

# LOUDON COUNTY

## RESIDENTIAL INSPECTION INFORMATION

Please call the Inspection Request Line at (865) 458-4680 to schedule each inspection. A 24-hour notice is required for each inspection. This is an automated line, so please speak slowly and clearly giving the following information:

1. Permit Number
2. Address of the Construction Site
3. Type of Inspection Requested
4. Your Name
5. A phone number where you can be reached
6. The date and time the inspection is needed

**If you are unable to get ready for a scheduled inspection, please call and cancel that inspection.**

**Please remember to post your Building Permit where it is visible from public roads so the building inspector can locate your building site.**

**The structure must be unlocked or arrangements made with an inspector for entry.**

**Construction Drawings, including Manufactured Truss Drawings, must be kept on site for the Building Inspector's reference.**

The following is to be used as a minimal guide to the codes. It is not intended to specify every code requirement or regulation. If you have any questions, you should call one of the county building inspectors at (865) 458-4095. The Building Codes are contained in several books. The county does not sell or loan them. They may be studied in the Planning and Codes Enforcement Office during regular business hours.

### # 1 INSPECTION: FOOTINGS

Proper setbacks must be observed and erosion control measures must be in place. Footings must be ready to pour, free of water, mud, roots, any organic material, or rocks. They are to be on undisturbed soil or properly compacted fill certified by an approved testing laboratory.

### # 2 INSPECTION: SLAB ON GRADE (IF APPLICABLE)

Slabs under living areas must have a 6-mil vapor barrier in place. R-10 slab edge insulation is required for a sum of 2' on portions of the slab that are less than 12" below grade. Thickened slab footings shall be in place (if applicable). The maximum depth of stone fill is 2 feet for R-3 occupancies. Plumbing to be embedded shall be on test. Minimum slab thickness is 3 ½ inches. Radon mitigation shall be in place.

### # 3 INSPECTION: 1<sup>st</sup> FLOOR FRAMING/FOUNDATION

1<sup>st</sup> Floor framing will be checked for compliance with the construction drawings and the building code to include sill plate anchorage, use of joist hangers, allowable span lengths, proper spacing, etc. Sill plates must be pressure treated and anchored with a minimum of ½ inch diameter bolts embedded a minimum of 7 inches, spaced at a maximum of 6 feet on center and with-in 12" of the corners; alternatively, anchor straps may be installed per the manufacturer's recommendations.

Block and concrete walls will be checked for required reinforcement, proper wall construction, lateral bracing and wall insulation if external. Retaining walls attached to the foundation require engineering design if 4 feet or greater in height.

### # 4 INSPECTION: ROUGH-IN FRAMING, PLUMBING, AND MECHANICAL

The Rough-in inspection must be completed and passed before any of the work can be covered. Minimum headroom on stairs is 6'-8"; maximum riser height is 8; minimum tread width is 9" not including nosing. Windows used as a means of egress must have a net clear opening area of 5.7 sq. ft., except on the ground floor (were the sill height above the exterior grade is less than 84") 5.0 sq. ft. is permissible. The minimum clear opening height is 24 inches and the minimum clear opening width is 20 inches. Egress windows shall not have a sill height of more than 44 inches above the floor. Radon mitigation shall be in place. Exterior walls must have a vapor/air barrier in place.

Plumbing must be on test with a gauge at 50 psi (water or air) on all supply lines or, connect the plumbing system to the water supply. Waste/vent lines must be full of water or on a gauge at 5 psi air. To test waste/vent lines with water: cap off the main waste line to the septic or sewer; cap off all drain lines (vanities, washer stand pipe, water closets, and sinks) and then, with a water hose, fill waste/vent lines from the stack on the roof. The duration of pressure tests is 15 minutes.

Manufacturer's instruction must be with all mechanical equipment. Condensate drain lines and traps must be installed and terminated away from the building. All refrigerant lines must be insulated their full length. Duct in the attic must be insulated with R-8 insulation minimum and all other ducts must have R-6 insulation minimum. (except duct work completely with-in the thermal envelope).

#### **# 5 INSPECTION: ENERGY EFFICIENCY**

Slab edges less than 12'' below grade must have R-10 insulation for a sum of 2'. Basement walls must have R-10 if applied continuously or R-13 if applied to framing cavities. Mass walls must have R-5. Framed walls must have R-13, floors over unconditioned space must have R-19, and roof/ceilings must have R-38, except R-30 may be used for a maximum of 500 sq. ft. in ceilings without attic space or R-30 is acceptable when the insulation extends full depth over the top plates.

All penetrations into the thermal envelope must be sealed, penetrations in the top and bottom plates must be sealed, and the space around all doors and windows must be sealed.

Fenestration products shall have a maximum U-Factor of 0.35 and Skylights shall have a maximum U-Factor of 0.55 (except 1 opaque door and 15sq.ft. of glazing are exempt from these requirements). Circulating hot water piping shall be insulated to R-2 minimum.

All product information must be available for review at the time of inspection. Blown attic insulation will be checked on the final inspection, all other components shall be in place and inspected before being concealed. See the 2012 IRC for all details and exceptions.

#### **# 6 INSPECTION: FINAL**

The project must be complete before you call for a final inspection. The subsurface sewage disposal Certificate of Completion, if applicable, must be issued. All handrails, guardrails, stairs, porches, decks, water heaters, smoke detectors, carbon monoxide alarms(if the dwelling has fuel fired appliances or an attached garage), plumbing, mechanical, gas fireplaces, and/or any other part of construction, which can be considered as a life-safety issue, shall be in place before the project can obtain final approval. Garages must be separated from the residence and its attic by 1/2'' gypsum board on the garage side (5/8'' type X must be placed on the ceiling if there is living space above) and a solid wood, metal, or 20 minute rated door. Blown attic insulation will be checked. Insulation information must be available for the inspection. See the insulation section for more details. The Energy Efficiency Certificate must be posted at on or near the electrical panel.

After Final Inspection approval, a Certificate of Occupancy will be issued.

**It is unlawful to occupy a structure prior to obtaining a Certificate of Occupancy.**