Building Guide

Colorado Chapter of the International Code Council

Single Family Residential Re-roofing

This handout addresses the frequently asked questions regarding re-roofing and to list the typical inspection and installation requirements for common types of roofing materials.

Things to be aware of before starting

- Many jurisdictions have additional application requirements because of high winds or snow and ice buildup.
- Fire Resistant roofing materials may be required by your Building Department.
- If there is a Homeowners Association and a change in roof covering material is planned, it is advisable to contact them.

Frequently asked questions

1. Is a permit required to re-roof my house?

Yes. Please contact your Building Department for requirements specific to your area.

The Colorado Chapter of the International Code Council is a professional organization seeking to promote the public health, safety and welfare to building construction. We appreciate your feedback and suggestions. To obtain a master copy of this building guide, please write to the Colorado Chapter of the International Code Council, P.O. Box 961, Arvada, CO 80001. http://www.coloradochaptericc.org

2. May I, as a homeowner, do the re-roof myself?

Yes.

3. Will my roof be inspected?

Yes, the permit holder must call for inspection(s) required by jurisdictions.

4. How many layers of roofing are allowed?

Contact your building department.

5. May nail guns be used?

If it is properly adjusted and is used correctly, a nail gun is allowed. (Refer to requirements under fasteners.)

6. What should be done with the existing roof jacks, vents and flashing?

Roof jacks/vents must be raised to the level of the new roof and replaced if they are in poor condition, badly rusted or otherwise deteriorated.

7. What if my roof slope is less than 4:12?

Contact your Building Department to learn about the requirements for low slope applications.

8. What about chimneys?

A cricket or saddle shall be installed on the ridge side of any chimney greater than 30" inches wide.

Roof Sheathing Preparation (For Complete Tear Offs)

- The roof sheathing must provide a rigid surface.
- Repair or replace all boards or sheathing which are warped, cracked or delaminated between supports.

Underlayment (For Complete Tear Offs)

- Apply new, minimum 15# asphalt saturated felt underlayment over a DRY deck.
- For roofs with slopes of 4:12 or greater, one layer of underlayment is required. For roofs with slopes between 2:12 and 4:12, 19" laps of underlayment is required, starting with a 19" strip, then full sheets.
- For roofs with slopes of less than 2:12, modified bitumen may be used.

Fasteners (For All Roofs)

- Fasteners must be long enough to penetrate through the total thickness of the roofing and a minimum of 3/4" into the decking material.
- For open soffits, contact your Building Department.
- Nails must not be over or under driven, the head must be flush with the shingle surface and located per the package instructions. Nails must be driven in perpendicular to the roof surface.

For further important information, please refer to the manufacturer's installation instructions.

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Town of Castle Rock Colorado
100 N Wilcox St
Castle Rock, CO 80104
720-733-3527
Buildingcounter@CRgov.com

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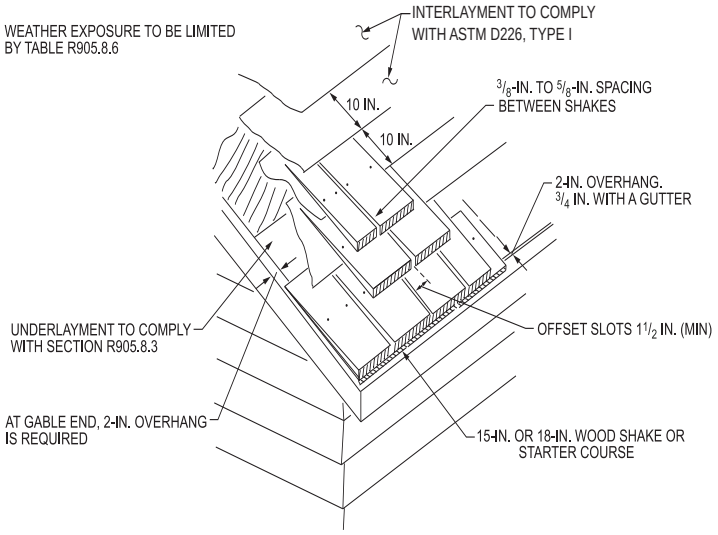
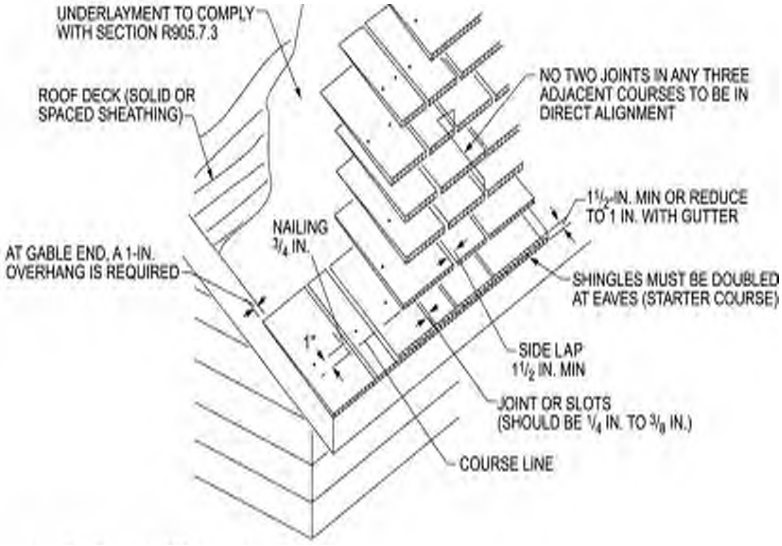
Roofing material installation checklist for the successful installation and longevity of your new roof

