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NEW CODES AND STANDARDS

AHCA VIRTUAL DESIGN & CONSTRUCTION SEMINAR
NOVEMBER 16 -18, 2020

Virtual Reviews and Inspections

Course Number: AHCA2020_1

Credit Designation: 1 LU| HSW

AIA CES Provider Number: E240

November 17, 2020

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AIA Learning Objectives

1 OBJECTIVE

Identify methods for ensuring all currently enforceable codes and standards criteria are appropriately covered in every review and inspection to ensure patient health and safety issues are being identified and met.

2 OBJECTIVE

Identify potential gaps in coverage that need to be addressed specific to transitioning from in-person, on-site reviews and inspections to virtual reviews and inspections, to ensure that critical issues are not missed that would jeopardize the health and safety of the patient, staff and users in the healthcare facility.

3 OBJECTIVE

Understand the value of contributions to the review process from all team members including owner, designer, contractor, and inspection team.

4 OBJECTIVE

Learn efficient steps to improve virtual reviews and assure patient and staff health and safety by developing an outline of critical and verifiable parts of the project.

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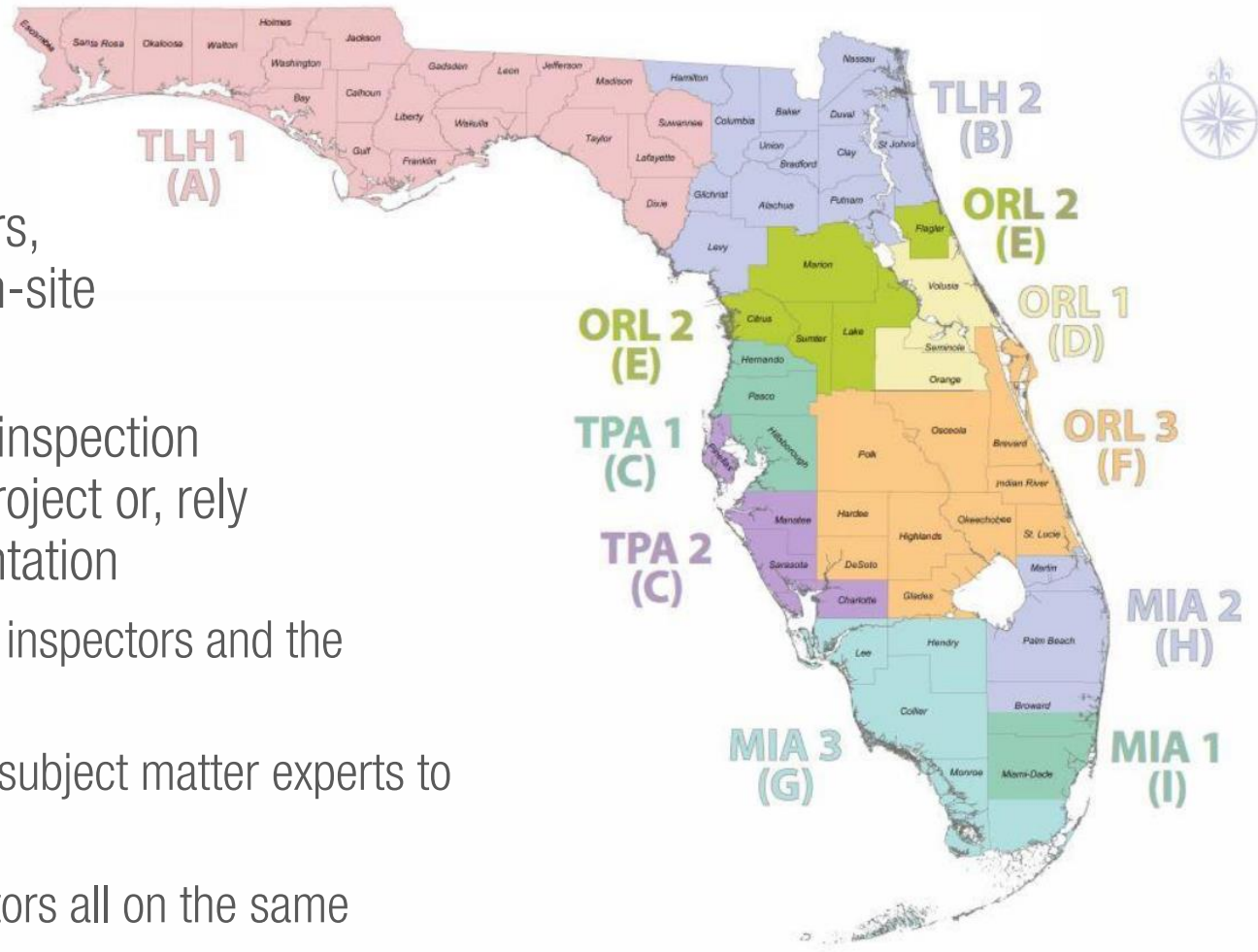
Virtual Reviews and Inspections

