

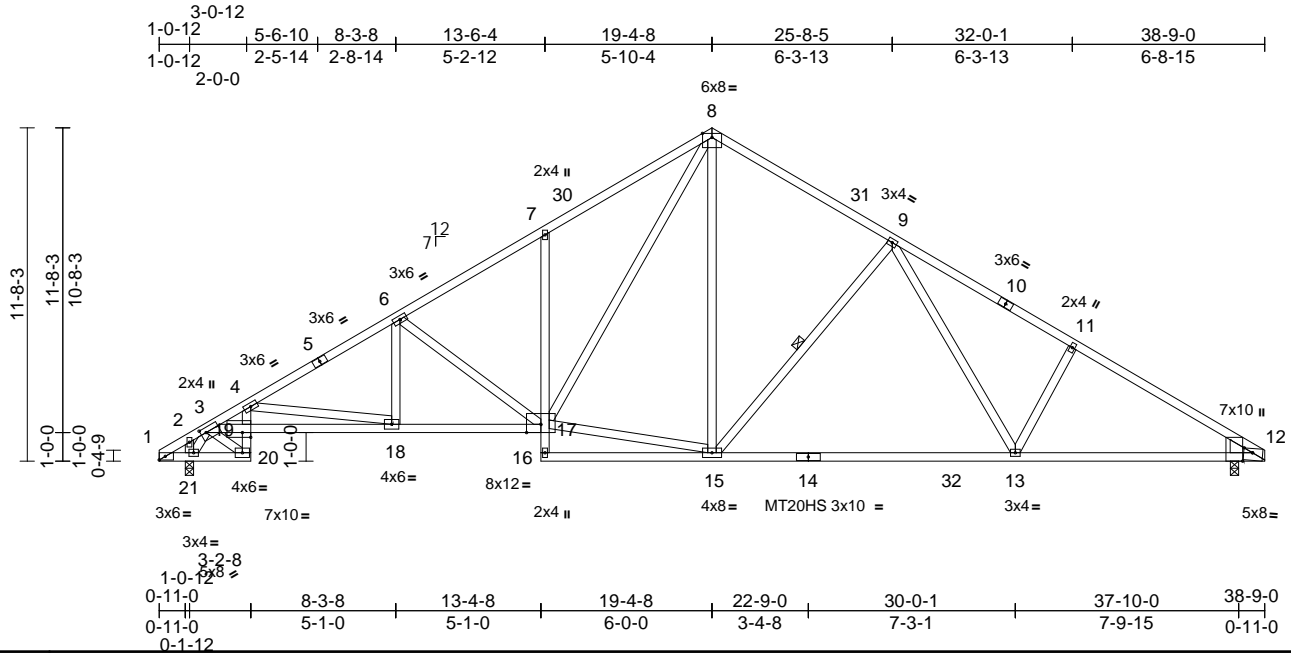
Job ELV B TC EB	Truss A01T	Truss Type Roof Special	Qty 2	Ply 1	ELV B TC EB Job Reference (optional)	162927649
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.95 E 8.63 Mar 9 2023 Print: 8.630 E Mar 9 2023 MiTek Industries, Inc. Tue Jan 09 13:51:18

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Scale = 1:80.8

Plate Offsets (X, Y): [3:0-2-4,0-2-0], [12:0-3-8,Edge], [12:0-3-8,Edge], [19:0-3-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.94	Vert(LL)	-0.49	13-15	>914	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.90	13-15	>502	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.19	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 243 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 1-5,10-12:2x4 SP No.1  
BOT CHORD 2x4 SP No.1 \*Except\* 20-19,7-16:2x4 SP No.3  
WEBS 2x4 SP No.3 \*Except\* 3-20,21-2:2x4 SP No.2  
WEDGE Right: 2x6 SP DSS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 9-15

**REACTIONS** (size) 12=0-3-8, 21=0-3-8  
Max Horiz 21=219 (LC 13)  
Max Uplift 12=-38 (LC 17), 21=-38 (LC 16)  
Max Grav 12=1544 (LC 2), 21=1556 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-3576/230, 4-5=-2641/157, 5-6=-2579/173, 6-7=-2113/199, 7-30=-2122/280, 8-30=-2027/312, 8-31=-1409/224, 9-31=-1517/189, 9-10=-2017/208, 10-11=-2064/184, 11-12=-2228/164  
BOT CHORD 20-21=-139/922, 19-20=-98/745, 3-19=-303/3131, 18-19=-323/3260, 17-18=-120/2296, 7-17=-366/170, 14-15=-1/1565, 14-32=-1/1565, 13-32=-1/1565, 12-13=-62/1808  
WEBS 4-18=-977/206, 6-18=0/367, 6-17=-622/112, 15-17=0/1238, 8-17=-201/1104, 8-15=-65/611, 9-15=-626/184, 9-13=-23/439, 4-19=-10/475, 3-20=-1052/155, 2-21=-475/58, 3-21=-1337/83

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 12 and 38 lb uplift at joint 21.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.



January 9, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



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