



PROCES 20151327
261 SE Coyle Dr

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 450413
Lot 107 MC

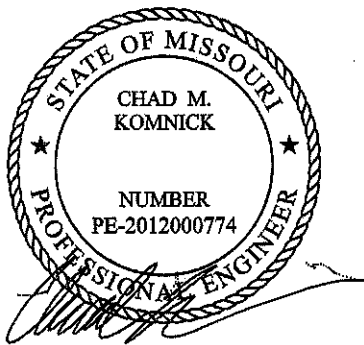
The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Pages or sheets covered by this seal: I25642632 thru I25642633

My license renewal date for the state of Missouri is December 31, 2016.

Missouri COA: 001193

Lumber design values are in accordance with ANSI/TPI 1 section 6.3
These truss designs rely on lumber values established by others.



January 4, 2016

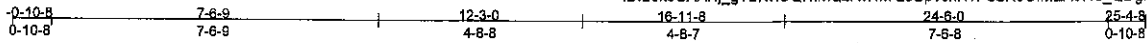
Komnick, Chad

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdictions(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek. Any project specific information included is for MiTek's customer's file reference purpose only, and was not taken into account in the preparation of these designs. MiTek has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of the design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job 450413	Truss D2	Truss Type Common	Qty 7	Ply 1	Lot 107 MC REPAIR: 2 TRUSSES, 2 UNITS TH	125842632
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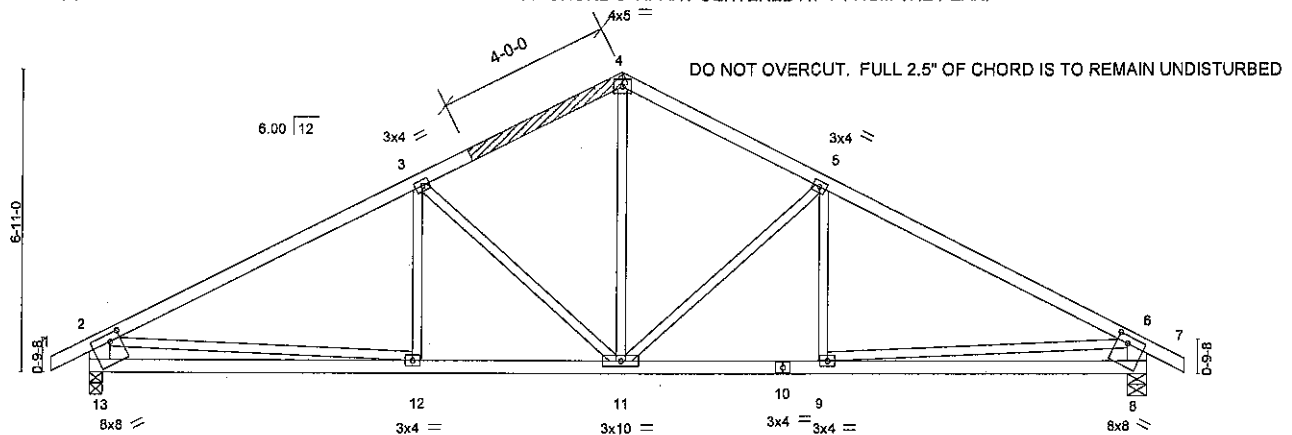
Wheeler Lumber LLC, Waverly, KS 66871

7.530 s Jul 11 2014 MITek Industries, Inc. Mon Jan 04 11:22:13 2016 Page 1



REPAIR: (2) 1" LONG SAW CUTS INTO THE TOP EDGE OF THE TOP CHORD 6" APART CENTERED AT 1' FROM THE PEAK.

Scale = 1:49.7



APPLY 2X4X4' SPF No.2 SCAB TO ONE FACE OF TRUSS AS SHOWN.
ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE:
2 x 3's - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C.
USE 2" MEMBER END DISTANCE.

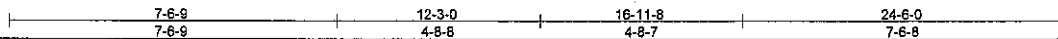


Plate Offsets (X,Y) - [8:0-3-0,0-2-0], [13:0-3-0,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plates Increase 1.15	BC 0.44	Vert(LL) -0.08 12-13 >999 360		
BCLL 0.0 *	Lumber Increase 1.15	WB 0.51	Vert(TL) -0.22 12-13 >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.04 8 n/a n/a		
	Code IRC2012/TPI2007		Wind(LL) 0.04 11 >999 240	Weight: 96 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 "Except"
2-13,6-8: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 13=1159/0-3-8, 8=1159/0-5-8
Max Horz 13=107(LC 7)
Max Uplift 13=159(LC 8), 8=159(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1635/194, 3-4=-1196/202, 4-5=-1196/202, 5-6=-1635/194, 2-13=-1086/202, 6-8=-1086/201
BOT CHORD 12-13=-284/633, 11-12=-165/1353, 9-11=-69/1353, 8-9=-196/633
WEBS 4-11=-98/735, 5-11=-520/179, 3-11=-520/179, 2-12=0/723, 6-9=0/723

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=159, 8=159.
- "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



