

Florida Building Code 8th Edition (2023)

High Velocity Hurricane Zone Uniform Roofing Application Form for Village of Pinecrest

INSTRUCTION PAGE

**COMPLETE THE NECESSARY SECTIONS OF THE UNIFORM ROOFING PERMIT APPLICATION FORM AND
ATTACH THE REQUIRED DOCUMENTS 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
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 Product Approval
5.	Municipal Permit Application
6.	Owner's Notification for Roofing Considerations (Reroofing Only)
7.	Any Required Roof Testing / Calculation Documentation

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Section A (General Information)

Master Permit Number: BL 2025-0125 Process Number: _____
Contractor's Name: ANDREW PALMER ROOFING INC.
Job Address: 6783 S.W. 104th.

ROOF CATEGORY

- | | | |
|---|---|---|
| ☒ Low Slope | ☐ Mechanically Fastened Tile | ☐ Mortar / Adhesive Set Tile |
| ☐ Asphaltic Shingles | ☒ Metal Panel/ Shingles | ☐ Wood Shingles / Shakes |

ROOF TYPE

- | | | | | |
|--|---------------------------------|--------------------------------------|---|-------------------------------------|
| ☒ New Roof | ☐ Repair | ☐ Maintenance | ☒ Reroofing | ☐ Recovering |
|--|---------------------------------|--------------------------------------|---|-------------------------------------|

