



## VP Buildings

3200 Players Club Circle  
Memphis, TN 38125-8843

# STRUCTURAL DESIGN DATA

Project: Camp Bow Wow  
Name: Camp Bow Wow BO  
Builder PO #:  
Jobsite: 49 Blueberry Road

City, State: Portland, Maine 04104  
County: Cumberland  
Country: United States

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# 07-16433 Design Load Reactions

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## Building Loading - Expanded Report

### Shape: camp

#### Loads and Codes - Shape: camp

City: Portland County: Cumberland State: Maine Country: United States  
 Building Code: 2003 International Building Code Built Up: 89AISC Rainfall: 4.00 inches per hour  
 Building Use: Standard Occupancy Structure Cold Form: 04AISI

#### Dead and Collateral Loads

Collateral Gravity: 3.00 psf Frame Weight (assumed for seismic): 2.50 psf  
 Collateral Uplift: 0.00 psf

Side	Type	Mag	Units	Shape	Applied to	Description
A	D	2.252	psf	Entire	Frm	Covering Weight - 24 SSR + Secondary Weight 1.12 : Roof: A
A	D	1.130	psf	Entire	Pur	Covering Weight - 24 SSR : Roof: A
B	D	2.275	psf	Entire	Frm	Covering Weight - 24 SSR + Secondary Weight 1.15 : Roof: B
B	D	1.130	psf	Entire	Pur	Covering Weight - 24 SSR : Roof: B

#### Live Load

Live Load: 20.00 psf Not Reducible

#### Wind Load

Wind Speed: 100.00 mph Gust Factor: 1.0000  
 Wind Enclosure: Enclosed Wind Importance Factor: 1.000  
 Height Used: 15/0/0 (Type: Eave) Least Horiz. Dimension: 80/0/0  
 Base Elevation: 0/0/0 Hurricane Prone Region  
 Primary Zone Strip Width: 9/7/3 NOT Windborne Debris Region  
 Velocity Pressure: (qz) 25.60 psf Parts / Portions Zone Strip Width: 4/9/10  
 Topographic Factor: 1.0000  $qz = 0.00256 * (1.00) * (100.00)^2 * (1.00)$   
 Directionality Factor: 0.8500 The 'Low Rise' Method is Used  
 Wind Exposure (Factor): B (0.701)  
 Basic Wind Pressure: 15.24 psf

#### Snow Load

Ground Snow Load: 60.00 psf Snow Exposure Category (Factor): 2 Partially Exposed (1.00)  
 Design Snow (Sloped): 39.12 psf Thermal Category (Factor): Heated (1.00)  
 Snow Accumulation Factor: 1.000 Unobstructed, Slippery Roof  
 Snow Importance: 1.000 Rain Surcharge: 0.00  
 Ground / Roof Conversion: 0.70 Slope Reduction: 0.93  
 Slope Used: 9.462 ( 2.000:12 )

#### Seismic Load

Mapped Spectral Response - Ss: 36.90 %g % Snow Used in Seismic: 20.00  
 Mapped Spectral Response - S1: 9.80 %g Seismic Snow Load: 8.40 psf  
 Seismic Hazard / Use Group: Group 1 Frame Redundancy Factor: 1.1056  
 Seismic Performance / Design Category: D Brace Redundancy Factor: 1.5000  
 Seismic Importance: 1.000 Soil Profile Type: Soft soil (E)  
 Frame Seismic Factor (Cs): 0.1489 x W Framing Seismic Period: 0.2044  
 Brace Seismic Factor (Cs): 0.1489 x W Bracing Seismic Period: 0.1289  
 Framing R-Factor: 3.5000 Seismic Period Height Used: 12/0/0  
 Bracing R-Factor: 3.5000 Design Spectral Response - Sds: 0.5213  
 Design Spectral Response - Sd1: 0.2287

Side	Type	Mag	Units	Shape	Applied to	Description
1	E	0.142	psf	Spec	Frm Brc	Seismic: Covering Weight - 26 Panel Rib : Wall: 1
1	E	1.489	psf	Rect	Frm Brc	Seismic: Covering Weight - 10.00 NBVP - Masonry : Wall: 1
1	E	0.116	psf	Entire	Frm Brc	Seismic: Secondary Weight 0.78 : Wall: 1
2	E	0.263	psf	Rect	Frm Brc	Seismic: Covering Weight - 26 Panel Rib + Secondary Weight 0.81 : Wall: 2
2	E	0.263	psf	Rect	Frm Brc	Seismic: Covering Weight - 26 Panel Rib + Secondary Weight 0.81 : Wall: 2
3	E	0.281	psf	Entire	Frm Brc	Seismic: Covering Weight - 26 Panel Rib + Secondary Weight 0.94 : Wall: 3
4	E	0.142	psf	Spec	Frm Brc	Seismic: Covering Weight - 26 Panel Rib : Wall: 4
4	E	1.489	psf	Rect	Frm Brc	Seismic: Covering Weight - 10.00 NBVP - Masonry : Wall: 4
4	E	0.103	psf	Entire	Frm Brc	Seismic: Secondary Weight 0.69 : Wall: 4
A	E	2.406	psf	Entire	Frm	Seismic: Covering Weight - 24 SSR + Secondary Weight 1.12 + 8.400 Snow + (Includes 3.000 Collateral 2.500 Frame Weight) : Roof: A
A	E	2.406	psf	Entire	Brc	Seismic: Covering Weight - 24 SSR + Secondary Weight 1.12 + 8.400 Snow + (Includes 3.000 Collateral 2.500 Frame Weight) : Roof: A



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B	E	2.409	psf	Entire	Frm	Seismic: Covering Weight - 24 SSR + Secondary Weight 1.15 + 8.400 Snow + (Includes 3.000 Collateral 2.500 Frame Weight) : Roof: B
B	E	2.409	psf	Entire	Brc	Seismic: Covering Weight - 24 SSR + Secondary Weight 1.15 + 8.400 Snow + (Includes 3.000 Collateral 2.500 Frame Weight) : Roof: B

**Deflection Conditions**

Frames are vertically supporting: Metal Roof Purlins and Panels  
 Frames are laterally supporting: Metal Wall Girts and Panels  
 Purlins are supporting: Metal Roof Panels  
 Girts are supporting: Metal Wall Panels

Per Article 2.9 in the Builder Agreement, VP Buildings assumes that the Builder has called the local Building Official or Project Engineer to obtain all code and loading information for this specific building site.

**Design Load Combinations - Framing**

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 D + 1.0 CG + 1.0 S	D + CG + S
2	System	1.000	1.0 D + 1.0 CG + 1.0 US1*	D + CG + US1*
3	System	1.000	1.0 D + 1.0 CG + 1.0 *US1	D + CG + *US1
4	System	1.000	1.0 D + 1.0 CG + 1.0 W1>	D + CG + W1>
5	System	1.000	1.0 D + 1.0 CG + 1.0 <W1	D + CG + <W1
6	System	1.000	1.0 D + 1.0 CG + 1.0 W2>	D + CG + W2>
7	System	1.000	1.0 D + 1.0 CG + 1.0 <W2	D + CG + <W2
8	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W1>	D + CG + S + W1>
9	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W1	D + CG + S + <W1
10	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W2>	D + CG + S + W2>
11	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W2	D + CG + S + <W2
12	System	1.000	0.600 D + 0.600 CU + 1.0 W1>	D + CU + W1>
13	System	1.000	0.600 D + 0.600 CU + 1.0 <W1	D + CU + <W1
14	System	1.000	0.600 D + 0.600 CU + 1.0 W2>	D + CU + W2>
15	System	1.000	0.600 D + 0.600 CU + 1.0 <W2	D + CU + <W2
16	System	1.275	0.900 D + 0.900 CG + 1.106 E>	D + CG + E>
17	System	1.275	0.900 D + 0.900 CG + 1.106 <E	D + CG + <E
18	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+	D + CG + S + E> + EG+
19	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 <E + 1.0 EG+	D + CG + S + <E + EG+
20	Special	1.275	0.900 D + 0.900 CG + 2.500 E>	D + CG + E>
21	Special	1.275	0.900 D + 0.900 CG + 2.500 <E	D + CG + <E
22	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 E> + 1.0 EG+	D + CG + S + E> + EG+
23	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 <E + 1.0 EG+	D + CG + S + <E + EG+
24	AISC - Special	1.700	0.900 D + 0.900 CG	D + CG
25	AISC - Special	1.700	0.900 D + 0.900 CG	D + CG
26	AISC - Special	1.700	1.200 D + 1.200 CG + 0.200 S	D + CG + S
27	AISC - Special	1.700	1.200 D + 1.200 CG + 0.200 S	D + CG + S
28	System Derived	1.275	0.900 D + 0.900 CG + 0.332 E> + 1.500 EB>	D + CG + E> + EB>
29	System Derived	1.275	0.900 D + 0.900 CG + 1.106 E> + 0.332 EB>	D + CG + E> + EB>
30	System Derived	1.275	0.900 D + 0.900 CG + 0.332 <E + 1.500 EB>	D + CG + <E + EB>
31	System Derived	1.275	0.900 D + 0.900 CG + 1.106 <E + 0.332 EB>	D + CG + <E + EB>
32	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 E> + 1.0 EG+ + 1.500 EB>	D+CG+S+E>+EG++EB>
33	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+ + 0.332 EB>	D+CG+S+E>+EG++EB>
34	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+ + 1.500 EB>	D+CG+S+E>+EG++EB>
35	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 <E + 1.0 EG+ + 0.332 EB>	D+CG+S+<E+EG++EB>
36	Special	1.275	0.900 D + 0.900 CG + 2.500 EB>	D + CG + EB>
37	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 EB> + 1.0 EG+	D + CG + S + EB> + EG+
38	System Derived	1.275	0.900 D + 0.900 CG + 0.332 E> + 1.500 <EB	D + CG + E> + <EB
39	System Derived	1.275	0.900 D + 0.900 CG + 1.106 E> + 0.332 <EB	D + CG + E> + <EB
40	System Derived	1.275	0.900 D + 0.900 CG + 0.332 <E + 1.500 <EB	D + CG + <E + <EB
41	System Derived	1.275	0.900 D + 0.900 CG + 1.106 <E + 0.332 <EB	D + CG + <E + <EB
42	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 E> + 1.0 EG+ + 1.500 <EB	D+CG+S+E>+EG++<EB
43	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+ + 0.332 <EB	D+CG+S+E>+EG++<EB
44	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 <E + 1.0 EG+ + 1.500 <EB	D+CG+S+<E+EG++<EB
45	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 <E + 1.0 EG+ + 0.332 <EB	D+CG+S+<E+EG++<EB
46	Special	1.275	0.900 D + 0.900 CG + 2.500 <EB	D + CG + <EB
47	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 <EB + 1.0 EG+	D + CG + S + <EB + EG+
48	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA1	D + CG + WPA1
49	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA1	D + CG + S + WPA1
50	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA1	D + CU + WPA1
51	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD1	D + CG + WPD1
52	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD1	D + CG + S + WPD1



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53	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD1	D + CU + WPD1
54	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA2	D + CG + WPA2
55	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA2	D + CG + S + WPA2
56	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA2	D + CU + WPA2
57	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD2	D + CG + WPD2
58	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD2	D + CG + S + WPD2
59	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD2	D + CU + WPD2
60	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB1	D + CG + WPB1
61	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB1	D + CG + S + WPB1
62	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB1	D + CU + WPB1
63	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC1	D + CG + WPC1
64	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC1	D + CG + S + WPC1
65	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC1	D + CU + WPC1
66	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB2	D + CG + WPB2
67	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB2	D + CG + S + WPB2
68	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB2	D + CU + WPB2
69	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC2	D + CG + WPC2
70	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC2	D + CG + S + WPC2
71	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC2	D + CU + WPC2

Design Load Combinations - Bracing

No.	Origin	Factor	Application	Description
1	System	1.275	1.0 E>	E>
2	System	1.275	1.0 <E	<E
3	System	1.000	1.0 WPA1	WPA1
4	System	1.000	1.0 WPD1	WPD1
5	System	1.000	1.0 WPA2	WPA2
6	System	1.000	1.0 WPD2	WPD2
7	System	1.000	1.0 WPB1	WPB1
8	System	1.000	1.0 WPC1	WPC1
9	System	1.000	1.0 WPB2	WPB2
10	System	1.000	1.0 WPC2	WPC2

Design Load Combinations - Purlin

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 D + 1.0 CG + 1.0 S	D + CG + S
2	System	1.000	1.0 D + 1.0 CG + 1.0 US1*	D + CG + US1*
3	System	1.000	1.0 D + 1.0 CG + 1.0 *US1	D + CG + *US1
4	System	1.000	1.0 D + 1.0 CG + 1.0 PF1	D + CG + PF1(Span 1)
5	System	1.000	1.0 D + 1.0 CG + 1.0 PF1	D + CG + PF1(Spans 2 and 3)
6	System	1.000	1.0 D + 1.0 CG + 1.0 PH1	D + CG + PH1(Span 1)
7	System	1.000	1.0 D + 1.0 CG + 1.0 PH1	D + CG + PH1(Span 4)
8	System	1.000	1.0 D + 1.0 CG + 1.0 PF2	D + CG + PF2(Spans 1 and 2)
9	System	1.000	1.0 D + 1.0 CG + 1.0 PF2	D + CG + PF2(Spans 2 and 3)
10	System	1.000	1.0 D + 1.0 CG + 1.0 PF2	D + CG + PF2(Spans 3 and 4)
11	System	1.000	1.0 D + 1.0 CG + 1.0 W1>	D + CG + W1>
12	System	1.000	1.0 D + 1.0 CG + 1.0 <W2	D + CG + <W2
13	System	1.000	0.600 D + 0.600 CU + 1.0 W1>	D + CU + W1>
14	System	1.000	0.600 D + 0.600 CU + 1.0 <W2	D + CU + <W2
15	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W1>	D + CG + S + W1>
16	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W2	D + CG + S + <W2
17	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 EB> + 0.700 EG+	D + CG + S + EB> + EG+
18	System Derived	1.275	0.900 D + 0.900 CG + 1.0 EB>	D + CG + EB>
19	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <EB + 0.700 EG+	D + CG + S + <EB + EG+
20	System Derived	1.275	0.900 D + 0.900 CG + 1.0 <EB	D + CG + <EB
21	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA1	D + CG + WPA1
22	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA1	D + CU + WPA1
23	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA1	D + CG + S + WPA1
24	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD1	D + CG + WPD1
25	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD1	D + CU + WPD1
26	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD1	D + CG + S + WPD1
27	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA2	D + CG + WPA2
28	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA2	D + CU + WPA2
29	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA2	D + CG + S + WPA2
30	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD2	D + CG + WPD2
31	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD2	D + CU + WPD2
32	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD2	D + CG + S + WPD2
33	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB1	D + CG + WPB1



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34	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB1	D + CU + WPB1
35	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB1	D + CG + S + WPB1
36	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC1	D + CG + WPC1
37	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC1	D + CU + WPC1
38	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC1	D + CG + S + WPC1
39	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB2	D + CG + WPB2
40	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB2	D + CU + WPB2
41	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB2	D + CG + S + WPB2
42	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC2	D + CG + WPC2
43	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC2	D + CU + WPC2
44	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC2	D + CG + S + WPC2

Design Load Combinations - Girt

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 W1>	W1>
2	System	1.000	1.0 <W2	<W2

Design Load Combinations - Roof - Panel

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 D + 1.0 S	D + S
2	System	1.000	1.0 D + 1.0 US1*	D + US1*
3	System	1.000	1.0 D + 1.0 *US1	D + *US1
4	System	1.000	1.0 D + 1.0 W1>	D + W1>
5	System	1.000	1.0 D + 1.0 <W2	D + <W2
6	System	1.000	0.600 D + 1.0 W1>	D + W1>
7	System	1.000	0.600 D + 1.0 <W2	D + <W2

Design Load Combinations - Wall - Panel

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 W1>	W1>
2	System	1.000	1.0 <W2	<W2

Deflection Load Combinations - Framing

No.	Origin	Factor	Def H	Def V	Application	Description
1	System	1.000	0	180	1.0 S	S
2	System	1.000	0	180	1.0 US1*	US1*
3	System	1.000	0	180	1.0 *US1	*US1
4	System	1.000	0	180	0.700 W1>	W1>
5	System	1.000	0	180	0.700 <W1	<W1
6	System	1.000	0	180	0.700 W2>	W2>
7	System	1.000	0	180	0.700 <W2	<W2
8	System Derived	1.000	0	180	0.700 WPA1	WPA1
9	System Derived	1.000	0	180	0.700 WPD1	WPD1
10	System Derived	1.000	0	180	0.700 WPA2	WPA2
11	System Derived	1.000	0	180	0.700 WPD2	WPD2
12	System Derived	1.000	0	180	0.700 WPB1	WPB1
13	System Derived	1.000	0	180	0.700 WPC1	WPC1
14	System Derived	1.000	0	180	0.700 WPB2	WPB2
15	System Derived	1.000	0	180	0.700 WPC2	WPC2
16	System	1.000	60	0	0.700 W1>	W1>
17	System	1.000	60	0	0.700 <W1	<W1
18	System	1.000	60	0	0.700 W2>	W2>
19	System	1.000	60	0	0.700 <W2	<W2
20	System Derived	1.000	60	0	0.700 WPA1	WPA1
21	System Derived	1.000	60	0	0.700 WPD1	WPD1
22	System Derived	1.000	60	0	0.700 WPA2	WPA2
23	System Derived	1.000	60	0	0.700 WPD2	WPD2
24	System Derived	1.000	60	0	0.700 WPB1	WPB1
25	System Derived	1.000	60	0	0.700 WPC1	WPC1
26	System Derived	1.000	60	0	0.700 WPB2	WPB2
27	System Derived	1.000	60	0	0.700 WPC2	WPC2
28	System	1.000	60	0	0.600 E>	E>
29	System	1.000	60	0	0.600 <E	<E
30	System Derived	1.000	60	0	0.600 EB>	EB>
31	System Derived	1.000	60	0	0.600 <EB	<EB



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### Deflection Load Combinations - Purlin

No.	Origin	Factor	Deflection	Application	Description
1	System	1.000	150	1.0 S	S
2	System	1.000	150	1.0 US1*	US1*
3	System	1.000	150	1.0 *US1	*US1

### Deflection Load Combinations - Girt

No.	Origin	Factor	Deflection	Application	Description
1	System	1.000	90	0.700 W1>	W1>
2	System	1.000	90	0.700 <W2	<W2

### Deflection Load Combinations - Roof - Panel

No.	Origin	Factor	Def H	Def V	Application	Description
1	System	1.000	150	150	1.0 S	S
2	System	1.000	150	150	1.0 US1*	US1*
3	System	1.000	150	150	1.0 *US1	*US1

