ULTIMATE WIND LOADS - COMPONENTS & CLADDING: H <= 60'

THREE STORIES

Kh (case 1) = 0.76 h = 40.0 ft
Base pressure (gh) = 34.8 psf a = 6.0 ft
Minimum parapet ht = 3.0 ft GCpi = +/- 0.18
Roof Angle ( ) = 0.0 deg
Type of roof = Monoslope

ROOF

	GCp +/- GCpi			SURFACE PRESSURE (psf)			USER INPUT	
AREA	10 sf	50 sf	100 sf	10 sf	50 sf	100 sf	200 sf	600 sf
NEGATIVE ZONE 1	-1.18	-1.11	-1.08	-41.1	-38.6	-37.6	-37.6	-37.6
NEGATIVE ZONE 2	-1.98	-1.49	-1.28	-68.9	-51.9	-44.5	-44.5	-44.5
NEGATIVE ZONE 3	-1.98	-1.49	-1.28	-68.9	-51.9	-44.5	-44.5	-44.5
POSITIVE ZONE 1	0.48	0.41	0.38	16.7	16.0	16.0	16.0	16.0
POSITIVE ZONE 2 & 3	1.08	0.97	0.92	37.6	33.7	32.1	30.4	28.2
OVERHANG ZONE 1 & 2	-1.70	-1.63	-1.60	-59.2	-56.7	-55.7	-48.2	-38.3
OVERHANG ZONE 3'	-1.70	-1.63	-1.60	-59.2	-56.7	-55.7	-48.2	-38.3

Negative Zone 3 = Zone 2, since parapet >= 3ft.
Overhang pressures in the table above assume an internal pressure coefficient (Gcpi) of 0.0
Overhang Soffit pressure equals adj wall pressure (which includes internal pressure of 6.3 psf)

PARAPET
qp = 36.0 psf
CASE A = pressure towards bldg (pos)
CASE B = pressure away bldg (neg)

	SURFACE PRESSURE (psf)			USER INPUT
SOLID PARAPET PRESSURE	10 sf	100sf	500 sf	75 sf
CASE A: INTERIOR ZONE:	97.2	66.3	62.3	70.1
CORNER ZONE:	97.2	66.3	62.3	70.1
CASE B: INTERIOR ZONE:	-68.0	-56.6	-48.6	-58.0
CORNER ZONE:	-77.7	-60.6	-48.6	-62.7

WALLS

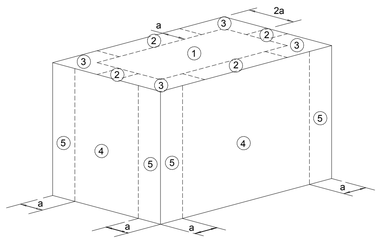
	SURFACE PRESSURE (psf)			SURFACE PRESSURE (psf)			USER INPUT	
AREA	10 sf	100 sf	500 sf	10 sf	100 sf	500 sf	75 sf	600 sf
NEGATIVE ZONE 4	-1.17	-1.01	-0.90	-40.7	-35.2	-31.3	-35.9	-31.3
NEGATIVE ZONE 5	-1.44	-1.12	-0.90	-50.1	-39.0	-31.3	-40.4	-31.3
NEGATIVE ZONE 4 & 5	1.08	0.92	0.81	37.6	32.1	28.2	32.7	28.2

Note: GCp reduced by 10% due to roof angle <= 10 deg.