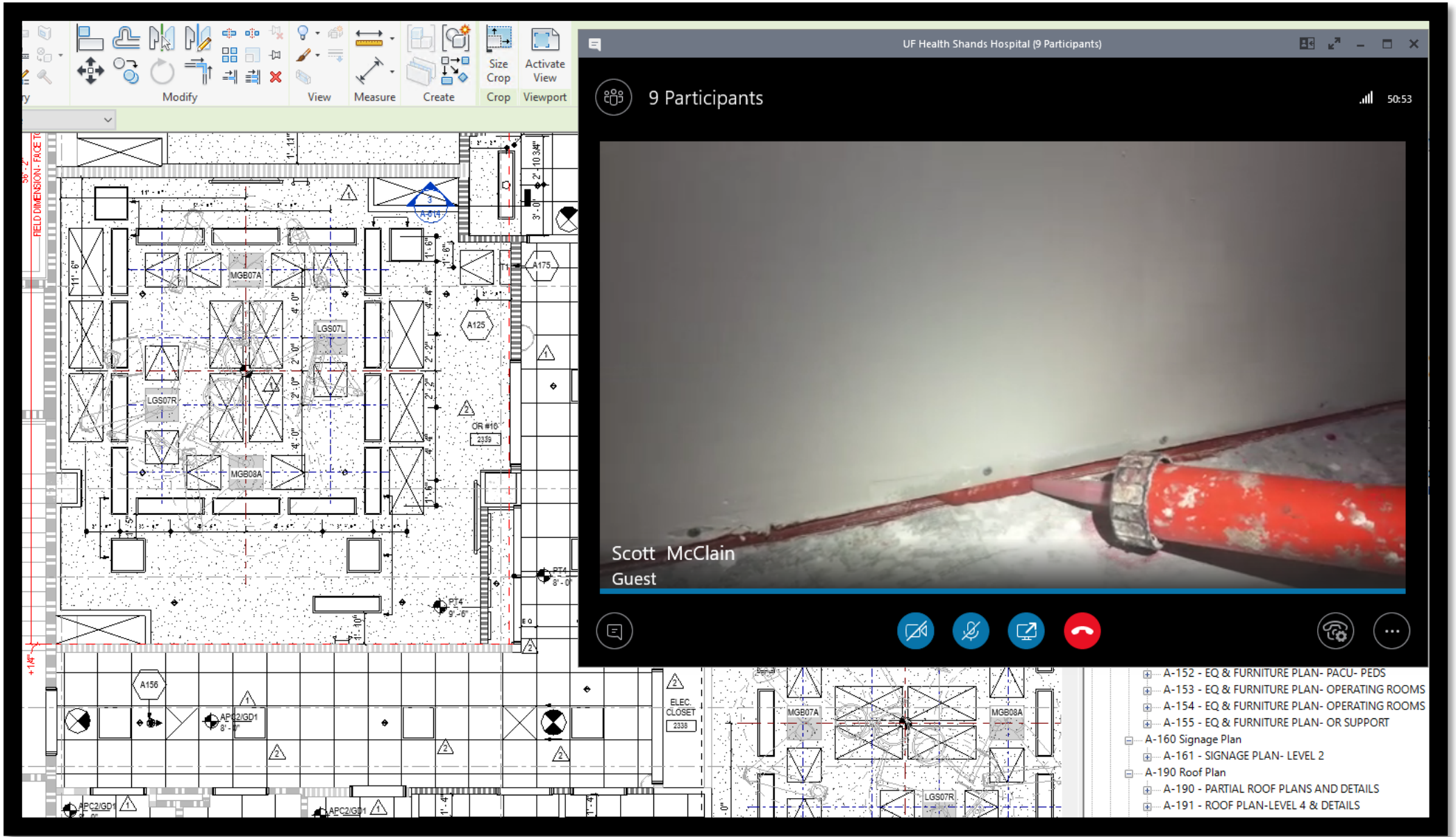
How is Covid-19 Changing Organizations?

