



## *Remote Virtual Inspections (RVI)*

***Dave Walls - Vice President Business Support Initiatives***

***Stephen Jones - Sr. Government Relations***



# Stephen Jones

**Stephen D. Jones, CBO, MCP, MS, NJCEM** is currently the Senior Government Relations Regional Manager for the International Code Council responsible for the states of North Carolina, South Carolina, Tennessee and New Jersey. The former Construction Official and Deputy Emergency Manager for the Township of Millburn/Short Hills and the Borough of Florham Park, NJ, Jones has over 35 years of construction experience and has served as the past-president of the Morris County Building Officials Association (NJ) and the Building Officials Association of New Jersey. In addition, Jones served on the New Jersey Department of Community Affairs, Building Subcode Committee and their Peer-Review Board as well as having served as a NJ Department of Consumer Affairs New Homes Warranty Arbitrator.

Jones is a past-president of the International Code Council's Board of Directors and a sitting Governor for the World Organization of Building Officials. Additionally, he is a former member of the Board of Direction for the National Council of Governments on Building Codes and Standards for the National Institute of Building Sciences as well as having served as a member of the International Accreditation Services Board of Directors. Jones obtained professional designations as a Master Code Professional (MCP) and a Certified Building Official (CBO); which are the highest designations available in his field.

Jones has a bachelor's degree in Applied Science and Technology and a Graduate Certificate in Homeland Security from Thomas Edison State College. In 2016, he earned his Master of Science (MS) Degree in Homeland Security from Thomas Edison State University. In addition, he qualified to receive his professional designation as a New Jersey Certified Emergency Manager (NJCEM). Over his career he has received numerous awards and recognitions for his public service including being inducted into the national emergency management academic honor society, *Omicron Sigma Sigma* "The Order of the Sword and Shield" as well as being named as an "Honorary Kentucky Colonel".

In addition to his professional experience Jones served on his County Planning Board as well as having previously served as his local Planning Board Chairman. Jones holds multiple NJ state licenses as well as having numerous national certifications issued by the International Code Council.

The married father of three adult children, Jones lives in Greenville, SC with his wife of 31 years, Paula.



# Dave Walls

Dave Walls is the Vice President of Business Support Initiatives for the International Code Council (ICC). His responsibilities include initiatives relating to the development of support products and materials related to sustainability as well as domestic and international business development activities.

Prior to joining ICC, Dave served as the Executive Director of the California Building Standards Commission, which oversees the adoption and publication of the California Building Standards Codes. He successfully directed the long overdue transition to the I-Codes in the adoption of the 2007 California Building Codes and also lead the development of CALGreen in 2010.

Dave was a local code official for ten years. He served as a member on the California Seismic Safety Commission and on the California Hospital Building Safety Board. Dave is a California Licensed General Contractor and also served as an adjunct professor at UC Davis. All in, Dave has more than 35 years of experience in the construction industry.

# Today's Presentation

- **Brief Background on the International Code Council (ICC)**
- **RVI Process**
- **Challenges/Successes**
- **Training**
- **Examples**



# International Code Council Member Focused ~ Not-for-profit

members in **38** countries



**377**  
chapters  
worldwide



**12**  
standards

**15** international codes



**Nearly 2 billion**  
people impacted by I-Codes



*Premier building safety  
solutions provider*



**7** subsidiaries



**500** highly qualified  
staff members



**9** offices



Over **55**  
countries in  
which our ICC  
family of solutions  
are active



**16**  
years as a  
consolidated  
organization



**100+**  
years of impact

# REMOTE VIRTUAL INSPECTION - RVI

## WHAT IT IS - Definition

RVI, is a form of visual inspection which uses visual or electronic aids to allow an inspector or team of inspectors to observe products and/or materials from a distance because the objects are inaccessible or are in dangerous environments, or whereby circumstances or conditions prevent an in-person inspection.



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## Purpose of the RVI Resources

After the pandemic hit, jurisdictions were looking for ways to keep everyone safe and many were looking for ways to implement remote inspections





# What is RVI?

- A form of visual inspection
  - Uses visual or electronic aids
  - Allows inspectors to observe products and/or materials from a distance



# Why Use RVI?



- Today's phones and tablets have powerful capabilities for real-time, online communication
- Allows construction projects continue forward without impediment
- Allows AHJs to continue providing essential services needed to ensure the safety of the built environment



# Key Steps for Remote Virtual Inspection

## THE KEY STEPS TO A REMOTE VIRTUAL INSPECTION



1

### Scheduling

The customer works with the AHJ to schedule remote virtual inspections and ensure both parties have the required documents and equipment necessary



