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#### **Board Attorney**

Architect

Charles M. Kramer, Esq.

#### **Board Administrative Director**

Dr. Ana Barbosa

— Established 1971 —

# BROWARD COUNTY BOARD OF RULES AND APPEALS

## FBC 8<sup>th</sup> EDITION (2023) FORMAL INTERPRETATION (#24)

DATE:

October 12, 2023

TO:

All Building Officials

FROM: SUBJECT: Dr. Ana Barbosa, Administrative Director

Retrofit of Windows, Doors, Garage Doors,

and Shutters FBC Existing Building, Alteration Level

At its meeting on October 12, 2023, the Board approved an interpretation of Retrofit of Windows, Doors, Garage Doors, and Shutters for detached one- and two-family dwellings and multiple single-family dwellings (townhouses) with common roof height < 30 feet.

- 1. A Florida Professional Engineer or Architect may modify the buck or fasteners as specified in a Notice of Acceptance. Such modification must be documented with a signed and sealed letter or drawing.
- 2. To obtain the required design pressure for a specific opening at a specific site, an individual must utilize one of the following and submit documentation as indicated.
  - a) A site-specific plan (signed and sealed) by a Florida Professional Engineer or Architect indicating the location of all retro openings and the required design pressures.
  - b) A site-specific plan (not sealed) indicating the location of all retro openings accompanied by a worst-case design pressure chart (signed and sealed) prepared by a Florida P.E. or Architect.
  - c) A site-specific plan (not sealed) indicating the location of all openings and indicating the required design pressures based on the Broward County Fenestration Voluntary Wind Load Chart. (See attached chart).
- 3. Buildings with a (height) > 30 feet or more shall have a site-specific design (signed and sealed) by a Florida Professional Engineer or Architect, indicating the location of all retro openings and the required design pressures for each opening.

**NOTE:** Generic charts, graphs alone, etc., are not acceptable for buildings above 30 feet.

**EFFECTIVE DATE:** 

September 12, 2012

EFFECTIVE DATE:

December 31, 2023

\*\*\* PLEASE POST AT YOUR PERMIT COUNTER \*\*\*

Page 1 of 1 F.I. #24

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ELEVATION	Wall Pressure Chart	
0.2h  0.6h  0.6h  0.6h  0.6h	Flat Roof Uplift Chart	Roof and Wall Zone Chart Diagrams
D 0 0 0	Gable Roof Uplift Chart	Chart Diagrams
PLAN VIEW  PLAN VIEW	Hip Roof Uplift Chart	

smaller, but not less than either 4% of least horizontal dimension or 3 feet. If your roof height is less than 30 feet, but not exactly 15, 20, or 25 feet, you will need to go and determine the wind zone in which the component is located. Determine the tributary area of the component. If the tributary area falls in between values, use the to the next higher roof height. If your Mean Foof Height is higher than 30 feet, these charts do not apply. Review the diagram which illustrate the wall and roof zones Instructions on how to use these Charts: Determine Mean Roof Height, h, which is top of roof for flat roofs or the mean roof height for pitched roofs. Find your least value of the smaller tributary area. Select the positive and negative wind pressures corresponding to the wall or roof zone where your component is located. Door horizontal dimension for your building, not including a overhang if it occurs. Calculate the value of,  $a_{i} = 10\%$  of least horizontal dimension or 0.4\*h, whichever is pressures shown are for the most common door sizes and are worst case for heights <= 30 Feet.

	Wa	III Pro	essur	Wall Pressure For All Roof Types	Alli	Roof	Туре	S					Gar	Garage/Door Pressures	Pressur	.es
Mean Roof Height			15 Ft	꾸					20	20 Ft				<= 30 Ft	꾸	
Tributary Area	10	20	35	35 50 100 500	100		10	20	35	50	100	500	Effective Wind Area	Vind Area	:	
Wall Positive Pressure	38.1	36.3	35.0	34.1	32.4	28.4	40.4	38.5	37.1	38.1 36.3 35.0 34.1 32.4 28.4 40.4 38.5 37.1 36.1 34.3	34.3	30.1	Width	Height	Positive	Negative
Zone 4 Negative Pressure	-41.4 -39.6 -38.2 -37.3 -35.6 -31.6 -43.8 -42.0 -40.5 -39.6 -37.7	-39.6	-38.2	-37.3	-35.6	-31.6	-43.8	-42.0	-40.5	-39.6	- 1	-33.5	8	∞ (	38.6	-48.2
Zone 5 Negative Pressure	-51.0 -47.5 -44.8 -43.0 -39.6 -31.6 -54.0 -50.4 -47.5 -45.6 -42.0	-47.5	-44.8	-43.0	-39.6	-31.6	-54.0	-50.4	-47.5	-45.6	-42.0	-33.5	10	10	37.4	-45.7
Mean Roof Height		7	25	25 Ft					30 Ft	Fŧ			14	14	35.4	-41.8
Tributary Area	10	20	35	20 35 50 100 500	100	500	10		20 35 50		100	500	9	7	38.7	-48.3
Wall Positive Pressure	42.2	40.3	38.8	37.8	35.9	31.5	43.9	41.9	40.3	42.2 40.3 38.8 37.8 35.9 31.5 43.9 41.9 40.3 39.3 37.3	37.3	32.8	16	7	37.0	-45.0
Zone 4 Negative Pressure	-45.8 -43.9 -42.4 -41.4 -39.5 -35.1 -47.6 -45.7 -44.1 -43.1 -41.1	-43.9	-42.4	-41.4	-39.5	-35.1	-47.6	-45.7	-44.1	-43.1	-41.1	-36.5	ω	7	41.8	-54.6
Zone 5 Negative Pressure	-56.6 -52.8 -49.7 -47.8 -43.9 -35.1 -58.8 -54.7 -51.7 -49.6 -45.7	-52.8	-49.7	-47.8	-43.9	-35.1	-58.8	-54.7	-51.7	-49.6	-45.7	-36.5	6	7	39.8	-50.6