

2018

Hendersonville's Code Criteria Adoption

Table R301.2(1) Climatic and Geographic Design Criteria is amended to read as follows:

- Table R301.2(1) Climatic and Geographic Design Criteria.
 - Ground Snow Load 15 pounds
 - Wind Speed — 90 mph, 3 second wind gusts
 - Seismic Design — Category "B"
 - Weathering Severe
 - Frost Line Depth 12 inches
 - Termite Moderate to Heavy
 - Winter Design Temperature — 14 degrees, Fahrenheit
 - Ice Barrier Underlayment Required — No Flood Hazard — See City of Hendersonville Flood Plain Ordinance
 - Air Freezing Index -332
 - Mean Annual Temperature 59.2 degrees Fahrenheit

- Drip edge code required on eaves and rakes

Drip edge (R905.2.8.5)

Drip edge is the metal flashing that's installed at the edges of the roof to help control the flow of water away from your fascia and other roofing components. It's not only a crucial roofing component, but it's also one of the first things a home inspector looks for on a roof.



According to code R905.2.8.5: a drip edge shall be provided at eaves and gables of shingle roofs. Adjacent pieces of drip edge shall be overlapped a minimum of 2 inches. Drip edge shall extend a minimum of a ¼ of an inch below roof decking and extend up a

minimum of 2 inches. Underlayment must be installed over the drip edge along the eaves and under the underlayment on gables.

This code means that drip edge must be installed (in accordance with the above specifications) on the edges of your roof. Properly installed drip edge ensures water won't get behind your gutters and rot out your fascia board or your roof's decking.

Unfortunately, some roofing contractors cut corners by leaving off drip edge. When this happens, your roof won't be up to code, and it's going to be a lot harder to pass a home inspection.

- **Ice and water shield on valleys**

Ice barrier (R905.2.7.1)

Ice damming is when snow and ice freeze down by your gutter line (eaves), creating an ice blockage (dam). When it happens at your gutters, the thawed snow/ice will back up until the water gets underneath your roofing materials.



This causes water to come through your ceiling and even down your wall. As ice damming becomes more common in Tennessee, codes are now in place to prevent roof leaks when we have a snow or ice storm.

According to code R905.2.7.1: in areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of of at least 2 layers of underlayment cemented together or self-adhering polymer modified bitumen sheet (ice and water shield) that extends from the lowest edges of all roof surfaces to a point at least 24 inches inside the exterior wall line of the building.

This code means that if your roof has a history of ice damming, it needs a protective layer (ice and water shield) around the edges of your roof that goes 2 feet past the interior walls of your home. This code can only be applied when your old roof is torn off, and you're starting from a clean deck.

Roof valleys (R905.2.8.2)

A roof valley is when two slopes of a roof meet. A roof valley is crucial to keep water flowing down your roof properly.

According to code 905.2.8.2: valley linings shall be installed in accordance with the manufacturer's installation instructions before applying shingles. Just like the roof covering application, this code means that the proper linings (per manufacturer installation instructions) have to be installed in your roof valleys before installing shingles.

For open valleys (you can see the lining), it should be metal or a mineral surfaced roll roofing.



For closed valleys (valley is covered with shingles), there should be underlayment or ice and water shield.



- Ice and water shield on roof low slopes (4/12 and under)

Slope (R905.2.2)

The slope (or pitch) of your roof is the steepness calculated by the number of inches or feet it rises vertically for every 12 inches or feet it extends horizontally. For example, a roof that has a 4/12 pitch will be 4 inches (or feet) up for every 12 inches (feet) out.

According to code R905.2.2: asphalt shingles shall be used only on roof slopes of 2 units vertical in 12 units horizontal (2:12) or greater. For roof slopes from 2:12 up to 4:12, double underlayment is required.

This code means that if a roof has a pitch (slope) below 2:12, it's not steep enough, per the shingle manufacturers or codes, to put shingles on it. If your roof's slope is below a 2:12 pitch, it's considered low slope and requires a membrane or metal roof system.