

MEM	FORC	END	CSI ID	SCRWS	
20-21	0	0.00	0.07	0.07	1
21-22	-163	0.03	0.07	0.09	1
22-23	0	0.00	0.09	0.09	1
23-24	0	0.00	0.10	0.10	1
24-25	0	0.00	0.10	0.10	1
25-26	0	0.00	0.10	0.10	1
26-27	0	0.00	0.09	0.09	1
27-28	0	0.00	0.10	0.10	1
28-29	0	0.00	0.10	0.10	1
29-30	0	0.00	0.10	0.10	1
30-31	0	0.00	0.09	0.09	1
31-32	0	0.00	0.10	0.10	1
32-33	0	0.00	0.10	0.10	1
33-34	0	0.00	0.10	0.11	1
34-35	0	0.00	0.09	0.09	1
35-36	-79	0.02	0.06	0.08	1
36-37	8	0.00	0.08	0.08	1

UPLIFT REACTION(S) :

Support	C&C Wind	Main Wind	Non-Wind
1	-108 lb	-127 lb	
3	-3 lb	-6 lb	
6	-69 lb	-76 lb	-94 lb
7	-10 lb	-24 lb	-53 lb
10	-62 lb	-69 lb	-9 lb
11			-117 lb
14	-134 lb	-89 lb	-50 lb
15	-143 lb	-73 lb	-1 lb
18	-72 lb	-31 lb	-80 lb
19	-139 lb	-88 lb	-55 lb
22			-111 lb
23	-56 lb	-65 lb	-30 lb
26	-21 lb	-31 lb	-32 lb
27	-67 lb	-76 lb	-103 lb
30	-12 lb	-11 lb	
32	-106 lb	-124 lb	

THIS DESIGN IS THE COMPOSITE RESULT OF MULTIPLE LOAD CASES. Loaded for 10 PSF non-concurrent BCLL. Loaded for 200 lb non-concurrent moving BCLL. Mark all interior bearing locations. Install interior support(s) before erection. This truss is designed using the ASCE7-16 Wind Specification Bldg Enclosed = Yes, Truss Location = End Zone Exp Category = B Bldg Length = 60.00 ft, Bldg Width = 25.00 ft Mean roof height = 13.25 ft, mph = 110 Occupancy Category II, Wind Dead Load = 7.20 psf Designed as Main Wind Force Resisting System - Low-rise and Components and Cladding Tributary Area = 72 sqft Uplifts based on elevation at or above 0 ft 20 psf bottom chord live load NOT required on this truss, per IBC/IRC requirements for attics with limited storage.

This design based on chord bracing applied per the following schedule:

	max o.c.	from	to
TC	12.00"	-2- 0- 0	38- 0- 0
BC	12.00"	0- 0- 0	36- 0- 0

Galvanization: G60

REACTIONS

Brg	Reac	Horiz	Brg	Reac	Horiz
1	478	0	17	212	0
2	163	0	18	377	-109
3	229	212	19	430	174
4	210	-7	20	205	0
5	187	0	21	185	0
6	287	-310	22	204	-75
7	321	121	23	332	192
8	201	0	24	202	0
9	212	0	25	212	0
10	348	-201	26	361	-140
11	278	70	27	332	300
12	205	0	28	203	0
13	185	0	29	204	0
14	427	-175	30	242	-233
15	558	172	31	174	8
16	201	0	32	469	0

MEM	FORCE	CSI ID	SCRWS
1-20	-469	0.09	1
2-21	53	0.01	1
3-22	-218	0.15	1
4-23	-411	0.27	1
5-24	-226	0.27	1
6-25	-383	0.47	1
7-26	-178	0.35	1
8-27	-447	0.89	1
9-28	-568	0.60	1
11-29	-377	0.40	1
12-30	-449	0.91	1
13-31	-191	0.38	1
14-32	-370	0.46	1
15-33	-263	0.32	1
16-34	-400	0.27	1
17-35	-277	0.19	1
18-36	55	0.01	1
19-37	-460	0.09	1

Type	ID	SECTION	Fy (ksi)	Joints
TC	1	20TC20	50	
BC	1	20TC20	50	
WEB	1	20TC20	50	

DEFLECTION LOC. ALLOW. LC

Vert TL:	-0.10"	(L/999)	11-12	L/240	40
Vert LL:	-0.09"	(L/999)	11-12	L/360	40
Horz TL:	0.01"				

