

# Hurricane Mitigation Retrofits for Existing Site Built Single Family Residential Structures

Effective Date October 1, 2007 except opening protection which is effective July 1, 2008

Based on HB 7057

- Q. Do these requirements apply to duplexes and townhouses?  
A. No, they only apply to stand alone site built single family homes.

## I. Supplemental Fasteners and Secondary Water Barrier

- A. **Trigger:** When a roof on an existing site-built, single family residential structure is replaced.
  - B. **Requirements:**

## 1. Roof d

1. Roof deck attachment and fasteners shall be strengthened and corrected as required by section 201.1.
  2. A secondary water barrier shall be provided as required by section 201.2.

## C. Guidelines

- Q. Is there a required certification for the supplemental fasteners and the installation of the water barrier?
    - A. Yes
  
  - Q. Can the certification for re-nailing and secondary water barrier installation be satisfied by an affidavit as opposed to an on site inspection by the local building department?
    - A. Yes.
  
  - Q. Who can perform this certification?
    - A. Florida Professional Engineer, Registered Architect, Licensed General Contractor, Building Contractor, Residential Contractor or Roofing Contractor or persons certified in the structural discipline under FS 468 including Standard Roofing Inspector.
  
  - Q. Can existing sheathing fasteners be used to satisfy the supplemental requirement in Table 201.1 where wind speed is greater than 110 mph?
    - A. Only if the existing fasteners are 8d clipped head, round head or ring shanked and spaced at 6" or less on center.

- Q. What type of fasteners must be installed to satisfy the supplemental requirement in Table 201.1?
- A. Supplemental fasteners shall be 8d ring shank nails with round heads and the minimum dimensions as specified in 201.1.
- Q. Can self-adhering polymer modified bitumen (peal & stick) be applied directly to the roof sheathing in the HVHZ?
- A. Only the secondary water barriers detailed in Section 201.2 (a) and the Exception are to be used within Broward County.
- Q. Are the enhanced fastener requirements and secondary water barrier required on new construction?
- A. No.
- Q. There is a conflict between the re-nailing spacing of the mitigation requirements and FBC 2322.2.8. Which one applies?
- A. The most restrictive requirement for each area of installation will be required.
- Q. Do the mitigation requirements apply to new construction?
- A. No, these requirements only apply to buildings permitted under any code other than the ***Florida Building Code***.
- Q. Do these requirements apply to flat roofs?
- A. Yes, but a built up roof with a cap sheet complies with the requirements as a secondary water barrier.
- Q. Does a tile roof installed in accordance with RAS 120 require a secondary water barrier?
- A. No.
- Q. Do shingle roof systems with a self-adhering modified bitumen membrane installed over the base sheet meet the requirements of a secondary water barrier?
- A. Yes.
- Q. Can 4" strips of self-adhering polymer modified bitumen (peal & stick) be installed over plank (tongue and groove, V-joint, etc.)?
- A. Not in the High Velocity Hurricane Zone.
- Q. Do these requirements apply when only a “section” of a building is being re-roofed?

A. Yes, but only to the “section” that is being re-roofed.

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Q. How does this apply to a roof made of wood shake or other materials installed on spaced wood stripping?

A. Once the roof covering is removed, solid sheathing would be required to be installed.

Q. When installing a shingle roof utilizing an approved underlayment installed under a full ply of self-adhering polymer modified bitumen (peal & stick) acting as the secondary water barrier, where should the flashing installed?

A. The drip edge, valley and other metal flashings are to be installed over the self-adhering membrane.

## **II. Roof to Wall Connections**

**A. Trigger:** When a roof on an existing site-built, single family residential structure with an insured or taxation value of \$300,000 or more is replaced.

**B. Requirements**

1. Sufficient eave sheathing shall be removed to expose a minimum of 6 feet of framing members. (Clarification: 6 feet from the corner on a horizontal plane along the edge of the roof to expose 3 roof trusses, rafters etc. The width from the edge or eave of the roof only has to be the minimum required to view the connectors which could be 12 inches, 16 inches, 24 inches etc. depending on the width of the overhang.)
2. Wherever a strap is missing or an existing strap has fewer than 4 fasteners on each end the intersection of roof framing with the wall below shall be strengthened by adding
  - a. Metal connectors, clips, straps and fasteners such that the performance level equals or exceeds the uplift capacity as specified in Table 201.3

**OR**

- b. Approved strap ties or right angle gusset brackets with a minimum uplift capacity of 500 lbs shall be installed to the top plate or masonry wall below.
- c. Refer to sections 201.3.1 to 201.3.4 for prescriptive requirements

**C. Guidelines**

Q. What additional paperwork must be submitted by the Roofing Contractor prior to the issuance of a re-roof permit?

- A. Proof of insured value or a copy of the ad-valorem tax value.