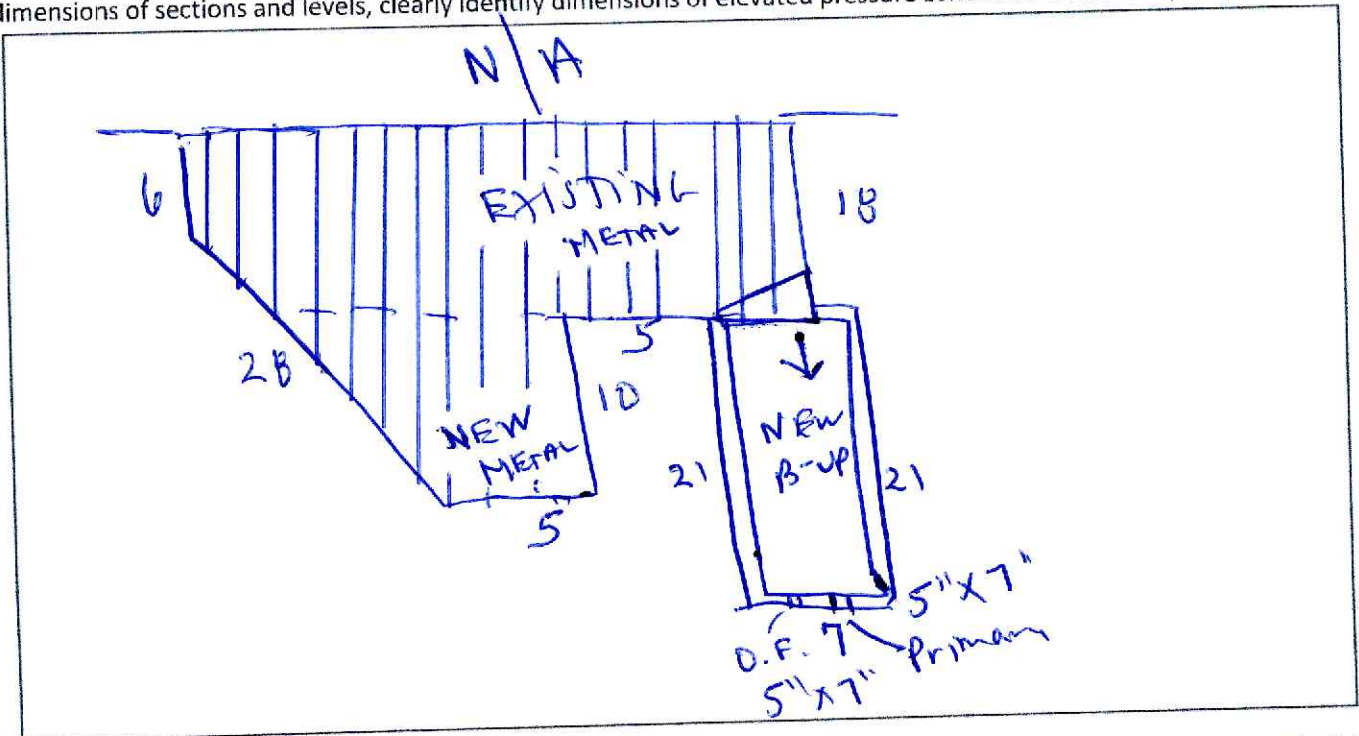
ROOF SYSTEM INFORMATION

Low Slope Roof Area (ft ²) <u>147</u>	Steep Sloped Roof Area (ft ²) <u>900</u>	Total (ft ²) <u>1047</u>
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Are there gas vents on the roof? Yes ☐ No ☐ If Yes what type? ☐ Natural ☐ LPX
Is there an existing roof top Solar System? ☐ Yes ☐ No If yes will it be reinstalled? ☐ Yes ☐ No

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 Sloped Roof Systems)

Fill in Specific Roof Assembly Components and Identify manufacturer
(If a component is not used, identify as "NA")

System Manufacturer: POLYGLASS USA

Product Approval # 22-0706-12

Design Wind Pressures, from RAS 128 or Calculations:

Zone 1: -45 Zone 1: -77 Zone 2: -102

Zone 3: -139

Max. Design Pressure, from the specific product approval system: -150

Deck Type: CONCRETE DECK

Gauge / Thickness: _____

Slope: 1/4" 12"

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

Anchor/ Base Sheet Fastener/ Bonding Material: N/A

Insulation Base Layer: 1.5" POLY ISO

Base Insulation Size and Thickness: 1.5"

Base Insulation Fastener/ Bonding Material: 8000 POLYBOND 500 3/4" SARCOW 12"

Top Insulation Layer: N/A

Top Insulation Size and Thickness: N/A

Top Insulation Fastener/Bonding Material: N/A

Base Sheet(s) & No. of Ply(s): POLYGLASS SAV

Base Sheet Fastener/ Bonding Material: SELF ADHERED

Ply Sheet(s) and No. of Ply(s): N/A

Ply Sheet Fastener/ Bonding Material: _____

Top Ply: POLYGLASS SAV

Top Ply Fastener/ Bonding Material:

SELF ADHERED

Surfacing: _____

Fastener Spacing for Anchor/Base Sheet Attachment:

Zone 1' _____ " oc @ Laps, # Rows _____ @ _____ " oc

Zone 1 _____ " oc @ Laps, # Rows _____ @ _____ " oc

Zone 2 _____ " oc @ Laps # Rows _____ @ _____ " oc

Zone 3 _____ " oc @ Laps, # Rows _____ @ _____ " oc

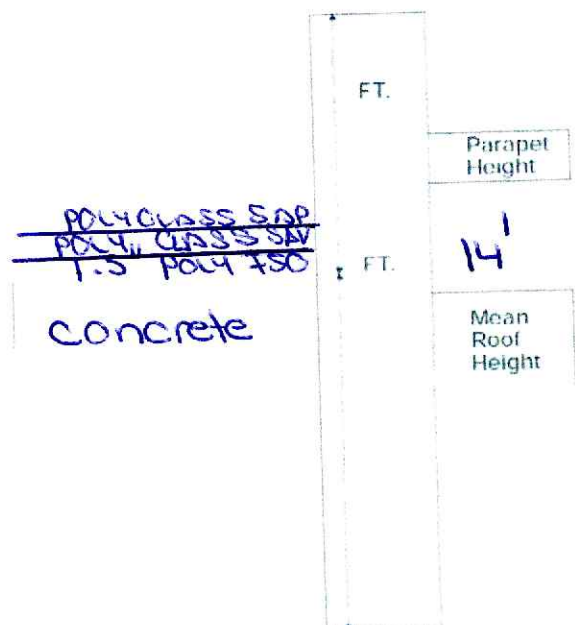
Number of Fasteners Per Insulation Board

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

Illustrated 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 Base Flashing, Component Material, Material Thickness, Fastener Type, Fastener Spacing or Submit Manufactures Details that Comply with RAS 111 and Chapter 16.





