

## Live Remote Inspections

As approved by the North Carolina Code Official Qualification Board in conjunction with all applicable state statutes, Alexander County Building Inspections will provide Live Remote Inspections as allowed by the Qualifications Board. The policy and procedures for this service shall follow closely the guidance paper provided by the Qualifications Board. Alexander County Building Inspections shall use this guidance paper as the governing document for this service. The purpose of offering this service is two-fold. First, this program is offered in an effort to enhance our customer service, and work closely with our development community to speed up the time of construction by offering a select group of inspections in a timelier manner. Second, to allow for a better use of field inspector resources by allowing these inspections to be performed remotely.

### POLICY:

This policy is based on the guidelines provided by the North Carolina Code Officials Qualification Board. Only those inspections and processes approved by this body shall be allowed. Alexander County Building Inspections shall adhere strictly to these guidelines at all times.

### USE of Live Remote Inspections:

Participation in the Alexander County Building Inspections Live Remote Program is strictly voluntary. Prior to Participating in the Live Remote Program permit holder(s) must be approved by the Chief Building Code Official to Participate in the program. The Chief Building Code Official will evaluate the permit holder(s) past performance and approve or disapprove participation, based on several items consisting of, but not limited to, the number of code violations in any inspection, non-payment of fees, unrequested final inspections on past projects.

### Live Remote Documentation:

Alexander County Building Inspections Field Inspectors DO NOT record inspections when they visit a jobsite. Live Remote inspections will follow the same procedure. Live Remote Inspections will not be recorded in any recording format. The inspection will occur in real time electronically, and documented as a Live Remote Inspection on Alexander County's electronic Permit Inspection System. In the future Alexander County may "record" these inspections, but only as a way to insure consistency,

### Auditing Live Remote Inspections:

Live Remote Inspections shall be audited by Alexander County Building Inspections on a schedule determined by the Chief Code Official. If a Live Remote Inspection is selected for audit, the permit holder shall be notified by the inspector conducting the live remote inspection

that a field inspector will be on site the same day to perform an onsite audit. The approval of the Live Remote Inspection will remain conditional until the Field Audit is completed.

Live Remote Inspections between Inspectors:

Alexander County may allow inspectors to perform Live Remote Inspections with other inspectors in the same manner as with the permit holder.

Limitations of Live Remote Inspections:

- NO Electrical except roof top PV systems or HVAC mechanical changeouts.
- NO Fuel Gas or Ventilation of appliances.
- NO inspections to be deemed Life Safety Inspections.
- Live Remote re-inspection is at the discretion of the inspector when minor and **not** life safety.

Requirements and Allowances for Live Remote Inspections:

- o Inspectors performing the Live Remote Inspections shall be certified for the type and level.
- o Eligible for both residential and commercial projects.
- o Any other inspections not listed shall be performed on site by an inspector.

Inspections allowed under Live Remote Program:

- 1- Sewer and water trench inspections up to 100 feet in length.
- 2- Shower Pan Inspections.
- 3- Residential porch columns.
- 4- Residential PV solar rooftop systems.
- 5- HVAC Changeout inspections for townhouses and 1 & 2 family dwellings (no fuel gas systems permitted).
- 6- Manufactured Home Marriage line connection.
- 7- Re-Inspection of up to four (4) non- life safety code violations- Can Include: *Footing, Foundation, Slab, Building Framing, Insulation, Rough-in Mechanical, Rough-in Plumbing, Final Plumbing, Final Mechanical and Final Building.*
  - i. *This is not allowable for first time inspection.*
  - ii. *No Electrical, fuel gas fired equipment or hazardous exhaust allowed.*

