



## Roofing Application Requirements

### Commercial Roofing IBC-2006

- Positive Roof Drainage -It is a requirement that all roofs must have enough pitch to ensure drainage of the roof within 48 hours after precipitation.
- All commercial roofs must be installed in accordance with Chapter 15 of the 2006 International Building Code as amended and in accordance with the manufacture's installation requirements.
- In order to pass a final inspection the city will require a letter of inspection and approval from the manufacture's agent stating "the application of the roof at (put in the address) Arvada, CO has been applied in accordance with the installation instructions for (roof material company name)" A warranty letter is not acceptable
- All commercial roofing shall be installed as per manufacture installations requirements for the wind speed at the area of installation.
- Mid roof inspections required for low slope, commercial roofs and specialty roof. A letter from the manufacturer's agent is required for the final. (not a warranty letter)

### Residential Roofing / Re-Roofing IRC-2006

#### General requirements:

- Any roof that is installed for residential use in the City of Arvada must meet the requirements of Chapter 9 International Residential Code including local amendments.
- 1 layer of roofing maximum-per Chapter 9 IRC since Arvada is in an area prone to hail with one or more hail days with hail diameters 1.5 inches (51 mm) or larger in a 20-year period.
- Ice Barrier is required (Section R905.2.7.1) to extend from the lowest edges of all roof surfaces to at least 24 inches inside the exterior wall line measured from the outside of the exterior wall. (Ice and water shield not required on rake edges)
- Mid-roof inspections are required for low slope, tile, special roofs or special conditions.

#### 3-Tab, Laminate and Dimensional

- High wind nails per manufactures specs, but no less than 6-nails per shingle. (R905.2.6)
- 2/12 slope minimum roof pitch for all asphalt strip shingles.
- Slopes 2/12 to 4/12 require double felt.
- 90 pound roofing is allowed to 1/12 pitch but must be in accordance with manufacturer's requirements- most stop at 2/12.
- Mansard and steep slope roofs require special fastening as per manufacturer.
- T-Lock roofing shingles are no longer allowed, but can be repaired.
- Drip edge and rake metal is required.(Arvada Amendment 18-170)
- Tip out bottom piece of step flashing outside of siding- caulk is not acceptable- (R703.8)
- Ice and water shield on top of drip edge flashing. Felt under rake edge flashing.
- Exposure of shingles as per manufacturer.
- *Valleys - Metal open valley* as per Table R905.2.8.2 - *asphalt open valley* use 2 layers 90 lbs. *closed valley* - bottom Layer 1 - 36" 90 lbs shingles over top.

## **Tile**

- All tile roofs are required to have horizontal batten system lifted off the roof by vertical battens, pads or per manufactures installation requirements.
- High wind installation as specified by the manufacturer
- *Ice barrier* is required. (Section R905.2.7.1) Mid-roof inspection required with all battens, laterals and metal applied and roof must not be loaded.

## **Wind Speed areas**

- East of Sheridan Blvd 90 mph
- West of Sheridan Blvd 100 mph
- West of Wadsworth to Highway 93: 110 mph
- West of Highway 93: 120 mph
- All roofing products are required to meet the test ASTM 3161 Class F/110 mph. ASTM 3161 Class F is not associated with the warranty from the shingle manufacturer-three tabs do meet this test as well as laminate or dimensional shingles.

## **Attic Ventilation - Residential**

- *Attic ventilation* requirements as per Section 806 of the International Residential Code.

## **Other Requirements and Notes**

- *Evaporative coolers* - Step and counter flashing required. (R905.2.8.4 and R05.2.8.5)
- *Spaced sheathing* - Spaced sheathing, with spaces not greater than 1/2" can be reused if it is still in good structural shape. If the gaps are greater than 1/2" in a few areas, repairs may be able to be made. If the gaps are greater than 1/2" on the majority of the roof the spaced sheathing should be removed and solid sheathing shall be installed. If a request is made to install new solid sheathing over the existing spaced sheathing- the sheathing must be nailed in accordance with nailing schedule found in the 2006 IRC
- *Cricket*s are required for all chimneys and saddles (ridge side) 30" or wider.
- *Roof overhang into gutter* - 3/8 to 1 inch.
- *Metal Flashing* - Replace all metal flashing when rusted, damaged or deteriorated. (R907.5) (roof jack, step and counter except B-vent, elect mast.)
- *Ladder for inspector* -Contractors and Homeowners do not need to provide a ladder. Due to the volume of work and weather conditions, the inspection may not be made for several weeks.
- *Roof repairs* - the replacement of shingles here and there is ok and no permit required. If any area exceeds 100 sq ft, a permit is required. We do not require that the entire roof be replaced if only one side or area is damaged only that specific area needs to be installed per adopted code.
- If the furnace flue is damaged or rusted it will need to be replaced by a HVAC contractor. The flue cap should be checked as well as the flue connection to make sure they are connect properly and the cap if replaced needs to be installed correctly so it will allow the escape of dangerous gasses from the home.

**This information sheet is not all inclusive.**

Refer to the 2006 IBC and 2006 IRC and local amendments.