### Load Type Descriptions

D	Material Dead Weight	C	Collateral Load
CG	Collateral Load for Gravity Cases	CU	Collateral Load for Wind Cases
L	Live Load	ASL^	Alternate Span Live Load, Shifted Right
^ASL	Alternate Span Live Load, Shifted Left	PL2	Partial Live, Full, 2 Spans
S	Snow Load	US1*	Unbalanced Snow Load 1, Shifted Right
*US1	Unbalanced Snow Load 1, Shifted Left	US2*	Unbalanced Snow Load 2, Shifted Right
*US2	Unbalanced Snow Load 2, Shifted Left	SD	Snow Drift Load
SS	Sliding Snow Load	RS	Rain Surcharge Load
PF1	Partial Load, Full, 1 Span	PH1	Partial Load, Half, 1 Span
PF2	Partial Load, Full, 2 Spans	PH2	Partial Load, Half, 2 Spans
W	Wind Load	W1>	Wind Load, Case 1, Right
<W1	Wind Load, Case 1, Left	W2>	Wind Load, Case 2, Right
<W2	Wind Load, Case 2, Left	W3>	Wind Load, Case 3, Right
<W3	Wind Load, Case 3, Left	W4>	Wind Load, Case 4, Right
<W4	Wind Load, Case 4, Left	W5>	Wind Load, Case 5, Right
<W5	Wind Load, Case 5, Left	W6>	Wind Load, Case 6, Right
<W6	Wind Load, Case 6, Left	WP	Wind Load, Parallel to Ridge
WPR	Wind Load,    Ridge, Right	WPL	Wind Load,    Ridge, Left
WPA1	Wind Parallel - Ref A, Case 1	WPA2	Wind Parallel - Ref A, Case 2
WPB1	Wind Parallel - Ref B, Case 1	WPB2	Wind Parallel - Ref B, Case 2
WPC1	Wind Parallel - Ref C, Case 1	WPC2	Wind Parallel - Ref C, Case 2
WPD1	Wind Parallel - Ref D, Case 1	WPD2	Wind Parallel - Ref D, Case 2
WB1>	Wind Brace Reaction, Case 1, Right	<WB1	Wind Brace Reaction, Case 1, Left
WB2>	Wind Brace Reaction, Case 2, Right	<WB2	Wind Brace Reaction, Case 2, Left
WB3>	Wind Brace Reaction, Case 3, Right	<WB3	Wind Brace Reaction, Case 3, Left
WB4>	Wind Brace Reaction, Case 4, Right	<WB4	Wind Brace Reaction, Case 4, Left
WB5>	Wind Brace Reaction, Case 5, Right	<WB5	Wind Brace Reaction, Case 5, Left
WB6>	Wind Brace Reaction, Case 6, Right	<WB6	Wind Brace Reaction, Case 6, Left
MW	Minimum Wind Load	MWB	Minimum Wind Bracing Reaction
E	Seismic Load	E>	Seismic Load, Right
<E	Seismic Load, Left	EG	Vertical Seismic Effect
EG+	Vertical Seismic Effect, Additive	EG-	Vertical Seismic Effect, Subtractive
EB>	Seismic Brace Reaction, Right	<EB	Seismic Brace Reaction, Left
FL	Floor Live Load	FL*	Alternate Span Floor Live Load, Shifted Right
*FL	Alternate Span Floor Live Load, Shifted Left	FD	Floor Dead Load
AL	Auxiliary Live Load	AL*>	Auxiliary Live Load, Right, Right
*AL>	Auxiliary Live Load, Right, Left	<AL*	Auxiliary Live Load, Left, Right
<*AL	Auxiliary Live Load, Left, Left	AL*	Aux Live, Right
*AL	Aux Live, Left	AL*(1)	Auxiliary Live Load, Right, Right, Aisle 1
*AL>(1)	Auxiliary Live Load, Right, Left, Aisle 1	<AL*(1)	Auxiliary Live Load, Left, Right, Aisle 1
<*AL(1)	Auxiliary Live Load, Left, Left, Aisle 1	AL*(1)	Aux Live, Right, Aisle 1
*AL(1)	Aux Live, Left, Aisle 1	AL*(2)	Auxiliary Live Load, Right, Right, Aisle 2
*AL>(2)	Auxiliary Live Load, Right, Left, Aisle 2	<AL*(2)	Auxiliary Live Load, Left, Right, Aisle 2
<*AL(2)	Auxiliary Live Load, Left, Left, Aisle 2	AL*(2)	Aux Live, Right, Aisle 2
*AL(2)	Aux Live, Left, Aisle 2	AL*(3)	Auxiliary Live Load, Right, Right, Aisle 3
*AL>(3)	Auxiliary Live Load, Right, Left, Aisle 3	<AL*(3)	Auxiliary Live Load, Left, Right, Aisle 3
<*AL(3)	Auxiliary Live Load, Left, Left, Aisle 3	AL*(3)	Aux Live, Right, Aisle 3
*AL(3)	Aux Live, Left, Aisle 3	AL*(4)	Auxiliary Live Load, Right, Right, Aisle 4
*AL>(4)	Auxiliary Live Load, Right, Left, Aisle 4	<AL*(4)	Auxiliary Live Load, Left, Right, Aisle 4
<*AL(4)	Auxiliary Live Load, Left, Left, Aisle 4	AL*(4)	Aux Live, Right, Aisle 4



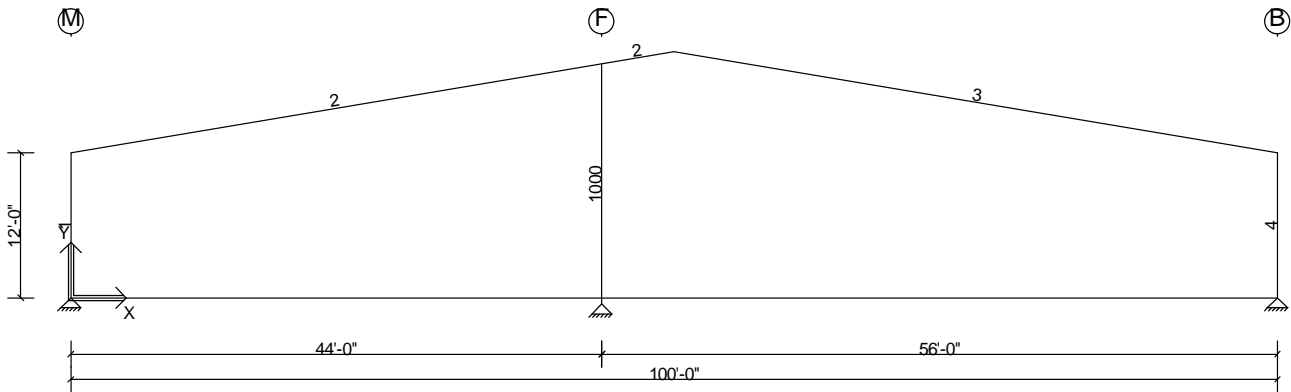
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*AL(4)	Aux Live, Left, Aisle 4	AL*(5)	Auxiliary Live Load, Right, Right, Aisle 5
*AL>(5)	Auxiliary Live Load, Right, Left, Aisle 5	<AL*(5)	Auxiliary Live Load, Left, Right, Aisle 5
<*AL(5)	Auxiliary Live Load, Left, Left, Aisle 5	AL*(5)	Aux Live, Right, Aisle 5
*AL(5)	Aux Live, Left, Aisle 5	ALB	Aux Live Bracing Reaction
ALB>	Aux Live Bracing Reaction, Right	<ALB	Aux Live Bracing Reaction, Left
WALB>	Wind, Aux Live Bracing Reaction, Right	<WALB	Wind, Aux Live Bracing Reaction, Left
ALB>(1)	Aux Live Bracing Reaction, Right, Aisle 1	<ALB(1)	Aux Live Bracing Reaction, Left, Aisle 1
WALB>(1)	Wind, Aux Live Bracing Reaction, Right, Aisle 1	<WALB(1)	Wind, Aux Live Bracing Reaction, Left, Aisle 1
ALB>(2)	Aux Live Bracing Reaction, Right, Aisle 2	<ALB(2)	Aux Live Bracing Reaction, Left, Aisle 2
WALB>(2)	Wind, Aux Live Bracing Reaction, Right, Aisle 2	<WALB(2)	Wind, Aux Live Bracing Reaction, Left, Aisle 2
ALB>(3)	Aux Live Bracing Reaction, Right, Aisle 3	<ALB(3)	Aux Live Bracing Reaction, Left, Aisle 3
WALB>(3)	Wind, Aux Live Bracing Reaction, Right, Aisle 3	<WALB(3)	Wind, Aux Live Bracing Reaction, Left, Aisle 3
ALB>(4)	Aux Live Bracing Reaction, Right, Aisle 4	<ALB(4)	Aux Live Bracing Reaction, Left, Aisle 4
WALB>(4)	Wind, Aux Live Bracing Reaction, Right, Aisle 4	<WALB(4)	Wind, Aux Live Bracing Reaction, Left, Aisle 4
ALB>(5)	Aux Live Bracing Reaction, Right, Aisle 5	<ALB(5)	Aux Live Bracing Reaction, Left, Aisle 5
WALB>(5)	Wind, Aux Live Bracing Reaction, Right, Aisle 5	<WALB(5)	Wind, Aux Live Bracing Reaction, Left, Aisle 5
WALB	Wind, Aux Live Bracing Reaction	AD	Auxiliary Dead Load
U0	User Defined Load	U1	User Defined Load - 1
U2	User Defined Load - 2	U3	User Defined Load - 3
U4	User Defined Load - 4	U5	User Defined Load - 5
U6	User Defined Load - 6	U7	User Defined Load - 7
U8	User Defined Load - 8	U9	User Defined Load - 9
UB	User Brace Reaction	UB1	User Brace Reaction - 1
UB2	User Brace Reaction - 2	UB3	User Brace Reaction - 3
UB4	User Brace Reaction - 4	UB5	User Brace Reaction - 5
UB6	User Brace Reaction - 6	UB7	User Brace Reaction - 7
UB8	User Brace Reaction - 8	UB9	User Brace Reaction - 9
R	Rain Load	T	Temperature Load
V	Shear		

User Defined Frame Point Loads for Cross Section: 2

Side	Units	Type	Description	Mag1	Loc1	Offset	H or V	Supp.	Dir.	Coef.	Loc.
2	k	W1>	Post & Beam Support Load	0.56	50/4/4	-0/2/0	Vert.	N	RIGHT	1.000	OF
2	k	W2>	Post & Beam Support Load	0.56	50/4/4	-0/2/0	Vert.	N	RIGHT	1.000	OF
2	k	<W1	Post & Beam Support Load	-0.56	30/4/4	-0/2/0	Vert.	N	LEFT	1.000	OF
2	k	<W2	Post & Beam Support Load	-0.56	30/4/4	-0/2/0	Vert.	N	LEFT	1.000	OF
3	k	W1>	Post & Beam Support Load	0.56	30/4/4	-0/2/0	Vert.	N	RIGHT	1.000	OF
3	k	W2>	Post & Beam Support Load	0.56	30/4/4	-0/2/0	Vert.	N	RIGHT	1.000	OF
3	k	<W1	Post & Beam Support Load	-0.56	50/4/4	-0/2/0	Vert.	N	LEFT	1.000	OF
3	k	<W2	Post & Beam Support Load	-0.56	50/4/4	-0/2/0	Vert.	N	LEFT	1.000	OF

Frame Line 2 is supporting Post & Beam Frame at Line 1 via Roof Rods. Refer to page 9 for calculations. This design does NOT control the Rod Design. Rods are controlled by Endwall Wind Bracing Forces. Refer to Bracing Design for further calculations.





**P & B Endframe Support via Roof Rods**

**Input Labels:**

kip := 1000·lbf    psf :=  $\frac{\text{lbf}}{\text{ft}^2}$     ksi :=  $\frac{\text{kip}}{\text{in}^2}$     E := 29000·ksi     $F_y := 50\cdot\text{ksi}$     plf :=  $\frac{\text{lbf}}{\text{ft}}$     klf :=  $\frac{\text{kip}}{\text{ft}}$     k := 1000

Code: 2003 International Building Code

**Building Parameters:**

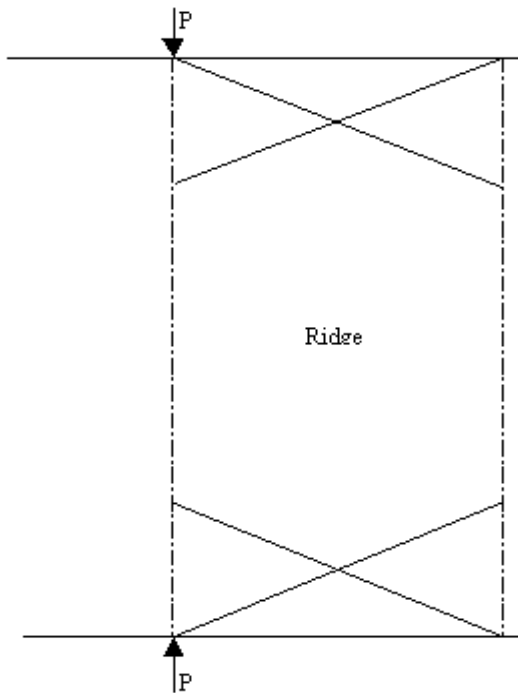
Wind := 15.24psf · 1.16 per Loading Report

BS := 19.00ft                      Offset := 1.00ft                      Eave := 12.00ft

**Find Wind Load at Eave:**

$$P := \text{Wind} \cdot \left[ \left( \frac{\text{BS}}{2} \right) + \text{Offset} \right] \cdot \left( \frac{\text{Eave}}{2} \right) \quad P = 1.11\text{kip}$$

**Frame Support Load and Rod Design:**



$a_1 := 20.00\text{ft}$

$b_1 := \text{atan}\left(\frac{\text{BS}}{a_1}\right) \quad b_1 = 43.53\text{deg}$

$c_1 := \text{atan}\left(\frac{a_1}{\text{BS}}\right) \quad c_1 = 46.47\text{deg}$

$\text{Rod}_{1\text{Tension}} := \frac{\frac{P}{2}}{\cos(b_1)} \quad \text{Strut}_1 := \frac{\frac{P}{2}}{\tan(c_1)}$

$\text{Rod}_{1\text{Tension}} = 0.77\text{kip} \quad \text{Strut}_1 = 0.53\text{kip}$

$a_2 := 20.50\text{ft}$

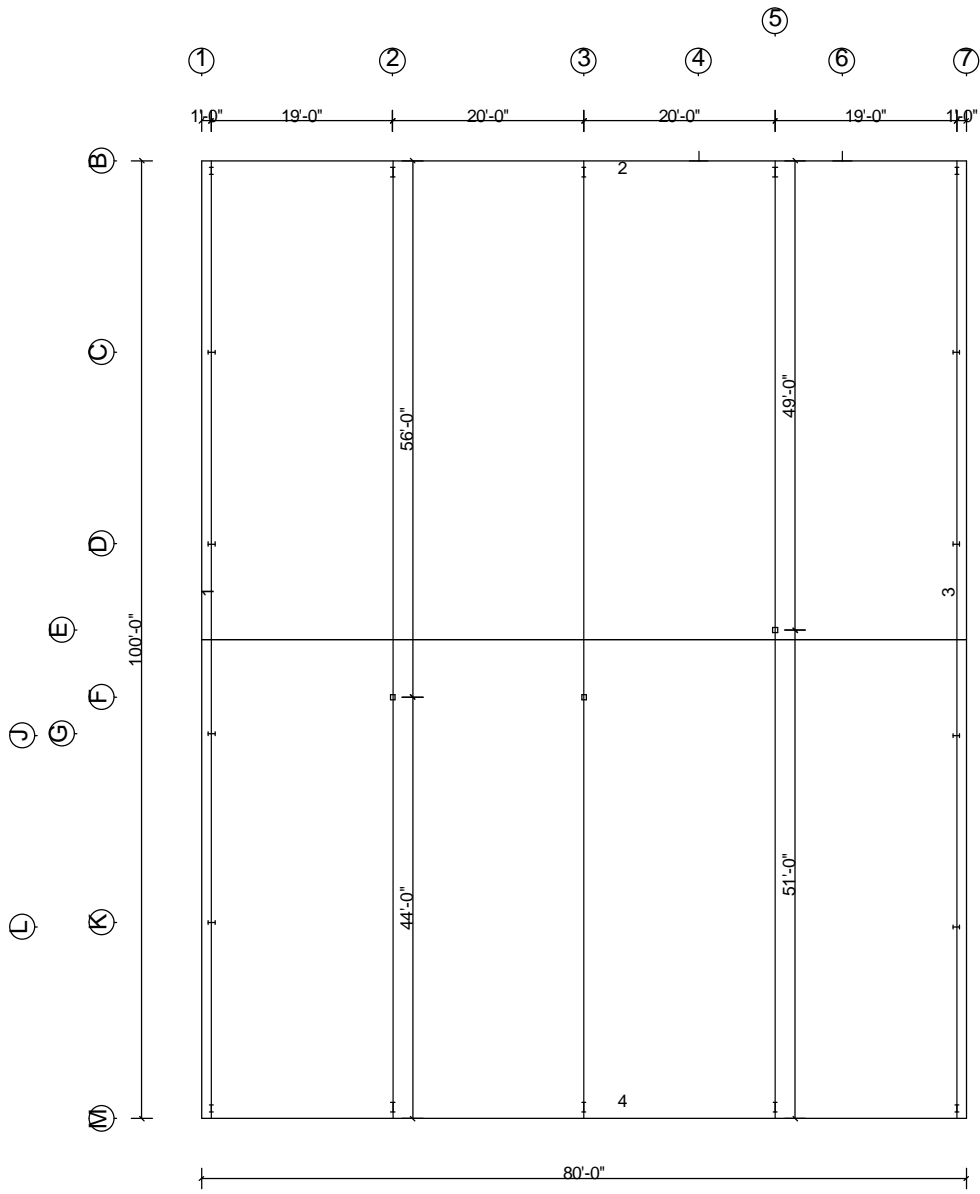
$b_2 := \text{atan}\left(\frac{\text{BS}}{a_2}\right) \quad b_2 = 42.83\text{deg}$

$c_2 := \text{atan}\left(\frac{a_2}{\text{BS}}\right) \quad c_2 = 47.17\text{deg}$

$\text{Rod}_{2\text{Tension}} := \frac{\frac{P}{2}}{\cos(b_2)} \quad \text{Strut}_2 := \frac{\frac{P}{2}}{\tan(c_2)}$

$\text{Rod}_{2\text{Tension}} = 0.76\text{kip} \quad \text{Strut}_2 = 0.52\text{kip}$

Apply  $P/2=0.56$  Kips Loads to 1st Interior Frame for support of Post & Beam Endframe.