// Impacts to the AHCA Project Review and Inspection Process

- **“Stand-up”** Reviews: formerly in-person meetings in Tallahassee or other AHCA office locations
- 80% and **100% inspections**: AHCA inspectors, design team, owners and contractors meet on-site for inspection walk-through
- **“Pick-up” Surveys**: return visits to follow-up inspection of incomplete or disapproved elements of a project or, rely on emailed photographs and written documentation
  - Often 4 hours of highway travel each way for inspectors and the design team to access inspection sites
  - Limited availability of team stakeholders and subject matter experts to be present
  - Difficulty with scheduling all the key contributors all on the same dates



// Impacts to the AHCA Project Review and Inspection Process



// Benefits of the Virtual Survey Process

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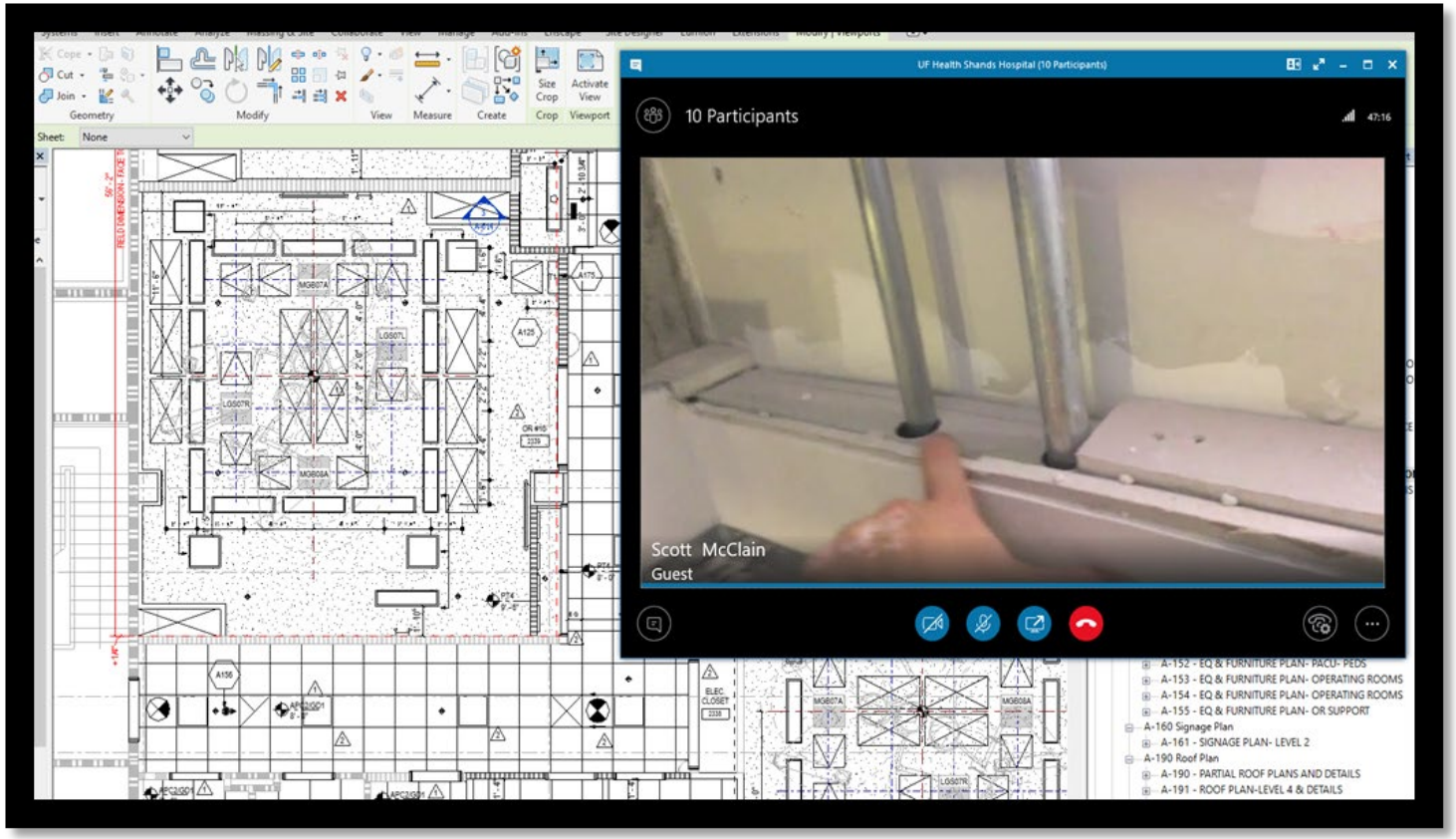
// Benefits and Savings

