



Temporary Fire Alarm Protection and Applications

Tim Renaud - Notifier Western Canadian Regional Sales Manager

Lee Morris – Convergint Technologies

Presentation Goals

- Risks to our buildings – why use temporary fire detection?
- Impairment Coordination – Temporary Fire Safety Plan
- Challenges in Implementation
- Application of wireless fire alarm as a solution to challenging site conditions

Why Use Temporary Detection?

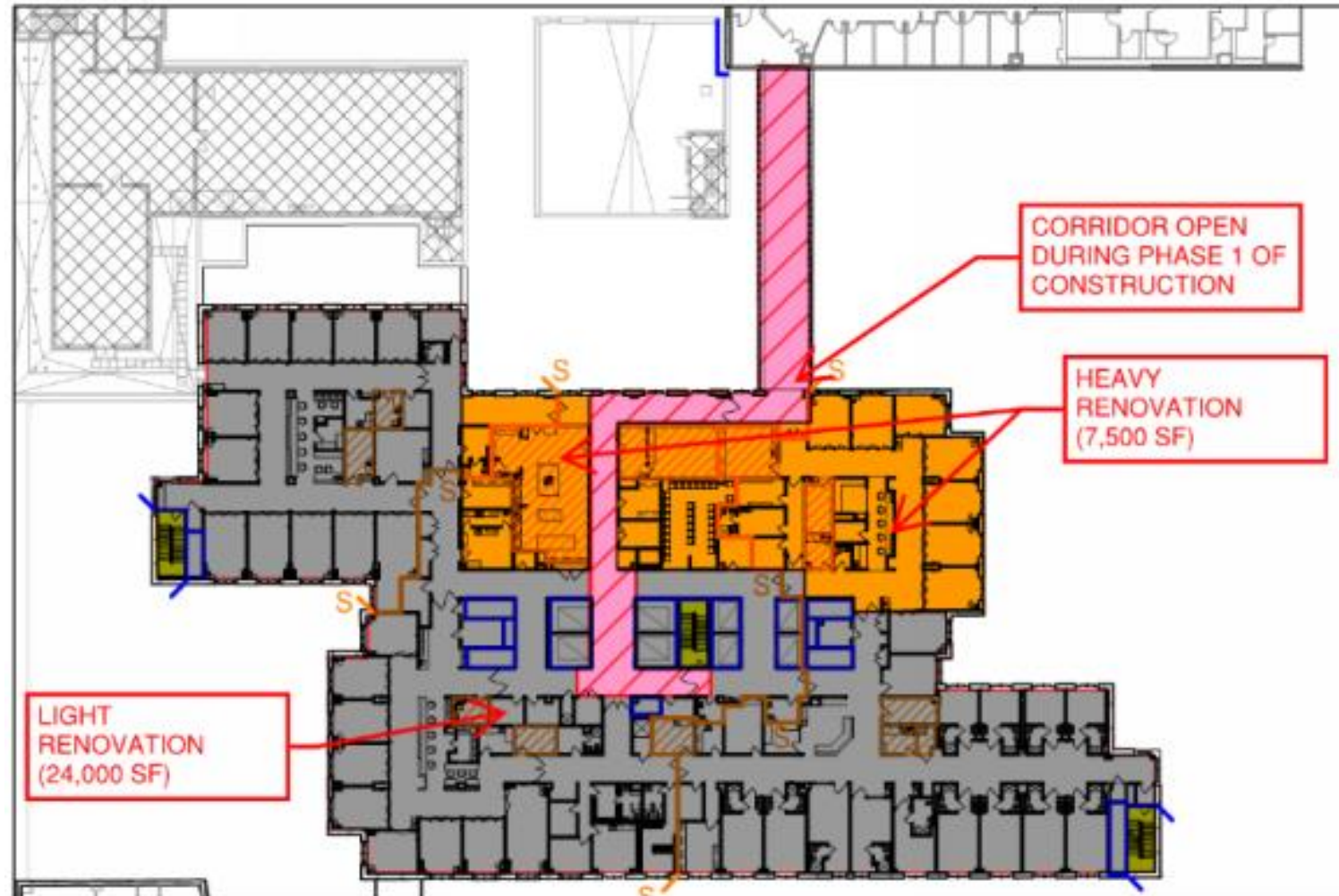
- Maintain construction site fire safety
- Establish safe/adequate access for FD operations
- Outline manner in which FP/egress systems will be maintained/impaired during a renovation/alteration
- Protect abutting buildings or occupied areas during continued construction