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## Shape: loading

### Loads and Codes - Shape: loading

<b>City:</b> Portland Building Code: 2003 International Building Code Building Use: Standard Occupancy Structure	<b>County:</b> Cumberland <b>State:</b> Maine Built Up: 89AISC Cold Form: 04AISI	<b>Country:</b> United States Rainfall: 4.00 inches per hour
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### Dead and Collateral Loads

Collateral Gravity: 3.00 psf      Frame Weight (assumed for seismic): 2.50 psf  
 Collateral Uplift: 0.00 psf

Side	Type	Mag	Units	Shape	Applied to	Description
A	D	2.689	psf	Entire	Frm	Covering Weight - 24 SSR + Secondary Weight 1.56 : Roof: A
A	D	1.130	psf	Entire	Pur	Covering Weight - 24 SSR : Roof: A

### Live Load

Live Load: 20.00 psf Not Reducible

### Wind Load

Wind Speed: 100.00 mph Wind Enclosure: Enclosed Height Used: 15/0/0 (Type: Mean) Base Elevation: 0/0/0 Primary Zone Strip Width: 8/7/3 Velocity Pressure: (qz) 25.60 psf Topographic Factor: 1.0000 Directionality Factor: 0.8500 Wind Exposure (Factor): B (0.701) Basic Wind Pressure: 15.24 psf	Gust Factor: 1.0000 Wind Importance Factor: 1.000 Least Horiz. Dimension: 80/0/0 Hurricane Prone Region NOT Windborne Debris Region Parts / Portions Zone Strip Width: 4/3/10 $qz = 0.00256 * (1.00) * (100.00)^2 * (1.00)$ The 'Low Rise' Method is Used
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### Snow Load

Ground Snow Load: 60.00 psf Design Snow (Sloped): 39.12 psf Snow Accumulation Factor: 1.000 Snow Importance: 1.000 Ground / Roof Conversion: 0.70	Snow Exposure Category (Factor): 2 Partially Exposed (1.00) Thermal Category (Factor): Heated (1.00) Unobstructed, Slippery Roof Rain Surcharge: 0.00 Slope Reduction: 0.93 Slope Used: 9.462 ( 2.000:12 )
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### Seismic Load

Mapped Spectral Response - Ss: 36.90 %g Mapped Spectral Response - S1: 9.80 %g Seismic Hazard / Use Group: Group 1 Seismic Performance / Design Category: D Seismic Importance: 1.000 Frame Seismic Factor (Cs): 0.1489 x W Brace Seismic Factor (Cs): 0.1489 x W Framing R-Factor: 3.5000 Bracing R-Factor: 3.5000	% Snow Used in Seismic: 20.00 Seismic Snow Load: 8.40 psf Frame Redundancy Factor: 1.0000 Brace Redundancy Factor: 1.0000 Soil Profile Type: Soft soil (E) Framing Seismic Period: 0.1872 Bracing Seismic Period: 0.1187 Seismic Period Height Used: 10/9/0 Design Spectral Response - Sds: 0.5213 Design Spectral Response - Sd1: 0.2287
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Side	Type	Mag	Units	Shape	Applied to	Description
1	E	0.332	psf	Entire	Frm Brc	Seismic: Covering Weight - 26 Panel Rib + Secondary Weight 1.28 : Wall: 1
2	E	0.290	psf	Entire	Frm Brc	Seismic: Covering Weight - 26 Panel Rib + Secondary Weight 1.00 : Wall: 2
3	E	0.273	psf	Entire	Frm Brc	Seismic: Covering Weight - 26 Panel Rib + Secondary Weight 0.88 : Wall: 3
A	E	2.471	psf	Entire	Frm	Seismic: Covering Weight - 24 SSR + Secondary Weight 1.56 + 8.400 Snow + (Includes 3.000 Collateral 2.500 Frame Weight) : Roof: A
A	E	2.471	psf	Entire	Brc	Seismic: Covering Weight - 24 SSR + Secondary Weight 1.56 + 8.400 Snow + (Includes 3.000 Collateral 2.500 Frame Weight) : Roof: A
A	E	1.729	psf	Entire	Frm Brc	Seismic Effect From Unbalanced Snow Load : Roof: A
A	E	0.349	psf	Entire	Frm Brc	Seismic Effect From Unbalanced Snow Load : Roof: A

### Deflection Conditions

Frames are vertically supporting: Metal Roof Purlins and Panels  
 Frames are laterally supporting: Metal Wall Girts and Panels  
 Purlins are supporting: Metal Roof Panels  
 Girts are supporting: Metal Wall Panels



# 07-16433 Design Load Reactions

Per Article 2.9 in the Builder Agreement, VP Buildings assumes that the Builder has called the local Building Official or Project Engineer to obtain all code and loading information for this specific building site.

### Design Load Combinations - Framing

No.	Origin	Factor	Application	Description
1	User	1.000	1.0 D + 1.0 CG + 1.0 US1*	D + CG + US1*
2	User	1.000	1.0 D + 1.0 CG + 1.0 *US1	D + CG + *US1
3	System	1.000	1.0 D + 1.0 CG + 1.0 S	D + CG + S
4	System	1.000	1.0 D + 1.0 CG + 1.0 W1>	D + CG + W1>
5	System	1.000	1.0 D + 1.0 CG + 1.0 <W1	D + CG + <W1
6	System	1.000	1.0 D + 1.0 CG + 1.0 W2>	D + CG + W2>
7	System	1.000	1.0 D + 1.0 CG + 1.0 <W2	D + CG + <W2
8	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W1>	D + CG + S + W1>
9	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W1	D + CG + S + <W1
10	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W2>	D + CG + S + W2>
11	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W2	D + CG + S + <W2
12	System	1.000	0.600 D + 0.600 CU + 1.0 W1>	D + CU + W1>
13	System	1.000	0.600 D + 0.600 CU + 1.0 <W1	D + CU + <W1
14	System	1.000	0.600 D + 0.600 CU + 1.0 W2>	D + CU + W2>
15	System	1.000	0.600 D + 0.600 CU + 1.0 <W2	D + CU + <W2
16	System	1.275	0.900 D + 0.900 CG + 1.0 E>	D + CG + E>
17	System	1.275	0.900 D + 0.900 CG + 1.0 <E	D + CG + <E
18	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 E> + 0.700 EG+	D + CG + S + E> + EG+
19	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <E + 0.700 EG+	D + CG + S + <E + EG+
20	Special	1.275	0.900 D + 0.900 CG + 2.500 E>	D + CG + E>
21	Special	1.275	0.900 D + 0.900 CG + 2.500 <E	D + CG + <E
22	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 E> + 1.0 EG+	D + CG + S + E> + EG+
23	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 <E + 1.0 EG+	D + CG + S + <E + EG+
24	AISC - Special	1.700	0.900 D + 0.900 CG	D + CG
25	AISC - Special	1.700	0.900 D + 0.900 CG	D + CG
26	AISC - Special	1.700	1.200 D + 1.200 CG + 0.200 S	D + CG + S
27	AISC - Special	1.700	1.200 D + 1.200 CG + 0.200 S	D + CG + S
28	System Derived	1.275	0.900 D + 0.900 CG + 0.300 E> + 1.0 EB>	D + CG + E> + EB>
29	System Derived	1.275	0.900 D + 0.900 CG + 1.0 E> + 0.300 EB>	D + CG + E> + EB>
30	System Derived	1.275	0.900 D + 0.900 CG + 0.300 <E + 1.0 EB>	D + CG + <E + EB>
31	System Derived	1.275	0.900 D + 0.900 CG + 1.0 <E + 0.300 EB>	D + CG + <E + EB>
32	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 E> + 0.700 EG+ + 0.700 EB>	D+CG+S+E>+EG++EB>
33	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 E> + 0.700 EG+ + 0.300 EB>	D+CG+S+E>+EG++EB>
34	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 <E + 0.700 EG+ + 0.700 EB>	D+CG+S+<E+EG++EB>
35	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <E + 0.700 EG+ + 0.300 EB>	D+CG+S+<E+EG++EB>
36	Special	1.275	0.900 D + 0.900 CG + 2.500 EB>	D + CG + EB>
37	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 EB> + 1.0 EG+	D + CG + S + EB> + EG+
38	System Derived	1.275	0.900 D + 0.900 CG + 0.300 E> + 1.0 <EB	D + CG + E> + <EB
39	System Derived	1.275	0.900 D + 0.900 CG + 1.0 E> + 0.300 <EB	D + CG + E> + <EB
40	System Derived	1.275	0.900 D + 0.900 CG + 0.300 <E + 1.0 <EB	D + CG + <E + <EB
41	System Derived	1.275	0.900 D + 0.900 CG + 1.0 <E + 0.300 <EB	D + CG + <E + <EB
42	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 E> + 0.700 EG+ + 0.700 <EB	D+CG+S+E>+EG++<EB
43	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 E> + 0.700 EG+ + 0.300 <EB	D+CG+S+E>+EG++<EB
44	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 <E + 0.700 EG+ + 0.700 <EB	D+CG+S+<E+EG++<EB
45	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <E + 0.700 EG+ + 0.300 <EB	D+CG+S+<E+EG++<EB
46	Special	1.275	0.900 D + 0.900 CG + 2.500 <EB	D + CG + <EB
47	Special	1.275	1.200 D + 1.200 CG + 0.200 S + 2.500 <EB + 1.0 EG+	D + CG + S + <EB + EG+
48	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA1	D + CG + WPA1
49	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA1	D + CG + S + WPA1
50	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA1	D + CU + WPA1
51	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD1	D + CG + WPD1
52	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD1	D + CG + S + WPD1
53	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD1	D + CU + WPD1
54	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA2	D + CG + WPA2
55	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA2	D + CG + S + WPA2
56	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA2	D + CU + WPA2
57	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD2	D + CG + WPD2
58	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD2	D + CG + S + WPD2
59	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD2	D + CU + WPD2
60	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB1	D + CG + WPB1
61	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB1	D + CG + S + WPB1
62	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB1	D + CU + WPB1
63	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC1	D + CG + WPC1



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64	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC1	D + CG + S + WPC1
65	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC1	D + CU + WPC1
66	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB2	D + CG + WPB2
67	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB2	D + CG + S + WPB2
68	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB2	D + CU + WPB2
69	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC2	D + CG + WPC2
70	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC2	D + CG + S + WPC2
71	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC2	D + CU + WPC2

### Design Load Combinations - Bracing

No.	Origin	Factor	Application	Description
1	System	1.275	1.0 E>	E>
2	System	1.275	1.0 <E	<E
3	System	1.000	1.0 WPA1	WPA1
4	System	1.000	1.0 WPD1	WPD1
5	System	1.000	1.0 WPA2	WPA2
6	System	1.000	1.0 WPD2	WPD2
7	System	1.000	1.0 WPB1	WPB1
8	System	1.000	1.0 WPC1	WPC1
9	System	1.000	1.0 WPB2	WPB2
10	System	1.000	1.0 WPC2	WPC2

### Design Load Combinations - Purlin

No.	Origin	Factor	Application	Description
1	User	1.000	1.0 D + 1.0 CG + 1.0 US1*	D + CG + US1*
2	User	1.000	1.0 D + 1.0 CG + 1.0 *US1	D + CG + *US1
3	System	1.000	1.0 D + 1.0 CG + 1.0 S	D + CG + S
4	System	1.000	1.0 D + 1.0 CG + 1.0 W1>	D + CG + W1>
5	System	1.000	1.0 D + 1.0 CG + 1.0 <W2	D + CG + <W2
6	System	1.000	0.600 D + 0.600 CU + 1.0 W1>	D + CU + W1>
7	System	1.000	0.600 D + 0.600 CU + 1.0 <W2	D + CU + <W2
8	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W1>	D + CG + S + W1>
9	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W2	D + CG + S + <W2
10	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 EB> + 0.700 EG+	D + CG + S + EB> + EG+
11	System Derived	1.275	0.900 D + 0.900 CG + 1.0 EB>	D + CG + EB>
12	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <EB + 0.700 EG+	D + CG + S + <EB + EG+
13	System Derived	1.275	0.900 D + 0.900 CG + 1.0 <EB	D + CG + <EB
14	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA1	D + CG + WPA1
15	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA1	D + CU + WPA1
16	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA1	D + CG + S + WPA1
17	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD1	D + CG + WPD1
18	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD1	D + CU + WPD1
19	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD1	D + CG + S + WPD1
20	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA2	D + CG + WPA2
21	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA2	D + CU + WPA2
22	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA2	D + CG + S + WPA2
23	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD2	D + CG + WPD2
24	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD2	D + CU + WPD2
25	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD2	D + CG + S + WPD2
26	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB1	D + CG + WPB1
27	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB1	D + CU + WPB1
28	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB1	D + CG + S + WPB1
29	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC1	D + CG + WPC1
30	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC1	D + CU + WPC1
31	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC1	D + CG + S + WPC1
32	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB2	D + CG + WPB2
33	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB2	D + CU + WPB2
34	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB2	D + CG + S + WPB2
35	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC2	D + CG + WPC2
36	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC2	D + CU + WPC2
37	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC2	D + CG + S + WPC2

### Design Load Combinations - Girt

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 W1>	W1>
2	System	1.000	1.0 <W2	<W2



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Design Load Combinations - Roof - Panel

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 D + 1.0 S	D + S
2	System	1.000	1.0 D + 1.0 US1*	D + US1*
3	System	1.000	1.0 D + 1.0 *US1	D + *US1
4	System	1.000	1.0 D + 1.0 W1>	D + W1>
5	System	1.000	1.0 D + 1.0 <W2	D + <W2
6	System	1.000	0.600 D + 1.0 W1>	D + W1>
7	System	1.000	0.600 D + 1.0 <W2	D + <W2

Design Load Combinations - Wall - Panel

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 W1>	W1>
2	System	1.000	1.0 <W2	<W2

Deflection Load Combinations - Framing

No.	Origin	Factor	Def H	Def V	Application	Description
1	System	1.000	0	180	1.0 S	S
2	System	1.000	0	180	1.0 US1*	US1*
3	System	1.000	0	180	1.0 *US1	*US1
4	System	1.000	0	180	0.700 W1>	W1>
5	System	1.000	0	180	0.700 <W1	<W1
6	System	1.000	0	180	0.700 W2>	W2>
7	System	1.000	0	180	0.700 <W2	<W2
8	System Derived	1.000	0	180	0.700 WPA1	WPA1
9	System Derived	1.000	0	180	0.700 WPD1	WPD1
10	System Derived	1.000	0	180	0.700 WPA2	WPA2
11	System Derived	1.000	0	180	0.700 WPD2	WPD2
12	System Derived	1.000	0	180	0.700 WPB1	WPB1
13	System Derived	1.000	0	180	0.700 WPC1	WPC1
14	System Derived	1.000	0	180	0.700 WPB2	WPB2
15	System Derived	1.000	0	180	0.700 WPC2	WPC2
16	System	1.000	60	0	0.700 W1>	W1>
17	System	1.000	60	0	0.700 <W1	<W1
18	System	1.000	60	0	0.700 W2>	W2>
19	System	1.000	60	0	0.700 <W2	<W2
20	System Derived	1.000	60	0	0.700 WPA1	WPA1
21	System Derived	1.000	60	0	0.700 WPD1	WPD1
22	System Derived	1.000	60	0	0.700 WPA2	WPA2
23	System Derived	1.000	60	0	0.700 WPD2	WPD2
24	System Derived	1.000	60	0	0.700 WPB1	WPB1
25	System Derived	1.000	60	0	0.700 WPC1	WPC1
26	System Derived	1.000	60	0	0.700 WPB2	WPB2
27	System Derived	1.000	60	0	0.700 WPC2	WPC2
28	System	1.000	60	0	0.600 E>	E>
29	System	1.000	60	0	0.600 <E	<E
30	System Derived	1.000	60	0	0.600 EB>	EB>
31	System Derived	1.000	60	0	0.600 <EB	<EB

Deflection Load Combinations - Purlin

No.	Origin	Factor	Deflection	Application	Description
1	System	1.000	150	1.0 S	S
2	System	1.000	150	1.0 US1*	US1*
3	System	1.000	150	1.0 *US1	*US1

Deflection Load Combinations - Girt

No.	Origin	Factor	Deflection	Application	Description
1	System	1.000	90	0.700 W1>	W1>
2	System	1.000	90	0.700 <W2	<W2

Deflection Load Combinations - Roof - Panel

No.	Origin	Factor	Def H	Def V	Application	Description
1	System	1.000	150	150	1.0 S	S
2	System	1.000	150	150	1.0 US1*	US1*
3	System	1.000	150	150	1.0 *US1	*US1



**07-16433 Design Load Reactions**

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**User Applied Surface Loads (Local Coordinate System)**

Side	Shape	Units	Type	Description	Mag	X-Loc	Y-Loc	Frm	Brc	Grt	Pur	Pnl	Supp.	Dir.	Loc.
A	ES	psf	US1*	Unbalanced Snow Load	58.05	0/0/0	0/0/0	Y	N	N	Y	Y	N	IN	OF
A	ES	psf	US1*	Unbalanced Snow Load	58.05	0/0/0	15/2/8	Y	N	N	Y	Y	N	IN	OF
A	ES	psf	US1*	Unbalanced Snow Load	58.05	15/0/0	15/2/8	Y	N	N	Y	Y	N	IN	OF
A	ES	psf	US1*	Unbalanced Snow Load	58.05	15/0/0	0/0/0	Y	N	N	Y	Y	N	IN	OF
A	ES	psf	*US1	Unbalanced Snow Load	11.73	0/0/0	0/0/0	Y	N	N	Y	Y	N	IN	OF

User Defined Frame Point Loads for Cross Section: 6

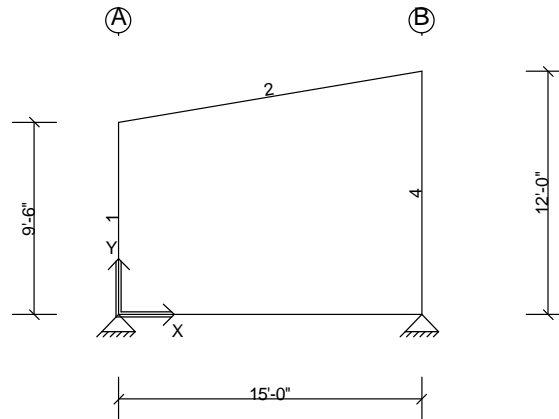
Side	Units	Type	Description	Mag1	Loc1	Offset	H or V	Supp.	Dir.	Coef.	Loc.
1	k	WPA1	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPA2	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPB1	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPB2	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPC1	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
1	k	WPC2	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
1	k	WPD1	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
1	k	WPD2	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
2	k	WPA1	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPA2	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPB1	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPB2	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPC1	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF
2	k	WPC2	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF
2	k	WPD1	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF
2	k	WPD2	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF

User added Weak Axis Wind Loads to Low Eave Columns for Portal Brace System. Refer to page 17 for calculations.  
 User added Torsional Bracing Racking Forces to the frames. Refer to page 18 for calculations.