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Miami-Dade County
HVHZ Electronic Roof Permit Form
Section D Metal Roof System

CATEGORY "C"

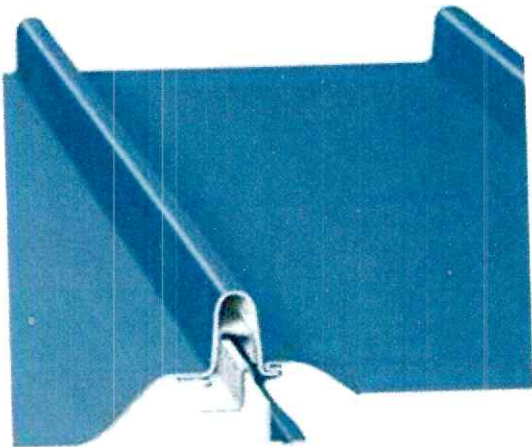
Roof System Manufacturer: Major's Metal Roofing & Custom Sheet Metal,

Notice of Acceptance Number: 25-0829.04

Minimum Design Wind Pressures, (from RAS 127 or Calculations): P 1: -74 P 2: -98 P 3: -128

Maximum Design Wind Pressures, (From the NOA Specific system): -131 psf

Fill in the specific roof assembly components. If a component is not required, insert not applicable (n/a) in the text box.



Roof Slope: 4 "/12"

Roof Mean Height: 15 ft.

Clip or Screw Spacing for Metal Roof Panel Attachment

Field: 8 " o/c Perimeters: 8 " o/c Corners: 8 " o/c

Number of screws required per clip: 2

Perimeter Width: 6 ft.

Screw Type, Size, & Gauge for Clip or Metal Panel Attachment:

#10 X 1" Pancake Head Screw

Deck Type: --5/8" Plywood--

Optional Nailable Substrate:

N/A

Optional Nailable Substrate Attachment Method:

N/A

Optional Insulation:

N/A

Optional Insulation Attachment Method:

N/A

Fire Barrier:

Polistick Polyglass XFR

Underlayment Type:

Polistick Polyglass XFR

Underlayment Fastener Type:

1.25" Ring Shank Nails 4" o.c.

Optional Peel & Stick Membrane:

N/A

Metal Roof Panel:

1.5" Mechanically Seamed Panel

Drip Edge Size & Gauge: --3" face 24 ga.--

Drip Edge Material Type: --Galvanized Metal--

Drip Edge Fastener Type: #10 X 1" Pancake Head Screw

Hook Strip/Cleat gauge or weight: --n/a--

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Section D (Steep Sloped Roof System)

Roof System Manufacturer: MAJOR'S METAL ROOFING

Product Control Number: 25-0829.04

Minimum Design Wind Pressures, From Applicable RAS 127 Table or Calculations:

Zone 1: -74 Zone 2: -98 Zone 3: -128
Slope Range: ☒ $\geq 2:12$ to $\leq 4:12$ ☐ $> 4:12$ to $\leq 6:12$ ☐ $> 6:12$ to $\leq 12:12$

Roof Shape: ☐ All Hip Roof ☒ Gable Roof or Partial Gable/Hip Roof

Deck Type: 5/8" PLYWOOD

Underlayment Type: POLYGLASS XFR

Roof Slope:
4 : 12

Insulation: N/A

Fire Barrier: POLYGLASS XFR

Ridge Ventilation? N

Fastener Type & Spacing: 1.25 RS NAILS 4"OC

Cap Sheet Type: N.A.

