AFSA45
MODERNIZING FIRE SPRINKLER DESIGN WITH REVIT
Micah Davis, SET
Ferguson Fire Design and MicroBIM Fire
SAN ANTONIO, TX
AFSA
American Fire Sprinkler Association

1

Micah Davis, SET
Ferguson Fire Design and MicroBIM Fire
Micah Davis is a seasoned fire protection professional with over 20 years of industry experience, including nearly a decade specializing in fire sprinkler system design using Revit. He currently serves as Senior Manager of Operations at Ferguson Fire Design and National Sales Manager for MicroBIM Fire, bringing NICET IV certification in Water-Based System Layout and a proven track record of managing complex projects, developing efficient workflows, and driving operational excellence across both roles.
Known for his innovative approach and hands-on leadership, Micah has consistently elevated the teams and organizations he's been part of — setting new standards in BIM-based fire sprinkler design and implementation. His ability to bridge deep technical expertise with strategic operational and sales leadership has made him a respected figure in the fire protection industry, where his commitment to continuous improvement continues to deliver measurable results for clients and colleagues alike.
FERGUSON FIRE & FABRICATION
MICROBIM
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2

HOUSEKEEPING ITEMS
TO RECEIVE CREDIT FOR THIS SEMINAR, YOU MUST:
1) scan badge upon entry,
2) attend seminar in its entirety, and,
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National Fire Protection Association
The authority on fire, electrical, and building safety
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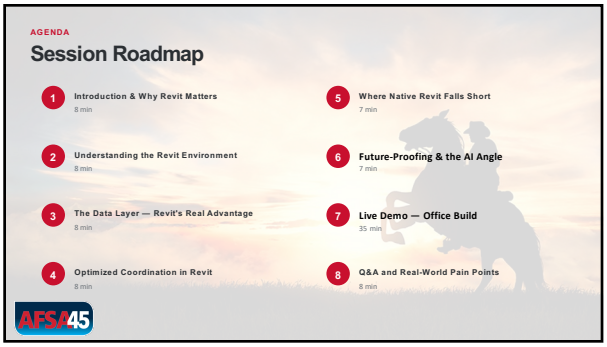
AGENDA
Session Roadmap
1 Introduction & Why Revit Matters 8 min
2 Understanding the Revit Environment 8 min
3 The Data Layer — Revit's Real Advantage 8 min
4 Optimized Coordination in Revit 8 min
5 Where Native Revit Falls Short 7 min
6 Future-Proofing & the AI Angle 7 min
7 Live Demo — Office Build 35 min
8 Q&A and Real-World Pain Points 8 min
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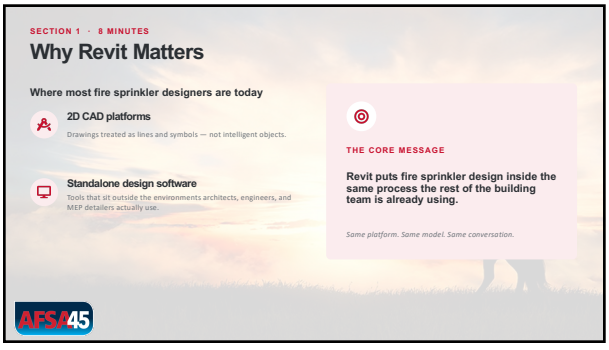
SECTION 1 · 8 MINUTES
Why Revit Matters
Where most fire sprinkler designers are today
2D CAD platforms
Drawings treated as lines and symbols — not intelligent objects.
Standalone design software
Tools that sit outside the environments architects, engineers, and MEP detailers actually use.
THE CORE MESSAGE