Cantilever

Vert TL:	-0.12"	(L/200)	OL-1	L/ 90	1
Vert LL:	-0.10"	(L/247)	OL-1	L/120	1

==== Joint Locations ====

1	0- 0- 0	20	0- 0- 0
2	0- 2- 5	21	2- 2- 7
3	4- 4- 6	22	2- 3- 0
4	4- 6- 0	23	6- 7- 0
5	8- 9-12	24	6- 9- 0
6	9- 0- 0	25	11- 0-11
7	13- 3-10	26	11- 3- 0
8	13- 6- 0	27	15- 6-10
9	17- 8-12	28	15- 9- 0
10	18- 0- 0	29	20- 0-10
11	18- 1-13	30	20- 3- 0
12	22- 3-10	31	24- 6-11
13	22- 6- 0	32	24- 9- 0
14	26- 9-12	33	29- 1- 0
15	27- 0- 0	34	29- 3- 0
16	31- 4- 6	35	33- 8- 8
17	31- 6- 0	36	33- 9- 0
18	35- 9-11	37	36- 0- 0
19	36- 0- 0		

== X-Brac. Locations (Joints) ==

BC	TC
25	7
30	11
35	17

Each connection requires 3/8" diameter proprietary bolt supplied by NUCONSTEEL
 SCRWS = The required number of double-sided #14 screws at each end of the truss member: SP = Spacer supplied by NUCONSTEEL



WARNING Read all notes on this sheet and verify all design parameters.
 Truss design on this sheet is only valid with NUTRUS sections and is for an individual building component, not a truss system. Bracing shown on this drawing is not erection bracing, wind bracing, portal bracing or similar bracing which is part of the building design and which must be considered by the building designer. Bracing shown is lateral bracing of truss members only. Any additional bracing, temporary and/or permanent, is the responsibility of the truss erector and/or the building designer. The Professional Engineer's seal indicates only that the truss assembly shown on this sheet meets the acceptable design criteria for the loads, loading condition, truss configuration and spans specified.
 When the specified screw count cannot be achieved at the chord to web connections, a 16 gauge gusset plate must be added on both sides of the connection. Typically, gusset plates are at pitch break joints.
 Min. screw spacing = 9/16" and min. edge distance = 9/16".

Chk:	Dsgnr:	WO: C11136_Trusses
TC Live	42.00 psf	Design Spec: AISI-2001
TC Dead	10.00 psf	Buildg Spec: IBC-2018
BC Live	0.00 psf	Date: 11/23/2022@
BC Dead	10.00 psf	Seqn S8.1.0a - 6294
TOTAL	62.00 psf	17:46:37