Shakes and Wood Shingles

- Felt interlace on shakes shall be 18" type 30 installed at twice the weather exposure of the material. Example: 24" shakes with 10" exposure, felt is applied at 20" from the butt.
- Install type 30 felt under hip and ridge.
- Replace any damaged or rusted metal.
- Starter course at eaves shall be doubled.
- Minimum shake width of 4" required.
- Offset gaps from course to course with a minimum 1 1/2" side lap.
- Provide a 1/4" to 3/8" gap for shingles.
- Provide a 3/8" to 5/8" gap for shakes.
- Step flashing must be interlaced at roof to sidewall junctions.
- Raise flashing at jacks vents and sidewall junctions.
- For hip and ridge caps double the first cap and alternate the overlaps. 10" exposure for 24" shakes and 7 1/2" for 18".
- A minimum 1 1/2" edge and 1" eave overhang is required. Two fasteners per shake/shingle 1" in from edge 2" up from exposure line.
- Shakes/shingles in valleys must be angle cut.
- Limit the number of exposed fasteners.
- Defective shakes, i.e. bark, knots, curling and thin areas are not permitted.



WOOD SHAKE APPLICATION



WOOD SHINGLE APPLICATION

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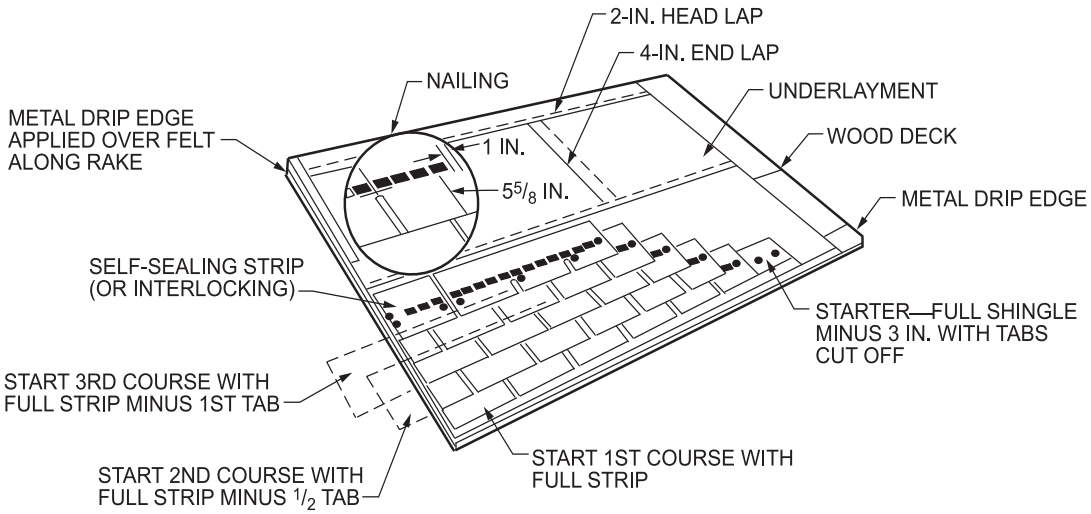
3 Tab or Laminate Shingles