Impairment Considerations

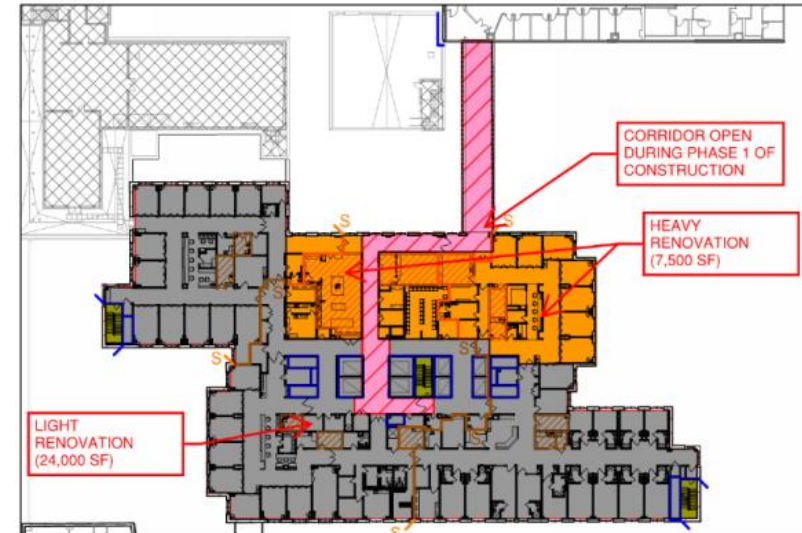
- ❖ Coordination of multiple impairments across multiple projects in the same building, especially if different contractors
 - Process to perform and conduct routine audits should be implemented. Sites can change and we need to maintain a consistent plan across the project.
- ❖ Smoke Detector bagging application, permit, process
 - Be aware of heads impacting door release, smoke control activation, elevator recall
- ❖ Sprinkler impairment application, permit, process
 - **Temporary heat detection**

Impairment Sample



Impairment Sample

- ❖ Removal of SD during construction
 - Could not relocate heads to deck due to height
- ❖ Elevator lobby and smoke control heads active
- ❖ 2-hour separations from occupied areas
- ❖ Construction exits with pull stations and exit signs
- ❖ **Heads turned up with ceiling removal**

