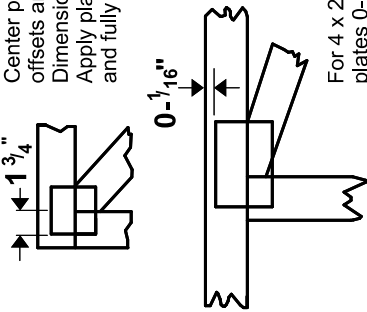


Symbols

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.



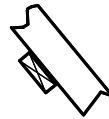
This symbol indicates the required direction of slots in connector plates.

PLATE SIZE

4 X 4

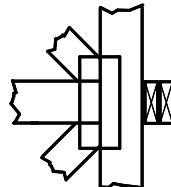
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

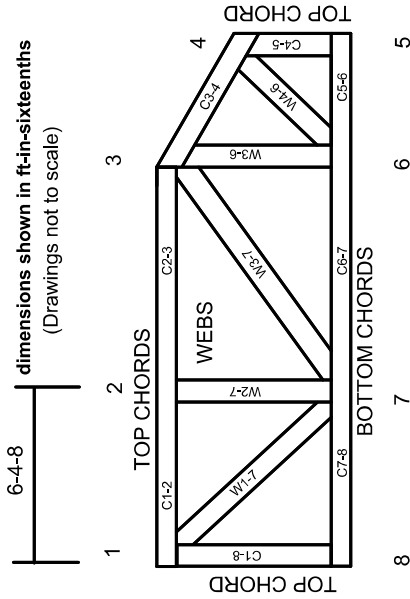


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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

General Safety Notes

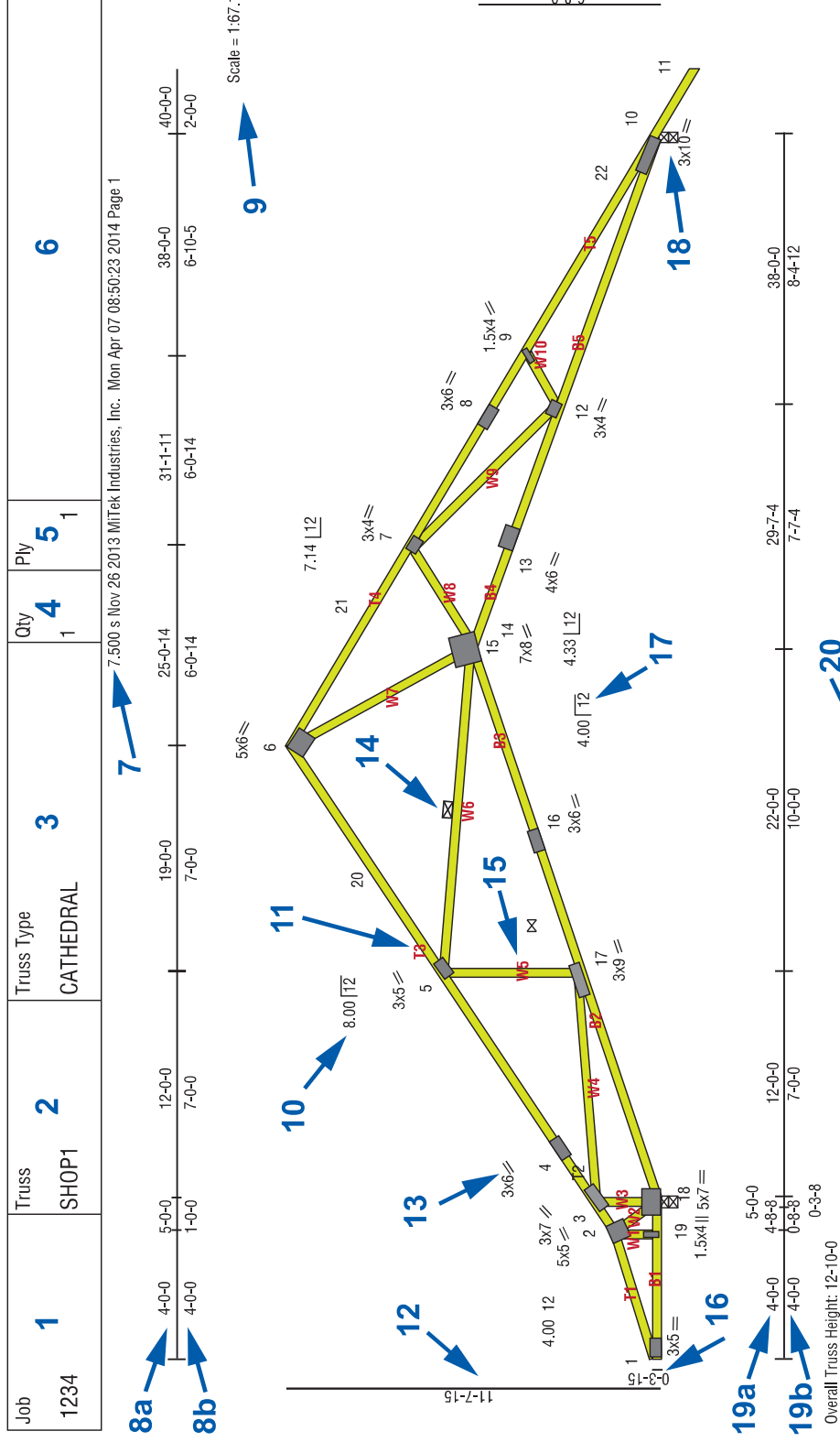
Failure to Follow Could Cause Property Damage or Personal Injury

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

Reading a MiTek Engineering Drawing

EXAMPLE ONLY

- 1 Job name
- 2 Truss label
- 3 Truss type
- 4 Truss quantity
- 5 Number of plies
- 6 Job description
- 7 Software version
- 8a Cumulated dimensions of top chord – panel lengths are added together along the top chord of truss (feet-inches-sixteenths)
- 8b Panel lengths of the top chord – each section represents the horizontal distance between the centerline of two consecutive panel points along the top chord (feet-inches-sixteenths)
- 9 Drawing scale of the truss
- 10 Top chord slope – inches of vertical rise for each 12 inches of horizontal run
- 11 Top chord member label (if shown) – identification label used to distinguish pieces
- 12 Truss height – the height of the truss from the top of the bearing to the top of the top chord (trusses with multiple levels of top chord will have multiple truss height dimensions) (feet-inches-sixteenths)
- 13 Plate size, orientation and type – plate size in inches. The two lines denotes the direction of the plate
- 14 Continuous lateral bracing location
- 15 Web member label (if shown)
- 16 Heel height – the height from the top of bearing to the top of the top chord at the outside edge of the bearing (feet-inches-sixteenths)
- 17 Bottom chord slope – inches of vertical rise for each 12 inches of horizontal run
- 18 Bearing – a structural support, usually a wall or beam that is designated to carry the truss reaction loads to the foundation
- 19a Cumulated dimensions of bottom chord – panel lengths are added together along the bottom chord of truss (feet-inches-sixteenths)
- 19b Panel lengths of the bottom chord – each section represents the horizontal distance between the centerline of two consecutive panel points along the bottom chord (feet-inches-sixteenths)
- 20 Plate offsets (X, Y) – this section lists any horizontal and/or vertical plate offsets (in inches) and the location they occur
- 21 Design loading (PSF – pounds per square foot)
- 22 Spacing on center – feet-inches-sixteenths
- 23 Design code / Design standard
- 24 Duration of Load for plate and lumber design and Repetitive Use Factor
- 25 CSI – maximum Combined Stress Index for top chords, bottom chords and webs
- 26 Deflection- maximum deflection expected in a member (inches), Location of maximum deflection, maximum span to deflection ratio expected in a member
- 27 Span to deflection ratios – input allowables
- 28 MiTek plate allowables (PSI) / estimated truss weight / fabrication tolerance
- 29 Lumber requirements
- 30 Required bracing for all members
- 31 Reaction (pounds), Bearing size - input and minimum required (if shown)
- 32 Maximum Uplift and/or Maximum Horizontal Reaction if applicable and Maximum Gravity if shown
- 33 Maximum member forces - Tension (+), Compression (-)
- 34 Notes
- 35 Additional loads / load cases



Overall Truss Height: 12'-10-0"
 Plate Offsets (X, Y): [6'-0-3-7-0-2-8], [1'-0-0-1-2-0-0-5], [1'-3-0-3-0-0-0-0], [1'-7-0-2-12-0-1-3], [1'-8-0-5-4-0-2-3]

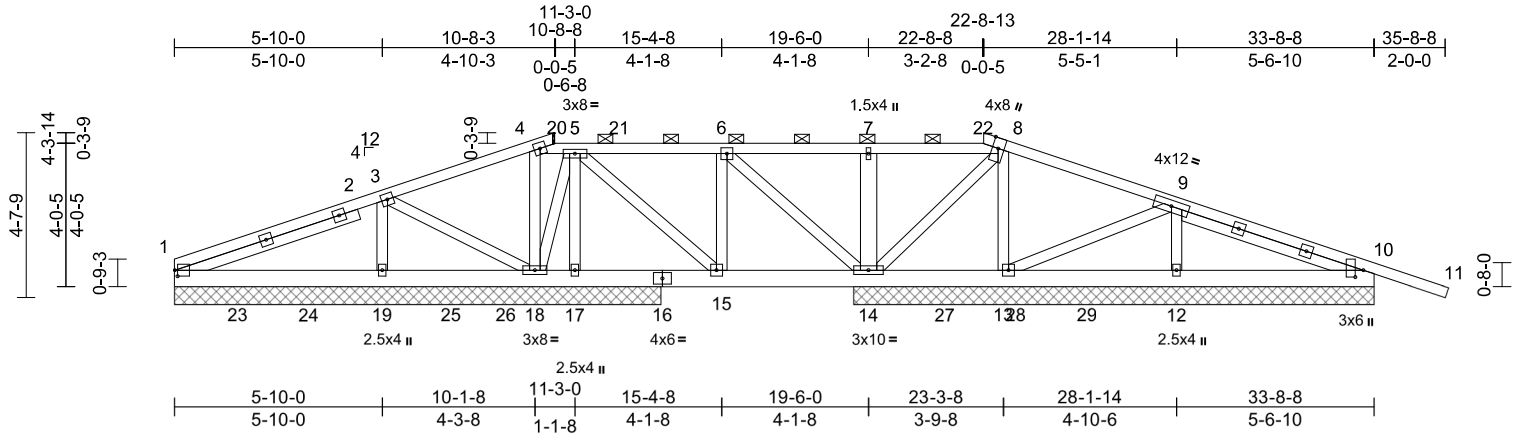
LOADING (psf) TOLL 200 TCDL 100 BCLL 0.0 BCDL 10.0	21	22 SPACING Plates Increase 2'-0-0 Lumber Increase 1'-15	23 Rep Stress Incr YES Code IBC2006/TP12002	24 CSI TC 0.84 BC 1.00 WB 0.85 (Matrix)	25 DEF Vert(LL) -0.40 Vert(TL) -1.16 Horz(TL) 0.74	26 I/defl (loc) 12-14 >996 15-17 >341	27 L/d 240 180 n/a	28 GRIP MT20 244/190 Weight: 193 lb FT = 20%
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LUMBER TOP CHORD 2x4 SP No.2 *Except* T5: 2x4 SP No.1 BOT CHORD 2x4 SP No.2 *Except* B5: 2x4 SP No.1 WEBS 2x4 SP No.3 *Except* W7: 2x4 SP No.2	29	30 BRACING TOP CHORD Structural wood sheathing directly applied or 2'-2-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 1'-4-12 oc bracing. WEBS 1 row at midpoint 5-15 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
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REACTIONS (lbs/size) 18=1740/0-3-8 (min. 0-2-1), 10=1417/0-3-8 (min. 0-1-8) Max Horz 18=196(LC 7) Max Uplift 18=63(LC 9), 10=30(LC 9)	31	32 FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-196/456, 2-3=-245/545, 3-4=-2012/0, 4-5=1896/0, 5-20=-1899/0, 6-20=-1770/0, 6-21=-3060/0, 7-8=-4287/0, 8-9=-4379/0, 9-22=-4595/0, 10-22=-4699/0 BOT CHORD 1-19=-394/201, 18-19=-402/211, 17-18=-511/288, 16-17=-511/288, 15-16=0/1658, 14-15=0/2999, 13-14=0/3318, 12-13=0/4180 WEBS 3-18=-1603/163, 3-17=-23/2049, 5-17=-372/127, 6-15=0/2474, 7-14=-624/141, 7-12=-26/842, 9-12=-271/129
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NOTES 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-05: 90mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=38ft, eave=5ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2), 0-0-0 to 4-0-0, Interior (1) 4-0-0 to 19-0-0, Exterior(2) 19-0-0 to 22-9-10 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) *This truss has been designed for a live load of 20.0 psf 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. 5) 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. 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 18 and 30 lb uplift at joint 10. 7) This truss is designed to accordance with the 2006 International Building Code section 2306.1 and referenced standard ANSI/TPI 1. 8) *Semi-rigid pitchbreaks including heels* Member end fixity model was used in the analysis and design of this truss.	34
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LOAD CASE(S) Standard	35
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Scale = 1:64.8

Plate Offsets (X, Y): [1:0-0-15,0-2-0], [10:0-2-5,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	0.02	12-13	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.29	Vert(CT)	-0.05	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S								
											Weight: 411 lb	FT = 20%

LUMBER
 TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X6 DF SS G
 WEBS 2X4 DF Std G *Except* 7-14:2X6 DF SS G
 SLIDER Left 2x4 DF No.1&Btr G-- 5-4-15, Right 2x4 DF No.1&Btr G-- 5-4-10

WEBS
 3-19--314/251, 5-17--232/46, 7-14--295/92,
 4-18--144/42, 8-13--260/208,
 9-13--266/294, 9-12--355/251,
 3-18--286/297, 5-18--277/224,
 8-14--309/305, 6-14--474/350,
 6-15--182/230, 5-15--287/430

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 1, 702 lb uplift at joint 19, 580 lb uplift at joint 17, 358 lb uplift at joint 14, 697 lb uplift at joint 18, 367 lb uplift at joint 13, 288 lb uplift at joint 12 and 310 lb uplift at joint 10.

BRACING
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-8.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

NOTES
 1) 2-ply truss to be connected together with 16d (0.162"x 3.5") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc clinched.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc clinched, 2x6 - 2 rows staggered at 0-9-0 oc clinched.

11) This truss has been designed for a total drag load of 2000 lb. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 33-8-8 for 59.3 plf.
 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

REACTIONS (size)
 1=13-8-0, 10=14-7-8, 12=14-7-8,
 13=14-7-8, 14=14-7-8, 17=13-8-0,
 18=13-8-0, 19=13-8-0
 Max Horiz 1=-69 (LC 23)
 Max Uplift 1=-212 (LC 27), 10=-310 (LC 28),
 12=-288 (LC 28), 13=-367 (LC 28),
 14=-358 (LC 28), 17=-580 (LC 19),
 18=-697 (LC 27), 19=702 (LC 27)
 Max Grav 1=330 (LC 32), 10=351 (LC 47),
 12=1094 (LC 1), 13=1899 (LC 1),
 14=2041 (LC 40), 17=1825 (LC 40),
 18=2571 (LC 39), 19=3253 (LC 39)

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=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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 4x4 MT20 unless otherwise indicated.
 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 9) A plate rating reduction of 20% has been applied for the green lumber members.