User Defined Frame Line Loads for Cross Section: 6

Side	Units	Type	Description	Mag1	Loc1	Mag2	Loc2	Supp.	Dir.	Coef.	Loc.
2	plf	US1*	Unbalanced Snow Load->Resolved From Plane	-437.61	0/0/0	-437.61	15/2/8	N	DOWN	1.000	OF
2	plf	*US1	Unbalanced Snow Load->Resolved From Plane	-88.43	0/0/0	-88.43	15/2/8	N	DOWN	1.000	OF

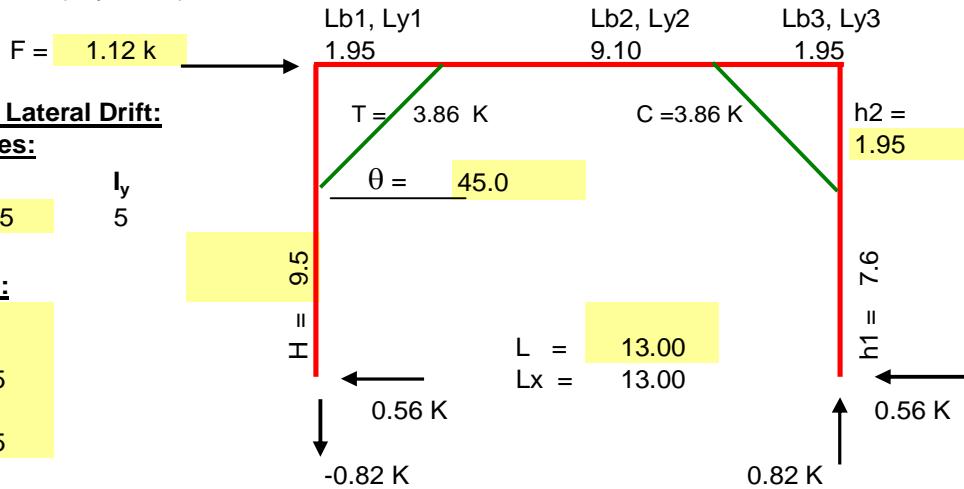
User added Unbalanced Snow to Frames that wasn't system generated. Refer to pages 19 and 20 for calculations.





Drift = 1.29 in (50yr wind)  
 Drift = H/ 88 (50yr wind)  
 Drift = H/ 118 (10yr wind)

Rf Pitch = 2 : 12



**Member Sect for Lateral Drift:**  
**Column Properties:**

bf	tf	Iy
5	0.25	5

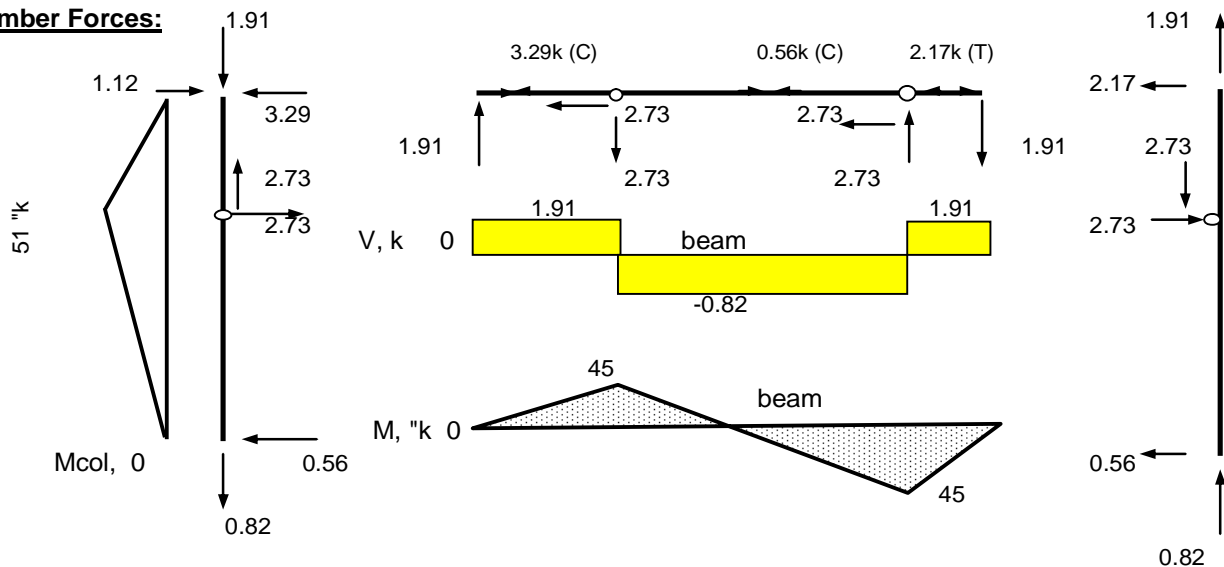
**Beam Properties:**

bf =	6
tf =	0.1345
D =	8
tw =	0.1345
Ix =	30

**Portal Beam Design Parameters:**

Lb1 = Ly1 =	1.95 ft	Cb1 =	1.75	Kx = Ky =	1.0
Lb2 = Ly2 =	9.10 ft	Cb2 =	2.30	Cmx = Cmy =	1.0
Lx = L =	13.00 ft	Cb3 =	1.75		

**Member Forces:**



**Drift Calculations:**

$$Defl = \frac{F H h_1^2}{6E * I_{y,col}} + \frac{F H^2 L_2^2}{12E * I_{x,beam} * L} ; \text{inches}$$

E = 29000 ksi

$$Defl = 0.0096 F * H [h_1^2 / I_{y,col} + H L_2^2 / 2 I_{x,beam} L] * (1.04 \text{ Stiffness Adj.})$$

Defl = 1.29 in

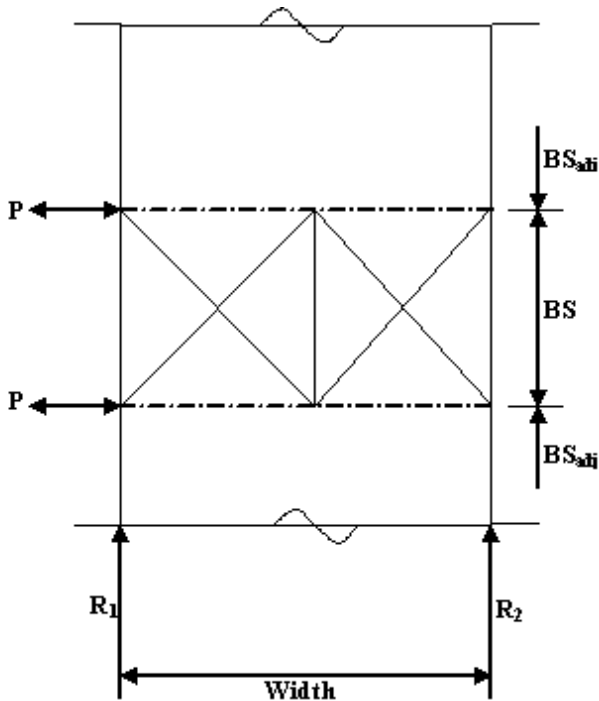
**Torsional Bracing Calculation**

**Input Labels:**

kip := 1000·lbf    psf :=  $\frac{\text{lbf}}{\text{ft}^2}$     ksi :=  $\frac{\text{kip}}{\text{in}^2}$     E := 29000·ksi    F<sub>y</sub> := 50·ksi    plf :=  $\frac{\text{lbf}}{\text{ft}}$     klf :=  $\frac{\text{kip}}{\text{ft}}$     k := 1000

Code: 2003 International Building Code

**Building Parameters:**



Eave := 9ft +  $\left(6 + \frac{0}{16}\right)$ in    Eave = 9.5ft

BS := 13.00ft

BS<sub>adj</sub> := 1.00ft

Width := 15.00ft

R<sub>1</sub> := 0.56kip    Wind Reactions from VPC.

R<sub>2</sub> := 0.56kip

GC<sub>pi</sub> := -0.18    per Fig. 6-5 of Code

GC<sub>pf</sub> := 0.67    per Figure 6-10 of Code

q<sub>h</sub> := 15.24psf    per Loading Report

Wind := q<sub>h</sub> · (GC<sub>pf</sub> - GC<sub>pi</sub>)    Wind = 12.95psf

a := 1    # of Braced Bays in Building

**Find Torsional Load on Frame (P):**

M<sub>T</sub> := R<sub>2</sub> · Width    M<sub>T</sub> = 8.4kip · ft

M<sub>R</sub> := a · BS    M<sub>R</sub> = 13ft

P :=  $\frac{M_T}{M_R}$     P = 0.65kip

**Find Sidewall Load on Frame (P):**

P :=  $\frac{\left(\frac{BS}{2} + BS_{adj}\right)}{2} \cdot \text{Eave} \cdot \text{Wind}$     P = 0.46kip

0.65kip > 0.46kip    Therefore, Wind on Endwall controls over Wind on the Sidewall.  
 Torsional Bracing does control.

Location: Unbalanced Snow per IBC-2003

$P_g = \text{Ground Snow} = 60.00 \text{ psf}$

$\theta_1 = \text{Roof slope on the left roof} = 2.00 : 12 \Rightarrow 9.46 \text{ degrees}$

$\theta_2 = \text{Roof slope on the right roof} = 2.00 : 12 \Rightarrow 9.46 \text{ degrees}$

- Building Use Category = All Other Structures (II) Table 1-1 & Table 7-4
- Exposure of Roof = Partially Exposed Table 7-2
- Exposure (Terrain) Category = B Sect. 6.5.6 & Table 7-2
- Thermal Condition = All other structures Table 7-3
- Monoslope, Hip or Gabled Roof = Hip or Gabled Section 7.3.4
- Type of Roof Surface = Unobstructed slippery Sect. 7.4 & Fig. 7-2

$C_e = \text{Exposure factor per Table 7-2} = 1.0$   
 $C_t = \text{Thermal factor per Table 7-3} = 1.0$   
 $I = \text{Importance factor per Table 7-4} = 1.0$

**Left Roof**

42.00	psf
0.931	
39.12	psf
<b>39.12</b>	psf
0.00	psf

$P_f = \text{Flat Roof Snow} = 0.7 C_e * C_t * I * P_g$

42.00	psf
0.931	
39.12	psf
<b>DESIGN SNOW LOAD</b>	
0.00	psf

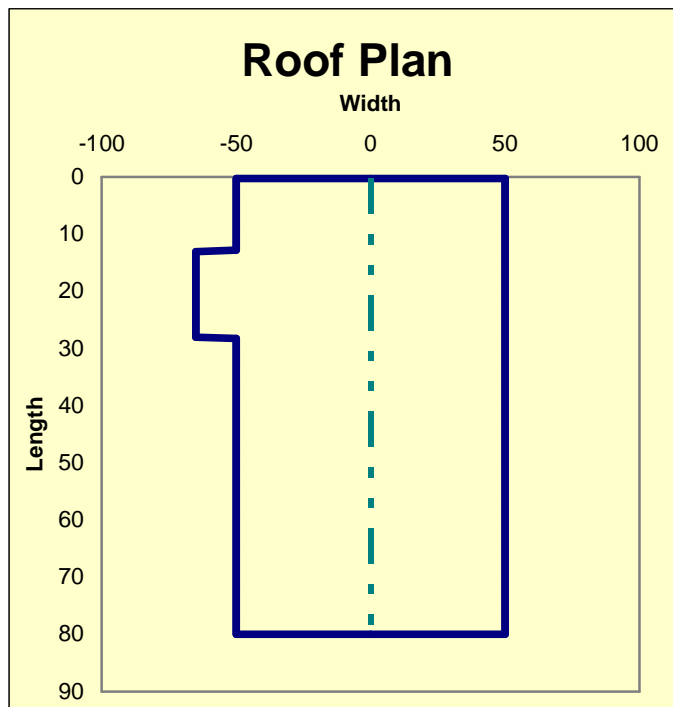
$P_s = \text{Sloped-roof snow} = C_s * P_f$

Rain-on-Snow Surcharge

**Right Roof**

42.00	psf
0.931	
39.12	psf
<b>39.12</b>	psf
0.00	psf

Left Roof ( $W_1$ )	
Width	Length
50	13
65	15
50	52
0	0
0	0
Lsum= 80	

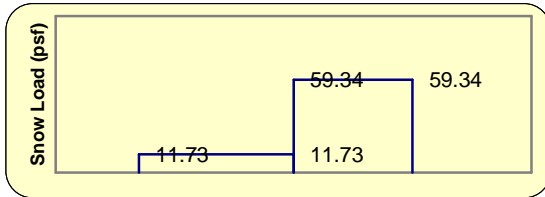


Right Roof ( $W_2$ )	
Width	Length
50	80
0	0
0	0
0	0
0	0
Lsum= 80	

**NOTE:**  
 Lengths from both sides  
 of ridge must be equal.

Results

Case 1: Wind to Right



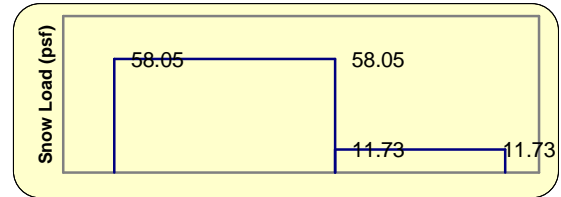
$$70/W_2 + 0.5 = 1.90$$

$$W_{\text{eff}} = 52.81 \text{ ft}$$

$$\beta_{w1} = 0.5 \quad \beta_{a2} = 0.528$$

Leeward Slope = 59.34 psf  
 Windward Slope = 11.73 psf

Case 2: Wind to Left



$$70/W_1 + 0.5 = 1.83$$

$$W_{\text{eff}} = 50.00 \text{ ft}$$

$$\beta_{w2} = 0.5 \quad \beta_{a1} = 0.473$$

Leeward Slope = 58.05 psf  
 Windward Slope = 11.73 psf

User Defined Frame Point Loads for Cross Section: 4

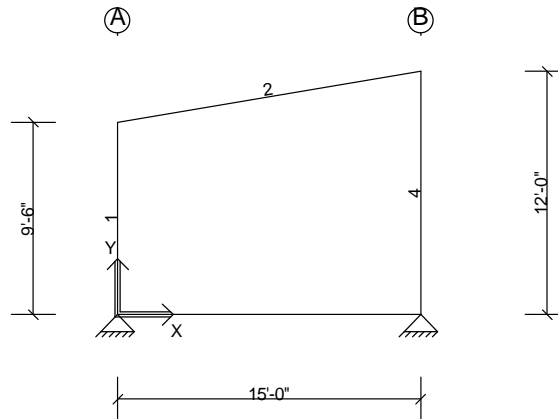
Side	Units	Type	Description	Mag1	Loc1	Offset	H or V	Supp.	Dir.	Coef.	Loc.
1	k	WPA1	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPA2	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPB1	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPB2	Portal Brace Weak Axis Load	2.73	7/6/10	NA	NA	N	IN	1.000	WA
1	k	WPC1	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
1	k	WPC2	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
1	k	WPD1	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
1	k	WPD2	Portal Brace Weak Axis Load	-2.73	7/6/10	NA	NA	N	OUT	1.000	WA
2	k	WPC1	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPC2	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPD1	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPD2	Torsional Bracing Racking Force	-0.65	1/0/0	NA	NA	N	LEFT	1.000	OF
2	k	WPA1	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF
2	k	WPA2	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF
2	k	WPB1	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF
2	k	WPB2	Torsional Bracing Racking Force	0.65	14/2/8	NA	NA	N	RIGHT	1.000	OF

User added Weak Axis Wind Loads to Low Eave Columns for Portal Brace System. Refer to page 17 for calculations.  
 User added Torsional Bracing Racking Forces to the frames. Refer to page 18 for calculations.

User Defined Frame Line Loads for Cross Section: 4

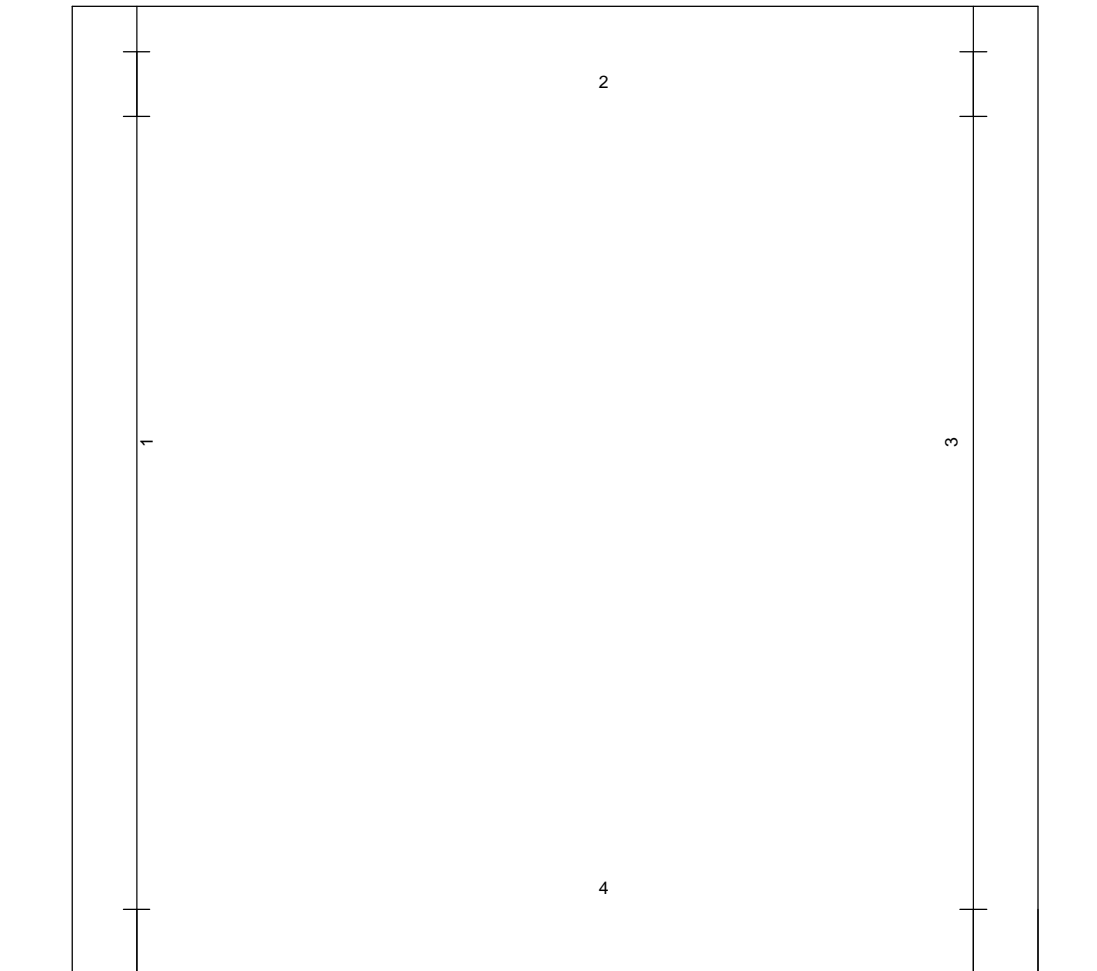
Side	Units	Type	Description	Mag1	Loc1	Mag2	Loc2	Supp.	Dir.	Coef.	Loc.
2	plf	US1*	Unbalanced Snow Load->Resolved From Plane	-437.61	0/0/0	-437.61	15/2/8	N	DOWN	1.000	OF
2	plf	*US1	Unbalanced Snow Load->Resolved From Plane	-88.43	0/0/0	-88.43	15/2/8	N	DOWN	1.000	OF

User added Unbalanced Snow to Frames that wasn't system generated. Refer to pages 19 and 20 for calculations.





