

plied upward or downward to the roof. These factors apply only to enclosures at or near grade level.

(g) For determining stresses, all vertical design loads, except the roof live load and crane loads, shall be considered to be acting simultaneously with the wind pressure.

Where simultaneous combination of vertical design loads and wind pressure would produce a design stress less than either when acting alone, then the single condition resulting in the maximum design stress shall be used.

TABLE 1205.1  
BASIC WIND LOAD PRESSURES IN POUNDS  
PER SQUARE FOOT<sup>b,c</sup>

(See Figure 1205.1)

Height Above Grounds, Feet	100 Yr. Recurrence of Fastest Mile of Wind, MPH											
	70	80	90	100	105	110	120	130				
0 - 30	10	13	16	20	23	24	29	34				
31 - 50	14	18	22	28	31	34	40	47				
51 - 100	16	21	27	33	37	40	48	56				
101 - 200	20	26	33	40	45	49	58	68				
201 - 300	23	30	38	47	52	57	67	79				
301 - 400	25	33	42	52	57	62	74	87				
401 - 500	27	36	45	55	61	67	80	94				
501 - 800	30	39	50	62	68	74	89	104				
801 - 1,000	33	43	55	68	75	82	97	114				
Over 1,000	34	45	56	70	77	84	100	117				

a—Measured above the average level of the ground adjacent to the structure.

b—To be modified by shape factors.

c—Velocity pressures are based on the formula

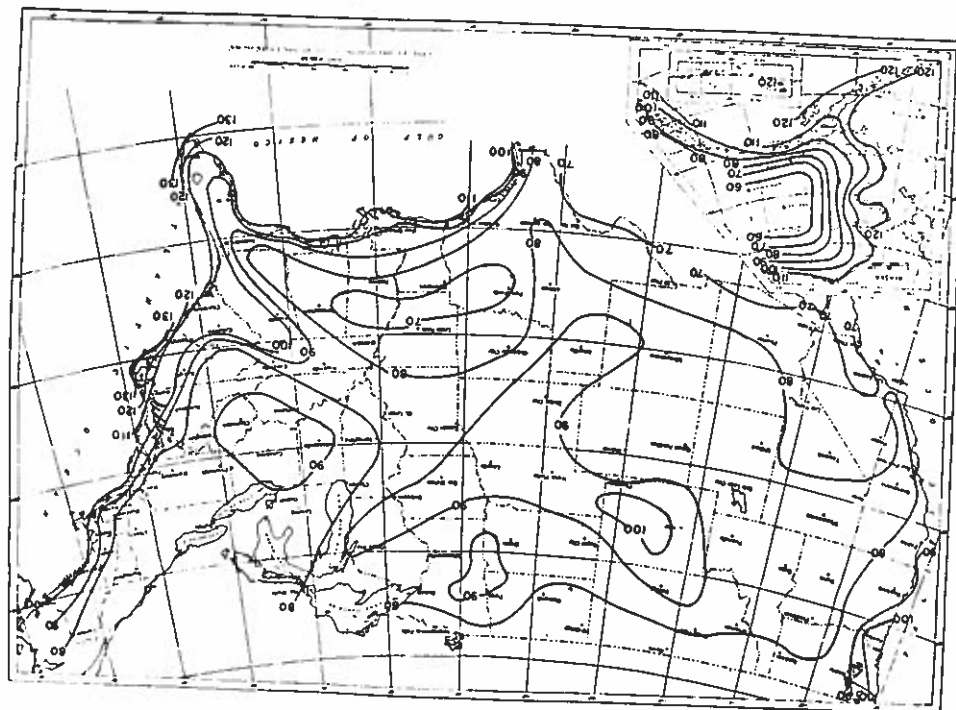
$$P = 0.00256 \times V^2 \times \left\{ \frac{H}{30} \right\}^{2/7} \quad \text{where:}$$

V = Wind Speed in MPH; and

H = the height above grade (in feet) of the pressure being computed.

This formula is only applicable to heights 30 feet or greater.

FIGURE 1205.1 — BASIC WIND SPEEDS IN MILES PER HOUR



Annual Extreme Fastest-Mile Speed 30 Feet Above Ground,  
100-Year Mean Recurrence Interval

TABLE 1205.2

SHAPE FACTORS FOR PRIMARY FRAMES AND SYSTEMS—  
VERTICAL SURFACES

Vertical Surface	Factor
Rectangular prismatic structures* <sup>a</sup>	1.3 <sup>b*</sup>
Cylinders (chimneys, tanks, etc.)	0.7
Flat surfaces with no appreciable depth, including signs and fences	1.4
Partially open surfaces* [percent solid]	
10%	0.35
20%	0.55
40%	0.80
60%	1.00
80%	1.20
100%	1.30

\*See Table 1205.4 for footnotes.

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TABLE 1205.3

SHAPE FACTORS FOR PRIMARY FRAMES AND SYSTEMS—  
HORIZONTAL SURFACES

	Factor	
	Normal to Windward 1/3 of Surface	Normal to Leeward 2/3 of Surface
Horizontal Surfaces*		
Enclosed buildings	— 1.0 <sup>b</sup>	— 0.75
Buildings with one or more sides open	— 1.5	— 1.25
Overhangs and eaves <sup>f</sup>	— 1.5	— 1.50

\*See Table 1205.4 for footnotes.

TABLE 1205.4

SHAPE FACTORS FOR PRIMARY FRAMES AND SYSTEMS—  
INCLINED SURFACES

Inclined Surface <sup>a</sup> Degree from Horizontal	Factor	Normal to Windward Surface	Normal to Leeward Surface
70-90		+ 0.80	- 0.70
60-70		+ 0.65	- 0.70
50-60		+ 0.55	- 0.70
40-50		+ 0.25	- 0.70
30-40		- 0.25	- 0.70
20-30		- 0.75	- 0.70
10-20		- 0.93	- 0.70
Overhangs and Eaves <sup>d</sup>		- 1.50	- 1.50

<sup>a</sup>Includes + 0.8 on windward and - 0.5 on leeward sides.<sup>b</sup>+ indicates forces inward, - indicates forces outward.<sup>c</sup>Shape factor to be applied to gross area of surface.<sup>d</sup>Includes surfaces with less than 10° inclination to horizontal.

\*For buildings with one or more sides open, add - 1.0 to all negative factors.

(This factor is not additive and shall be treated as a separate load.

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TABLE 1205.5

SHAPE FACTORS FOR COMPONENTS TRANSFERRING WIND  
LOADS TO THE STRUCTURAL FRAME OR SYSTEM

	Pressure Inward	Pressure Outward
Vertical Surfaces*		
Exterior walls of closed buildings, including fixed glass, glazing and supporting members	+ 1.1	- 1.1
Operative windows and sliding glass doors, including parts	+ 1.1	- 0.55
Exterior walls of buildings with one or more sides open	> + 1.1	- 1.5
Horizontal surfaces	Table 1205.3	
Inclined surfaces	Table 1205.4	

\*See Table 1205.4 for footnotes