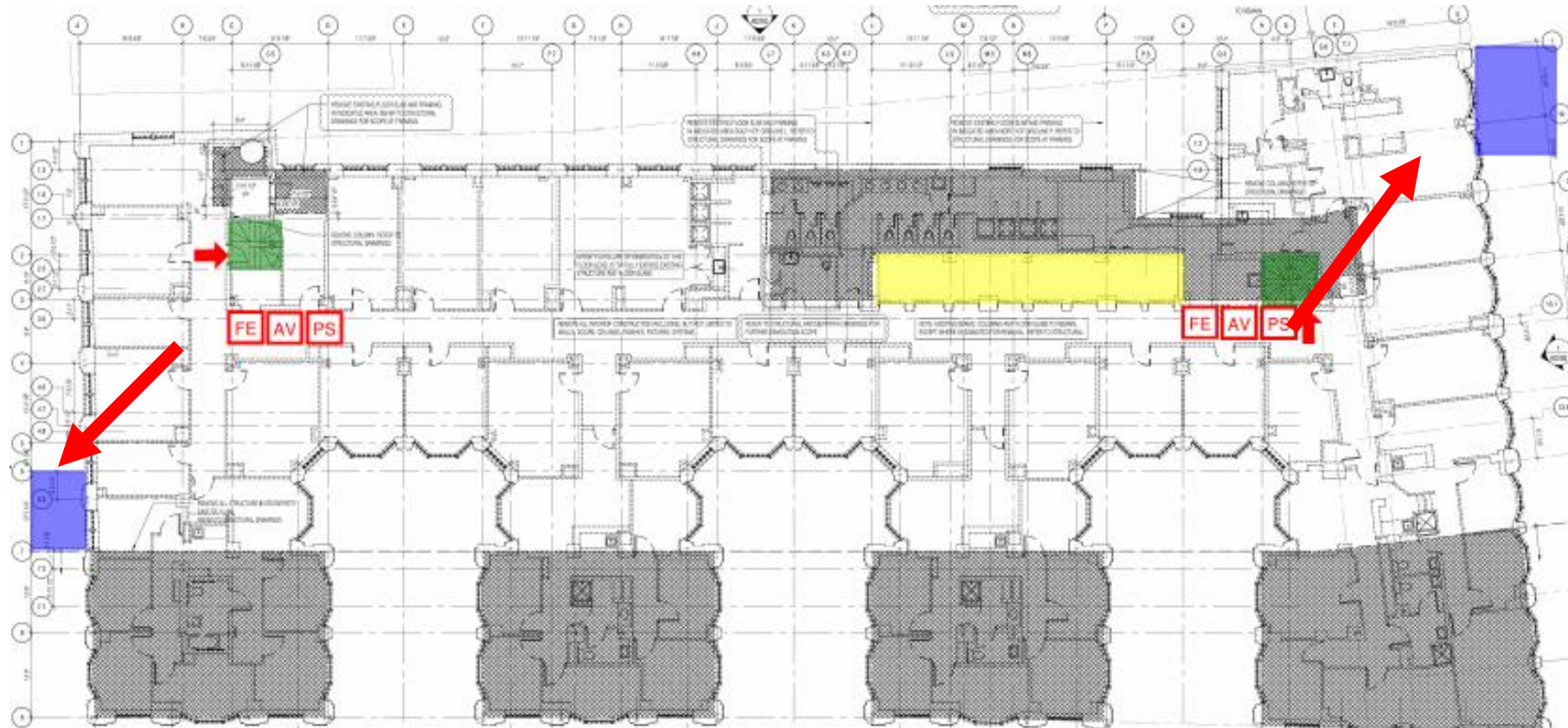


Opportunity Alarm



re

Relocation of Stairs During Construction



Temporary A/V, Pull Station and FE to be relocated during construction where stair locations is changing

Opportunities for using wireless fire alarm

- ❖ Temporary System requirements in occupied bldg. during substantial construction
 - Tenant improvement partial or many floors in occupied building
 - ❖ Existing F/A and sprinkler wants to be cut and capped;
 - ❖ Make Safe – Full HD; pull stations at exits; select A/V's; monitored by bldg. FACP



Fixed temp heat detection at floor/ceiling assembly above to mitigate sprinkler removal

Compliant (sprinkler inactive, HD provided)



Non-compliant (Sprinkler inactive, HD above ceiling)

Easily relocate wireless detector

Summary:

Benefits of wireless temporary fire alarm protection during construction

- ❖ Simple Solutions to Provide Fire Safety on New Construction Sites
 - Early notification via temporary fire alarm at exit stairways
 - Monitoring Temporary Dry Pressurized Standpipes
 - Monitoring/Notifying site personnel in wood framed buildings
 - Easily relocated devices when site plan and conditions change
- **Please note** – Wireless Fire Alarm is not currently recognized by ULC. This is for temporary protection and will require the approval of your AHJ.

Application – Temporary Protection

- ❖ Speed of Install, Reliability – Better than Fire Watch.

