppression Systems

• Education & Egress–
  – Building Owners & Managers, Building Occupants and Firefighters
Building & Fire Code Requirements

- **Continuous Fire Resistance**
  - Walls / Horizontal Assemblies – Continuity
    - Firestop Products Become Firestop Systems
      - Penetrations
      - Joints – Head / Bottom of Wall – Perimeter Joints
    - Fire & Smoke Damper Duct Systems
    - Fire Doors and Hardware Systems
      - Rolling & Swinging
    - Fire Rated Glazing
Continuity

Effective Compartmentation Features

New UL test standards for Life Safety Dampers will take effect in July 2002
Barrier Continuity SYSTEMS

• **Products Become Systems Through Testing**
  – Fire & Smoke Barriers - ASTM E 119, UL 263
  – Fire/Smoke Dampers - UL 555, UL 555S
  – Swing/Rolling Fire Doors - UL 10B, 10C
  – Fire Rated Glazing - UL 9

• **SYSTEM Testing = Suitability statement for use of a product in a specific system application**
Products Become Systems
Hose Stream = Shock Test
Barrier Continuity
Products become SYSTEMS

- Fire Rated Systems Directories –
  - FM Approvals
  - Intertek
  - UL Fire Resistance Directory

*Systems Selection & Analysis…Not as easy as it looks*
Barrier Continuity
I – Installation – Listed Systems
Contractor Qualifications?

• Firestopping
  – FM 4991 – Standard for the Approval of Firestop Contractors
  – UL Qualified Firestop Contractors

• Other Industries…
  – Company Accreditations?
  – Individual Workers?
Why Contractor Qualifications?

• Built right – Building Life Cycle
• Documentation
• SYSTEMS Selection, Analysis, As-Builts
  – F, T, L, W Rated Systems
  – Tolerances - Annular Space Sizes, Angles
  – Gap Sizes - Undercuts - Framing
  – Anchors - Spacing – Hardware
  – Closers - Activation Sensors, more…
QUALITY PROCESS

- Installation
- Design
- Maintenance
- Inspection
I – Inspection – Options

• Contractor Self Inspection/Survey
  – Verify Management System validity

• Manufacturer Inspection?
  – Does not exist … Survey, maybe

• Special Inspection/Commissioning
  – Independent 3\textsuperscript{rd} Party
  – Destructive, Non Destructive
  – Specified Frequency
I – Inspection – Options

• Special Inspection/Commissioning
  – Inspection Agency Accreditation –
    • IAS AC 291, Others
  – Inspectors
    • FM, UL or IFC Firestop Exam
    • DHI Fire Door Assembly Inspector
    • Fire Damper Manufacturers
    • Fire-Rated Glazing Manufacturers
Fire Codes Require Maintenance

- International Fire Code
- NFPA 101
- National Building Code of Canada
- UAE Fire and Life Safety Code of Practice

- Minimum Requirements Stated

- Frequency
Compartmentation for Safety
Life Safety Drawings #1
SECTION 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101:4.6.12.1, emphasis added]
4.5.8.2 No existing life safety feature shall be removed or reduced where such feature is a requirement for new construction. [101:4.6.12.2]

4.5.8.3* Existing life safety features obvious to the public, if not required by the Code, shall be either maintained or removed. [101:4.6.12.3]

4.5.8.4 Any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature requiring periodic testing, inspection, or operation to ensure its maintenance shall be tested, inspected, or operated as specified elsewhere in this Code or as directed by the AHJ. [101:4.6.12.4]

4.5.8.5 Maintenance, inspection, and testing shall be performed under the supervision of a responsible person who shall ensure that testing, inspection, and maintenance are made at specified intervals in accordance with applicable NFPA standards or as directed by the AHJ. [101:4.6.12.5, emphasis added]
12.2* Construction.

12.2.2 Fire safety construction features for new and existing occupancies shall comply with this Code and the referenced edition of NFPA 101.

12.3 Fire-Resistive Materials and Construction.

Δ 12.3.1 The design and construction of fire walls and fire barrier walls that are required to separate buildings or subdivide a building to prevent the spread of fire shall comply with Section 12.3 and NFPA 221.

12.3.2* Quality Assurance for Penetrations and Joints. In new buildings three stories or greater in height, a quality assurance program for the installation of devices and systems installed to protect penetration and joints shall be prepared and monitored by the RDP responsible for design. Inspections of firestop systems and fire-resistive joint systems shall be in accordance with 12.3.2.1 and 12.3.2.2.

