

ROOFING HANDOUT

Building Permits

A Building Permit is required for all re-roofing projects.

The inspection card shall be posted and accessible on the exterior of the residence until the final inspection has been made.

Special Notes

- All detached garages and accessory buildings are required to meet the current roofing code.
- No more than one layer of roof covering is allowed
- Homeowners are allowed to do their own work
- All roofing contractors must be licensed by the State of Minnesota Department of Labor and Industry.

Overlay or Tear-off

A second layer of asphalt shingles is no longer allowed under the Minnesota State Building Code. This also applies to repairing damaged roofing with two or more layers of shingles.

Asphalt shingles are required to be installed over solidly sheathed decks or nominal 1" thick wood boards.

Flashing

Flashings shall be installed at all wall and roof intersections, wherever there is a change in roof slope or direction and around all roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inch (0.5 mm) (No. 26 galvanized sheet).

- For open valley lined with metal, the valley lining shall be at least 24 inches (610 mm) wide and of corrosion resistant metal.
- For open valleys, valley lining of two plies of mineral surfaced roll roofing is permitted. The bottom layer must be 18 inches (457mm) and the top layer a minimum of 36 inches (914 mm) wide.
- For closed valleys (valley covered with shingles), valley lining of one ply of smooth roll roofing at least 36 inches wide (914 mm) or valley lining as described in
- Items 1 and 2 above shall be permitted.

Crickets and saddles

A cricket or saddle must be installed on the ridge side of any chimney or penetration more than 30 inches (762 mm) wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or of the same material as the roof covering.

Sidewall flashing

Flashing against a vertical sidewall shall be by the step-flashing method. Kick out flashing required at lower portion of roof intersecting a wall to divert water away from the wall.

Other flashing

Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing shall be applied according to the asphalt shingle manufacturer's printed instructions.

Asphalt shingles

- Shall be used only on roof slopes of two vertical units in 12 units horizontal (2:12) or greater. For roof slopes from two units vertical in 12 units horizontal (2:12) up to four units vertical in 12 units horizontal (4:12), double underlayment application is required.
- Shall have self-seal strips or be interlocking, Fasteners for asphalt shingles shall be galvanized steel, stainless steel, aluminum or copper roofing nails, minimum 12 gage [0.105-inch (3 mm)] shank with a minimum 3/8-inch (10 mm) diameter head of a length to penetrate through the roofing materials and a minimum of 3/4 inch (19 mm) into the roof sheathing. Where the roof sheathing is less than 3/4 inch (19 mm) thick, the fasteners shall penetrate through the sheathing.

Ice barrier

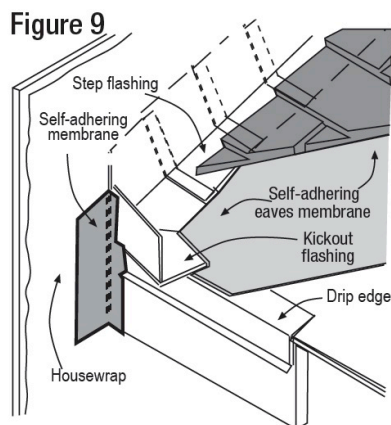
An ice barrier that consists of at least two layers of underlayment cemented together or a self-adhering polymer modified bitumen sheet, shall be used from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

Required Inspections

1. Underlayment – an inspection before the shingles are put in place. Alternate is pictures of the roof underlayment before covering with shingles.
2. Final – to be made after completion of the work

Roofing requirements

- Kick-out flashing/diverters are required at all roof/wall intersections.
- All residential re-roofing requires removal of the existing roof system.
- Roof sheathing shall be repaired or replaced if rotted.
- Shingles shall be applied per the manufacture's installation instructions.
- Existing flashing shall be replaced if rotted or damaged.
- Flashing shall be installed to prevent water from entering the wall or roof.
- Ice dam protection is required on all roofs and shall extend from the edge of the roof 24" past the exterior wall line.
- Roof ventilation is required at a rate of 1 square foot ventilation per 300 square feet of attic area.
- If the furnace chimney cap is replaced it must be with an approved cap. Verify approval with inspector.
- A final inspection is required on all re-roofing permits.



KICKOUT FLASHING

Because of the volume of water that can pour down a sloped roof, one of the most critical flashing details occurs where a roof intersects a sidewall. The roof must be flashed with step flashing. Where the roof terminates, install a kickout to deflect water away from the siding.

It is best to install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then come back to install the kickout.

Figure 15, Kickout Flashing[‡] To prevent water from dumping behind the siding and the end of the roof intersection, install a "kickout" as required by IRC code R905.2.8.3 : "... flashing shall be a min. of 4" high and 4" wide." James Hardie recommends the kickout be angled between 100° - 110° to maximize water deflection