ROOFING

Stillwater Building Inspection

651-430-8825

www.ci.stillwater.mn.us

This handout is intended only as a guide and is based in part on the 2015 Minnesota State Building Code, City ordinances, and good building practice. While every attempt has been made to insure the correctness of this handout, no guarantees are made to its accuracy or completeness. Responsibility for compliance with applicable codes and ordinances falls on the owner or contractor. For specific questions regarding code requirements, refer to the applicable codes or contact your local Building Department.

SCOPE

The scope of this handout will be limited the installation of asphalt shingles.

PERMITS, INSPECTIONS, AND LICENSES

Building permits are required for all roofing projects. Permits are issued at the time of application.

The Building Department goal is to conduct a final inspection. Tear-offs require Ice and Water pictures to be submitted before final inspection will be scheduled. You will receive information at the time you obtain your permit as to the inspection process.

All contractors engaged in roofing work must have a state contractor's license and show proof of the license to obtain a permit. Specific questions regarding contractor licenses should be directed to the Minnesota Department of Labor and Industry, (651) 284-5069 or 1-800-342-5354.

DEBRIS

The removal of existing roofing materials often results in this debris moving about the neighborhood on windy days. Shingle wrappers and other construction debris are nuisances to other neighbors when they find this material in their yards. As you install a new roof on your dwelling, we ask that you exercise courtesy towards your neighbors by regularly policing your yard and adjoining areas for debris that may blow around.

GENERAL

All roof covering materials must be delivered in packages bearing the manufacturers identifying marks and approved testing agency labels when required.

All asphalt shingles must be either self-sealing or interlocking.

Roof decks must be solidly sheathed for asphalt shingles. Solid sheathing may be plywood, OSB, or 1-inch nominal boards. Roof decks that are rotted or unsound must be repaired prior to reroofing.

REROOFING

New roofing may be installed over an existing roof but shall be limited to a total of two layers. Existing flashing in good condition may be reinstalled. Any sheathing that is replaced must be installed and fastened according to the code.

Please note: Code now allows two layers of shingles on a roof. But always check manufacturer's warranty to make sure this does not cancel their warranty.

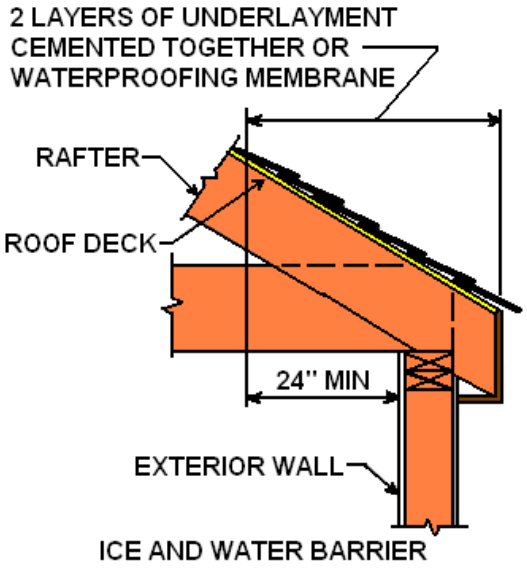
DRIP EDGE/ GUTTERS

Rain Gutters and drip edge are not required by the code.

ICE AND WATER BARRIERS

An ice and water barrier is required on all roofs except for unheated, detached accessory buildings (garages). The barrier may be at least two layers of underlayment cemented together or a self-adhering polymer modified bitumen sheet. There are several manufacturers who make materials specifically for this requirement that are marketed under differing trade names. The ice and water barrier must extend from the edge of the eaves to a point at least 24 inches inside the exterior wall line of the building. Ice and water barriers are not required along the rakes or in valleys.

Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane.



VENTILATION

Ventilation of enclosed attics and enclosed rafter spaces is required. Ventilating openings must be provided with corrosion-resistant mesh with openings of ⅛" to ¼" inch.

For attics without ceiling vapor barriers, 1 square foot of net free ventilating area should be provided for each 150 square feet of attic area.

For attics with vapor barriers or without ceiling vapor barriers and having at least 50% but not more than 80% of the ventilating area provided by ventilators located in the upper portion of the space to be ventilated and at least 3 feet above the eave vents and the balance of the ventilation provided in the eave vents, ventilation may be 1 square foot of net free ventilating area for each 300 square feet of attic area.

FLASHING

Flashing is required at all wall and roof intersections, wherever there is a change in roof slope or direction, and around roof openings. When flashing is metal, it must be corrosion resistant metal with a thickness of not less than 0.019 inch (No. 26 galvanized sheet) (R903.2.).

