PREMIER METAL ROOF MFG.

FLORIDA PRODUCT APPROVAL

032 Aluminum PermaShield over 15/32 Plywood

PERMASHIELD
Screw Strip Standing Seam

Premier Metal Roof Manufacturing
17613 S. Hwy 475 | Summerfield FL 34491
www.PMRoof.com | 352-356-1609

Product Description
Screw strip, snap lock metal roof panel. Panel coverage is 16” (max) with nominal rib height of 1”

Product Material: nominally 0.032” aluminum or thicker

Fastener: #10 x 1 inch pancake fastener
Compliant with FBC 1506.6 where required.

Substrate/Deck: 15/32” (min) plywood

Maximum Allowable Loads & Installation Requirements:
Method A: #10 x 1.0” fastener every hole (±5” oc): **86 PSF**
Method B: #10 x 1.0” fastener every hole (±5” oc) WITH sealant and self-adhering underlayment: **153.5 PSF**
A factor of safety of 2 has been applied.

Evaluated by:
David Eng, PE | Timberlake Cove, LLC
1317 Edgewater Dr, Ste 2339 | Orlando FL 32804
FL PE 81377 | FL CA 33344
www.TimberLakeCove.com

Digitally signed by David E Eng
Date: 2025.10.10 12:49:43-04'00'

This item has been digitally signed and sealed by D.E. Eng, PE, on the date indicated. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

DAVID E. ENG
LICENSE
No. 81377
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PREMIER METAL ROOF MFG.

Underlayment: Comply with local building code or FBC 1507.1.1.

Slope: Comply with local building code or FBC 1507.4.2.

Technical Documentation:
This product has been tested to UL 580 by Intertek Testing (TST-1527), report J4161.03-450-44 and I4625.04-450-44. Both tests used with permission.

Compliance Statement:
This product as described has demonstrated compliance with Florida Building Code 2023, 1504.3.2 (**non-HVHZ**) as required by FL Rule 61G20-3, method 1D.

This product as described has been tested and demonstrated compliance with:
• UL580 – Test for Uplift Resistance of Roof Assemblies
• UL 1897 – Uplift test for roof covering systems

Certification of Independence:
David Eng, PE and Timberlake Cove, LLC do not have, nor will acquire a financial interest in any company manufacturing or distributing products under this evaluation. The same entities do not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

Exclusions and Limitations:
Design of deck and roof structure (to include attachment of plywood or wood plank) shall be completed by others. Fire classification and shear diaphragm design are outside the scope of this evaluation.
This report is limited to compliance with structural wind load requirements of FBC 1504.3.2, as required by Rule 61G20-3. Neither Timberlake Cove nor the manufacturer shall be responsible for any conclusions, interpretations, or designs made by others based on this evaluation report. This report is limited solely to documenting compliance with Rule 61G20-3, and makes no express or implied warranty regarding performance of this product.

Design Process:
The load tables in this report provides *one* prescriptive option for the fastening requirement for the applicable wind loads for roofs within the parameters described. For roofs outside of the listed parameters, design wind loads shall be determined as required by FBC 1609, ASCE 7, or other design code in force, using allowable stress. These load tables are based on ASCE 7-22. Use of these tables assumes that the structure is:

- Enclosed and conforms to wind-borne debris provisions and is a regular shaped building
- Is not subject to across-wind loading, vortex shedding, or instability; nor does it have a site location for which channeling or buffeting warrant consideration

Engineering analysis may be completed by other licensed engineers for project specific approval by local authorities having jurisdiction.

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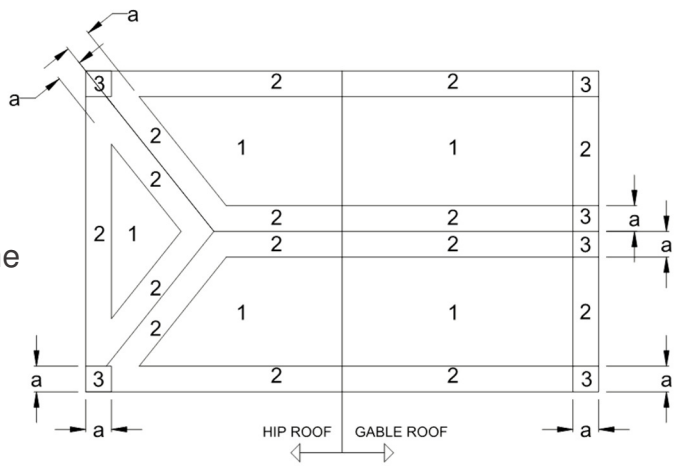
Use of Load Tables:

These load tables are provided as a courtesy to provide one possible prescriptive option for a generic, typical structure without calculating the design pressures.