12.3.2.1&2 Inspection to ASTM E2174/2393
12.3.3* Maintenance of Fire-Resistive Construction, Draft-Stop Partitions, and Roof Coverings.

12.3.3.1 Required fire-resistive construction, including fire barriers, fire walls, exterior walls due to location on property, fire-resistive requirements based on type of construction, draftstop partitions, and roof coverings, shall be maintained and shall be properly repaired, restored, or replaced where damaged, altered, breached, penetrated, removed, or improperly installed.
• 12.3.3.2 Where required, **fire-rated gypsum wallboard** walls or ceilings that are damaged to the extent that through openings exist, the damaged gypsum wallboard shall be **replaced or returned to the required level of fire resistance using a listed repair system or using materials and methods equivalent to the original construction**.

• 12.3.3.3 Where readily accessible, required fire-resistance rated assemblies in high-rise buildings shall be visually inspected for integrity at least once every 3 years.
12.3.3.3.1 The person responsible for conducting the visual inspection shall demonstrate appropriate technical knowledge and experience in fire-resistance-rated design and construction acceptable to the AHJ.

12.3.3.3.2 A written report prepared by the person responsible for conducting the visual inspection shall be submitted to the AHJ documenting the results of the visual inspection.
12.4 – Fire Doors
   - NFPA 80

12.4.6 – Fire Doors, Fire Shutters, Fire Windows, other than fire dampers and fire safety curtains

12.4.6.5.1 – Field Labeling….
   - Individuals or Companies certified, listed, representatives of a labeling service that maintains periodic inspections of …..
   - Prove qualifications

12.4.6.10 Performance-Based Option.

12.4.6.10.1 As an alternate means of compliance with 12.4.6.8.4, subject to the AHJ, fire door assemblies shall be permitted to be inspected, tested, and maintained under a written performance-based program. [80:5.4.1]
12.4.6.11 Maintenance.

12.4.6.11.1* Repairs shall be made, and defects that could interfere with operation shall be corrected without delay. [80:5.5.1]
SECTION 703
FIRE-RESISTANCE-RATED CONSTRUCTION

703.1 Maintenance. The required fire-resistance rating of fire-resistance-rated construction, including, but not limited to, walls, firestops, shaft enclosures, partitions, smoke barriers, floors, fire-resistive coatings and sprayed fire-resistant materials applied to structural members and fire-resistant joint systems, shall be maintained. Such elements shall be visually inspected by the owner annually and properly repaired, restored or replaced where damaged, altered, breached or penetrated. Records of inspections and repairs shall be maintained.
703.1 Maintenance. (continued) Where concealed, such elements shall not be required to be visually inspected by the owner unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile or similar movable entry to the space. Openings made therein for the passage of pipes, electrical conduit, wires, ducts, air transfer openings and holes made for any reason shall be protected with approved methods capable of resisting the passage of smoke and fire. Openings through fire-resistance-rated assemblies shall be protected by self- or automatic-closing doors of approved construction meeting the fire protection requirements for the assembly.
SECTION 703
FIRE-RESISTANCE-RATED CONSTRUCTION

703.1 Maintenance. (continued) 703.1.1 Fireblocking and draftstopping. Required Fireblocking and draftstopping in combustible concealed spaces shall be maintained to provide continuity and integrity of the construction.

703.1.2 Smoke barriers and smoke partitions. Required smoke barriers and smoke partitions shall be maintained to prevent the passage of smoke. Openings protected with approved smoke barrier doors or smoke dampers shall be maintained in accordance with NFPA 105.

703.1.3 Fire walls, fire barriers and fire partitions. Required fire walls, fire barriers and fire partitions shall be maintained to prevent the passage of fire. Openings protected with approved doors or fire dampers shall be maintained in accordance with NFPA 80.
2018 International Fire Code

• **701.1 Scope.** The provisions of this chapter shall govern the inspection and maintenance of the materials, systems and assemblies used for structural fire resistance, fire-resistance rated construction separation of adjacent spaces and construction installed to resist the passage of smoke to safeguard against the spread of fire and smoke within a building and the spread of fire to or from buildings. New buildings shall comply with the *International Building Code*. [IFC 2018]
2018 International Fire Code

• **701.2 Fire-Resistance Rated Construction**
  – Structural Members
  – Exterior Walls
  – Fire Walls, Fire Barriers, Fire Partitions
  – Horizontal Assemblies
  – Shaft Enclosures
• **701.2.1 Hanging displays.** The hanging and displaying of salable goods and other decorative materials from acoustical ceiling systems that are part of a fire-resistance-rated horizontal assembly shall be prohibited.
• **701.6 Records of inspections and repairs** shall be maintained. Where concealed, such elements shall not be required to be visually inspected by the owner unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile or similar movable entry to the space.

