MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 3008833
C&H/158 Cobey Creek

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Pages or sheets covered by this seal: I54935399 thru I54935401

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193

October 27,2022

Sevier, Scott ,Engineer

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(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 or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO 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 design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek	
3008833	A2	Common	7	1	Job Reference (optional)	I54935399

Units: 3.0
Eng: LAM

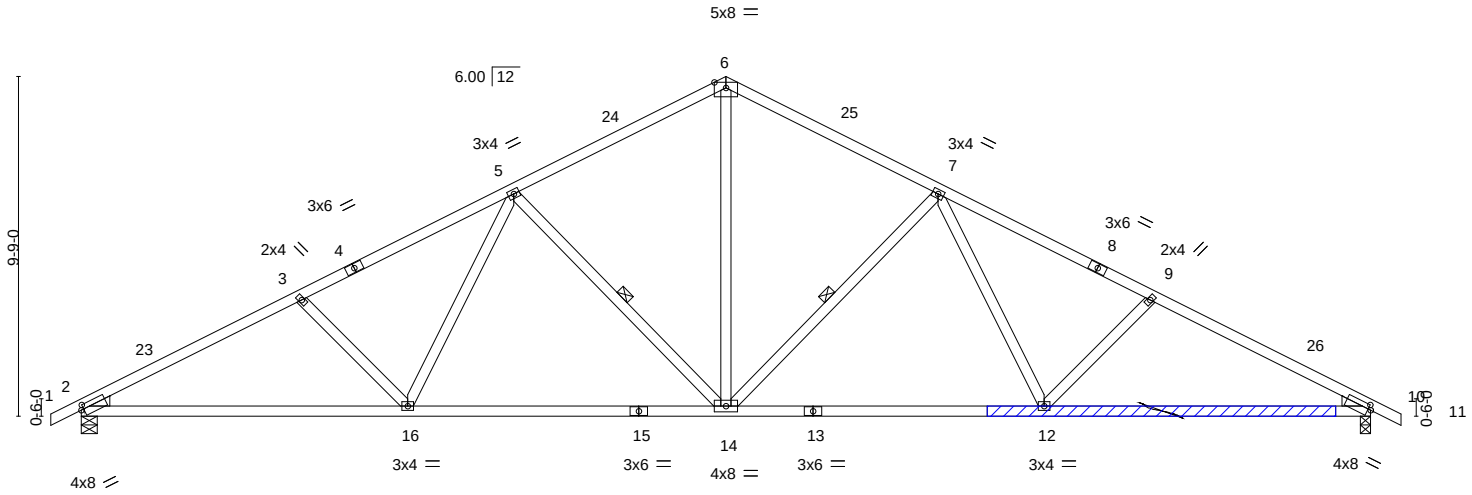
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Oct 26 12:46:40 2022 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-TvDLJXb8lGa0Bb8BZ_LSvUfZ8QEFYrzMwIYLXtyPXrz

-0-10-8	6-3-14	12-4-15	18-6-0	24-7-1	30-8-2	37-0-0	37-10-8
0-10-8	6-3-14	6-1-1	6-1-1	6-1-1	6-1-1	6-3-14	0-10-8

1' SPLIT IN BOTTOM CHORD CENTERED 6' FROM RIGHT END

Scale = 1:66.1



APPLY 2 X 4 X 10' SPF/DF/SP NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON DAMAGE/SPLICE OR 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 @ 4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

9-4-7	18-6-0	27-7-9	37-0-0
9-4-7	9-1-9	9-1-9	9-4-7

Plate Offsets (X,Y)-- [2:0-0-15,0-1-9], [10:0-0-15,0-1-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.20	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.43	14-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.14	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 149 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-14, 5-14

REACTIONS. (size) 2=0-5-8, 10=0-3-8
Max Horz 2=171(LC 12)
Max Uplift 2=-295(LC 12), 10=-295(LC 13)
Max Grav 2=1726(LC 1), 10=1726(LC 1)

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

TOP CHORD	2-3=-3046/509, 3-5=-2750/479, 5-6=-1958/418, 6-7=-1958/418, 7-9=-2750/479, 9-10=-3046/510
BOT CHORD	2-16=-530/2632, 14-16=-343/2170, 12-14=-220/2170, 10-12=-360/2632
WEBS	6-14=-209/1262, 7-14=-758/297, 7-12=-87/500, 9-12=-380/217, 5-14=-758/296, 5-16=-87/500, 3-16=-380/217

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-6-0, Exterior(2R) 18-6-0 to 21-6-0, Interior(1) 21-6-0 to 37-10-8 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=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=295, 10=295.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 27,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

