

Job 70346	Truss HMB82701	Truss Type HINGE MONO	Qty 1	Ply 1	Keiser Ind. U-1163	212
Universal Forest Products Inc., Grand Rapids, MI 49525, Corey Daubert					Job Reference (optional) 7.350 e Sep 27 2012 Mitek Industries, Inc. Wed Oct 23 10:02:22 2013 Page 1 of 1	

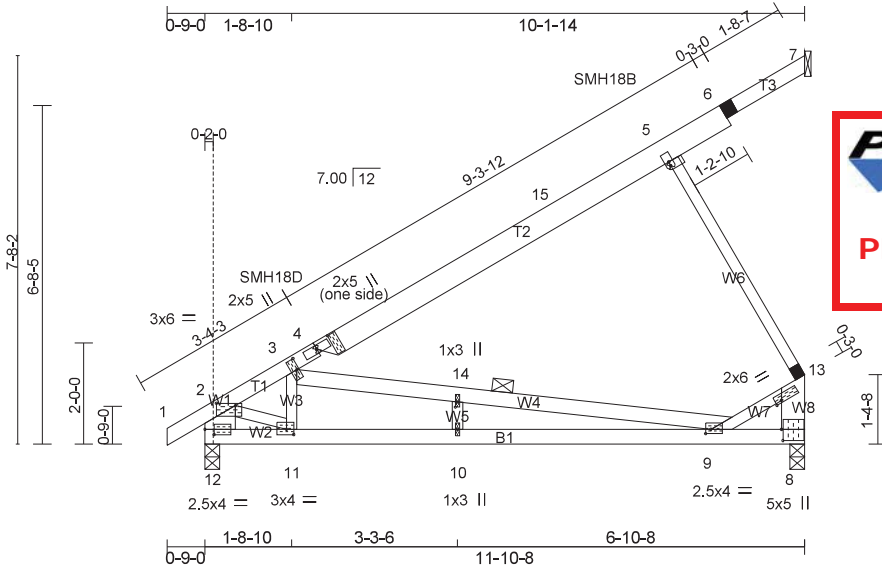


Plate Offsets (X, Y): [2:0-4-8,0-0-8], [3:0-2-12,0-0-8], [4:0-1-8,0-3-12], [5:0-0-0,0-1-0], [8:0-2-10,0-0-6], [9:0-1-4,0-1-0], [11:0-1-12,0-1-4], [12:0-2-3,0-1-4], [13:0-1-8,0-0-8], [14:0-1-4,0-0-8]							
<b>SPACING: 2-0-0</b> <b>LOADING (psf)</b>	<b>SPACING: 1-4-0</b> <b>LOADING (psf)</b>	<b>SPACING: 1-0-0</b> <b>LOADING (psf)</b>	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 46.2 (Ground Snow=60.0) TCDL 7.0 BCLL 0.0 * BCDL 10.0	TCLL 69.3 (Ground Snow=90.0) TCDL 10.5 BCLL 0.0 * BCDL 15.0	TCLL 92.4 (Ground Snow=120.0) TCDL 14.0 BCLL 0.0 * BCDL 20.0	2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IBC2009/TPI2007	TC 0.87 BC 0.70 WB 0.96 (Matrix)	in (loc) l/defl L/d Vert(LL) -0.30 9-10 >453 240 Vert(TL) -0.73 9-10 >189 180 Horz(TL) 0.01 8 n/a n/a	MT20 197/144 MT18HS 197/144	Weight: 59 lb FT = 0%

<b>LUMBER</b>	<b>BRACING</b>
TOP CHORD 2x4 SPF No.2 *Except* T2: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF Stud *Except* W4: 2x4 SPF No.3, W8: 2x6 SPF Stud, W1: 2x8 SPF No.2	WEBS 1 Row at midpt 3-9

**REACTIONS** (lb/size) 12=731/0-3-8 (min. 0-1-15), 8=545/0-3-8 (min. 0-1-8), 7=0/Mechanical  
 Max Horz 12=393(LC 9), 7=168(LC 14)  
 Max Uplift 12=308(LC 9), 8=410(LC 9)  
 Max Grav 12=1244(LC 18), 8=903(LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/105, 2-3=-1348/209, 3-4=-958/86, 4-15=-849/62, 5-15=-508/69, 5-6=-350/73, 6-7=-201/81, 8-13=-950/530, 2-12=-1253/216  
 BOT CHORD 11-12=-350/76, 10-11=-544/1017, 9-10=-544/1017, 8-9=-13/103  
 WEBS 3-11=-322/240, 3-14=-711/353, 9-14=-721/349, 5-13=-767/408, 2-11=-211/1031, 9-13=-291/470, 10-14=0/82

**REQUIRED FIELD JOINT CONNECTIONS** - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)  
 6=260/78/104/0, 13=767/408/372/0

- NOTES**
- 1) Wind: ASCE 7-05; 110mph (3-second gust) @24in o.c.; TCDL=2.1psf; BCDL=3.0psf; (Alt. 135mph @16in o.c.; TCDL=3.1psf; BCDL=4.5psf); (Alt. 150mph @12in o.c.; TCDL=4.2psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
  - 3) Roof design snow load has been reduced to account for slope.
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 17.0 psf or 2.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 7) All plates are MT20 plates unless otherwise indicated.
  - 8) See BEH18 DETAILS for plate placement.
  - 9) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
  - 10) All additional member connections shall be provided by others for forces as indicated.
  - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 12) \* 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.
  - 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 308 lb uplift at joint 12 and 410 lb uplift at joint 8.
  - 14) This truss has been designed in accordance with the 2009 IBC Section 2303.4.6, 2009 IRC Section 802.10.2.
  - 15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 16) This truss has been designed in accordance with the 2006 IBC Sec 2303.4.2, 2006 IRC Sec 802.10.2
  - 17) This truss has been designed to meet the 2003 IBC Section 2308.10.7.1; 2003 IRC R802.10.2
  - 18) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
  - 19) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set position.

E-signed by Kevin Freeman



The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

**WARNING - Verify design parameters and READ NOTES**

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This building component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupptemplates\ufp.tpe copyright 2013 by: Universal Forest Products, Inc.