07-16433 Design Load Reactions





07-16433 Design Load Reactions

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Reactions - Summary Report

Shape: camp

Builder Contact: Jon Bell or Bill Rudman
Name: Patco Construction
Address: 1293 Main Street

Project: Camp Bow Wow
Builder PO #:
Jobsite: 49 Blueberry Road

City, State Zip: Sanford, Maine 04073
Country: United States

City, State Zip: Portland, Maine 04104
County, Country: Cumberland, United States

Loads and Codes - Shape: camp

City: Portland County: Cumberland
Building Code: 2003 International Building Code
Building Use: Standard Occupancy Structure

State: Maine
Built Up: 89AISC
Cold Form: 04AISI

Country: United States
Rainfall: 4.00 inches per hour

Dead and Collateral Loads

Collateral Gravity: 3.00 psf
Collateral Uplift: 0.00 psf

Roof Covering + Second. Dead Load: Varies
Frame Weight (assumed for seismic): 2.50 psf

Live Load

Live Load: 20.00 psf Not Reducible

Wind Load

Wind Speed: 100.00 mph
Wind Exposure (Factor): B (0.701)
Parts Wind Exposure Factor: 0.701

Wind Enclosure: Enclosed
Wind Importance Factor: 1.000
Topographic Factor: 1.0000
Hurricane Prone Region
NOT Windborne Debris Region
Base Elevation: 0/0/0
Primary Zone Strip Width: 9/7/3
Parts / Portions Zone Strip Width: 4/9/10
Basic Wind Pressure: 15.24 psf

Snow Load

Ground Snow Load: 60.00 psf
Design Snow (Sloped): 39.12 psf
Snow Exposure Category (Factor): 2 Partially Exposed (1.00)
Snow Importance: 1.000
Thermal Category (Factor): Heated (1.00)
Ground / Roof Conversion: 0.70
% Snow Used in Seismic: 20.00
Seismic Snow Load: 8.40 psf
Unobstructed, Slippery Roof

Seismic Load

Mapped Spectral Response - Ss: 36.90 %g
Mapped Spectral Response - S1: 9.80 %g
Seismic Hazard / Use Group: Group 1
Seismic Importance: 1.000
Seismic Performance / Design Category: D
Framing Seismic Period: 0.2044
Bracing Seismic Period: 0.1289
Framing R-Factor: 3.5000
Bracing R-Factor: 3.5000
Soil Profile Type: Soft soil (E)
Frame Redundancy Factor: 1.1056
Brace Redundancy Factor: 1.5000
Frame Seismic Factor (Cs): 0.1489 x W
Brace Seismic Factor (Cs): 0.1489 x W

Per Article 2.9 in the Builder Agreement, VP Buildings assumes that the Builder has called the local Building Official or Project Engineer to obtain all code and loading information for this specific building site.

Load Type Descriptions

Table with 4 columns: Code, Description, Code, Description. Lists various load types such as D (Material Dead Weight), CG (Collateral Load for Gravity Cases), L (Live Load), ^ASL (Alternate Span Live Load, Shifted Left), S (Snow Load), \*US1 (Unbalanced Snow Load 1, Shifted Left), \*US2 (Unbalanced Snow Load 2, Shifted Left), SS (Sliding Snow Load), PF1 (Partial Load, Full, 1 Span), PF2 (Partial Load, Full, 2 Spans), W (Wind Load), <W1 (Wind Load, Case 1, Left), <W2 (Wind Load, Case 2, Left), <W3 (Wind Load, Case 3, Left), <W4 (Wind Load, Case 4, Left), <W5 (Wind Load, Case 5, Left), <W6 (Wind Load, Case 6, Left), WPR (Wind Load, || Ridge, Right), WPA1 (Wind Parallel - Ref A, Case 1), WPB1 (Wind Parallel - Ref B, Case 1), WPC1 (Wind Parallel - Ref C, Case 1), WPD1 (Wind Parallel - Ref D, Case 1), WB1> (Wind Brace Reaction, Case 1, Right), WB2> (Wind Brace Reaction, Case 2, Right), WB3> (Wind Brace Reaction, Case 3, Right), WB4> (Wind Brace Reaction, Case 4, Right), WB5> (Wind Brace Reaction, Case 5, Right), WB6> (Wind Brace Reaction, Case 6, Right), C (Collateral Load), CU (Collateral Load for Wind Cases), ASL^ (Alternate Span Live Load, Shifted Right), PL2 (Partial Live, Full, 2 Spans), US1\* (Unbalanced Snow Load 1, Shifted Right), US2\* (Unbalanced Snow Load 2, Shifted Right), SD (Snow Drift Load), RS (Rain Surcharge Load), PH1 (Partial Load, Half, 1 Span), PH2 (Partial Load, Half, 2 Spans), W1> (Wind Load, Case 1, Right), W2> (Wind Load, Case 2, Right), W3> (Wind Load, Case 3, Right), W4> (Wind Load, Case 4, Right), W5> (Wind Load, Case 5, Right), W6> (Wind Load, Case 6, Right), WP (Wind Load, Parallel to Ridge), WPL (Wind Load, || Ridge, Left), WPA2 (Wind Parallel - Ref A, Case 2), WPB2 (Wind Parallel - Ref B, Case 2), WPC2 (Wind Parallel - Ref C, Case 2), WPD2 (Wind Parallel - Ref D, Case 2), <WB1 (Wind Brace Reaction, Case 1, Left), <WB2 (Wind Brace Reaction, Case 2, Left), <WB3 (Wind Brace Reaction, Case 3, Left), <WB4 (Wind Brace Reaction, Case 4, Left), <WB5 (Wind Brace Reaction, Case 5, Left), <WB6 (Wind Brace Reaction, Case 6, Left)



07-16433 Design Load Reactions

MW	Minimum Wind Load	MWB	Minimum Wind Bracing Reaction
E	Seismic Load	E>	Seismic Load, Right
<E	Seismic Load, Left	EG	Vertical Seismic Effect
EG+	Vertical Seismic Effect, Additive	EG-	Vertical Seismic Effect, Subtractive
EB>	Seismic Brace Reaction, Right	<EB	Seismic Brace Reaction, Left
FL	Floor Live Load	FL*	Alternate Span Floor Live Load, Shifted Right
*FL	Alternate Span Floor Live Load, Shifted Left	FD	Floor Dead Load
AL	Auxiliary Live Load	AL*>	Auxiliary Live Load, Right, Right
*AL>	Auxiliary Live Load, Right, Left	<AL*	Auxiliary Live Load, Left, Right
<*AL	Auxiliary Live Load, Left, Left	AL*	Aux Live, Right
*AL	Aux Live, Left	AL*>(1)	Auxiliary Live Load, Right, Right, Aisle 1
*AL>(1)	Auxiliary Live Load, Right, Left, Aisle 1	<AL*(1)	Auxiliary Live Load, Left, Right, Aisle 1
<*AL(1)	Auxiliary Live Load, Left, Left, Aisle 1	AL*(1)	Aux Live, Right, Aisle 1
*AL(1)	Aux Live, Left, Aisle 1	AL*>(2)	Auxiliary Live Load, Right, Right, Aisle 2
*AL>(2)	Auxiliary Live Load, Right, Left, Aisle 2	<AL*(2)	Auxiliary Live Load, Left, Right, Aisle 2
<*AL(2)	Auxiliary Live Load, Left, Left, Aisle 2	AL*(2)	Aux Live, Right, Aisle 2
*AL(2)	Aux Live, Left, Aisle 2	AL*>(3)	Auxiliary Live Load, Right, Right, Aisle 3
*AL>(3)	Auxiliary Live Load, Right, Left, Aisle 3	<AL*(3)	Auxiliary Live Load, Left, Right, Aisle 3
<*AL(3)	Auxiliary Live Load, Left, Left, Aisle 3	AL*(3)	Aux Live, Right, Aisle 3
*AL(3)	Aux Live, Left, Aisle 3	AL*>(4)	Auxiliary Live Load, Right, Right, Aisle 4
*AL>(4)	Auxiliary Live Load, Right, Left, Aisle 4	<AL*(4)	Auxiliary Live Load, Left, Right, Aisle 4
<*AL(4)	Auxiliary Live Load, Left, Left, Aisle 4	AL*(4)	Aux Live, Right, Aisle 4
*AL(4)	Aux Live, Left, Aisle 4	AL*>(5)	Auxiliary Live Load, Right, Right, Aisle 5
*AL>(5)	Auxiliary Live Load, Right, Left, Aisle 5	<AL*(5)	Auxiliary Live Load, Left, Right, Aisle 5
<*AL(5)	Auxiliary Live Load, Left, Left, Aisle 5	AL*(5)	Aux Live, Right, Aisle 5
*AL(5)	Aux Live, Left, Aisle 5	ALB	Aux Live Bracing Reaction
ALB>	Aux Live Bracing Reaction, Right	<ALB	Aux Live Bracing Reaction, Left
WALB>	Wind, Aux Live Bracing Reaction, Right	<WALB	Wind, Aux Live Bracing Reaction, Left
ALB>(1)	Aux Live Bracing Reaction, Right, Aisle 1	<ALB(1)	Aux Live Bracing Reaction, Left, Aisle 1
WALB>(1)	Wind, Aux Live Bracing Reaction, Right, Aisle 1	<WALB(1)	Wind, Aux Live Bracing Reaction, Left, Aisle 1
ALB>(2)	Aux Live Bracing Reaction, Right, Aisle 2	<ALB(2)	Aux Live Bracing Reaction, Left, Aisle 2
WALB>(2)	Wind, Aux Live Bracing Reaction, Right, Aisle 2	<WALB(2)	Wind, Aux Live Bracing Reaction, Left, Aisle 2
ALB>(3)	Aux Live Bracing Reaction, Right, Aisle 3	<ALB(3)	Aux Live Bracing Reaction, Left, Aisle 3
WALB>(3)	Wind, Aux Live Bracing Reaction, Right, Aisle 3	<WALB(3)	Wind, Aux Live Bracing Reaction, Left, Aisle 3
ALB>(4)	Aux Live Bracing Reaction, Right, Aisle 4	<ALB(4)	Aux Live Bracing Reaction, Left, Aisle 4
WALB>(4)	Wind, Aux Live Bracing Reaction, Right, Aisle 4	<WALB(4)	Wind, Aux Live Bracing Reaction, Left, Aisle 4
ALB>(5)	Aux Live Bracing Reaction, Right, Aisle 5	<ALB(5)	Aux Live Bracing Reaction, Left, Aisle 5
WALB>(5)	Wind, Aux Live Bracing Reaction, Right, Aisle 5	<WALB(5)	Wind, Aux Live Bracing Reaction, Left, Aisle 5
WALB	Wind, Aux Live Bracing Reaction	AD	Auxiliary Dead Load
U0	User Defined Load	U1	User Defined Load - 1
U2	User Defined Load - 2	U3	User Defined Load - 3
U4	User Defined Load - 4	U5	User Defined Load - 5
U6	User Defined Load - 6	U7	User Defined Load - 7
U8	User Defined Load - 8	U9	User Defined Load - 9
UB	User Brace Reaction	UB1	User Brace Reaction - 1
UB2	User Brace Reaction - 2	UB3	User Brace Reaction - 3
UB4	User Brace Reaction - 4	UB5	User Brace Reaction - 5
UB6	User Brace Reaction - 6	UB7	User Brace Reaction - 7
UB8	User Brace Reaction - 8	UB9	User Brace Reaction - 9
R	Rain Load	T	Temperature Load
V	Shear		





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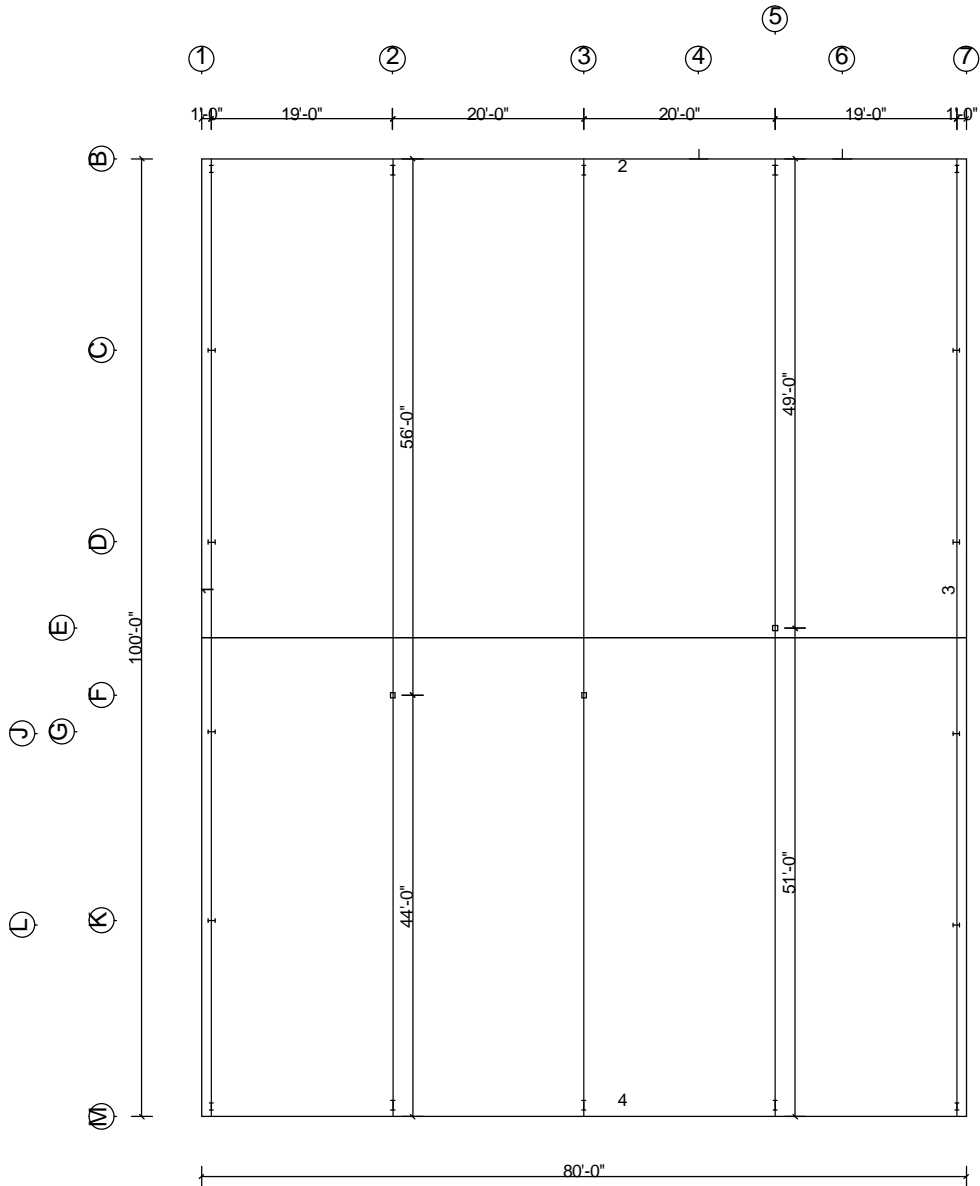
Date: 11/8/2007  
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### Overall Building Description

Shape	Overall Width	Overall Length	Floor Area (sq. ft.)	Wall Area (sq. ft.)	Roof Area (sq. ft.)	Max. Eave Height	Min. Eave Height 2	Max. Roof Pitch	Min. Roof Pitch	Peak Height
camp loading	100/0/0 15/0/0	80/0/0 15/0/0	8000 225	4973 465	8110 228	12/0/0 12/0/0	12/0/0 9/6/0	2.000:12 2.000:12	2.000:12	20/4/0
Total For All Shapes			8225	5438	8338					

### Overall Shape Description

Roof 1	Roof 2	From Grid	To Grid	Width	Length	Eave Ht.	Eave Ht. 2	Pitch	Pitch 2	Dist. to Ridge	Peak Height
A	B	1-B	1-M	100/0/0	80/0/0	12/0/0	12/0/0	2.000:12	2.000:12	50/0/0	20/4/0





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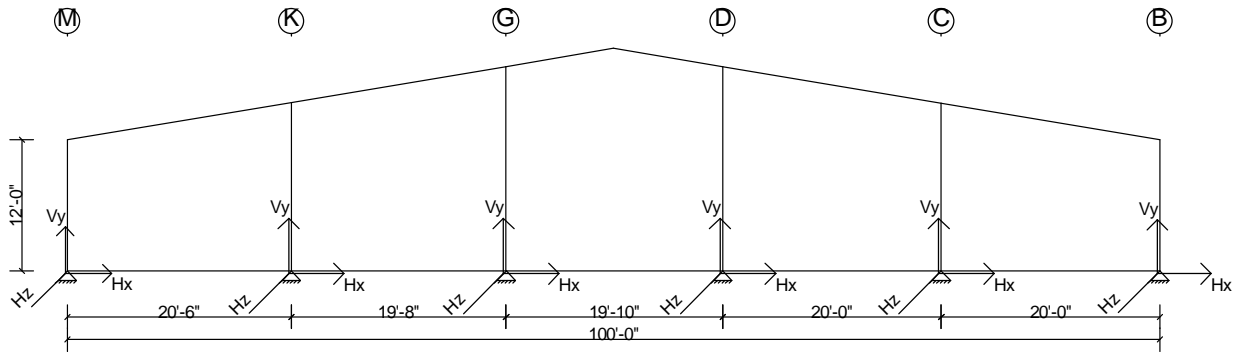
## Wall: 4, Frame at: 1/0/0