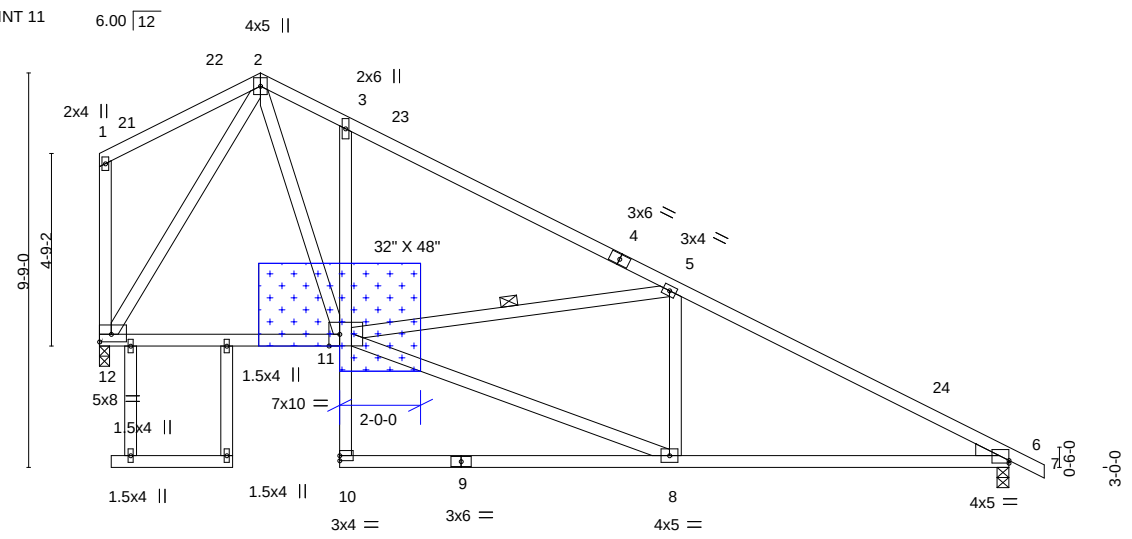
Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A3A	Roof Special	1	1	I54935400
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Oct 26 12:46:41 2022 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-x6mjWtbmWaitoljN6hshShCivqeGH9IV9yIu3KyPXry

0-3-8	3-3-8	3-11-12	5-11-4	11-6-13	14-2-13	16-10-14	22-5-12	23-4-4
0-3-8	3-0-0	0-8-4	1-11-8	5-7-9	2-8-0	2-8-0	5-6-14	0-10-8

DAMAGED PLATES AT JOINT 11

Scale = 1:57.0



ATTACH 7/16" OSB GUSSET (7/16" RATED SHEATHING 24/16 EXP 1)
TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE:
2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C.
NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE
FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

0-7-8	3-3-8	5-11-4	14-2-13	22-5-12
0-3-8	2-8-0	2-7-12	8-3-9	8-2-15
0-4-0				

Plate Offsets (X,Y)-- [6:0-0-0,0-0-13], [11:0-3-3,0-3-7], [12:Edge,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.11	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.23	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 119 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-11

REACTIONS. (size) 12=0-3-0, 6=0-3-8
Max Horz 12=-291(LC 8)
Max Uplift 12=-174(LC 13), 6=-234(LC 13)
Max Grav 12=1004(LC 1), 6=1067(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1013/335, 3-5=-1103/252, 5-6=-1613/350
BOT CHORD 11-12=0/500, 3-11=-422/231, 6-8=-198/1341
WEBS 5-8=-297/139, 8-11=-223/1410, 5-11=-500/308, 2-12=-917/238, 2-11=-315/1159

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-11-12, Exterior(2R) 3-11-12 to 6-11-12, Interior(1) 6-11-12 to 23-4-4 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=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=174, 6=234.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 27,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A4	ROOF SPECIAL GIRDER	1	2	I54935401

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Oct 26 12:46:43 2022 Page 1

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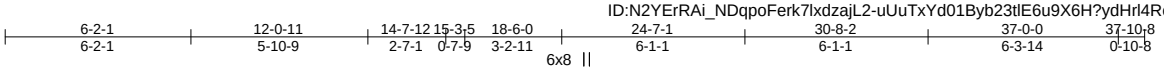
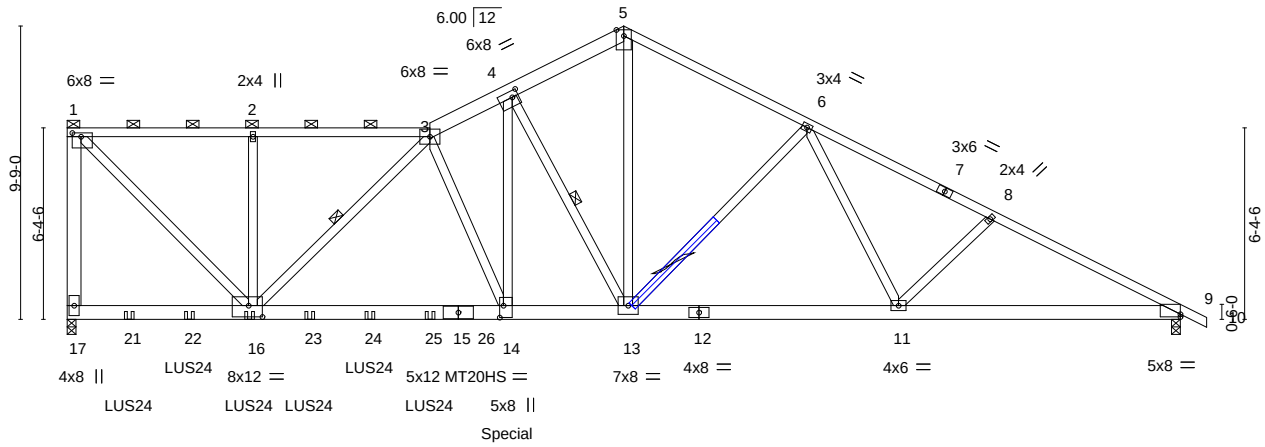


