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**MiTek USA, Inc.**

14515 North Outer Forty Drive  
Suite 300  
Chesterfield, MO 63017-5746  
314-434-1200

Re: B501167  
Fiskaldo spec 2

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

Pages or sheets covered by this seal: I23850020 thru I23850022

My license renewal date for the state of Pennsylvania is September 30, 2015.

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



March 23,2015

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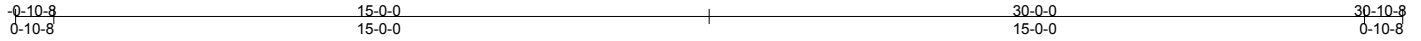
Garcia, Juan

The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI 1.

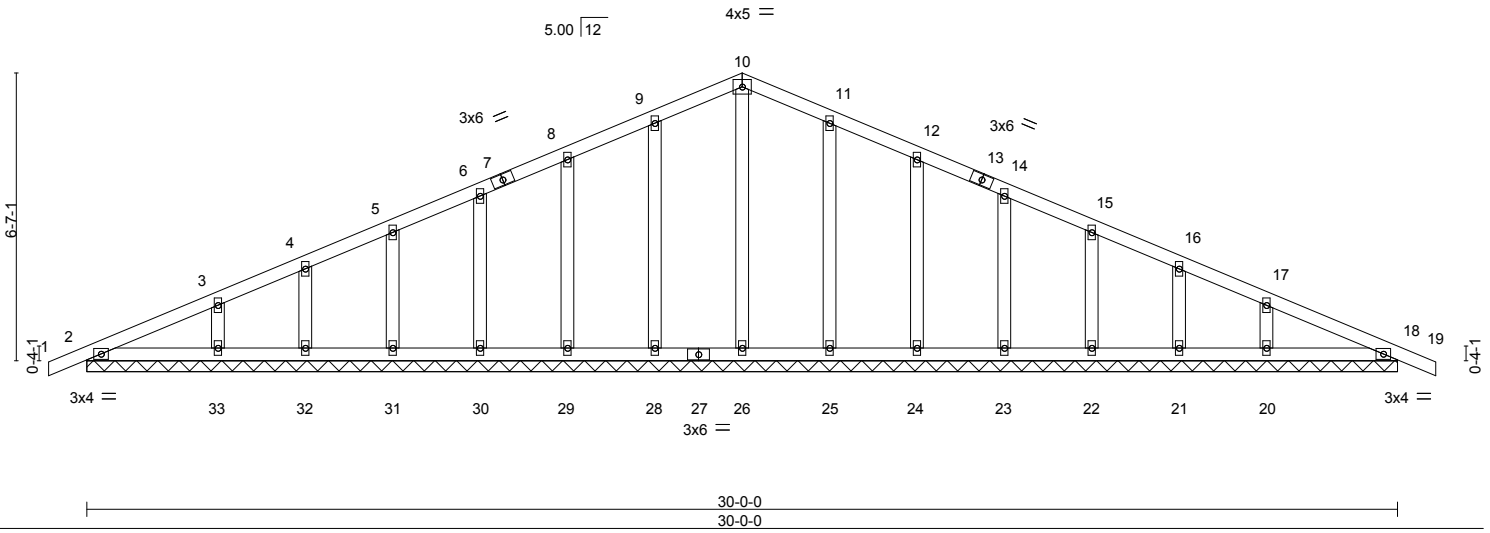
Job B501167	Truss GE1	Truss Type GABLE	Qty 2	Ply 1	Fiskaldo spec 2	123850020
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Superior Trusses, Ephrata, PA 17522

7.530 s Jul 11 2014 MiTek Industries, Inc. Mon Mar 23 08:28:49 2015 Page 1  
ID:mErASgm84sTFk5TxG2Bj00ztX1U-HkveVvyswJR1Vz6LmBtN4mZkch5hiR2tUKH7adzY6Fi