[IFC 2018]
701.6 Owner's responsibility. The owner shall maintain an inventory of all required fire-resistance-rated and smoke resistant construction, and the construction included in Sections 703 through 707 and such construction shall be visually inspected by the owner annually and properly repaired, restored or replaced where damaged, altered, breached or penetrated. [IFC 2018]
2018 International Fire Code

• 703 - Penetrations
• 704 – Joints and Voids
• 705 – Door and Window Openings
• 706 – Duct and Air Transfer Openings
• 707 – Concealed Spaces
2018 International Fire Code

• 703 Penetrations

• 703.1 Maintaining protection. Materials and firestop systems used to protect membrane- and through-penetrations in fire-resistance-rated construction and construction installed to resist the passage of smoke shall be maintained.

[IFC 2018]
2018 International Fire Code
Documentation Required

• 703.1 … Continued (Firestops).
The materials and firestop systems shall be securely attached to or bonded to the construction being penetrated with no openings visible through or into the cavity of the construction. **Where the system design number is known, the system shall be inspected to the listing criteria and manufacturer's installation instruction.**
• “Where concealed, such elements shall not be required to be visually inspected by the owner unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile or similar movable entry to the space.

[IFC 2015, 703.1]
IPMC SECTION 703

[F] 703.1 Fire-resistance-rated assemblies. The required fire-resistance rating of fire-resistance-rated walls, fire stops, shaft enclosures, partitions and floors shall be maintained.

[F] 703.2 Opening protectives. Required opening protectives shall be maintained in an operative condition. Fire and smokestop doors shall be maintained in operable condition. Fire doors and smoke barrier doors shall not be blocked or obstructed or otherwise made inoperable.
Chapter 1, SECTION 21
Firestopping

21.15.2 The required fire resistance rating of installed firestop systems shall be visually inspected by the owner or owner’s inspection agency annually. Damaged, altered or breached firestop systems shall be properly repaired, restored or replaced to comply with applicable codes as per the guidelines of Civil defense.

21.15.3 Any new Openings made therein for the passage of through penetrants, shall be protected with approved firestop system to comply with applicable codes as per the guidelines of Civil defense.
National Fire Code of Canada

- **Division B – Part 2, Building and Occupant Fire Safety**
  
  2.2.1.2 – *Damage to Fire Separations* – Where fire separations are damaged so as to affect their integrity, they shall be repaired so that the integrity of the fire separation is maintained…

- **FCIA Manual of Practice – Appendix, Maintenance**
  FCIA recommends Barrier Management for Effective Compartmentation and Structural Protection
Maintenance

- **Maintenance**
  - Code Required
  - How??

- **How to keep Track – Barrier Management Initiative**
  - Paper
  - Software
  - Labeling
Barrier Management Begins when new construction ends...
M–Barrier Management Systems
Starts with CONSTRUCTION

• Reference 01-78-39
  – ‘Inventory’ of Fire-Resistance
M–Barrier Management Systems Starts with CONSTRUCTION

- NEW Buildings – 07-84-00 Specs
  - www. FCIA .org
- Part I – Focus on
  - Systems
  - Not Products
  - Manufacturers
- “Single Manufacturer to the greatest extent possible” – EJ’s
- Reference 01-78-39 for ‘Inventory’.
M–Barrier Management Systems

Starts with CONSTRUCTION

• Part II – Qualifications
  – FCIA Member in Good Standing, AND
  – FM 4991, Standard for the Approval of Firestop Contractors, OR
  – UL Qualified Firestop Contractor Program
  – Door, Damper, Wallboard, Wall Contractor Accreditation Program…
  – AND
  – Manufacturer Approved, Trained
M–Barrier Management Systems
Starts with CONSTRUCTION

