

Job 3095746	Truss A05	Truss Type PIGGYBACK BASE	Qty 6	Ply 1	H&H, Southport (A_3), A, Lot 69, OAKMON 152840832
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Builders FirstSource (Sumter, SC), Sumter, SC - 29153, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed Jun 29 17:47:02 2022 Page 1

ID: oMYUFR\_W5RnH0V88pNA3fyzorLo-?BauMnRaRmwTU?\_ps8o9QKTfu2TZafcqUrZQYBz1LoN  
 18-1-13 24-4-9 32-0-0 32-10-8  
 0-10-8 7-7-7 6-2-11 4-3-11 6-2-11 7-7-7 0-10-8

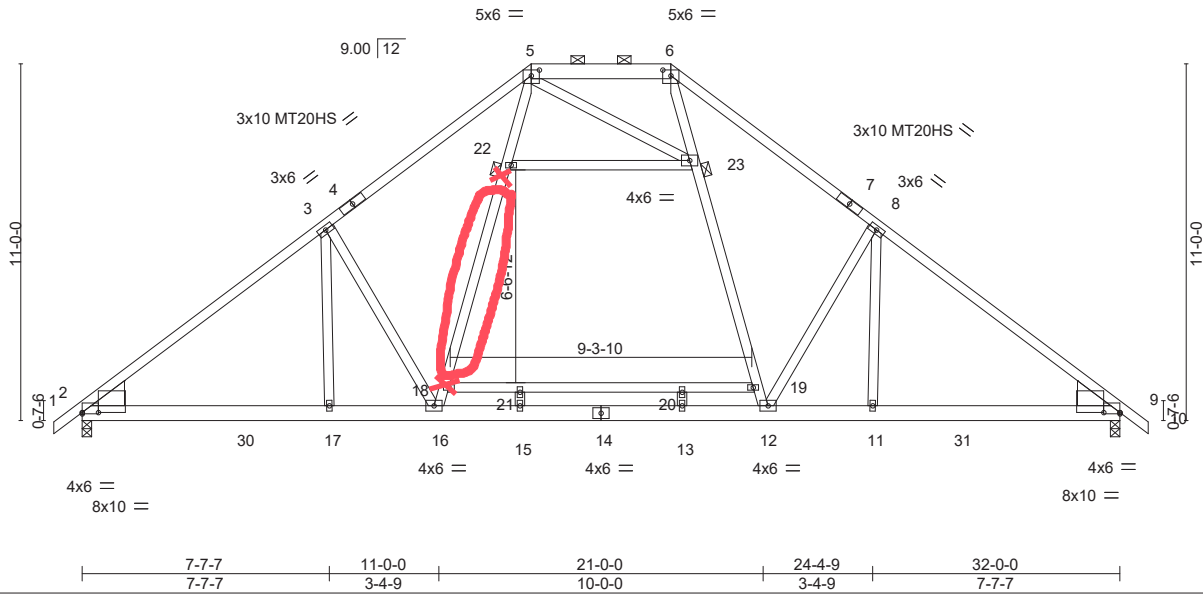


Plate Offsets (X,Y)-- [2:0-6-0,0-0-0], [2:0-0-0,0-0-8], [5:0-3-0,0-2-2], [6:0-3-0,0-2-2], [9:0-0-0,0-0-8], [9:0-6-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-6-0	TC 0.96	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.62	Vert(LL) 0.25 16 >999 240	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.81	Vert(CT) -0.22 13-15 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.04 9 n/a n/a		
	Code IRC2015/TPI2014			Weight: 247 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* 5-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins, except 2-0-0 oc purlins (5-7-10 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-7-5 oc bracing.
WEBS 2x4 SP No.3 *Except* 5-16,6-12,18-19: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 22, 23
WEDGE Left: 2x10 SP No.2, Right: 2x10 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8  
 Max Horz 2=-613(LC 10)  
 Max Uplift 2=-702(LC 12), 9=-702(LC 13)  
 Max Grav 2=1666(LC 1), 9=1666(LC 1)

