Carport Unit Loads and Weight SECTION 01

Roof unit dead loads [Table: 0303.01]

variable	value	[value]	description
ld1	2.0 psf	0.096 KPa	Urethane foam (4 inch thick)
ld2	1.0 psf	0.048 KPa	Three-ply roofing
ld3	5.0 psf	0.239 KPa	Doug Fir decking 2-in.
ld4	1.0 psf	0.048 KPa	Doug Fir beams 4x12 at 12 ft o.c.

Carport Geometry [Table: 0303.02]

variable	value	[value]	description
cp_width	22.75 [ft]	6.93 [m]	carport width
cp_length	19.5 [ft]	5.94 [m]	carport length
roofdl1	0.009 [ksf]	0.43 [KPa]	unit load
newfnd	0.15 [kips]	0.67 [KN]	new foundations

Weight of carport [Equ: 0303.01]

$$\mathrm{cp_{wt}} = \mathrm{cp_{length}} \cdot \mathrm{cp_{width}} \cdot \mathrm{roofdl_1} + 6 \cdot \mathrm{newfnd}$$

cp_wt	newfnd	cp_length	cp_width	roofdl1
4.89 [kips] [21.76 [KN]]	0.15 [kips]	19.50 [ft]	22.75 [ft]	0.01 [ksf]

Wind loads SECTION 02

Wind Force Values [Table: 0303.03]

variable	value	[value]	description
uplift_max	2.8 [kips]	12.46 [KN]	nominal maximum wind uplift

Uplift DC ratio [Equ: 0303.02]

$$\mathrm{dc_1} = \frac{\mathrm{uplift_{max}}}{0.9 \cdot \mathrm{cp_{wt}}}$$

dc1	uplift_max	cp_wt
0.64 [-] [0.64 [-]]	2.80 [kips]	4.89 [kips]

Mecca Wind Model Results [Table: 0303.04]

MecaWind v2374

Software Developer: Meca Enterprises Inc., www.meca.biz, Copyright Â© 2020

Calculations Prepared by:
StL
15 Blanca Drive
Novato, California, 94947
Date: Feb 10, 2021
Designer: rholland

Calculations Prepared For:
Client: Bryna Holland
Project #: 00120
Location: Mill Valley, California
Description:
Residential Remodel

File Location : F:\Dropbox\projects\residence_remodel\models\MecaWind\carport1.wnd

Basic Wind Parameters

Wind Load Standard	= ASCE 7-16	Exposure Category	= B
Wind Design Speed	= 100.0 mph	Risk Category	= III
Structure Type	= Building	Building Type	= Open

General Wind Settings

Incl_LF	= Include ASD Load Factor of 0.6 in Pressures	= True
DynType	= Dynamic Type of Structure	= Rigid
NF	= Natural Frequency of Structure (Mode 1)	= 1.000 Hz
Zg	= Altitude (Ground Elevation) above Sea Level	= 0.000 ft
Bdist	= Base Elevation of Structure	= 0.000 ft
SDB	= Simple Diaphragm Building	= False
Reacs	= Show the Base Reactions in the output	= True
MWFRSType	= MWFRS Method Selected	= Ch 27 Pt 1

Topographic Factor per Fig 26.8-1

```
    Topo      = Topographic Feature                                          = None
    Kzt       = Topographic Factor                                           = 1.000
```

Building Inputs

```
    RoofType: Roof Type          = MonoSlope       h       : Mean Roof Height   = 8.000 ft
    L       : Width Normal to Ridge= 19.000 ft     D       : Length Along Ridge = 23.000 ft
    WindFlow: Wind Flow Method   = Clear           Slope   : Slope of Roof      = 5.0 Deg
    Frames  : Incl Transverse Frames= False        n       : Number of Frames   = 3
    e       : Solidity Ratio     = 0.100
```

Exposure Constants per Table 26.11-1:

```
    Alpha: Table 26.11-1 Const   = 7.000           Zg:    Table 26.11-1 Const   = 1200.000 ft
    At:    Table 26.11-1 Const   = 0.143           Bt:    Table 26.11-1 Const   = 0.840
    Am:    Table 26.11-1 Const   = 0.250           Bm:    Table 26.11-1 Const   = 0.450
    C:     Table 26.11-1 Const   = 0.300           Eps:   Table 26.11-1 Const   = 0.333
```

