

TOPOGRAPHIC FACTOR

Topographical wind effects - According to ASCE-7 and IBC, topographical effects must be accounted for in the design of the structure for wind loading. This is a complex process that requires more information than is what has been required by the manufacturer in the past. In order to assist you with this, we have provided this worksheet to determine if it is required for your building.

Answer the following questions in order. If the answer to any of these questions is no, then the topographical information on the purchase order will be filled in with "N/A":

1. Does this building lie on the upper half of a hill, ridge, or escarpment?
2. If yes to the previous question, is this hill, ridge or escarpment unobstructed in any direction by another similar topographic feature within a distance of 100 times its height?
3. If yes to the previous question, Does this hill, ridge or escarpment protrude above the height of any other topographical features within 2 miles by a distance at least twice the height of the lower feature?
4. If yes to the previous question, Does the average slope on the top half of the hill ridge or escarpment equal or exceed 20% (11.3 °)?
5. If yes to the previous question, is the height of the hill, ridge or escarpment equal to or greater than the following dimension?

Wind Exposure	Height of Hill, Ridge, or Escarpment
B	60 feet
C or D	15 feet

If the answer to ALL of the previous questions is yes, fill in the topographic information in the appropriate blanks as described below:

- Type of the topographical feature. (Hill, Ridge or Escarpment as defined in the figure below.)
- Height of the hill, ridge or escarpment. (H in the figure below.)
- Horizontal distance from a point 1/2 height of the hill on the side the building is located to the crest. (Lh in the figure below.)
- Horizontal distance from the ridge to the closest building line. (x in the figure below.)
- Vertical distance from the bottom of the hill to the mean roof height of the structure. (z in the figure below.)

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