



Environmental Protection and Growth Management Department

BUILDING CODE SERVICES DIVISION | BUILDING PERMITTING

2307 West Broward Boulevard, Suite #300 • Fort Lauderdale, Florida 33312 • 954-765-4400 • Broward.org/Building

**Section RR4402.13
HIGH VELOCITY HURRICANE ZONES – REQUIRED OWNERS NOTIFICATION
FOR ROOFING CONSIDERATIONS**

§RR4402.13 **Scope.** As it pertains to this section. It is the responsibility of the roofing contractor to provide the owner with the required roofing permit, and to explain to the owner the content of this section. The provisions of Section RR4402 govern the minimum requirements and standards of the industry for roofing system installations. Additionally, the following items should be addressed as part of the agreement between the owner and the contractor. The owner's initial in the designated space indicates that the item has been explained.

- Aesthetics-Workmanship:** The workmanship provisions of Section RR4402 are for the purpose of providing that the roofing system meets the wind resistance and water intrusion performance standards. Aesthetics (appearance) are not a consideration with respect to workmanship provisions. Aesthetic issues such as color or architectural appearance that are not part of a zoning code should be addressed as part of the agreement between the own and the contractor.
- Renailing Wood Decks:** When replacing roofing, the existing wood roof deck may have to be renailed in accordance with the current provisions of Section RR4402. (The roof deck is usually concealed prior to removing the existing roof system.)
- Common Roofs:** Common roofs are those which have no visible delineation between neighboring units (i.e., townhouses, condominiums, etc.). In buildings with common roofs, the roofing contractor and/or owner should notify the occupants of adjacent units of roofing work to be performed.
- Exposed Ceilings:** Exposed, open beam ceilings are where the underside of the roof decking can be viewed from below. The owner may wish to maintain the architectural appearance; therefore, roofing nail penetrations of the underside of the decking may not be acceptable. This provides the option of maintaining this appearance.
- Ponding Water:** The current roof system and/or deck of the building may not drain well and may cause water to pond (accumulate in low-lying areas of the roof). Ponding can be an indication of structural distress and may require the review of a professional structural engineer. Ponding may shorten the life expectancy and performance of the new roofing system. Ponding conditions may not be evident until the original roofing system is removed. Ponding conditions should be corrected.
- Overflow Scuppers (wall outlets):** It is required that rainwater flows off so that the roof is not overloaded from a buildup of water. Perimeter/edge walls or other roof extensions may block this discharge if overflow scuppers (wall outlets) are not provided. It may be necessary to install scuppers in accordance with the requirements of RR4403 and RR4413.
- Ventilation:** Most roof structures should have some ability to vent natural air flow through the interior of the structural assembly (the building itself). The existing amount of attic ventilation shall not be reduced. It may be beneficial to consider additional venting which can result in extending the service life of the roof.

Owner's/Agent's Signature

Date

Contractor's Signature



**SECTION 1525
HIGH-VELOCITY HURRICANE ZONES—UNIFORM PERMIT APPLICATION**

**Florida Building Code 7th Edition (2020)
High-Velocity Hurricane Zone Uniform Permit Application Form**

INSTRUCTION PAGE

COMPLETE THE NECESSARY SECTIONS OF THE UNIFORM ROOFING PERMIT APPLICATION FORM AND ATTACH THE REQUIRED DOCUMENTS AS NOTED BELOW:

Roof System	Required Sections of the Permit Application Form	Attachments Required See List Below
Low Slope Application	A,B,C	1,2,3,4,5,6,7
Prescriptive BUR-RAS 150	A,B,C	4,5,6,7
Asphaltic Shingles	A,B,D	1,2,4,5,6,7
Concrete or Clay Tile	A,B,D,E	1,2,3,4,5,6,7
Metal Roofs	A,B,D	1,2,3,4,5,6,7
Wood Shingles and Shakes	A,B,D	1,2,4,5,6,7
Other	As Applicable	1,2,3,4,5,6,7

ATTACHMENTS REQUIRED:

1.	Fire Directory Listing Page
2.	From Product Approval: Front Page Specific System Description Specific System Limitations General Limitations Applicable Detail Drawings
3.	Design Calculations per Chapter 16, or if applicable, RAS 127 or RAS 128
4.	Other Component of Product Approval
5.	Municipal Permit Application
6.	Owners Notification for Roofing Considerations (Reroofing Only)
7.	Any Required Roof Testing/Calculation Documentation