Gust Factor Calculation:

```
    Gust Factor Category I Rigid Structures - Simplified Method
    G1        = For Rigid Structures (Nat. Freq.>1 Hz) use 0.85                = 0.85
    Gust Factor Category II Rigid Structures - Complete Analysis
    Zm        = 0.6 * Ht                                                       = 30.000 ft
    Izm       = Cc * (33 / Zm) ^ 0.167                                         = 0.305
    Lzm       = L * (Zm / 33) ^ Epsilon                                        = 309.993
    Q         = (1 / (1 + 0.63 * ((B + Ht) / Lzm)^0.63))^0.5                   = 0.906
    G2        = 0.925*((1+1.7*lzm*3.4*Q)/(1+1.7*3.4*lzm))                      = 0.869
    Gust Factor Used in Analysis
    G         = Lessor Of G1 Or G2                                             = 0.850
```

Main Wind Force Resisting System (MWFRS) Calculations per Ch 27 Part 1:

```
    LF        = Load Factor based upon ASD Design                              = 0.60
    h         = Mean Roof Height above grade                                   = 8.000 ft
    Kh        = Z < 15 ft [4.572 m]--> (2.01 * (15/zg)^(2/Alpha) {Table 26.10-1}= 0.575
    Kzt       = Topographic Factor is 1 since no Topographic feature specified  = 1.000
    Kd        = Wind Directionality Factor per Table 26.6-1                    = 0.85
    qh        = (0.00256 * Kh * Kzt * Kd * Ke * V^2) * LF                      = 7.50 psf
```

Wind Pressures on Open Building Monoslope Free Roof per Fig 27.4.4 - Wind Dir 0 Deg:

style="COLOR: rgb(0,0,255); TEXT-ALIGN: center"> **MWFRS Pressures per Fig 27.3-4 on Monoslope Free Roof - Wind Dir 0 Deg**

All wind pressures include a load factor of 0.6

Load Case	Cnw	Cnl	Pnw psf	Pnl psf
Load Case A	1.200	0.300	7.65	1.91
Load Case B	-1.100	-0.100	-7.02	-0.64

Notes:
Pnw = Pressure on windward portion of roof: qh*G*Cnw*LF {Eqn 27.3-4}
Pnl = Pressure On Leeward portion Of roof: qh*G*Cnl*LF [Eqn 27.3-4]
All wind pressures include a load factor of 0.6
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Reactions Roof +GCPi Wind Dir 0 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	1.91	219.33	0.00	0.04	0.42	1.71	0.00	0.00
Windward Roof	7.65	219.33	0.00	0.15	1.67	-9.17	0.00	0.00
Total	0.00	438.67	0.00	0.18	2.09	-7.47	0.00	0.00

Reactions Roof -GCPi Wind Dir 0 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	-0.64	219.33	0.00	-0.01	-0.14	-0.57	0.00	0.00

Windward Roof	-7.02	219.33	0.00	-0.13	-1.53	8.41	0.00	0.00
Total	0.00	438.67	0.00	-0.15	-1.67	7.84	0.00	0.00

Wind Pressures on Open Building Monoslope Free Roof per Fig 27.4.7 - Wind Dir 90 Deg:

style="COLOR: rgb(0,0,255); TEXT-ALIGN: center"> **Open Building Along Ridge Pressures per Fig 27.3-7 - Wind 90 Deg**

All wind pressures include a load factor of 0.6

Roof Var	Start Dist ft	End Dist ft	CnA	CnB	Pressure PnA psf	Pressure PnB psf
Roof_1	0.000	8.000	-0.800	0.800	-5.10	5.10
Roof_2	8.000	16.000	-0.600	0.500	-3.83	3.19
Roof_3	16.000	23.000	-0.300	0.300	-1.91	1.91