Flashing against vertical front walls, soil stacks, vent pipes, and chimney flashing must be in accordance with the asphalt shingle manufacturer's printed instructions. Sidewall flashing may be either step flashing or continuous flashing and is required whenever wall and roof intersections occur.

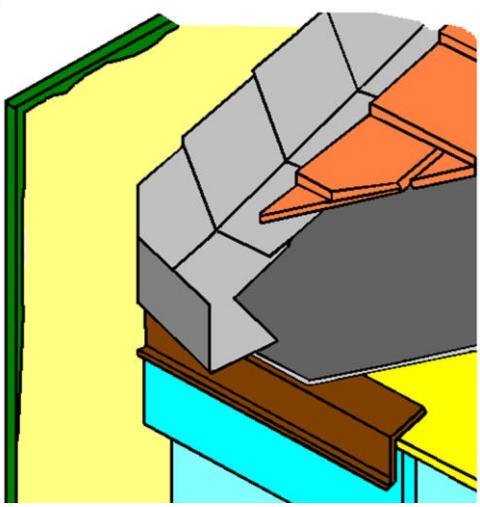
Crickets or saddles are required on the ridge side of any chimney greater than 30 inches wide. Cricket or saddle coverings must be of sheet metal or of the same material as the roof covering.

KICK-OUT FLASHING

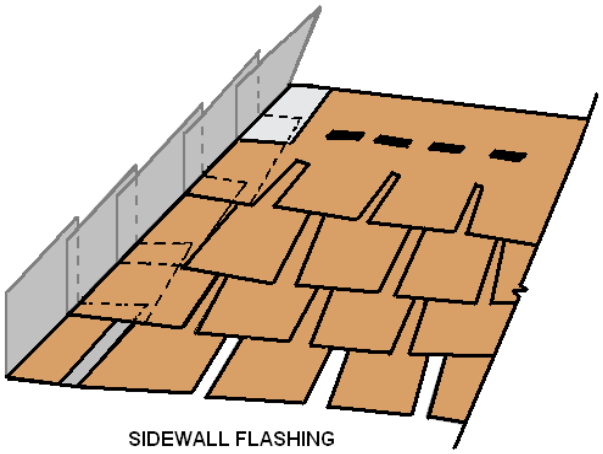
R903.2.1 Locations. *Flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction and around roof openings. A kick-out flashing shall be installed to divert the water away from where the eave of a sloped roof intersects a vertical sidewall. The kick-out flashing on the roof shall be a minimum of 2 ½" long. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inch (No. 26 galvanized sheet).*

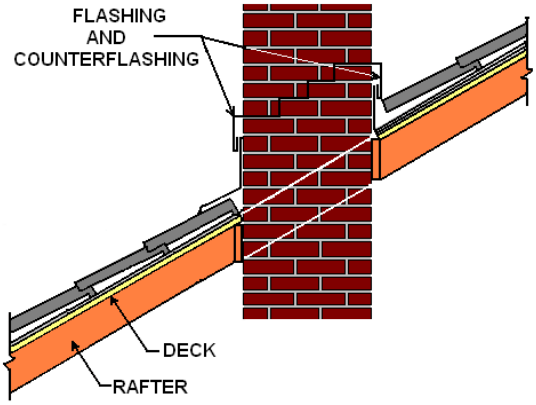
R903.2.1.1 Existing buildings and structures. *Kick-out flashing shall be required in accordance with section R903.2.1 when simultaneously re-siding and re-roofing existing buildings and structures.*

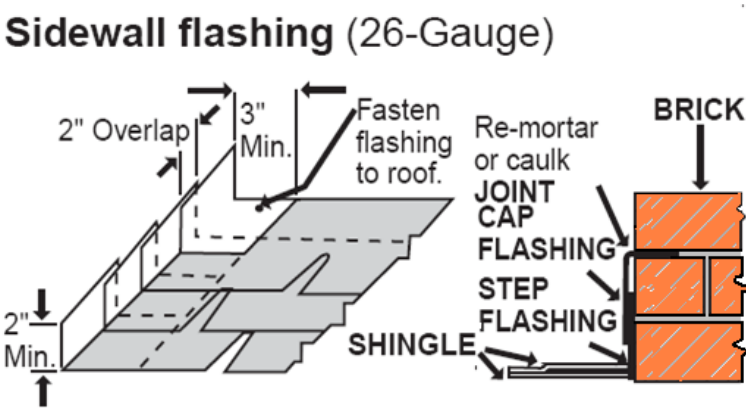
Exception: *Kick-out flashings are not required when only re-roofing existing buildings and structures.*