For structures outside the parameters of these load tables (e.g. height above 30 feet), calculate the required allowable design pressure and compare to the maximum allowable loads shown on page 2. These load tables shall not be construed to in any way limit the installation of this product to the cases shown. When applicable, the tables in FRC R301.2(2) and R301.2(3) may be used to determine the design uplift pressure. The FRC tables are copied below as a courtesy.



a: 10% OF LEAST HOIZONTAL DIMENSION OR 0.4h, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4% OF LEAST HORIZONTAL DIMENSION OR 3FT (0.9M). OR AS DETERMINED BY DESIGN OR OTHER APPLICABLE CODE.

ROOF ZONES FOR GENERIC BUILDING

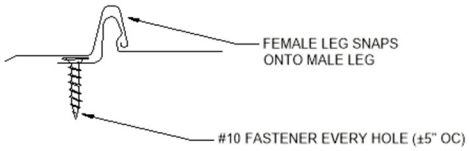
Instructions:

Select the appropriate load table that applies to the structure in question.

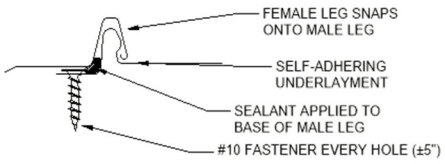
Determine the design wind speed for the project location.

Use the attachment method indicated for that windspeed within each roof zone.

METHOD A



METHOD B



NR: CONSULT DESIGN PROFESSIONAL

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Load Tables

Use this load table for structures which meet the following criteria:
Are located in **Exposure B** area
Has a **gable roof** with **max slope of 45° (±12:12)**
Have a mean roof height of **15 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	A
Zone 3:	A	A	A	A	A	A	B	B	B

Use this load table for structures which meet the following criteria:
Are located in **Exposure B** area
Has a **hip roof** with **max slope of 45° (±12:12)**
Have a mean roof height of **15 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	A
Zone 3:	A	A	A	A	A	A	A	A	A

Use this load table for structures which meet the following criteria:
Are located in **Exposure B** area
Has a **gable roof** with **max slope of 45° (±12:12)**
Have a mean roof height of **30 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	B	B
Zone 3:	A	A	A	A	B	B	B	B	B

Use this load table for structures which meet the following criteria:
Are located in **Exposure B** area
Has a **hip roof** with **max slope of 45° (±12:12)**
Have a mean roof height of **30 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	B
Zone 3:	A	A	A	A	A	A	A	B	B

Use this load table for structures which meet the following criteria:
Are located in **Exposure C** area
Have either a **flat roof, or gable/hip roof** with **max slope of 45° (±12:12)**
Have a mean roof height of **15 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	B	B
Zone 2:	A	A	A	A	A	B	B	B	B
Zone 3:	A	A	A	B	B	B	B	B	NR

Use this load table for structures which meet the following criteria:
Are located in **D exposure** area
Have either a **flat roof, or gable/hip roof** with **max slope of 45° (±1**
Have a mean roof height of **30 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	B	B	B	B
Zone 2:	A	A	A	B	B	B	B	NR	NR
Zone 3:	A	B	B	B	B	NR	NR	NR	NR

Use this load table for structures which meet the following criteria:
Are located in **Exposure B** area
Have either a **hip roof** with **max slope of 45° (±12:12)**
or gable roof with slope between 27° and 45° (±6.1:12 - 12:12)
Have a mean roof height of **15 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	B
Zone 2:	A	A	A	A	A	A	B	B	B
Zone 3:	A	A	A	A	B	B	B	B	B

Use this load table for structures which meet the following criteria:
Are located in **D exposure** area
Have either a **hip roof** with **max slope of 45° (±12:12)**
or gable roof with slope between 27° and 45° (±6.1:12 - 12:12)
Have a mean roof height of **30 feet or less**

FL30343.03 032 Aluminum PermaShield on 15/32" plywood

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	B	B	B	B
Zone 2:	A	A	A	B	B	B	B	B	NR
Zone 3:	A	B	B	B	B	B	NR	NR	NR

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FBC Residential, Chapter 3

https://codes.iccsafe.org/content/FLRC2023P1/chapter-3-building-planning

TABLE R301.2(2)

COMPONENT AND CLADDING LOADS FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 30 FEET LOCATED IN EXPOSURE B (ASD) (psf)[a, b, c, d, e, f, g]

