

Energy-Related Inspections

Planning and Development Services Department

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The City of Overland Park intends to focus more attention on energy-related requirements found in the 2006 International Codes. Contractors have been obligated to follow these requirements since the adoption of the 2006 I-Codes in January 2007. Code compliance will be achieved through the inspection process or through a certification of code compliance from the responsible contractor. In most cases, the majority of energy related items will be inspected for in conjunction with other inspections that are currently being performed. Currently not all contractors are requesting an insulation inspection. This inspection will now be one of the City's required inspections. The process will start with every permit issued after August 31, 2010.

The following is a list of items that will be looked at:

BUILDING THERMAL ENVELOPE INSULATION

For blown or sprayed insulation (fiberglass and cellulose), the insulation contractor shall provide a certification statement listing the initial installed thickness, settled thickness, settled R-value, installed density, coverage area and number of bags installed shall be on the certification. For sprayed polyurethane foam (SPF) insulation, the thickness of the area covered and R-value of installed thickness shall be listed on the certification. See Section N1101.4, 2006 IRC.

The Certification statement will be required prior to approval of the final inspection.

CERTIFICATE

A permanent certificate is required to be posted on or in the electrical panel. (Blank certificates for use will be given to the contractor at the time of permit issuance.) The certificate shall specify the predominate R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawl space and/or floor) and ducts outside conditioned spaces; U-factors of fenestration; and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the type of efficiency of heating, cooling and service water heating equipment. See Section N1101.8, 2006 IRC. *This item will be inspected as part of the final inspection.*

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SLAB-ON-GRADE FLOORS

Slab-on-grade floors with a floor surface less than 12 inches below grade shall be insulated per Table N1102.1. *Table N1102.1 requires R-10 insulation for a distance of 2 feet. *This item can be inspected in conjunction with a vapor barrier or structural slab inspection.*

This item will be inspected in conjunction with a vapor barrier, structural wall or structural slab inspection depending on where the insulation is installed.

BUILDING THERMAL ENVELOPE

The code requires that the building thermal envelope be durably sealed to limit filtration. The following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier, suitable film or solid material.

- All joints, seams and penetrations.
- Site-built windows, doors and skylights.
- Openings between window and door assemblies, their respective jambs and framing.
- Utility penetrations.
- Dropped ceiling or chases adjacent to the thermal envelope.
- Knee walls.
- Walls and ceilings separating the garage from conditioned spaces.
- Behind tubs and showers on exterior walls.
- Common walls between dwelling units.
- Other sources of infiltration.

See Section N1102.4.1, 2006 IRC.

The inspection of these items will be primarily accomplished as part of the rough-in inspection.

RECESSED LIGHTING

Recessed luminaries installed in the building thermal envelope shall be sealed to limit air leakages between conditioned and unconditioned spaces. The luminaries will either be required to be IC rated and labeled or located in an airtight sealed box. *This item will be inspected as part of the rough-in inspection and the final inspection.* See Section N1102.4.3, 2006 IRC.

The inspection of this item will be part of the rough-in inspection and the final inspection.

DUCTS

Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints of ducts systems shall be made substantially airtight by means of tapes, mastics, gasketing or other approved closure systems. *Caution, the code is very specific as to the type of tape and mastic used to seal duct systems. Supply and return air ducts not located entirely within the building envelope shall be insulated to a minimum of R-8. *The inspection of this item will be part of the rough-in inspection.* See Section N1103.2.2, M1601.3 and N1103.2.1, 2006 IRC.

The inspection of this item will be part of the rough-in inspection.

INSULATION AND FENESTRATION REQUIREMENTS

The building thermal envelope shall meet the requirements of Table N1102.1. Overland Park is located in climate zone 4. Table N1102.1 specifies requirements for ceilings, floor, wood frame walls, basement walls, floor slabs, crawl spaces and fenestration components. **Note:** Basement walls that are not more than 50 percent below grade are required to be insulated. These items will be inspected as part of an “insulation inspection”. An “insulation inspection” will be required and should normally follow the rough-in inspection. See Table N1102.1, 2006 IRC and OPMC 16.110.N1102.2.6.

These items will be inspected as part of an “insulation inspection” which will be a required inspection for all dwellings.