Mean Roof Height: 15'

Cap Sheet Attachment: N/A

Roof Covering: 1.5" STANDING
SCOH METAL PANEL

Drip Edge Type & Size: 3"X3" GA

ROOFING APPLICATION STANDARD (RAS) No. 127-20

PROCEDURE FOR DETERMINING THE MOMENT OF RESISTANCE AND MINIMUM CHARACTERISTIC RESISTANCE LOAD TO INSTALL A TILE SYSTEM ON A BUILDING OF A SPECIFIED ROOF SLOPE AND HEIGHT USING ALLOWABLE STRESS DESIGN (ASD) IN ACCORDANCE WITH ASCE 7

1. Scope

This standard covers the procedure for determining the Moment of Resistance (M_r) and Minimum Characteristic Resistance Load (F') to install a tile system on buildings of a specified roof slope and height. Compliance with the requirements and procedures herein specified, where the design wind uplift pressures (P_{asd}) have been determined based on Tables 1-3 or Tables 4-6, Tables 7-9 or Tables 10-12 of this standard, as applicable, do not require additional signed and sealed engineering design calculation. All other calculations must be prepared, signed and sealed by a professional engineer or registered architect. Tables 1-3 are applicable to a wind speed of 175 mph, risk category II buildings with gable roofs, and Exposure Category C. Tables 4-6 are applicable to a wind speed of 175 mph, risk category II buildings with gable roofs, and Exposure Category D. Tables 7-9 are applicable to a wind speed of 175 mph, for Risk Category II buildings with hip roofs, and Exposure Category C. Tables 10-12 are applicable to a wind speed of 175 mph, for Risk Category II buildings with hip roofs, and Exposure Category D.

For steep slope roof systems other than tile, Tables 1-3, Tables 4-6, Tables 7-9 or Tables 10-12 of this standard, as applicable, do not require additional signed and sealed engineering design calculation when determining the use of a specific Product Approval. All other calculations must be prepared, signed and sealed by a Professional Engineer or Registered Architect.

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

2. How to determine the Moment Resistance (M_r) (Moment Based Systems)

- 2.1 Determine the minimum design wind pressures for each roof pressure zone using the values given in Tables 1-3, or Tables 4-6, Tables 7-9 or Tables 10-12, as applicable, or those

obtained by engineering analysis prepared, signed and sealed by a professional engineer or registered architect based on ASCE 7.

- 2.2 Locate the aerodynamic multiplier (λ) in tile Product Approval.
- 2.3 Determine the restoring moment due to gravity (M_g) per Product Approval.
- 2.4 Determine the attachment resistance (M_a) per Product Approval.
- 2.5 Determine the Moment of Resistance (M_r) per following formula:
- $$M_r = (P_{asd} \times \lambda) - M_g$$
- 2.6 Compare the values for M_r with the values for M_a noted in the Product Approval. If the M_r values are greater than or equal to the M_a values, for each area of the roof then the tile attachment method is acceptable.

3. How to determine the Minimum Characteristic Resistance Load (F') (Uplift Based System)

- 3.1 Determine the minimum design pressures for each roof pressure zone using the values given in Table 1-3, Tables 4-6, Tables 7-9 or Tables 10-12 as applicable, or those obtained by engineering analysis prepared, signed and sealed by a professional engineer or registered architect based on the criteria set forth in ASCE 7.
- 3.2 Determine the angle (θ) of roof slope, from Tables 1-3, Tables 4-6, Tables 7-9 or Tables 10-12, as applicable.
- 3.3 Determine the length (l), width (w) and average tile weight (W) of tile, per Product Approval.
- 3.4 Determine the required uplift resistance (F_r) per following formula:

$$F_r = [(P_{asd} \times l \times w) - W] \times \cos \theta$$

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3.5 Compare the values for F_r with the values for F'_r noted in the Product Approval. If the F'_r values are greater than or equal to the F_r values, for each area of roof, then the tile attachment method is acceptable.