Revit puts fire sprinkler design inside the same process the rest of the building team is already using.
Same platform. Same model. Same conversation.
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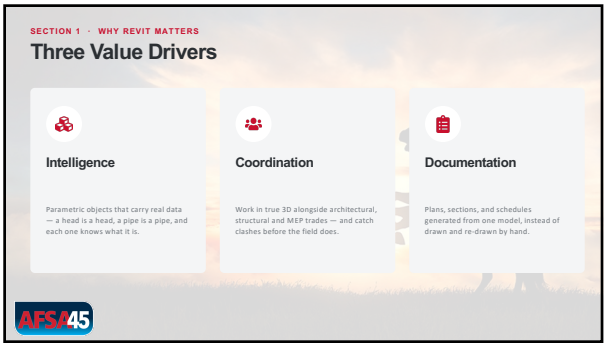
SECTION 1 · WHY REVIT MATTERS
Three Value Drivers
Intelligence
Parametric objects that carry real data — a head is a head, a pipe is a pipe, and each one knows what it is.
Coordination
Work in true 3D alongside architectural, structural and MEP trades — and catch clashes before the field does.
Documentation
Plans, sections, and schedules generated from one model, instead of drawn and re-drawn by hand.
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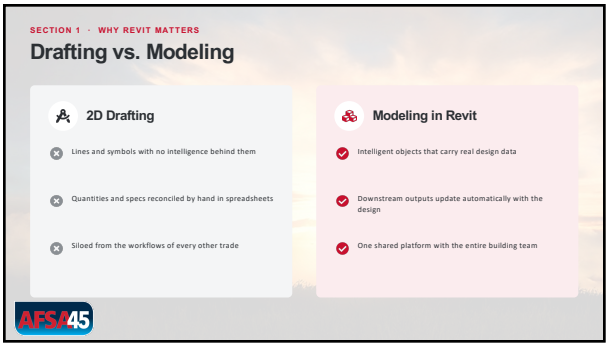
SECTION 1 · WHY REVIT MATTERS
Drafting vs. Modeling
2D Drafting
Lines and symbols with no intelligence behind them
Quantities and specs reconciled by hand in spreadsheets
Siloed from the workflows of every other trade
Modeling in Revit
Intelligent objects that carry real design data
Downstream outputs update automatically with the design
One shared platform with the entire building team
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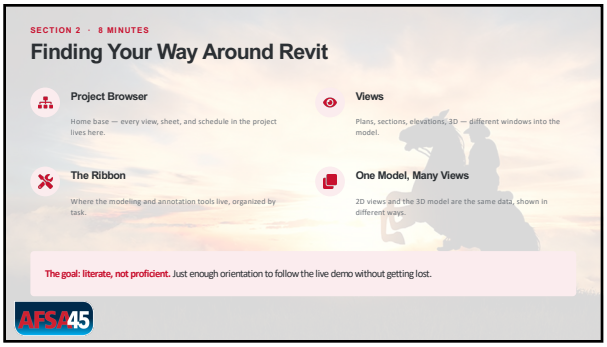
SECTION 2 · 8 MINUTES
Finding Your Way Around Revit
Project Browser
Home base — every view, sheet, and schedule in the project lives here.
Views
Plans, sections, elevations, 3D — different windows into the model.
The Ribbon
Where the modeling and annotation tools live, organized by task.
One Model, Many Views
2D views and the 3D model are the same data, shown in different ways.
The goal: literate, not proficient. Just enough orientation to follow the live demo without getting lost.
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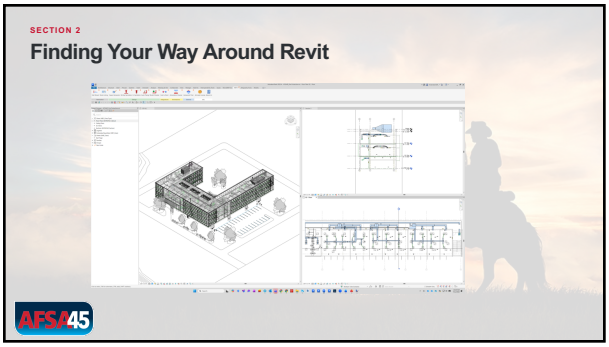
SECTION 2
Finding Your Way Around Revit
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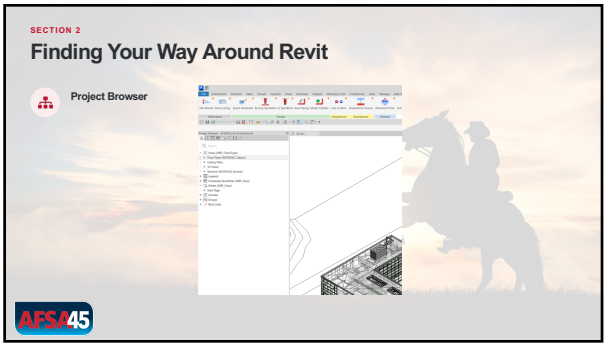
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Project Browser
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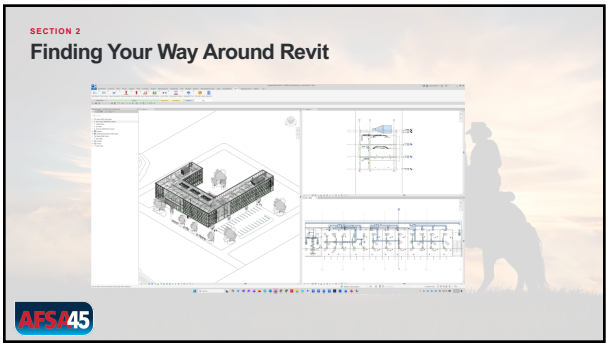
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Finding Your Way Around Revit
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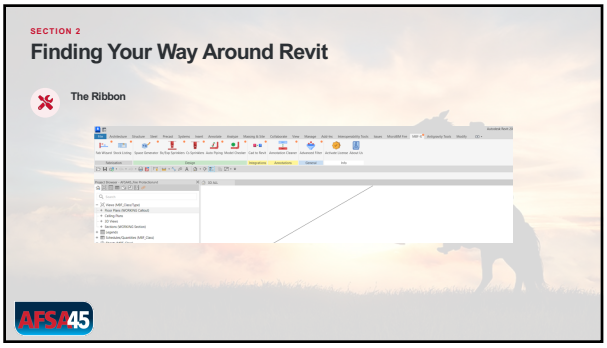
SECTION 2
Finding Your Way Around Revit
The Ribbon
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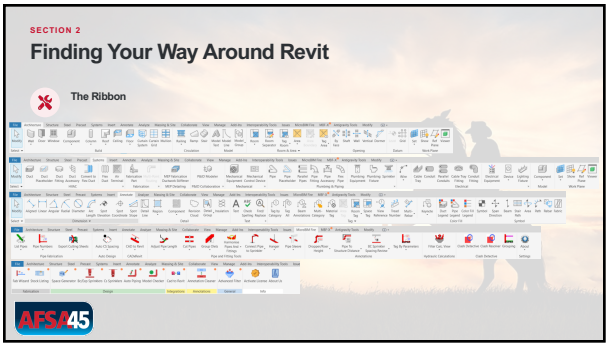