- Travel time, travel cost
- Staffing and scheduling flexibility: teams can flex to allow PTO and utilize available ahca staff from all over the state
- Inspectors can be anywhere in the state for multiple inspections on the same inspection date
- A greater number of design team contributors and subject matter experts can join the meetings without “crowding the room”
- Participants from anywhere in the world can join the virtual meetings
- Safety factors including reduced travel and site risks, liabilities and automatic social distancing

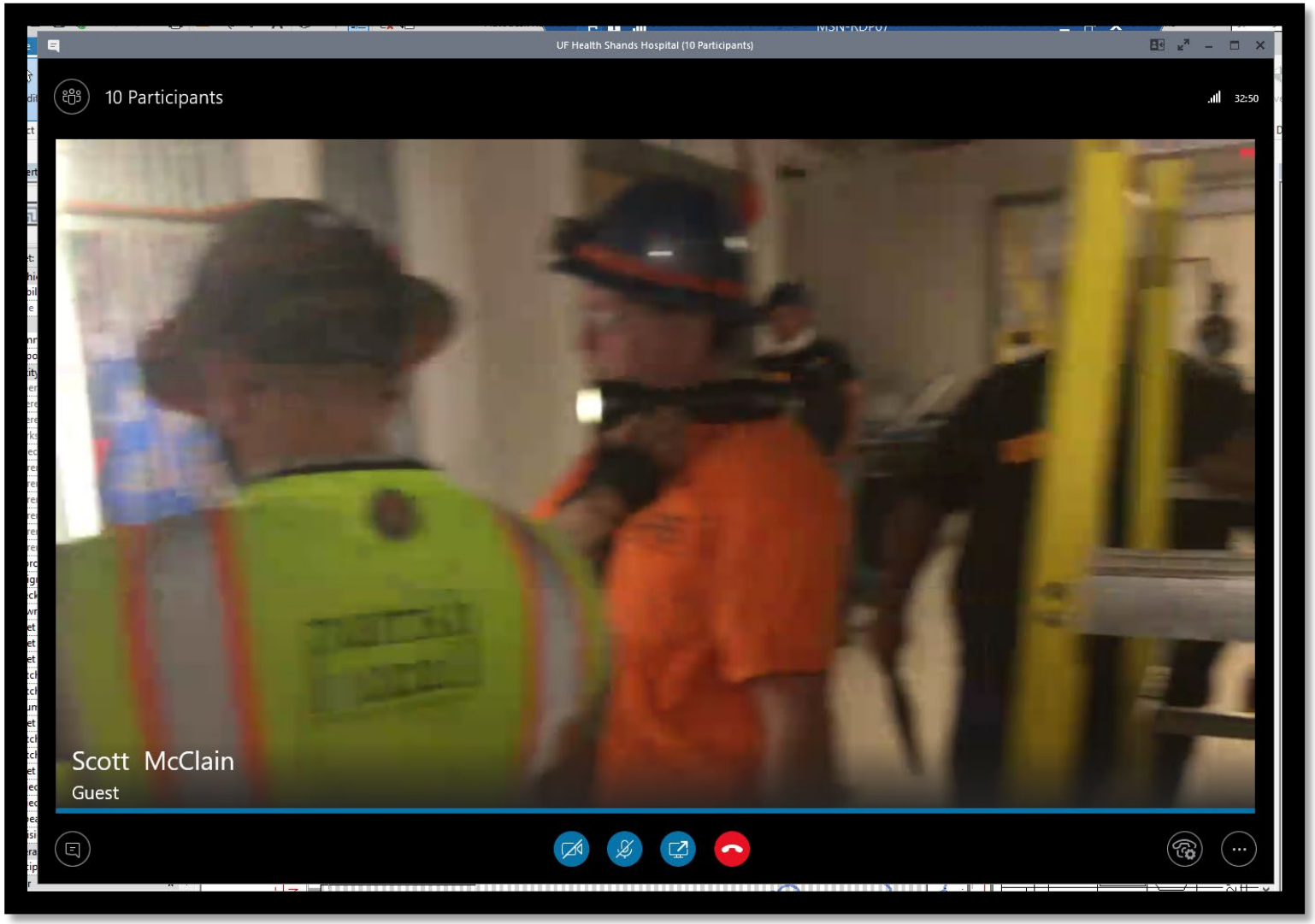
// Benefits: Focus on Details

- Inspection group can focus in on specifics better in a controlled virtual setting than in-person, distractions are minimized and no one can wander away from the group, everyone can hear and see and take an opportunity to comment for the benefit of the whole inspection team
- During inspections and reviews, when questions arise, instead of paging through whatever materials are piled on the table, the design team has better access to design source information to better resolve those questions



// Ideas

- More cameras active with gallery view
- Nurse call, fire alarm systems, and other inspection items that require being “in two places at once” to observe cause/effect testing techniques
- Increase participant access to on-line codes and standards resources



// Lost Art & Imperative New Expanded Tech Skills

- **Experienced inspectors** walk into a space and instantly collect an unknown quantity of information that they efficiently triage for items to focus on with the team
- Connectivity issues
- Software
- Hardware
- Dependence on participant technical / technology training and skills on “both ends of the line”
- Lighting
- Camera focus
- Audio issues
- Speed / slowness
- Access issues