January 4, 2016

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MH-7473 rev. 10/03/2015 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/TPI Quality Criteria, D58-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job 450413	Truss E2	Truss Type Common	Qty 2	Ply 1	Lot 107 MC 125642633
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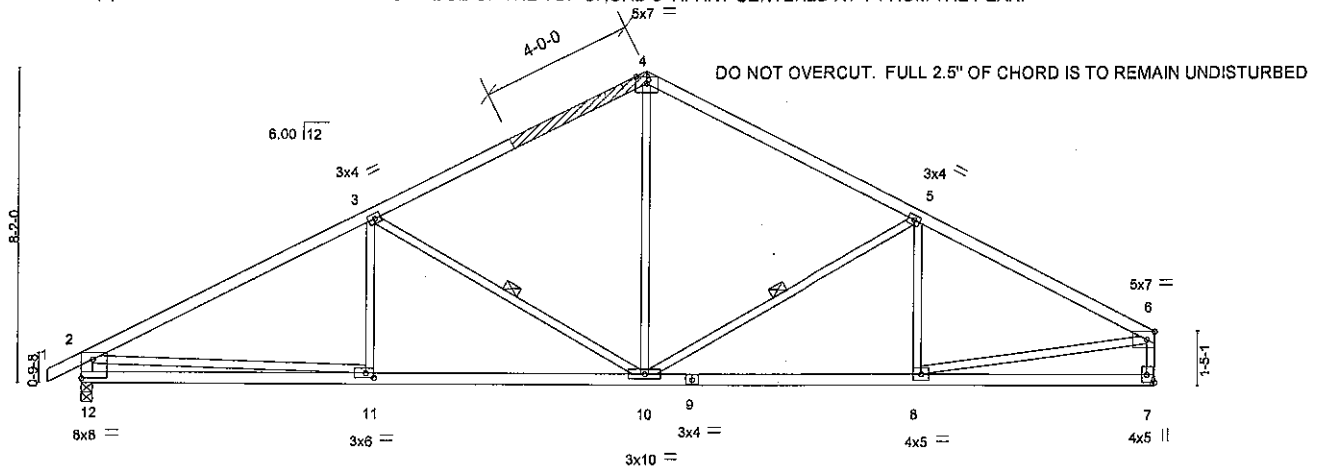
Wheeler Lumber LLC, Waverly, KS 66871

7.530 s Jul 11 2014 MITek Industries, Inc. Mon Jan 04 11:22:14 2016 Page 1
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REPAIR: (2) 1" LONG SAW CUTS INTO THE TOP EDGE OF THE TOP CHORD 6" APART CENTERED AT 1' FROM THE PEAK.

Scale = 1:56.4



APPLY 2X4X4' SPF No.2 SCAB TO ONE FACE OF TRUSS AS SHOWN.
ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE:
2 x 3's - 1 ROW, 2 x 4's - 2 ROWS, 2 x 6's AND LARGER - 3 ROWS: SPACED @ 2" O.C.
USE 2" MEMBER END DISTANCE.

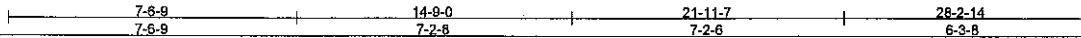


Plate Offsets (X,Y)-- [7:Edge,0-2-8], [11:0-2-8,0-1-8], [12:Edge,0-5-13]

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plates Increase 1.15	TC 0.66	Vert(LL) -0.09 10-11 >999 360	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.55	Vert(TL) -0.23 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(TL) 0.06 7 n/a n/a		
BCDL 10.0	Code IRC2012/TPI2007	(Matrix)	Wind(LL) 0.06 10-11 >999 240	Weight: 107 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-10, 5-10

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 12=1332/0-3-8, 7=1258/Mechanical
Max Horz 12=142(LC 5)
Max Uplift 12=183(LC 8), 7=150(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=2015/252, 3-4=1409/221, 4-5=1408/229, 5-6=1771/217, 2-12=1258/224, 6-7=1199/179
BOT CHORD 11-12=295/642, 10-11=256/1700, 8-10=143/1513
WEBS 3-10=677/238, 4-10=49/689, 5-10=492/207, 2-11=0/1060, 6-8=112/1425

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=183 7=150.
- "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



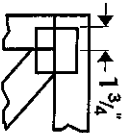
January 4, 2016

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 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, D38-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

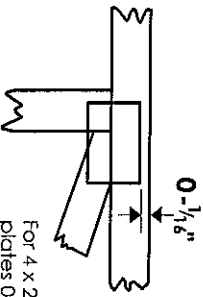


Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in fractions. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{1}{8}$ " from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **Mitek 20/20 software** or upon request.

PLATE SIZE

4 X 4

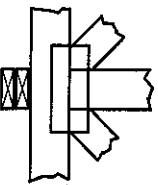
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



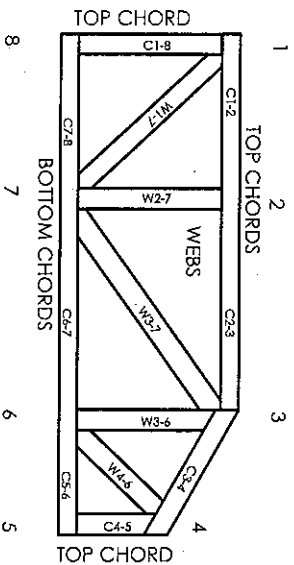
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in fractions (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP11.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP11.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing of 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter, truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP11 Quality Criteria.



Mitek Engineering Reference Sheet: ML-7473 rev. 10/03/2015