MiTek USA, Inc.
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661
Telephone 916-755-3571

Re: B1901152
Eric Meyer

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Sterling Lumber & Investment.

Pages or sheets covered by this seal: R60508282 thru R60508283

My license renewal date for the state of Colorado is October 31, 2021.

December 6,2019

Hernandez, Marcos

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	Eric Meyer
B1901152	B	MONO TRUSS	23	1	R60508282
					Job Reference (optional)

Sterling Component Systems Company, Westminster, CO - 80031, 8.320 s Nov 19 2019 MiTek Industries, Inc. Fri Dec 6 09:12:55 2019 Page 1
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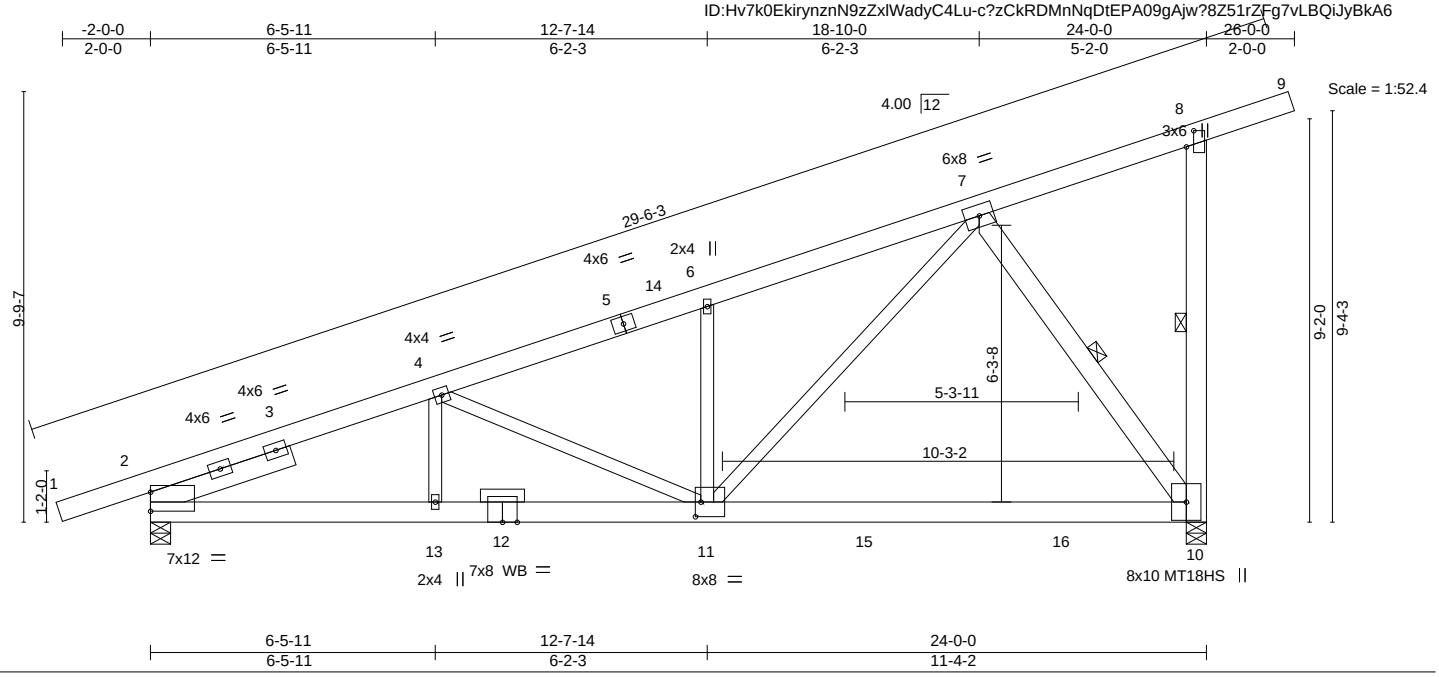