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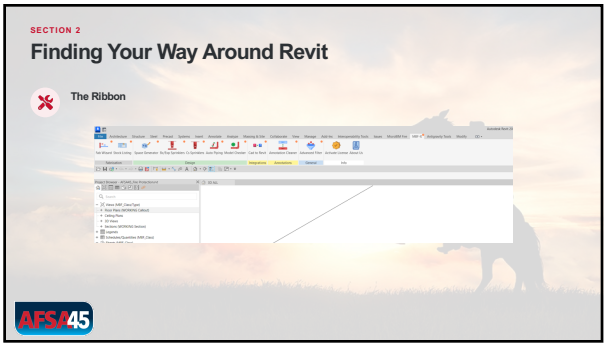

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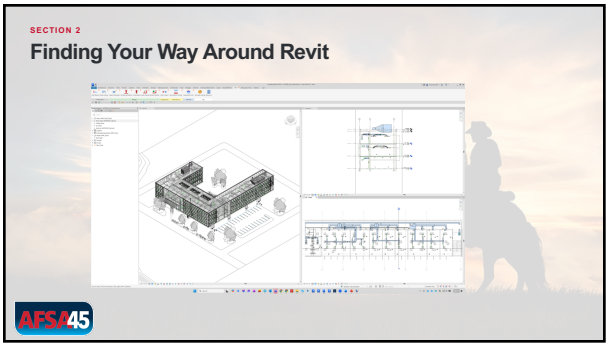