• Part II – Qualifications – Special Inspection
  – Special Inspection Agency –
    • IAS AC 291 Accredited Special Inspection Agencies
  – Special Inspector Qualifications
    • Firestopping
      – FM Firestop Exam
      – UL Firestop Exam
      – IFC Firestop Exam
    • Fire Doors – FDAI
    • Fire Dampers – Barrier Management Symposium?
    • Gypsum Wallboard?
    • Fire-Rated Glazing?
M–Barrier Management Systems
Starts with CONSTRUCTION

• Part III – Execution
  – Special Inspection
    • ASTM E 2174 - Penetrations
    • ASTM E 2393 – Joints
  – NFPA 80
    • Fire Dampers
    • Fire Doors?
M–Barrier Management Systems
Starts with CONSTRUCTION

• Specifications Reference 01-78-00
  – Closeout Submittals
  – 01 78 13 Completion and Correction List
  – 01 78 19 Maintenance Contracts
  – 01 78 23 Operation and Maintenance Data
    – 01 78 23.13 Operation Data
    – 01 78 23.16 Maintenance Data
    – 01 78 23.19 Preventative Maintenance Instructions
M–Barrier Management Systems
Starts with CONSTRUCTION

• Reference 01-78-00 Closeout Submittals
  – 01 78 29 Final Site Survey
  – 01 78 33 Bonds
  – 01 78 36 Warranties
  – 01 78 39 Project Record Documents
  – 01 78 43 Spare Parts
  – 01 78 46 Extra Stock Materials
  – 01 78 53 Sustainable Design Closeout Documentation
M–Barrier Management Systems
Policy Topics

• **Budget to Meet Code Requirements**
• **Inventory – What Info?**
• **Barrier Permits – Who Controls?**
• **Implement Fire Resistance Maintenance**
  – In House (Rules)
  – Outside Contractor (Rules)
• **Management & Monitor Process**
M–Barrier Management Systems Policies

• **Fire Rated Walls & Floors Inventory**
  – Walls - U, V 400, 900 Designs
  – Floors – P Designs
  – Calculated Fire Resistance
  – Code Defined Fire Resistance – IBC Sec. 720

• **Survey where not Concealed.**
Survey Items
Fire Doors – Annually

• NFPA 80
  – Close and Latch
  – Holes, Gaps
  – Attach at Frame
  – Undercut & Astragals
  – Labels Legible
  – Labels recertified, requirements of 3rd party certification agency
Items to Survey
Firestop Systems

• Not Concealed …
• Through & Membrane Penetrations
• Joints
  – Wall to Wall
  – Floor to Floor
  – Head – Bottom of Wall
  – Continuity Head of Wall
  – Perimeter Fire Containment
Items to Survey
Firestop Systems

• Visibly Comply with System
• Visibly ‘sealed’
• Without openings
• Firestop Materials & Systems
• Securely Attached
Items to Survey - Dampers

- NFPA 80 –
  - Initial Installation
  - At 1 year, each 4 years,
  - 6 years healthcare

- Fire, Smoke, Combination, Ceiling/Radiation Dampers
Items to Survey
Fire Rated Glazing

• Verify if fire rated
• Glazing / Frame Attachment
• Frame attached to wall
• Glazing Marking as Built
What’s the Fire Resistance Inventory Look Like?

• Life Safety Drawings
• Systems & Manufacturers Installation, Maintenance Instructions
• Paper & Files
• Spreadsheets
• Software
Barrier Management Policy

Repairs

• As originally permitted and approved

Or...

• As required by Fire Code, Existing Building Code

• If SYSTEMS, SYSTEMS REPAIRS

• If no Systems, original materials.

• AHJ/Insurance Company Approved
M–Barrier Management Systems

• Now it’s your building....

• Gleeson Powers Graphic
Barrier Management Issues?

• Which Occupancies Applicable?
• Who is Messing Up Barriers?
• Staff Training?
• How Extensive?
• Manage?
Who Manages?

