



City of Miami Gardens

Development Services - Building Services
 18605 NW 27th Ave, City Hall, 1st Floor
 Miami Gardens, Florida 33056
 305-622-8027 (office) 305-622-4220 (fax)
www.miamigardens-fl.gov

HIGH-VELOCITY HURRICANE ZONES UNIFORM PERMIT APPLICATION

FLORIDA BUILDING CODE HVHZ

High-Velocity Hurricane Zones Uniform Permit Application Form.

INSTRUCTION PAGE

COMPLETE THE NECESSARY SECTION 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



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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:

Pmax1: _____ Pmax2: _____ Pmax3: _____

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:

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

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

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

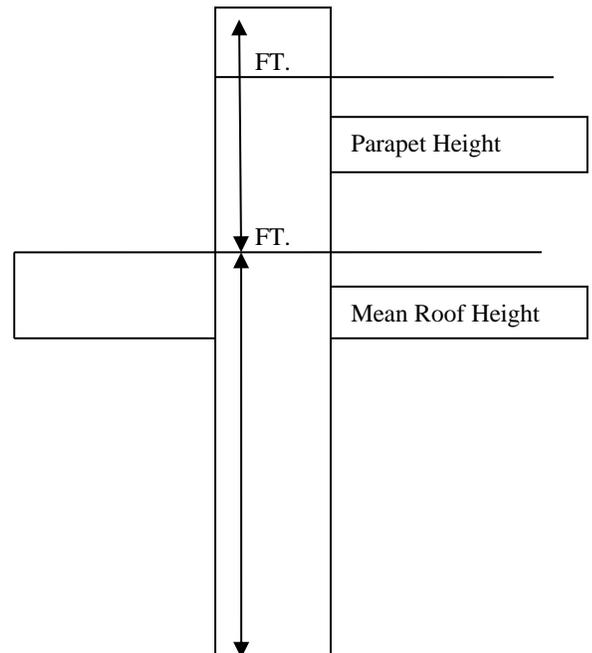
Number of Fasteners per insulation Board:

Field _____ Perimeter _____ Corner _____

Illustrate components noted and details as applicable:

Wood blocking, 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





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Section D (Steep Slope Roof System)

Roof System Manufacturer: _____
Notice of Acceptance Number: _____
Minimum Design Wind Pressures, If Applicable (From RAS 127 or Calculations): P1: _____ P2: _____ P3: _____

<u>Steep Sloped Roof System Description</u>	
Roof Slope: _____: 12	Deck Type: _____
Ridge Ventilation? _____	Type Underlayment: _____
Mean Roof Height: _____	Insulation: _____
	Fire Barrier: _____
	Fastener Type & Spacing: _____
	Adhesive Type: _____
	Type Cap Sheet: _____
	Roof Covering: _____
	Type & Size Drip Edge: _____



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Section E (Tile Calculations)

For Moment based tile systems, choose either Method 1 or 2. Compare the values for M_r with the values from M_f if the M_f 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 base Tile Calculations Per RAS 127"

$$\begin{aligned} (P_1: \quad \quad \times \lambda \quad \quad = \quad \quad) - Mg: \quad \quad = M_{r1} \quad \quad & \text{Product Approval } M_f \quad \quad \\ (P_2: \quad \quad \times \lambda \quad \quad = \quad \quad) - Mg: \quad \quad = M_{r2} \quad \quad & \text{Product Approval } M_f \quad \quad \\ (P_3: \quad \quad \times \lambda \quad \quad = \quad \quad) - Mg: \quad \quad = M_{r3} \quad \quad & \text{Product Approval } M_f \quad \quad \end{aligned}$$

Method 2 "Simplified Tile Calculations Per Table Below"

Required Moment of Resistance (M_r) from Table Below _____ Product Approval M_f _____

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 system use method 3. Compared 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 "Moment Based Tile Calculation Per RAS 127"

$$\begin{aligned} (P_1: \quad \quad \times L \quad \quad = \quad \quad \times w \quad \quad) - W: \quad \quad \times \cos \theta \quad \quad = F_{r1} \quad \quad & \text{Product Approval } F' \quad \quad \\ (P_2: \quad \quad \times L \quad \quad = \quad \quad \times w \quad \quad) - W: \quad \quad \times \cos \theta \quad \quad = F_{r2} \quad \quad & \text{Product Approval } F' \quad \quad \\ (P_3: \quad \quad \times L \quad \quad = \quad \quad \times w \quad \quad) - W: \quad \quad \times \cos \theta \quad \quad = F_{r3} \quad \quad & \text{Product Approval } F' \quad \quad \end{aligned}$$

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	Product Approval
Restoring Moment due to Gravity	M_g	Product Approval
Attachment Resistance	M_f	Product Approval
Required Moment Resistance	M_g	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.



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HIGH-VELOCITY HURRICANE ZONES REQUIRED OWNERS NOTIFICATION FOR ROOFING CONSIDERATIONS

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 Chapter 15 of the Florida Building Code, Building 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 Chapter 15 (High-Velocity Hurricane Zone) 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 owner and the contractor.

_____ 2. **Re-nailing wood decks:** When replacing roofing, the existing wood roof deck may have to be re-nailed in accordance with the current provisions of Chapter 16 (High-Velocity Hurricane Zones) of the. (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. The owner 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 overflow scuppers in accordance with the requirements of: Chapter 15 and 16 herein and the Florida Building Code, Plumbing.

_____ 7. **Ventilation:** Most roof structures should have some ability to vent natural airflow 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

Date

Property Address

Process/Permit Number