

27.4.3 Open Buildings with Monoslope, Pitched, or Troughed Free Roofs

The net design pressure for the MWFRS of open buildings with monoslope, pitched, or troughed roofs shall be determined by the following equation:

$$p = q_h G C_N \quad (27.4-3)$$

where

q_h = velocity pressure evaluated at mean roof height h using the exposure as defined in Section 26.7.3 that results in the highest wind loads for any wind direction at the site

G = gust-effect factor from Section 26.9

C_N = net pressure coefficient determined from Figs. 27.4-4 through 27.4-7

Net pressure coefficients, C_N , include contributions from top and bottom surfaces. All load cases shown for each roof angle shall be investigated. Plus and minus signs signify pressure acting toward and away from the top surface of the roof, respectively.

For free roofs with an angle of plane of roof from horizontal θ less than or equal to 5° and containing fascia panels, the fascia panel shall be considered an inverted parapet. The contribution of loads on the fascia to the MWFRS loads shall be determined using Section 27.4.5 with q_p equal to q_h .