



RESIDENTIAL REROOF

Building Requirements

Required Permits:

- A building permit is required.

Required Inspections:

- **Tear off Inspection:** After removal of existing roofing materials and placement of new underlayment materials.
- **Final Inspection:** When complete to verify proper venting, flashing and installation.

Reroofing:

- The re-roofing of a structure having asphalt shingles must be accomplished by completely removing the existing shingles, underlayment, flashing, etc.(tear off) and installing the roof as if it were new construction.
- To assist in your re-roofing consider the following:
 - Check the framing beneath. It must be free from decay. New materials plus the weight of roofers and their equipment shall be sustained by the roof framing/sheathing.
 - Check the condition of the existing deck sheathing. It must be adequate for both support and anchorage for new roofing fasteners.
 - Check the condition of the roofing surface. If it is warped, curled or so badly weathered that providing a level surface for the new material will be difficult, it should be removed.

Sheathing:

- Asphalt shingles shall be fastened to solidly sheathed decks or 1 inch thick nominal wood boards.
- Roof sheathing shall be inspected by the Building Department prior to re-roofing and rotted or unsound sheathing shall be repaired or replaced. Replacement sheathing shall conform to the requirements of the Building Code.

Roof Pitch:

- Asphalt shingles shall not be used on roofs with a pitch less than a 2:12 and require special application procedures for pitches less than 4:12. Manufacturer's instructions on package must be followed.

Fasteners:

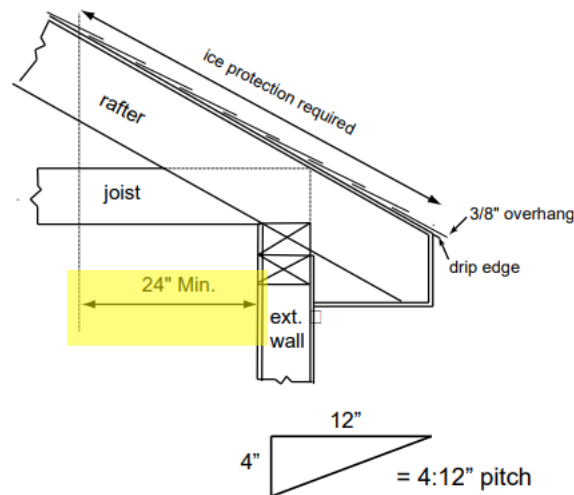
- Asphalt shingles shall be fastened with not less than four nails per shingle. Nails shall not be less than 12 gauge with 3/8 inch minimum diameter head. Nails shall be sufficient length to penetrate through roofing material and at least 3/4 inch into roof sheathing or through the thickness of the sheathing, whichever is less. Nail head shall be driven so that it tightly bears against the shingle but does not cut into the surface of the shingle. Crown shall be parallel to the long dimension of shingle. Nails must be installed in the location on each shingle per the manufacturer's instructions. Any crooked fasteners should be removed and replaced.

Underlayment:

- For roof pitches of 2:12 to less than 4:12:
 - Two layers of 15# felt applied shingle fashion. Starting with a 19 inch wide sheet and a 36 inch wide sheet over it at the eaves, each subsequent sheet shall be lapped 19 inches horizontally.
- For roof pitches of 4:12 and over:
 - One layer of 15# felt applied shingle fashion lapped two inches horizontally and four inches vertically.

Ice Barriers:

- An ice barrier shall be installed for asphalt shingles, metal roof shingles, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles and wood shakes. The ice barrier shall consist of not fewer than two layers of *underlayment* cemented together, or a self-adhering polymer-modified bitumen sheet shall be used in place of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches inside the exterior wall line of the building. On roofs with slope equal to or greater than eight units vertical in 12 units horizontal (67-percent slope), the ice barrier shall also be applied not less than 36 inches (914 mm) measured along the roof slope from the eave edge of the building.
Exception: Detached accessory structures not containing conditioned floor area.



Valley Linings:

- Valley linings shall be installed in accordance with the manufacturer's instructions before applying shingles. Valley linings of the following types shall be permitted:
 - For open valleys (valley lining exposed) lined with metal, the valley lining shall be not less than 24 inches wide and of any of the corrosion-resistant metals in Table R905.2.8.2.
 - For open valleys, valley lining of two plies of mineral-surfaced roll roofing, complying with ASTM D3909 or ASTM D6380 Class M, shall be permitted. The bottom layer shall be 18 inches and the top layer not less than 36 inches wide.
 - For closed valleys (valley covered with shingles), valley lining of one ply of smooth roll roofing complying with ASTM D6380 and not less than 36 inches wide or valley lining as described in Item 1 or 2 shall be permitted. Self-adhering polymer-modified bitumen *underlayment* complying with ASTM D1970 shall be permitted in lieu of the lining material.

Sidewall Flashing:

- Base flashing against a vertical sidewall shall be continuous or step flashing and shall be not less than 4 inches in height and 4 inches in width and shall direct water away from the vertical sidewall onto the roof or into the gutter. Where siding is provided on the vertical sidewall, the vertical leg of the flashing shall be continuous under the siding.

Kickout Flashing:

- Install kickout flashing where the lower portion of a slope roof stops within the plane of an intersecting wall cladding to divert or kick out water away from the assembly.

Roof Ventilation:

- Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of the roof rafters must have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow.
- Minimum vent area:
 - The minimum net free ventilating area is 1/150 of the area of the vented space. Exception: The minimum net free ventilation area is 1/300 of the vented space provided both of the following conditions are met:
 - A Class I or II vapor retarder is installed on the warm-in winter side of the ceiling.
 - At least 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators can be located no more than 3 feet below the ridge or highest point of the space, measured vertically. The balance of the required ventilation must be located in the bottom one-third of the attic space.

General Notes:

- The Inspection Record card shall be visible from the street and shall remain posted until the final inspection has been made. Cards should be protected from the weather.

Call 952-758-1138 between 8:00 A.M. and 4:30 P.M. to schedule an inspection. Provide at least 24-hour advance notice and permit number at time of scheduling.