Plate Offsets (X,Y)-- [2:0-0-0,0-5-3], [8:0-4-7,0-2-0], [11:0-1-8,0-4-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	100.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.24	11-13	>999	240	MT20	197/144
(Roof Snow=100.0)		Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.53	10-11	>535	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-R							Weight: 158 lb	FT = 0%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SPF 2100F 1.8E
BOT CHORD	2x6 SPF 2100F 1.8E
WEBS	2x4 SPF 1650F 1.5E *Except*
	8-10,7-10: 2x6 SPF 1650F 1.5E
OTHERS	2x4 SPF 1650F 1.5E
SLIDER	Left 2x6 SPF 1650F 1.5E -H 3-4-14

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-1-2 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 8-10, 7-10

REACTIONS. (lb/size) 2=3463/0-5-8, 10=3840/0-5-8
Max Horz 2=343(LC 10)
Max Uplift 2=-27(LC 6)
Max Grav 2=3779(LC 15), 10=5044(LC 15)

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

TOP CHORD	2-4=-6285/0, 4-6=-5251/0, 6-7=-5446/0, 7-8=-336/175, 8-9=-286/0, 8-10=-1485/122
BOT CHORD	2-13=-109/5487, 11-13=-109/5487, 10-11=0/2286
WEBS	4-11=-884/384, 6-11=-1940/182, 7-11=0/3882, 7-10=-3825/52

NOTES-

1) Wind: ASCE 7-16; Vult=145mph (3-second gust) Vasd=115mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=0.83; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=100.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.00
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 2.00 times flat roof load of 100.0 psf on overhangs non-concurrent with other live loads.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

LOAD CASE(S)

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

December 6,2019

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MiTek USA, Inc.
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Roseville, CA 95661

LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-8=-220, 8-9=-220, 2-11=-20, 10-11=-80

2) Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-8=-170, 8-9=-170, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95

3) Dead + 0.75 Snow (Unbal. Left) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-14=-170, 8-14=-250, 8-9=-250, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95

4) Dead + 0.75 Snow (Unbal. Right) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-8=-65, 8-9=-65, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95

5) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-8=-20, 8-9=-20, 2-11=-40, 10-11=-100

6) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=43, 2-8=25, 8-9=18, 2-11=-12, 10-11=-72
Horz: 2-8=-37, 8-9=-30
Drag: 1-2=0

7) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=8, 2-8=16, 8-9=34, 2-11=-12, 10-11=-72
Horz: 2-8=-28, 8-9=-46
Drag: 1-2=0

8) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=10, 2-8=2, 8-9=10, 2-11=-20, 10-11=-80
Horz: 2-8=-22, 8-9=-30
Drag: 1-2=0

9) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=0, 2-8=-8, 8-9=0, 2-11=-20, 10-11=-80
Horz: 2-8=-12, 8-9=-20
Drag: 1-2=0

10) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=18, 2-8=25, 8-9=18, 2-11=-12, 10-11=-72
Horz: 2-8=-37, 8-9=-30
Drag: 1-2=0

11) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=4, 2-8=12, 8-9=4, 2-11=-12, 10-11=-72
Horz: 2-8=-24, 8-9=-16
Drag: 1-2=0

12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=10, 2-8=2, 8-9=10, 2-11=-20, 10-11=-80
Horz: 2-8=-22, 8-9=-30
Drag: 1-2=0

13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=-4, 2-8=-12, 8-9=-4, 2-11=-20, 10-11=-80
Horz: 2-8=-8, 8-9=-16
Drag: 1-2=0

14) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-420, 2-8=-20, 8-9=-420, 2-11=-20, 10-11=-80

15) Dead + Snow (Unbal. Left): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-14=-220, 8-14=-327, 8-9=-327, 2-11=-20, 10-11=-80

16) Dead + Snow (Unbal. Right): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-8=-80, 8-9=-80, 2-11=-20, 10-11=-80

17) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-8=-20, 8-9=-20, 2-11=-40, 11-15=-100, 15-16=-120, 10-16=-100

18) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=-148, 2-8=-154, 8-9=-148, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95
Horz: 2-8=-16, 8-9=-22
Drag: 1-2=0

19) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.33, Plate Increase=1.33

Continued on page 3

LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-2=-155, 2-8=-161, 8-9=-155, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95
Horz: 2-8=-9, 8-9=-15
Drag: 1-2=0

20) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=-148, 2-8=-154, 8-9=-148, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95
Horz: 2-8=-16, 8-9=-22
Drag: 1-2=0

21) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=-158, 2-8=-164, 8-9=-158, 2-11=-35, 11-15=-95, 15-16=-110, 10-16=-95
Horz: 2-8=-6, 8-9=-12
Drag: 1-2=0

22) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-2=-12, 2-8=-15, 8-9=-15, 2-11=-12, 10-11=-72
Horz: 2-8=3, 8-9=3

23) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.33, Plate Increase=1.33
Uniform Loads (plf)
Vert: 1-8=-12, 8-9=-9, 2-11=-12, 10-11=-72
Horz: 8-9=-3

Job	Truss	Truss Type	Qty	Ply	Eric Meyer
B1901152	BE	GABLE	2	1	R60508283
					Job Reference (optional)

Sterling Component Systems Company, Westminster, CO - 80031, 8.320 s Nov 19 2019 MiTek Industries, Inc. Fri Dec 6 09:12:58 2019 Page 1
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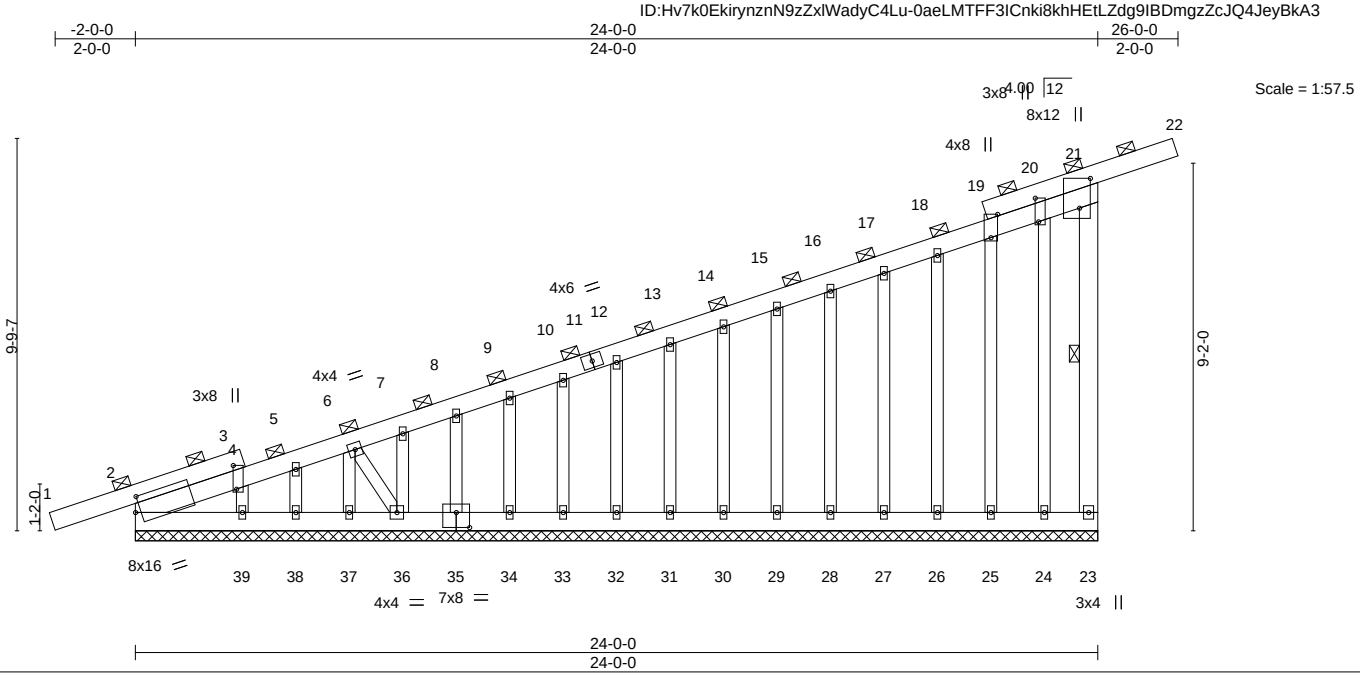

Plate Offsets (X,Y)-- [2:0-1-11,0-4-8], [3:0-7-1,0-1-0], [19:0-7-0,0-2-0], [20:0-7-1,0-1-0], [21:0-8-15,0-3-4], [35:0-4-0,0-4-8]