TABLE 1 — GABLE ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—1.5:12 TO LESS THAN 4.5:12
RISK CATEGORY II EXPOSURE CATEGORY "C"

Roof Mean Height	Roof Pressure Zones See Figure 1		
	1	2	3
≤ 15'	-74	-98	-128
> 15' to ≤ 20'	-78	-104	-136
> 20' to ≤ 25'	-82	-108	-142
> 25' to ≤ 30'	-85	-113	-148
> 30' to ≤ 35'	-88	-116	-153
> 35' to ≤ 40'	-91	-120	-157
> 40' to ≤ 45'	-93	-123	-162
> 45' to ≤ 50'	-95	-126	-165
> 50' to ≤ 55'	-97	-128	-169
> 55' to ≤ 60'	-98	-130	-171

TABLE 2 — GABLE ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—4.5:12 TO LESS THAN 6:12
RISK CATEGORY II EXPOSURE CATEGORY "C"

RISK CATEGORY II EXPOSURE CATEGORY V			
Roof Mean Height	Roof Pressure Zones See Figure 1		
	1	2	3
≤ 15'	-57	-91	-108
> 15' to ≤ 20'	-60	-96	-114
> 20' to ≤ 25'	-63	-101	-120
> 25' to ≤ 30'	-66	-105	-125
> 30' to ≤ 35'	-68	-109	-128
> 35' to ≤ 40'	-70	-111	-132
> 40' to ≤ 45'	-72	-115	-135
> 45' to ≤ 50'	-73	-117	-139
> 50' to ≤ 55'	-75	-120	-141
> 55' to ≤ 60'	-76	-121	-144

TABLE 3 — GABLE ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—6:12 TO 12:12
RISK CATEGORY II EXPOSURE CATEGORY "C"

Roof Mean Height	Roof Pressure Zones See Figure 2		
	1	2	3
≤ 15'	-67	-74	-91
> 15' to ≤ 20'	-71	-78	-96
> 20' to ≤ 25'	-74	-82	-101
> 25' to ≤ 30'	-78	-85	-105
> 30' to ≤ 35'	-80	-88	-108
> 35' to ≤ 40'	-82	-91	-111
> 40' to ≤ 45'	-85	-93	-114
> 45' to ≤ 50'	-86	-95	-117
> 50' to ≤ 55'	-88	-97	-119
> 55' to ≤ 60'	-89	-98	-121

TABLE 4 — GABLE ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—1.5:12 TO LESS THAN 4.5:12
RISK CATEGORY II EXPOSURE CATEGORY "D"

Roof Mean Height	Roof Pressure Zones See Figure 1		
	1	2	3
≤ 15'	-90	-119	-156
> 15' to ≤ 20'	-94	-124	-163
> 20' to ≤ 25'	-98	-129	-169
> 25' to ≤ 30'	-101	-134	-175
> 30' to ≤ 35'	-104	-137	-180
> 35' to ≤ 40'	-106	-140	-184
> 40' to ≤ 45'	-109	-143	-189
> 45' to ≤ 50'	-111	-146	-192
> 50' to ≤ 55'	-113	-149	-195
> 55' to ≤ 60'	-114	-151	-198

TABLE 5 — GABLE ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—4.5:12 TO LESS THAN 6:12
RISK CATEGORY II EXPOSURE CATEGORY "D"

Roof Mean Height	Roof Pressure Zones See Figure 1		
	1	2	3
≤ 15'	-69	-110	-131
> 15' to ≤ 20'	-73	-116	-137
> 20' to ≤ 25'	-75	-120	-142
> 25' to ≤ 30'	-78	-124	-147
> 30' to ≤ 35'	-80	-128	-151
> 35' to ≤ 40'	-82	-131	-155
> 40' to ≤ 45'	-84	-134	-158
> 45' to ≤ 50'	-85	-136	-161
> 50' to ≤ 55'	-87	-138	-164
> 55' to ≤ 60'	-88	-140	-167

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TABLE 6 — GABLE ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—6:12 TO 12:12
RISK CATEGORY II EXPOSURE CATEGORY "D"

Roof Mean Height	Roof Pressure Zones See Figure 2		
	1	2	3
≤ 15'	-82	-90	-110
> 15' to ≤ 20'	-86	-94	-116
> 20' to ≤ 25'	-89	-98	-120
> 25' to ≤ 30'	-92	-101	-124
> 30' to ≤ 35'	-94	-103	-128
> 35' to ≤ 40'	-97	-106	-131
> 40' to ≤ 45'	-99	-109	-133
> 45' to ≤ 50'	-101	-111	-136
> 50' to ≤ 55'	-102	-112	-138
> 55' to ≤ 60'	-104	-114	-140