	Zone	Effective Wind Area	90		95		100		105		110		115		120		130		140		150		160		170		180	
			POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG
Gable Roof < 7 degrees	1'	10	3.6	-8	4	-8.9	4.4	-9.9	4.8	-10.9	5.3	-12	5.8	-13.1	6.3	-14.2	7.4	-16.7	8.6	-19.4	9.9	-22.2	11.2	-25.3	12.7	-28.5	14.2	-32
	1'	20	3.3	-8	3.7	-8.9	4.1	-9.9	4.5	-10.9	5	-12	5.4	-13.1	5.9	-14.2	7	-16.7	8.1	-19.4	9.3	-22.2	10.5	-25.3	11.9	-28.5	13.3	-32
	1'	50	3	-8	3.4	-8.9	3.8	-9.9	4.1	-10.9	4.5	-12	5	-13.1	5.4	-14.2	6.3	-16.7	7.4	-19.4	8.4	-22.2	9.6	-25.3	10.8	-28.5	12.2	-32
	1'	100	2.8	-8	3.1	-8.9	3.5	-9.9	3.8	-10.9	4.2	-12	4.6	-13.1	5	-14.2	5.9	-16.7	6.8	-19.4	7.8	-22.2	8.9	-25.3	10	-28.5	11.3	-32
	1	10	3.6	-13.9	4	-15.5	4.4	-17.2	4.8	-19	5.3	-20.8	5.8	-22.7	6.3	-24.8	7.4	-29.1	8.6	-33.7	9.9	-38.7	11.2	-44	12.7	-49.7	14.2	-55.7
	1	20	3.3	-13	3.7	-14.5	4.1	-16.1	4.5	-17.7	5	-19.4	5.4	-21.2	5.9	-23.1	7	-27.1	8.1	-31.5	9.3	-36.1	10.5	-41.1	11.9	-46.4	13.3	-52
	1	50	3	-11.8	3.4	-13.1	3.8	-14.6	4.1	-16.1	4.5	-17.6	5	-19.3	5.4	-21	6.3	-24.6	7.4	-28.5	8.4	-32.8	9.6	-37.3	10.8	-42.1	12.2	-47.2
	1	100	2.8	-10.9	3.1	-12.1	3.5	-13.4	3.8	-14.8	4.2	-16.2	4.6	-17.8	5	-19.3	5.9	-22.7	6.8	-26.3	7.8	-30.2	8.9	-34.4	10	-38.8	11.3	-43.5
	2	10	3.6	-18.4	4	-20.5	4.4	-22.7	4.8	-25	5.3	-27.4	5.8	-30	6.3	-32.7	7.4	-38.3	8.6	-44.5	9.9	-51	11.2	-58.1	12.7	-65.6	14.2	-73.5
	2	20	3.3	-17.2	3.7	-19.2	4.1	-21.2	4.5	-23.4	5	-25.7	5.4	-28.1	5.9	-30.6	7	-35.9	8.1	-41.6	9.3	-47.8	10.5	-54.3	11.9	-61.3	13.3	-68.8
	2	50	3	-15.6	3.4	-17.4	3.8	-19.3	4.1	-21.3	4.5	-23.4	5	-25.5	5.4	-27.8	6.3	-32.6	7.4	-37.8	8.4	-43.4	9.6	-49.4	10.8	-55.8	12.2	-62.5
	2	100	2.8	-14.4	3.1	-16.1	3.5	-17.8	3.8	-19.7	4.2	-21.6	4.6	-23.6	5	-25.7	5.9	-30.1	6.8	-35	7.8	-40.1	8.9	-45.7	10	-51.6	11.3	-57.8
	3	10	3.6	-25	4	-27.9	4.4	-30.9	4.8	-34.1	5.3	-37.4	5.8	-40.9	6.3	-44.5	7.4	-52.2	8.6	-60.6	9.9	-69.6	11.2	-79.1	12.7	-89.4	14.2	-100
	3	20	3.3	-22.7	3.7	-25.3	4.1	-28	4.5	-30.9	5	-33.9	5.4	-37	5.9	-40.3	7	-47.3	8.1	-54.9	9.3	-63	10.5	-71.7	11.9	-80.9	13.3	-90.7
	3	50	3	-19.6	3.4	-21.8	3.8	-24.1	4.1	-26.6	4.5	-29.2	5	-31.9	5.4	-34.8	6.3	-40.8	7.4	-47.3	8.4	-54.3	9.6	-61.8	10.8	-69.8	12.2	-78.2
	3	100	2.8	-17.2	3.1	-19.2	3.5	-21.2	3.8	-23.4	4.2	-25.7	4.6	-28.1	5	-30.6	5.9	-35.9	6.8	-41.6	7.8	-47.8	8.9	-54.3	10	-61.3	11.3	-68.8
Gable Roof > 7 to 20 degrees	1	10	5.8	-16.2	6.4	-18	7.1	-19.9	7.9	-22	8.6	-24.1	9.4	-26.4	10.3	-28.7	12.1	-33.7	14	-39.1	16.1	-44.9	18.3	-51	20.6	-57.6	23.1	-64.6
	1	20	5.3	-13.9	5.9	-15.5	6.5	-17.1	7.2	-18.9	7.9	-20.7	8.6	-22.7	9.4	-24.7	11	-29	12.7	-33.6	14.6	-38.6	16.6	-43.9	18.8	-49.5	21.1	-55.5
	1	50	4.6	-10.9	5.1	-12.1	5.7	-13.4	6.2	-14.8	6.8	-16.3	7.5	-17.8	8.2	-19.4	9.6	-22.7	11.1	-26.4	12.7	-30.3	14.5	-34.4	16.4	-38.9	18.3	-43.6
	1	100	4.1	-8.6	4.5	-9.6	5	-10.7	5.5	-11.7	6.1	-12.9	6.6	-14.1	7.2	-15.3	8.5	-18	9.8	-20.9	11.3	-24	12.9	-27.3	14.5	-30.8	16.3	-34.5
	2	10	5.8	-21.3	6.4	-23.8	7.1	-26.3	7.9	-29	8.6	-31.9	9.4	-34.8	10.3	-37.9	12.1	-44.5	14	-51.6	16.1	-59.3	18.3	-67.4	20.6	-76.1	23.1	-85.4
