

# **Building and Safety Division Inspection Standards Frame and Top-Out Inspection**

**This standard is intended to address all components of a frame inspection for a new single-family dwelling. While inspecting additions and remodels, the inspector should follow only the areas specific to the project scope of work.**

## **Structural**

- 1) Verify all corrections from any previous inspections were completed.
- 2) Make sure weather protection is complete for inspection. *This includes building wrap, windows, roof covering, roof jacks, etc. Inspector may be flexible with this item during summer months.*
- 3) Verify that there is no damage to the wood frame and load path caused by the installation of mechanical, electrical, and plumbing components.
- 4) Check for fire-blocking and drafts stopping in all concealed spaces (soffits, drop ceilings, walls over 10 feet high, equipment and duct chases, blocking around tubs and showers, large attics and under-floor spaces, etc.).
- 5) Verify that all bearing headers are shimmed.
- 6) Verify that all hangers with gaps under beams or trusses are shimmed.
- 7) Check sill plates for adequate fastening (shot-pins, nails, or bolts).
- 8) Check for over-bored/notched studs and plates at plumbing and mechanical installations.
- 9) Check stairway framing for rise, run, adequate bearing support, and furring for sheetrock if a room is below (fire separation).
- 10) Verify moisture content of wood framing in concealed and unventilated spaces is less than 19%.

## **Electrical**

- 1) Verify location and installation of grounding electrode and G.E.C.
- 2) Locate gas and water bonding (if required).
- 3) Check spa tub bonding.
- 4) Verify location and installation of electrical equipment (main, sub-panel, conductors for range and condenser):
  - a. Watch for concentric knockouts at metal conduit connections.
  - b. Watch for grounds and neutrals separated at sub-panels.
  - c. Watch for "Double-Lugging".
  - d. Check bonding of metal service riser at main
- 5) Check for 4-wire circuit for electric clothes dryer and range.
- 6) Check for adequate spacing of all electrical outlet boxes.
- 7) Check multi-wire branch circuits for pig-tailed grounded (white) conductor.
- 8) Check switches for grounding.
- 9) Check ground wire connection for all metal boxes and boxes designed to be grounded (green screws only).
- 10) Check box fill often and in usual areas (3-way switches).
- 11) Check for staple spacing on Romex and watch for crushing of the outer sheathing.

- 12) Check for nail plates on bored and notched hole closer than 1 1/4 inches from face of stud.
- 13) Check for Romex stapled too close to face of stud.
- 14) Check for protection of conductors within 6 feet of attic access.
- 15) Check for attic light if equipment is present.
- 16) Check light locations in clothes closets.
- 17) Check location of smoke detector boxes.
- 18) Check can lights for IC rating in insulated ceilings and "suitable for wet locations" at showers and exterior locations.

### **Mechanical**

- 1) Check equipment stand in garage for proper height above grade and for correct B-vent locations.
- 2) Check all flue vents for correct pitch, support, and clearances from combustibles.
- 3) Watch for forced air furnace vents tied to water heater vents.
- 4) Check method of securing mechanical equipment.
- 5) Check pan and condensate lines.
- 6) Check ductwork for size, support, crimping, and damage.
- 7) Check condenser line set for protection, support, and damage.
- 8) Check path to equipment and working space for correct dimensions.

### **Plumbing**

- 1) Check for pressure tests on gas, drain, and water pipe.
- 2) Check for minimum fall on all drainage piping.
- 3) Check for maximum length to trap arms and clothes washer standpipe.
- 4) Check for adequate support of all piping.
- 5) Check for adequate size of branch lines in all piping.
- 6) Watch for "hard 90's" and "short sweeps" in drainage piping.
- 7) Check nail protection for all plumbing.
- 8) Check for excessive flux to be removed from copper pipe.
- 9) All valves shall be in water system and secured for inspection.
- 10) Toilet flanges shall be installed for inspection (check for corrosion resistant screws at wood floor).
- 11) Check correct seating of all PEX connectors.
- 12) Check spacing of PEX in relation to can lights and openings to daylight.
- 13) Location of manifolds in PEX systems
- 14) Verify tubs and showers in slab floors are vermin-proof (hole in slab at plumbing trap filled with concrete slurry or equivalent).
- 15) Verify water pipe at entrance to building is copper extending minimum 12" below grade.

### **Shower pan (other than Vinyl Precast Fixture)**

*\*\* This is the first inspection that it can be expected that a shower pan will be in place to inspect. If the shower pan is not in place at the time of this inspection, the inspector should coordinate with the builder and document when the shower pan will be ready for inspection. Regardless of when the shower pan is inspected, it is expected that the entire shower pan is visible. \*\**

- 1) Verify minimum 2" drain is provided.
- 2) Verify pan is filled to within 1" of threshold with water.
- 3) Mark the water level and verify no loss of water within 10 minute period.

- 4) Verify minimum 2" threshold or that outer edge of pan is 2" above the drain.
- 5) Verify pan liner extends 3" above dam height.
- 6) Verify the shower receptor is the correct model for the pan material being used.
- 7) Drain pan during inspection and verify:
  - a. Minimum 1/4" slope with no ponding of water.
  - b. All weep-hole are open and functioning correctly.

**Wildland-Urban Interface**

- 1) Verify tempered glazing throughout.
- 2) Verify eave ventilation protection.
- 3) Verify protection of floor framing members for cantilevers, etc.
- 4) Verify Ignition-resistant wall materials and deck surfaces.

\*\*\*A frame inspection is considered not ready if any trade that is part of the project is not substantially complete *Or* there are more than 10 corrections on any floor level. In addition, failure to provide minimum erosion control BMP's, construction waste management, or compliance with required SWPPP plans may result in a cancelled inspection.

Effective July 9, 2007  
Updated January 29, 2016