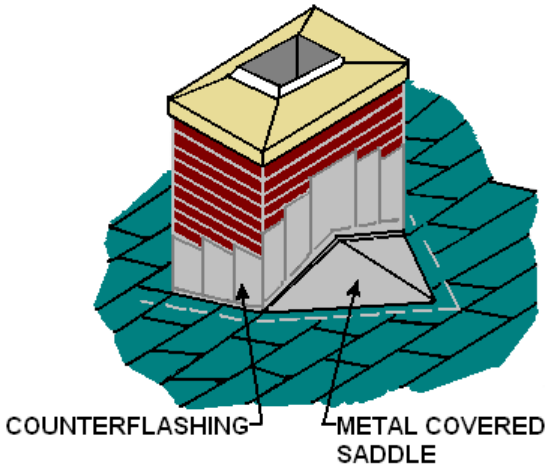
KICK-OUT FLASHING

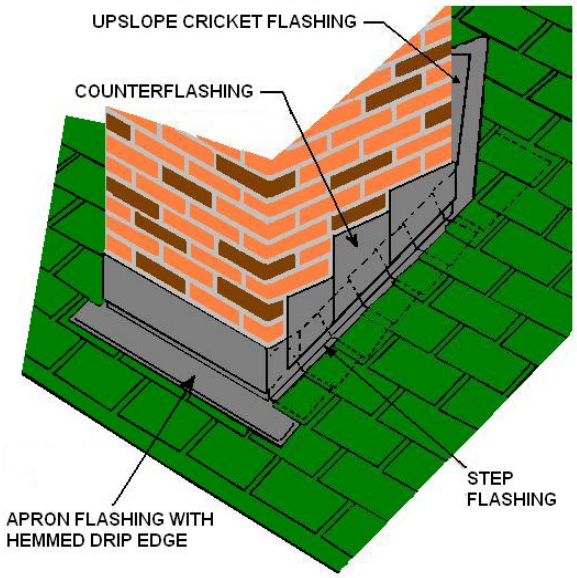


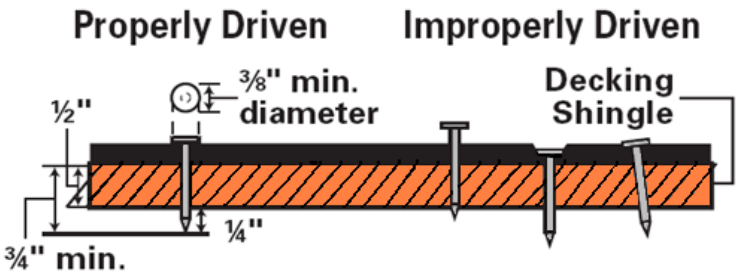




Cricket or Saddle required if chimney is <u>more</u> than 30 inches wide







FASTENERS

Fasteners for asphalt shingles must be galvanized steel, stainless steel, aluminum or copper roofing nails, minimum 12 gauge shank with a minimum 3/8" diameter head and of a length to penetrate through the roofing materials and a minimum of ¾" into roof sheathing or when roof sheathing is less than ¾" thick, the fastener shall penetrate through the sheathing.

ASPHALT SHINGLES - R905.2

Asphalt shingles may only be used on roof slopes of two units vertical in 12 units horizontal (2:12) or greater. For roof slopes from 2:12 to 4:12, double underlayment is required. Underlayment must conform to ASTM D 226, Type I; ASTM D 4869, Type I; or ASTM D 6757. For slopes of 4:12 and greater, underlayment must be applied shingle fashion. Laps must be a minimum of 2-inches. End laps must be offset by at least 6 feet.

For normal application, strip shingles must be fastened with a minimum of four nails. For interlocking shingles, two nails are required. See the manufacturer's installation instructions.

Valleys must be lined in accordance with the shingle manufacturers written instructions. In addition, valleys may be of any of the following:

- For open valleys lined with metal, the valley lining must be at least 24 inches wide and of galvanized steel of at least 26 gage or other approved materials.
- For open valleys, two plies of roll roofing may be permitted. The bottom layer must be at least 18 inches wide and the top layer at least 36 inches wide.
- For closed valleys (valleys covered with shingles), valley lining of one ply of smooth roll roofing complying with ASTM D 224 Type II or Type III and at least 36 inches wide or one of the two methods previously listed may be used.

Please note: Code now allows two layers of shingles on a roof. But always check manufacturer's warranty to make sure this does not cancel their warranty.