

SINGLE FAMILY RESIDENCE HURRICANE MITIGATION APPLICATION

As of October 1, 2007, this mitigation form must be submitted as part of the roofing permit application package. Secondary water barrier (if applicable) will be required at first inspection

Job address _____ **City** _____

Florida Statute 553.844 requires that certain hurricane mitigation upgrades must be performed when a detached single family residence is being re-roofed. Required upgrades include the installation of roof to wall connections, when the house was built prior to 1973, has a value of \$300,000. or more (excluding land value) and the existing connections are less than 1/8" by 1" strap, attached with 3 16 D nails. Re-nailing of roof sheathing and the installation of a secondary water barrier are also required. The following must be completed to confirm compliance with these requirements.

A. Was the dwelling permitted on or after 1973 (1957 in Hollywood)? Yes _____ No _____

If yes, provide year: _____

If you answered "yes", proceed to E; leave B, C and D blank

B. As demonstrated by the attached documentation, the insured value of the house is \$ _____

C. The insured value of the house is not available; attached is a copy of the Broward County Property Appraiser's Ad-valorem value, which is \$ _____

D. If the value is \$300,000 or more, the following must be provided prior to obtaining a re-roof permit

The following Engineer, Architect, Contractor (General, Building, Residential) or Private Structural Inspector has been retained to provide the required roof to wall certification.

Name _____ Business Name _____

License type _____ License Number _____

Business Address _____ Phone # _____

We understand that a separate permit is required if the existing connections are not adequate. The following Contractor (General, Building, Residential) has been retained for this work

Name _____ Business Name _____

License type _____ License Number _____

Business Address _____ Phone # _____

E. The following secondary water barrier will be utilized (roofing application includes applicable documentation)

_____ 4 inches 40 mil polymer strip ASTM D 1970 on all sheathing joints, or

_____ an approved self-adhering polymer modified bitumen cap sheet, or

_____ an approved hot mopped cap sheet

Signature of Roofing Company Qualifier

Roofing Company Name

Print Name

Date



Environmental Protection and Growth Management Department

PERMITTING, LICENSING AND CONSUMER PROTECTION DIVISION

1 N. University Drive, Box #302 • Plantation, Florida 33324 • 954-765-4400 • www.broward.org/permittingandlicensing

**APPLICATION INFORMATION FOR RESIDENTIAL ROOFING
AND RESIDENTIAL ROOFING PACKET**

As of March 1, 2009, the Building Code for Broward County has been changed to the 2007 Florida Building Code High Velocity Hurricane Zone Requirements.

Following is a brief summary of the changes for **Residential Roofing**:

- Roofing requirements will be from Section **R4402 of 2007 Florida Building Code** and the supplemental **“Test Protocols for High Velocity Hurricane Zones.”**
- **“The High Velocity Hurricane Zone Uniform Permit Application”** form is required for every roof permit issued. (See Attached)
- All roofing work done shall be in accordance with the **Dade County and State of Florida Notices of Acceptance and Roof Application Standards (R.A.S.)**.
- Other components such as roof vents must have **Notices of Acceptance** at time of permit.
- Gutters are required to be added to all roofs having a six (6) inch or less overhang eave.
- All Re-roofs require an **“Owner Notification for Roofing Considerations”** form filled at time of permit. (See Attached)
- Tile roofing permits require uplift calculations using method 1, 2, or 3 of Section E in the **Uniform Permit Application**.
- All nails used for roofing are to be ringshank and meet **ASTM G85 standards** for corrosion resistance.
- Adhesive set and mortar set tile roofs require uplift test to be performed before final approval.
- Re-nail affidavits or specific re-nail of sheathing inspections are not required in the new code.
- Hot mop inspections are required in progress for all deck types.
- Shingle roofs cannot be applied to roofs over 33 feet in mean height unless allowed by N.O.A.
- The only prescriptive roof system allowed shall be in accordance with **R.A.S. 150 “Built-up Roof Standard.”** (See Attached)
- **You will need to purchase a copy of the 2007 Residential Florida Building Code and “Test Protocols for High Velocity Hurricane Zones” to understand all requirements.**



Urban Planning and Redevelopment Department
BUILDING CODE SERVICES DIVISION

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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.