## Live Remote Inspections Procedures:

### General:

- 1- Participation in Program:
  - Prior to participating in the Live Remote Program, the applicant will contact the Chief Inspector and request approval to participate in the program.
- 2- Scheduling:
  - The contractor / applicant shall contact Alexander County Building Inspections and schedule a Live Remote Inspection. The contractor / applicant shall call at least 1 day prior to the requested inspection. (It is understood that emergencies do occur and Alexander County Building Inspections will make every effort to work with the contractor in these cases).
  - The contractor / applicant will provide contact information, cell phone number and a time range for the inspection. As Inspectors will be handling field inspections also Alexander County Building Inspections will not be able to guarantee an exact time at the time of scheduling. The Inspector will call the applicant to schedule the Live Remote Inspection directly.
- 3- Technology Required:
  - Live Remote Inspections are conducted using an Inspectors cell phone or other electronic device. This being the case the applicant is required to use a smart phone, tablet or other device to conduct the inspection. If the inspection location is in an area with poor cell service, the inspection cannot be performed remotely. If during the inspection, the signal drops or fades out the inspection will be cancelled and will be required to be performed as a standard inspection.
- 4- Inspection process:
  - Each category of Live Remote Inspection is detailed in this policy. The tools required and the instructions for performing the inspection are listed by category. These steps are to be followed at all times. If the applicant is unable to adhere to these requirements, the inspection will be stopped and will be handled as an on-site inspection.

## **1- Sewer and Water Trench Inspections- Trench must be 100 feet or less in length**

### **Tools required:**

- Smart phone or other electronic device
- Tape Measure
- Level
- Marking Devices to mark across trench (wood strips, pipe etc...)

### **Inspection Procedure:**

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted, the front of the structure and posted address numbers shall be visually shown.
- Follow the detailed instruction as given by the inspector
  - At the beginning (structure) the applicant will walk the trench. The applicant will have marked the trench in 20-foot increments. Every 20 feet using a tape measure or ruler, the applicant shall show the inspector the depth of the trench.
  - Sewer lines shall be verified for slope by use of a level. Typically a consistent depth of pipe with the land sloping will indicate code compliance.
  - When complete the inspector will approve or disapprove the inspection.
  - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
  - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspector's instructions.
  - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.
  - If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then authorize the permit holder to cover the trench.

## **2- Shower Pan Inspection:**

### **Tools Required:**

- Smart Phone or other hand-held device
- Tape Measure
- Level

### **Inspection Procedure:**

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted, the front of the structure and posted address numbers shall be visually shown.
- Follow the detailed instruction as given by the inspector.
  - Liner shall have water test ready and visible during Live Remote Inspection.
    - When complete the inspector will approve or disapprove the inspection.
    - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
    - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspector's instructions.
    - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.
    - If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then allow the permit holder to continue work.

### 3- Residential Porch Columns :

- This inspection involves porch columns that were installed after the traditional; building-framing inspection has been completed. The permit holder may not cover up the connections until approved by the inspector.

#### Tools Required:

- Smart phone or other hand held device
- Tape measure
- Hammer
- Level

#### Inspection Procedure:

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted, the front of the structure and posted address numbers shall be visually shown.
- Follow the detailed instruction as given by the inspector.
  - o The permit holder will walk to the porch showing each column, beam and connection for a visual observation by the inspector. **This inspection cannot be used for column footings.**
    - When complete the inspector will approve or disapprove the inspection.
    - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
    - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspector's instructions.
    - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.
    - If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then allow the permit holder to continue work.

#### 4- **PV Solar Residential Rooftop Systems- Rough In Electrical Inspection**

Involves showing the PV solar equipment that will be installed on the roof and any electrical devices that will be mounted to the home.

##### **Tools Needed:**

- Smart phone or other hand-held device
- Tape Measure

##### **Inspection Procedure:**

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted the, front of the structure and posted address numbers shall be visually shown.
  - Follow the detailed instruction as given by the inspector.
  - Proceed to show the PV panels and associated electrical equipment to the inspector.
  - Explain where each piece of equipment will be installed, and any other relevant information needed by the inspector.
    - When complete the inspector will approve or disapprove the inspection.
    - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
    - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspector's instructions.
    - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.
    - If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then allow the permit holder to continue work.
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- 5- **HVAC Change Out inspection for residential 1-2 family dwellings and townhomes-** Final Mechanical and Electrical inspection (no fuel gas). This inspection involves residential change outs where a mechanical contractor has changed out a like for like HVAC system. Due to safety concerns, equipment that uses a gas as a fuel source shall not be inspected remotely.