	2	20	5.3	-18.4	5.9	-20.5	6.5	-22.7	7.2	-25.1	7.9	-27.5	8.6	-30.1	9.4	-32.8	11	-38.4	12.7	-44.6	14.6	-51.2	16.6	-58.2	18.8	-65.7	21.1	-73.7
	2	50	4.6	-14.6	5.1	-16.2	5.7	-18	6.2	-19.8	6.8	-21.8	7.5	-23.8	8.2	-25.9	9.6	-30.4	11.1	-35.3	12.7	-40.5	14.5	-46.1	16.4	-52	18.3	-58.3
	2	100	4.1	-11.7	4.5	-13	5	-14.4	5.5	-15.9	6.1	-17.4	6.6	-19	7.2	-20.7	8.5	-24.3	9.8	-28.2	11.3	-32.4	12.9	-36.8	14.5	-41.6	16.3	-46.6
	3	10	5.8	-28	6.4	-31.2	7.1	-34.6	7.9	-38.1	8.6	-41.8	9.4	-45.7	10.3	-49.8	12.1	-58.4	14	-67.8	16.1	-77.8	18.3	-88.5	20.6	-99.9	23.1	-112
	3	20	5.3	-24	5.9	-26.7	6.5	-29.6	7.2	-32.7	7.9	-35.8	8.6	-39.2	9.4	-42.7	11	-50.1	12.7	-58.1	14.6	-66.6	16.6	-75.8	18.8	-85.6	21.1	-96
	3	50	4.6	-18.7	5.1	-20.8	5.7	-23.1	6.2	-25.4	6.8	-27.9	7.5	-30.5	8.2	-33.2	9.6	-39	11.1	-45.2	12.7	-51.9	14.5	-59.1	16.4	-66.7	18.3	-74.7
	3	100	4.1	-14.7	4.5	-16.3	5	-18.1	5.5	-20	6.1	-21.9	6.6	-24	7.2	-26.1	8.5	-30.6	9.8	-35.5	11.3	-40.8	12.9	-46.4	14.5	-52.3	16.3	-58.7
Gable Roof > 20 to 27 degrees	1	10	5.8	-12.4	6.4	-13.9	7.1	-15.4	7.9	-16.9	8.6	-18.6	9.4	-20.3	10.3	-22.1	12.1	-26	14	-30.1	16.1	-34.6	18.3	-39.3	20.6	-44.4	23.1	-49.8
	1	20	5.3	-11.2	5.9	-12.5	6.5	-13.9	7.2	-15.3	7.9	-16.8	8.6	-18.4	9.4	-20	11	-23.5	12.7	-27.2	14.6	-31.2	16.6	-35.5	18.8	-40.1	21.1	-45
	1	50	4.6	-9.7	5.1	-10.8	5.7	-11.9	6.2	-13.1	6.8	-14.4	7.5	-15.8	8.2	-17.2	9.6	-20.2	11.1	-23.4	12.7	-26.8	14.5	-30.5	16.4	-34.5	18.3	-38.6
	1	100	4.1	-8.5	4.5	-9.4	5	-10.4	5.5	-11.5	6.1	-12.6	6.6	-13.8	7.2	-15	8.5	-17.7	9.8	-20.5	11.3	-23.5	12.9	-26.7	14.5	-30.2	16.3	-33.8
	2	10	5.8	-19.9	6.4	-22.1	7.1	-24.5	7.9	-27	8.6	-29.7	9.4	-32.4	10.3	-35.3	12.1	-41.4	14	-48	16.1	-55.2	18.3	-62.8	20.6	-70.8	23.1	-79.4
	2	20	5.3	-17	5.9	-18.9	6.5	-20.9	7.2	-23.1	7.9	-25.3	8.6	-27.7	9.4	-30.1	11	-35.4	12.7	-41	14.6	-47.1	16.6	-53.6	18.8	-60.5	21.1	-67.8
	2	50	4.6	-13.1	5.1	-14.6	5.7	-16.2	6.2	-17.9	6.8	-19.6	7.5	-21.4	8.2	-23.3	9.6	-27.4	11.1	-31.8	12.7	-36.5	14.5	-41.5	16.4	-46.8	18.3	-52.5
	2	100	4.1	-10.2	4.5	-11.4	5	-12.6	5.5	-13.9	6.1	-15.3	6.6	-16.7	7.2	-18.2	8.5	-21.3	9.8	-24.7	11.3	-28.4	12.9	-32.3	14.5	-36.5	16.3	-40.9
	3	10	5.8	-23.6	6.4	-26.3	7.1	-29.1	7.9	-32.1	8.6	-35.2	9.4	-38.5	10.3	-41.9	12.1	-49.2	14	-57	16.1	-65.4	18.3	-74.5	20.6	-84.1	23.1	-94.2
	3	20	5.3	-20	5.9	-22.3	6.5	-24.7	7.2	-27.2	7.9	-29.9	8.6	-32.6	9.4	-35.5	11	-41.7	12.7	-48.4	14.6	-55.5	16.6	-63.2	18.8	-71.3	21.1	-80
	3	50	4.6	-15.3	5.1	-17	5.7	-18.9	6.2	-20.8	6.8	-22.8	7.5	-24.9	8.2	-27.2	9.6	-31.9	11.1	-37	12.7	-42.4	14.5	-48.3	16.4	-54.5	18.3	-61.1
	3	100	4.1	-11.7	4.5	-13	5	-14.5	5.5	-15.9	6.1	-17.5	6.6	-19.1	7.2	-20.8	8.5	-24.4	9.8	-28.3	11.3	-32.5	12.9	-37	14.5	-41.8	16.3	-46.8
Gable Roof > 27 to 45 degrees	1	10	8	-14.7	8.9	-16.3	9.9	-18.1	10.9	-20	12	-21.9	13.1	-24	14.2	-26.1	16.7	-30.6	19.4	-35.5	22.2	-40.8	25.3	-46.4	28.5	-52.3	32	-58.7
	1	20	7.3	-12.4	8.2	-13.9	9	-15.4	10	-16.9	10.9	-18.6	11.9	-20.3	13	-22.1	15.3	-26	17.7	-30.1	20.3	-34.6	23.1	-39.3	26.1	-44.4	29.3	-49.8