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-3=-512/510, 3-4=-321/368, 4-5=-26/125,
 5-6=-362/348, 6-7=-190/270, 7-8=-224/303,
 8-9=-396/411, 9-10=-555/516, 10-11=0/27
 BOT CHORD 1-19=-437/496, 18-19=-158/195,
 17-18=-128/199, 15-17=-215/286,
 14-15=-189/383, 13-14=-157/246,
 12-13=-136/191, 10-12=-460/520

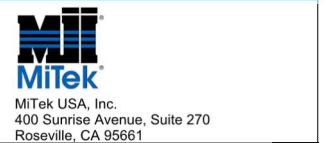


April 10, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 230109-A	Truss A1	Truss Type BRS2200279 Truss Approved.pdf California Girder	Qty 05/24/23 1	Ply Page 6 2	Russo - 023 of 57 Job Reference (optional)	R75640030
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:02
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Page: 2

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 134 lb down and 86 lb up at 23-0-4 on top chord, and 105 lb down and 10 lb up at 2-0-12, 120 lb down at 4-0-12, 2002 lb down and 386 lb up at 6-1-8, 972 lb down and 236 lb up at 8-0-12, 972 lb down and 236 lb up at 9-7-4, 2409 lb down and 810 lb up at 11-6-8, 1379 lb down and 229 lb up at 19-9-8, 455 lb down and 69 lb up at 21-11-4, and 481 lb down and 90 lb up at 23-11-4, and 1199 lb down and 207 lb up at 25-11-4 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=1.25,
Plate Increase=1.25

Uniform Loads (lb/ft)

Vert: 1-4=-70, 4-8=-70, 8-11=-70, 1-10=-20

Concentrated Loads (lb)

Vert: 19=-2002 (B), 17=-2409 (B), 14=-1379 (B),
23=-105 (B), 24=-120 (B), 25=-972 (B), 26=-972 (B),
27=-455 (B), 28=-481 (B), 29=-1199 (B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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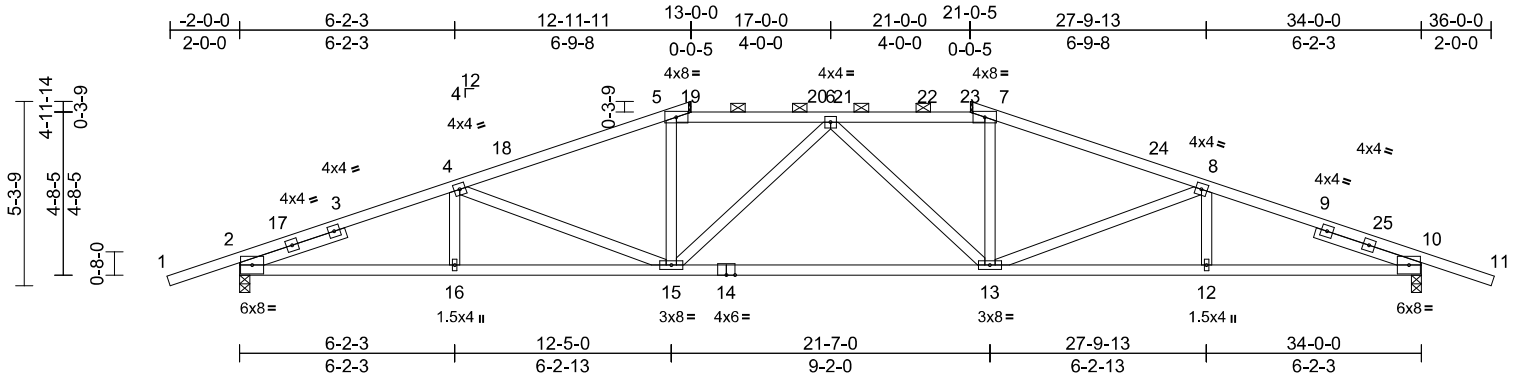
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss A2	Truss Type BRS2200279 Truss Approved.pdf California	Qty 05/24/23 1	Ply Page 7 1	Russo - 023 of 57 Job Reference (optional)	R75640031
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Page: 1



Scale = 1:66.3

Plate Offsets (X, Y): [2:0-0-5,0-3-13], [10:0-0-5,0-3-13]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.84	Vert(LL)	0.22	15-16	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.87	13-15	>468	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.22	10	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S								
											Weight: 161 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF Std G-- 3-2-7, Right 2x4 DF Std G-- 3-2-7

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-7-13 max.); 5-7.
 BOT CHORD Rigid ceiling directly applied or 6-7-11 oc bracing.

REACTIONS

(size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=-78 (LC 10)
 Max Uplift 2=-404 (LC 12), 10=-362 (LC 12)
 Max Grav 2=1798 (LC 1), 10=1750 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-3773/1191, 4-5=-3339/1143, 5-6=-3132/1136, 6-7=-2988/1012, 7-8=-3194/1018, 8-10=-3648/1083, 10-11=0/22
 BOT CHORD 2-16=-1014/3451, 15-16=-1014/3451, 13-15=-910/3220, 12-13=-914/3335, 10-12=-914/3335
 WEBS 4-16=0/206, 4-15=-368/318, 5-15=-47/457, 6-15=-259/79, 6-13=-459/227, 7-13=-95/528, 8-13=-386/317, 8-12=0/207

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 1-4-4, Interior (1) 1-4-4 to 12-6-12, Exterior(2R) 12-6-12 to 17-4-7, Interior (1) 17-4-7 to 21-5-4, Exterior(2R) 21-5-4 to 26-2-15, Interior (1) 26-2-15 to 36-0-9 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
- Provide adequate drainage to prevent water ponding.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 404 lb uplift at joint 2 and 362 lb uplift at joint 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 294 lb down and 336 lb up at 12-11-12, and 102 lb down and 52 lb up at 19-9-8, and 223 lb down and 157 lb up at 21-0-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-5=-70, 5-7=-70, 7-11=-70, 2-10=-20
 Concentrated Loads (lb)
 Vert: 19=-202



April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

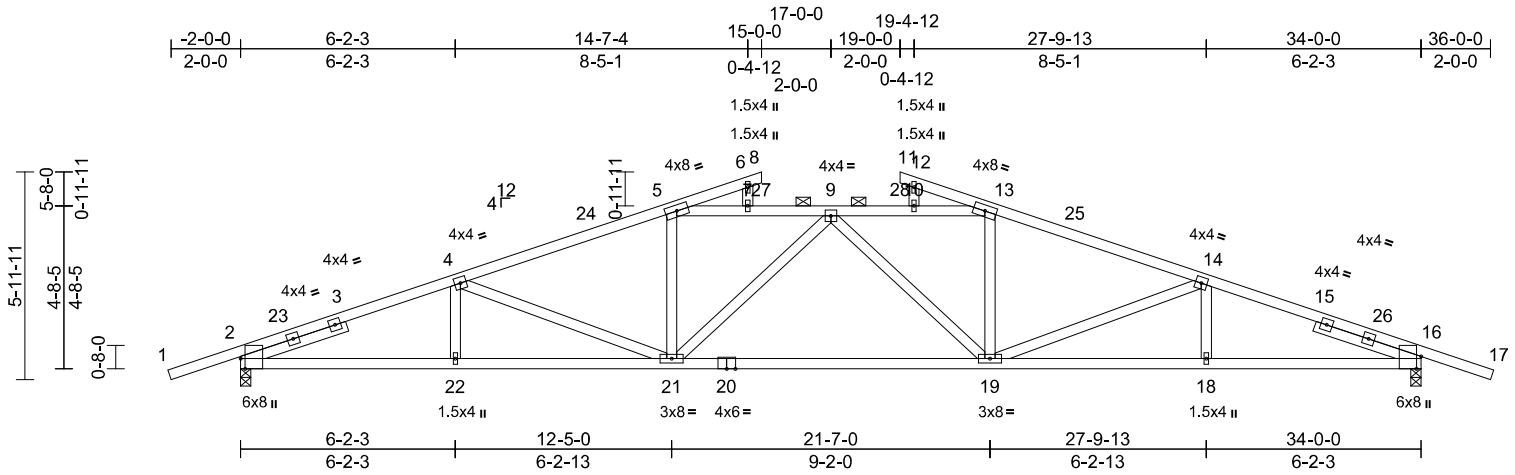
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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



Scale = 1:66.4

Plate Offsets (X, Y): [2:0-3-8,Edge], [16:0-4-5,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.20	19-21	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.84	19-21	>483	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.21	16	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S								
											Weight: 168 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 3-2-7, Right 2x4 DF No.1&Btr G-- 3-2-7

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins, except 2-0-0 oc purlins (3-11-3 max.); 5-13.
 BOT CHORD Rigid ceiling directly applied or 7-3-12 oc bracing.

REACTIONS

(size) 2=0-3-8, 16=0-3-8
 Max Horiz 2=-94 (LC 10)
 Max Uplift 2=-295 (LC 12), 16=-295 (LC 12)
 Max Grav 2=1685 (LC 1), 16=1685 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-3465/1011, 4-5=-3026/986, 5-6=-60/9, 6-8=-84/20, 11-12=-95/51, 12-13=-60/10, 13-14=-3026/961, 14-16=-3465/970, 16-17=0/22, 5-7=-2839/1043, 7-9=-2839/1043, 9-10=-2839/1018, 10-13=-2839/1018
 BOT CHORD 2-22=-829/3161, 21-22=-829/3161, 19-21=-826/2948, 18-19=-807/3161, 16-18=-807/3161
 WEBS 4-22=0/209, 5-21=-37/464, 4-21=-381/234, 9-21=-347/151, 13-19=-46/464, 14-18=0/209, 14-19=-389/239, 9-19=-356/168, 6-7=-262/97, 10-12=-281/192

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 1-4-4, Interior (1) 1-4-4 to 15-0-0, Exterior(2E) 14-7-4 to 19-4-12, Exterior(2R) 19-0-0 to 23-9-11, Interior (1) 23-9-11 to 36-0-9 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) A plate rating reduction of 20% has been applied for the green lumber members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 295 lb uplift at joint 2 and 295 lb uplift at joint 16.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 258 lb down and 65 lb up at 15-0-0, and 294 lb down and 162 lb up at 19-0-0 on top 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=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-5=-70, 5-8=-70, 11-13=-70, 13-17=-70, 2-16=-20, 7-27=-30, 27-28=-70, 10-28=-30



April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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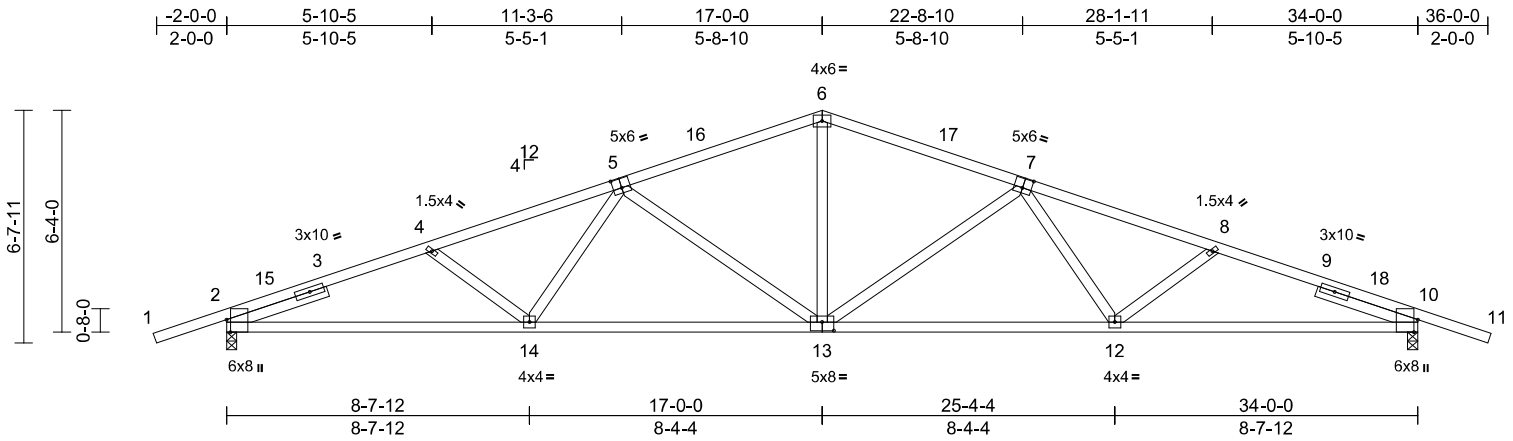
MiTek USA, Inc.
 400 Sunrise Avenue, Suite 270
 Roseville, CA 95661

Job 230109-A	Truss A4	Truss Type BRS2200279 Truss Approved.pdf Common	Qty 05/24/23 12	Ply Page 9 1	Russo - 023 of 57 Job Reference (optional)	R75640033
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:05
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Page: 1



Scale = 1:65.8

Plate Offsets (X, Y): [2:0-4-5,Edge], [5:0-3-0,0-3-4], [7:0-3-0,0-3-4], [10:0-4-5,Edge], [13:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	0.17	13-14	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.66	13-14	>622	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.20	10	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 157 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 3-0-4, Right 2x4 DF No.1&Btr G-- 3-0-4

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-6 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 8-1-12 oc bracing.

REACTIONS

(size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=106 (LC 11)
 Max Uplift 2=-277 (LC 12), 10=-277 (LC 12)
 Max Grav 2=1673 (LC 1), 10=1673 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-3393/818, 4-6=-3166/763, 6-8=-3166/763, 8-10=-3393/818, 10-11=0/22
 BOT CHORD 2-14=-661/3090, 12-14=-555/2810, 10-12=-666/3090
 WEBS 6-13=-213/1091, 7-13=-816/278, 7-12=0/405, 8-12=-188/155, 5-13=-816/278, 5-14=0/405, 4-14=-188/155

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 1-4-4, Interior (1) 1-4-4 to 17-0-0, Exterior(2R) 17-0-0 to 20-4-13, Interior (1) 20-4-13 to 36-0-9 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

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 277 lb uplift at joint 2 and 277 lb uplift at joint 10.

LOAD CASE(S) Standard



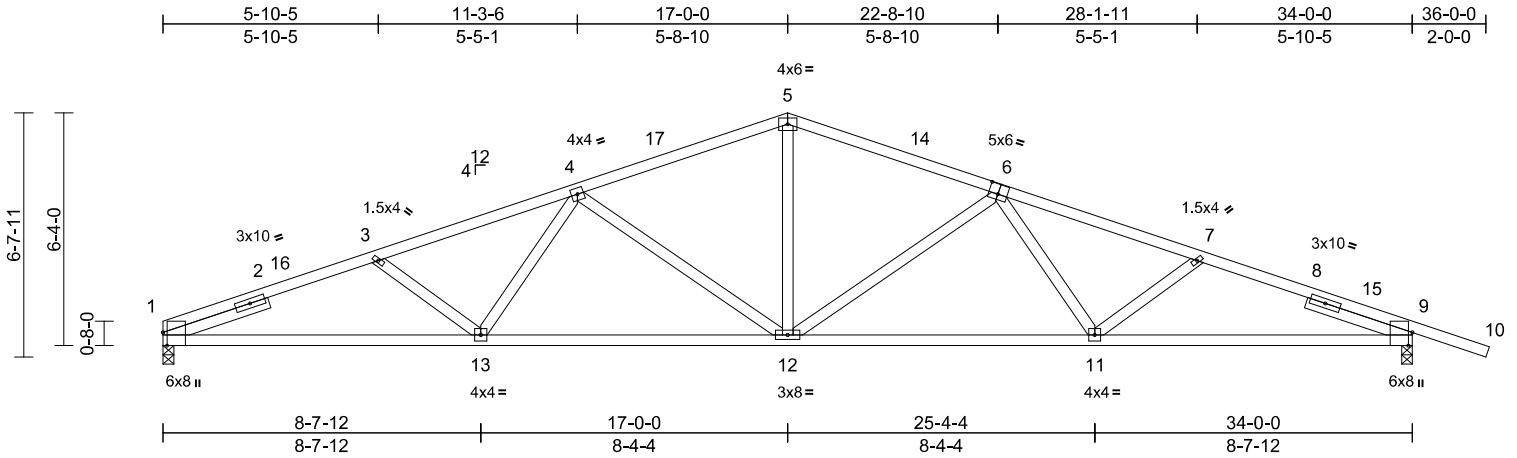
April 10, 2023

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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, 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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 Roseville, CA 95661



Scale = 1:62.7

Plate Offsets (X, Y): [1:0-4-5,Edge], [6:0-3-0,0-3-4], [9:0-4-5,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	0.17	11-12	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-0.66	11-12	>619	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.20	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S								Weight: 154 lb FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 3-0-4, Right 2x4 DF No.1&Btr G-- 3-0-4

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-2 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 7-11-4 oc bracing.