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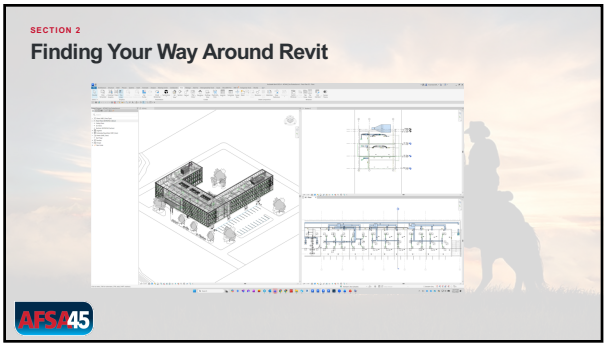

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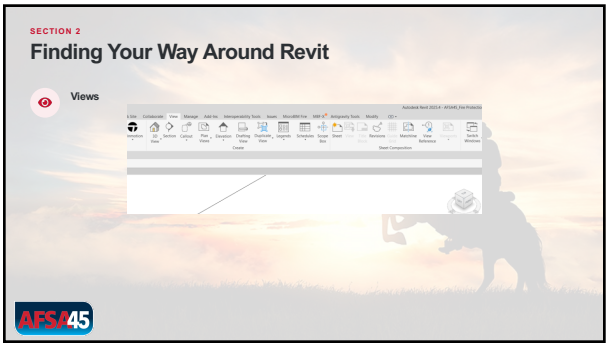

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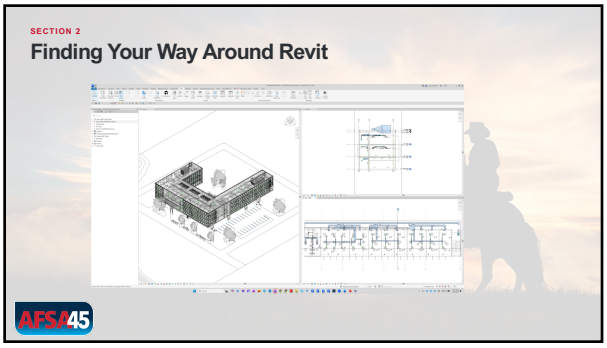

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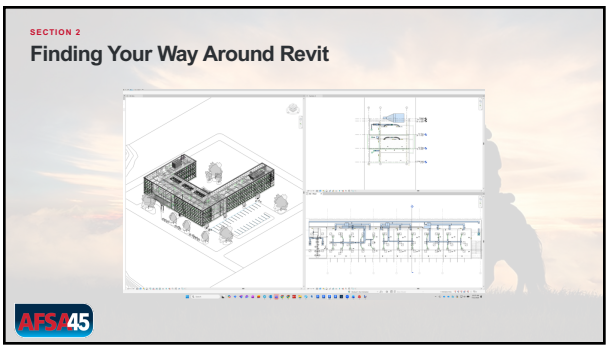

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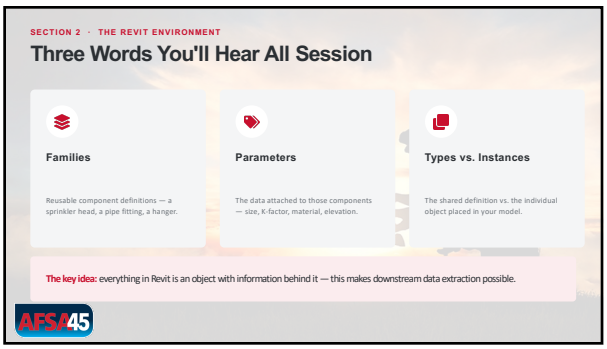