	1	50	6.4	-9.5	7.1	-10.6	7.9	-11.7	8.7	-12.9	9.6	-14.2	10.5	-15.5	11.4	-16.9	13.4	-19.8	15.5	-23	17.8	-26.4	20.3	-30	22.9	-33.9	25.6	-38
	1	100	5.7	-7.3	6.4	-8.1	7.1	-9	7.8	-9.9	8.6	-10.8	9.3	-11.9	10.2	-12.9	11.9	-15.1	13.9	-17.6	15.9	-20.2	18.1	-22.9	20.4	-25.9	22.9	-29
	2	10	8	-16.2	8.9	-18	9.9	-19.9	10.9	-22	12	-24.1	13.1	-26.4	14.2	-28.7	16.7	-33.7	19.4	-39.1	22.2	-44.9	25.3	-51	28.5	-57.6	32	-64.6
	2	20	7.3	-14.4	8.2	-16.1	9	-17.8	10	-19.7	10.9	-21.6	11.9	-23.6	13	-25.7	15.3	-30.1	17.7	-34.9	20.3	-40.1	23.1	-45.6	26.1	-51.5	29.3	-57.7
	2	50	6.4	-12.2	7.1	-13.6	7.9	-15	8.7	-16.6	9.6	-18.2	10.5	-19.9	11.4	-21.6	13.4	-25.4	15.5	-29.5	17.8	-33.8	20.3	-38.5	22.9	-43.4	25.6	-48.7
	2	100	5.7	-10.5	6.4	-11.7	7.1	-12.9	7.8	-14.2	8.6	-15.6	9.3	-17.1	10.2	-18.6	11.9	-21.8	13.9	-25.3	15.9	-29	18.1	-33	20.4	-37.3	22.9	-41.8
	3	10	8	-19.9	8.9	-22.1	9.9	-24.5	10.9	-27	12	-29.7	13.1	-32.4	14.2	-35.3	16.7	-41.4	19.4	-48	22.2	-55.2	25.3	-62.8	28.5	-70.8	32	-79.4
	3	20	7.3	-17.3	8.2	-19.3	9	-21.3	10	-23.5	10.9	-25.8	11.9	-28.2	13	-30.7	15.3	-36.1	0	-41.8	20.3	-48	23.1	-54.6	26.1	-61.7	29.3	-69.1
	3	50	6.4	-13.9	7.1	-15.5	7.9	-17.1	8.7	-18.9	9.6	-20.7	10.5	-22.7	11.4	-24.7	13.4	-29	15.5	-33.6	17.8	-38.6	20.3	-43.9	22.9	-49.5	25.6	-55.5
	3	100	5.7	-11.3	6.4	-12.6	7.1	-14	7.8	-15.4	8.6	-16.9	9.3	-18.5	10.2	-20.1	11.9	-23.6	13.9	-27.4	15.9	-31.4	18.1	-35.8	20.4	-40.4	22.9	-45.3
Hip Roof > 7 to 20 degrees	1	10	6.5	-14.7	7.3	-16.3	8	-18.1	8.9	-20	9.7	-21.9	10.6	-24	11.6	-26.1	13.6	-30.6	15.8	-35.5	18.1	-40.8	20.6	-46.4	23.3	-52.3	26.1	-58.7
	1	20	5.6	-13	6.3	-14.4	6.9	-16	7.7	-17.6	8.4	-19.4	9.2	-21.2	10	-23	11.7	-27	13.6	-31.3	15.6	-36	17.8	-40.9	20.1	-46.2	22.5	-51.8
	1	50	4.4	-10.7	5	-11.9	5.5	-13.2	6.1	-14.5	6.6	-16	7.3	-17.5	7.9	-19	9.3	-22.3	10.8	-25.9	12.4	-29.7	14.1	-33.8	15.9	-38.1	17.8	-42.8
	1	100	3.6	-9	4	-10	4.4	-11.1	4.8	-12.2	5.3	-13.4	5.8	-14.7	6.3	-16	7.4	-18.7	8.6	-21.7	9.9	-24.9	11.2	-28.4	12.7	-32	14.2	-35.9
	2	10	6.5	-19.1	7.3	-21.3	8	-23.6	8.9	-26	9.7	-28.6	10.6	-31.2	11.6	-34	13.6	-39.9	15.8	-46.3	18.1	-53.1	20.6	-60.4	23.3	-68.2	26.1	-76.5
	2	20	5.6	-17.2	6.3	-19.2	6.9	-21.3	7.7	-23.5	8.4	-25.7	9.2	-28.1	10	-30.6	11.7	-35.9	13.6	-41.7	15.6	-47.9	17.8	-54.5	20.1	-61.5	22.5	-68.9
	2	50	4.4	-14.7	5	-16.4	5.5	-18.2	6.1	-20.1	6.6	-22	7.3	-24.1	7.9	-26.2	9.3	-30.7	10.8	-35.7	12.4	-40.9	14.1	-46.6	15.9	-52.6	17.8	-58.9
	2	100	3.6	-12.9	4	-14.3	4.4	-15.9	4.8	-17.5	5.3	-19.2	5.8	-21	6.3	-22.8	7.4	-26.8	8.6	-31.1	9.9	-35.7	11.2	-40.6	12.7	-45.9	14.2	-51.4
	3	10	6.5	-20.6	7.3	-22.9	8	-25.4	8.9	-28	9.7	-30.8	10.6	-33.6	11.6	-36.6	13.6	-43	15.8	-49.8	18.1	-57.2	20.6	-65.1	23.3	-73.5	26.1	-82.4
	3	20	5.6	-18.5	6.3	-20.7	6.9	-22.9	7.7	-25.2	8.4	-27.7	9.2	-30.3	10	-33	11.7	-38.7	13.6	-44.9	15.6	-51.5	17.8	-58.6	20.1	-66.2	22.5	-74.2
	3	50	4.4	-15.8	5	-17.6	5.5	-19.5	6.1	-21.5	6.6	-23.6	7.3	-25.8	7.9	-28.1	9.3	-33	10.8	-38.3	12.4	-43.9	14.1	-50	15.9	-56.5	17.8	-63.3
	3	100	3.6	-13.8	4	-15.3	4.4	-17	4.8	-18.7	5.3	-20.6	5.8	-22.5	6.3	-24.5	7.4	-28.7	8.6	-33.3	9.9	-38.2	11.2	-43.5	12.7	-49.1	14.2	-55.1