REACTIONS

(size) 1=0-3-8, 9=0-3-8
 Max Horiz 1=-107 (LC 10)
 Max Uplift 1=-184 (LC 12), 9=-279 (LC 12)
 Max Grav 1=1526 (LC 1), 9=1678 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 5-7=-3178/779, 7-9=-3405/832, 9-10=0/22,
 1-3=-3466/867, 3-4=-3206/797,
 4-5=-2368/675
 BOT CHORD 1-13=-703/3152, 12-13=-559/2828,
 11-12=-570/2822, 9-11=-680/3100
 WEBS 5-12=-223/1100, 6-12=-816/277, 6-11=0/404,
 7-11=-188/153, 4-12=-827/282, 4-13=0/419,
 3-13=-221/183

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft;
 B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed;
 MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-4-13, Interior (1) 3-4-13 to 17-0-0, Exterior(2R) 17-0-0 to 20-4-13, Interior (1) 20-4-13 to 36-0-9 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

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 1 and 279 lb uplift at joint 9.

LOAD CASE(S) Standard



April 10, 2023

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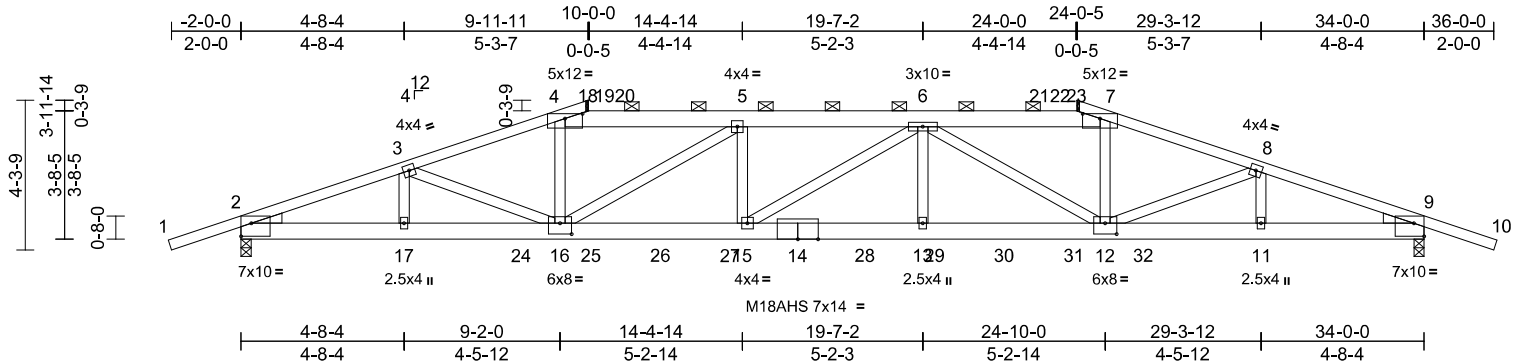
Job 230109-A	Truss A6	Truss Type BRS2200279 Truss Approved.pdf California Girder	Qty 05/24/23 1	Ply Page 11 2	Russo - 023 of 57 Job Reference (optional)	R75640035
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:06

Page: 1

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Scale = 1:66.2

Plate Offsets (X, Y): [2:Edge,0-4-8], [4:0-6-0,0-1-11], [7:0-6-0,0-1-11], [9:Edge,0-4-8], [12:0-4-0,0-3-12], [16:0-4-0,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.85	Vert(LL)	0.36	13-15	>999	240	MT20 220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.93	Vert(CT)	-1.06	13-15	>383	180	M18AHS 169/162
BCLL	0.0*	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.24	9	n/a	n/a	
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 393 lb FT = 20%

- LUMBER**
- TOP CHORD 2X4 DF No.1&Btr G *Except* 4-7:2X6 DF SS G
- BOT CHORD 2X6 DF SS G
- WEBS 2X4 DF Std G
- WEDGE Left: 2x4 DF Std G
Right: 2x4 DF Std G
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins, except 2-0-0 oc purlins (4-7-12 max.): 4-7.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=60 (LC 7)
Max Uplift 2=-1007 (LC 8), 9=-1007 (LC 8)
Max Grav 2=4788 (LC 1), 9=4786 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/27, 2-3=-11469/2242,
3-4=-12362/2546, 4-5=-11668/2429,
5-6=-14587/3024, 6-7=-11665/2428,
7-8=-12358/2545, 8-9=-11463/2241,
9-10=0/27
- BOT CHORD 2-17=-1997/10560, 16-17=-1997/10560,
15-16=-2867/14587, 13-15=-2863/14562,
12-13=-2863/14562, 11-12=-1996/10554,
9-11=-1996/10554
- WEBS 3-17=-41/121, 3-16=-367/1530,
4-16=-595/3151, 5-16=-3529/699,
5-15=-254/1509, 6-15=-37/95,
6-13=-251/1459, 6-12=-3503/696,
7-12=-594/3145, 8-12=-366/1533,
8-11=-43/120

- 2-ply truss to be connected together with 16d (0.162"x 3.5") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc clinched, 2x6 - 2 rows staggered at 0-9-0 oc clinched.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc clinched.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.
- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1007 lb uplift at joint 2 and 1007 lb uplift at joint 9.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 178 lb down and 114 lb up at 9-11-12, and 178 lb down and 114 lb up at 24-0-4 on top chord, and 954 lb down and 167 lb up at 8-0-12, 559 lb down and 186 lb up at 10-0-12, 532 lb down and 117 lb up at 12-0-12, 536 lb down and 118 lb up at 14-0-12, 536 lb down and 119 lb up at 16-0-12, 536 lb down and 119 lb up at 17-11-4, 536 lb down and 118 lb up at 19-11-4, 532 lb down and 117 lb up at 21-11-4, and 559 lb down and 186 lb up at 23-11-4, and 954 lb down and 167 lb up at 25-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- LOAD CASE(S) Standard**
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 7-10=-70, 2-9=-20
Concentrated Loads (lb)
Vert: 14=-536 (F), 24=-954 (F), 25=-559 (F), 26=-532 (F), 27=-536 (F), 28=-536 (F), 29=-536 (F), 30=-532 (F), 31=-559 (F), 32=-954 (F)



April 10, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



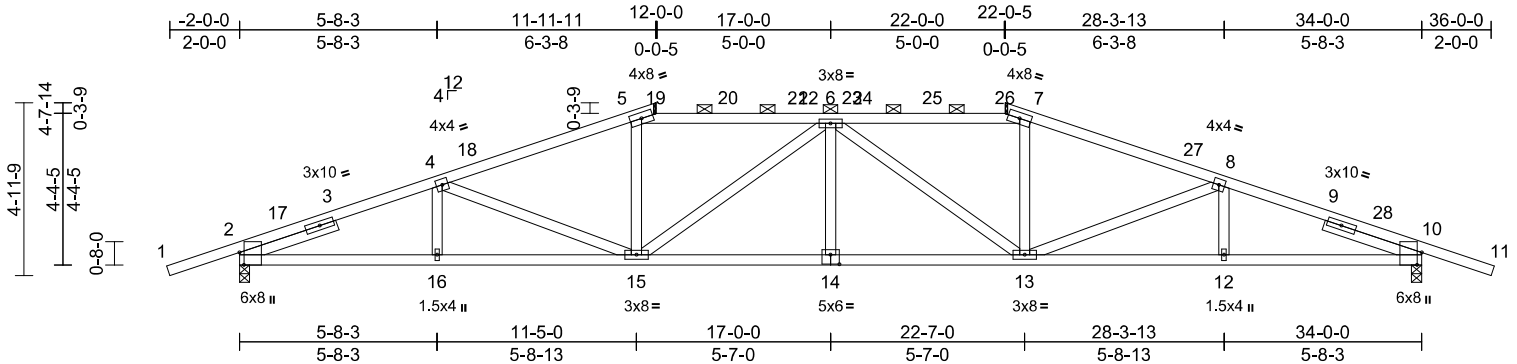
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Roseville, CA 95661

Job 230109-A	Truss A7	Truss Type BRS2200279 Truss Approved.pdf California	Qty 05/24/23 1	Ply Page 12 1	Russo - 023 of 57 Job Reference (optional)	R75640036
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:07
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Page: 1



Scale = 1:66.3

Plate Offsets (X, Y): [2:0-4-5,Edge], [10:0-4-5,Edge], [14:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.72	Vert(LL)	0.20	14	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.67	13-14	>605	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.21	10	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S								
											Weight: 163 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF Std G-- 2-11-5, Right 2x4 DF Std G-- 2-11-5

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-5-6 oc purlins, except 2-0-0 oc purlins (3-9-1 max.); 5-7.
 BOT CHORD Rigid ceiling directly applied or 7-7-12 oc bracing.

REACTIONS

(size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=-73 (LC 10)
 Max Uplift 2=-293 (LC 12), 10=-293 (LC 12)
 Max Grav 2=1673 (LC 1), 10=1673 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-3435/922, 4-5=-3064/873, 5-6=-2872/873, 6-7=-2872/873, 7-8=-3064/873, 8-10=-3435/922, 10-11=0/22
 BOT CHORD 2-16=-768/3133, 15-16=-768/3133, 13-15=-723/3209, 12-13=-768/3133, 10-12=-768/3133
 WEBS 4-16=0/207, 4-15=-338/286, 5-15=-48/518, 6-15=-546/133, 6-14=0/211, 6-13=-546/133, 7-13=-48/518, 8-13=-316/286, 8-12=0/207

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 1-4-4, Interior (1) 1-4-4 to 11-6-12, Exterior(2R) 11-6-12 to 16-4-7, Interior (1) 16-4-7 to 22-5-4, Exterior(2R) 22-5-4 to 27-2-15, Interior (1) 27-2-15 to 36-0-9 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
- Provide adequate drainage to prevent water ponding.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 293 lb uplift at joint 2 and 293 lb uplift at joint 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 223 lb down and 157 lb up at 11-11-12, 43 lb down and 83 lb up at 14-0-12, 46 lb down and 89 lb up at 16-0-12, 46 lb down and 89 lb up at 17-11-4, and 43 lb down and 83 lb up at 19-11-4, and 223 lb down and 157 lb up at 22-0-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-5=-70, 5-7=-70, 7-11=-70, 2-10=-20



April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



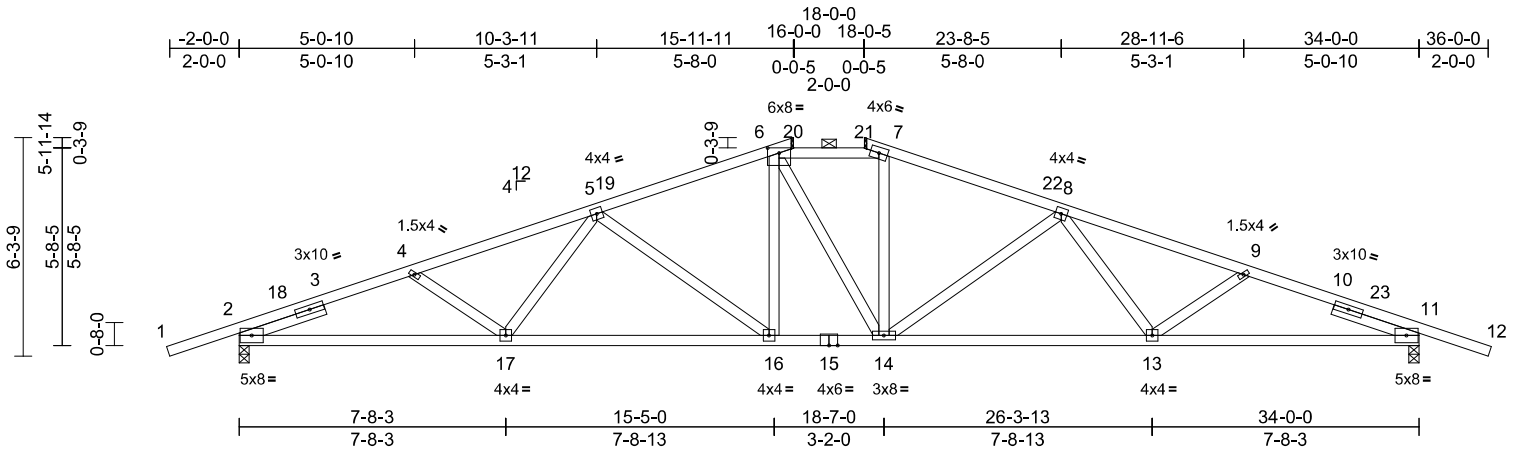
MiTek USA, Inc.
 400 Sunrise Avenue, Suite 270
 Roseville, CA 95661

Job 230109-A	Truss A9	Truss Type BRS2200279 Truss Approved.pdf California	Qty 05/24/23 1	Ply Page 14 1	Russo - 023 of 57 Job Reference (optional)	R75640038
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:08
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Page: 1



Scale = 1:66.4

Plate Offsets (X, Y): [2:0-0-5,0-3-5], [6:0-4-0,0-1-12], [11:0-0-5,0-3-5]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.72	Vert(LL)	0.19	16-17	>999	240
TCDL	15.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.68	16-17	>599	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.20	11	n/a	n/a
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S						
										Weight: 168 lb FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G
SLIDER Left 2x4 DF Std G-- 2-7-2, Right 2x4 DF Std G-- 2-7-2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-6 oc purlins, except 2-0-0 oc purlins (4-3-7 max.); 6-7.
BOT CHORD Rigid ceiling directly applied or 7-7-14 oc bracing.