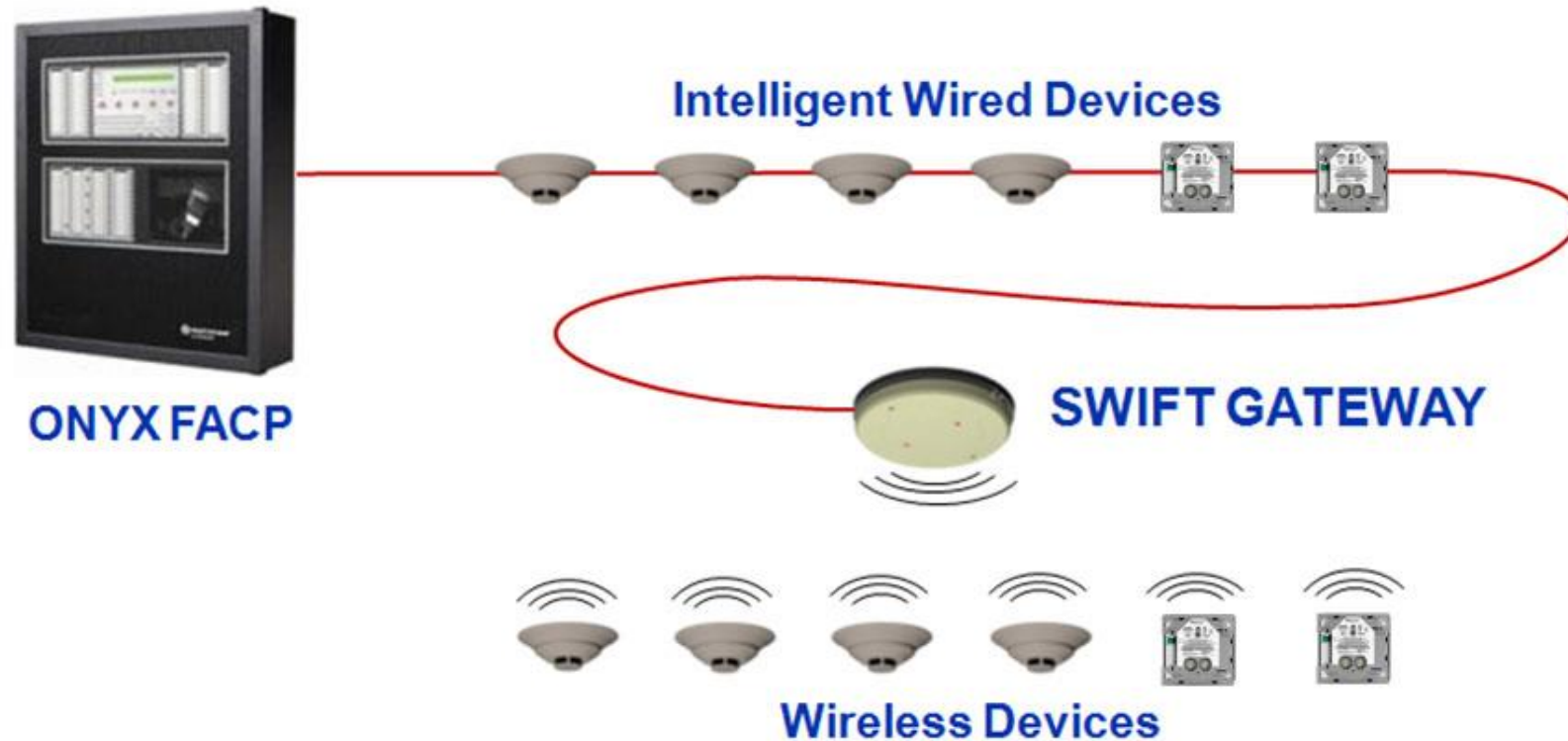
Whistler BC

- Fire in a vacation rental building
- Used Notifier SWIFT wireless instead of fire watch as an unobtrusive fire detection during renovations



NOTIFIER's SWIFT Wireless Overview

- ❖ **S**mart **W**ireless **I**ntegrated **F**ire **T**echnology
 - Patented proprietary wireless Mesh protocol