1. 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.

2. 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.)

3. 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.

4. 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.

5. 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.

6. 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.

7. 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

INSTRUCTION PAGE

**COMPLETE THE NECESSARY SECTIONS
OF THE UNIFORM ROOFING PERMIT
APPLICATION FORM AND ATTACH THE RE-
QUIRED 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 Notice of Acceptance: 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 Notice of Acceptances
5. Municipal Permit Application
6. Owners Notification for Roofing Considerations (Re-Roofing Only)
7. Any Required Roof Testing/Calculation Documentation

Section A (General Information)

Master Permit No. _____ Process No. _____

Contractor's Name _____

Job Address _____

ROOF CATEGORY

- | | | |
|---|---|---|
| <input type="checkbox"/> Low Slope | <input type="checkbox"/> Mechanically Fastened Tile | <input type="checkbox"/> Mortar/Adhesive Set Tile |
| <input type="checkbox"/> Asphaltic Shingles | <input type="checkbox"/> Metal Panel/Shingles | <input type="checkbox"/> Wood Shingles/Shakes |
| | <input type="checkbox"/> Prescriptive BUR-RAS 150 | |

ROOF TYPE

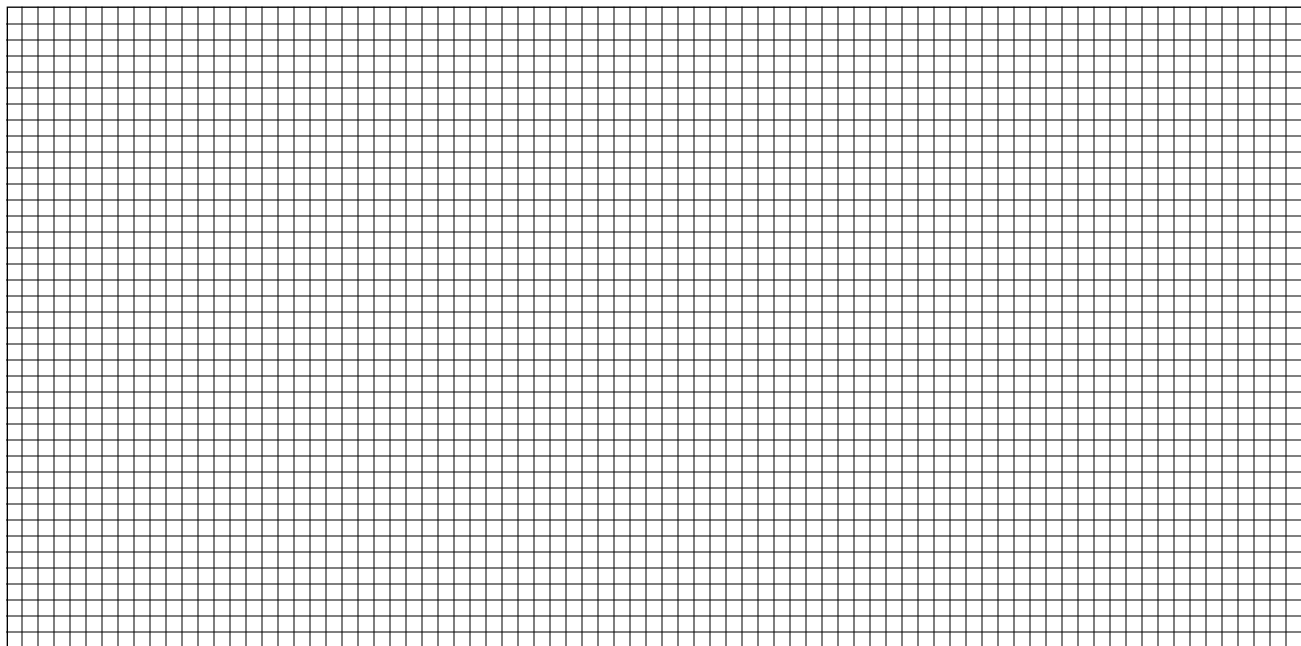
- New Roof Re-Roofing Recovering Repair Maintenance