Notes Roof Pressures:
Start Dist = Start Dist from Windward Edge End Dist = End Dist from Windward Edge
CnA = Cn for Load Case A CnB = Cn for Load Case B
PnA = qh*G*CnA {Eqn 27.4-3} PnB = qh*g*CnB {Eqn 27.4-3]
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Reactions Roof +GCPi Wind Dir 90 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Roof (Roof)	-1.91	66.75	0.00	-0.01	-0.13	-0.52	1.02	-0.09
Roof (Roof)	-1.91	66.75	0.00	-0.01	-0.13	0.70	1.02	-0.09
Roof (Roof)	-3.83	76.29	0.00	-0.03	-0.29	-1.19	0.15	-0.01
Roof (Roof)	-3.83	76.29	0.00	-0.03	-0.29	1.60	0.15	-0.01
Roof (Roof)	-5.10	76.29	0.00	-0.03	-0.39	-1.58	-2.91	0.25
Roof (Roof)	-5.10	76.29	0.00	-0.03	-0.39	2.13	-2.91	0.25

Total	0.00	438.67	0.00	-0.14	-1.61	1.13	-3.49	0.31

Reactions Roof -GCPi Wind Dir 90 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Roof (Roof)	5.10	76.29	0.00	0.03	0.39	1.58	2.91	-0.25
Roof (Roof)	5.10	76.29	0.00	0.03	0.39	-2.13	2.91	-0.25
Roof (Roof)	3.19	76.29	0.00	0.02	0.24	0.99	-0.12	0.01
Roof (Roof)	3.19	76.29	0.00	0.02	0.24	-1.33	-0.12	0.01
Roof (Roof)	1.91	66.75	0.00	0.01	0.13	0.52	-1.02	0.09
Roof (Roof)	1.91	66.75	0.00	0.01	0.13	-0.70	-1.02	0.09
Total	0.00	438.67	0.00	0.13	1.51	-1.06	3.54	-0.31

Wind Pressures on Open Building Monoslope Free Roof per Fig 27.4.4 - Wind Dir 180 Deg:

style="COLOR: rgb(0,0,255); TEXT-ALIGN: center"> **MWFRS Pressures per Fig 27.3-4 on Monoslope Free Roof - Wind Dir 180 Deg**

All wind pressures include a load factor of 0.6

Load Case	Cnw	Cnl	Pnw psf	Pnl psf
Load Case A	1.200	0.300	7.65	1.91
Load Case B	-1.100	-0.100	-7.02	-0.64

Notes:
Pnw = Pressure on windward portion of roof: qh*G*Cnw*LF {Eqn 27.3-4}
Pnl = Pressure On Leeward portion Of roof: qh*G*Cnl*LF [Eqn 27.3-4]
All wind pressures include a load factor of 0.6
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Reactions Roof +GCPi Wind Dir 180 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	1.91	219.33	0.00	0.04	0.42	1.71	0.00	0.00
Windward Roof	7.65	219.33	0.00	0.15	1.67	-9.17	0.00	0.00
Total	0.00	438.67	0.00	0.18	2.09	-7.47	0.00	0.00

Reactions Roof -GCPi Wind Dir 180 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	-0.64	219.33	0.00	-0.01	-0.14	-0.57	0.00	0.00
Windward Roof	-7.02	219.33	0.00	-0.13	-1.53	8.41	0.00	0.00
Total	0.00	438.67	0.00	-0.15	-1.67	7.84	0.00	0.00

Reactions Roof Minimum Pressure Wind Dir 180 Deg

Description	Pressure psf	Area* ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	9.60	19.12	0.00	0.18	0.00	-1.39	0.00	0.00
Windward Roof	9.60	19.12	0.00	0.18	0.00	-1.54	0.00	0.00
Total	0.00	38.23	0.00	0.37	0.00	-2.94	0.00	0.00

Reaction Summary (MWFRS)

Description	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Wind Dir 0 Deg Roof Load Case A	0.00	0.18	2.09	-7.47	0.00	0.00
Wind Dir 0 Deg Roof Load Case B	0.00	-0.15	-1.67	7.84	0.00	0.00

Wind Dir 90 Deg Roof Load Case A	0.00	-0.14	-1.61	1.13	-3.49	0.31
Wind Dir 90 Deg Roof Load Case B	0.00	0.13	1.51	-1.06	3.54	-0.31
Wind Dir 180 Deg Roof Load Case A	0.00	0.18	2.09	-7.47	0.00	0.00
Wind Dir 180 Deg Roof Load Case B	0.00	-0.15	-1.67	7.84	0.00	0.00
Wind Dir 180 Deg Roof Minimum Pressure	0.00	0.37	0.00	-2.94	0.00	0.00

