

# 35' STC 37 ACOUSTIC PANEL WIND REQUIREMENTS



In accordance with the Uniform Building Code (UBC 1997) Division III - Wind Design, the STC 37 Acoustic Panels meet the design requirements when the following circumstances are met.

- 1 The installation site can be flat and generally open, but must not face any large bodies of water over 1 mile (1.61 km) or more in width relative to any quadrant of the installation site. The installation site must not be within ¼ mile (0.40km) of any shoreline.
- 2 The installation site's geographical location must be used to find the Basic Wind Speed<sup>1</sup> as shown on Figure 16-1 (UBC 1997). Special Wind Regions<sup>2</sup> require Basic Wind Speeds from a local building code department. If the local building department has not established the Basic Wind Speed, use of regional climatic data and consultation with a wind engineer or meteorologist is advised.
- 3 A concrete blocks must be placed with their center of gravity located 50" (1.270m) from the end of the 35' Acoustic Panel as shown in Figure 1. The appropriate mass of this concrete blocks can be found below in Table 1. For Basic Wind Speeds at or below 100 MPH (161 km/h), 4 typical retaining wall blocks that has a mass of 4620 lbs (2100 kg) and dimensions of 60" x 30" x 30" (1.5m x 0.75m x 0.75m) would be adequate.

Basic Wind Speed (MPH)	100	90	80	70
Concrete Block Mass (lbs)	18480	13860	9240	4620
Concrete Block Mass (kg)	8400	6300	4200	2100
# of 4620lbs (2100kg) blocks required	4	3	2	1