LOADING (psf)		SPACING-	3-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	100.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	0.00	22	n/r	120	MT20	174/144
(Roof Snow=100.0)		Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.00	22	n/r	120		
TCDL	10.0	Rep Stress Incr	NO	WB	0.34	Horz(CT)	-0.00	23	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 199 lb	FT = 0%

LUMBER-

TOP CHORD	2x6 SPF 1650F 1.5E *Except* 19-22,1-4: 2.0 RigidLam LVL 1-1/2 x 5-1/2
BOT CHORD	2x6 SPF 1650F 1.5E
WEBS	2x6 SPF 1650F 1.5E *Except* 6-36: 2x4 SPF 1650F 1.5E
OTHERS	2x4 SPF 1650F 1.5E

BRACING-

TOP CHORD	2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 21-23

REACTIONS. All bearings 24-0-0.
(lb) - Max Horz 2=511(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 38 except 23=-196(LC 7), 25=-305(LC 14), 36=-134(LC 10), 39=-630(LC 14)
Max Grav All reactions 250 lb or less at joint(s) except 2=1945(LC 14), 23=1793(LC 14), 24=589(LC 15), 25=413(LC 15), 26=621(LC 15), 27=703(LC 15), 28=701(LC 15), 29=694(LC 15), 30=696(LC 15), 31=700(LC 15), 32=653(LC 15), 33=514(LC 15), 34=480(LC 1), 35=484(LC 1), 36=581(LC 15), 37=357(LC 1), 38=510(LC 1), 39=419(LC 15)

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

TOP CHORD	2-3=-474/32, 3-5=-377/138, 5-6=-362/56, 6-7=-407/83, 7-8=-386/88, 8-9=-359/87, 9-10=-333/90, 10-12=-307/110, 12-13=-280/123, 13-14=-254/121, 21-22=-553/0, 21-23=-1855/203
WEBS	20-24=-494/45, 19-25=-385/326, 18-26=-578/110, 17-27=-663/55, 16-28=-661/59, 15-29=-654/59, 14-30=-656/59, 13-31=-660/59, 12-32=-613/59, 10-33=-474/59, 9-34=-440/59, 8-35=-444/63, 7-36=-422/42, 6-37=-323/0, 5-38=-448/22, 3-39=-418/483

NOTES-

1) Wind: ASCE 7-16; Vult=145mph (3-second gust) Vasd=115mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=0.83; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.33 plate grip DOL=1.33
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 7-16; Pf=100.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.00
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 2.00 times flat roof load of 100.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.

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COLORADO LICENSED
MARCOS A. HERNANDEZ
PE-46766
PROFESSIONAL ENGINEER

December 6,2019

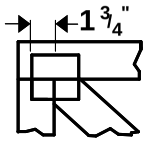
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

NOTES-

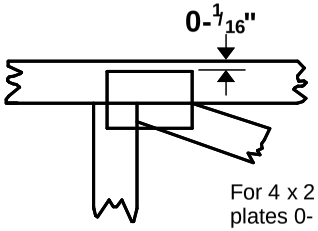
11) Solid blocking is required on both sides of the truss at joint(s), 2.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 38 except (jt=lb) 23=196, 25=305, 36=134, 39=630.
13) This 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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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.

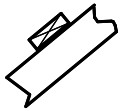
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

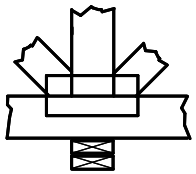
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

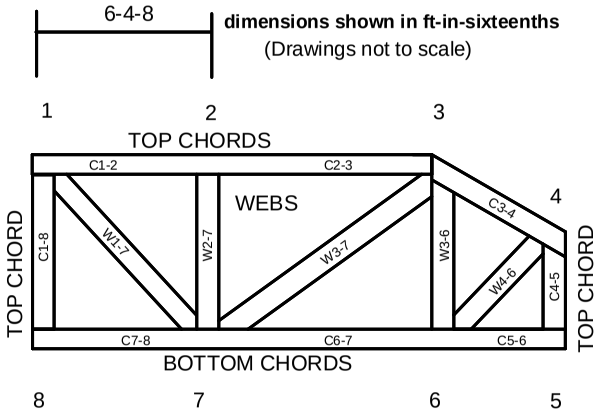


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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. 10/03/2015

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.