PREMIER METAL ROOF MFG.

FBC Residential, Chapter 3

https://codes.iccsafe.org/content/FLRC2023P1/chapter-3-building-planning

	Zone	Effective Wind Area	90		95		100		105		110		115		120		130		140		150		160		170		180	
			POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG
Hip Roof > 20 to 27 degrees	1	10	6.5	-11.7	7.3	-13	8	-14.5	8.9	-15.9	9.7	-17.5	10.6	-19.1	11.6	-20.8	13.6	-24.4	15.8	-28.3	18.1	-32.5	20.6	-37	23.3	-41.8	26.1	-46.8
	1	20	5.6	-10.4	6.3	-11.6	6.9	-12.8	7.7	-14.1	8.4	-15.5	9.2	-16.9	10	-18.4	11.7	-21.6	13.6	-25.1	15.6	-28.8	17.8	-32.8	20.1	-37	22.5	-41.5
	1	50	4.4	-8.6	5	-9.6	5.5	-10.6	6.1	-11.7	6.6	-12.8	7.3	-14	7.9	-15.3	9.3	-17.9	10.8	-20.8	12.4	-23.9	14.1	-27.2	15.9	-30.7	17.8	-34.4
	1	100	3.6	-7.3	4	-8.1	4.4	-9	4.8	-9.9	5.3	-10.8	5.8	-11.9	6.3	-12.9	7.4	-15.1	8.6	-17.6	9.9	-20.2	11.2	-22.9	12.7	-25.9	14.2	-29
	2	10	6.5	-16.2	7.3	-18	8	-19.9	8.9	-22	9.7	-24.1	10.6	-26.4	11.6	-28.7	13.6	-33.7	15.8	-39.1	18.1	-44.9	20.6	-51	23.3	-57.6	26.1	-64.6
	2	20	5.6	-13.9	6.3	-15.5	6.9	-17.2	7.7	-18.9	8.4	-20.8	9.2	-22.7	10	-24.7	11.7	-29	13.6	-33.7	15.6	-38.7	17.8	-44	20.1	-49.7	22.5	-55.7
	2	50	4.4	-11	5	-12.2	5.5	-13.5	6.1	-14.9	6.6	-16.4	7.3	-17.9	7.9	-19.5	9.3	-22.9	10.8	-26.6	12.4	-30.5	14.1	-34.7	15.9	-39.2	17.8	-43.9
	2	100	3.6	-8.7	4	-9.7	4.4	-10.8	4.8	-11.9	5.3	-13.1	5.8	-14.3	6.3	-15.5	7.4	-18.2	8.6	-21.2	9.9	-24.3	11.2	-27.6	12.7	-31.2	14.2	-35
	3	10	6.5	-16.2	7.3	-18	8	-19.9	8.9	-22	9.7	-24.1	10.6	-26.4	11.6	-28.7	13.6	-33.7	15.8	-39.1	18.1	-44.9	20.6	-51	23.3	-57.6	26.1	-64.6
	3	20	5.6	-13.9	6.3	-15.5	6.9	-17.2	7.7	-18.9	8.4	-20.8	9.2	-22.7	10	-24.7	11.7	-29	13.6	-33.7	15.6	-38.7	17.8	-44	20.1	-49.7	22.5	-55.7
	3	50	4.4	-11	5	-12.2	5.5	-13.5	6.1	-14.9	6.6	-16.4	7.3	-17.9	7.9	-19.5	9.3	-22.9	10.8	-26.6	12.4	-30.5	14.1	-34.7	15.9	-39.2	17.8	-43.9
	3	100	3.6	-8.7	4	-9.7	4.4	-10.8	4.8	-11.9	5.3	-13.1	5.8	-14.3	6.3	-15.5	7.4	-18.2	8.6	-21.2	9.9	-24.3	11.2	-27.6	12.7	-31.2	14.2	-35
Hip Roof = 45 degrees	1	10	6.5	-12.4	7.3	-13.9	8	-15.4	8.9	-16.9	9.7	-18.6	10.6	-20.3	11.6	-22.1	13.6	-26	15.8	-30.1	18.1	-34.6	20.6	-39.3	23.3	-44.4	26.1	-49.8
	1	20	5.6	-10.7	6.3	-11.9	6.9	-13.2	7.7	-14.5	8.4	-15.9	9.2	-17.4	10	-19	11.7	-22.2	13.6	-25.8	15.6	-29.6	17.8	-33.7	20.1	-38	22.5	-42.7
	1	50	4.4	-8.3	5	-9.3	5.5	-10.3	6.1	-11.3	6.6	-12.4	7.3	-13.6	7.9	-14.8	9.3	-17.3	10.8	-20.1	12.4	-23.1	14.1	-26.2	15.9	-29.6	17.8	-33.2