**Tools Needed:**

- Smart phone or other hand held device
- Tape measure
- Flash light or portable work light
- Screwdriver

**Inspection Procedure:**

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted, the front of the structure and posted address numbers shall be visually shown.
- Follow the detailed instruction as given by the inspector.
- The permit holder will enter the home and show the installation instructions of the HVAC equipment. The permit holder will follow all instructions from the inspector verifying that the installation of the HVAC equipment is code compliant and meet the manufacturers installation requirements,
  - When complete the inspector will approve or disapprove the inspection.
  - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
  - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspector's instructions.
  - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.
  - If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then allow the permit holder to continue work.



**6- Manufactured Home Marriage Line Connection- Final Set-up inspection.**

This inspection involves manufactured homes where the inspector verifies that the separate pieces of the home were correctly connected. This may involve inspection of the exterior and end wall connections, under frame connections and interior wall connections. The permit holder is not to cover up any of these connections until they have been inspected and approved by the inspector.

**Tools Needed:**

- Smart phone or other hand-held device
- Flashlight or work light
- Tape measure
- Hammer
- Ladder

**Inspection Procedures:**

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted, the front of the structure and posted address numbers shall be visually shown.
- Follow the detailed instruction as given by the inspector.
- The permit holder will enter the manufactured home and show the installation instructions of the home. If the instructions specify that the interior is to be connected, then the permit holder will proceed to follow instructions, so the inspector can verify compliance. Second, the permit holder will verify exterior end wall connections followed by under frame connections. Finally, the permit holder will access the roof to verify the roof connection. In order to allow for the permit holders safety the permit holder will be allowed to disconnect the call and then reconnect once safely on the roof. When the roof connection is verified, the call can once again be disconnected to allow for the permit holders safety while descending the ladder.
  - When complete the inspector will approve or disapprove the inspection.
  - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
  - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspector's instructions.
  - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.
  - If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then allow the permit holder to continue work.

- 7- **Re-inspections for Footings, Foundations, Slabs, Building Framing, Insulation, Rough-in Plumbing, Rough-in Mechanical, Final Plumbing, Final Mechanical and Final Building of up to 4 non-life safety code violations.** This inspection involves re-inspection of documented code violations. The original inspector who disapproved the previous inspection shall conduct the Live Remote inspection. If any additional work other than the correction of violations has been performed, a site inspection must be scheduled. A re-inspection shall not include any life safety violations as determined by the inspector. NO inspections of Electrical or Fuel Gas inspections shall be permitted remotely. Prior to performing the Live Remote inspection the original inspector shall determine if a live remote inspection may take place.

**Special Notes:**

- This is not a first time inspection and no additional work will be inspected.
- Live Remote re-inspections shall be performed by the same inspector that conducted the original inspection.
- Live Remote re-inspections must take place no later than 10 business days from the original inspection.

**Tools Needed:**

- Smart phone or other hand-held device
- Tape measure, Hammer, Ladder, etc.
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**Re-inspection procedure:**

- All Live Remote inspections will start at the road or front of the jobsite and proceed to the posted permit location to visually see the permit. In cases where a permit placard is not posted, the front of the structure and posted address numbers shall be visually shown.
- Follow the detailed instruction as given by the inspector.
- The permit holder will proceed to any items marked by the inspector (up to four) for a visual remote inspection.
- The inspector may ask to see other parts of the home to verify compliance.
  - When complete the inspector will approve or disapprove the inspection.
  - A Live Remote inspection must have good signal strength. If the Live Remote Inspection cannot be accomplished, then the permit holder along with the inspector will schedule a traditional inspection as soon as possible.
  - The inspector may end the inspection at any time due to bad communications or the permit holder not performing according to the inspectors' instructions.
  - Live Remote inspections are not to be used in a fraudulent way. An example would be to perform the inspection at a site other than the one listed on the permit.

- If the inspection is approved the inspection will be entered into Alexander County Building Inspection as a Live Remote Inspection. The inspector will then allow the permit holder to continue work