CONCRETE PRODUCTS GROUP

Project:	
Date:	
Engineer:	

Masonry Veneer Anchor Calculator

Codes: ASCE 7-10 TMS 402-13

For multi-story walls, use maximum h of of the story under consideration.

WIND INFORMATION

Basic Wind Speed	**110**	**mph**
Wind Exposure Category	**C**	

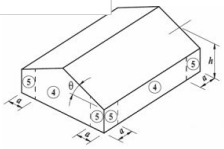
SEISMIC INFORMATION

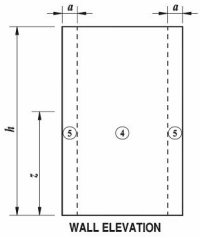
Seismic Design Cateogy	**>D**	

BUILDING INFORMATION

Wall length, L	**60**	**feet**
End zone, a	**6**	**feet**
height of building, h	**160**	**feet; see Notes 1. and 2.**
Veneer weight, W_p	**40**	**psf; must be < or = 40**

For gable ends, use maximum h of wall.





WALL ELEVATION

ANCHOR INFORMATION

z = Elevation of wall anchors (feet). (must be < height of building.)	Velocity Pressure (psf) q_z (Strength)	Maximum area per anchor (sf)	
		Wind	Seismic
160	**36.8**	**2.67**	**2**

Maximum Horizontal Spacing (in.)	Maximum Vertical Spacing (in.)	User Horizontal Spacing (in)	User Vertical Spacing (in)	Actual Horizontal Spacing (in)	Actual vertical Spacing (in)
32	**25**	**16**	**16**	**16**	**16**

Notes:

1. Maximum building height = 160 ft if qz < 40 psf.
2. Maximum height = 60 ft if 40 psf < qz < 55 psf.
3. Velocity pressure= qz = $0.00256\ K_z K_{zt} K_d V^2$

   K_z is taken from ASCE 7-10, Table 30.3-1 and is dependent upon height and exposure

   $K_{zt} = (1 + K_1 K_2 K_3)^2$ The calculator uses K_{zt} = 1.0.

   The user should determine the actual K_{zt} if there are escarpments, hills or ridges nearby.

   K_d = 0.85
4. The building may be enclosed or partially enclosed since the interior pressure does not affect the veneer.
5. **Green** cells require User input; **Yellow** cells are output.
6. **N/A** indicates that one or more of the following have occurred such that the anchor spacing can not be determined.
   a) the height of the building exceeds the allowable,
   b) the velocity pressure exceeds the allowable, or
   c) the seismic weight is too large

Exposure	Type	Wall Zone	Seismic
B	Enclosed	4	A
C	Partially Er	5	B
D			C
			>D

GCp > 60		
Positive	4	5
20	0.9	0.9
500	0.6	0.6
Negative	4	5
20	-0.9	-1.8
500	-0.7	-1

GCp < 60		
Positive	4	5
10	1	1
500	0.7	0.7
Negative	4	5
10	-1.1	-1.4
500	-0.8	-0.8