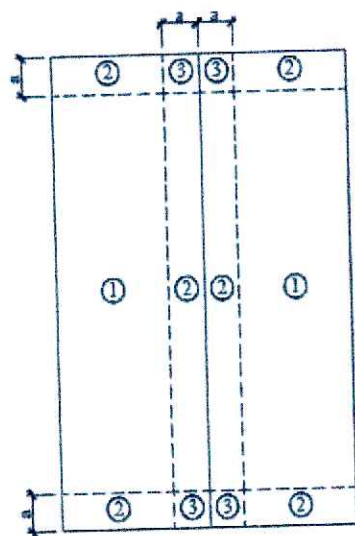


FIGURE 1

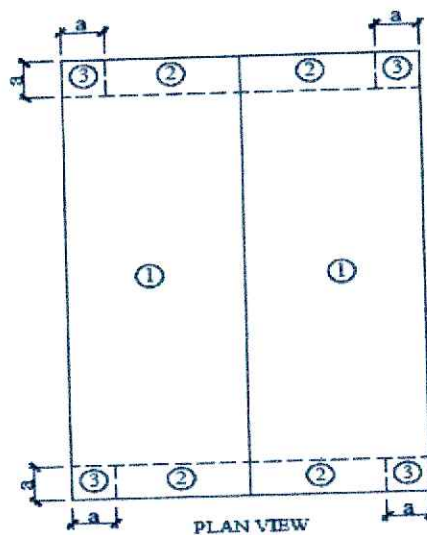


FIGURE 2

TABLE 7 — HIP ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—1.5:12 TO LESS THAN 4.5:12
RISK CATEGORY II EXPOSURE CATEGORY "C"

Roof Mean Height	Roof Pressure Zones See Figure 3		
	1	2	3
≤ 15'	-67	-88	-94
> 15' to ≤ 20'	-71	-93	-100
> 20' to ≤ 25'	-75	-97	-104
> 25' to ≤ 30'	-78	-101	-109
> 30' to ≤ 35'	-80	-105	-113
> 35' to ≤ 40'	-82	-107	-115
> 40' to ≤ 45'	-85	-110	-119
> 45' to ≤ 50'	-86	-112	-121
> 50' to ≤ 55'	-88	-115	-124
> 55' to ≤ 60'	-89	-117	-125

(RAS) 127-20.4

INTERNATIONAL CODE COUNCIL®

FLORIDA BUILDING CODE — TEST PROTOCOLS FOR HVHZ, 8th EDITION (2023)

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TABLE 8 — HIP ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—4.5:12 TO LESS THAN 6:12
RISK CATEGORY II EXPOSURE CATEGORY "C"

Roof Mean Height	Roof Pressure Zones See Figure 3	
	1	2 and 3
≤ 15'	-54	-74
> 15' to ≤ 20'	-57	-78
> 20' to ≤ 25'	-59	-82
> 25' to ≤ 30'	-62	-85
> 30' to ≤ 35'	-64	-88
> 35' to ≤ 40'	-66	-91
> 40' to ≤ 45'	-67	-93
> 45' to ≤ 50'	-69	-95
> 50' to ≤ 55'	-70	-97
> 55' to ≤ 60'	-72	-98

TABLE 9 — HIP ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—6:12 TO 12:12
RISK CATEGORY II EXPOSURE CATEGORY "C"

Roof Mean Height	Roof Pressure Zones See Figure 3		
	1	2	3
≤ 15'	-57	-67	-88
> 15' to ≤ 20'	-60	-71	-93
> 20' to ≤ 25'	-63	-74	-97
> 25' to ≤ 30'	-66	-78	-101
> 30' to ≤ 35'	-67	-80	-104
> 35' to ≤ 40'	-70	-82	-107
> 40' to ≤ 45'	-71	-84	-110
> 45' to ≤ 50'	-73	-86	-112
> 50' to ≤ 55'	-75	-88	-115
> 55' to ≤ 60'	-76	-90	-117