**Florida Building Code 7th Edition (2020)
High-Velocity Hurricane Zone Uniform Permit Application Form**

Section A (General Information)

Master Permit No. _____ Process No. _____

Contractor's Name _____

Job Address _____

ROOF CATEGORY

- Low Slope
- Asphaltic Shingles
- Mechanically Fastened Tile
- Metal Panel/Shingles
- Prescriptive BUR-RAS 150
- Mortar/Adhesive Set Tiles
- Wood Shingles/Shakes

ROOF TYPE

- New roof
- Repair
- Maintenance
- Reroofing
- Recovering

ROOF SYSTEM INFORMATION

Low Slope Roof Area (SF) _____ Steep Sloped Roof Area (SF) _____ Total (SF) _____

Section B (Roof Plan)

Sketch Roof Plan: Illustrate all levels and sections, roof drains, scuppers, overflow scuppers and overflow drains. Include dimensions of sections and levels, clearly identify dimensions of elevated pressure zones and location of parapets.

**Florida Building Code 7th Edition (2020)
High-Velocity Hurricane Zone Uniform Permit Application Form**

Section C (Low Slope Application)

Fill in specific roof assembly components and identify manufacturer
(If a component is not used, identify as "NA")

System Manufacturer: _____

Product Approval No.: _____

Design Wind Pressures, From RAS 128 or Calculations:

Zone 1': _____ Zone 1: _____ Zone 2: _____ Zone 3: _____

Max. Design Pressure, from the specific product approval system: _____

Deck:
Type: _____

Gauge/Thickness: _____

Slope: _____

Anchor/Base Sheet & No. of Ply(s): _____

Anchor/Base Sheet Fastener/Bonding Material:

Insulation Base Layer: _____

Base Insulation Size and Thickness: _____

Base Insulation Fastener/Bonding Material:

Top Insulation Layer: _____

Top Insulation Size and Thickness: _____

Top Insulation Fastener/Bonding Material:

Base Sheet(s) & No. of Ply(s): _____

Base Sheet Fastener/Bonding Material:

Ply Sheet(s) & No. of Ply(s): _____

Ply Sheet Fastener/Bonding Material:

Top Ply: _____

Top Ply Fastener/Bonding Material:

Surfacing: _____

Fastener Spacing for Anchor/Base Sheet Attachment:

Zone 1': _____" oc @ Lap, # Rows _____ @ _____" oc

Zone 1: _____" oc @ Lap, # Rows _____ @ _____" oc

Zone 2: _____" oc @ Lap, # Rows _____ @ _____" oc

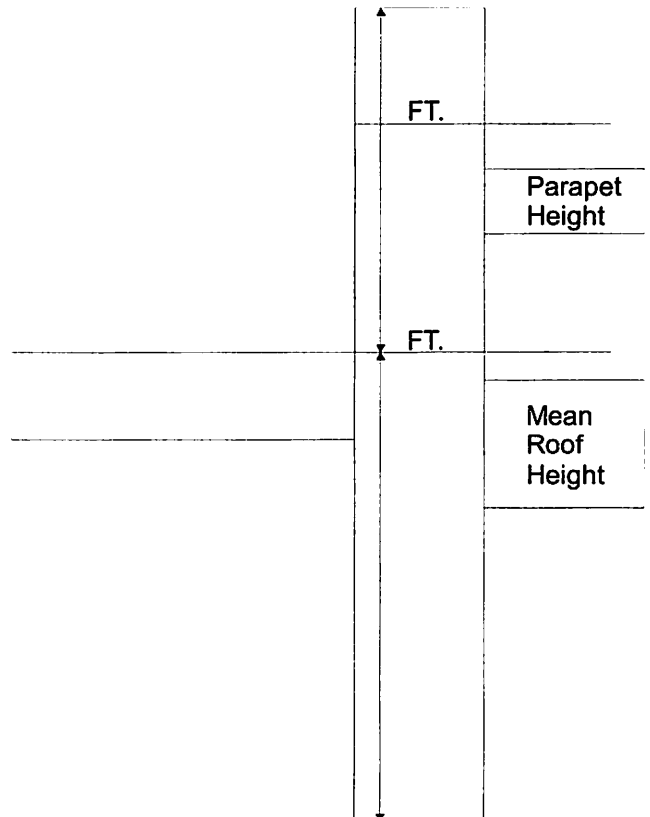
Zone 3: _____" oc @ Lap, # Rows _____ @ _____" oc

Number of Fasteners Per Insulation Board:

Zone 1': _____ Zone 1: _____ Zone 2: _____ Zone 3: _____

Illustrate Components Noted and Details as Applicable:
Woodblocking, Gutter, Edge Termination, Stripping, Flashing, Continuous Cleat, Cant Strip, Base Flashing, Counterflashing, Coping, Etc.