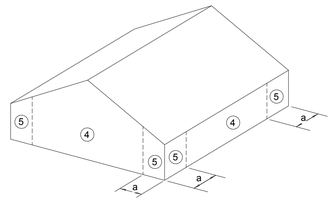
1 WIND LOADS

1/4" = 1'-0"

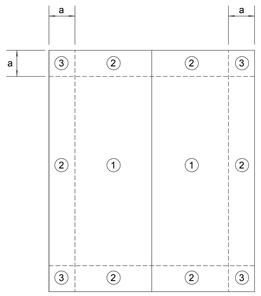
LOCATION OF C&C WIND PRESSURE ZONES



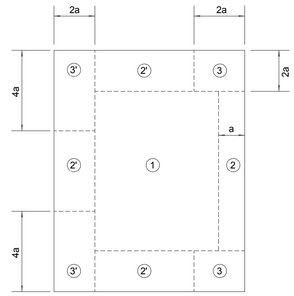
Roofs with Angle _ 10° and all walls h > 60'



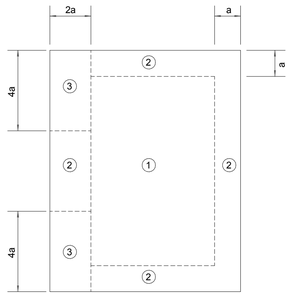
Walls h _ 60' and alt design h < 90'



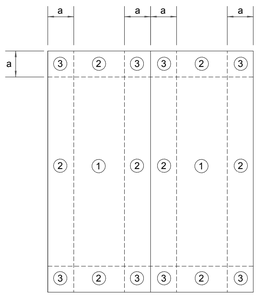
Gable, Sawtooth and
Multispan Gable θ ≤ 7 degrees &
Monoslope ≤ 3 degrees
h ≤ 60' & alt design h<90'



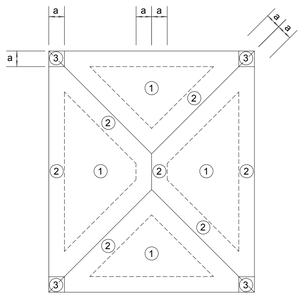
Monoslope roofs
3° < θ ≤ 10°
h ≤ 60' & alt design h<90'



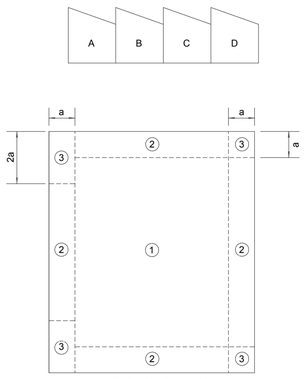
Monoslope roofs
10° < θ ≤ 30°
h ≤ 60' & alt design h<90



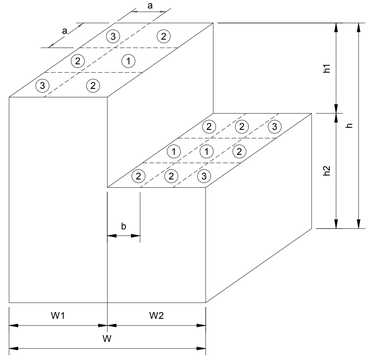
Multispan Gable and
Gable 7° < Angle < 45°

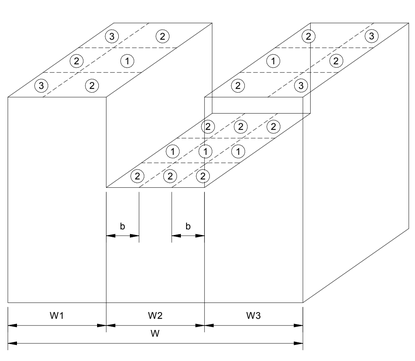


Hip
7° < Angle < 27°



Sawtooth 10° < Angle < 45°
h < 60' and alt design h>90'





Stepped roofs Angle < 3°
h < 60' and alt design h<90'

2 WIND LOAD DIAGRAM

1/4" = 1'-0"

PLOT DATE: 8/18/2019 8:21:05 PM TEMPLATE VERSION:

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07/22/2019

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DRAWING SCALE: AS NOTED

REVISION

NO.	DESCRIPTION	DATE

DATE
07.22.2019

ISSUE
PERMIT SET

BUILDING TITLE
GH SCHOOL
4724 N MAIN STREET

SHEET TITLE
WIND LOAD - COMPONENTS & CLADDING

SHEET NO.
S0.60