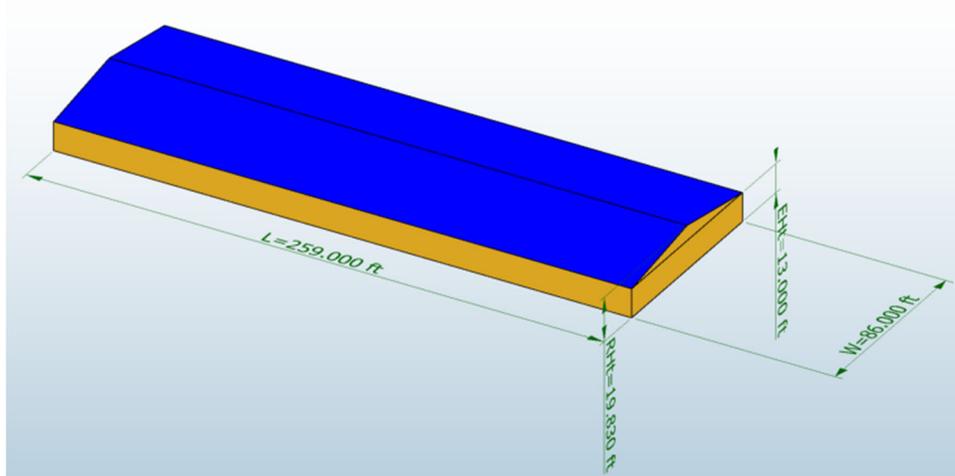


**WIND LOAD ANALYSIS**



**MecaWind v2547**

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**Calculations Prepared by:**

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**Calculations Prepared For:**

Client: Pameco Client  
Project #: WL001  
Location: Honolulu, Hawaii

**General:**

Reference Abbreviations: T: Table, F: Figure, E: Equation, S: Section, ¶: Paragraph

Wind Load Standard	= ASCE 7-16	Basic Wind Speed	= 210.0 mph
Exposure Classification	= C	Risk Category	= III
Structure Type	= Building	Basis for Wind Pressures	= ASD
MWFRS Analysis Method	= Ch 27 Pt 1	C&C Analysis Method	= Ch 30 Pt 1
Dynamic Type of Structure	= Rigid	Advanced Options	= 1
Simple Diaphragm Building	= 0	Base Reactions Output Type	= None
Altitude above Sea Level	= 0.000 ft	Base Elevation Of Structure	= 0.0000 ft
MWFRS Pressure Elevations	= Mean Ht	Topographic Effects	= None
Override Directionality Factor	= 0	Override Gust Factor	= 0
Override Minimum Pressure	= 0		

**Building:**

Roof = Roof Type	= Gabled	Encl = Enclosure Classification	= Enclosed
IsCust = Custom Roof	= False	W = Building Width	= 86.0000 ft
L = Building Length	= 259.0000 ft	R <sub>ht</sub> = Ridge Height	= 19.830 ft
E <sub>ht</sub> = Eave Height	= 13.000 ft	Pitch = Pitch of Roof	= 1.91 :12
θ = Slope of Roof	= 9.03 °	OH = Overhang Configuration	= All None
Par = Parapet	= None	z <sub>1</sub> = Highest Opening Elevation	= 0.0000 ft
HT <sub>over</sub> = Override Mean Roof Height	= False	Ht <sub>mean</sub> = Mean Roof Height	= 13.000 ft
RA <sub>over</sub> = Override Roof Area	= False	GC <sub>pl,o</sub> = Override GC <sub>pl</sub> value	= False

**Exposure Constants T:26.11-1:**

α = 3-s Gust-speed exponent T:26.11-1	= 9.500	z <sub>g</sub> = Nominal Boundary Layer Ht T:26.11-1	= 900.0000 ft
â = Reciprocal of α T:26.11-1	= 0.105	b = 3 sec gust speed factor T:26.11-1	= 1.000
α <sub>h</sub> = Mean Hourly Exponent T:26.11-1	= 0.154	b <sub>h</sub> = Mean Hourly Factor T:26.11-1	= 0.650
c = Turbulence Intensity T:26.11-1	= 0.200	ε = Integral Length Exponent T:26.11-1	= 0.2000

**Components and Cladding (C&C) Wind Loads per Ch 30 Pt 1 Roof & Wall**

h = Mean structure height	= 13.000 ft	K <sub>h</sub> = 2.01 • (15/z <sub>g</sub> ) <sup>2/α</sup> T:26.10-1	= 0.849
K <sub>zt</sub> = No Topographic Feature	= 1.000	K <sub>d</sub> = Directionality Factor T:26.6-1	= 0.85
GC <sub>pl</sub> = ± Internal Press Coef T:26.13-1	= ±0.18	LF = ASD Load Factor	= 0.60
K <sub>a</sub> = Ground Elev Factor T:26.9-1	= 1.000	q <sub>h</sub> = .00256 • K <sub>h</sub> • K <sub>zt</sub> • K <sub>d</sub> • K <sub>a</sub> • V <sup>2</sup> • LF T:26.10-1	= 48.88 psf
θ = Slope of Roof	= 9.03 °	a <sub>1</sub> = Min(0.1 • B, 0.4 • h)	= 5.200 ft
a = Max(a <sub>1</sub> , 0.04 • B, 3 ft [0.9 m])	= 5.200 ft		

