

Homework # 2

- 1) Calculate the resultant wind pressure (external $\pm$ internal pressure) acting on the structure shown in Example 1.1 for wind in the north-south direction.

Comment on the effects of internal pressure on the wind forces in the structure?

- 2) Assume that the magnitude of live loads on the structure is equal to 50 psf.
 - (a) Calculate the magnitude and distribution of live loading on the east-west frame d_i - e_i - f_i of the structure.
 - (b) Calculate the magnitude and distribution of wind loading on the same east –west frame d_i - e_i - f_i , for wind in the east-west direction.

Hint: Check your answers. *Did you miss any portion of the live loading in 2(a)?*