- **Facility Engineering/Management**
  - Convince C-Suite Execs –
    - Yearly Budget – Importance = Sprinklers
  - Construction Staff Training
    - In House Crews
    - Outside Contractors
  - Electrical & I-T Department –
    - In House Crews & Outside Contractors
- **Specialist Barrier Management Services??**
Facility Engineering/Management

• YOU answer to…
  – Other AHJ’s
  – C-Suite
  – Occupants, Students, Faculty, Patients
  – Building Official, Fire Marshal
  – The Joint Commission, HFAP, DNV
  – CMS Inspectors
  – Insurance Company
Barrier Management
Inventory Elements

- Life Safety Drawings
- Systems
- Manufacturers Installation Instructions
- Safety Data Sheets
- Document Existing Conditions

Documented
- Ongoing Survey Records, Deficiency Reports
- Systems Documentation Control, Retrieval

- ALL FIRE PROTECTION FEATURES
Barrier Management Policy
Possible Contents

- Ongoing Survey to Manage
- Staff - Occupant Education
- Barrier Warnings - Markings
- Violation Consequences
- Rules of Engagement in Contracts
  - Internal Contracts
  - External Contracts
- Pre Construction Meetings
Barrier Management
Policy Contents

• Internal Contracts -
  – Systems, Locations
  – Manufacturers Installation Instructions
  – Safety Data Sheets

• External Contracts
  • Marked Fire - Smoke Barrier Actions
  • Barrier Permits
  • Documentation Systems, Manufacturers Installation Instructions
  • Reports
M–Barrier Management Systems

• Barrier Repair Examples
Repair Small Holes
Repair Small Holes

Existing gypsum panel

Runner

Existing gypsum panel

Tape & Finish with USG joint finish system

Section A-A

USG Slide
Gypsum Wallboard Repair Large Holes

- USG Photo
M–Barrier Management Systems

• Electronic Best Practice Elements
  – Action Oriented
    • Projects - Specifications
    • Ongoing Surveys – FCIA RPPS 2010-1
  – Action Reminders
  – In Process Status
  – Record Retrieval
## Life Safety Details

<table>
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<tr>
<th>LSR ID</th>
<th>Status</th>
<th>Latest Photo</th>
<th>Detail Description</th>
<th>Life Safety Type</th>
<th>Life Safety Sub Type</th>
<th>Letters</th>
<th>Numbers</th>
<th>LSR Count</th>
<th>Notes</th>
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<td>Firestopping</td>
<td>Through Wall Penetration</td>
<td>WL</td>
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<td>Compliant</td>
<td><img src="image2.png" alt="Image" /></td>
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<td>Firestopping</td>
<td>Through Wall Penetration</td>
<td>WL</td>
<td>1000-1999</td>
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<td>Compliant</td>
<td><img src="image3.png" alt="Image" /></td>
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<td>Firestopping</td>
<td>Through Wall Penetration</td>
<td>WL</td>
<td>5000-5999</td>
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<td>Compliant</td>
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<td>Firestopping</td>
<td>Through Wall Penetration</td>
<td>WL</td>
<td>3000-3999</td>
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<td></td>
</tr>
</tbody>
</table>
**Corrective Action Report**

**Building/Floor/Area:**
Building 1 \ 3rd Floor \ 3C1/3L1

**Life Safety Type:** Firestopping

**Life Safety Sub Type:** Through Wall Penetration - Firestop Systems

<table>
<thead>
<tr>
<th>Penetration Type:</th>
<th>EVT or Conduit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration Size:</td>
<td>Max 1&quot;</td>
</tr>
<tr>
<td>Annular Space:</td>
<td>MIN. 0 to .50&quot;, MAX:</td>
</tr>
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</table>

**Date Completed:** May-02-2011

**Deficiency Description:** No firestopping

**Survey Notes:**

**Survey Photo**

- Side: 37296
- Photo ID: 37296

**Survey Photo**

- Side: 2: 3L1
- Photo ID: 37297

**Corrective Action Photo**

- Side: 1: 3C1
- Photo Notes: [Image 37298]
- Photo ID: 37298

- Side: 2: 3L1
- Photo Notes: [Image 37299]
- Photo ID: 37299

**Survey #:** Survey

**Survey Date:**

**Deficiency Description:** No firestopping

**Deficiency Description:** No firestopping

**Survey Notes:**

**Survey Photo**

- Side: 37296
- Photo ID: 37296

**Survey Photo**

- Side: 2: 3L1
- Photo ID: 37297

**Corrective Action Photo**

- Side: 1: 3C1
- Photo Notes: [Image 37298]
- Photo ID: 37298

- Side: 2: 3L1
- Photo Notes: [Image 37299]
- Photo ID: 37299

**Suggested CA Notes:** Install UL Listed Firestopping System at penetration/joint

**CA Notes:**

Gleeson Powers Graphic
Barrier Management Policy - Markings

1-HR FIRE

DOLTON
703.7 Marking and identification. *Fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions* or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with signs or stenciling. Such identification shall:

1. Be located in accessible concealed floor, floor-ceiling or attic spaces;
2. Be located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition; and
3. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8 inch (9.5 mm) stroke in a contrasting color incorporating the suggested wording.

“FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS”
or other wording.

**Exception:** Walls in Group R-2 occupancies that do not have a removable decorative ceiling allowing access to the concealed space.
Barrier Management
Policy Tools

• Pre Construction Meetings - Education
  – Barrier Markings Mean…
  – Actions when at Barriers Required...
    • Permit required – Above Ceiling, Barrier Hole…
    • Infection Control Rules
    • Repair Methods, Healthcare Facility Philosophy
Barrier Management Policy Tool

- Barrier Warnings on ASSEMBLIES
- International Building Code – 2009++
Barrier Management Policy Tool

• Find Violators, Consequences…
  – In House –
    • 2 strikes & work reassignment …
    • Additional Discipline?

– Outside Contractors
  • 2 strikes & not allowed to work above ceilings
  • Additional Discipline?
Barrier Management Policy Tool

• Ongoing Management
  – Engineering Staff Reviews
  – User Staff Reviews
  – Inside Construction Crews
  – Outside Contractors
Barrier Management Policy Tool

• Education - Healthcare Staff

• Fire Doors & Hardware – Issues…
  • Close & Latch
  • Holes in Door
  – Fire Rated Walls – “Barrier Report”
    • Accidental Holes
    • Patient, Visitor Caused
  – Ladder @ Any Floor = Permit Stickers
Barrier Management Policy Tool

• Add a Line Item in Budgets…
  – Sprinkler Maintenance
  – Alarms Maintenance
  – Security
  – Fire and Smoke Resistant Assemblies
    • Doors
    • Dampers
    • Firestops
    • Glazing
    • Walls/Floors
“TOTAL FIRE PROTECTION”

• Effective Compartmentation
  – Fire Barriers, Fire Walls/Floors, Smoke Barriers
  – Firestopping, Fire Dampers, Swinging and Rolling Fire Doors, Fire Rated Glazing

• Detection & Alarm Systems

• Sprinkler Suppression Systems

• Education & Egress–
  – Building Owners & Managers, Building Occupants and Firefighters
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  • Properly **Designed** and Specified
    – *Tested and Listed Systems* – Directories, Tables
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    – NFPA 101 - 2012 (TJC, CMS)
    – International Fire Code - IFC 2018 – Annually, **Inventory**

• **Effective Compartmentation**
  *for Fire & Life Safety*
Effective Compartmentation is a SYSTEM
Barrier Management
Policy = Tool
FCIA Barrier Management Services
Member Lists

Barrier Management Services, Alphabetical Listing

Building Owners and Managers 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 all types of fire protection in buildings. They are also required to maintain the fire-resistance rated construction and smoke resistant assemblies for the life of the building. The FCIA Barrier Management Services contractors, inspection agencies, manufacturers, distributors and software vendors provide tools for the building owner and manager to meet code requirements. Whether small or large repairs and major renovations, FCIA Barrier Services Section keeps buildings safe. Members who offer these specialized services can register for inclusion in these lists.

Member's first letter: A B C D E F G H I J K L M N O P Q R S T U V W X

Sort by Company
Aecon Industrial Western Inc.
(Barrier Management Services)
Jeff Liddy
Member Since February 28, 2012
Airseal Insulation Systems
(Barrier Management Services)
Abba Koc

Sort by State
Sherwood Park
AB
(780) 416-5700
Brooklyn
NY
(718) 821-6800

Contractors Offering Barrier Management Services
By home state
All Barrier Management Services
Firestopping
Fire Doors
Fire Doors (Rolling and Swinging)
Fire-rated Glazing
SFRM and IFRM Fireproofing
Barrier Insulations
Barrier Surveys
Barrier Management Software

Operating US-wide
Operating in Canada
Operating in Middle East
Operating worldwide

Manufacturer Members
Firestopping
Fire Doors
Fire Doors (Rolling and Swinging)
Fire-rated Glazing
SFRM and IFRM Fireproofing
Barrier Management Software

Associate Members
Firestopping
Contacts

Firestop Contractors International Association
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