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=95 (LC 11)
Max Uplift 2=-337 (LC 12), 11=-337 (LC 12)
Max Grav 2=1693 (LC 1), 11=1693 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-4=-3433/906, 4-5=-3271/870, 5-6=-2628/795, 6-7=-2443/797, 7-8=-2630/802, 8-9=-3271/876, 9-11=-3432/912, 11-12=0/22
BOT CHORD 2-17=-753/3119, 16-17=-688/2948, 14-16=-491/2441, 13-14=-696/2948, 11-13=-760/3119
WEBS 6-16=-97/489, 6-14=-155/161, 7-14=-104/475, 4-17=-106/138, 5-17=0/343, 5-16=-640/263, 8-14=-638/265, 8-13=0/342, 9-13=-89/141

NOTES
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 1-4-4, Interior (1) 1-4-4 to 15-6-12, Exterior(2E) 15-6-12 to 18-5-4, Exterior(2R) 18-5-4 to 23-2-15, Interior (1) 23-2-15 to 36-0-9 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) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 6) A plate rating reduction of 20% has been applied for the green lumber members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 337 lb uplift at joint 11 and 337 lb uplift at joint 2.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 201 lb up at 15-11-12, and 79 lb down and 201 lb up at 18-0-4 on top 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=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-6=-70, 6-7=-70, 7-12=-70, 2-11=-20
Concentrated Loads (lb)
Vert: 20=-20, 21=-20

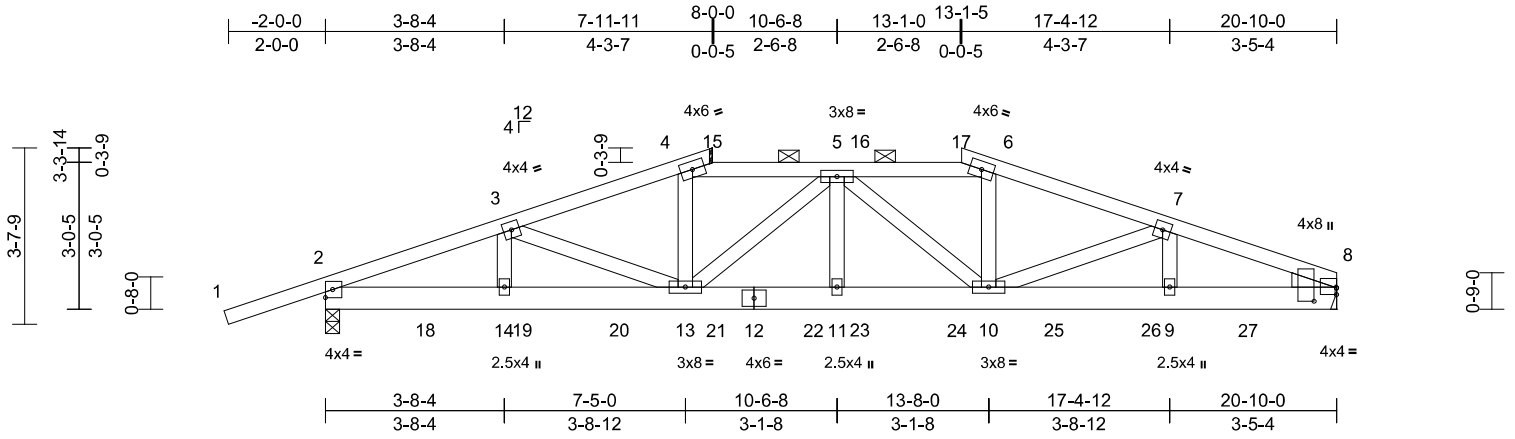


April 10, 2023

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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, 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





Scale = 1:47.5

Plate Offsets (X, Y): [8:Edge,0-1-10], [8:0-3-5,0-5-9]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	0.07	11-13	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.22	11-13	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 223 lb	FT = 20%

LUMBER
 TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X6 DF SS G
 WEBS 2X4 DF Std G
 WEDGE Right: 2x4 DF Std G

BRACING
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 8= Mechanical
 Max Horiz 2=48 (LC 7)
 Max Uplift 2=-426 (LC 8), 8=-314 (LC 8)
 Max Grav 2=2182 (LC 1), 8=2022 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/27, 2-3=-4477/725, 3-4=-4726/971, 4-5=-4466/946, 5-6=-4411/923, 6-7=-4666/947, 7-8=-4426/752
 BOT CHORD 2-14=-620/4066, 13-14=-620/4066, 11-13=-1003/5049, 10-11=-1003/5049, 9-10=-645/4005, 8-9=-645/4005
 WEBS 3-14=0/266, 3-13=-280/593, 4-13=-1/704, 5-13=-841/238, 5-11=-72/478, 5-10=-914/274, 6-10=0/673, 7-10=-250/629, 7-9=0/288

NOTES
 1) 2-ply truss to be connected together with 16d (0.162"x 3.5") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc clinched.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.

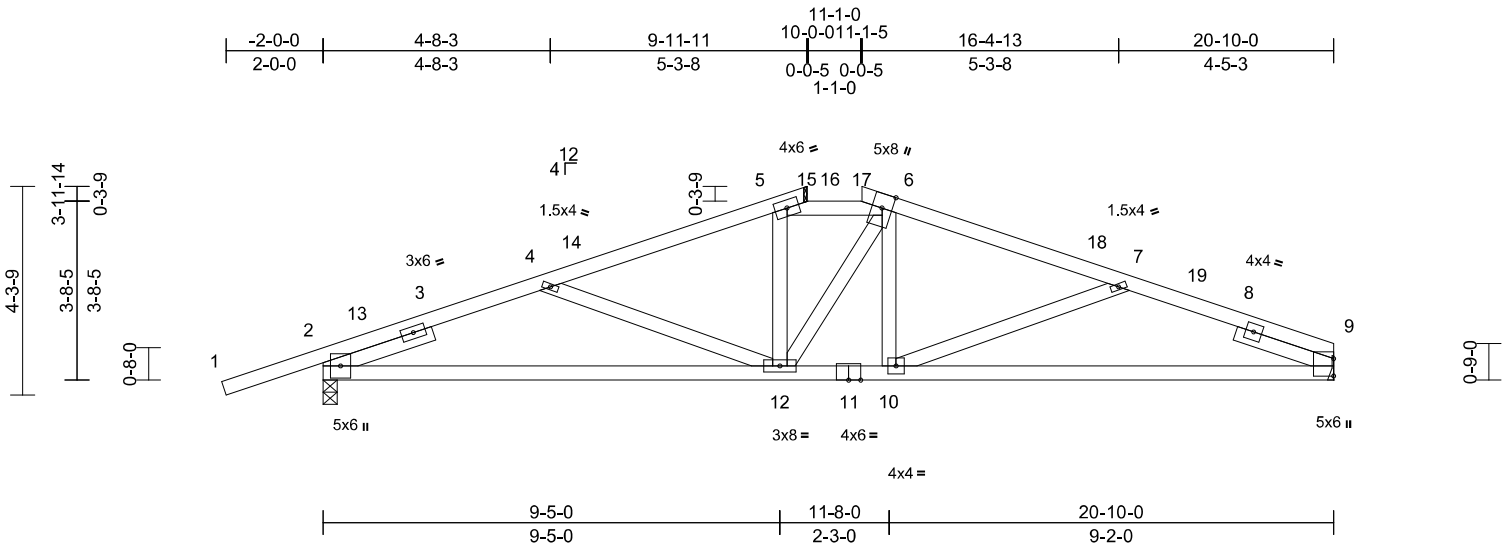
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) A plate rating reduction of 20% has been applied for the green lumber members.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 426 lb uplift at joint 2 and 314 lb uplift at joint 8.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 568 lb down and 278 lb up at 7-11-12, and 196 lb down and 123 lb up at 11-0-4, and 568 lb down and 267 lb up at 13-1-4 on top chord, and 178 lb down at 2-0-12, 90 lb down at 4-0-12, 98 lb down at 6-0-12, 119 lb down at 8-0-12, 446 lb down and 167 lb up at 10-0-12, 119 lb down at 11-0-4, 119 lb down at 13-0-4, 98 lb down at 15-0-4, and 90 lb down at 17-0-4, and 178 lb down at 19-0-4 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=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-4=-70, 4-6=-70, 6-8=-70, 2-8=-20
 Concentrated Loads (lb)
 Vert: 15=-528, 16=-196, 17=-528, 18=-63 (F), 19=-44 (F), 20=-55 (F), 21=-59 (F), 22=-442 (F), 23=-59 (F), 24=-59 (F), 25=-55 (F), 26=-44 (F), 27=-63 (F)



April 10, 2023



Scale = 1:47.5
 Plate Offsets (X, Y): [2-0-3-13, 0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.41	Vert(LL)	-0.16	2-12	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.54	2-12	>462	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 96 lb	FT = 20%

LUMBER
 TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF Std G-- 2-4-7, Right 2x4 DF Std G-- 2-1-10

BRACING
 TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins, except 2-0-0 oc purlins (5-2-5 max.); 5-6.
 BOT CHORD Rigid ceiling directly applied or 8-6-10 oc bracing.

REACTIONS (size) 2=0-3-8, 9= Mechanical
 Max Horiz 2=57 (LC 11)
 Max Uplift 2=-263 (LC 12), 9=-164 (LC 12)
 Max Grav 2=1147 (LC 1), 9=992 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-2011/705, 4-5=-1746/573, 5-6=-1627/589, 6-7=-1742/564, 7-9=-1989/675
 BOT CHORD 2-12=-592/1809, 10-12=-384/1624, 9-10=-555/1775
 WEBS 4-12=-246/279, 5-12=-59/246, 6-12=-114/129, 6-10=-29/225, 7-10=-224/282

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-11-7, Interior (1) 0-11-7 to 9-6-12, Exterior(2E) 9-6-12 to 11-6-4, Exterior(2R) 11-6-4 to 15-9-3, Interior (1) 15-9-3 to 20-10-0 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) A plate rating reduction of 20% has been applied for the green lumber members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 9 and 263 lb uplift at joint 2.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 169 lb down and 134 lb up at 9-11-12, and 88 lb down and 111 lb up at 11-1-4 on top 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=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-5=-70, 5-6=-70, 6-9=-70, 2-9=-20
 Concentrated Loads (lb)
 Vert: 15=-53, 17=-68



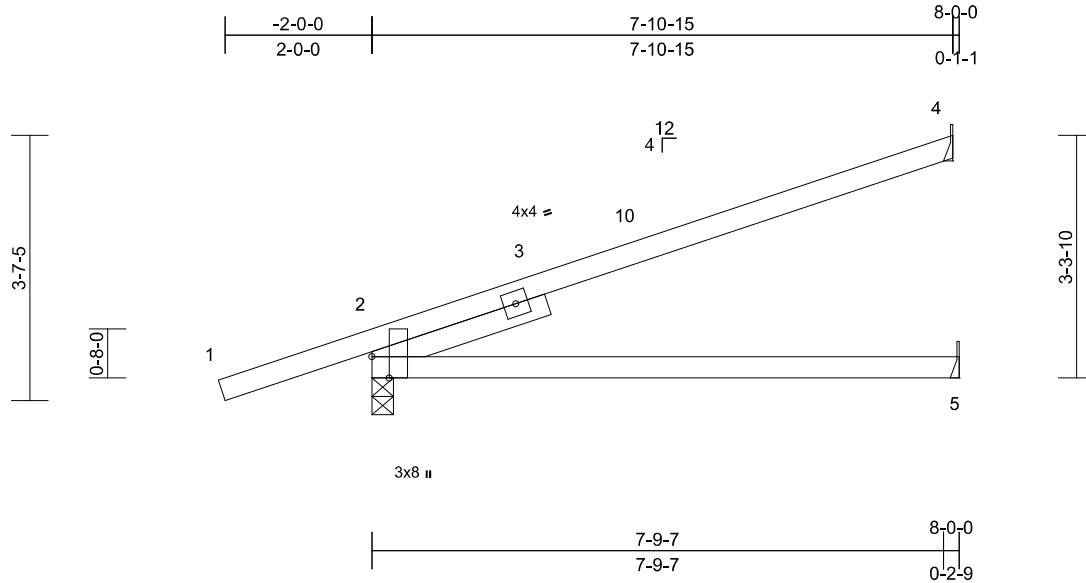
April 10, 2023

Job 230109-A	Truss J1-2-3-4	Truss Type BRS2200279 Truss Approved.pdf Jack-Open	Qty 05/24/23 3	Ply Page 18 1	Russo - 023 of 57 Job Reference (optional)	R75640042
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

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Page: 1



Scale = 1:31.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.54	Vert(LL)	0.18	5-8	>528	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.45	5-8	>210	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.07	2	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
SLIDER Left 2x4 DF Std G-- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=149 (LC 12)
Max Uplift 2=-121 (LC 12), 4=-80 (LC 12)
Max Grav 2=516 (LC 1), 4=240 (LC 1), 5=142 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/45, 2-4=-511/68
BOT CHORD 2-5=-413/290

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) -2-0-9 to
0-8-10, Interior (1) 0-8-10 to 7-10-3 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
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) A plate rating reduction of 20% has been applied for the
green lumber members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 80 lb uplift at joint
4 and 121 lb uplift at joint 2.
- 7) 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.

LOAD CASE(S) Standard



April 10, 2023

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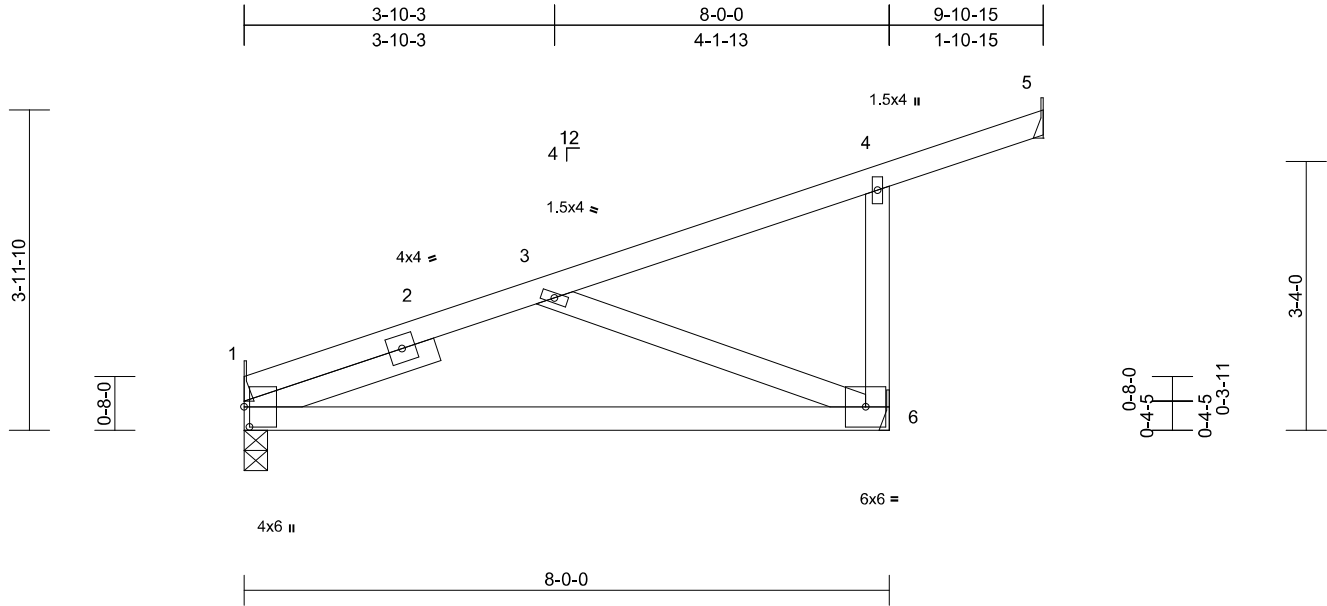
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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



Scale = 1:28.6

Plate Offsets (X, Y): [1:0-3-0,0-0-13]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.07	6-9	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.21	6-9	>459	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 38 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 1= Mechanical, 5= Mechanical, 6= Mechanical
 Max Horiz 1=157 (LC 29)
 Max Uplift 1=-763 (LC 35), 5=-31 (LC 36), 6=-164 (LC 36)
 Max Grav 1=933 (LC 44), 5=39 (LC 39), 6=477 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-1518/1371, 3-4=-1294/1182, 4-5=-36/14, 4-6=-312/386
 BOT CHORD 1-6=-1931/1953
 WEBS 3-6=-798/781

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-10-3 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 4) A plate rating reduction of 20% has been applied for the green lumber members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 763 lb uplift at joint 1, 31 lb uplift at joint 5 and 164 lb uplift at joint 6.
- 7) This truss has been designed for a total drag load of 2000 lb. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 8-0-0 for 250.0 plf.
- 8) 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.
- 9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