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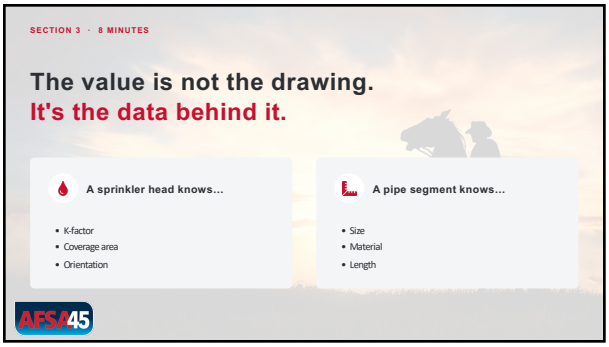

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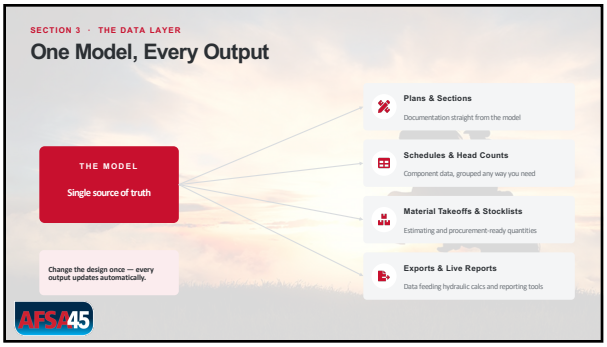

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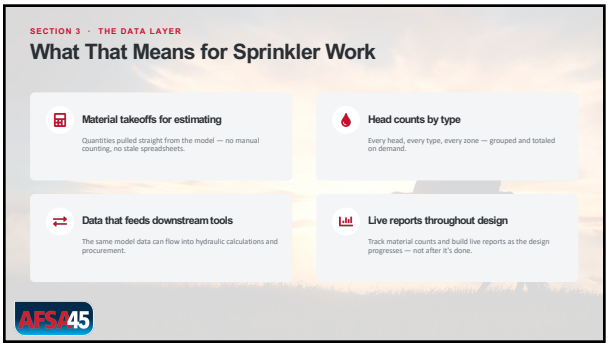

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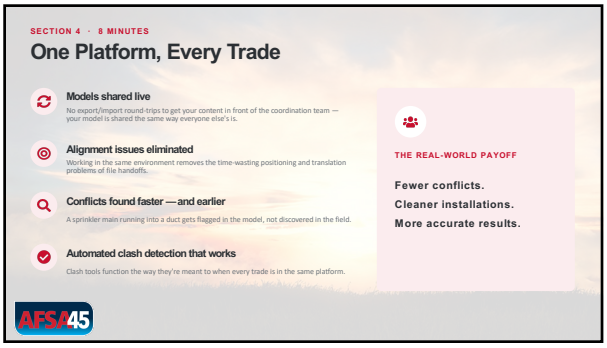