Scale = 1:52.7



<b>LOADING (psf)</b> TCLL 30.0 (Roof Snow=30.0) TCDL 10.0 BCLL 0.0 * BCDL 10.0	<b>SPACING-</b> 2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	<b>CSI.</b> TC 0.09 BC 0.05 WB 0.13 (Matrix)	<b>DEFL.</b> in (loc) l/defl L/d Vert(LL) -0.00 19 n/r 120 Vert(TL) -0.00 19 n/r 120 Horz(TL) 0.00 18 n/a n/a	<b>PLATES</b> MT20  Weight: 123 lb	<b>GRIP</b> 197/144  FT = 0%
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<b>LUMBER-</b> TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 OTHERS 2x4 SPF No.2	<b>BRACING-</b> TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
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MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 30-0-0.  
(lb) - Max Horz 2=-76(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 18, 28, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20  
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 31, 32, 22, 21 except 26=258(LC 1), 28=366(LC 2), 29=359(LC 2), 30=275(LC 2), 33=289(LC 1), 25=366(LC 3), 24=359(LC 3), 23=275(LC 3), 20=289(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) Wind: ASCE 7-05; 90mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=30ft; eave=2ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) Plates checked for a plus or minus 2 degree rotation about its center.
  - 8) Gable requires continuous bottom chord bearing.
  - 9) Gable studs spaced at 2-0-0 oc.
  - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 11) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 28, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20.
  - 13) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



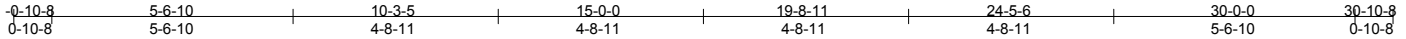
March 23, 2015

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 02/16/2015 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. 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 **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.

  
 14515 N. Outer Forty, Suite #300  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Fiskaldo spec 2	123850021
B501167	S1	SCISSORS	7	1		

Superior Trusses, Ephrata, PA 17522 7.530 s Jul 11 2014 MiTek Industries, Inc. Mon Mar 23 08:28:51 2015 Page 1  
 ID:mErASgm84sTFk5TxG2Bj00ztX1U-D61Pwdx6SwilkHGkucvr9BewVUcsAE8AxemEFVzY6Fg



Scale = 1:53.0

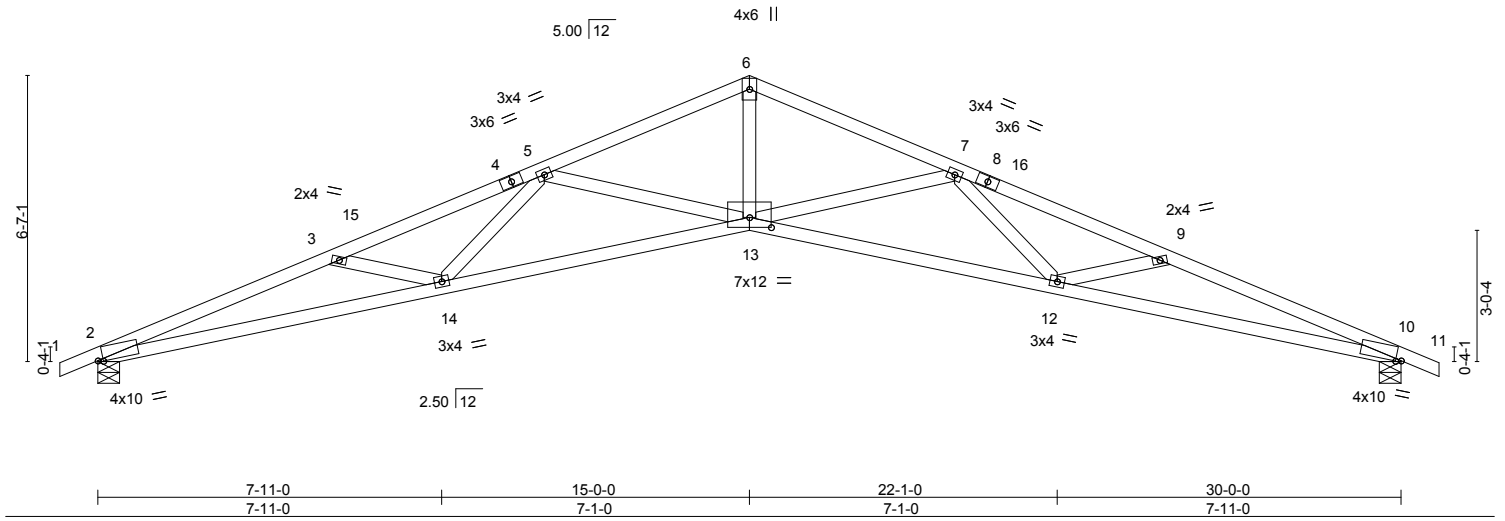


Plate Offsets (X,Y)-- [2:0-1-8,0-0-7], [10:0-1-8,0-0-7], [13:0-6-0,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 30.0 (Roof Snow=30.0)	2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	TC 0.71 BC 0.71 WB 0.60 (Matrix)	Vert(LL) -0.61 Vert(TL) -1.27 Horz(TL) 0.73 Wind(LL) 0.22	12-13 12-13 10 13	>579 >279 n/a >999	240 180 n/a 360	MT20	197/144
TCDL 10.0							Weight: 102 lb	FT = 0%
BCLL 0.0 *								
BCDL 10.0								