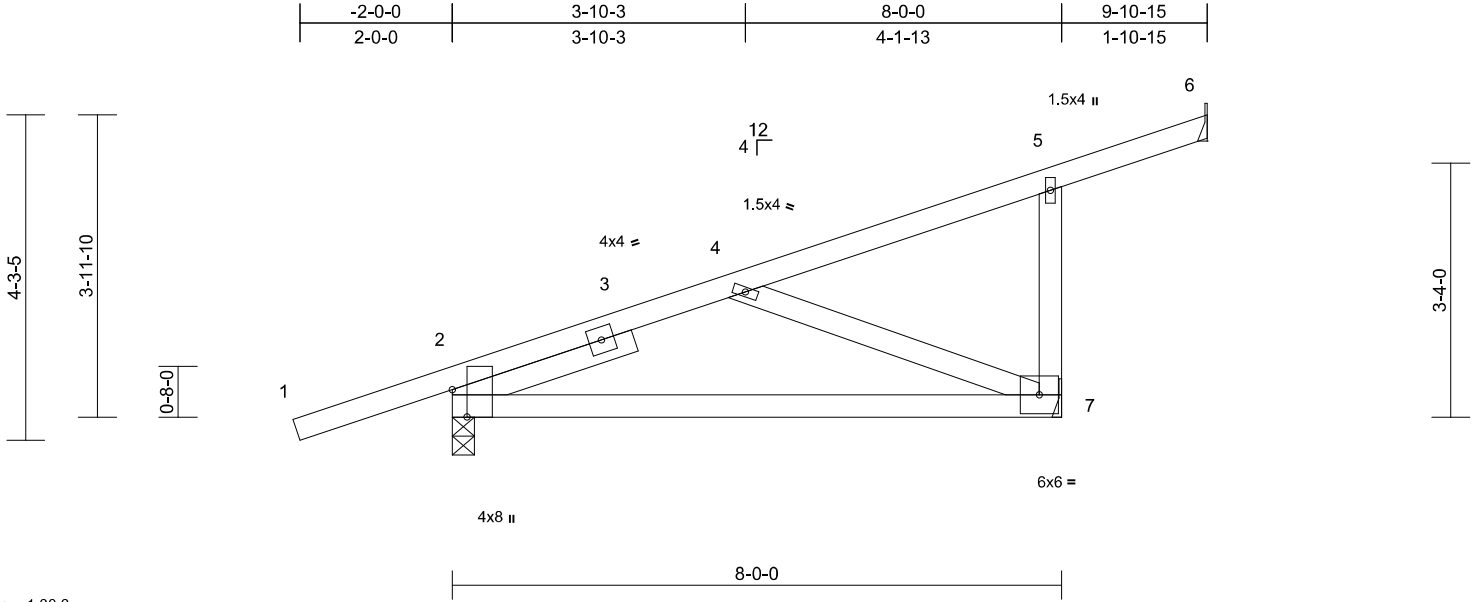
MiTek USA, Inc.
 400 Sunrise Avenue, Suite 270
 Roseville, CA 95661

Job 230109-A	Truss JD2	Truss Type BRS2200279 Truss Approved.pdf Monopitch	Qty 05/24/23 1	Ply Page 20 1	Russo - 023 of 57 Job Reference (optional)	R75640044
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:10
ID:o0NvqCYIG?miKjCl6FP3QTzSota-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f

Page: 1



Scale = 1:30.3

Plate Offsets (X, Y): [2:0-4-5,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.07	7-10	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.20	7-10	>480	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 41 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-8, 6= Mechanical, 7= Mechanical
 Max Horiz 2=171 (LC 29)
 Max Uplift 2=-864 (LC 35), 6=-29 (LC 36), 7=-155 (LC 36)
 Max Grav 2=1002 (LC 44), 6=38 (LC 39), 7=462 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/45, 2-4=-1479/1325, 4-5=-1296/1184, 5-6=-37/13, 5-7=-319/395
 BOT CHORD 2-7=-1878/1908
 WEBS 4-7=-750/725

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-8-10, Interior (1) 0-8-10 to 9-10-3 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 4) A plate rating reduction of 20% has been applied for the green lumber members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 6, 864 lb uplift at joint 2 and 155 lb uplift at joint 7.
- 7) This truss has been designed for a total drag load of 2000 lb. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 8-0-0 for 250.0 plf.
- 8) 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.

LOAD CASE(S) Standard



April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

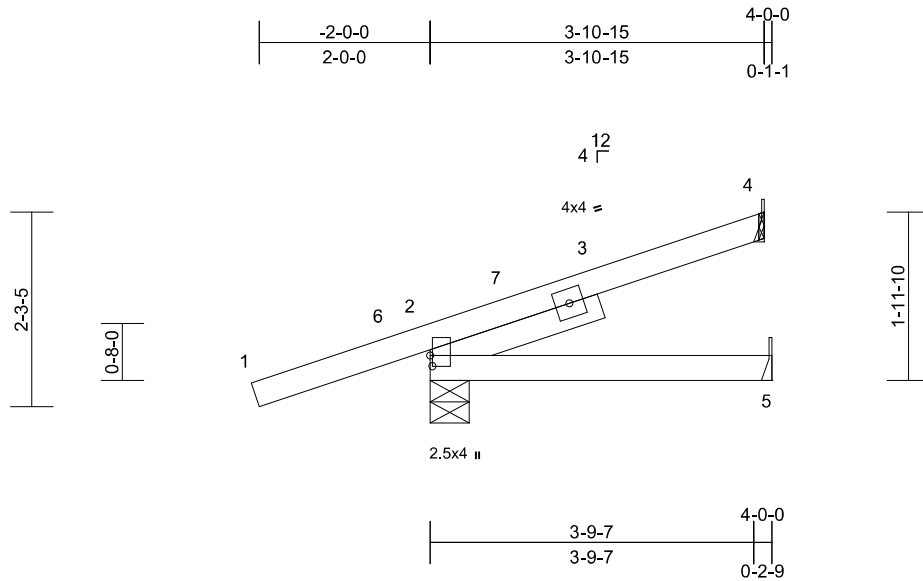
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Job 230109-A	Truss JP	Truss Type BRS2200279 Truss Approved.pdf Jack-Open	Qty 05/24/23 1	Ply Page 21 1	Russo - 023 of 57 Job Reference (optional)	R75640045
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:10
ID:w8p2c0vZiZS3C2AyXg2brzSo?c-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	-0.01	2-5	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	-0.03	2-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
SLIDER Left 2x4 DF Std G-- 2-1-0

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 4 and 121 lb uplift at joint 2.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=87 (LC 12)
Max Uplift 2=-121 (LC 12), 4=-34 (LC 12)
Max Grav 2=355 (LC 1), 4=97 (LC 1), 5=79 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-4=-84/41
BOT CHORD 2-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-11-7, Interior (1) 0-11-7 to 3-10-3 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) A plate rating reduction of 20% has been applied for the green lumber members.
- 5) Refer to girder(s) for truss to truss connections.



April 10, 2023

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



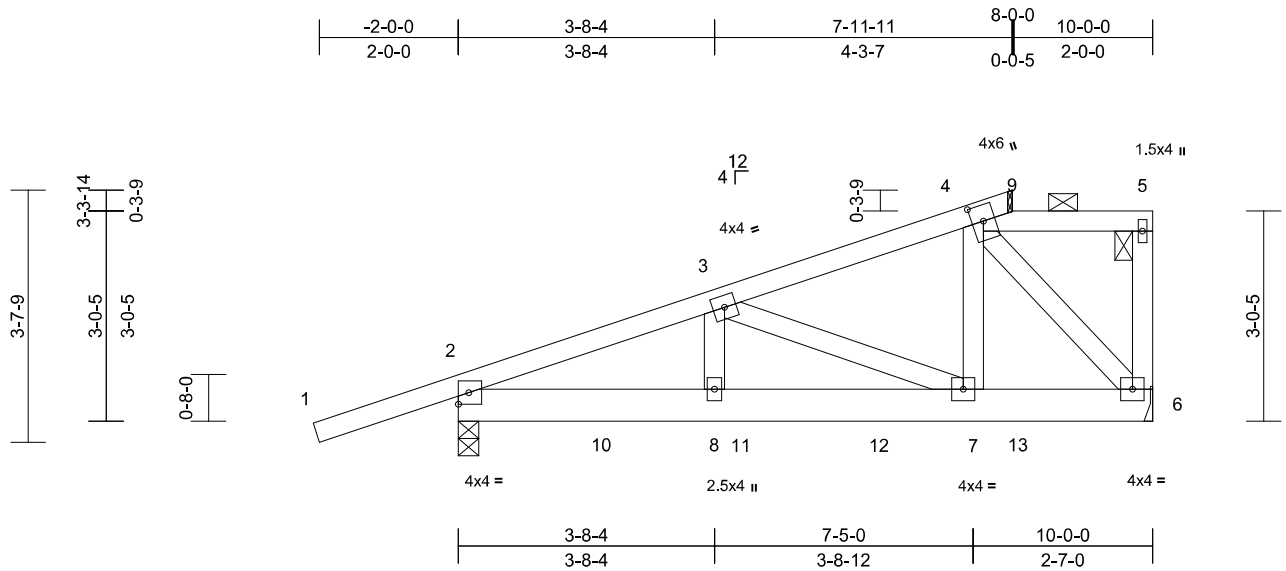
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss M1	Truss Type BRS2200279 Truss Approved.pdf Roof Special Girder	Qty 05/24/23 2	Ply Page 22 1	Russo - 023 of 57 Job Reference (optional)	R75640046
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:11
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Page: 1



Scale = 1:33.2

Plate Offsets (X, Y): [4:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	0.01	7-8	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.05	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X6 DF SS G
WEBS 2X4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 6= Mechanical
Max Horiz 2=133 (LC 25)
Max Uplift 2=-127 (LC 8), 6=-155 (LC 8)
Max Grav 2=812 (LC 1), 6=974 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-1171/0, 3-4=-773/80, 4-5=-22/6, 5-6=-176/73
BOT CHORD 2-8=-44/1029, 7-8=-44/1029, 6-7=-97/689
WEBS 3-8=0/314, 3-7=-439/0, 4-7=0/495, 4-6=-1021/141

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) A plate rating reduction of 20% has been applied for the green lumber members.

- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 6 and 127 lb uplift at joint 2.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 568 lb down and 249 lb up at 7-11-12 on top chord, and 75 lb down at 2-0-12, 119 lb down at 4-0-12, and 119 lb down at 6-0-12, and 102 lb down at 8-0-12 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-528, 10=-37 (B), 11=-59 (B), 12=-59 (B), 13=-75 (B)



April 10, 2023

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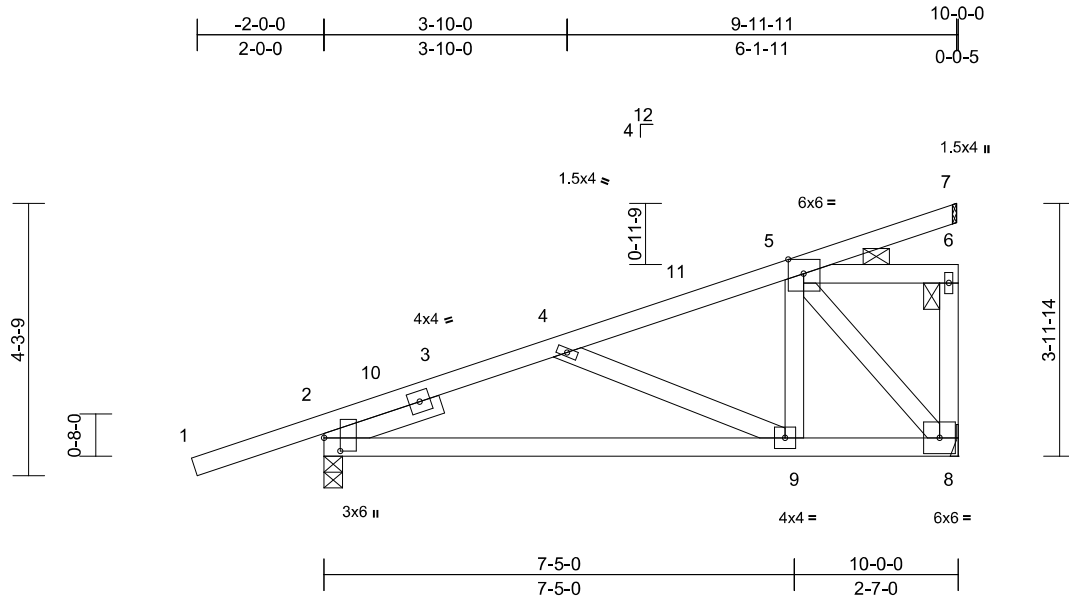
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss M2	Truss Type BRS2200279 Truss Approved.pdf Jack-Closed	Qty 05/24/23 2	Ply Page 23 1	Russo - 023 of 57 Job Reference (optional)	R75640047
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:11
ID:ramsuO_5W3r8rM_EQ8UKlkzT4dC-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDcoi7J4zJC?f

Page: 1



Scale = 1:36.3
Plate Offsets (X, Y): [2:0-2-8,0-3-1], [5:0-2-15,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.56	Vert(LL)	-0.06	2-9	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.28	Vert(CT)	-0.18	2-9	>653	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G
SLIDER Left 2x4 DF Std G-- 1-11-2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins: 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS
1 Brace at Jt(s): 6

REACTIONS (size) 2=0-3-8, 8= Mechanical
Max Horiz 2=191 (LC 12)
Max Uplift 2=-130 (LC 12), 8=-174 (LC 12)
Max Grav 2=620 (LC 1), 8=579 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-4=-712/241, 4-5=-460/141, 5-7=-62/0, 5-6=0/0
BOT CHORD 2-9=-407/591, 8-9=-349/412
WEBS 5-9=0/305, 4-9=-286/156, 6-8=-93/158, 5-8=-642/544

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 6) A plate rating reduction of 20% has been applied for the green lumber members.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 2 and 174 lb uplift at joint 8.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-11-7, Interior (1) 0-11-7 to 9-11-11, Exterior(2E) 7-6-12 to 9-10-4 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) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



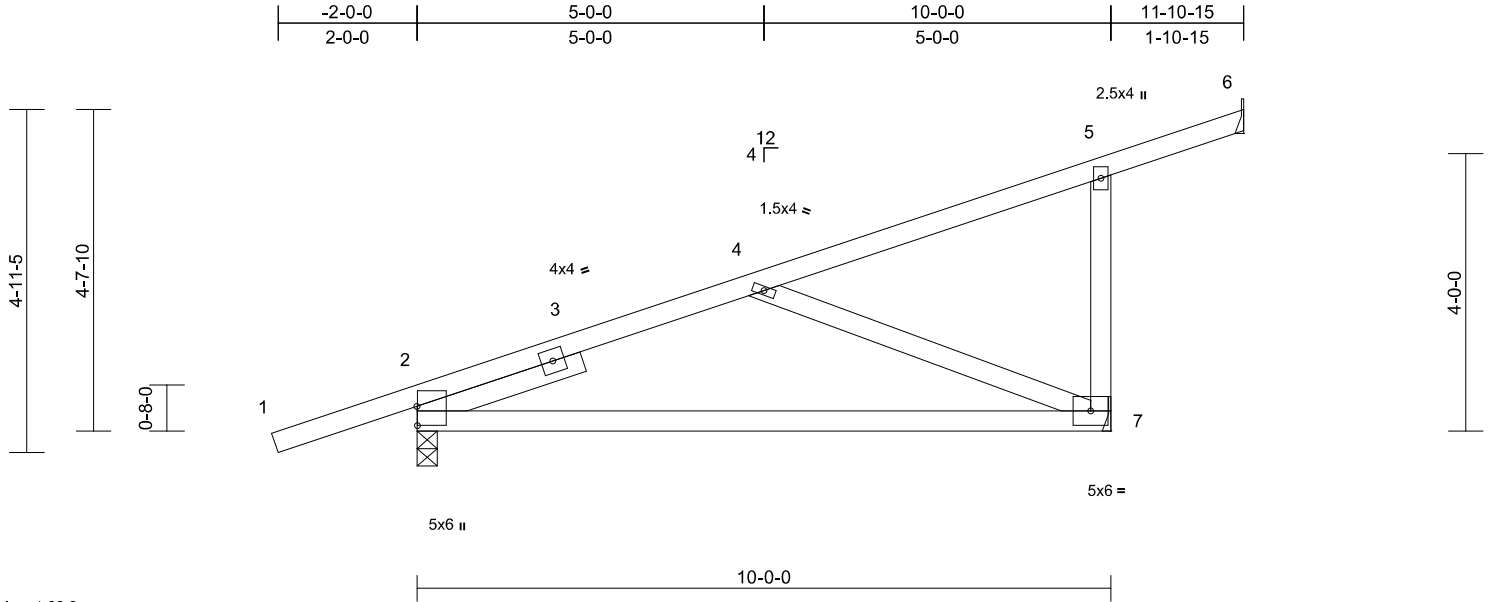
April 10, 2023

Job 230109-A	Truss M3	Truss Type BRS2200279 Truss Approved.pdf Monopitch	Qty 05/24/23 2	Ply Page 24 1	Russo - 023 of 57 Job Reference (optional)	R75640048
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:11
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Page: 1



Scale = 1:33.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.76	Vert(LL)	-0.14	7-10	>874	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.40	7-10	>294	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 49 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-8, 6= Mechanical, 7= Mechanical
 Max Horiz 2=204 (LC 9)
 Max Uplift 2=-133 (LC 12), 6=-6 (LC 12), 7=-105 (LC 12)
 Max Grav 2=592 (LC 1), 6=34 (LC 3), 7=552 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/45, 2-4=-921/229, 4-5=-200/103, 5-6=-36/11, 5-7=-280/306
 BOT CHORD 2-7=-410/556
 WEBS 4-7=-521/394

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-8-10, Interior (1) 0-8-10 to 11-10-3 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 4) A plate rating reduction of 20% has been applied for the green lumber members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 6, 133 lb uplift at joint 2 and 105 lb uplift at joint 7.
- 7) 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.