### Design Load Combinations - Framing

No.	Origin	Factor	Application	Description
1	System	1.000	1.0 D + 1.0 CG + 1.0 S	D + CG + S
2	System	1.000	1.0 D + 1.0 CG + 1.0 US1*	D + CG + US1*
3	System	1.000	1.0 D + 1.0 CG + 1.0 *US1	D + CG + *US1
4	System	1.000	1.0 D + 1.0 CG + 1.0 W1>	D + CG + W1>
5	System	1.000	1.0 D + 1.0 CG + 1.0 <W1	D + CG + <W1
6	System	1.000	1.0 D + 1.0 CG + 1.0 W2>	D + CG + W2>
7	System	1.000	1.0 D + 1.0 CG + 1.0 <W2	D + CG + <W2
8	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W1>	D + CG + S + W1>
9	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W1	D + CG + S + <W1
10	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W2>	D + CG + S + W2>
11	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W2	D + CG + S + <W2
12	System	1.000	0.600 D + 0.600 CU + 1.0 W1>	D + CU + W1>
13	System	1.000	0.600 D + 0.600 CU + 1.0 <W1	D + CU + <W1
14	System	1.000	0.600 D + 0.600 CU + 1.0 W2>	D + CU + W2>
15	System	1.000	0.600 D + 0.600 CU + 1.0 <W2	D + CU + <W2
16	System	1.275	0.900 D + 0.900 CG + 1.106 E>	D + CG + E>
17	System	1.275	0.900 D + 0.900 CG + 1.106 <E	D + CG + <E
18	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+	D + CG + S + E> + EG+
19	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 <E + 1.0 EG+	D + CG + S + <E + EG+
28	System Derived	1.275	0.900 D + 0.900 CG + 0.332 E> + 1.500 <EB	D + CG + E> + <EB>
29	System Derived	1.275	0.900 D + 0.900 CG + 1.106 E> + 0.332 <EB>	D + CG + E> + <EB>
30	System Derived	1.275	0.900 D + 0.900 CG + 0.332 <E + 1.500 <EB	D + CG + <E + <EB>
31	System Derived	1.275	0.900 D + 0.900 CG + 1.106 <E + 0.332 <EB	D + CG + <E + <EB>
32	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 E> + 1.0 EG+ + 1.500 <EB>	D+CG+S+E>+EG++<EB>
33	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+ + 0.332 <EB>	D+CG+S+E>+EG++<EB>
34	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 <E + 1.0 EG+ + 1.500 <EB>	D+CG+S+<E+EG++<EB>
35	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 <E + 1.0 EG+ + 0.332 <EB>	D+CG+S+<E+EG++<EB>
38	System Derived	1.275	0.900 D + 0.900 CG + 0.332 E> + 1.500 <EB	D + CG + E> + <EB
39	System Derived	1.275	0.900 D + 0.900 CG + 1.106 E> + 0.332 <EB	D + CG + E> + <EB
40	System Derived	1.275	0.900 D + 0.900 CG + 0.332 <E + 1.500 <EB	D + CG + <E + <EB
41	System Derived	1.275	0.900 D + 0.900 CG + 1.106 <E + 0.332 <EB	D + CG + <E + <EB
42	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 E> + 1.0 EG+ + 1.500 <EB	D+CG+S+E>+EG++<EB
43	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 E> + 1.0 EG+ + 0.332 <EB	D+CG+S+E>+EG++<EB
44	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.332 <E + 1.0 EG+ + 1.500 <EB	D+CG+S+<E+EG++<EB
45	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.106 <E + 1.0 EG+ + 0.332 <EB	D+CG+S+<E+EG++<EB
48	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA1	D + CG + WPA1
49	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA1	D + CG + S + WPA1
50	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA1	D + CU + WPA1
51	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD1	D + CG + WPD1
52	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD1	D + CG + S + WPD1
53	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD1	D + CU + WPD1
54	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA2	D + CG + WPA2
55	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA2	D + CG + S + WPA2
56	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA2	D + CU + WPA2
57	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD2	D + CG + WPD2
58	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD2	D + CG + S + WPD2
59	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD2	D + CU + WPD2
60	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB1	D + CG + WPB1
61	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB1	D + CG + S + WPB1
62	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB1	D + CU + WPB1
63	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC1	D + CG + WPC1
64	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC1	D + CG + S + WPC1
65	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC1	D + CU + WPC1
66	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB2	D + CG + WPB2
67	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB2	D + CG + S + WPB2
68	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB2	D + CU + WPB2
69	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC2	D + CG + WPC2
70	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC2	D + CG + S + WPC2
71	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC2	D + CU + WPC2

Wall: 4, Frame at: 1/0/0  
 Frame ID: Post & Beam

Frame Type: Post & Beam



Values shown are resisting forces of the foundation.

Reactions - Unfactored Load Type at Frame Cross Section: 1

Type		Exterior Column		Interior Column			Interior Column			Interior Column			Interior Column		
X-Loc		0/0/0		20/6/0			40/2/0			60/0/0			80/0/0		
Grid1 - Grid2		1-M		1-K			1-G			1-D			1-C		
Base Plate W x L (in.)		8 x 10		8 x 10			8 x 10			8 x 10			8 x 10		
Base Plate Thickness (in.)		0.375		0.375			0.375			0.375			0.375		
Anchor Rod Qty/Diam. (in.)		2 - 0.750		2 - 0.750			2 - 0.750			2 - 0.750			2 - 0.750		
Column Base Elev.		100'-0"		100'-0"			100'-0"			100'-0"			100'-0"		
Load Type	Desc.	Hx	Vy	Hx	Hx	Vy	Hx	Hx	Vy	Hx	Hx	Vy	Hx	Hx	Vy
D	Frm	-	0.4	-	-	0.9	-	-	0.8	-	-	0.8	-	-	0.9
CG	Frm	-	0.3	-	-	0.7	-	-	0.6	-	-	0.6	-	-	0.7
S	Frm	-	3.6	-	-	9.1	-	-	7.9	-	-	8.1	-	-	9.0
US1*	Frm	-	1.1	-	-	2.6	-	-	3.2	-	-	11.2	-	-	13.5
*US1	Frm	-	5.4	-	-	14.0	-	-	11.2	-	-	3.2	-	-	2.5
W1>	Frm	-0.5	-1.5	-	2.0	-4.2	-	2.4	-3.3	-	2.4	-2.5	-	2.0	-3.0
<W1	Frm	0.7	-1.3	-	-1.8	-3.0	-	-2.2	-2.4	-	-2.2	-3.4	-	-1.8	-4.2
W2>	Frm	-0.8	-0.9	-	-	-2.9	-	-	-2.3	-	-	-1.5	-	-	-1.6
<W2	Frm	0.4	-0.7	-	-	-1.7	-	-	-1.4	-	-	-2.4	-	-	-2.9
CU	Frm	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E>	Frm	-0.1	-	-	0.2	-	-	0.2	-	-	0.2	-	-	0.2	-
<E	Frm	0.1	-	-	-0.2	-	-	-0.2	-	-	-0.2	-	-	-0.2	-
EG+	Frm	-	0.1	-	-	0.2	-	-	0.2	-	-	0.2	-	-	0.2
EB>	Brc	-	-	-	-	-	-	-	-0.0	-	-	-0.0	-	-	-
<EB	Brc	-	-	-	-	-	-	-	-0.0	-	-	0.0	-	-	-0.2
WPA1	Brc	0.6	-1.8	-	-	-3.4	-	-	-2.4	-	-	-2.5	-	-	-3.2
WPD1	Brc	0.6	-1.3	-	-	-2.6	-	-	-1.8	-	-	-1.8	-	-	-2.5
WPA2	Brc	0.2	-1.2	-	-	-2.1	-	-	-1.4	-	-	-1.5	-	-	-1.9
WPD2	Brc	0.2	-0.7	-	-	-1.2	-	-	-0.8	-	-	-0.8	-	-	-1.2
WPB1	Brc	0.6	-1.3	-	-	-3.2	-	-	-2.4	-	-	-2.5	-	-	-3.4
WPC1	Brc	0.6	-1.0	-	-	-2.5	-	-	-1.8	-	-	-1.8	-	-	-2.6
WPB2	Brc	0.2	-0.8	-	-	-1.9	-	-	-1.5	-	-	-1.4	-	-	-2.1
WPC2	Brc	0.2	-0.5	-	-	-1.1	-	-	-0.8	-	-	-0.8	-	-	-1.3



## 07-16433 Design Load Reactions

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Type X-Loc Grid1 - Grid2 Base Plate W x L (in.) Base Plate Thickness (in.) Anchor Rod Qty/Diam. (in.) Column Base Elev.		Exterior Column 100/0/0 1-B 10 x 10 0.375 2 - 1.250 100'-0"						
Load Type	Desc.	Hx	Hz	Vy				
D	Frm	-	-	0.4	-	-	-	-
CG	Frm	-	-	0.3	-	-	-	-
S	Frm	-	-	3.5	-	-	-	-
US1*	Frm	-	-	5.1	-	-	-	-
*US1	Frm	-	-	1.1	-	-	-	-
W1>	Frm	-0.7	-	-1.2	-	-	-	-
<W1	Frm	0.5	-	-1.5	-	-	-	-
W2>	Frm	-0.4	-	-0.7	-	-	-	-
<W2	Frm	0.8	-	-0.9	-	-	-	-
CU	Frm	-	-	-	-	-	-	-
E>	Frm	-0.0	-	-	-	-	-	-
<E	Frm	0.0	-	-	-	-	-	-
EG+	Frm	-	-	0.1	-	-	-	-
EB>	Brc	-0.3	-10.8	-6.8	-	-	-	-
<EB	Brc	-	-	7.0	-	-	-	-
WPA1	Brc	-0.7	-5.0	-4.4	-	-	-	-
WPD1	Brc	-0.6	-	2.2	-	-	-	-
WPA2	Brc	-0.4	-5.0	-3.8	-	-	-	-
WPD2	Brc	-0.2	-	2.8	-	-	-	-
WPB1	Brc	-0.7	-5.3	-5.1	-	-	-	-
WPC1	Brc	-0.6	-	2.2	-	-	-	-
WPB2	Brc	-0.4	-5.3	-4.5	-	-	-	-
WPC2	Brc	-0.2	-	2.7	-	-	-	-

### Maximum Combined Reactions Summary with Factored Loads - Framing

X-Loc	Grid	Hz left (-Hx) (k)	Load Case	Hz Right (Hx) (k)	Load Case	Hz In (-Hz) (k)	Load Case	Hz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	1-M	0.8	6	0.7	5	-	-	-	-	1.5	50	6.1	3	-	-	-	-
20/6/0	1-K	-	-	-	-	1.8	5	2.0	4	3.7	12	15.5	3	-	-	-	-
40/2/0	1-G	-	-	-	-	2.2	5	2.4	4	2.8	12	12.5	3	-	-	-	-
60/0/0	1-D	-	-	-	-	2.2	5	2.4	4	2.9	13	12.6	2	-	-	-	-
80/0/0	1-C	-	-	-	-	1.8	5	2.0	4	3.7	13	15.1	2	-	-	-	-
100/0/0	1-B	0.7	60	0.8	7	16.3	28	-	-	9.6	28	12.0	42	-	-	-	-

### Bracing

X-Loc	Grid	Description
100/0/0	1-B	Diagonal bracing at base is attached to column. Reactions ARE included with frame reactions.

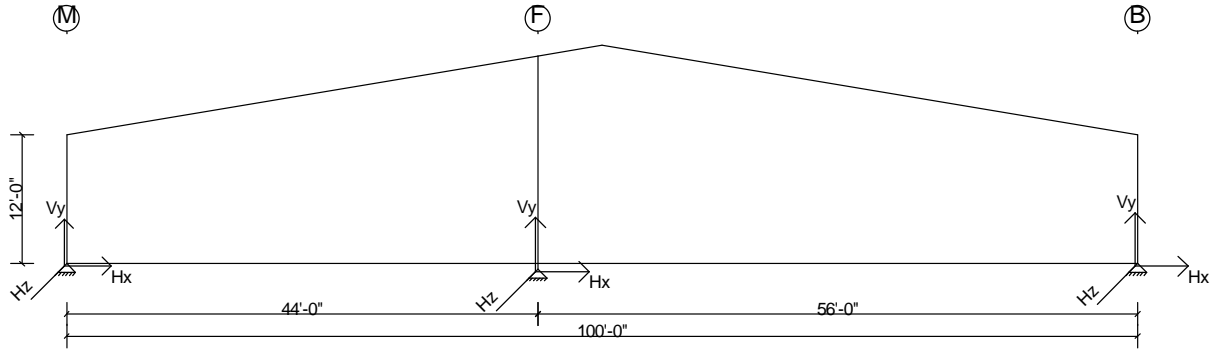


07-16433 Design Load Reactions

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Wall: 4, Frame at: 20/0/0  
 Frame ID: CB 1 44 56

Frame Type: Continuous Beam



Values shown are resisting forces of the foundation.

Reactions - Unfactored Load Type at Frame Cross Section: 2

Type		Exterior Column		Interior Column		Exterior Column				
X-Loc		0/0/0		44/0/0		100/0/0				
Grid1 - Grid2		2-M		2-F		2-B				
Base Plate W x L (in.)		8 x 13		8 x 11		8 x 13				
Base Plate Thickness (in.)		0.375		0.625		0.375				
Anchor Rod Qty/Diam. (in.)		4 - 0.750		4 - 0.750		4 - 0.750				
Column Base Elev.		100'-0"		99'-6"		100'-0"				
Load Type	Desc.	Hx	Vy	Hx	Vy	Hx	Hz	Vy		
D	Frm	0.7	1.6	-	4.2	-0.7	-	2.4	-	-
CG	Frm	0.5	1.3	-	3.0	-0.5	-	1.6	-	-
S	Frm	6.8	16.5	-	38.6	-6.8	-	21.2	-	-
US1*	Frm	6.5	4.3	-	32.4	-6.5	-	31.4	-	-
*US1	Frm	5.7	25.6	-	37.2	-5.7	-	6.4	-	-
W1>	Frm	-3.9	-6.3	-	-11.9	-0.2	-	-5.5	-	-
<W1	Frm	-	-4.2	-	-11.6	4.2	-	-7.9	-	-
W2>	Frm	-3.5	-3.8	-	-6.8	-0.7	-	-2.3	-	-
<W2	Frm	0.5	-1.6	-	-6.5	3.7	-	-4.7	-	-
CU	Frm	-	-	-	-	-	-	-	-	-
E>	Frm	-2.3	-0.9	-	0.0	-2.6	-	0.9	-	-
<E	Frm	2.3	0.9	-	-0.0	2.6	-	-0.9	-	-
EG+	Frm	0.1	0.3	-	0.8	-0.1	-	0.4	-	-
EB>	Brc	-0.1	-0.0	-	-0.0	0.1	-	6.9	-	-
<EB	Brc	0.1	0.1	-	-0.1	-0.1	10.9	-6.9	-	-
WPA1	Brc	-1.5	-7.0	-	-12.5	1.7	-	-4.4	-	-
WPD1	Brc	-0.8	-5.1	-	-9.4	0.9	5.0	-8.9	-	-
WPA2	Brc	-1.0	-4.5	-	-7.4	1.2	-	-1.3	-	-
WPD2	Brc	-0.4	-2.6	-	-4.3	0.5	5.0	-5.8	-	-
WPB1	Brc	-1.7	-6.0	-	-12.5	1.5	-	-5.1	-	-
WPC1	Brc	-0.9	-4.6	-	-9.3	0.8	5.3	-9.6	-	-
WPB2	Brc	-1.2	-3.5	-	-7.4	1.0	-	-2.0	-	-
WPC2	Brc	-0.5	-2.1	-	-4.3	0.4	5.3	-6.5	-	-

Maximum Combined Reactions Summary with Factored Loads - Framing

X-Loc	Grid	Hz left (-Hx) (k)	Load Case	Hz Right (Hx) (k)	Load Case	Hz In (-Hz) (k)	Load Case	Hz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	2-M	3.5	12	8.0	1	-	-	-	-	6.0	50	28.5	3	-	-	-	-
44/0/0	2-F	-	-	-	-	-	-	-	-	10.0	50	45.7	1	-	-	-	-
100/0/0	2-B	8.0	1	3.7	13	-	-	16.3	38	8.2	65	35.5	2	-	-	-	-



*07-16433 Design Load Reactions*

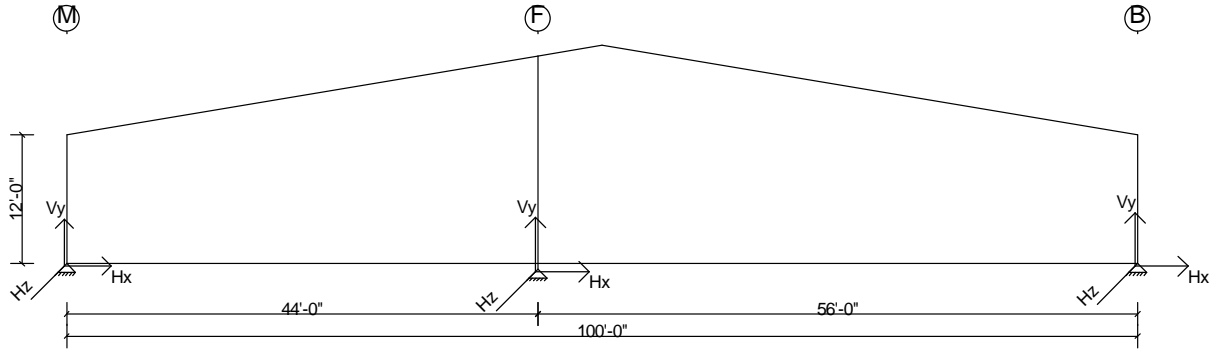
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**Time:** 11:09:52 AM  
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**Bracing**

X-Loc	Grid	Description
100/0/0	2-B	Diagonal bracing at base is attached to column. Reactions ARE included with frame reactions.

Wall: 4, Frame at: 40/0/0  
 Frame ID: CB 1 44 56

Frame Type: Continuous Beam



Values shown are resisting forces of the foundation.