- A starter course with factory adhesive at the eave line or a manufactured starter with a tar sealant is required.
- Fasten with 4 nails per strip shingle and 6 nails in high wind areas. Do not nail into the factory applied adhesive. Locate fasteners per manufacturer's instructions.
- There should be no tab offset joints closer than 4" between adjacent rows.
- Install all roof jacks and vents so that shingles are underneath the lower edge of the flange -- shingle over the top and sides at least past the point of roof penetration. Fasten down the lower edge.
- At roof to vertical junctions, shingle under the flashing.
- An edge and eave overhang of 3/8" - 1/2" is required.
- Closed, woven or open valleys must be properly installed.
- Replace any damaged or rusted metal.
- Nail heads must be flush with shingle surface, not penetrating the shingles or above shingle surface.



THREE-TAB, SQUARE BUTT STRIPS—CUTOUTS ARE CENTERED OVER THE TABS IN THE COURSE BELOW

ASPHALT ROOFING SHINGLE APPLICATION HIGH SLOPE (4:12 MINIMUM)

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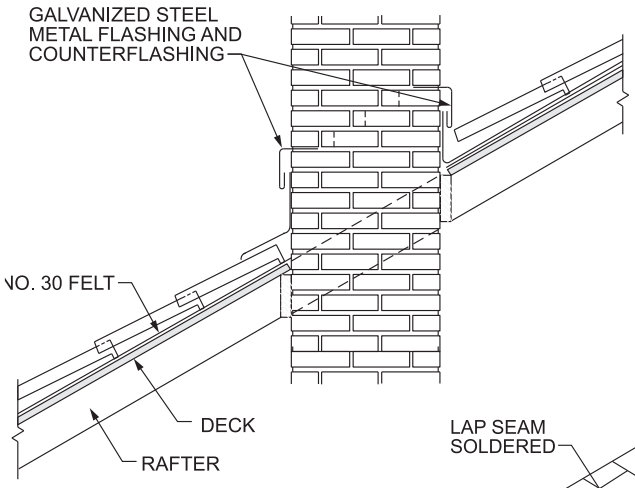

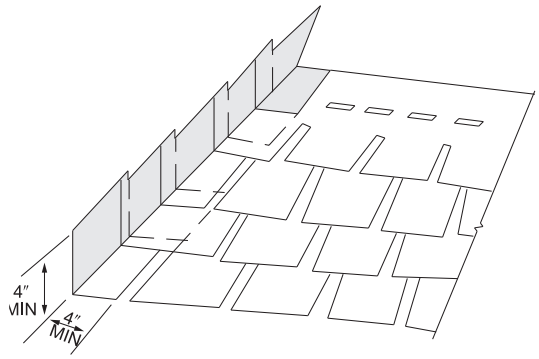

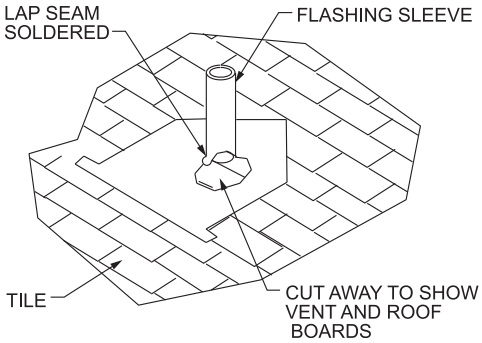

Modified Bitumen Roofing

- Check with manufacture for proper underlayment and/or substrate
- Check attachment for wind speed
- Use asphalt primer on metal
- Have installation instructions on site
- At side and head wall intersections, terminate cap sheet vertically and behind connecting 4" flashing

Tile, Metal & Special Roofs

- An engineered analysis of the roof structure is required if the roofing material type exceeds 7.5 pounds per square foot.
- These roofs must be applied as per manufacturer's specifications.
- A mid roof inspection may be required.
- A complete copy of the manufacturer's specifications and installation instructions must be on site and available for the installers and the building inspector.

Rolled Roofing

- Some rolled roofing is allowed for low
- slope roofs with a pitch as low as 2:12. Some rolled roofing may be used on a slope as low as 1:12 if it is installed using the concealed nail method or the double coverage method as per the manufacturer's installation instructions.
- For low slope applications, please contact your Building Department.
- An edge and eave overhang of 3/8" - 1/2" is required.

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