14" SPLIT IN BACK PLY OF MEMBER 6-13 CENTERED AT 22" FROM JOINT 13

Scale = 1:76.6



APPLY 2 X 4 X 4' SPF/DF/SP NO.2 SCAB TO BACK FACE OF TRUSS CENTERED ON DAMAGE/SPLICE OR 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.

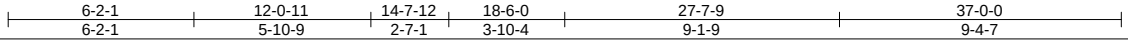


Plate Offsets (X,Y)-- [1:0-3-8,0-1-8], [4:0-2-8,0-2-8], [9:0-0-0,0-1-1], [14:0-4-12,0-1-8], [16:0-5-8,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.34	14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.62	14-16	>713	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 432 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
15-17: 2x6 SP 2400F 2.0E, 12-15: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2 *Except*
1-17: 2x6 SPF No.2, 1-16: 2x4 SPF 1650F 1.5E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-10 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-13, 3-16

REACTIONS. (size) 17=0-3-8, 9=0-3-8
Max Horz 17=-300(LC 6)
Max Uplift 17=-1599(LC 8), 9=-806(LC 9)
Max Grav 17=7177(LC 1), 9=4062(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-17=-6731/1505, 1-2=-6550/1398, 2-3=-6550/1398, 3-4=-10475/2175, 4-5=-7027/1505, 5-6=-7146/1491, 6-8=-7846/1588, 8-9=-8129/1619
BOT CHORD 16-17=-70/277, 14-16=-1959/9950, 13-14=-1771/9235, 11-13=-1176/6767, 9-11=-1349/7180
WEBS 1-16=-2015/9213, 2-16=-466/200, 4-13=-6344/1444, 5-13=-1234/5998, 6-13=-688/335, 6-11=-147/478, 8-11=-350/240, 4-14=-1507/6997, 3-14=-1802/472, 3-16=-4853/952

NOTES-

1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc, 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-2-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; 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
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) The Fabrication Tolerance at joint 16 = 0%
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=1599, 9=806.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

October 27,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

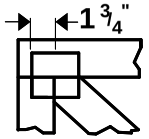
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 12-0-12 to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 588 lb down and 169 lb up at 13-9-12, and 3749 lb down and 725 lb up at 14-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

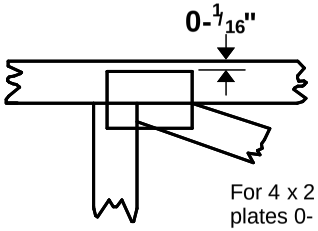
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 5-10=-70, 17-18=-20
   Concentrated Loads (lb)
   Vert: 14=-3749(F) 16=-588(F) 21=-588(F) 22=-588(F) 23=-588(F) 24=-588(F) 25=-588(F) 26=-588(F)

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- 1/16" from outside edge of truss.

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

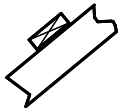
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

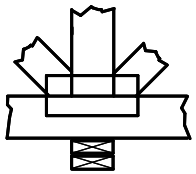
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

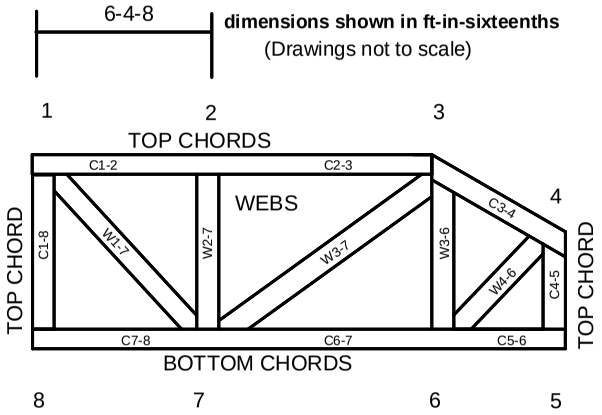


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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



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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
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/TPI 1 Quality Criteria.

21.The design does not take into account any dynamic or other loads other than those expressly stated.