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- Q. Who can prepare a report addressing existing and proposed metal connectors, clips, straps, fasteners and additional structural elements to comply with Table 201.3?
  - A. A Florida Professional Engineer or a Florida Registered Architect.
- Q. Who can prepare a report addressing existing and proposed metal connectors, clips, straps, fasteners and additional structural elements when using the prescriptive methods specified in sections 201.3.1 to 201.3.4?
  - A. Florida Professional Engineer, Registered Architect, Licensed General Contractor, Building Contractor, Residential Contractor or persons certified in the structural discipline under FS 468 excluding Standard Roofing Inspector.
- Q. If the roof to wall connections can be viewed through non-destructive methods (viewed from in attic) without the removal of roof sheathing, is this an acceptable alternate?
  - A. Yes.
- Q. Is a separate permit required to install metal connectors, clips, straps, fasteners and additional structural elements?
  - A. Yes.
- Q. If the original construction plans on file with the building department show that the existing house complies with the mitigation requirements can the house be exempted from the on site investigation during the permitting process?
  - A. Yes.
- Q. If the house requires the on site investigation, how shall the building department issue a roofing permit pending the results of the on site investigation?
  - A. Along with all necessary paperwork for the re-roof permit, the roofing contractor shall submit a letter of intent specifying the contractor or owner that will be used to perform the mitigation inspection and if necessary, installations. The letter of intent shall include the contractors name, license number and company name.
- Q. Is there a required certification for the installation of metal connectors, clips, straps, fasteners and additional structural elements?

A. Yes.

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- Q. Can the certification for the installation of metal connectors, clips, straps, fasteners and additional structural elements be satisfied by an affidavit as opposed to an on site inspection by the local building department?
- A. Yes.
- Q. Who can perform this certification?
- A. Florida Professional Engineer, Registered Architect, Licensed General Contractor, Building Contractor, Residential Contractor or persons certified in the structural discipline under FS 468 excluding Standard Roofing Inspector.
- Q. Does the 15% of the cost of the re-roof include the cost of the investigation and subsequent report and actual work?
- A. Yes, it includes everything out of the scope of a normal re-roof.
- Q. Can a permit for the installation of metal connectors, clips, straps, fasteners and additional structural elements be issued to a Roofing Contractor?
- A. No.
- Q. Can a Roofing Contractor install metal connectors, clips, straps, fasteners and additional structural elements?
- A. No.
- Q. What contractor can be issued a permit and perform the installation of metal connectors, clips, straps, fasteners and additional structural elements?
- A. A Florida Licensed General Contractor, Building Contractor, Residential Contractor and the homeowner when an owner/builder permit is requested.
- Q. With two separate contractors involved in the job which contractor is responsible for the removal and replacement of the roof sheathing?
- A. Scope of licensing is outside of the purview of the Broward County Board of Rules and Appeals. The Building Official should use their best judgment in this matter.
- Q. If there is an existing strap with less than 4 fasteners, can fasteners be added?

- A. Yes, that option appears for hip roofs on wood frame or masonry construction and for gable roofs on wood frame and may be determined acceptable by the local governing authority under

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alternate materials and methods provisions of the Florida Building Code.

- Q. If the roof is opened and an exposed strap is adequately attached to the truss or framing member but the other end connected to the wall is concealed do we assume that it is connected adequately to the wall?

A. Yes.

- Q. Does an existing 1/8" strap with 3 – 16d nails satisfy the 500 lb uplift requirement?

A. Yes.

- Q. The minimum strapping requirements specified in the 1972 thru 1999 Broward County Edition of the South Florida Building Code exceeds the 500# uplift requirement. Would additional investigation and roof to wall mitigation be required for houses built under these codes?

A. Not if the permitting date can be documented thru building department records.

- Q. Can a building department accept an affidavit stating that the house was built under the codes specified above and exempt the house from the roof to wall mitigation requirements?

A. Yes

- Q. Who can review the building departments plans on file and prepare the Affidavit verifying the date a house was built and the roof to wall connection details for this exemption?

A. An affidavit can be prepared by a Florida Professional Engineer, Registered Architect, Licensed General Contractor, Building Contractor, Residential Contractor or a person certified in the structural discipline under FS 468.

- Q. Can a permit for the roof to wall connections be issued to an "owner/builder?

A. Yes.