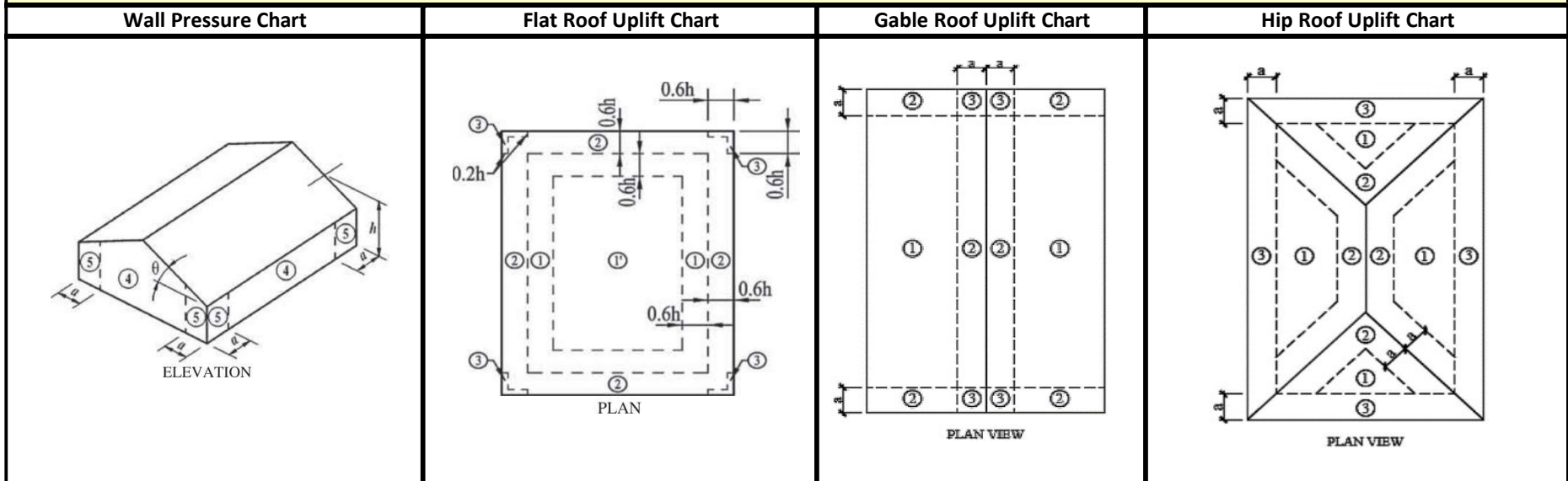


Per ASCE 7-22 Part 1 and FBC (2023) For Detached One-and-Two family dwellings and Multiple Single-Family Dwellings (Townhouses) with Mean Roof Height < 30 feet. Wind Vult 170 mph (3- second gust) / Exposure C** / Kd = 0.85 / Kzt = 1.0 / Pressures are in PSF / Not for use in Coastal (Exposure 'D' areas). *Using Allowable Stress Design methodology ($O = 0.6w$) / **Exposure Category C or D shall be determined according to Chapter 16 Florida Building Code or Chapter 3 Florida Residential Code.

Roof and Wall Zone Chart Diagrams



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 horizontal dimension for your building, not including a overhang if it occurs. Calculate the value of, a , = 10% of least horizontal dimension or $0.4 * h$, whichever is 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 to the next higher roof height. If your Mean Roof Height is higher than 30 feet, these charts do not apply. Review the diagram which illustrate the wall and roof zones 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 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 pressures shown are for the most common door sizes and are worst case for heights ≤ 30 Feet.

Wall Pressure For All Roof Types

Garage/Door Pressures

Mean Roof Height	15 Ft						20 Ft						≤ 30 Ft			
	Tributary Area						Tributary Area						Effective Wind Area		Positive	Negative
	10	20	35	50	100	500	10	20	35	50	100	500	Width	Height		
Wall Positive Pressure	38.1	36.3	35.0	34.1	32.4	28.4	40.4	38.5	37.1	36.1	34.3	30.1	8	8	38.6	-48.2
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	-33.5	8	8	37.4	-45.7
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	-33.5	10	10	35.4	-41.8
Mean Roof Height	25 Ft						30 Ft									
	Tributary Area						Tributary Area									
Wall Positive Pressure	42.2	40.3	38.8	37.8	35.9	31.5	43.9	41.9	40.3	39.3	37.3	32.8	14	14	38.7	-48.3
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	-36.5	9	7	37.0	-45.0
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	-36.5	16	7	41.8	-54.6
													3	7	39.8	-50.6
													6	7		



SIMPLIFIED ROOF UPLIFT CHART FOR ROOFING APPLICATIONS

This simplified chart represents the worse-case wind pressures for the various roof slopes and heights. This chart is based on a Tributary Area = 10 SF which is required for roofing applications. If the roof height is less than 30 feet, but not exactly 15, 20, or 25 feet, you will need to go to the next higher roof height. If your roof is higher than 30 feet, these charts do not apply. Refer to Roof Chart Diagrams on Page 1 for Roof Zone Locations.

MEAN ROOF HEIGHT = 15 FEET

Flat Roof		Gable Roof			Hip Roof			
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	15.4/38.0	Positive 25		Positive 25	Positive 34.7	Positive 28.3		Positive 28.3
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-60.5	1	-70.1	-54	-63.7	1	-63.7	-50.8
2	-79.8	2	-92	-86.2	-70	2	-83	-70.1
3	-109	3	-121	-102	-86	3	-89.4	-70.1

MEAN ROOF HEIGHT = 20 FEET

Flat Roof		Gable Roof			Hip Roof			
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	16.4/40.3	Positive 27		Positive 27	Positive 36.9	Positive 30.1		Positive 30.1
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-64.2	1	-74.5	-57.4	-67.7	1	-67.6	-54
2	-84.8	2	-97	-91.5	-74	2	-88.1	-74.5
3	-116	3	-129	-108	-91	3	-95	-74.5

MEAN ROOF HEIGHT = 25 FEET

Flat Roof		Gable Roof			Hip Roof			
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	17.2/42.3	Positive 28		Positive 28	Positive 38.7	Positive 31.5		Positive 31.5
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-67.3	1	-78.1	-60.2	-70.9	1	-70.9	-56
2	-88.8	2	-102	-96	-77	2	-92.4	-78.1
3	-121	3	-135	-113	-95	3	-99.6	-78.1

MEAN ROOF HEIGHT = 30 FEET

Flat Roof		Gable Roof			Hip Roof			
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	17.9/43.9	Positive 29		Positive 29	Positive 40.2	Positive 32.8		Positive 32.8
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-70	1	-81.1	-62.6	-73.7	1	-73.7	-58.8
2	-92.3	2	-107	-99.8	-81	2	-96	-81.1
3	-126	3	-141	-118	-91	3	-103	-81.1

*If Parapet >= 3Ft occurs around entire building use the same Zone 2 pressure for Zone 3 and use the higher positive pressure shown.