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.**



Section C (Low Sloped Roof System)

Fill in Specific Roof Assembly Components and Identify Manufacturer

(If a component is not used, identify as "NA")

System Manufacturer: _____

NOA No.: _____

Design Wind Pressures, From RAS 128 or Calculations:

Pmax1: _____ Pmax2: _____ Pmax3: _____

Max. Design Pressure, From the Specific NOA 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

Field: ____ " oc @ Lap, # Rows ____ @ ____ " oc

Perimeter: ____ " oc @ Lap, # Rows ____ @ ____ " oc

Corner: ____ " oc @ Lap, # Rows ____ @ ____ " oc

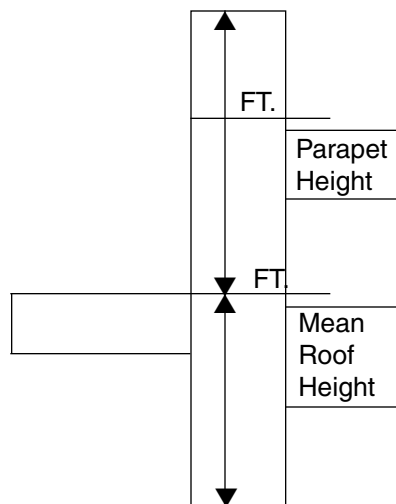
Number of Fasteners Per Insulation Board

Field _____ Perimeter _____ Corner _____

Illustrate Components Noted and Details as Applicable:

Woodblocking, Gutter, Edge Termination, Stripping, Flashing, Continuous Cleat, Cant Strip, Base Flashing, Counter- Flashing, 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.



Section D (Steep Sloped Roof System)

Roof System Manufacturer: _____

Notice of Acceptance Number: _____

Minimum Design Wind Pressures, If Applicable (From RAS 127 or Calculations):
Pmax1: _____ Pmax2: _____ Pmax3: _____

Maximum Design Pressure
(From the NOA Specific System): _____

Method of Tile Attachment: _____

Sloped System Description

Deck Type: _____

Type Underlayment: _____

Insulation: _____

Fire Barrier: _____

Fastener Type & Spacing: _____

Adhesive Type: _____

Type Cap Sheet: _____

Roofing Covering: _____

Type & Size Drip
Edge: _____

Roof Slope:
_____ : 12

Ridge Ventilation?

Mean Roof Height: _____

Section E (Tile Calculations)

For Moment-based tile systems, choose either Method 1 or 2. Compared the values for M_r with the values from M_r . If the M_r 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"

$$\begin{aligned} (P_1 \times \lambda) - Mg &= M_{r1} & \text{NOA } M_r \\ (P_2 \times \lambda) - Mg &= M_{r2} & \text{NOA } M_r \\ (P_3 \times \lambda) - Mg &= M_{r3} & \text{NOA } M_r \end{aligned}$$

Method 2 "Simplified Tile Calculations Per Table Below"

Required Moment of Resistance (M_r) From Table Below _____ NOA M_r _____

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. Compared the values for F^1 with the values for F_r . If the F^1 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"

$$\begin{aligned} (P_1 \times l) - W &= F_{r1} & \text{NOA } F^1 \\ (P_2 \times l) - W &= F_{r2} & \text{NOA } F^1 \\ (P_3 \times l) - W &= F_{r3} & \text{NOA } F^1 \end{aligned}$$

Where to Obtain Information

Description	Symbol	Where to find
Design Pressure	P1 or P2 or P3	RAS 127 Table 1 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	NOA
Restoring Moment due to Gravity	M_g	NOA
Attachment Resistance	M_r	NOA
Required Moment Resistance	M_r	Calculated
Minimum Attachment Resistance	F^1	NOA
Required Uplift Resistance	F_r	Calculated
Average Tile Weight	W	NOA
Tile Dimensions	l = length w = width	NOA

All calculations must be submitted to the Building Official at the time of permit application.