2

### Customer Preparation

The customer prepares the jobsite and devices as well as minimizes disruptions for remote virtual inspection, ready to cooperate with the inspector when on the call



3

### Jobsite Identification

The inspector makes sure the jobsite is identified on the video display and begins inspection, keeping close communication with the customer



4

### Inspection Results

Results are entered into the AHJ's permit database as soon as RVI is completed and communicated with the customer



5

### Maintaining Records of Inspections

Required inspection records are maintained in accordance with the AHJ's policies, laws, regulations, and applicable codes, and may be subject to disclosure

# RVI Scheduling



## AHJ Requirements:

- Require lead time
- Sufficient Time for Type of inspection
- Time slots
- Platform (Facetime, Skype, Google Duo, etc.)
- Confirm qualified inspection type
- Provide confirmation to the customer



# RVI Scheduling



## Customer Requirements:

- Active permit
- Require lead time
- Sufficient Time for Type of inspection
- Confirm Platform (Facetime, Skype, Google Duo, etc.)
- Confirm qualified inspection type
- Confirm with jurisdiction
- Sign consent notice



The background image shows a construction site with several yellow tower cranes and a multi-story building under construction. The building has a mix of concrete and glass facades. In the foreground, a construction worker in a blue uniform and yellow hard hat is visible. The image is overlaid with a dark green semi-transparent rectangle on the left side, where the text is located.

## RVI Process - Jobsite

- Safe for person handling the device
- Device is fully charged
- Hi Speed WiFi or cell service with a strong signal
- Good lighting and visible
- Tools available onsite
- Plans & permit card available





## RVI Process - Customer Preparations

- Image Quality
- Turn off notification to avoid interruptions
- Minimize jobsite disruptions
  - Background noise
- Be ready to receive the call on time



# RVI Process - Inspection



- Begin video at the street
  - Geotagging/GPS
- Follow directions
- Minimize interruptions



A woman with dark curly hair, wearing a blue shirt and a bright yellow safety vest, is pointing at a tablet held by a man. The man, also wearing a blue shirt and a yellow safety vest, is sitting on a stack of concrete blocks. A white hard hat is resting on the blocks next to him. The background shows a construction site with wooden framing.

## RVI Process – Inspection Results

- Results are entered into system following inspection
- Available for Customer review
  - Inspector may send results electronically
- Corrections noted
  - Schedule reinspection
  - Optional – inspector may permit video of corrections
- Utility tags



# RVI Inspection Types

- Plumbing system repairs or fixture replacements.
- Construction trailer installations.
- Swimming pool excavations.
- Gas line repairs or gas utility clearance.
- Electric utility clearances.
- HVAC direct replacement or repair.
- Minor residential electrical.
- Insulation







# RVI Inspection Types

- Miscellaneous repair/exterior repair or upgrades (stucco, windows, etc.).
- Re-roofing/roof covering replacement.
- Water heater or water softener direct replacement.
- New residential plumbing rough-in.
- New residential rough framing inspections.
- Residential rooftop-mounted photovoltaic panel systems.
- HUD manufactured home installation verification.
- Any other inspection approved by the AHJ.

# RVI Inspection Challenges

- Connectivity/Technology
  - Video and/or Audio
- Ensuring correct site location
- Ensuring correct location within the building
- Insufficient data to demonstrate compliance
- Complexity of the project
- Inadequate tools onsite
- Length of time for inspection





# RVI Inspection Positives

- Health and safety benefits
- Customer - Schedule an inspection time
  - Able to plan around schedule
  - Pre-determined length of time for inspection
- Jurisdiction - Eliminates drive time
- Saves time and resources
- Reduces GHG

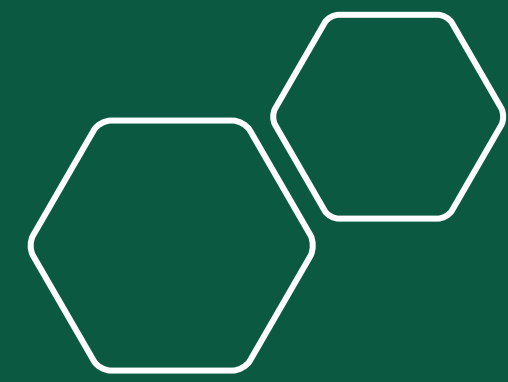




# RVI Inspection Education

- Training
  - The RVI process
  - The various video platforms/software
  - Communication skills
- Training for Customers
  - Job site expectations
  - Scheduling protocols





# RVI - Special Inspections

- Special Inspections
  - High Strength Bolting
  - Welding
  - Concrete
  - Others



