



Yavapai County Residential Inspection Checklist Guidelines for 2006 IECC

(This list is not inclusive of all items that may require inspection)

*The complete set of approved plans must be on site for all inspections along with the sign off card.

**Failure to be ready for a requested inspection may result in a \$100.00 re-inspection fee.

Applies to new single family residences and additions to existing residences

Circulating Hot Water Systems:

- Circulating hot water systems are insulated to a minimum of R-2.

Slab Insulation Inspection:

- Foundation wall and slab insulation are installed per details on the approved plans. (N/A in Zone 2)

Basement Wall Insulation Inspection:

- Exterior of basement walls are insulated per details on the approved plans. (If this method used)
(N/A in Zone 2)

Mass Wall Insulation Inspection:

- Mass walls (ICF, concrete block, poured concrete, earth, and solid timber/log) are insulated per details on the approved plans.

Exterior Building Wrap:

- Building wrap is both air and moisture barrier. (IRC requires moisture; IECC requires air) Penetrations through the building wrap have been sealed.
- Window flashing has been properly installed per the manufacturer's specifications or by other approved method.
- Building wrap for air or moisture barrier shall be sealed per the manufacturer's specifications.
- Bottom and top plate of exterior walls are sealed. (Sill gasket or caulk)

Combination Inspection:

Framing:

- Window jambs and door rough openings are sealed.
- Top and bottom wall plates are sealed, including any walls separating building thermal envelope from un-conditioned space, such as garage to house wall.
- Windows/doors/skylights meet U-factor, solar heat gain coefficient, and air infiltration requirements.
- Factory energy performance rating stickers must remain on window/skylight until inspected.
- Dropped ceilings or chases adjacent to the building thermal envelope are sealed.
- Knee walls are sealed.
- Insulation shields installed to maintain clearance to combustible material of exhaust venting, for gas fired appliances, or recessed electrical can lights.
- Markers installed in attic for blown-in insulation installed.

Plumbing:

- Tub/shower on outside walls and attic walls are sealed.
- All floor and ceiling plumbing penetrations are sealed within the building thermal envelope which includes the common wall between the garage and building thermal envelope.
- Tub/shower drain is sealed.

Electrical:

- Airtight, IC-rated recessed lights and electrical fixtures exposed to attic.
- All floor and ceiling electrical wiring penetrations are sealed within the building thermal envelope including any in the common wall between the garage and building thermal envelope.

Combination Inspection, Cont:

Mechanical:

- Supply and return ducts are insulated to a minimum R-6 when installed outside of the building thermal envelope. Duct work must be installed per SMACNA requirements.
- Ducts in floor joists are insulated to an R-6 when installed outside the building thermal envelope.
- Framing cavities used as return air ducts are sealed.
- Air handlers/register boots/return air openings/trunk lines joints/transitions and trunk line tap-in seams are sealed per Section M1601.3.1 of the IRC.
- Exterior wall exhaust fan terminations are sealed.
- Mechanical system piping capable of carrying fluids above 105 degrees and below 55 degrees are insulated to a minimum of R-2.
- Outside air intakes and exhausts have automatic or gravity dampers that close when the ventilation system is not operating.
- If mechanical equipment is installed in attic, verify type and size per details on the approved plans.

Ladder must be provided by contractor/owner,

- Mechanical equipment in attic must be installed to provide full required depth of insulation below the equipment.

Insulation Inspection: (Certifications of insulation installation from the insulation installer will not be accepted).

Walls:

- Insulation installed in substantial contact with the surface being insulated to avoid air paths.
- Insulation not compressed by inset stapling of batt insulation or other means.
- Insulation fills all cavities completely by slicing around electrical outlets and switches, and by slicing insulation to fit behind and in front of all electrical wiring in cavity.
- Insulation installed behind and in front on plumbing piping as done for electrical.
- Band joists insulated (same as exterior wall requirements).
- Windows and door jambs have been sealed.
- Knee walls insulated.
- Headers over doors and windows insulated if applicable.

Ceiling/Attic Batt Insulation:

- Baffles installed at the junction of the wall/roof framing under the sheathing.
- Insulation installed in substantial contact with the surface being insulated to avoid air paths.
- Insulation not compressed.
- Insulation fills all cavities completely by slicing insulation to fit below and above wiring and other components in the ceiling/attic area.
- Insulation installed in vertical truss members separating building thermal envelope from un-conditioned space.
- Attic access opening hatch cover will need to be insulated and installed with weather stripping or gasket by final inspection.

Blown-in Attic Insulation:

- Markers for use with blown-in insulation in the attic are installed, affixed to the trusses or joists, and marked with a minimum initial installed thickness by one inch high numbers. One marker for every 300 square feet of area and numbers facing the attic access opening. **Ladder must be provided by contractor/owner at final inspection.**
- Blown-in insulation is to depth required to achieve R-value and evenly installed to that depth and placed so as not to interfere with any equipment operation.
- If attic is part of the building thermal envelope with foam insulation applied to the under side of the sheathing and truss top cords, depth will be verified to insure R-value met and evenly installed.

Insulation Inspection, Cont:

Crawl Space/Floor Insulation:

- Floor insulation shall be in substantial contact with the surface being insulated to avoid air paths that bypass the insulation and approved supports used when necessary to keep the insulation permanently tight against the floor sheathing.
- When crawl spaces are used as part of the building thermal envelope, crawl space wall insulation shall be permanently fastened to the exterior walls and extend downward from the floor to finished grade and then an additional twenty four inches (24") below finished grade level. Cavities between floor joists shall be insulated. A continuous vapor retarder shall be installed on top of the exposed earth and six inches (6") up any wall/piers with all seams sealed.

Final Inspection:

- Identify equipment is in compliance with specifications on the approved plans.
- Manufacturer manuals for all installed heating/cooling equipment and service water heating equipment are provided.
- Circulating hot water system includes an automatic or readily accessible manual switch that can be turned off when the system is not in use.
- Thermostat(s) for heating/cooling equipment installed.
- Attic access opening has been insulated and installed with weather-stripping or gasket.
- All exterior wall penetrations have been sealed.
- Heat pump (if installed) must have supplementary electric-resistance heat controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.
- Insulation certification sticker shall be applied to inside the service panel by the Building Inspector.