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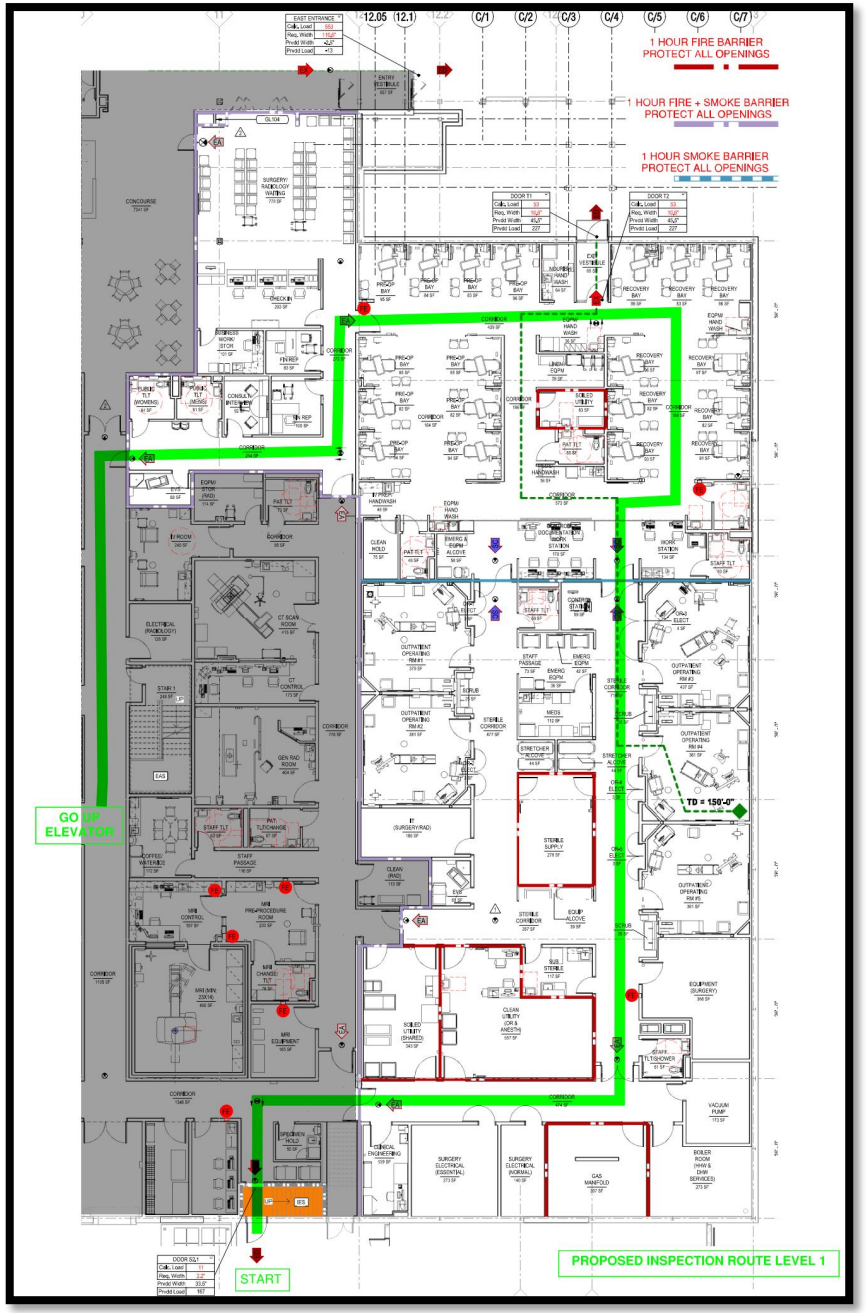
