

RESIDENTIAL ROOF REQUIREMENTS

Two Inspections are required: **Inspection Request Line: (913) 856-0989**

1. Mid-Point Inspection

- All old shingles and existing felt must be removed to bare plywood.
- Ice and water shield is required (**2 Rows**) in accordance to GMC 15.50.020 (CC).
- New felt paper or synthetic underlayment must be installed.
- 3 Tab shingles are **NOT** allowed.
- All roof vents must be cut out.

2. Final Inspection

Metal valley lining used for open valleys must be a minimum 24" wide.

Enclosed attics and enclosed rafter spaces shall have a total net free ventilation area of not less than 1/150 of the area of space ventilated: except that a reduction of the total area to 1/300 is permitted where at least 50% and not more than 80% of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at 3' above the eave or cornice vents.

The required ice barrier shall consist of self-adhering polymer modified bitumen sheet. The ice barrier shall extend from the lowest edges of all roof services to a point at least 24", measured horizontally, inside the exterior of the wall line of the building.

Re- roofing requirements within the City of Gardner, Kansas as outlined in the City's Municipal Code and the 2018 International Residential Code (IRC).

1. All roofs must be stripped down to the bare deck before any new materials are installed:

Source as follows: Gardner Municipal Code- Title 15.50.020

W. Section R907.3 of the International Residential Code, 2018 Edition, recovering versus replacement is hereby amended to read as follows:

New roof covering shall not be installed without first removing all existing layers of roof covering down to the roof decking.

Exception: 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 in accordance with Section R905.

2. The plywood shall be in good repair with no water damage, separations or damaged surfaces in accordance to the International Residential Code (IRC 2018 edition as adopted by the City) Section R908.3.1.1 as follows:

R908.3.1.1 Roof recover not allowed.

A roof recover shall not be permitted where any of following conditions occur:

Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.

3. Ice and water shield is required in Gardner as adopted in the Municipal code- Title 15.50.020 and shall be installed in accordance to the 2018 IRC- R905.1.2 as follows:

Table R301.2 (1) of the International Residential Code: 2012 Edition, is hereby amended to read as follows: Climatic and Geographic Design Criteria.

- a. Roof Snow Load: 20 pounds per square feet
- b. Wind Speed: 90 miles per hour **(The Wind Speed has been Changed to 115 miles per hour)**
- c. Topographic effects: No
- d. Seismic Design Category: A
- e. Weathering: Severe
- f. Frost Line Depth: 36 inches
- g. Termites: Moderate to Heavy
- h. Decay: Slight to Moderate
- i. Winter Design Temperature: 6 degrees Fahrenheit
- j. Ice Barrier Underlayment Require: Yes

R905.1.2 Ice Barriers

In areas where there has been a history of ice forming along the eaves causing a backup of water as designated in Table R301.2 (1), an ice barrier shall be installed for asphalt shingles, metal roof shingles, mineral-surfaced roll roofing, slate and slate type shingles, wood shingle 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 (610mm) inside the exterior wall line of the building. On roofs with slope equal or great than 8 units vertical in 12 units horizontal (67 percent slope), the ice barrier shall also be applied not less than 36 inches (914mm) measured along the roof slope from the eave edge of the building.

Exception: Detached accessory structures not containing conditioned floor area.

4. Gardner does not allow 3-tab shingles. The shingles installed in this area shall meet the requirements to withstand the 115 mph wind loads of this area and be warranted manufacture for the same as outlined in the 2018 IRC – R905.2.4 as follows:

R905.2.4.1 Wind resistance of asphalt shingles.

Asphalt shingles shall be tested in accordance with ASTM D7158. Asphalt shingles shall meet the classification requirement of Table **R905.2.4.1** for the appropriate ultimate design wind speed. Asphalt shingle packaging shall bear a label to indicate compliance with ASTM D7158 and the required classification in table **R905.2.41**.