Reactions - Unfactored Load Type at Frame Cross Section: 3

Type		Exterior Column			Interior Column		Exterior Column			
X-Loc		0/0/0			44/0/0		100/0/0			
Grid1 - Grid2		3-M			3-F		3-B			
Base Plate W x L (in.)		8 x 13			8 x 11		8 x 13			
Base Plate Thickness (in.)		0.375			0.625		0.375			
Anchor Rod Qty/Diam. (in.)		4 - 0.750			4 - 0.750		4 - 0.750			
Column Base Elev.		100'-0"			99'-6"		100'-0"			
Load Type	Desc.	Hx	Hz	Vy	Hx	Vy	Hx	Vy		
D	Frm	0.7	-	1.7	-	4.2	-0.7	2.5	-	-
CG	Frm	0.5	-	1.3	-	3.0	-0.5	1.7	-	-
S	Frm	7.0	-	16.9	-	39.6	-7.0	21.8	-	-
US1*	Frm	6.6	-	4.4	-	33.2	-6.6	32.2	-	-
*US1	Frm	5.9	-	26.3	-	38.2	-5.9	6.6	-	-
W1>	Frm	-3.3	-	-6.0	-	-11.7	0.5	-5.6	-	-
<W1	Frm	-0.5	-	-4.3	-	-11.4	3.5	-7.7	-	-
W2>	Frm	-2.9	-	-3.5	-	-6.5	-0.1	-2.4	-	-
<W2	Frm	-0.1	-	-1.8	-	-6.2	2.8	-4.5	-	-
CU	Frm	-	-	-	-	-	-	-	-	-
E>	Frm	-2.3	-	-0.9	-	0.0	-2.6	0.9	-	-
<E	Frm	2.3	-	0.9	-	-0.0	2.6	-0.9	-	-
EG+	Frm	0.1	-	0.3	-	0.8	-0.1	0.5	-	-
EB>	Brc	0.1	-10.1	-6.1	-	-0.1	-0.1	0.0	-	-
<EB	Brc	-0.1	-	6.1	-	-0.1	0.1	-0.0	-	-
WPA1	Brc	-1.0	-4.6	-8.9	-	-11.2	1.6	-6.8	-	-
WPD1	Brc	-1.1	-	-3.4	-	-11.2	1.7	-6.8	-	-
WPA2	Brc	-0.6	-4.6	-6.3	-	-6.0	0.9	-3.6	-	-
WPD2	Brc	-0.7	-	-0.8	-	-6.0	1.0	-3.6	-	-
WPB1	Brc	-1.2	-4.3	-8.0	-	-11.2	1.4	-7.5	-	-
WPC1	Brc	-1.2	-	-2.8	-	-11.2	1.5	-7.5	-	-
WPB2	Brc	-0.8	-4.3	-5.4	-	-6.0	0.8	-4.3	-	-
WPC2	Brc	-0.8	-	-0.3	-	-6.0	0.9	-4.3	-	-

Maximum Combined Reactions Summary with Factored Loads - Framing

X-Loc	Grid	Hz left (-Hx) (k)	Load Case	Hz Right (Hx) (k)	Load Case	Hz In (-Hz) (k)	Load Case	Hz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	3-M	2.8	12	8.2	1	15.2	28	-	-	7.9	50	29.3	3	-	-	-	-
44/0/0	3-F	-	-	-	-	-	-	-	-	9.2	12	46.9	1	-	-	-	-
100/0/0	3-B	8.2	1	3.1	13	-	-	-	-	6.2	13	36.3	2	-	-	-	-



*07-16433 Design Load Reactions*

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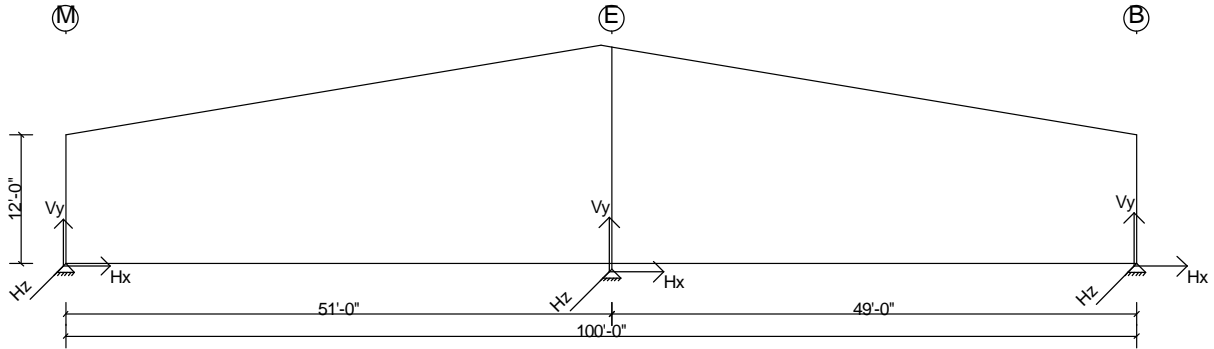
**Bracing**

X-Loc	Grid	Description
0/0/0	3-M	Diagonal bracing at base is attached to column. Reactions ARE included with frame reactions.



Wall: 4, Frame at: 60/0/0  
 Frame ID: CB 1

Frame Type: Continuous Beam



Values shown are resisting forces of the foundation.

**Reactions - Unfactored Load Type at Frame Cross Section: 5**

Type		Exterior Column			Interior Column			Exterior Column			
X-Loc		0/0/0			51/0/0			100/0/0			
Grid1 - Grid2		5-M			5-E			5-B			
Base Plate W x L (in.)		8 x 13			8 x 11			8 x 13			
Base Plate Thickness (in.)		0.375			0.625			0.375			
Anchor Rod Qty/Diam. (in.)		4 - 0.750			4 - 0.750			4 - 0.750			
Column Base Elev.		100'-0"			99'-6"			100'-0"			
Load Type	Desc.	Hx	Hz	Vy	Hx	Vy	Hx	Vy			
D	Frm	0.8	-	2.1	-	4.4	-0.8	1.9	-	-	
CG	Frm	0.6	-	1.4	-	3.0	-0.6	1.4	-	-	
S	Frm	7.4	-	18.8	-	39.5	-7.4	18.0	-	-	
US1*	Frm	6.2	-	4.5	-	36.6	-6.2	26.9	-	-	
*US1	Frm	7.1	-	29.6	-	34.5	-7.1	5.1	-	-	
W1>	Frm	-3.0	-	-6.7	-	-12.2	2.2	-5.1	-	-	
<W1	Frm	-1.2	-	-5.1	-	-11.9	2.8	-7.3	-	-	
W2>	Frm	-2.8	-	-4.0	-	-6.9	0.7	-2.3	-	-	
<W2	Frm	-1.0	-	-2.4	-	-6.6	1.3	-4.5	-	-	
CU	Frm	-	-	-	-	-	-	-	-	-	
E>	Frm	-2.2	-	-0.8	-	-0.2	-2.5	1.0	-	-	
<E	Frm	2.2	-	0.8	-	0.2	2.5	-1.0	-	-	
EG+	Frm	0.2	-	0.4	-	0.8	-0.2	0.4	-	-	
EB>	Brc	-0.0	-	6.1	-	-0.1	0.0	-	-	-	
<EB	Brc	0.3	10.1	-6.0	-	-0.1	-0.3	0.1	-	-	
WPA1	Brc	-0.5	-	-2.7	-	-9.8	2.8	-5.0	-	-	
WPD1	Brc	-0.9	4.6	-10.2	-	-13.0	3.4	-6.5	-	-	
WPA2	Brc	-0.3	-	-0.0	-	-4.5	1.3	-2.3	-	-	
WPD2	Brc	-0.7	4.6	-7.5	-	-7.7	1.9	-3.8	-	-	
WPB1	Brc	-0.5	-	-2.3	-	-9.8	2.7	-5.2	-	-	
WPC1	Brc	-1.0	4.3	-9.0	-	-13.0	3.2	-6.8	-	-	
WPB2	Brc	-0.3	-	0.4	-	-4.5	1.2	-2.5	-	-	
WPC2	Brc	-0.8	4.3	-6.3	-	-7.7	1.7	-4.1	-	-	

**Maximum Combined Reactions Summary with Factored Loads - Framing**

X-Loc	Grid	Hz left (-Hx) (k)	Load Case	Hz Right (Hx) (k)	Load Case	Hz In (-Hz) (k)	Load Case	Hz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	5-M	2.6	12	8.7	1	-	-	15.2	38	8.9	53	33.1	3	-	-	-	-
51/0/0	5-E	-	-	-	-	-	-	-	-	10.4	65	46.9	1	-	-	-	-
100/0/0	5-B	8.7	1	2.9	53	-	-	-	-	6.1	13	30.2	2	-	-	-	-



*07-16433 Design Load Reactions*

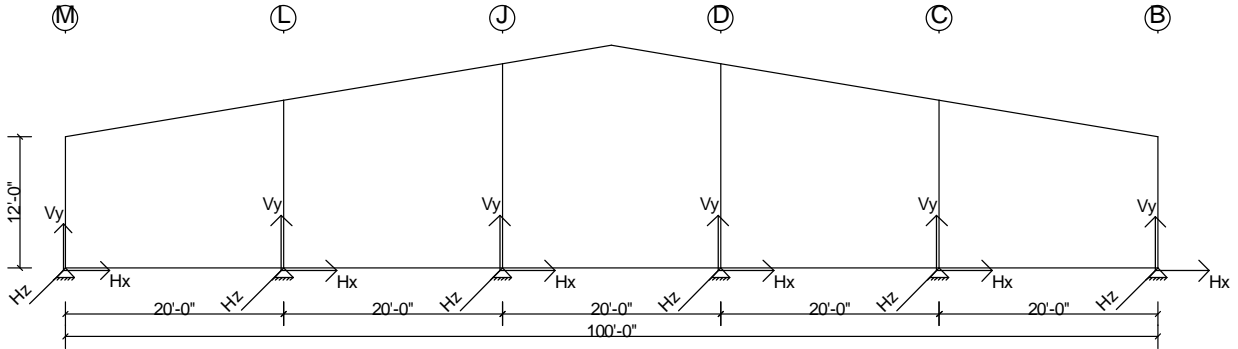
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**Bracing**

X-Loc	Grid	Description
0/0/0	5-M	Diagonal bracing at base is attached to column. Reactions ARE included with frame reactions.

Wall: 4, Frame at: 79/0/0  
 Frame ID: Copy of Post & Beam

Frame Type: Post & Beam



Values shown are resisting forces of the foundation.

Reactions - Unfactored Load Type at Frame Cross Section: 7

Type		Exterior Column		Interior Column			Interior Column			Interior Column			Interior Column		
X-Loc		0/0/0		20/0/0			40/0/0			60/0/0			80/0/0		
Grid1 - Grid2		7-M		7-L			7-J			7-D			7-C		
Base Plate W x L (in.)		8 x 10		8 x 10			8 x 10			8 x 10			8 x 10		
Base Plate Thickness (in.)		0.375		0.375			0.375			0.375			0.375		
Anchor Rod Qty/Diam. (in.)		2 - 0.750		2 - 0.750			2 - 0.750			2 - 0.750			2 - 0.750		
Column Base Elev.		100'-0"		100'-0"			100'-0"			100'-0"			100'-0"		
Load Type	Desc.	Hx	Vy	Hx	Hz	Vy	Hx	Hz	Vy	Hx	Hz	Vy	Hx	Hz	Vy
D	Frm	-	0.4	-	-	0.9	-	-	0.8	-	-	0.8	-	-	0.9
CG	Frm	-	0.3	-	-	0.7	-	-	0.6	-	-	0.6	-	-	0.7
S	Frm	-	3.5	-	-	9.0	-	-	8.1	-	-	8.1	-	-	9.0
US1*	Frm	-	1.1	-	-	2.5	-	-	3.2	-	-	11.2	-	-	13.6
*US1	Frm	-	5.3	-	-	13.9	-	-	11.4	-	-	3.2	-	-	2.5
W1>	Frm	-0.5	-1.5	-	2.0	-4.2	-	2.5	-3.4	-	2.5	-2.5	-	2.0	-3.0
<W1	Frm	0.7	-1.2	-	-1.8	-3.0	-	-2.2	-2.5	-	-2.2	-3.4	-	-1.8	-4.2
W2>	Frm	-0.8	-0.9	-	-	-2.9	-	-	-2.4	-	-	-1.5	-	-	-1.6
<W2	Frm	0.4	-0.7	-	-	-1.6	-	-	-1.4	-	-	-2.3	-	-	-2.9
CU	Frm	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E>	Frm	-0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-
<E	Frm	0.0	-	-	-0.0	-	-	-0.0	-	-	-0.0	-	-	-0.0	-
EG+	Frm	-	0.1	-	-	0.2	-	-	0.2	-	-	0.2	-	-	0.2
EB>	Brc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<EB	Brc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WPA1	Brc	0.6	-1.2	-	-	-2.5	-	-	-1.8	-	-	-1.9	-	-	-2.4
WPD1	Brc	0.6	-1.7	-	-	-3.4	-	-	-2.5	-	-	-2.5	-	-	-3.2
WPA2	Brc	0.2	-0.7	-	-	-1.2	-	-	-0.8	-	-	-0.9	-	-	-1.1
WPD2	Brc	0.2	-1.2	-	-	-2.1	-	-	-1.4	-	-	-1.5	-	-	-1.9
WPB1	Brc	0.6	-1.0	-	-	-2.4	-	-	-1.9	-	-	-1.8	-	-	-2.5
WPC1	Brc	0.6	-1.3	-	-	-3.2	-	-	-2.5	-	-	-2.5	-	-	-3.4
WPB2	Brc	0.2	-0.4	-	-	-1.1	-	-	-0.9	-	-	-0.8	-	-	-1.2
WPC2	Brc	0.2	-0.7	-	-	-1.9	-	-	-1.5	-	-	-1.4	-	-	-2.0



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Type X-Loc Grid1 - Grid2 Base Plate W x L (in.) Base Plate Thickness (in.) Anchor Rod Qty/Diam. (in.) Column Base Elev.		Exterior Column 100/0/0 7-B 8 x 10 0.375 2 - 0.750 100'-0"					
Load Type	Desc.	Hx	Vy				
D	Frm	-	0.4	-	-	-	-
CG	Frm	-	0.3	-	-	-	-
S	Frm	-	3.5	-	-	-	-
US1*	Frm	-	5.1	-	-	-	-
*US1	Frm	-	1.1	-	-	-	-
W1>	Frm	-0.5	-1.2	-	-	-	-
<W1	Frm	0.4	-1.5	-	-	-	-
W2>	Frm	-0.3	-0.7	-	-	-	-
<W2	Frm	0.6	-1.0	-	-	-	-
CU	Frm	-	-	-	-	-	-
E>	Frm	-0.0	-	-	-	-	-
<E	Frm	0.0	-	-	-	-	-
EG+	Frm	-	0.1	-	-	-	-
EB>	Brc	-	-	-	-	-	-
<EB	Brc	-	-	-	-	-	-
WPA1	Brc	-0.4	-1.0	-	-	-	-
WPD1	Brc	-0.4	-1.2	-	-	-	-
WPA2	Brc	-0.2	-0.4	-	-	-	-
WPD2	Brc	-0.2	-0.7	-	-	-	-
WPB1	Brc	-0.4	-1.2	-	-	-	-
WPC1	Brc	-0.4	-1.6	-	-	-	-
WPB2	Brc	-0.2	-0.7	-	-	-	-
WPC2	Brc	-0.2	-1.1	-	-	-	-

### Maximum Combined Reactions Summary with Factored Loads - Framing

X-Loc	Grid	Hrz left (-Hx) (k)	Load Case	Hrz Right (Hx) (k)	Load Case	Hrz In (-Hz) (k)	Load Case	Hrz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	7-M	0.8	6	0.7	5	-	-	-	-	1.5	53	5.9	3	-	-	-	-
20/0/0	7-L	-	-	-	-	1.8	5	2.0	4	3.7	12	15.4	3	-	-	-	-
40/0/0	7-J	-	-	-	-	2.2	5	2.5	4	2.9	12	12.9	3	-	-	-	-
60/0/0	7-D	-	-	-	-	2.2	5	2.5	4	2.9	13	12.6	2	-	-	-	-
80/0/0	7-C	-	-	-	-	1.8	5	2.0	4	3.7	13	15.1	2	-	-	-	-
100/0/0	7-B	0.5	4	0.6	7	-	-	-	-	1.4	65	5.8	2	-	-	-	-



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**Shape: loading**

**Loads and Codes - Shape: loading**

**City:** Portland      **County:** Cumberland      **State:** Maine      **Country:** United States  
**Building Code:** 2003 International Building Code      **Built Up:** 89AISC      **Rainfall:** 4.00 inches per hour  
**Building Use:** Standard Occupancy Structure      **Cold Form:** 04AISI

**Dead and Collateral Loads**

Collateral Gravity: 3.00 psf      **Roof Covering + Second. Dead Load:** Varies  
 Collateral Uplift: 0.00 psf      **Frame Weight (assumed for seismic):** 2.50 psf

**Live Load**

**Live Load:** 20.00 psf Not Reducible

**Wind Load**

Wind Speed: 100.00 mph  
 Wind Exposure (Factor): B (0.701)  
 Parts Wind Exposure Factor: 0.701  
  
 Wind Enclosure: Enclosed  
 Wind Importance Factor: 1.000  
 Topographic Factor: 1.0000  
 Hurricane Prone Region  
 NOT Windborne Debris Region  
 Base Elevation: 0/0/0  
 Primary Zone Strip Width: 8/7/3  
 Parts / Portions Zone Strip Width: 4/3/10  
 Basic Wind Pressure: 15.24 psf

**Snow Load**

Ground Snow Load: 60.00 psf  
 Design Snow (Sloped): 39.12 psf  
 Snow Exposure Category (Factor): 2 Partially Exposed (1.00)  
 Snow Importance: 1.000  
 Thermal Category (Factor): Heated (1.00)  
 Ground / Roof Conversion: 0.70  
 % Snow Used in Seismic: 20.00  
 Seismic Snow Load: 8.40 psf  
 Unobstructed, Slippery Roof

**Seismic Load**

Mapped Spectral Response - Ss: 36.90 %g  
 Mapped Spectral Response - S1: 9.80 %g  
 Seismic Hazard / Use Group: Group 1  
  
 Seismic Importance: 1.000  
 Seismic Performance / Design Category: D  
 Framing Seismic Period: 0.1872  
 Bracing Seismic Period: 0.1187  
 Framing R-Factor: 3.5000  
 Bracing R-Factor: 3.5000  
 Soil Profile Type: Soft soil (E)  
 Frame Redundancy Factor: 1.0000  
 Brace Redundancy Factor: 1.0000  
 Frame Seismic Factor (Cs): 0.1489 x W  
 Brace Seismic Factor (Cs): 0.1489 x W

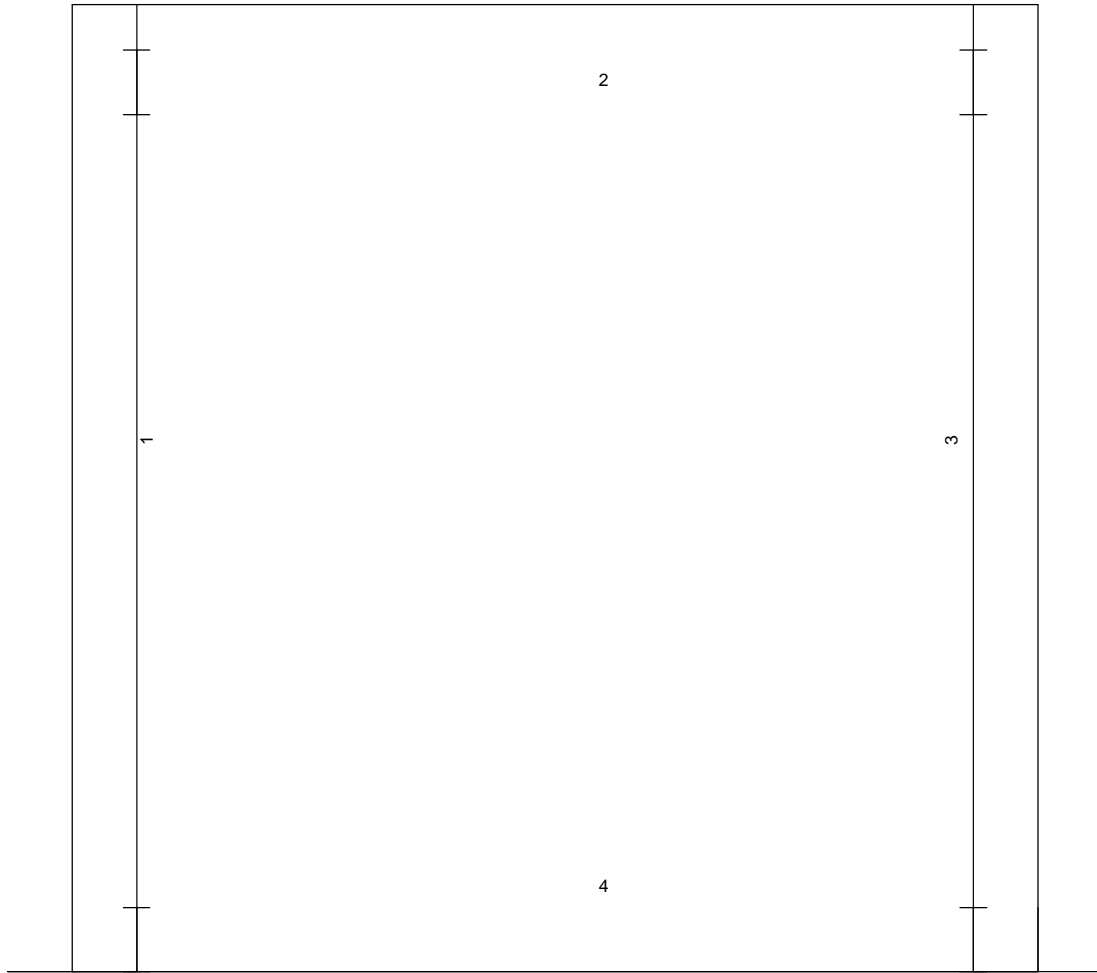
Per Article 2.9 in the Builder Agreement, VP Buildings assumes that the Builder has called the local Building Official or Project Engineer to obtain all code and loading information for this specific building site.