	1	100	3.6	-6.5	4	-7.3	4.4	-8	4.8	-8.9	5.3	-9.7	5.8	-10.6	6.3	-11.6	7.4	-13.6	8.6	-15.8	9.9	-18.1	11.2	-20.6	12.7	-23.3	14.2	-26.1
	2	10	6.5	-14.7	7.3	-16.3	8	-18.1	8.9	-20	9.7	-21.9	10.6	-24	11.6	-26.1	13.6	-30.6	15.8	-35.5	18.1	-40.8	20.6	-46.4	23.3	-52.3	26.1	-58.7
	2	20	5.6	-12.4	6.3	-13.9	6.9	-15.4	7.7	-16.9	8.4	-18.6	9.2	-20.3	10	-22.1	11.7	-26	13.6	-30.1	15.6	-34.6	17.8	-39.3	20.1	-44.4	22.5	-49.8
	2	50	4.4	-9.5	5	-10.6	5.5	-11.7	6.1	-12.9	6.6	-14.2	7.3	-15.5	7.9	-16.9	9.3	-19.8	10.8	-23	12.4	-26.4	14.1	-30	15.9	-33.9	17.8	-38
	2	100	3.6	-7.3	4	-8.1	4.4	-9	4.8	-9.9	5.3	-10.8	5.8	-11.9	6.3	-12.9	7.4	-15.1	8.6	-17.6	9.9	-20.2	11.2	-22.9	12.7	-25.9	14.2	-29
	3	10	6.5	-19.1	7.3	-21.3	8	-23.6	8.9	-26	9.7	-28.6	10.6	-31.2	11.6	-34	13.6	-39.9	15.8	-46.3	18.1	-53.1	20.6	-60.4	23.3	-68.2	26.1	-76.5
	3	20	5.6	-16	6.3	-17.8	6.9	-19.7	7.7	-21.8	8.4	-23.9	9.2	-26.1	10	-28.4	11.7	-33.4	13.6	-38.7	15.6	-44.4	17.8	-50.5	20.1	-57.1	22.5	-64
	3	50	4.4	-11.9	5	-13.2	5.5	-14.6	6.1	-16.1	6.6	-17.7	7.3	-19.4	7.9	-21.1	9.3	-24.8	10.8	-28.7	12.4	-33	14.1	-37.5	15.9	-42.3	17.8	-47.5
	3	100	3.6	-8.7	4	-9.7	4.4	-10.8	4.8	-11.9	5.3	-13.1	5.8	-14.3	6.3	-15.5	7.4	-18.2	8.6	-21.2	9.9	-24.3	11.2	-27.6	12.7	-31.2	14.2	-35
Walls	4	10	8.7	-9.5	9.7	-10.6	10.8	-11.7	11.9	-12.9	13.1	-14.2	14.3	-15.5	15.5	-16.9	18.2	-19.8	21.2	-22.9	24.3	-26.3	27.6	-30	31.2	-33.8	35	-37.9
	4	20	8.3	-9.1	9.3	-10.1	10.3	-11.2	11.4	-12.4	12.5	-13.6	13.6	-14.8	14.8	-16.2	17.4	-19	20.2	-22	23.2	-25.2	26.4	-28.7	29.8	-32.4	33.4	-36.4
	4	50	7.8	-8.6	8.7	-9.5	9.7	-10.6	10.7	-11.7	11.7	-12.8	12.8	-14	13.9	-15.2	16.3	-17.9	18.9	-20.7	21.7	-23.8	24.7	-27.1	27.9	-30.6	31.3	-34.3
	4	100	7.4	-8.2	8.3	-9.1	9.2	-10.1	10.1	-11.1	11.1	-12.2	12.1	-13.3	13.2	-14.5	15.5	-17.1	18	-19.8	20.7	-22.7	23.5	-25.8	26.5	-29.2	29.7	-32.7
	5	10	8.7	-11.7	9.7	-13	10.8	-14.5	11.9	-15.9	13.1	-17.5	14.3	-19.1	15.5	-20.8	18.2	-24.4	21.2	-28.3	24.3	-32.5	27.6	-37	31.2	-41.8	35	-46.8
	5	20	8.3	-10.9	9.3	-12.2	10.3	-13.5	11.4	-14.9	12.5	-16.3	13.6	-17.8	14.8	-19.4	17.4	-22.8	20.2	-26.4	23.2	-30.3	26.4	-34.5	29.8	-39	33.4	-43.7
	5	50	7.8	-9.9	8.7	-11	9.7	-12.2	10.7	-13.4	11.7	-14.8	12.8	-16.1	13.9	-17.6	16.3	-20.6	18.9	-23.9	21.7	-27.4	24.7	-31.2	27.9	-35.2	31.3	-39.5
	5	100	7.4	-9.1	8.3	-10.1	9.2	-11.2	10.1	-12.4	11.1	-13.6	12.1	-14.8	13.2	-16.2	15.5	-19	18	-22	20.7	-25.2	23.5	-28.7	26.5	-32.4	29.7	-36.4

