



Rogers Fire Department Standard Operating Procedures

Policy Title:	Residential Framing Inspections (includes plumbing, electrical, and mechanical)		
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PURPOSE

The purpose of this policy is to ensure uniformity in the way framing inspections are conducted.

POLICY

Prior to approving any footing inspections compliance with the following items must be achieved:

Framing

1. Contractor must have approved plans on site prior to starting the inspection.
2. Building must be in the dry.
3. Verify all glazing (windows) are installed.
4. Verify that windows within 24" arc of a door are tempered.
5. Verify that windows in tub enclosure are tempered if less than 60" above tub floor.
6. Verify that windows within 36" of a landing or within 60" above stair treads are tempered.
7. Verify that bedroom windows meet egress requirements.
 - a. Lower floor 720 sq. inches.
 - b. Upper floor 820 sq. inches.
8. Verify that window sills for egress are not over 44" off floor to finished sill height.
9. Verify blocking at interior braced wall panel locations for drywall application.

10. Verify that there is fire block at the following areas
 - a. stair stringers
 - b. drop ceilings
 - c. soffits
 - d. coves.
11. Verify that draft stop all top plate penetrations and horizontal wire runs every 10'.
12. Verify that fire block fireplace chases at floor/ceiling assemblies and attic.
13. Verify fire block every 10' horizontally and vertically such as furred spaces in basements.
14. Verify that post beam strapping for continuous connection to the foundation.
15. Verify studs are not over-bored or over notched.
16. Verify that trusses are braced per the truss design drawings on job site.
17. Verify that uplift resistance on trusses per the truss design drawings at top and bottom plates.
18. Verify beam sizes per in accordance with the approved plans and full bearing under beams at bearing points.
19. Verify that full bearing under girder trusses to the foundation.
20. Verify that double top plates are installed and that top plate joints are being lapped 48".
21. Verify that there is a ½" space around wood beams in concrete beam pocket with approved separation of wood to concrete under beam.
22. Verify that an attic access (22"x30" with 30" headroom) is provided.
23. Verify that there is attic ventilation.
 - a. Cross ventilates (1 sqft. for every 1200 sqft) or 1/300 provided 50/80% gable or ridge venting along with soffits vented. 1/150 minimum ventilation.
24. Verify that there is a minimum 6'8" headroom at stairs.
25. Verify rise and run on stairs (rise maximum 7 ¾"; run minimum 10"; 36" minimum width).
26. Verify that anchor bolts are 12" from the end of each plate piece and every 6' not less than 2 in each piece regardless of its length.
27. Verify ledgers for decks/patio roof covers are mechanically attached to the main structure.

Plumbing

1. Test all gas line/water lines/DWV system. Gauges used for testing shall be as follows:
 - a. Tests requiring a pressure of 10 psi or less shall use a testing gauge having increments of 0.10 psi or less.
 - b. Tests requiring a pressure of greater than 10 psi but less than or equal to 100 psi shall use a testing gauge having increments of 1 psi or less.
 - c. Tests requiring a pressure of greater than 100 psi shall use a testing gauge having increments of 2 psi or less.
2. Verify that gauges are not damaged or without glass and not be less than 3" in diameter.
3. Verify that there is proper drain size.
4. Verify that proper fittings used for directional changes; vertical to horizontal, horizontal to horizontal.
5. Verify that DWV piping/water piping is properly supported (dependent on material used).
6. Verify that trap arms of an approved length (S traps not permitted) and properly sloped.
7. Verify that all traps are properly vented and no flat venting.
8. Verify that clothes washer standpipe is 18" to 44" from inlet to weir of drain.
9. Verify that cleanouts are installed where required and accessible.
10. Verify that flexible gas line properly installed per the manufacturers specifications.
11. Verify that all unions in gas piping are accessible.
12. Verify that there is a gas shut-off at the fireplace location.
13. Verify that couplings in water piping (plastic) are of an approved type and installed properly with proper materials used for bends and stub outs to exterior of walls.
14. Verify that protective plates (FHA or strapping) for plumbing/electrical/mechanical where needed (holes drilled 1 ½" or less from front of stud to piping, stud shoes where required – 5" tall .062 gauge protective plates at top and bottom wall plates as needed).
15. Verify that vents terminate in an approved location (6" minimum above roof).
16. Verify that plumbing penetrations (tub traps/around water closets) are sealed in the concrete slab.
17. Verify that sediment traps, where required, on gas lines downstream from shut off prior to piping entering appliance.