For life safety and property protection in challenging environments

SWIFT Components



NFS-320
318-Points Addressable



NFS2-640
636-Points Addressable



NFS2-3030
3,180-Points Addressable

FWSG



Used for communication
to/from devices and panel

FWD-200P



Photo

FWD-200ACCLIMATE



Acclimate

FW-MM



Module

FWH-200FIX135



Heat

FWH-200ROR135



Heat Rate-of-Rise

FW-RM



Relay Module

SWIFT TOOLS & W-USB



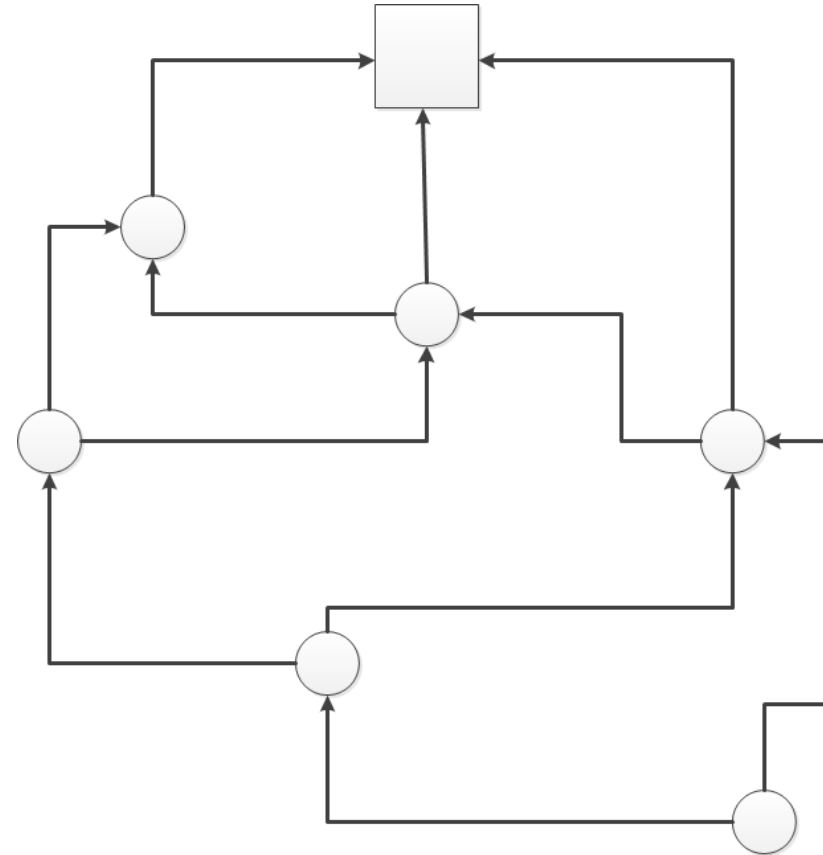
SWIFT Mesh Technology

- ❖ Proprietary mesh protocol optimized for fire
 - UL-approved Class A supervised redundant communication path
 - Frequency hopping, spread spectrum, patented cascading wave, self-healing mesh protocol
 - Operates in 902-928 MHz frequency
 - ❖ Lower ISM band
 - (Industrial, Scientific, Medical)
 - ❖ License free band

How Class A works

❖ Parents & Children

- Each device needs *two* parents (UL Listed Class A connection/ redundant path)
- Each device can have up to *four* children



Interference sources

❖ What sources of interference are anticipated?

- Walkie-talkie radios using *our* frequencies
- RFID readers (using *our* frequencies)
 - Wireless clock networks (using...)
- Old cordless phones (using...)
- Long distance LAN links (using...)



❖ What does NOT cause interference

- Walkie-talkies that are NOT using the same frequencies
- Wi-Fi networks and devices (2.4GHz and 5.2GHz)
- North American Cell phones
- Bluetooth devices



Interference only comes from sources in our band



Thank You!

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