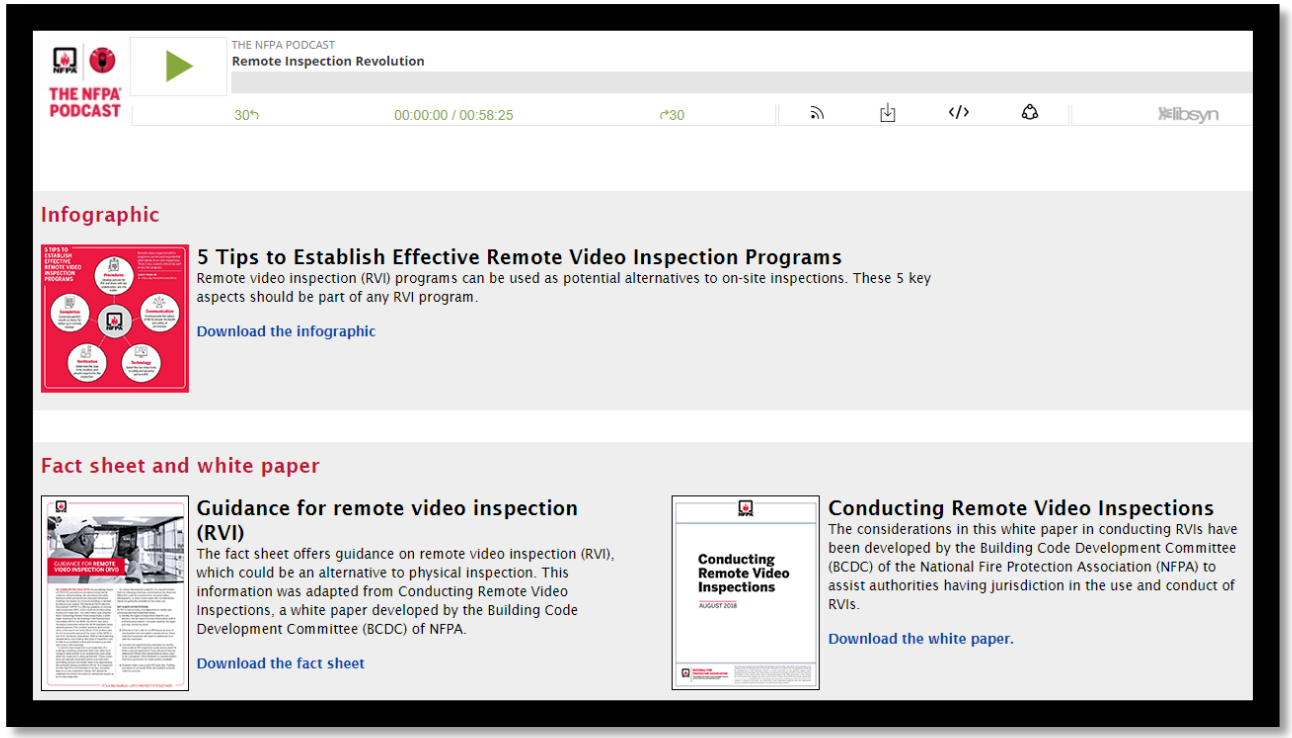
// Next Steps

