

2001 COMPANY

2001 Company ASCE-7 Wind Codes

The United States building codes requires roof designers to provide roofs that will withstand the anticipated winds in that area. Building occupancy requires increased wind up lift pressure requirements for a safety factor.

ASCE-7 **American Society of Civil Engineers** for division 7 roofing and waterproofing of the building envelope has a wind map of recorded wind speeds across the United States.

Depending on varying building design factors height, shape, roof slope, location, ability to resist wind blown debris, air permeability of roof deck and anticipated ASCE-7 wind speed a calculation is made to determine **Wind Up Lift Vacuum Pressures**.

This wind up lift vacuum pressures will be experienced on 3 areas of the roof

- 1) **The corner's**: are the highest
- 2) **The perimeters**: are a little less intensive
- 3) **The field of the roof**: the interior is the least of

These anticipated wind up lift pressures across a building roof are calculated in pounds per square foot "PSF".

A common wind design for a roof is FM I-90 which means Factory Mutual Insurance tested for class I Fire Protection, and 90 PSF wind up lift resistance.