**Overall Shape Description**

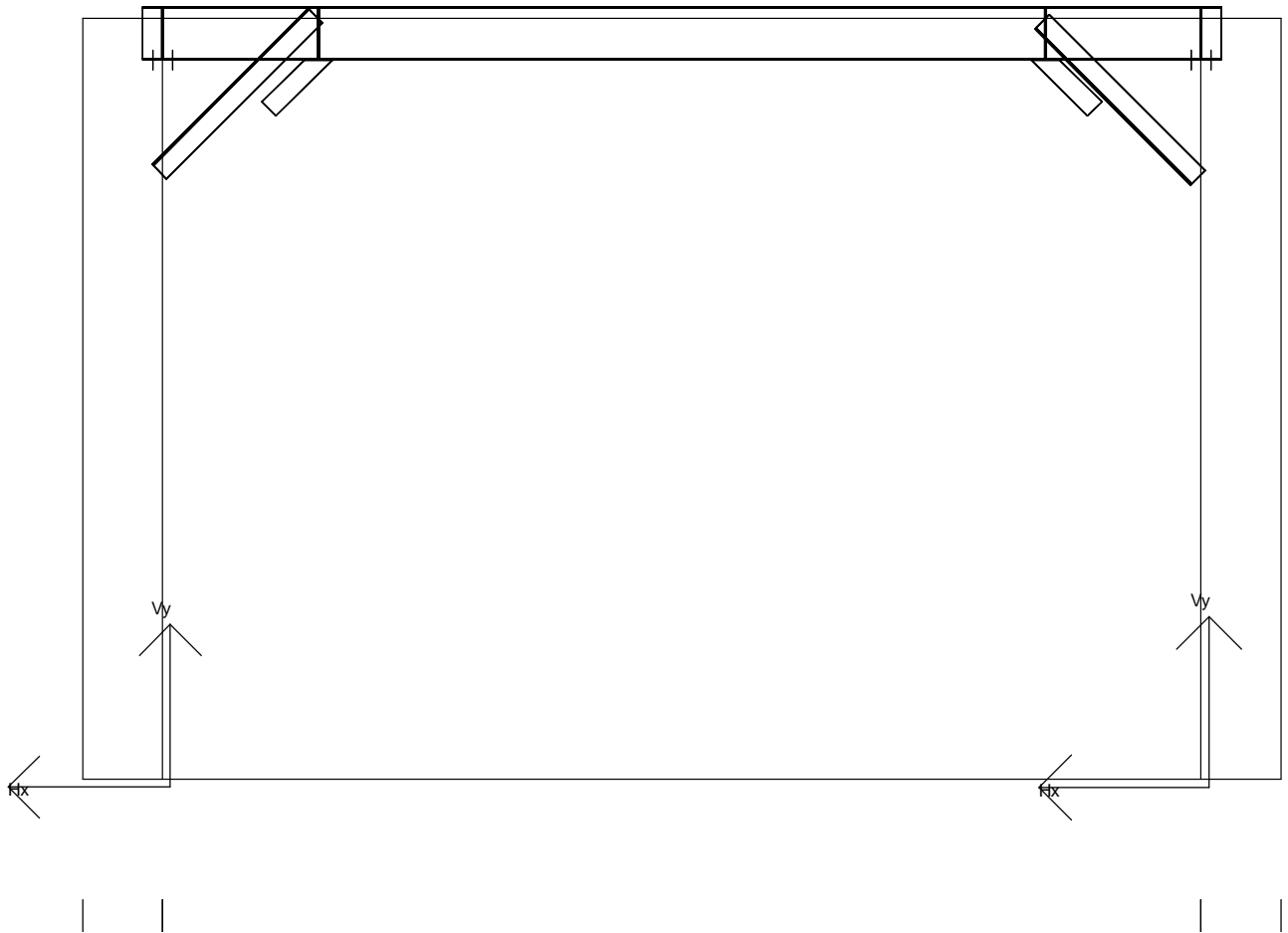
Roof 1	Roof 2	From Grid	To Grid	Width	Length	Eave Ht.	Eave Ht. 2	Pitch	Pitch 2	Dist. to Ridge	Peak Height
A		1-	1-M	15/0/0	15/0/0	9/6/0	12/0/0	2.000:12			



07-16433 Design Load Reactions



Wall: 2 (Grid: A)



Portal Brace reactions ARE included with frame reactions. See respective frame cross-sections for reactions.



07-16433 Design Load Reactions

Wall: 2, Frame at: 1/0/0

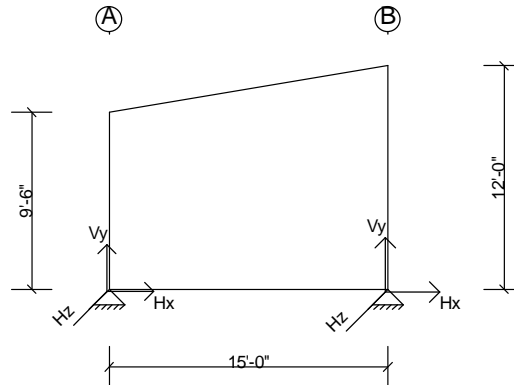
Design Load Combinations - Framing

No.	Origin	Factor	Application	Description
1	User	1.000	1.0 D + 1.0 CG + 1.0 US1*	D + CG + US1*
2	User	1.000	1.0 D + 1.0 CG + 1.0 *US1	D + CG + *US1
3	System	1.000	1.0 D + 1.0 CG + 1.0 S	D + CG + S
4	System	1.000	1.0 D + 1.0 CG + 1.0 W1>	D + CG + W1>
5	System	1.000	1.0 D + 1.0 CG + 1.0 <W1	D + CG + <W1
6	System	1.000	1.0 D + 1.0 CG + 1.0 W2>	D + CG + W2>
7	System	1.000	1.0 D + 1.0 CG + 1.0 <W2	D + CG + <W2
8	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W1>	D + CG + S + W1>
9	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W1	D + CG + S + <W1
10	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 W2>	D + CG + S + W2>
11	System	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 <W2	D + CG + S + <W2
12	System	1.000	0.600 D + 0.600 CU + 1.0 W1>	D + CU + W1>
13	System	1.000	0.600 D + 0.600 CU + 1.0 <W1	D + CU + <W1
14	System	1.000	0.600 D + 0.600 CU + 1.0 W2>	D + CU + W2>
15	System	1.000	0.600 D + 0.600 CU + 1.0 <W2	D + CU + <W2
16	System	1.275	0.900 D + 0.900 CG + 1.0 E>	D + CG + E>
17	System	1.275	0.900 D + 0.900 CG + 1.0 <E	D + CG + <E
18	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 E> + 0.700 EG+	D + CG + S + E> + EG+
19	System	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <E + 0.700 EG+	D + CG + S + <E + EG+
28	System Derived	1.275	0.900 D + 0.900 CG + 0.300 E> + 1.0 EB>	D + CG + E> + EB>
29	System Derived	1.275	0.900 D + 0.900 CG + 1.0 E> + 0.300 EB>	D + CG + E> + EB>
30	System Derived	1.275	0.900 D + 0.900 CG + 0.300 <E + 1.0 EB>	D + CG + <E + EB>
31	System Derived	1.275	0.900 D + 0.900 CG + 1.0 <E + 0.300 EB>	D + CG + <E + EB>
32	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 E> + 0.700 EG+ + 0.700 EB>	D+CG+S+E>+EG++EB>
33	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 E> + 0.700 EG+ + 0.300 EB>	D+CG+S+E>+EG++EB>
34	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 <E + 0.700 EG+ + 0.700 EB>	D+CG+S+<E+EG++EB>
35	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <E + 0.700 EG+ + 0.300 EB>	D+CG+S+<E+EG++EB>
38	System Derived	1.275	0.900 D + 0.900 CG + 0.300 E> + 1.0 <EB	D + CG + E> + <EB
39	System Derived	1.275	0.900 D + 0.900 CG + 1.0 E> + 0.300 <EB	D + CG + E> + <EB
40	System Derived	1.275	0.900 D + 0.900 CG + 0.300 <E + 1.0 <EB	D + CG + <E + <EB
41	System Derived	1.275	0.900 D + 0.900 CG + 1.0 <E + 0.300 <EB	D + CG + <E + <EB
42	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 E> + 0.700 EG+ + 0.700 <EB	D+CG+S+E>+EG++<EB
43	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 E> + 0.700 EG+ + 0.300 <EB	D+CG+S+E>+EG++<EB
44	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 0.300 <E + 0.700 EG+ + 0.700 <EB	D+CG+S+<E+EG++<EB
45	System Derived	1.275	1.200 D + 1.200 CG + 0.200 S + 1.0 <E + 0.700 EG+ + 0.300 <EB	D+CG+S+<E+EG++<EB
48	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA1	D + CG + WPA1
49	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA1	D + CG + S + WPA1
50	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA1	D + CU + WPA1
51	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD1	D + CG + WPD1
52	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD1	D + CG + S + WPD1
53	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD1	D + CU + WPD1
54	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPA2	D + CG + WPA2
55	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPA2	D + CG + S + WPA2
56	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPA2	D + CU + WPA2
57	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPD2	D + CG + WPD2
58	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPD2	D + CG + S + WPD2
59	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPD2	D + CU + WPD2
60	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB1	D + CG + WPB1
61	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB1	D + CG + S + WPB1
62	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB1	D + CU + WPB1
63	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC1	D + CG + WPC1
64	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC1	D + CG + S + WPC1
65	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC1	D + CU + WPC1
66	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPB2	D + CG + WPB2
67	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPB2	D + CG + S + WPB2
68	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPB2	D + CU + WPB2
69	System Derived	1.000	1.0 D + 1.0 CG + 1.0 WPC2	D + CG + WPC2
70	System Derived	1.000	1.0 D + 1.0 CG + 0.750 S + 0.750 WPC2	D + CG + S + WPC2
71	System Derived	1.000	0.600 D + 0.600 CU + 1.0 WPC2	D + CU + WPC2



Wall: 2, Frame at: 1/0/0  
 Frame ID: Rigid Frame

Frame Type: Rigid Frame



Values shown are resisting forces of the foundation.

**Reactions - Unfactored Load Type at Frame Cross Section: 6**

Type		Exterior Column			Exterior Column				
X-Loc		0/0/0			15/0/0				
Grid1 - Grid2		6-A			6-B				
Base Plate W x L (in.)		8 x 13			8 x 13				
Base Plate Thickness (in.)		0.375			0.375				
Anchor Rod Qty/Diam. (in.)		4 - 0.750			4 - 0.750				
Column Base Elev.		100'-0"			100'-0"				
Load Type	Desc.	Hx	Hz	Vy	Hx	Vy			
D	Frm	0.0	-	0.3	-0.0	0.3	-	-	-
CG	Frm	0.0	-	0.2	-0.0	0.2	-	-	-
US1*	Frm	1.0	-	6.9	-1.0	6.2	-	-	-
*US1	Frm	0.2	-	1.4	-0.2	1.3	-	-	-
S	Frm	0.4	-	2.3	-0.4	2.1	-	-	-
W1>	Frm	1.0	-	0.1	0.9	-1.5	-	-	-
<W1	Frm	-0.7	-	-1.4	-0.3	-0.5	-	-	-
W2>	Frm	0.6	-	0.1	0.5	-0.8	-	-	-
<W2	Frm	-1.2	-	-1.4	-0.7	0.2	-	-	-
CU	Frm	-	-	-	-	-	-	-	-
E>	Frm	0.3	-	0.4	0.2	-0.3	-	-	-
<E	Frm	-0.3	-	-0.4	-0.2	0.3	-	-	-
EG+	Frm	-	-	0.1	-	0.0	-	-	-
EB>	Brc	-	-0.2	0.3	-	-0.0	-	-	-
<EB	Brc	-	0.2	-0.3	-	0.0	-	-	-
WPA1	Brc	1.2	-0.2	0.9	1.0	-1.8	-	-	-
WPD1	Brc	0.4	0.2	-0.8	0.5	-0.9	-	-	-
WPA2	Brc	0.7	-0.2	0.8	0.6	-1.1	-	-	-
WPD2	Brc	-0.0	0.2	-0.8	0.1	-0.3	-	-	-
WPB1	Brc	1.2	-0.2	0.8	1.1	-2.1	-	-	-
WPC1	Brc	0.4	0.2	-1.0	0.6	-1.3	-	-	-
WPB2	Brc	0.7	-0.2	0.7	0.6	-1.4	-	-	-
WPC2	Brc	-0.0	0.2	-1.1	0.2	-0.6	-	-	-

**Maximum Combined Reactions Summary with Factored Loads - Framing**

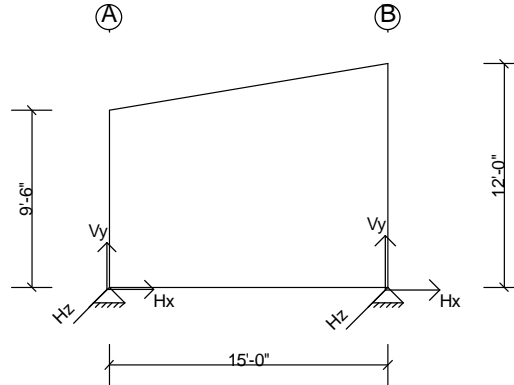
X-Loc	Grid	Hz left (-Hx) (k)	Load Case	Hz Right (Hx) (k)	Load Case	Hz In (-Hz) (k)	Load Case	Hz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	6-A	1.1	15	1.2	60	0.2	66	0.2	51	1.2	15	7.4	1	-	-	-	-
15/0/0	6-B	1.1	1	1.0	62	-	-	-	-	1.9	62	6.7	1	-	-	-	-

**Bracing**

X-Loc	Grid	Description
0/0/0	A-6	Portal Brace is attached to column. Reactions ARE included with frame reactions.

Wall: 2, Frame at: 14/0/0  
Frame ID: Rigid Frame

Frame Type: Rigid Frame



Values shown are resisting forces of the foundation.

**Reactions - Unfactored Load Type at Frame Cross Section: 4**

Type		Exterior Column			Exterior Column				
X-Loc		0/0/0			15/0/0				
Grid1 - Grid2		4-A			4-B				
Base Plate W x L (in.)		8 x 13			8 x 13				
Base Plate Thickness (in.)		0.375			0.375				
Anchor Rod Qty/Diam. (in.)		4 - 0.750			4 - 0.750				
Column Base Elev.		100'-0"			100'-0"				
Load Type	Desc.	Hx	Hz	Vy	Hx	Vy			
D	Frm	0.0	-	0.3	-0.0	0.3	-	-	-
CG	Frm	0.0	-	0.2	-0.0	0.2	-	-	-
US1*	Frm	1.0	-	6.9	-1.0	6.2	-	-	-
*US1	Frm	0.2	-	1.4	-0.2	1.3	-	-	-
S	Frm	0.4	-	2.3	-0.4	2.1	-	-	-
W1>	Frm	1.0	-	0.1	0.9	-1.5	-	-	-
<W1	Frm	-0.7	-	-1.3	-0.3	-0.5	-	-	-
W2>	Frm	0.6	-	0.1	0.5	-0.8	-	-	-
<W2	Frm	-1.2	-	-1.4	-0.7	0.2	-	-	-
CU	Frm	-	-	-	-	-	-	-	-
E>	Frm	0.3	-	0.4	0.2	-0.3	-	-	-
<E	Frm	-0.3	-	-0.4	-0.2	0.3	-	-	-
EG+	Frm	-	-	0.1	-	0.0	-	-	-
EB>	Brc	-	-0.2	-0.2	-	-	-	-	-
<EB	Brc	-	0.2	0.2	-	-	-	-	-
WPA1	Brc	0.4	-0.2	-0.6	0.5	-0.9	-	-	-
WPD1	Brc	1.2	0.2	0.7	1.0	-1.9	-	-	-
WPA2	Brc	-0.1	-0.2	-0.6	0.1	-0.2	-	-	-
WPD2	Brc	0.7	0.2	0.7	0.6	-1.2	-	-	-
WPB1	Brc	0.4	-0.2	-0.7	0.6	-1.2	-	-	-
WPC1	Brc	1.2	0.2	0.5	1.1	-2.2	-	-	-
WPB2	Brc	-0.0	-0.2	-0.8	0.1	-0.5	-	-	-
WPC2	Brc	0.8	0.2	0.4	0.7	-1.5	-	-	-

**Maximum Combined Reactions Summary with Factored Loads - Framing**

X-Loc	Grid	Hz left (-Hx) (k)	Load Case	Hz Right (Hx) (k)	Load Case	Hz In (-Hz) (k)	Load Case	Hz Out (Hz) (k)	Load Case	Uplift (-Vy) (k)	Load Case	Vrt Down (Vy) (k)	Load Case	Mom cw (-Mzz) (in-k)	Load Case	Mom ccw (Mzz) (in-k)	Load Case
0/0/0	4-A	1.1	15	1.3	63	0.2	66	0.2	51	1.2	15	7.4	1	-	-	-	-
15/0/0	4-B	1.1	1	1.1	65	-	-	-	-	2.0	65	6.7	1	-	-	-	-

**Bracing**

X-Loc	Grid	Description
0/0/0	A-4	Portal Brace is attached to column. Reactions ARE included with frame reactions.