Table 1: 35' Acoustic Panel Required Concrete Block Mass

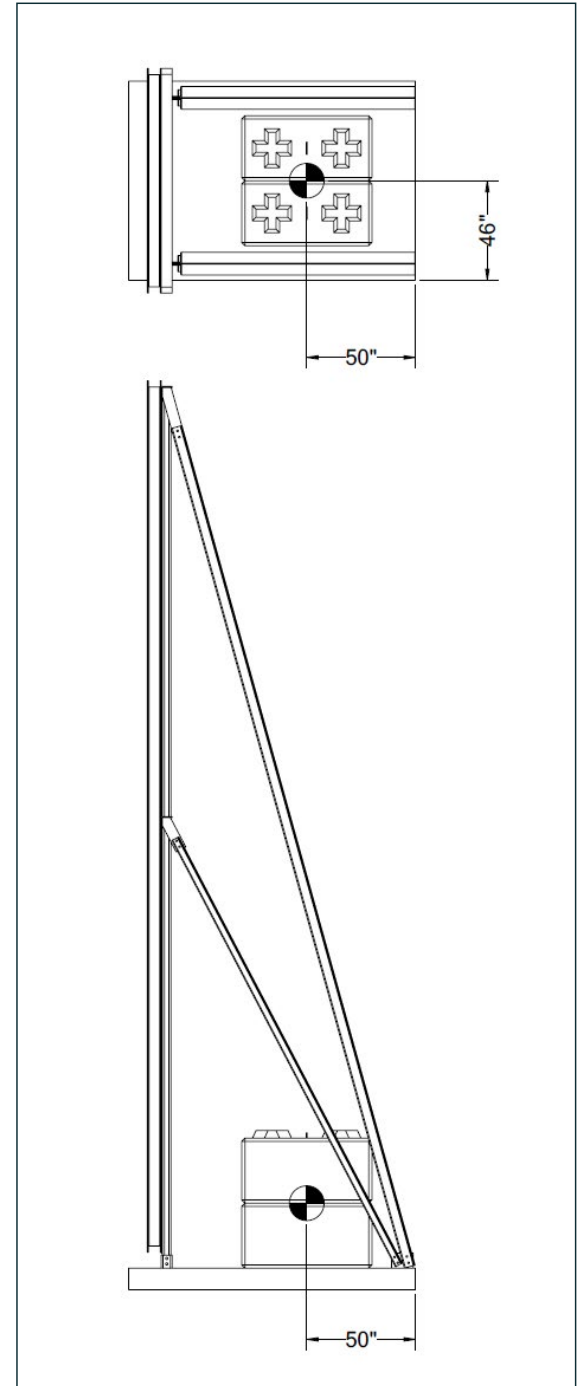
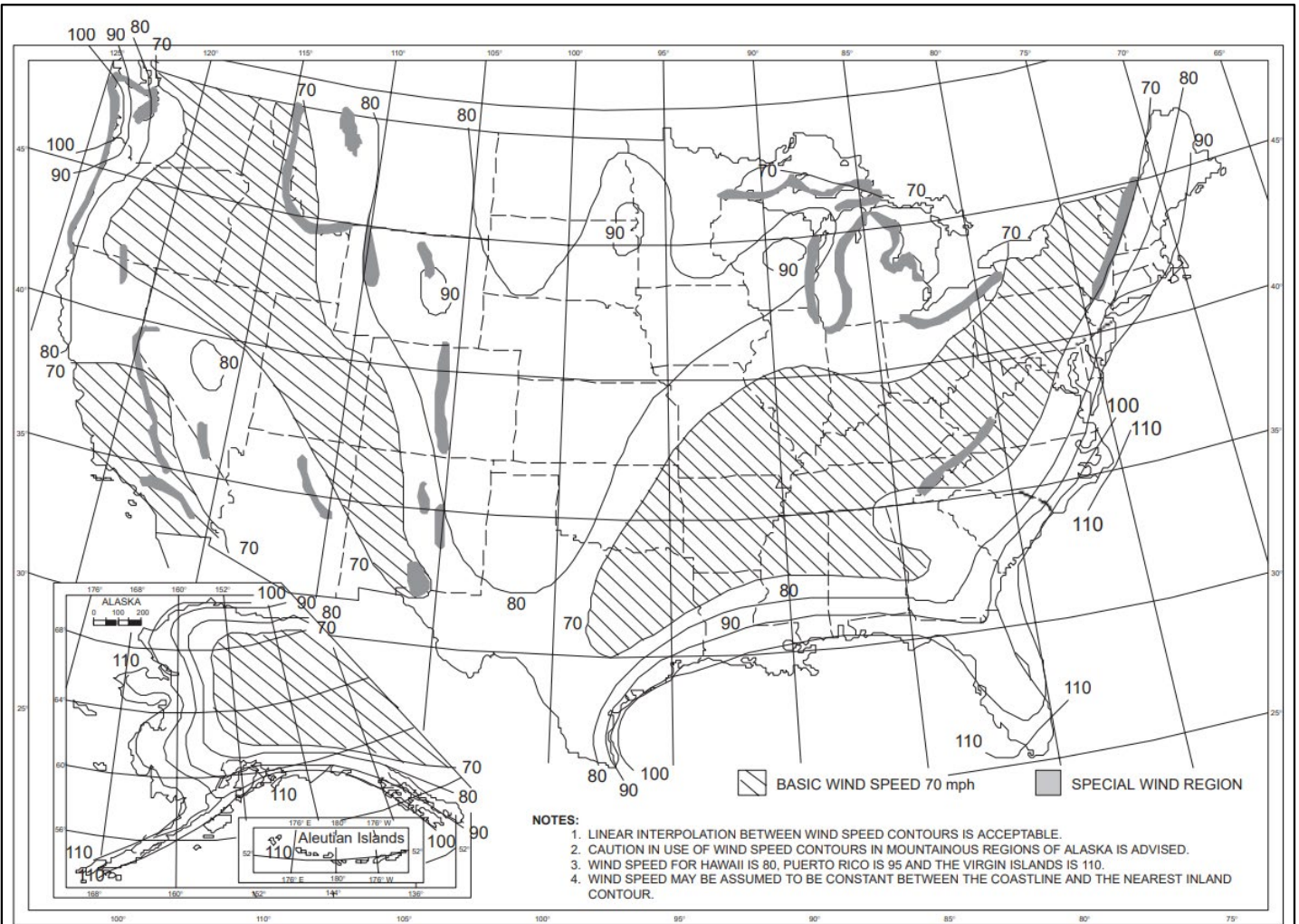


Figure 1: 35 Acoustic Panel Block Location

<sup>1</sup>Basic Wind Speed is the fastest-mile wind speed associated with an annual probability of 0.02 measured at a point 33 feet (10 000 mm) above the ground for an area having exposure category C. (UBC 1997)

<sup>2</sup>Special Wind Region is an area where local records and terrain features indicate 50-year fastest-mile basic wind speed is higher than shown in Figure 16-1.



**FIGURE 16-1—MINIMUM BASIC WIND SPEEDS IN MILES PER HOUR ( $\times 1.61$  for km/h)**