**2018 IRC/TDI CHANGES**

**Chapter 3 Building Planning**

* **Protection of Openings (R301.2.1.2):** Exterior glazing where the ultimate design wind speed is greater than 140 mph will require windborne protection.
  + 7/16” OSB will be allowed in many cases as long as table R301.2.1.2 is followed for fasteners and fastener pattern.
  + Corrosion-resistant PLYLOX clips are acceptable if installed in accordance with TDI product evaluation (SHU-122). PLYLOX may only be used with 15/32” CDX as specified in TDI product evaluation (SHU-122).
  + **It was said during the TDI meeting today that all fasteners utilized for windborne debris protection must be corrosion resistant and be permanently installed on the building.**
* **Roof deck nailing will now be as follows:**
  + One story 4” O.C. along the edges and 4” O.C. in the field (8d 2- 1/2”, .131 smooth shank)
  + Two story 4” O.C. along the edges and 4” O.C. in the field (8d 2 -1/2”, .131 smooth shank)

As a result of the Texas Department of Insurance adopting the 2018 IRC/IBC without revisions, corrosion resistant fasteners will no longer be required in any part of the frame, exterior walls, or roof decking.

**Chapter 9 Roof Assemblies**

**Underlayment (R905.1.1):** In areas where ultimate design wind speed is 140 mph or greater underlayment must comply with one of the following.

* + ASTM D226 Type II - *30# felt & most synthetic* (15# felt is not acceptable in high wind areas)
  + ASTM D4869 Type III or Type IV - *30# felt & most synthetic* (15# felt is not acceptable in high wind areas)
  + ASTM D6757 - *most synthetic*

In areas where the ultimate design wind speed is less than 140 mph the use of ASTM D226 Type I – 15# felt is acceptable.

* **Fastening of underlayment** shall be in accordance with R905.1.1(3) specifying corrosion-resistant fasteners placed in a grid pattern of 12” between side laps and with 6” spacing at side and end laps.
* **Approved fasteners** include the following:
  + Underlayment: Metal cap nails – minimum 32-guage cap with minimum 1” diameter – minimum ring shank 0.083” or smooth shank 0.091”. Length shall be sufficient to penetrate the roof sheathing or not less than 3/4” into roof sheathing. Fasteners shall be corrosion-resistant.
  + Underlayment: Plastic cap nails - minimum 0.035” edge cap with minimum 1” diameter – minimum ring shank 0.083” or smooth shank 0.091”. Length shall be sufficient to penetrate the roof sheathing or not less than 3/4” into roof sheathing. Fasteners shall be corrosion-resistant.
  + Shingles: Fasteners for composition shingles shall be corrosion resistant.
* **Underlayment lap requirements:**
  + Where the ultimate design wind speed is less than 140 mph underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2”. End laps shall be 4” and shall be offset by 6 feet.
  + Where the ultimate design wind speed is 140 mph or greater, all laps shall be 4”.
* **Valleys (R905.2.8.2):** For closed valleys (valley covered with shingles) valley lining of one ply of smooth roll roofing complying with ASTM D6380 or self-adhering polymer-modified bitumen underlayment (ice & water shield) complying with ASTM D1970 and not less than 36” wide is required. 24” valley metal is also acceptable. *90# felt maybe used as long as it meets ASTM D6380 and is a least 36” wide.*
* **Drip edge** must extend a minimum of 1/4" below roof sheathing and extend onto the roof **deck** a minimum of 2”. *Please note – The IBC only requires the drip edge to extend back on the roof a minimum of 2”. If the 2018 IRC requirement indicating a minimum of 2” on the roof* ***deck*** *must be followed then a standard size drip edge would not satisfy IRC standards in many scenarios and a special order would be required.*

Refer to Texas Department of Insurance product evaluations for fastener type and size requirements in addition to fastener placement specifications for doors, windows, roofing, and exterior coverings.