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
 1-4,8-11: 2x4 SPF 1650F 1.3E  
 BOT CHORD 2x4 SPF 2100F 1.8E  
 WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
 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) 2=1565/0-6-0, 10=1565/0-6-0  
 Max Horz 2=-76(LC 7)  
 Max Uplift 2=-195(LC 9), 10=-195(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5471/593, 3-5=-5059/505, 5-6=-3718/373, 6-7=-3718/373, 7-9=-5059/505,  
 9-10=-5471/593  
 BOT CHORD 2-14=-512/5026, 13-14=-383/4407, 12-13=-383/4407, 10-12=-512/5026  
 WEBS 6-13=-211/2454, 3-14=-312/126, 5-14=-9/513, 5-13=-1192/171, 7-13=-1192/171,  
 7-12=-9/513, 9-12=-312/126

**NOTES-**

- 1) Wind: ASCE 7-05; 90mph; TC DL=3.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) The solid section of the plate is required to be placed over the splice line at joint(s) 13.
- 6) Plates checked for a plus or minus 2 degree rotation about its center.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
- 9) Bearing at joint(s) 2, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=195, 10=195.
- 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



March 23, 2015

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 Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. 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 **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.

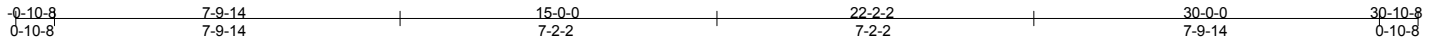


14515 N. Outer Forty, Suite #300  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Fiskaldo spec 2	123850022
B501167	T1	FINK	15	1		

Superior Trusses, Ephrata, PA 17522

7.530 s Jul 11 2014 MiTek Industries, Inc. Mon Mar 23 08:28:52 2015 Page 1  
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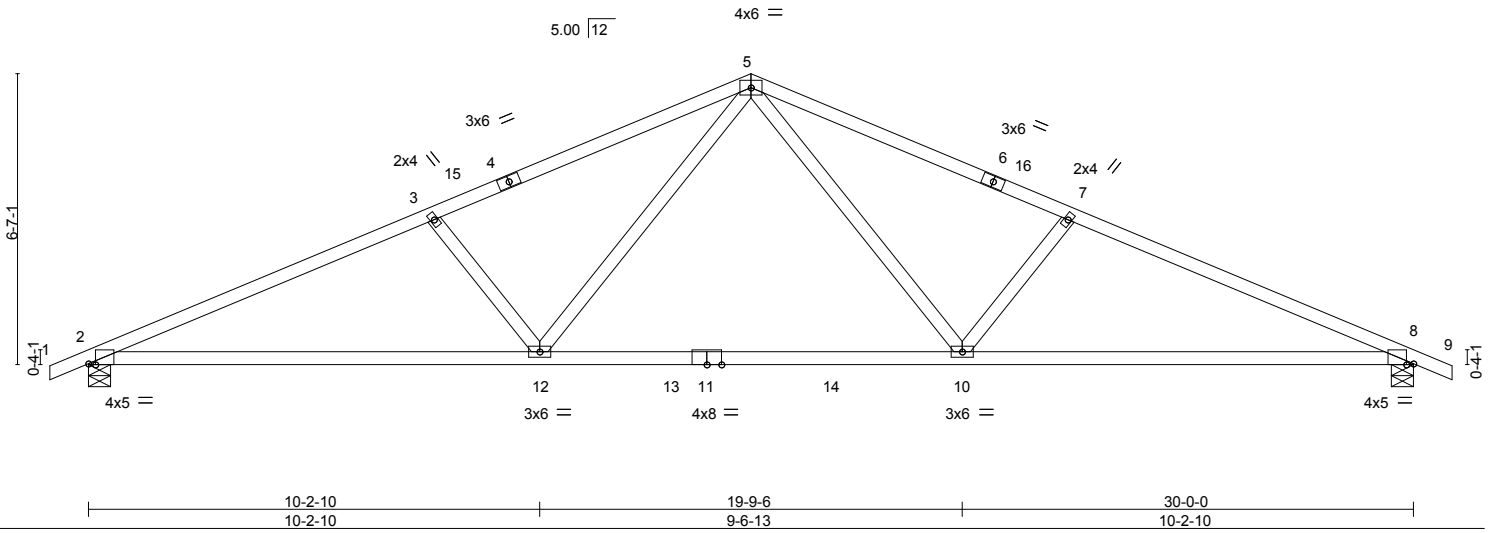