Notes applying to MWFRS Reactions
* Per Figure 27.4-1 Note 9, Use greater of Shear calculated with or without roof.
* X= Along Building ridge, Y = Normal to Building Ridge, Z = Vertical
* Minimum Pressurs applied to a vertical plane normal to wind.
* Reactions calculated about the geometric center of the footprint

MeccaWind Output **SECTION 03**

Mecca Wind Model Results [Table: 0303.05]

MecaWind v2374

Software Developer: Meca Enterprises Inc., www.meca.biz, Copyright Â© 2020

Calculations Prepared by:	Calculations Prepared For:
StL	Client: Bryna Holland
15 Blanca Drive	Project #: 00120
Novato, California, 94947	Location: Mill Valley, California
Date: Feb 10, 2021	Description:
Designer: rholland	Residential Remodel

File Location : F:\Dropbox\projects\residence_remodel\models\MecaWind\carport1.wnd

Basic Wind Parameters

Wind Load Standard	= ASCE 7-16	Exposure Category	= B
Wind Design Speed	= 100.0 mph	Risk Category	= III
Structure Type	= Building	Building Type	= Open

General Wind Settings

```
    Incl_LF   = Include ASD Load Factor of 0.6 in Pressures                    = True
    DynType   = Dynamic Type of Structure                                      = Rigid
    NF        = Natural Frequency of Structure (Mode 1)                        = 1.000 Hz
    Zg        = Altitude (Ground Elevation) above Sea Level                    = 0.000 ft
    Bdist     = Base Elevation of Structure                                    = 0.000 ft
    SDB       = Simple Diaphragm Building                                      = False
    Reacs     = Show the Base Reactions in the output                          = True
    MWFRSType = MWFRS Method Selected                                          = Ch 27 Pt 1



**Topographic Factor per Fig 26.8-1**

    Topo      = Topographic Feature                                            = None
    Kzt       = Topographic Factor                                             = 1.000



**Building Inputs**

    RoofType: Roof Type          = MonoSlope       h       : Mean Roof Height   = 8.000 ft
    L       : Width Normal to Ridge= 19.000 ft     D       : Length Along Ridge = 23.000 ft
    WindFlow: Wind Flow Method   = Clear           Slope   : Slope of Roof      = 5.0 Deg
    Frames  : Incl Transverse Frames= False        n       : Number of Frames   = 3
    e       : Solidity Ratio     = 0.100



**Exposure Constants per Table 26.11-1:**

    Alpha: Table 26.11-1 Const   = 7.000          Zg:    Table 26.11-1 Const   = 1200.000 ft
    At:    Table 26.11-1 Const   = 0.143          Bt:    Table 26.11-1 Const   = 0.840
    Am:    Table 26.11-1 Const   = 0.250          Bm:    Table 26.11-1 Const   = 0.450
    C:     Table 26.11-1 Const   = 0.300          Eps:   Table 26.11-1 Const   = 0.333



**Gust Factor Calculation:**

    Gust Factor Category I Rigid Structures - Simplified Method
    G1        = For Rigid Structures (Nat. Freq.>1 Hz) use 0.85                = 0.85
    Gust Factor Category II Rigid Structures - Complete Analysis
    Zm        = 0.6 * Ht                                                       = 30.000 ft
    Izm       = Cc * (33 / Zm) ^ 0.167                                         = 0.305
    Lzm       = L * (Zm / 33) ^ Epsilon                                        = 309.993
    Q         = (1 / (1 + 0.63 * ((B + Ht) / Lzm)^0.63))^0.5                   = 0.906
    G2        = 0.925*((1+1.7*lzm*3.4*Q)/(1+1.7*3.4*lzm))                      = 0.869
    Gust Factor Used in Analysis
    G         = Lessor Of G1 Or G2                                             = 0.850
```