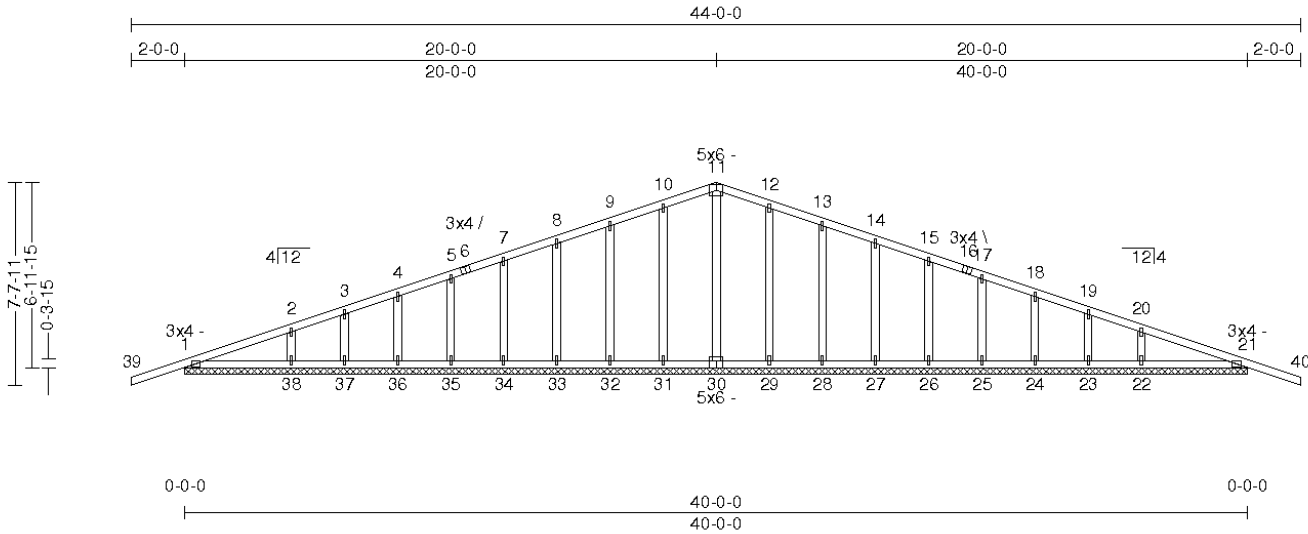
Midwest Manufacturing

Address 1
Address 2
City, State Zip

Truss: C11140

JobName: RES STOCK ENDS
Date: 02/22/17 10:46:42
Page: 1 of 1

SPAN	PITCH	QTY	OHL	OHR	CANT L	CANT R	PLYS	SPACING	WGT/PLY
40-0-0	4/12	1	2-0-0	2-0-0	0-0-0	0-0-0	1	24 in	163 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General	CSI Summary	Deflection	L/	(loc)	Allowed
TCLL: 42 Snow(Ps/Pg): 42/60 TCDL: 10 BCLL: 0 BCDL: 10	Bldg Code: IRC 2012/ TPI 1-2007 Rep Mbr Increase: No Lumber D.O.L.: 115 %	TC: 0.77 (21-40) BC: 0.10 (21-22) Web: 0.24 (10-31)	Vert TL: 0.01 in Vert LL: 0 in Horz TL: 0 in	L / 999 L / 999	(21-22) 22	L / 180 L / 240

Reaction Summary

Brg Combo	Brg Width	Max React	Ave React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	.	561 lbs	159 plf	-34 lbs	-3 lbs	-131 lbs	-131 lbs	-175 lbs

Material Summary

TC SPF #2 2 x 4
BC SPF #2 2 x 4
Webs SPF Stud 2 x 4

Bracing Summary

TC Bracing Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC Bracing Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads Summary

1) This truss has been designed for the effects of balanced and unbalanced snow loads for hips/gables in accordance with ASCE7 - 10 with the following user defined input: 60 psf ground snow load, Terrain Category B, Exposure Category Fully Exposed (Ce = 0.9), Risk Category II (I = 1.00), Thermal Condition Cold ventilated (Ct = 1.1), DOL = 1.15. Ventilated. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.

2) This truss has been designed to account for the effects of ice dams forming at the eaves.

3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 10 with the following user defined input: 115 mph (Factored), Exposure B, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h = 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60

Member Forces Summary

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300 lbs are shown in this table.

TC	BC	Member ID	Max CSI	Max Axial Force	Max Compr. Force
		2-38	0.069	-309 lbs	-317 lbs
		7-34	0.115	-302 lbs	-305 lbs
		8-33	0.150	-308 lbs	-308 lbs
		9-32	0.188	-305 lbs	-302 lbs
		10-31	0.243	-317 lbs	-309 lbs

JSI Summary

1 = 0.48, 2 = 0.76, 3 = 0.55, 4 = 0.55, 5 = 0.55, 6 = 0.29, 7 = 0.55, 8 = 0.55, 9 = 0.55, 10 = 0.55, 11 = 0.25, 12 = 0.55, 13 = 0.55, 14 = 0.55, 15 = 0.55, 16 = 0.29, 17 = 0.55, 18 = 0.55, 19 = 0.55, 20 = 0.76, 21 = 0.48, 22 = 0.79, 23 = 0.57, 24 = 0.57, 25 = 0.57

Notes

- 1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
- 2) Gable requires continuous bottom chord bearing.
- 3) Gable webs placed at 24" OC, U.N.O.
- 4) Attach gable webs with 1x4 20ga plates, U.N.O.
- 5) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SB CA.
- 6) When this truss has been chosen for quality assurance inspection, the Double Polygon Method per TPI 1-2007/Chapter 3 shall be used.
- 7) The fabrication tolerance for this roof truss is 10% (Cq = 0.90).
- 8) Creep has been considered in the analysis of this truss.
- 9) Due to negative reactions in gravity load cases, special connections to the bearing surface at joints 22, 38 may need to be considered.
- 10) Listed wind uplift reactions based on MWFRS & C&C loading.