Electrical

1. Verify that electrical system is complete and all circuits are made up with grounds tied together using approved mechanical connections.
2. Verify that smoke alarms installed where required and hardwired together (bedrooms, outside sleeping areas, unfinished basements, top of stairs leading to bedrooms, and in room adjoining halls).
3. Verify that smoke detectors are at least 3' from bathroom door, return air, ceiling fans, and/or supply air registers.
4. Verify that service panel is properly grounded.
5. Verify that approved bushing used where home runs enter back of service panel.
6. Verify that wiring is not in contact with abrasive surfaces, such as truss gusset plates.
7. Verify that wiring is proper distance from hot surfaces.
8. Verify that aluminum wiring at lugs has Anti-oxidant.
9. Verify that two wires are not under the same lug in the service panel unless approved by manufacturer of service panel.
10. Verify that electrical boxes are not overfilled.
11. Verify that wiring is sized for intended use.
12. Verify that bathroom receptacles are on separate 20 amp circuit.
13. Verify that outside receptacles are not wired off kitchen or bathrooms circuits.
14. Verify that outdoor boxes are weatherproof.
15. Verify that are two 20 amp small appliance circuits to kitchen and dining area.
16. Verify that there is a 20 amp circuit to washer receptacle location in laundry.
17. Verify that there is an outlet at front and rear of house (2 outside).
18. Verify that receptacles placed per the requirements (every 12', one in hall if over 10' in length, all walls over 2' must have one).
19. Verify that electrical box(es) are properly supported.
20. Verify that all metal electrical boxes are grounded with approved ground screw.
21. Verify that all wiring must terminate in an approved box.
22. Verify that NM-B (Romex©) extends at least ¼" inside the box with 6" of free conductor in the box and at least 3" past the face of the box.
23. Verify that stairways are provided with illumination.
 - a. A switch shall be located at both the top and bottom of the stairway.
24. Verify that pancake boxes are not being used as a junction box (termination box only).

25. Verify that wiring is properly supported within walls (8" from box and every 4').
26. Verify that fan boxes are properly supported and rated for ceiling fans.
27. Verify that electrical wires not bundled for more than 24".
28. Verify that there are approved bushings for wiring entering metal boxes.
29. Verify that all metal gas and water lines are bonded (if no metallic piping, service panel should be labeled indicating "non-metallic water piping, do not use for ground").
30. Verify that if the building is steel framed, it is bonded.
31. Verify that the grounded conductor in the sub-panel is isolated and the metal enclosure is bonded.
32. Verify that there are protective plates on all wiring within 1 ¼" of the stud face.
33. Verify that all unused openings in the outlet box or service panel are sealed.
34. Verify that kitchen countertop receptacles are properly spaced and GFCI protected.
35. Verify that island countertops have at least one receptacle and GFCI protected.
36. Verify that bathroom receptacles are within 36" of lavatory and GFCI protected.
37. Verify that each lavatory is served by a separate receptacle or one centered between lavatories not greater than 36" from either lavatory.
38. Verify that there is a convenience receptacle within 25' of the equipment location and on the same level (if exterior or in crawl space, receptacle must be GFCI protected and weather resistant).
39. Verify that switch (at access location) and light in attic or crawl space for equipment and separate single receptacle for appliance plug-in if only one appliance at the location.
40. Verify that exits have lighting within 6'.
41. Verify that sub panels are not located in closets or bathrooms.
42. Verify that disconnect for appliances at appliance location unless service panel visible.
43. Verify that recessed cans are rated for insulation cover or screened to prevent insulation from lying on top of fixture.
44. Verify that all junction boxes are accessible.

Mechanical

1. Verify that bath fans and exhaust ducts in tub/shower area and toilet rooms installed properly and vented to an approved location outside the building (fans attached to ducting with aluminum tape).
2. Verify that flexible supply ducts are sealed at trunk line, joints, tap-ins and where fastened to boots with an approved mechanical connector.
3. Verify that boots are supported on two sides at ceiling.
4. Verify that flexible ducting properly is supported with no bends or sags restricting the air flow.
5. Verify that main supply trunk line(s) are insulated.
6. Verify that continuous walkway 24" wide from the attic access to the appliance location in the attic with a 30" platform in front of the appliance not longer than 20' (appliances should be installed and manufacturers installation instructions provided at this inspection).
7. Verify that there are no ducts run to the garage for heating or cooling.
8. Verify that return air is properly located to ensure air stratification.
9. Verify that dryer vent don't exceed 25' limitation (subtract 5' for every 90 degree turn and 2 1/2' for every 45 degree turn or provide manufacturers specifications or manufacturer's installation instructions).
10. Verify that dryer vent(s) are not screwed together.
11. Verify that dryer vent material is approved smooth rigid metal piping in concealed locations.
12. Verify that the B-vent termination is located in an approved location and high enough above roof with a back draft damper.
13. Verify that the B-vent for water heater is a minimum 5' from top of water heater to termination cap.
14. Verify that B-vent is used in all concealed locations including attics and crawl spaces.
15. Verify that screws are not penetrating the inside wall of the B-vent.
16. Verify that 1" clearance of B-vent to combustibles is provided.
17. Verify that B-vent extends 6" below ceiling line at equipment location, if not in concealed space.
18. Verify that B-vent is properly supported at off sets.
19. Verify that B-vent is fire blocked (metal) where it passes through floors and ceilings.
20. Verify that adequate combustion air for gas fired appliances is provided. (1 sq. inch for every 1000 BTU's upper and lower or if all combustion air drawn from the outside 1 sq. inch for every 3000 BTU's upper only).
21. Verify that exhaust ducting for range hood is with approved material with joints lapped properly (KD piping).

22. Verify that gas appliances in garage on an 18" platform and protected from impact.
23. Verify that manufactured fireplaces are installed per the manufacturer's installation instructions.
24. Verify that there is proper slope and support on condensate drains and they terminate in an approved location.
25. Verify that all heat generating flue's terminate properly (fireplaces, cooking hoods, appliances, etc.).

Any deviation from this policy shall be documented by the inspector in the notes section of *CityView* RMS for the property.