Main Wind Force Resisting System (MWFRS) Calculations per Ch 27 Part 1:

```
    LF        = Load Factor based upon ASD Design                                  = 0.60
    h         = Mean Roof Height above grade                                       = 8.000 ft
    Kh        = Z < 15 ft [4.572 m]--> (2.01 * (15/zg)^(2/Alpha) {Table 26.10-1}= 0.575
    Kzt       = Topographic Factor is 1 since no Topographic feature specified  = 1.000
    Kd        = Wind Directionality Factor per Table 26.6-1                        = 0.85
    qh        = (0.00256 * Kh * Kzt * Kd * Ke * V^2) * LF                          = 7.50 psf
```

Wind Pressures on Open Building Monoslope Free Roof per Fig 27.4.4 - Wind Dir 0 Deg:

style="COLOR: rgb(0,0,255); TEXT-ALIGN: center"> **MWFRS Pressures per Fig 27.3-4 on Monoslope Free Roof - Wind Dir 0 Deg**

All wind pressures include a load factor of 0.6

Load Case	Cnw	Cnl	Pnw psf	Pnl psf
Load Case A	1.200	0.300	7.65	1.91
Load Case B	-1.100	-0.100	-7.02	-0.64

Notes:
Pnw = Pressure on windward portion of roof: qh*G*Cnw*LF {Eqn 27.3-4}
Pnl = Pressure On Leeward portion Of roof: qh*G*Cnl*LF [Eqn 27.3-4]
All wind pressures include a load factor of 0.6
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Reactions Roof +GCPi Wind Dir 0 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	1.91	219.33	0.00	0.04	0.42	1.71	0.00	0.00
Windward Roof	7.65	219.33	0.00	0.15	1.67	-9.17	0.00	0.00

Total	0.00	438.67	0.00	0.18	2.09	-7.47	0.00	0.00

Reactions Roof -GCPi Wind Dir 0 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	-0.64	219.33	0.00	-0.01	-0.14	-0.57	0.00	0.00
Windward Roof	-7.02	219.33	0.00	-0.13	-1.53	8.41	0.00	0.00
Total	0.00	438.67	0.00	-0.15	-1.67	7.84	0.00	0.00

Wind Pressures on Open Building Monoslope Free Roof per Fig 27.4.7 - Wind Dir 90 Deg:

style="COLOR: rgb(0,0,255); TEXT-ALIGN: center"> **Open Building Along Ridge Pressures per Fig 27.3-7 - Wind 90 Deg**

All wind pressures include a load factor of 0.6

Roof Var	Start Dist ft	End Dist ft	CnA	CnB	Pressure PnA psf	Pressure PnB psf
Roof_1	0.000	8.000	-0.800	0.800	-5.10	5.10
Roof_2	8.000	16.000	-0.600	0.500	-3.83	3.19
Roof_3	16.000	23.000	-0.300	0.300	-1.91	1.91

Notes Roof Pressures:
Start Dist = Start Dist from Windward Edge End Dist = End Dist from Windward Edge
CnA = Cn for Load Case A CnB = Cn for Load Case B
PnA = qh*G*CnA {Eqn 27.4-3} PnB = qh*g*CnB {Eqn 27.4-3]
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Reactions Roof +GCPi Wind Dir 90 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Roof (Roof)	-1.91	66.75	0.00	-0.01	-0.13	-0.52	1.02	-0.09
Roof (Roof)	-1.91	66.75	0.00	-0.01	-0.13	0.70	1.02	-0.09
Roof (Roof)	-3.83	76.29	0.00	-0.03	-0.29	-1.19	0.15	-0.01
Roof (Roof)	-3.83	76.29	0.00	-0.03	-0.29	1.60	0.15	-0.01
Roof (Roof)	-5.10	76.29	0.00	-0.03	-0.39	-1.58	-2.91	0.25
Roof (Roof)	-5.10	76.29	0.00	-0.03	-0.39	2.13	-2.91	0.25
Total	0.00	438.67	0.00	-0.14	-1.61	1.13	-3.49	0.31

Reactions Roof -GCPi Wind Dir 90 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Roof (Roof)	5.10	76.29	0.00	0.03	0.39	1.58	2.91	-0.25
Roof (Roof)	5.10	76.29	0.00	0.03	0.39	-2.13	2.91	-0.25
Roof (Roof)	3.19	76.29	0.00	0.02	0.24	0.99	-0.12	0.01
Roof (Roof)	3.19	76.29	0.00	0.02	0.24	-1.33	-0.12	0.01
Roof (Roof)	1.91	66.75	0.00	0.01	0.13	0.52	-1.02	0.09
Roof (Roof)	1.91	66.75	0.00	0.01	0.13	-0.70	-1.02	0.09
Total	0.00	438.67	0.00	0.13	1.51	-1.06	3.54	-0.31