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m², 1 mile per hour = 0.447 m/s, 1 pound per square foot = 0.0479 kPa.

a.The effective wind area shall be equal to the span length multiplied by an effective width. This width shall be permitted to be not less than one-third the span length. For cladding fasteners, the effective wind area shall not be greater than the area that is tributary to an individual fastener.

b.For effective wind areas between those given, the load shall be interpolated or the load associated with the lower effective wind area shall be used.

c.Table values shall be adjusted for height and exposure by multiplying by the adjustment coefficient in Table R301.2(3).

d.See Figure R301.2(7) for location of zones.

e.Plus and minus signs signify pressures acting toward and away from the building surfaces.

f.Positive and negative design wind pressures shall not be less than 10 psf.

g.Roof overhang loads shall be determined by summing the applicable roof zone pressure with the adjacent wall zone pressure.

h.Table values have been multiplied by 0.6 to convert component and cladding pressures to ASD.

TABLE R301.2(3)
HEIGHT AND EXPOSURE

MEAN ROOF HEIGHT(ft)	EXPOSURE CATEGORY		
	B	C	D
15	0.82	1.21	1.47
20	0.89	1.29	1.55
25	0.94	1.35	1.61
30	1	1.4	1.66
35	1.05	1.45	1.7
40	1.06	1.49	1.74
45	1.1	1.53	1.78
50	1.13	1.56	1.81
55	1.16	1.59	1.84
60	1.19	1.62	1.87