LOAD CASE(S) Standard



April 10, 2023

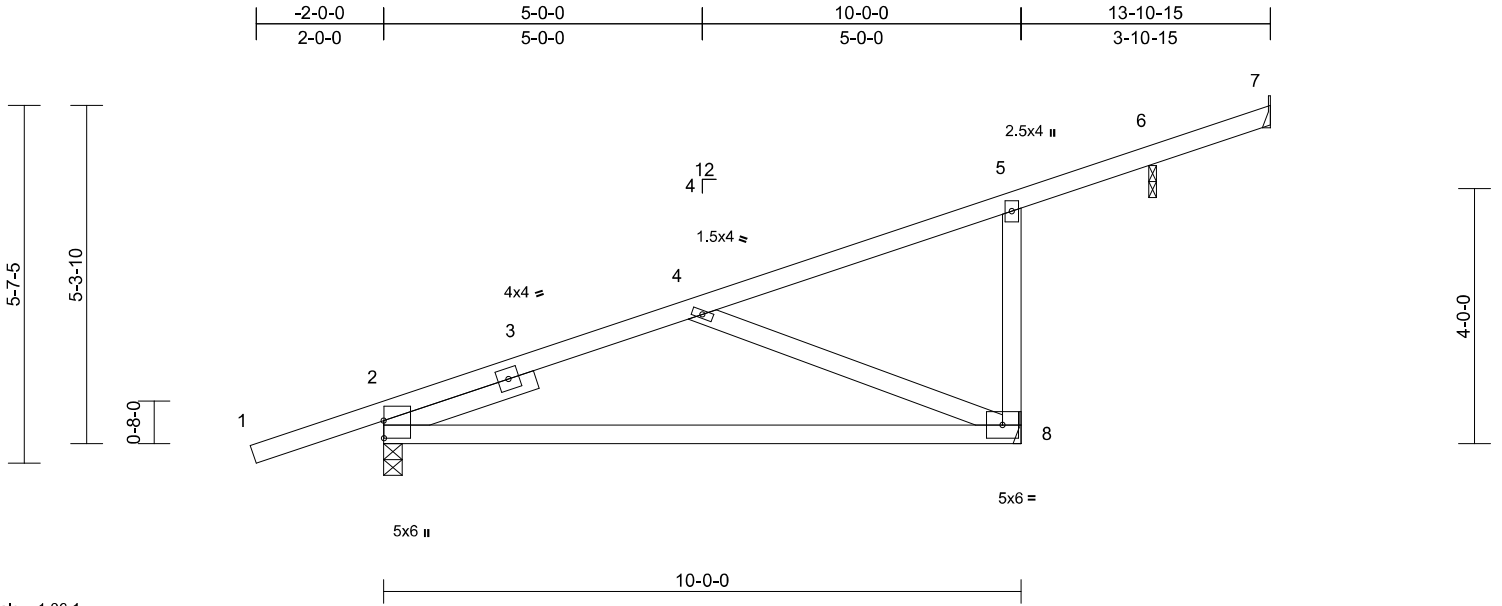
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



Scale = 1:36.1
Plate Offsets (X, Y): [2:0-3-5,0-0-1]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.75	Vert(LL)	-0.14	8-11	>874	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.40	8-11	>293	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 51 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G
SLIDER Left 2x4 DF No.1&Btr G-- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-8, 6=0-1-8, 7= Mechanical, 8= Mechanical
Max Horiz 2=224 (LC 9)
Max Uplift 2=-123 (LC 12), 6=-36 (LC 12), 7=-25 (LC 12), 8=-106 (LC 12)
Max Grav 2=592 (LC 1), 6=99 (LC 1), 7=63 (LC 1), 8=556 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-921/184, 4-5=-249/122, 5-6=-66/31, 6-7=-26/16, 5-8=-284/304
BOT CHORD 2-8=-417/558
WEBS 4-8=-521/400

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-8-10, Interior (1) 0-8-10 to 13-10-3 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
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 4) A plate rating reduction of 20% has been applied for the green lumber members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 7, 123 lb uplift at joint 2, 106 lb uplift at joint 8 and 36 lb uplift at joint 6.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.
- 9) 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.

LOAD CASE(S) Standard



April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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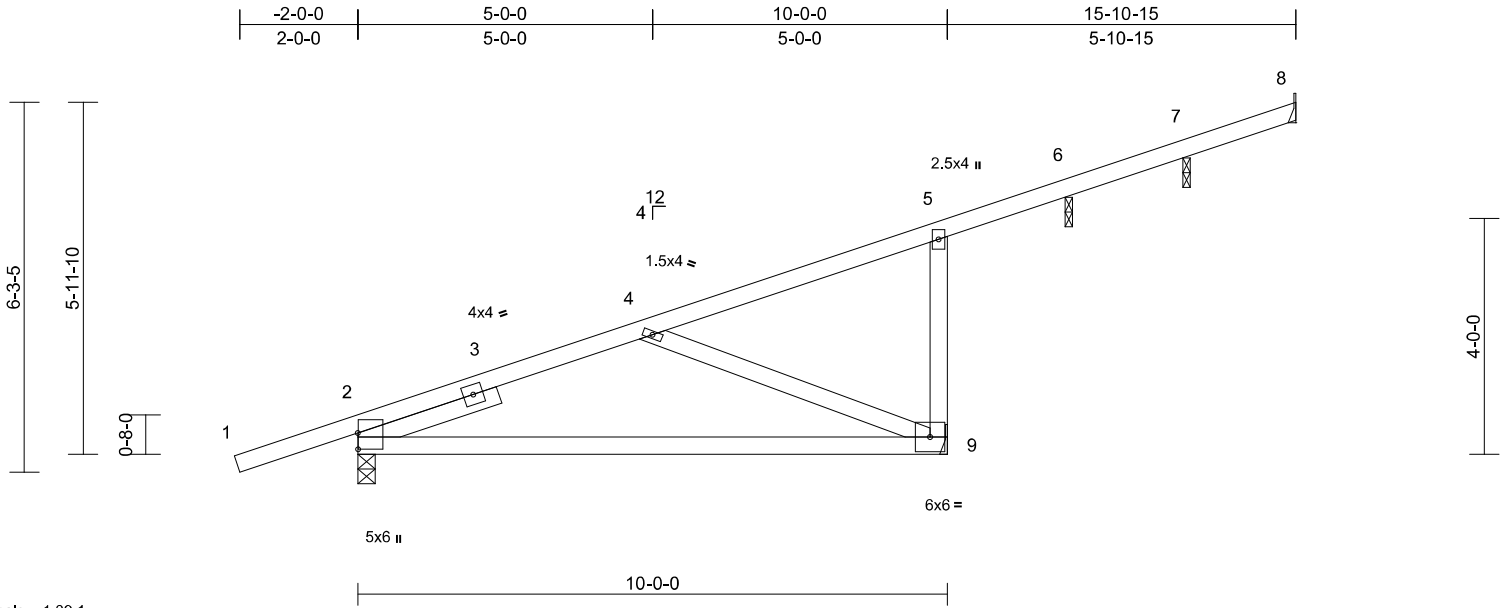


Job 230109-A	Truss M5	Truss Type BRS2200279 Truss Approved.pdf Monopitch	Qty 05/24/23 2	Ply Page 26 1	Russo - 023 of 57 Job Reference (optional)	R75640050
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:12
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Page: 1



Scale = 1:39.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.75	Vert(LL)	-0.14	9-12	>874	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.40	9-12	>293	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-AS							Weight: 54 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 WEBS 2X4 DF Std G
 SLIDER Left 2x4 DF No.1&Btr G-- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-8, 6=0-1-8, 7=0-1-8, 8= Mechanical, 9= Mechanical
 Max Horiz 2=243 (LC 9)
 Max Uplift 2=-113 (LC 12), 6=-39 (LC 12), 7=-52 (LC 12), 8=-25 (LC 12), 9=-107 (LC 12)
 Max Grav 2=592 (LC 1), 6=106 (LC 1), 7=133 (LC 1), 8=63 (LC 1), 9=556 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/45, 2-4=-921/140, 4-5=-299/142, 5-6=-116/51, 6-7=-74/35, 7-8=-26/16, 5-9=-284/302
 BOT CHORD 2-9=-436/560
 WEBS 4-9=-521/407

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft;
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
 MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-8-10, Interior (1) 0-8-10 to 15-10-3 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) A plate rating reduction of 20% has been applied for the green lumber members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6, 7.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 8, 113 lb uplift at joint 2, 107 lb uplift at joint 9, 39 lb uplift at joint 6 and 52 lb uplift at joint 7.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 7.
- 9) 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.

LOAD CASE(S) Standard



April 10, 2023

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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, 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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 Roseville, CA 95661

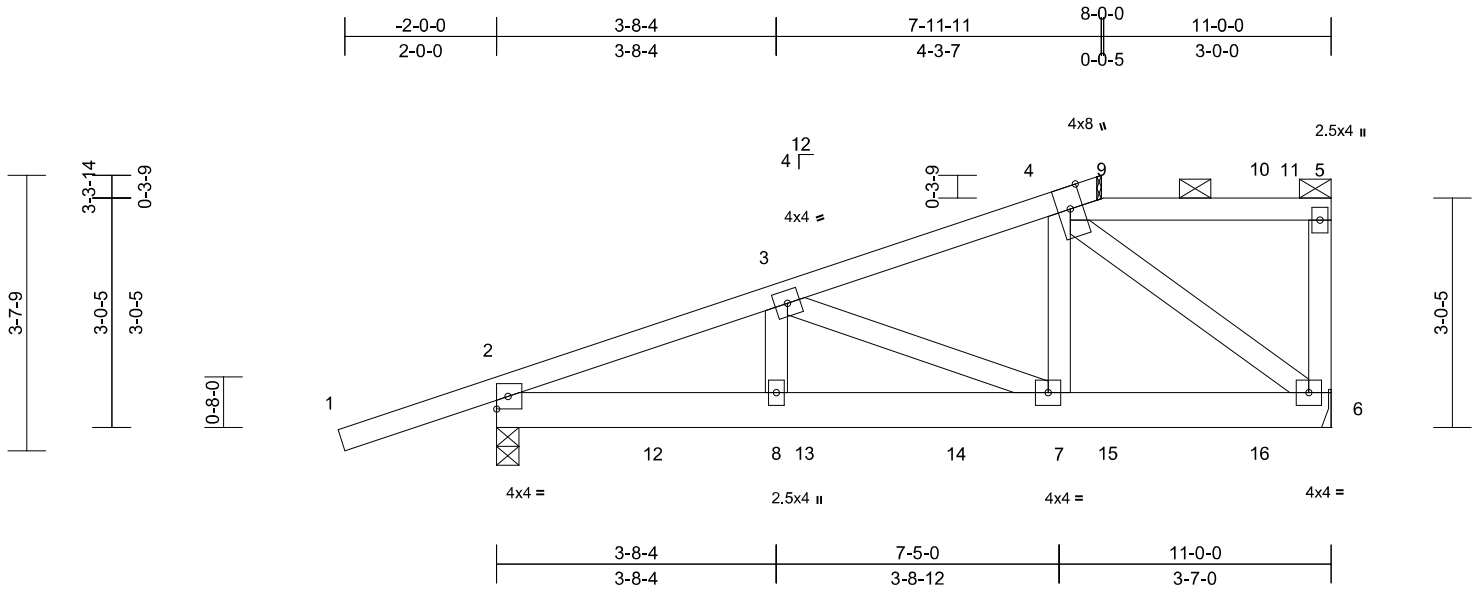
Job 230109-A	Truss M6	Truss Type BRS2200279 Truss Approved.pdf Roof Special Girder	Qty 05/24/23 1	Ply Page 27 1	Russo - 023 of 57 Job Reference (optional)	R75640051
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:12

Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.41	Vert(LL)	0.02	7-8	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X6 DF SS G
WEBS 2X4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=140 (LC 24)
Max Uplift 2=-158 (LC 8), 6=-195 (LC 8)
Max Grav 2=927 (LC 1), 6=1219 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-1448/58, 3-4=-1118/170, 4-5=-76/54, 5-6=-343/135
BOT CHORD 2-8=-80/1282, 7-8=-80/1282, 6-7=-162/1023
WEBS 3-8=0/299, 3-7=-368/7, 4-7=0/529, 4-6=-1255/170

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 6) A plate rating reduction of 20% has been applied for the green lumber members.

- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 6 and 158 lb uplift at joint 2.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 569 lb down and 255 lb up at 7-11-12, and 208 lb down and 119 lb up at 10-0-12 on top chord, and 75 lb down at 2-0-12, 119 lb down at 4-0-12, 119 lb down at 6-0-12, and 102 lb down at 8-0-12, and 123 lb down at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-529, 10=-208, 12=-37 (B), 13=-59 (B), 14=-59 (B), 15=-75 (B), 16=-61 (B)



April 10, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



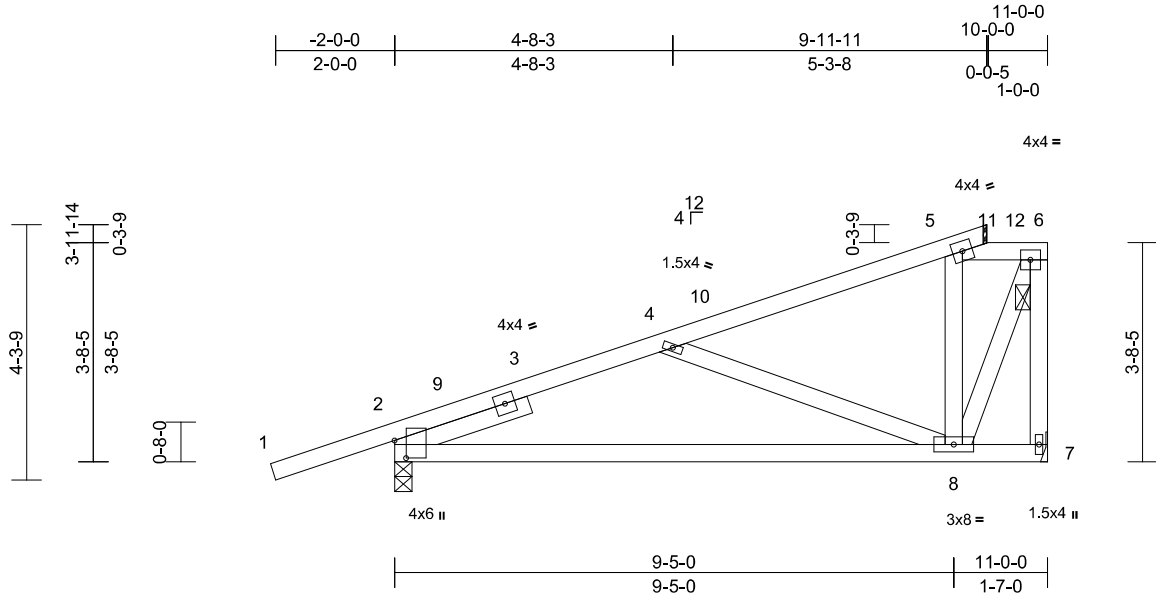
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss M7	Truss Type BRS2200279 Truss Approved.pdf Roof Special	Qty 05/24/23 1	Ply Page 28 1	Russo - 023 of 57 Job Reference (optional)	R75640052
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

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Page: 1



Scale = 1:38.8

Plate Offsets (X, Y): [2:0-3-9,0-2-5]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	-0.14	2-8	>950	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.42	2-8	>311	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 57 lb	FT = 20%

LUMBER

- TOP CHORD 2X4 DF No.1&Btr G
- BOT CHORD 2X4 DF No.1&Btr G
- WEBS 2X4 DF Std G
- SLIDER Left 2x4 DF No.1&Btr G-- 2-4-7

BRACING

- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
- BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

- (size) 2=0-3-8, 7= Mechanical
- Max Horiz 2=176 (LC 9)
- Max Uplift 2=-155 (LC 12), 7=-78 (LC 12)
- Max Grav 2=647 (LC 1), 7=501 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/22, 2-4=-771/289, 4-5=-305/93, 5-6=-283/126, 6-7=-586/217
- BOT CHORD 2-8=-528/654, 7-8=-76/81
- WEBS 4-8=-442/405, 5-8=-218/281, 6-8=-280/636

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-11-7, Interior (1) 0-11-7 to 9-6-12, Exterior(2E) 9-6-12 to 10-10-4 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
- Provide adequate drainage to prevent water ponding.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 7 and 155 lb uplift at joint 2.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 107 lb up at 9-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-5=-70, 5-6=-70, 2-7=-20
Concentrated Loads (lb)
Vert: 11=-29



April 10, 2023

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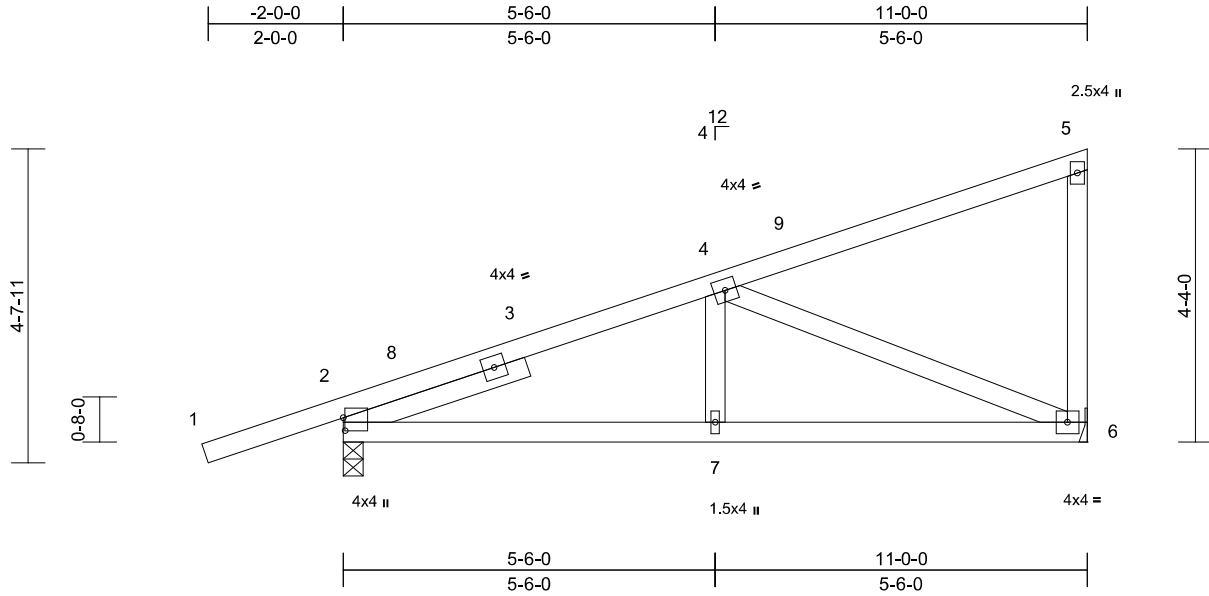
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Roseville, CA 95661

Job 230109-A	Truss M8	Truss Type BRS2200279 Truss Approved.pdf Jack-Closed	Qty 05/24/23 1	Ply Page 29 1	Russo - 023 of 57 Job Reference (optional)	R75640053
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

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Page: 1



Scale = 1:34.1

Plate Offsets (X, Y): [2:0-2-5,0-0-5]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	-0.02	6-7	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.20	Vert(CT)	-0.06	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G
SLIDER Left 2x4 DF Std G-- 2-10-2

- 5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 6 and 152 lb uplift at joint 2.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=205 (LC 9)
Max Uplift 2=-152 (LC 12), 6=-57 (LC 12)
Max Grav 2=645 (LC 1), 6=475 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-4=-788/209, 4-5=-136/91, 5-6=-162/194
BOT CHORD 2-7=-424/677, 6-7=-424/677
WEBS 4-7=0/243, 4-6=-691/378

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=9.0psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-11-7, Interior (1) 0-11-7 to 10-10-4 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) A plate rating reduction of 20% has been applied for the green lumber members.



April 10, 2023

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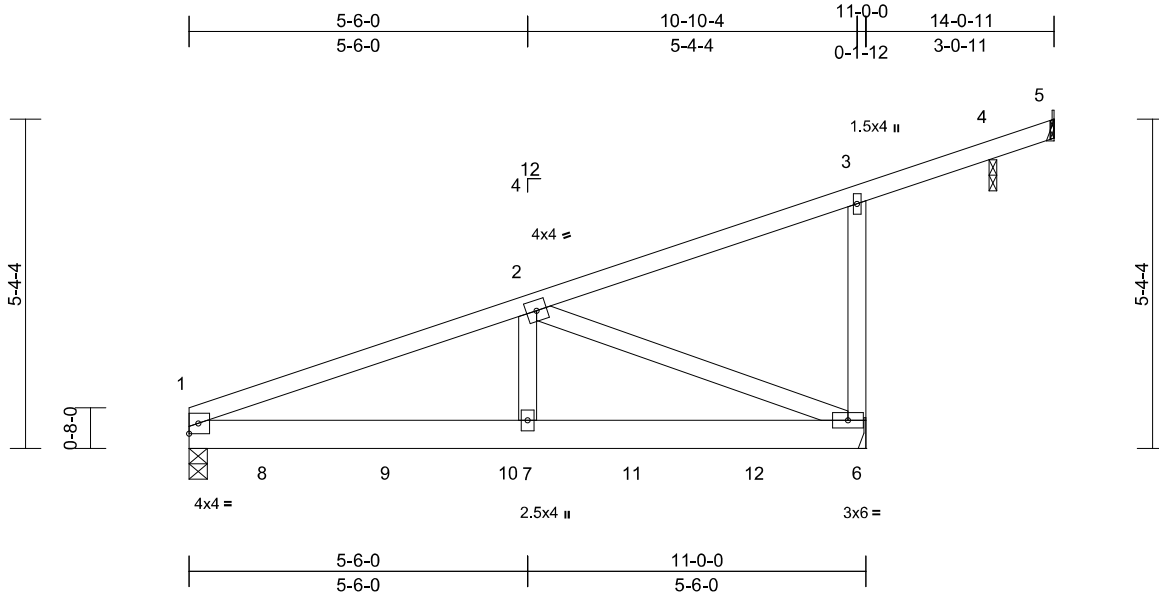
Job 230109-A	Truss M9	Truss Type BRS2200279 Truss Approved.pdf Jack-Closed Girder	Qty 05/24/23 1	Ply Page 30 2	Russo - 023 of 57 Job Reference (optional)	R75640054
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 E Dec 22 2022 Print: 8.630 E Dec 22 2022 MiTek Industries, Inc. Mon Apr 10 13:46:07

Page: 1

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Scale = 1:37.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TOP CHORD	20.0	Plate Grip DOL	1.25	TC	0.38	Vert(LL)	-0.02	1-7	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	-0.07	1-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-S								
											Weight: 116 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X6 DF SS G
 WEBS 2X4 DF Std G *Except* 6-2:2X4 DF No.1&Btr G

BRACING

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.

REACTIONS

All bearings 0-1-8. except 1=0-3-8, 4=0-1-8
 (lb) - Max Horiz 1=203 (LC 8)
 Max Uplift All uplift 100 (lb) or less at joint(s) 1, 4, 5 except 6=177 (LC 8)
 Max Grav All reactions 250 (lb) or less at joint (s) 4, 5 except 1=1660 (LC 1), 6=1400 (LC 1)

FORCES

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

TOP CHORD 1-2=-2215/4
 BOT CHORD 1-8=-149/2018, 8-9=-149/2018, 9-10=-149/2018, 7-10=-149/2018, 7-11=-149/2018, 11-12=-149/2018, 6-12=-149/2018

WEBS 3-6=-329/119, 2-7=0/1189, 2-6=-2170/161

NOTES

- 2-ply truss to be connected together with 16d (0.162"x 3.5") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc clinched.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc clinched.
- 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.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=9.0psf; BCCL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- N/A
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 4 except (jt=lb) 6=176.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4.

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 305 lb down and 8 lb up at 0-1-12 on top chord, and 343 lb down at 1-2-4, 337 lb down and 85 lb up at 3-2-4, 332 lb down at 5-2-4, and 332 lb down at 7-2-4, and 302 lb down and 37 lb up at 9-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-5=-70, 1-6=-20
 Concentrated Loads (lb)
 Vert: 1=-305 (F), 8=-343 (F), 9=-337 (F), 10=-332 (F), 11=-332 (F), 12=-302 (F)



April 10, 2023

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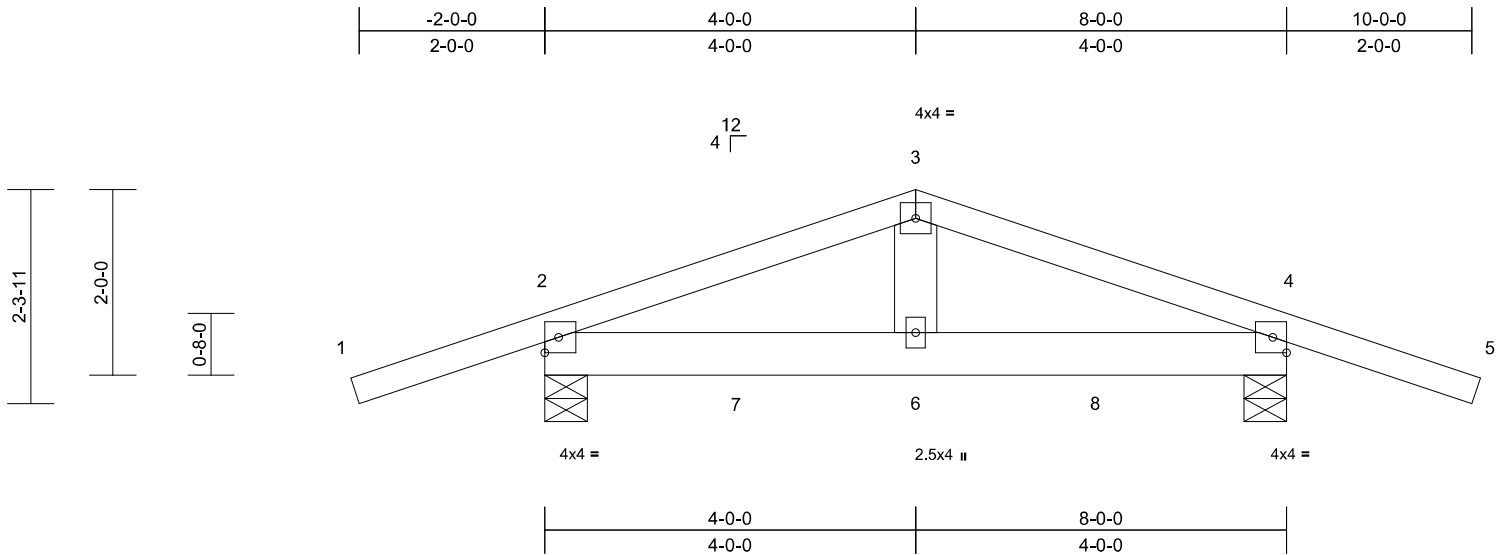
MiTek USA, Inc.
 400 Sunrise Avenue, Suite 270
 Roseville, CA 95661

Job 230109-A	Truss P1	Truss Type BRS2200279 Truss Approved.pdf Common Girder	Qty 05/24/23 1	Ply Page 31 1	Russo - 023 of 57 Job Reference (optional)	R75640055
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:13
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.27	Vert(LL)	0.00	2-6	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	-0.01	2-6	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 37 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X6 DF SS G
WEBS 2X6 DF SS G

BRACING
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.

REACTIONS (size) 2=0-5-8, 4=0-5-8
Max Horiz 2=30 (LC 7)
Max Uplift 2=-123 (LC 8), 4=-123 (LC 8)
Max Grav 2=529 (LC 1), 4=529 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-452/0, 3-4=-452/0, 4-5=0/27
BOT CHORD 2-6=0/387, 4-6=0/387
WEBS 3-6=0/260

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 41 lb down at 2-0-12, and 39 lb down at 4-0-0, and 41 lb down at 5-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 2-4=-20
Concentrated Loads (lb)
Vert: 6=-19 (F), 7=-20 (F), 8=-20 (F)

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - A plate rating reduction of 20% has been applied for the green lumber members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 2 and 123 lb uplift at joint 4.