Indicate: Mean Roof Height, Parapet Height, Height of Base Flashing, Component Material, Material Thickness, Fastener Type, Fastener Spacing or Submit Manufacturers Details that Comply with RAS 111 and Chapter 16.



Florida Building Code 7th Edition (2020)
High-Velocity Hurricane Zone Uniform Permit Application Form

Section D (Steep Sloped Roof System)

Roof System Manufacturer: _____

Notice of Acceptance Number: _____

Minimum Design Wind Pressures, If Applicable (From RAS 127 or Calculations):

Zone 1: _____ Zone 2e: _____ Zone 2n: _____ Zone 2r: _____ Zone 3e: _____ Zone 3r: _____

The diagram illustrates a cross-section of a steep sloped roof system. A diagonal line represents the roof slope. To the left of the slope, there are three rectangular boxes: the top one contains 'Roof Slope: : 12', the middle one contains 'Ridge Ventilation?' with a line underneath, and the bottom one contains 'Mean Roof Height: _____'. To the right of the slope, several horizontal lines represent different layers of the roof assembly, each with a label to its left: 'Deck Type:', 'Type Underlayment:', 'Insulation:', 'Fire Barrier:', 'Fastener Type & Spacing:', 'Adhesive Type:', 'Type Cap Sheet:', 'Roof Covering:', and 'Type & Size Drip Edge:'. Each label is followed by a rectangular input box.

**Florida Building Code 7th Edition (2020)
High-Velocity Hurricane Zone Uniform Permit Application Form**

Section E (Tile Calculations)

For Moment based tile systems, choose either Method 1 or 2. Compare the values for M_t with the values from M_r . If the M_t values are greater than or equal to the M_r values, for each area of the roof, then the tile attachment method is acceptable.

Method 1 "Moment Based Tile Calculations Per RAS 127"

(Zone 1: ___ x λ ___ = ___) – Mg: ___ = M_{r1} ___ Product Approval M_t ___
 (Zone 2e: ___ x λ ___ = ___) – Mg: ___ = M_{r2e} ___ Product Approval M_t ___
 (Zone 2n: ___ x λ ___ = ___) – Mg: ___ = M_{r2n} ___ Product Approval M_t ___
 (Zone 2r: ___ x λ ___ = ___) – Mg: ___ = M_{r2r} ___ Product Approval M_t ___
 (Zone 3e: ___ x λ ___ = ___) – Mg: ___ = M_{r3e} ___ Product Approval M_t ___
 (Zone 3r: ___ x λ ___ = ___) – Mg: ___ = M_{r3r} ___ Product Approval M_t ___

Method 2 "Simplified Tile Calculations Per Table Below"

Required Moment of Resistance (M_r) From Table Below _____ Product Approval M_t _____

M _r required Moment Resistance*					
Mean Roof Height Roof Slope	15'	20'	25'	30'	40'
2:12	34.4	36.5	38.2	39.7	42.2
3:12	32.2	34.4	36.0	37.4	39.8
4:12	30.4	32.2	33.8	35.1	37.3
5:12	28.4	30.1	31.6	32.8	34.9
6:12	26.4	28.0	29.4	30.5	32.4
7:12	24.4	25.9	27.1	28.2	30.0

*Must be used in conjunction with a list of moment based tile systems endorsed by the Broward County Board of Rules and Appeals.

For Uplift based tile systems use Method 3. Compare the values for F' with the values for F_r . If the F' values are greater than or equal to the F_r values, for each area of the roof, then the tile attachment method is acceptable.

