

## ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

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

*Florida Building Code 8th Edition (2023)*  
**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
Asphalt 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 A (General Information)**

Master Permit No. \_\_\_\_\_ Process No. \_\_\_\_\_

Contractor's Name \_\_\_\_\_

Job Address \_\_\_\_\_

**ROOF CATEGORY**

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

**ROOF TYPE**

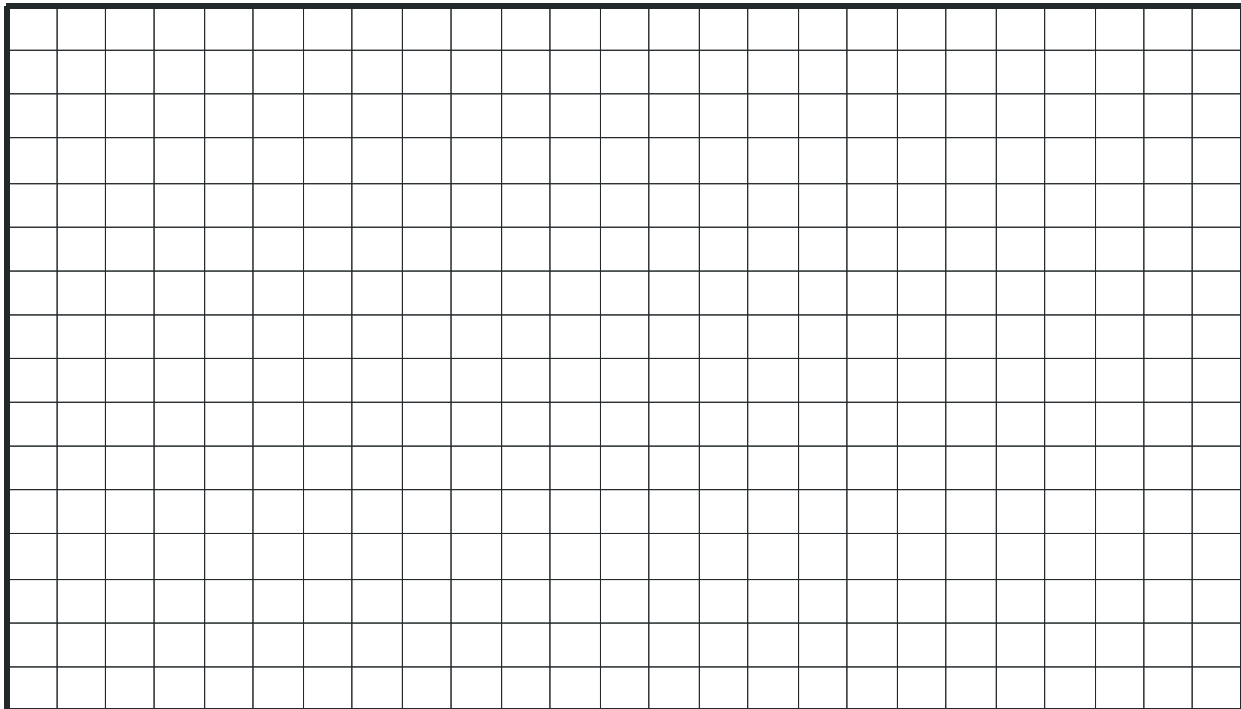
- New roof
- Repair
- Maintenance
- Reroofing
- Recovering

**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.



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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:

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

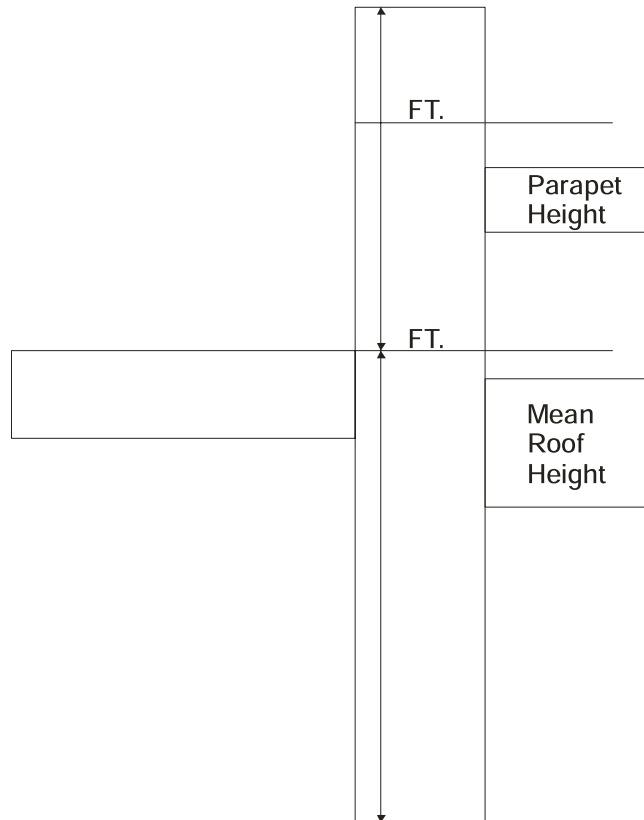
Number of Fasteners Per Insulation Board:

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.



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**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 2: \_\_\_\_\_ Zone 3: \_\_\_\_\_

Roof Slope:  
\_\_\_\_\_: 12

Ridge Ventilation?  
\_\_\_\_\_

Mean Roof Height: \_\_\_\_\_

Deck Type: \_\_\_\_\_

Type Underlayment: \_\_\_\_\_

Insulation: \_\_\_\_\_

Fire Barrier: \_\_\_\_\_

Fastener Type & Spacing: \_\_\_\_\_

Adhesive Type: \_\_\_\_\_

Type Cap Sheet: \_\_\_\_\_

Roof Covering: \_\_\_\_\_

Type & Size Drip Edge: \_\_\_\_\_

## ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

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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  $M_g$ . If the  $M_r$  values are greater than or equal to the  $M_g$  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:  $\underline{\quad} \times \lambda \underline{\quad} = \underline{\quad}$ ) – Mg:  $\underline{\quad} = M_{r1}$   $\underline{\quad}$  Product Approval  $M_r$   $\underline{\quad}$   
 (Zone 2:  $\underline{\quad} \times \lambda \underline{\quad} = \underline{\quad}$ ) – Mg:  $\underline{\quad} = M_{r2}$   $\underline{\quad}$  Product Approval  $M_r$   $\underline{\quad}$   
 (Zone 3:  $\underline{\quad} \times \lambda \underline{\quad} = \underline{\quad}$ ) – Mg:  $\underline{\quad} = M_{r3}$   $\underline{\quad}$  Product Approval  $M_r$   $\underline{\quad}$

## Method 2 "Simplified Tile Calculations Per Table Below"

Required Moment of Resistance ( $M_r$ ) From Table Below  $\underline{\quad}$  Product Approval  $M_r$   $\underline{\quad}$

$M_r$ required Moment Resistance*					
Mean Roof Height Roof Slope	15'	20'	25'	30'	40'
2:12	-46	-47.6	-49.4	-50.9	-53.3
3:12	-47.3	-48.9	-50.7	-52.2	-54.6
4:12	-47.2	-52.0	-53.8	-55.3	-57.9
5:12	-39.8	-41.5	-42.8	-43.7	-45.7
6:12	-39.6	-40.6	-41.9	-42.9	-44.8
7:12	-39.4	-40.3	-41.6	-42.6	-44.6

Method 2 may be utilized within Broward County Exposure C only.

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:  $\underline{\quad} \times L \underline{\quad} = \underline{\quad} \times w: = \underline{\quad}$ ) – W:  $\underline{\quad} \times \cos r \underline{\quad} = F_{r1}$   $\underline{\quad}$  Product Approval  $F'$   $\underline{\quad}$   
 (Zone 2:  $\underline{\quad} \times L \underline{\quad} = \underline{\quad} \times w: = \underline{\quad}$ ) – W:  $\underline{\quad} \times \cos r \underline{\quad} = F_{r2}$   $\underline{\quad}$  Product Approval  $F'$   $\underline{\quad}$   
 (Zone 3:  $\underline{\quad} \times L \underline{\quad} = \underline{\quad} \times w: = \underline{\quad}$ ) – W:  $\underline{\quad} \times \cos r \underline{\quad} = F_{r3}$   $\underline{\quad}$  Product Approval  $F'$   $\underline{\quad}$

## Where to Obtain Information

Description	Symbol	Where to find
Design Pressure	Zones 1, 2, 3	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	$\theta$	Job Site
Aerodynamic Multiplier	$\lambda$	Product Approval
Restoring Moment due to Gravity	$M_g$	Product Approval
Attachment Resistance	$M_r$	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.