Wind Pressures on Open Building Monoslope Free Roof per Fig 27.4.4 - Wind Dir 180 Deg:

style="COLOR: rgb(0,0,255); TEXT-ALIGN: center"> **MWFRS Pressures per Fig 27.3-4 on Monoslope Free Roof - Wind Dir 180 Deg**

All wind pressures include a load factor of 0.6

Load Case	Cnw	Cnl	Pnw psf	Pnl psf
Load Case A	1.200	0.300	7.65	1.91
Load Case B	-1.100	-0.100	-7.02	-0.64

Notes:
Pnw = Pressure on windward portion of roof: qh*G*Cnw*LF {Eqn 27.3-4}
Pnl = Pressure On Leeward portion Of roof: qh*G*Cnl*LF [Eqn 27.3-4]
All wind pressures include a load factor of 0.6
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Reactions Roof +GCPi Wind Dir 180 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	1.91	219.33	0.00	0.04	0.42	1.71	0.00	0.00
Windward Roof	7.65	219.33	0.00	0.15	1.67	-9.17	0.00	0.00
Total	0.00	438.67	0.00	0.18	2.09	-7.47	0.00	0.00

Reactions Roof -GCPi Wind Dir 180 Deg

Description	Pressure psf	Area ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	-0.64	219.33	0.00	-0.01	-0.14	-0.57	0.00	0.00
Windward Roof	-7.02	219.33	0.00	-0.13	-1.53	8.41	0.00	0.00
Total	0.00	438.67	0.00	-0.15	-1.67	7.84	0.00	0.00

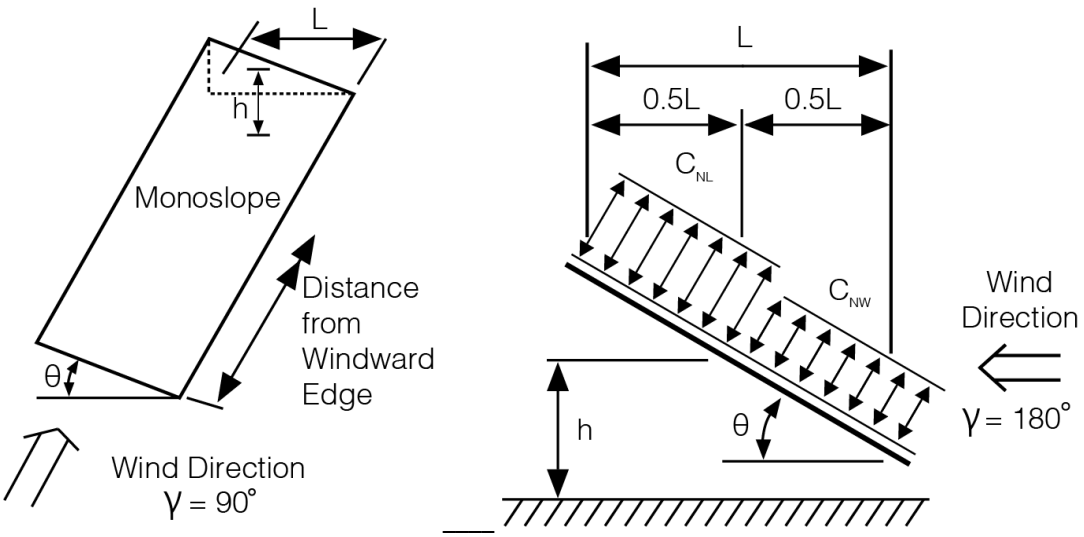
Reactions Roof Minimum Pressure Wind Dir 180 Deg

Description	Pressure psf	Area* ft	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Leeward Roof	9.60	19.12	0.00	0.18	0.00	-1.39	0.00	0.00
Windward Roof	9.60	19.12	0.00	0.18	0.00	-1.54	0.00	0.00
Total	0.00	38.23	0.00	0.37	0.00	-2.94	0.00	0.00

Reaction Summary (MWFRS)