Method 3 "Uplift Based Tile Calculations Per RAS 127"

(Zone 1: ___ x L ___ = ___ x w: = ___) – W: ___ x cos r ___ = F_{r1} ___ Product Approval F' ___
 (Zone 2e: ___ x L ___ = ___ x w: = ___) – W: ___ x cos r ___ = F_{r2e} ___ Product Approval F' ___
 (Zone 2n: ___ x L ___ = ___ x w: = ___) – W: ___ x cos r ___ = F_{r2n} ___ Product Approval F' ___
 (Zone 2r: ___ x L ___ = ___ x w: = ___) – W: ___ x cos r ___ = F_{r2r} ___ Product Approval F' ___
 (Zone 3e: ___ x L ___ = ___ x w: = ___) – W: ___ x cos r ___ = F_{r3e} ___ Product Approval F' ___
 (Zone 3r: ___ x L ___ = ___ x w: = ___) – W: ___ x cos r ___ = F_{r3r} ___ Product Approval F' ___

Where to Obtain Information		
Description	Symbol	Where to find
Design Pressure	Zones 1, 2e, 2n, 2r, 3e, 3r	From applicable table in RAS 127 or by an engineering analysis prepared by PE based on ASCE 7
Mean Roof Height	H	Job Site
Roof Slope	θ	Job Site
Aerodynamic Multiplier	λ	Product Approval
Restoring Moment due to Gravity	M_g	Product Approval
Attachment Resistance	M_t	Product Approval
Required Moment Resistance	M_r	Calculated
Minimum Attachment Resistance	F'	Product Approval
Required Uplift Resistance	F_r	Calculated
Average Tile Weight	W	Product Approval
Tile Dimensions	L = length W = width	Product Approval

All calculations must be submitted to the building official at the time of permit application.



Environmental Protection and Growth Management Department
BUILDING CODE SERVICES DIVISION | BUILDING PERMITTING

2307 West Broward Boulevard • Fort Lauderdale, Florida 33312 • 954-765-4400 • Broward.org/Building

Prescriptive Method: To comply with Section 706.8 Florida Existing Building Code Seventh Edition (2020), Roof- to-wall connections on an existing structure with a sawn lumber, wood plank or wood structural panel roof deck:

Must be completed by: Florida Professional Engineer, Registered Architect, Licensed General Contractor, Building Contractor, Residential Contractor, or persons certified in the structural discipline under FS468 excluding Standard Roofing Inspector and/or Roofing Contractor prior to final building inspection.

Where mandated retrofits are required pursuant to F.B.C. 2020 Seventh Edition Existing Building Section 706.8 and Broward County Amendments, the intersection of roof framing with wall below shall be improved as specified in Table 706.8.1. As an alternative to an engineered design, the prescriptive retrofit solutions provided in Sections 706.8.1.3 through 706.8.1.6 shall be accepted as meeting the mandated roof-to-wallretrofit requirements pending final inspection and after completion of Option 1 or verification of Option 2.

I _____, Contractor/Qualifier do affirm and certify that the Hurricane Mitigation Retrofits installed at _____, meet at least one of the following options (see option 1 or option 2). Please complete appropriate option information.

Option 1 Hurricane Retrofit Mitigation **Building Permit Number** _____ Metal connectors, clips straps, fasteners were installed under my supervision; and the Mitigation Retrofits are installed in compliance with the prescriptive methods of 706.8.1.3 through 706.8.1.6. Existing anchors were found to have _____ (# of) fasteners and additional fasteners were installed to make a total of _____ per anchor. **Photos are to be provided with this affidavit for verification.**

Additional anchors (Manufacturer and Model No.) _____ were installed using (Quantity, Size & Type) _____ fasteners.

Other methods of retrofit used (describe in detail or attach additional sheets)

OR

Option 2 Existing straps were found to have _____ (# of) _____ type of fasteners and additional fasteners are not required. **Photo documentation shall be provided and a report addressing the contractor/qualifier of inspection and by what method they have inspected, existing metal connectors, clips straps, fasteners, and his findings.**

By his/her signature below, the Contractor/Qualifier does affirm and certify that the above applicable information for Hurricane Mitigation Retrofit for the replacement of roofing system at _____ is true and accurate and this inspection and work was done under his/her direct supervision.

Qualifier's Name (Print) _____ Qualifier's Signature _____
License # _____ Date _____

STATE OF FLORIDA – BROWARD COUNTY

The foregoing instrument was acknowledged before me on this _____ day of _____, 20____ by _____, as,

_____, who is

Personally, known to me OR Produced the following type of identification _____

(NOTARY SEAL)

NOTARY SIGNATURE _____

NOTARY PRINTED NAME _____

NOTE: Structural Misc. Sub-Permit by a CGC, CBC, or CRC required if retrofit is deemed necessary.