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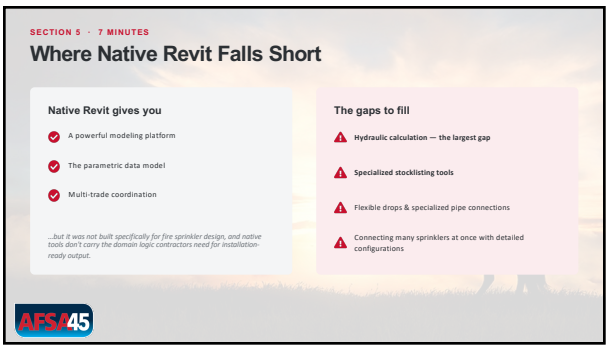
SECTION 5 · 7 MINUTES
Where Native Revit Falls Short
Native Revit gives you
A powerful modeling platform
The parametric data model
Multi-trade coordination
...but it was not built specifically for fire sprinkler design, and native tools don't carry the domain logic contractors need for installation-ready output.
The gaps to fill
Hydraulic calculation — the largest gap
Specialized stocklisting tools
Flexible drops & specialized pipe connections
Connecting many sprinklers at once with detailed configurations
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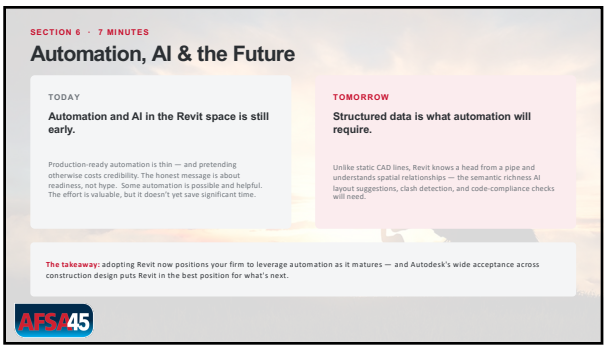
SECTION 6 · 7 MINUTES
Automation, AI & the Future
TODAY
Automation and AI in the Revit space is still early.
Production-ready automation is thin — and pretending otherwise costs credibility. The honest message is about readiness, not hype. Some automation is possible and helpful. The effort is valuable, but it doesn't yet save significant time.
TOMORROW
Structured data is what automation will require.
Unlike static CAD lines, Revit knows a head from a pipe and understands spatial relationships — the semantic richness AI layout suggestions, clash detection, and code-compliance checks will need.
The takeaway: adopting Revit now positions your firm to leverage automation as it matures — and Autodesk's wide acceptance across construction design puts Revit in the best position for what's next.
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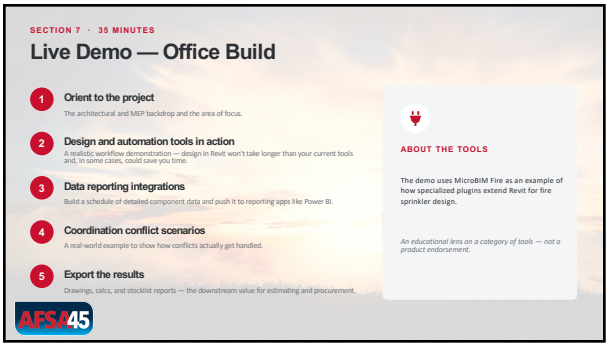
SECTION 7 · 35 MINUTES
Live Demo — Office Build
1 Orient to the project
The architectural and MEP backdrop and the area of focus.
2 Design and automation tools in action
A realistic workflow demonstration — design in Revit won't take longer than your current tools and, in some cases, could save you time.
3 Data reporting integrations
Build a schedule of detailed component data and push it to reporting apps like Power BI.
4 Coordination conflict scenarios
A real-world example to show how conflicts actually get handled.
5 Export the results
Drawings, calcs, and stocklist reports — the downstream value for estimating and procurement.
ABOUT THE TOOLS
The demo uses MicroBIM Fire as an example of how specialized plugins extend Revit for fire sprinkler design.
An educational lens on a category of tools — not a product endorsement.
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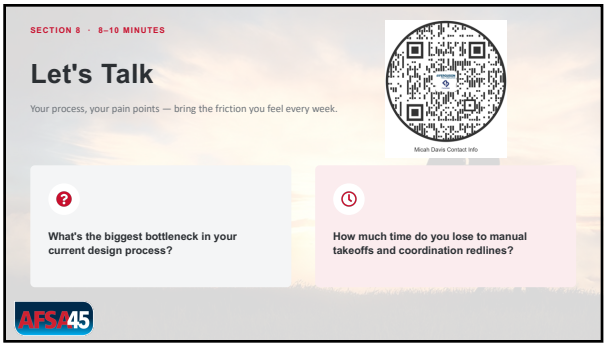
SECTION 8 · 8–10 MINUTES
Let's Talk
Your process, your pain points — bring the friction you feel every week.
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What's the biggest bottleneck in your current design process?
How much time do you lose to manual takeoffs and coordination redlines?
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28

REQUIRED
FOR CEU CREDIT:
✓ Badge scanned at start of seminar
✓ Attend full seminar
✓ Complete survey 1 of 2 ways:
✓ Survey link is emailed to attendees with scanned badges
✓ Event app by EventsAir
• Login to app
• Navigate to seminar survey
✓ Surveys close 10/31/26
Thank you!
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Scan QR code to submit questions for Ask the Experts!