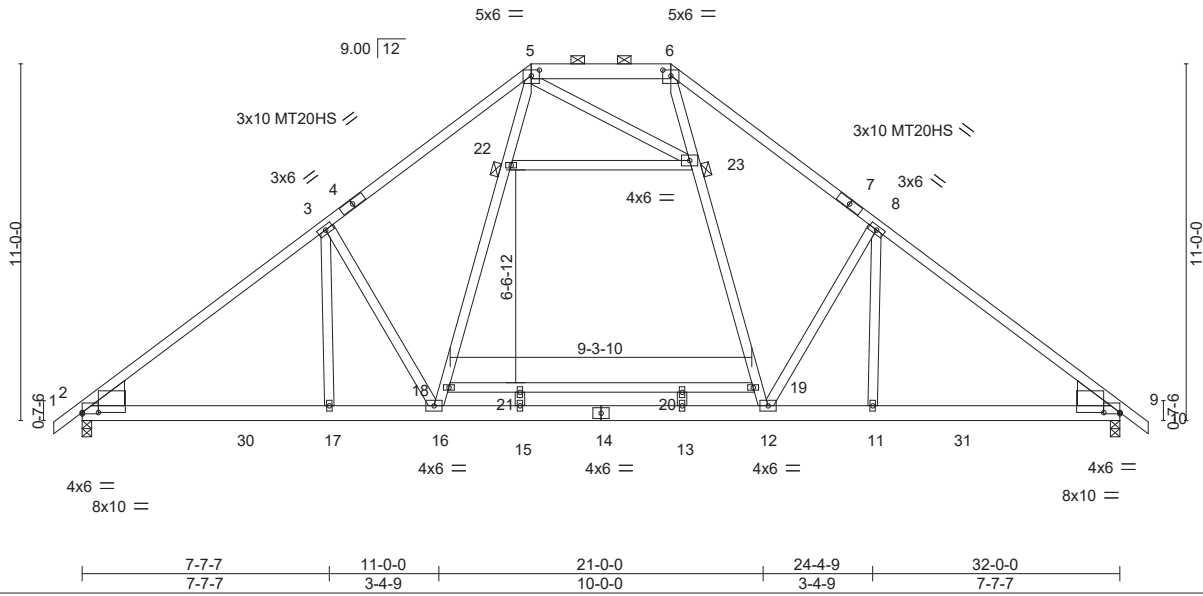
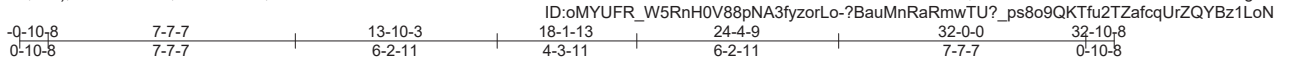
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2396/1200, 3-5=-2283/1329, 5-6=-1659/1090, 6-8=-2283/1329, 8-9=-2396/1200  
 BOT CHORD 2-17=-797/1900, 16-17=-799/1905, 15-16=-250/1188, 13-15=-250/1188, 12-13=-250/1188,  
 11-12=-653/1720, 9-11=-653/1718  
 WEBS 3-16=-944/840, 16-18=-469/1010, 18-22=-463/1018, 5-22=-462/1014, 6-23=-461/1014,  
 19-23=-463/1017, 12-19=-469/1010, 8-12=-944/841, 3-17=-124/363, 8-11=-127/365,  
 5-23=-298/299

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 2=702, 9=702.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Scale = 1:71.1

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TCLL 20.0	Plate Grip DOL 1.15	TC 0.96	Vert(LL) 0.25	16	>999	240	MT20	244/190
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BCLL 0.0 *	Rep Stress Incr NO	WB 0.81	Horz(CT) 0.04	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS						
							Weight: 247 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1 \*Except\*  
5-6: 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
5-16,6-12,18-19: 2x4 SP No.2  
WEDGE  
Left: 2x10 SP No.2, Right: 2x10 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins, except 2-0-0 oc purlins (5-7-10 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 7-7-5 oc bracing.  
JOINTS 1 Brace at Jt(s): 22, 23

**REACTIONS.**

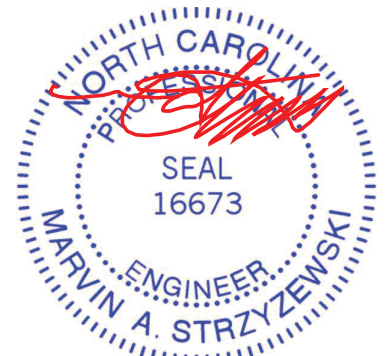
(size) 2=0-3-8, 9=0-3-8  
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Max Uplift 2=-702(LC 12), 9=-702(LC 13)  
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**NOTES-**

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- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 30, 2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932