Plate Offsets (X,Y)-- [2:0-1-14,Edge], [8:0-1-14,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 30.0 (Roof Snow=30.0)	2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	TC 0.88 BC 0.85 WB 0.26 (Matrix)	Vert(LL) -0.52 Vert(TL) -0.85 Horz(TL) 0.15 Wind(LL) 0.08	10-12 8-10 8 8-10	>680 >417 n/a >999	240 180 n/a 360	MT20	197/144
TCDL 10.0							Weight: 100 lb	FT = 0%
BCLL 0.0 *								
BCDL 10.0								

**LUMBER-**

TOP CHORD 2x4 SPF 1650F 1.3E \*Except\*  
4-5,5-6: 2x4 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF 1650F 1.3E  
WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
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) 2=1637/0-6-0, 8=1637/0-6-0  
Max Horz 2=76(LC 8)  
Max Uplift 2=-195(LC 9), 8=-195(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-3173/343, 3-5=-2789/321, 5-7=-2789/321, 7-8=-3173/343  
BOT CHORD 2-12=-260/2816, 10-12=-115/1874, 8-10=-260/2816  
WEBS 3-12=-693/157, 5-12=-82/1069, 5-10=-82/1069, 7-10=-693/157

**NOTES-**

- 1) Wind: ASCE 7-05; 90mph; TCDL=3.0psf; BCDL=3.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp B; Fully Exp.; Ct=1.1
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) The solid section of the plate is required to be placed over the splice line at joint(s) 11.
- 6) Plate(s) at joint(s) 2, 4, 5, 6, 12, 3, 10, 7 and 8 checked for a plus or minus 2 degree rotation about its center.
- 7) Plate(s) at joint(s) 11 checked for a plus or minus 4 degree rotation about its center.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=195, 8=195.
- 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



March 23, 2015

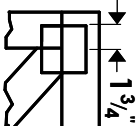
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 02/16/2015 BEFORE USE.**  
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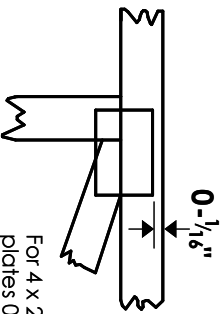
14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. 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.

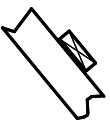
**\* Plate location details available in MITek 20/20 software or upon request.**

## PLATE SIZE

4 X 4

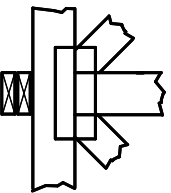
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

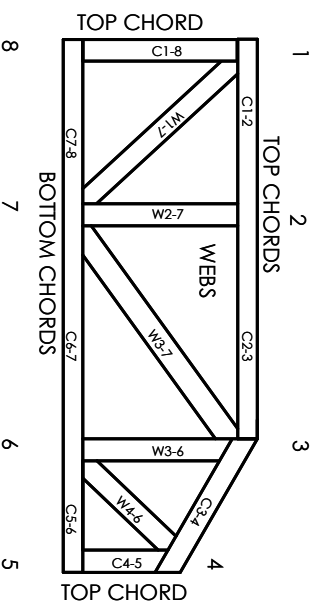
## Industry Standards:

ANSI/FP11: 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  
|  
1  
|  
2  
|  
3  
|  
4  
|  
5  
|  
6  
|  
7  
|  
8

dimensions shown in ft-in-sixteenths  
(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

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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 stock 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 ware of joint locations are regulated by ANSI/FP11.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/FP11.
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 at 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/FP11 Quality Criteria.



MITek Engineering Reference Sheet: MIL-7473 rev. 02/16/2015