TABLE 10 — HIP ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—1.5:12 TO LESS THAN 4.5:12
RISK CATEGORY II EXPOSURE CATEGORY "D"

Roof Mean Height	Roof Pressure Zones See Figure 3		
	1	2	3
≤ 15'	-82	-106	-114
> 15' to ≤ 20'	-86	-111	-120
> 20' to ≤ 25'	-89	-116	-124
> 25' to ≤ 30'	-91	-120	-129
> 30' to ≤ 35'	-94	-123	-132
> 35' to ≤ 40'	-97	-126	-136
> 40' to ≤ 45'	-99	-128	-138
> 45' to ≤ 50'	-101	-131	-141
> 50' to ≤ 55'	-102	-133	-143
> 55' to ≤ 60'	-104	-135	-146

TABLE 11 — HIP ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—4.5:12 TO LESS THAN 6:12
RISK CATEGORY II EXPOSURE CATEGORY "D"

Roof Mean Height	Roof Pressure Zones See Figure 3	
	1	2 and 3
$\leq 15'$	-65	-90
$> 15'$ to $\leq 20'$	-68	-94
$> 20'$ to $\leq 25'$	-71	-98
$> 25'$ to $\leq 30'$	-73	-101
$> 30'$ to $\leq 35'$	-75	-104
$> 35'$ to $\leq 40'$	-77	-106
$> 40'$ to $\leq 45'$	-79	-109
$> 45'$ to $\leq 50'$	-80	-111
$> 50'$ to $\leq 55'$	-82	-112
$> 55'$ to $\leq 60'$	-83	-114

TABLE 12 — HIP ROOFS
MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF
FOR ROOF SLOPE—6:12 TO 12:12
RISK CATEGORY II EXPOSURE CATEGORY "D"

Roof Mean Height	Roof Pressure Zones		
	1	2	3
$\leq 15'$	-69	-82	-106
$> 15'$ to $\leq 20'$	-73	-86	-111
$> 20'$ to $\leq 25'$	-75	-89	-116
$> 25'$ to $\leq 30'$	-78	-92	-120
$> 30'$ to $\leq 35'$	-80	-94	-123
$> 35'$ to $\leq 40'$	-82	-97	-126
$> 40'$ to $\leq 45'$	-84	-99	-128
$> 45'$ to $\leq 50'$	-85	-101	-131
$> 50'$ to $\leq 55'$	-87	-102	-133
$> 55'$ to $\leq 60'$	-88	-104	-135

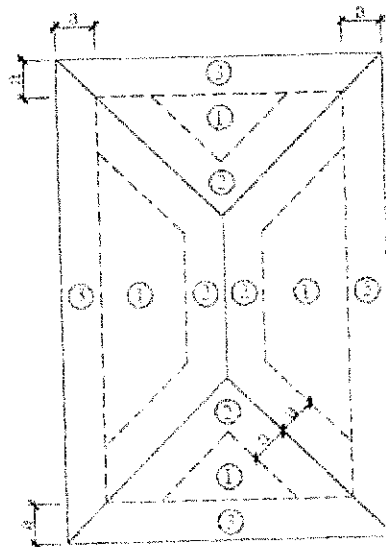


FIGURE 3

TABLE 13 WHERE TO OBTAIN INFORMATION		
Description	Symbol	Where to find
Roof Zone Design Pressure	P_{ez}	Tables 1-3, Tables 4-6, Tables 7-9 or Tables 10-12 as applicable, or by an engineer analysis prepared, signed and sealed by a professional engineer 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_r	Product Approval
Attachment Resistance	M_a	Product Approval
Required Moment Resistance	M_u	Calculated
Minimum Characteristic Resistance Load	F	Product Approval
Required Uplift Resistance	F_u	Calculated
Average Tile Weight	W	Product Approval
Tile Dimensions	l = length w = width	Product Approval