– Gust Effect Factor (Section 26.9)
– Enclosure classification (Section 26.10)
– Internal pressure coefficient (GC_{pi}) (Section 26.11).

30.2.2 Minimum Design Wind Pressures

The design wind pressure for components and cladding of buildings shall not be less than a net pressure of 16 lb/ft^2 (0.77 kN/m^2) acting in either direction normal to the surface.

30.2.3 Tributary Areas Greater than 700 ft^2 (65 m^2)

Component and cladding elements with tributary areas greater than 700 ft^2 (65 m^2) shall be permitted to be designed using the provisions for MWFRS.

30.2.4 External Pressure Coefficients

Combined gust effect factor and external pressure coefficients for components and cladding, (GC_p), are given in the figures associated with this chapter. The pressure coefficient values and gust effect factor shall not be separated.

30.3 VELOCITY PRESSURE

30.3.1 Velocity Pressure Exposure Coefficient

Based on the exposure category determined in Section 26.7.3, a velocity pressure exposure coefficient K_z or K_h, as applicable, shall be determined from Table 30.3-1. For a site located in a transition zone between exposure categories, that is, near to a change in ground surface roughness, intermediate values of K_z or K_h, between those shown in Table 30.3-1, are permitted, provided that they are determined by a rational analysis method defined in the recognized literature.

30.3.2 Velocity Pressure

Velocity pressure, q_z, evaluated at height z shall be calculated by the following equation:

$$q_z = 0.00256\ K_z K_{zt} K_d V^2\ (\text{lb/ft}^2) \qquad (30.3\text{-}1)$$

[In SI: $q_z = 0.613\ K_z K_{zt} K_d V^2\ (\text{N/m}^2)$; V in m/s]

where

K_d = wind directionality factor defined in Section 26.6
K_z = velocity pressure exposure coefficient defined in Section 30.3.1
K_{zt} = topographic factor defined in Section 26.8
V = basic wind speed from Section 26.5
q_h = velocity pressure calculated using Eq. 30.3-1 at height h

The numerical coefficient 0.00256 (0.613 in SI) shall be used except where sufficient climatic data are available to justify the selection of a different value of this factor for a design application.

Velocity Pressure Exposure Coefficients, K_h and K_z

Table 30.3-1

Height above ground level, z		Exposure		
ft	(m)	B	C	D
0-15	(0-4.6)	0.70	0.85	1.03
20	(6.1)	0.70	0.90	1.08
25	(7.6)	0.70	0.94	1.12
30	(9.1)	0.70	0.98	1.16
40	(12.2)	0.76	1.04	1.22
50	(15.2)	0.81	1.09	1.27
60	(18)	0.85	1.13	1.31
70	(21.3)	0.89	1.17	1.34
80	(24.4)	0.93	1.21	1.38
90	(27.4)	0.96	1.24	1.40
100	(30.5)	0.99	1.26	1.43
120	(36.6)	1.04	1.31	1.48
140	(42.7)	1.09	1.36	1.52
160	(48.8)	1.13	1.39	1.55
180	(54.9)	1.17	1.43	1.58
200	(61.0)	1.20	1.46	1.61
250	(76.2)	1.28	1.53	1.68
300	(91.4)	1.35	1.59	1.73
350	(106.7)	1.41	1.64	1.78
400	(121.9)	1.47	1.69	1.82
450	(137.2)	1.52	1.73	1.86
500	(152.4)	1.56	1.77	1.89

Notes:

1. The velocity pressure exposure coefficient K_z may be determined from the following formula:

   For 15 ft. $\le z \le z_g$: $K_z = 2.01\ (z/z_g)^{2/\alpha}$

   For $z < 15$ ft. : $K_z = 2.01\ (15/z_g)^{2/\alpha}$

   Note: z shall not be taken less than 30 feet in exposure B.
2. α and z_g are tabulated in Table 26.9.1.
3. Linear interpolation for intermediate values of height z is acceptable.
4. Exposure categories are defined in Section 26.7.