# RVI – Sample Jurisdictions

- [Alexandria, Virginia](#)
- [Arlington County, Virginia](#)
- [City of Austin, Texas](#)
- [City of Fort Collins, Colorado](#)
- [North Carolina Code Officials Qualification Board](#)
- [North Carolina Department of Insurance](#)
- [North Las Vegas](#)
- [Los Angeles County Video Inspection Process and Inspection Guide for PV Systems For One- and Two-Family Dwellings](#)
- [City of Los Angeles Department of Building and Safety Virtual Inspection Program](#)
- Many others around the country



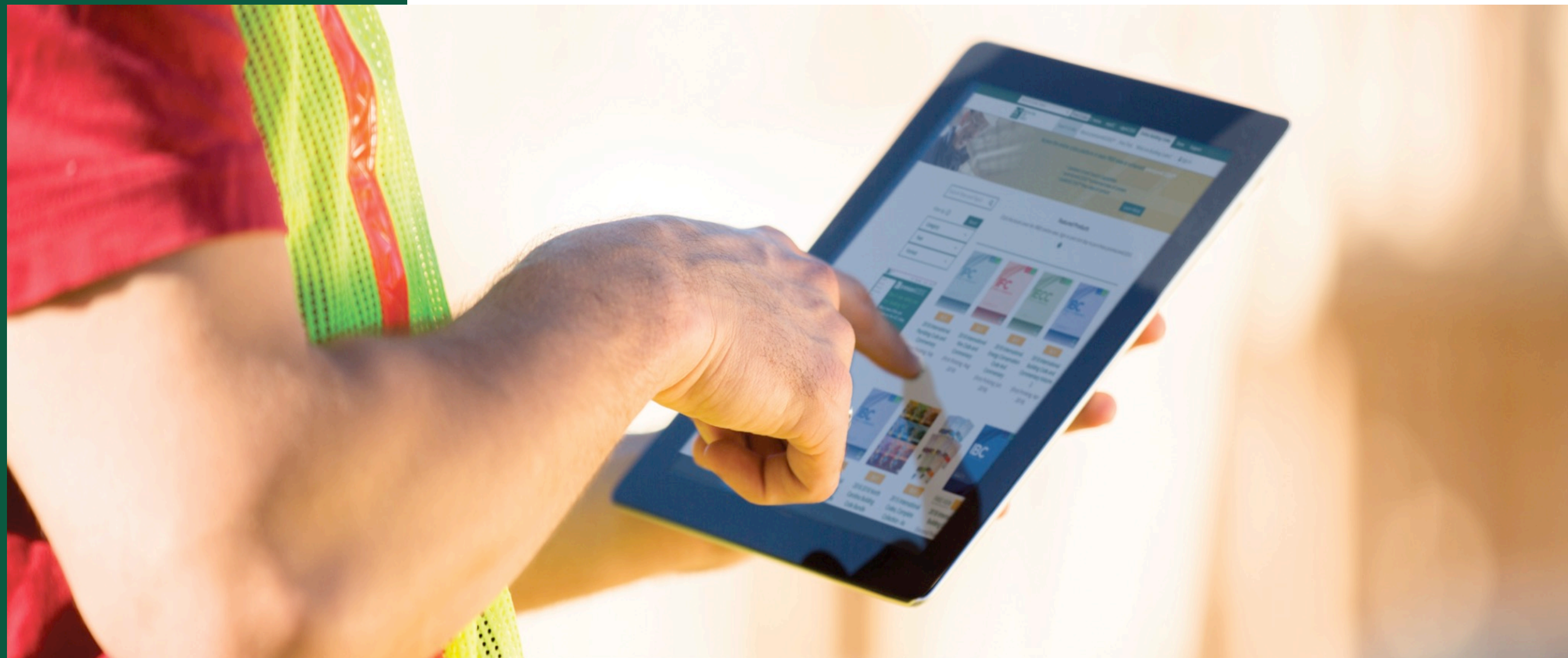
# RVI Resources

- ✓ [ICC Coronavirus Response Webpage](https://www.iccsafe.org/advocacy/coronavirus-response-center/)  
(<https://www.iccsafe.org/advocacy/coronavirus-response-center/>)





# RVI - Software



- Municipity
- Inspected.com
- Oracle
- Blitzz
- Others



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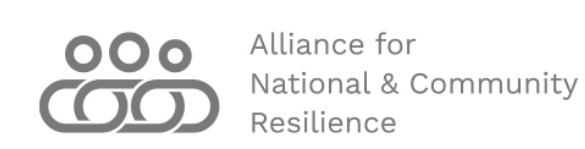


# Thank you for participating!

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