Building for Compliance, Tracking Life Safety from Design to Implementation

Presented by: Justin Pine, RCDD
Specified Technologies, Inc.
It All Starts with the Design
What is Building Information Modeling?

• A digital representation of both the physical and functional characteristics of a building

• Provides a platform for effective collaboration between stakeholders over the building’s lifecycle.
The Promise of BIM

- Living Model of Building Spanning:
  - Design
  - Construction
  - Occupation
  - Renovation
  - Decommissioning
Services in a 3D Space

- Dimensioning and Spacing of Services are well defined
  - Able to prefabricate building services offsite
  - Reduces waste due to field fabrication
Smart Objects

- Different Types of Objects
  - Face Based
  - Family Based
- Available directly from vendor’s website or object repositories
  - BIMObject.com
  - BIMSmith.com
  - BIMarium.com
Third-Party Plugins

• Further enhance the suite of tools that Revit® comes with.

• Integrations with outside services/vendors
  • Design, Object Search/Selection, Production, Scheduling
MWF® – Metal Wood Framer

• Finds all openings and penetrations through barriers
• Intelligently frames openings & assemblies
• Output framing information for Manufacturing
  • Minimizes job site waste
FCM® – Firestop Clash Management

• Finds where services clash with barriers
• Searches for appropriate Firestop System
• Places firestop marker and product BIM Object
Working Together

• FCM® Firestop Clash Management
  • Finds and places firestop systems and products

• MWF® Metal Wood Framer
  • Frames walls, floors, ceilings and through openings with steel/wood studs

• Howick®
  • Bend and cut steel framing members based on MWF® output on site from sheet steel
Keeping Models Up to Date!

• The information in BIM is only as good as what you give it
  • Update Model throughout construction and during occupancy
  • Constant communication between Facilities Teams and BIM Coordinators
coordination
Paper Fire Barrier Management

• Meant for setting standards not documenting installations
  • Defines what solutions to use
  • Not where problems physically exist in the building
Proprietary Software Systems

• Locked into a Vendor’s Platform
• Data typically not easily exported
• Requires dedicated hardware
  • Not re-deployable with other solutions
• Can lock you to the Vendor’s Products as well!
What You Need to Track Life Safety Changes?

• Easily updated & Interactive floor plans
• Interoperability with BIM/Revit®
• Track Firestops, Fire-Rated Doors, Dampers, Etc.
• Fully functional on any device/platform
  • Web Browser, iOS, Android
  • Phones, Tablets, Desktop/Laptop
• Data exportable to any other system
• BYOD (Bring Your Own Device)
Nice to Haves

• Ability to segment projects
  • By Location or Individual Buildings at the same location

• Manage multiple teams on any site

• Sharing and storage of Life Safety Documentation
  • UL Systems, Engineering Judgments, Submittals, Approvals, Etc.

• Provide Inspectors access to comment/approve on site conditions
Firestop Locator®

• Fully interactive floor drawings
• Works on Desktop/Laptop, Phone, and Tablet
  • Bring Your Own Devices
• 24 Hour Team notifications
• Life Safety Service Agnostic
  • Tracks any vendor’s product/installation
• Detailed reporting
Management Dashboard

- Create and Remove Projects/Facilities
  - Including project status
- Manage Project Teams
Team and Role Information

• Team Members broken out by Role
  • Owner
  • Admin
  • Member
  • Viewer
  • Inspector
User Roles in Detail

• Account Owner
  • Ultimate Authority of all aspects of the system

• Account Admin
  • Creates and Manages users, teams, and projects.

• Team Member
  • Anyone installing or manipulating life safety systems. Places and updates Markers

• Team Viewer
  • Can view markers but not manipulate

• Team Inspector
  • Reviews, approves, and/or rejects installed Life Safety Services.
Project Management

• Add buildings and floors
• Manage associated documents
• Set project status
• Assign teams
Taking it 1 Floor at a Time

- Primary view for Inspectors and Installers
- Place, Review, and Edit markers for Life Safety Service
- Plans pulled from PDF, CAD, or Revit®
Markers for Each Life Safety Service

- Markers include:
  - Unique ID
  - Assembly Type
  - Location
  - Status (Sealed, Unsealed, Unknown)
  - Products used
  - Corresponding NRTL Documentation
  - Inspection Status
  - Pre and Post Install Photos
Creating and Editing Markers
Digital to Physical

• Labeling with QR Codes for documenting conditions
• Associates markers with physical location
• Provides quick access to review details
  • Scan QR Code and Go
Inspection & Remediation

• Provides a place to inspect Life Safety Systems for compliance
  • Provides place for commentary and guidance on remediation
• Notifies relevant team members of inspection failures
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PDF Reports

**ITEM 20603**

- **ID**: 20603
- **Type**: Door
- **Sub Type**: Smoke
- **Location Barcode**: A0000000024
- **Installation Date**: October 18, 2016
- **Status**: Sealed
- **Last Modified**: By Justin Pine on September 4, 2018
- **Inspection Status**: Not Inspected

**Images**

![Image of firestop door](image-url)
Where to go to learn more?

- Firestop Vendor of Choice
- Third-Party Inspectors
- Specialty Firestop Contractor (SFC)