

## Common Reasons Residential Inspections Fail

To best help the builders in our community, the Johnson City Building Division has assembled some of the most common reasons a Residential Inspection could fail, and have included the corresponding code reference. Our residential permitting process does not require the same detailed documentation as commercial construction reviews, so compliance with adopted City codes is heavily dependent upon our inspection process. Unless otherwise noted, codes reference 2012 IRC.

### **Building:**

#### General

- Addressing on home/lot (R319.1)
- Toilet facility (OSHA)
- Silt fence in place to protect water ways and neighboring lots (Municipal code 18-804)

#### Footers/Foundations

- Debris/water removed from trenches (R403.1)
- Footer placed on undisturbed soil or engineered fill – sand base over rock if encountered (R403.1)
- Waterproofing membrane and footer drain inspected before backfilling (R405 & R406)

#### Framing/Insulation

- ½" anchor bolts embedded 7" into concrete on all exterior walls spaced 6'O.C. and within 12" of each plate end (R403.1.6)
- ½" anchor bolts embedded 7" into concrete on all exterior walls spaced 4'O.C. and within 12" of each plate end if structure is over two stories (R403.1.6.1 , note 4)
- Have engineered drawings on all engineered beams and truss systems on site for framing inspection (R502.8.2 & R502.11)
- Double check all fire blocking at chases and plate penetrations (R302.11)
- ½" lag bolts are required at all post to beam connections on decks or an engineered connection device (R507)
- Ledger boards cannot be anchored to brick or stone veneer (R507)
- Floor system protected with either ½" gypsum board or mineral wool insulation if floor joists are less than 2"x10" nominal lumber, wood I joist, or wood trusses (R501.3)

#### Final

- Graspable handrails on all stairs returned into wall or post including decks (R311.8.3)
- Anti-tip installed on oven (R106.1.2)
- Self-closing hinges on garage to house main door (R302.5.1)

### **Mechanical:**

- Insulation on linesets shall be R-4 or more (M1411.5)
- Locking caps on all access ports (M1411.6)
- Flex duct to metal duct must be fastened by 181 zip tie and inner liner sealed with 181 tape (M1601.4.1)
- Dryer plaque needed for dryer exhaust length (M1502.4.5)
- Exhaust cannot terminate in vented soffit (M1501.1)
- Uv paint or mastic outside insulation on lineset (2012 IECC R403.3.1)



## Common Reasons Residential Inspections Fail, continued:

### **Plumbing:**

- Door locked (R104.6)
- No address on property (R319.1)
- No test on PVC (P2503.5.1)
- Shower pan must be tested (P2503.6, P2709.1)
- Over notching (P2603.2)

### **Electrical:**

- HVAC over fused and/ or under fused (E3702.11)
- NM cable 10 awg. and smaller must be run through bored holes or running boards installed (E3802.4)
- NM cable in wet location (E3802.7)
- No outlet within 25' of equipment (E3901.12)
- No fitting or connector in back of disconnect (E3904)
- Box fill Table (E3905.12.1)