C&C Wind Roof & Wall Detailed per Ch 30 Pt 1  
All wind pressures include a Load Factor (LF) of 0.6

Description	Zone	Width ft	Span ft	Area ft <sup>2</sup>	1/3 Rule	Reference	a ft	GC <sub>pi</sub>	GC <sub>pd</sub>	GC <sub>ps</sub>	P <sub>max</sub> psf	P <sub>min</sub> psf
10 SQFT	4	2.0000	5.0000	10.00	No	F:30.3-1*	5.2	±0.18	0.90	-0.99	52.79	-57.19
20 SQFT	4	4.0000	5.0000	20.00	No	F:30.3-1*	5.2	±0.18	0.85	-0.94	50.45	-54.85
30 SQFT	4	5.0000	6.0000	30.00	No	F:30.3-1*	5.2	±0.18	0.82	-0.91	49.08	-53.48
40 SQFT	4	5.0000	8.0000	40.00	No	F:30.3-1*	5.2	±0.18	0.80	-0.89	48.11	-52.51
50 SQFT	4	5.0000	10.0000	50.00	No	F:30.3-1*	5.2	±0.18	0.79	-0.88	47.36	-51.76
60 SQFT	4	6.0000	10.0000	60.00	No	F:30.3-1*	5.2	±0.18	0.78	-0.87	46.74	-51.14
70 SQFT	4	7.0000	10.0000	70.00	No	F:30.3-1*	5.2	±0.18	0.77	-0.86	46.22	-50.62
80 SQFT	4	8.0000	10.0000	80.00	No	F:30.3-1*	5.2	±0.18	0.76	-0.85	45.77	-50.17
90 SQFT	4	9.0000	10.0000	90.00	No	F:30.3-1*	5.2	±0.18	0.75	-0.84	45.37	-49.77
100 SQFT	4	10.0000	10.0000	100.00	No	F:30.3-1*	5.2	±0.18	0.74	-0.83	45.02	-49.42
10 SQFT	5	2.0000	5.0000	10.00	No	F:30.3-1*	5.2	±0.18	0.90	-1.26	52.79	-70.38
20 SQFT	5	4.0000	5.0000	20.00	No	F:30.3-1*	5.2	±0.18	0.85	-1.16	50.45	-65.71
30 SQFT	5	5.0000	6.0000	30.00	No	F:30.3-1*	5.2	±0.18	0.82	-1.11	49.08	-62.97
40 SQFT	5	5.0000	8.0000	40.00	No	F:30.3-1*	5.2	±0.18	0.80	-1.07	48.11	-61.03
50 SQFT	5	5.0000	10.0000	50.00	No	F:30.3-1*	5.2	±0.18	0.79	-1.04	47.36	-59.52
60 SQFT	5	6.0000	10.0000	60.00	No	F:30.3-1*	5.2	±0.18	0.78	-1.01	46.74	-58.29
70 SQFT	5	7.0000	10.0000	70.00	No	F:30.3-1*	5.2	±0.18	0.77	-0.99	46.22	-57.25
80 SQFT	5	8.0000	10.0000	80.00	No	F:30.3-1*	5.2	±0.18	0.76	-0.97	45.77	-56.35
90 SQFT	5	9.0000	10.0000	90.00	No	F:30.3-1*	5.2	±0.18	0.75	-0.96	45.37	-55.56
100 SQFT	5	10.0000	10.0000	100.00	No	F:30.3-1*	5.2	±0.18	0.74	-0.94	45.02	-54.85

GC<sub>pd</sub> = Down (+) External Coefficient  
P<sub>max</sub> = q<sub>h</sub> \* [GC<sub>ps</sub> - GC<sub>pi</sub>] [8:30.3-1]  
+Press = Pressure Acting Toward Surface  
530.2.2 C&C Min Pressure = 9.60 psf  
Width = Width of Component  
Area = Span \* Width  
a = Max[Min(.1\*B, .4\*h), .04\*B, 3] [7:30.3-1]  
Reference = Applicable Reference from Standard

GC<sub>ps</sub> = Uplift (-) External Coefficient  
P<sub>min</sub> = q<sub>h</sub> \* [GC<sub>ps</sub> - GC<sub>pi</sub>] [8:30.3-1]  
-Press = Pressure Acting Away from Surface  
Zone = Applicable Zone per Figure  
Span = Span of Component  
1/3 Rule = Width limited to Span/3  
GC<sub>pi</sub> = Internal Coef [7:26.13-1]  
7:30.3-1 = \*Since θ ≤ 10°: Zone 4 & 5 GC<sub>p</sub> reduced 10\*