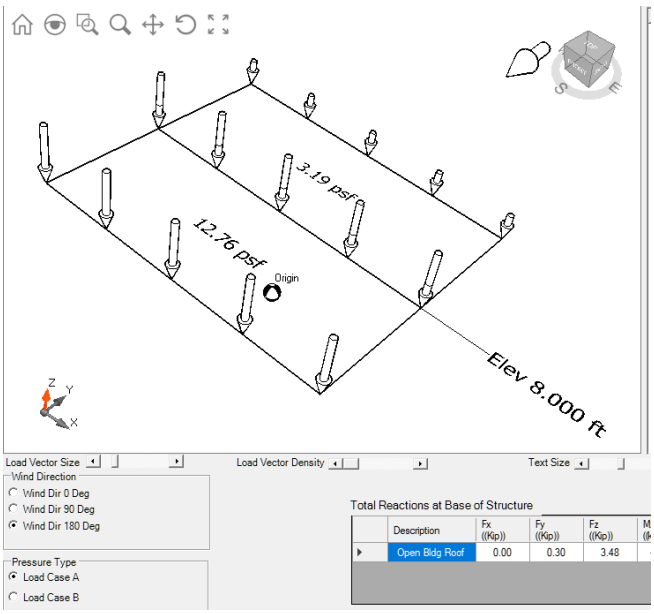
Description	Fx Kip	Fy Kip	Fz Kip	Mx k-ft	My k-ft	Mz k-ft
Wind Dir 0 Deg Roof Load Case A	0.00	0.18	2.09	-7.47	0.00	0.00
Wind Dir 0 Deg Roof Load Case B	0.00	-0.15	-1.67	7.84	0.00	0.00
Wind Dir 90 Deg Roof Load Case A	0.00	-0.14	-1.61	1.13	-3.49	0.31
Wind Dir 90 Deg Roof Load Case B	0.00	0.13	1.51	-1.06	3.54	-0.31
Wind Dir 180 Deg Roof Load Case A	0.00	0.18	2.09	-7.47	0.00	0.00
Wind Dir 180 Deg Roof Load Case B	0.00	-0.15	-1.67	7.84	0.00	0.00
Wind Dir 180 Deg Roof Minimum Pressure	0.00	0.37	0.00	-2.94	0.00	0.00

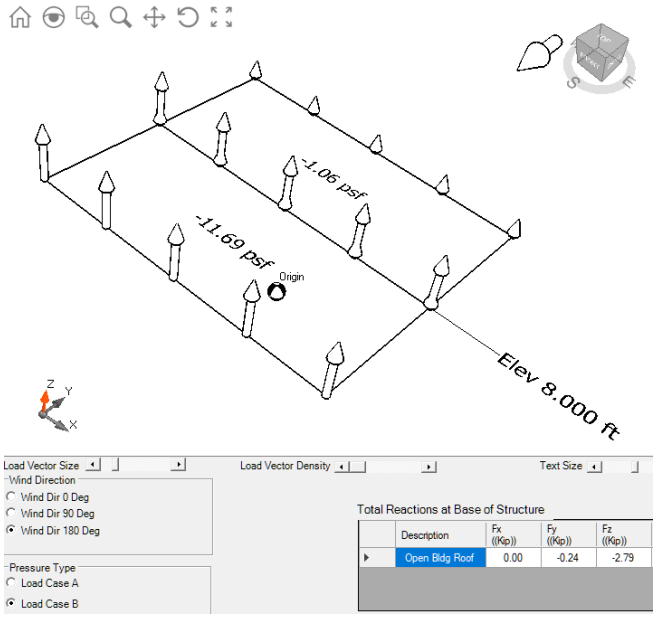
Notes applying to MWFRS Reactions
* Per Figure 27.4-1 Note 9, Use greater of Shear calculated with or without roof.
* X= Along Building ridge, Y = Normal to Building Ridge, Z = Vertical
* Minimum Pressurs applied to a vertical plane normal to wind.
* Reactions calculated about the geometric center of the footprint



Wind load geometry - 90 deg [Fig: 0303.01]

Wind load orientation - 180 deg [Fig: 0303.02]





Positive wind load pressures [Fig: 0303.03]

Negative wind load pressures [Fig: 0303.04]