- Review appropriate pre-inspection and on-hand documentation
- Map out the inspection pathways on a floor plan
- Ensure inspectors are familiar with the details of the project ahead of time
- Get direction from the inspector about specific items that must be seen in the survey



// Next Steps

- Utilize trusted resources like NFPA
- Train for effective virtual environment navigation
- Schedule more camera men, ladder movers, and coordination among field team to help move the reviewer around more efficiently
- Employ virtual-specific enhanced checklists
- Implement checklist-completion protocols during virtual inspections, ensure all critical aspects of each facility are fully reviewed every time and nothing important ever overlooked in any single survey
- In-person / on-site auditing protocols



// Happening Now

- Time-lapse video photography for viewing detailed sequences of construction from a planned strategic vantage point.
- Matterport, Cupix 3D, VPiX 360, Easypano, EyeSpy360 – Options: hardware and software solutions, $1k-$5k camera hardware packages, monthly subscription services ($50-$150/mo). At the low end, but still functional, +/- $300 products offer panoramic photography manipulation software.
- Self-guided, highly detailed virtual tours
- VuSpex already being implemented in some Florida municipalities
- Great phone capabilities that a lot of us are already carrying with us
- IPad and other tablet technologies
- As with phones and tablets, GoPro video cameras can live stream or could be utilized to create high quality inspection tour videos

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// Drones

- Real-time **inspector-driven** drones
- Already 10 years in on commercially available quality photography drones
- Like self-driving cars we hear about being tested, similar AI technology is already available to facilitate automated collision avoidance and diminishing other common challenges like vibration and horizontal-hold to make the technology easier to use for anyone
- A quick online search shows prices start at just a few hundred dollars, $1,400 for the highly recommended DJI Mavic 2 Zoom package

// What Can Organizations do to Assist the Process?

- NFPA 915 Remote Inspections Standard – Public Input Until June 1, 2021
- Presentations like this one will evolve as we all updraft together
- Contribute to Polling for Peer-to-peer insights
- Review Results for What's working for whom, when and where?
- Incorporate "Lessons Learned"

Thank you for your attention!