29

2027 Training Schedule

WEBINARS

1/6	Updates to NFPA 20
1/20	Calculating Pressure Reducing Hose Valves
2/3	Consumer Alert: Nitrogen in Sprinkler Systems
2/17	Reviewing Hydraulic Calculations
3/3	Updates to NFPA 13, 2028 Ed.
3/17	Updates to NFPA 13R & 13D, 2028 Eds.
4/7	Topic Coming Soon
4/21	NFPA 25: Roles & Responsibilities
5/5	Standpipe Flow Test Procedures
5/19	Storage 101
6/2	NFPA Technical Meeting - Voting Guide
6/16	Topic Coming Soon
6/30	Topic Coming Soon
7/7	Updates to NFPA 14, 2027 Edition
7/21	Adjacent Hazards & Design Methods
8/4	Acceptance Testing
8/18	Modifications to Existing Systems
9/22	Topic Coming Soon
10/6	Seismic 101
10/20	Proposed Updates to NFPA 25, 2029 Ed.
11/3	Evaluating Fire Pump Flow Tests
11/17	Top 10 Tech Reviews
12/1	Designing Water Storage Tanks
12/15	Pump Room Layout

PROGRAMS

Feb 9 - Mar 5 Apr 20 - May 14 Aug 3 - Aug 27** Oct 26 - Nov 19	Beginning Design School*
Apr 26 - May 7 Nov 1 - 12	Intermediate Design School*
Feb 8 - 10** Apr 12 - 14 Jul 12 - 14 Oct 11 - 13	Sprinkler Hydraulics Calculations Workshop
Apr 19 - 21 Oct 18 - 20	Advanced Hydraulics Calculations Workshop
Feb 11** Apr 30 Jul 23 Sep 24	Introduction to the Fire Sprinkler Industry
Mar 1 - 3 May 17 - 19 Aug 16 - 18 Oct 18 - 20**	NFPA 25 Essentials Workshop
Jun 7 - 10 Sep 20 - 23	Experienced Inspector Skills Lab
Mar 4 - 5 May 20 - 21 Aug 19 - 20 Oct 21 - 22**	NFPA 25 Fire Pump Workshop
Spring Summer Fall	ITM Inspector Development Program* *This program is 20 months.*

** Hybrid course **At General Air Products Lab, Exton, PA*

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September 8-11	Manchester Grand Hyatt San Diego, CA

For More Details Visit:
firesprinkler.org

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Dates subject to change. Programs subject to minimum registrations.

rev 9/14/2026

Virtual Instruction Path (VIP)

for Sprinkler Fitting Apprentices

Level 1 - Begins January 2027

Level 2 - Begins February 2027

Level 3 - Begins January 2027

Level 4 - Begins March 2027

www.firesprinkler.org/VIP

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HANDS-ON WORKSHOPS FOR 2027

FEATURING AFSA'S TRAINING LAB

NFPA 25 Essentials Workshop

Mar | May | Aug | Oct

Description: Understand roles, responsibilities, and NFPA 25 ITM procedures through hands-on testing of wet systems, dry systems, and fire pumps.

NFPA 25 Fire Pump Workshop

Mar | May | Aug | Oct

Description: Develop practical NFPA 25 fire pump ITM skills, including no-flow and full-flow testing, water supply graphing, and performance evaluation.

Introduction to the Fire Sprinkler Industry

Feb | Apr | Jul | Sep

Description: This course is designed for those new to the industry. An introductory, wide-ranging 8-hour course that provides a broad overview of core fire sprinkler industry concepts for those new to the field.

Experienced Inspector Skills Lab NEW

Mar | Sep

Description: Take your ITM expertise beyond the basics. Designed for experienced technicians, this course combines focused classroom instruction with hands-on system lab training to strengthen your application of current NFPA 25 inspection, testing, and maintenance requirements. Refine fire sprinkler testing practices, improve documentation, deliver more consistent service, and help reduce liability while reinforcing knowledge commonly covered on certification exams.

Learn more about AFSA's fire sprinkler lab featuring functional risers, a spray room, fire pumps, and an interactive classroom.

firesprinkler.org/lab