

- 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/ft² (0.77 kN/m²) acting in either direction normal to the surface.

30.2.3 Tributary Areas Greater than 700 ft² (65 m²)

Component and cladding elements with tributary areas greater than 700 ft² (65 m²) 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 coeffi-

cient 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:

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

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

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.