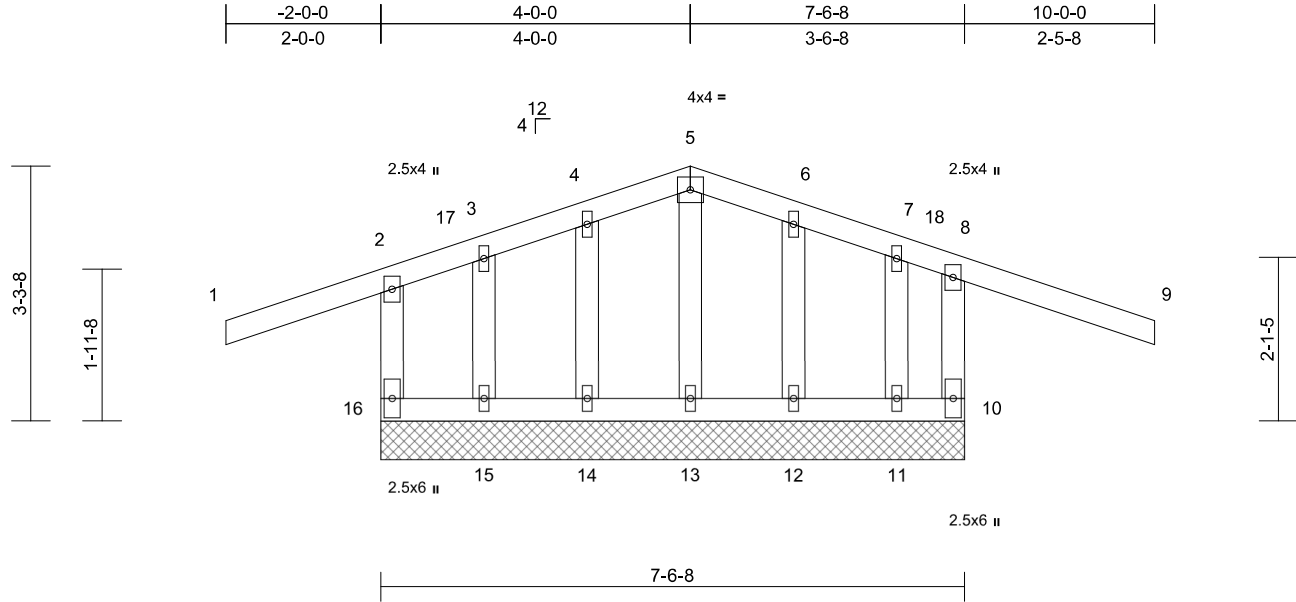
April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Roseville, CA 95661



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-R							Weight: 47 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G
OTHERS 2X4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size)
10=7-6-8, 11=7-6-8, 12=7-6-8, 13=7-6-8, 14=7-6-8, 15=7-6-8, 16=7-6-8
Max Horiz 16=113 (LC 11)
Max Uplift 10=306 (LC 12), 11=173 (LC 24), 12=13 (LC 12), 14=-29 (LC 12), 15=35 (LC 11), 16=-198 (LC 12)
Max Grav 10=469 (LC 24), 11=174 (LC 9), 12=128 (LC 24), 13=131 (LC 1), 14=146 (LC 23), 15=101 (LC 10), 16=310 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-303/445, 1-2=0/48, 2-3=-29/140, 3-4=-20/111, 4-5=-39/163, 5-6=-39/157, 6-7=-22/110, 7-8=-69/204, 8-9=0/58, 8-10=-468/682
BOT CHORD 15-16=-108/125, 14-15=-108/125, 13-14=-108/125, 12-13=-108/125, 11-12=-108/125, 10-11=-108/125
WEBS 5-13=-104/22, 4-14=-120/163, 3-15=-116/48, 6-12=-101/152, 7-11=-325/200

NOTES
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=9.0psf; BCCL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 4-0-0, Exterior(2R) 4-0-0 to 7-0-0, Interior (1) 7-0-0 to 10-0-0 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) 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.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1-4-0 oc.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) A plate rating reduction of 20% has been applied for the green lumber members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 198 lb uplift at joint 16, 306 lb uplift at joint 10, 29 lb uplift at joint 14, 35 lb uplift at joint 15, 13 lb uplift at joint 12 and 173 lb uplift at joint 11.

LOAD CASE(S) Standard



April 10, 2023

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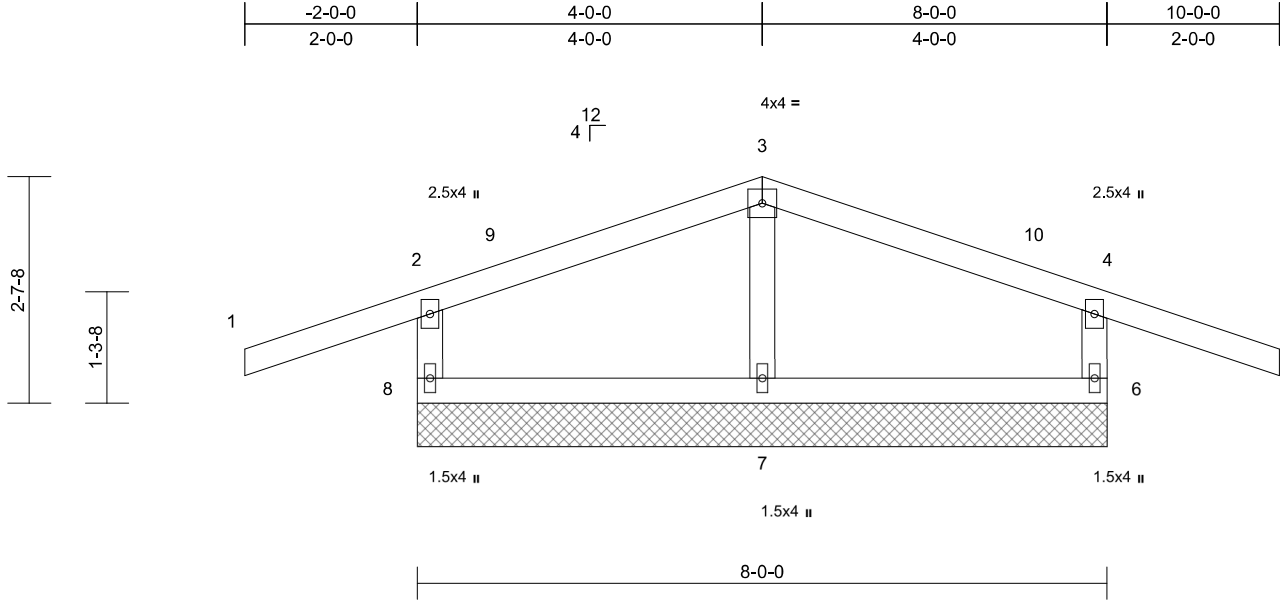
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss P3	Truss Type BRS2200279 Truss Approved.pdf Valley	Qty 05/24/23 1	Ply Page 33 1	Russo - 023 of 57 Job Reference (optional)	R75640057
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:14
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-R							Weight: 33 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G
OTHERS 2X4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 6=8-0-0, 7=8-0-0, 8=8-0-0
Max Horiz 8=78 (LC 11)
Max Uplift 6=-146 (LC 12), 8=-146 (LC 12)
Max Grav 6=342 (LC 24), 7=326 (LC 1), 8=342 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-310/387, 1-2=0/48, 2-3=-76/129, 3-4=-79/127, 4-5=0/48, 4-6=-310/386
BOT CHORD 7-8=-39/91, 6-7=-39/91
WEBS 3-7=-235/200

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 4-0-0, Exterior(2R) 4-0-0 to 7-0-0, Interior (1) 7-0-0 to 10-0-0 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
- 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.
- Gable requires continuous bottom chord bearing.

- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 4-0-0 oc.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 8 and 146 lb uplift at joint 6.

LOAD CASE(S) Standard



April 10, 2023

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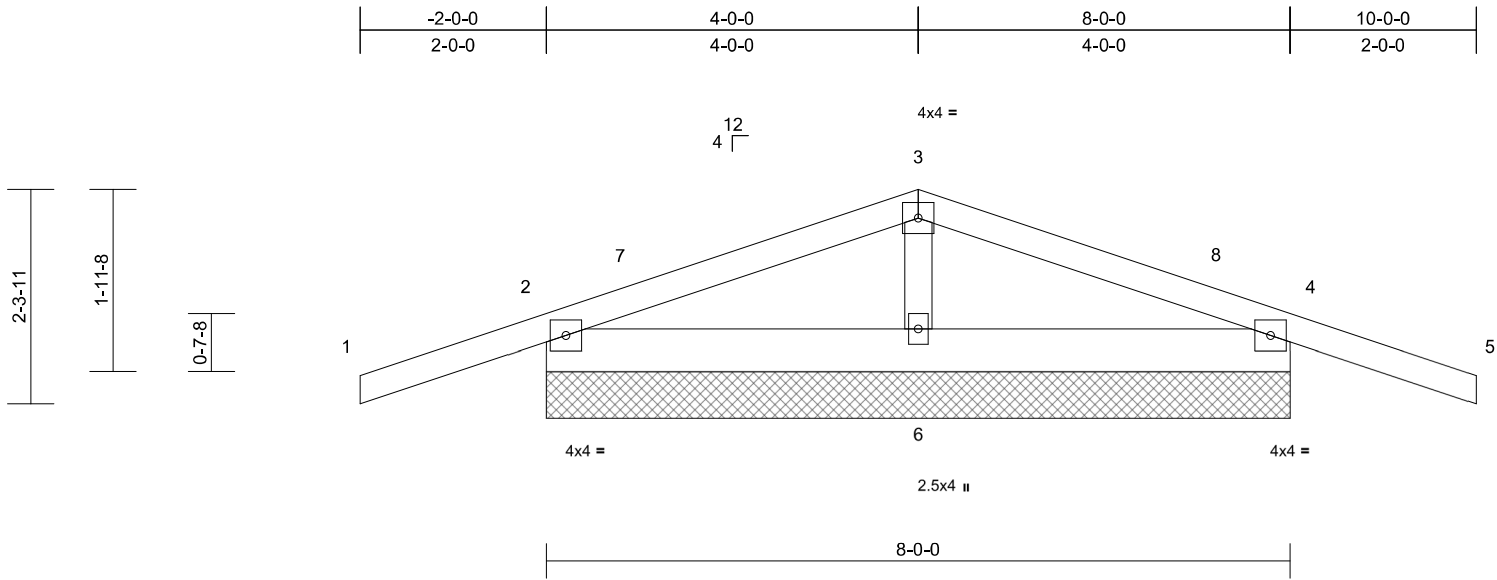
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss P4	Truss Type BRS2200279 Truss Approved.pdf Valley	Qty 05/24/23 1	Ply Page 34 1	Russo - 023 of 57 Job Reference (optional)	R75640058
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X6 DF SS G
OTHERS 2X4 DF Std G

BRACING
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.

REACTIONS (size) 2=8-0-0, 4=8-0-0, 6=8-0-0
Max Horiz 2=30 (LC 11)
Max Uplift 2=-146 (LC 12), 4=-146 (LC 12)
Max Grav 2=350 (LC 1), 4=350 (LC 1), 6=299 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-79/95, 3-4=-79/88, 4-5=0/29
BOT CHORD 2-6=-6/70, 4-6=-6/70
WEBS 3-6=-199/212

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 4-0-0, Exterior(2R) 4-0-0 to 7-0-0, Interior (1) 7-0-0 to 10-0-0 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) 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.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 4-0-0 oc.

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) A plate rating reduction of 20% has been applied for the green lumber members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 2 and 146 lb uplift at joint 4.

LOAD CASE(S) Standard



April 10, 2023

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



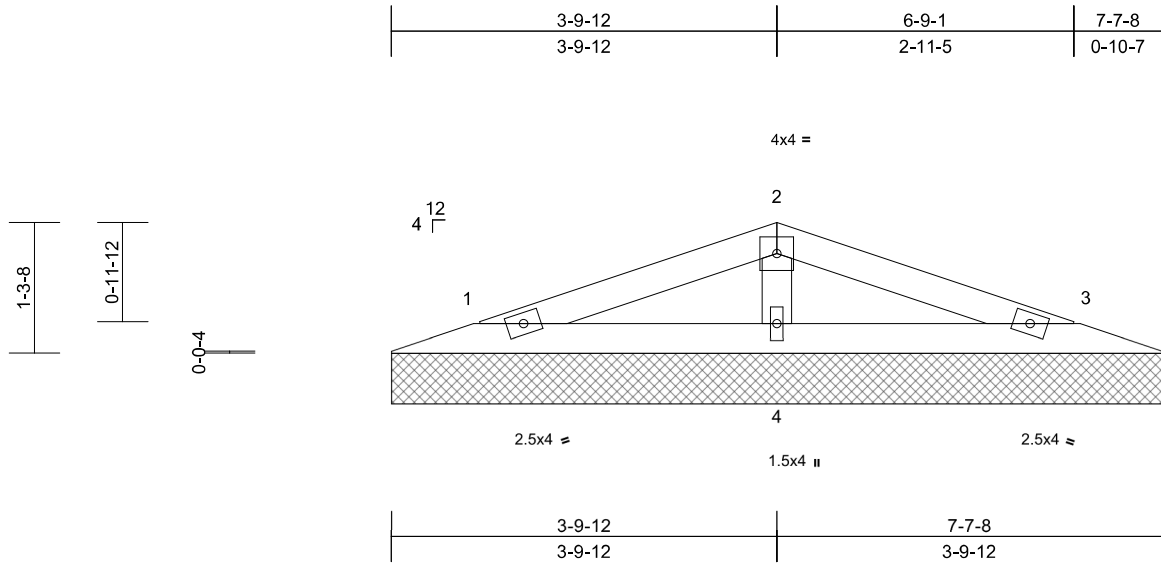
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss P5	Truss Type BRS2200279 Truss Approved.pdf Valley	Qty 05/24/23 1	Ply Page 35 1	Russo - 023 of 57 Job Reference (optional)	R75640059
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

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Page: 1



Scale = 1:22.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 20 lb	FT = 20%

LUMBER

TOP CHORD 2X4 DF No.1&Btr G
BOT CHORD 2X4 DF No.1&Btr G
WEBS 2X4 DF Std G

BRACING

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.

REACTIONS

(size) 1=7-7-8, 3=7-7-8, 4=7-7-8
Max Horiz 1=-15 (LC 10)
Max Uplift 1=-25 (LC 12), 3=-25 (LC 12), 4=-14 (LC 12)
Max Grav 1=129 (LC 1), 3=129 (LC 1), 4=270 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-40/42, 2-3=-40/48
BOT CHORD 1-4=0/15, 3-4=0/15
WEBS 2-4=-196/228

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 25 lb uplift at joint 3 and 14 lb uplift at joint 4.

LOAD CASE(S) Standard



April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



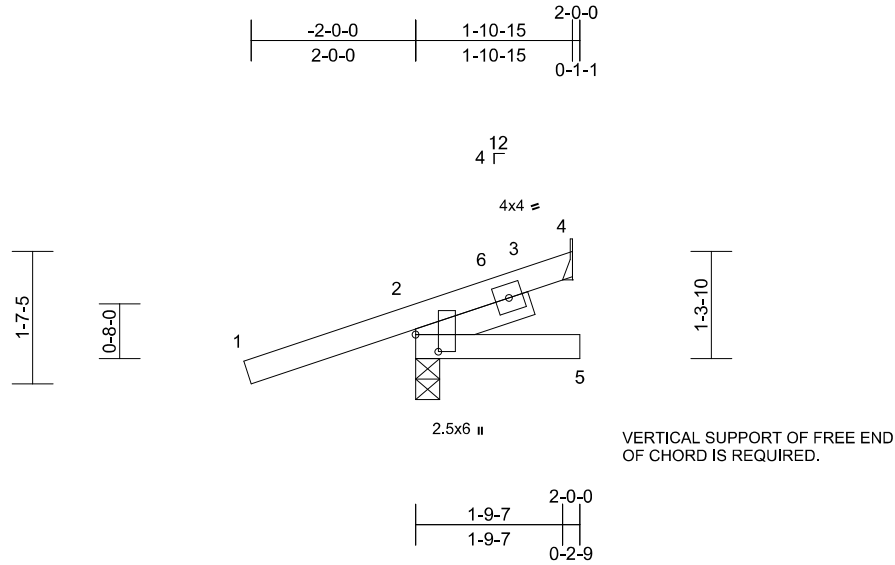
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job 230109-A	Truss SJ	Truss Type BRS2200279 Truss Approved.pdf Jack-Open	Qty 05/24/23 1	Ply Page 36 1	Russo - 023 of 57 Job Reference (optional)	R75640060
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Brown & Honeycutt Truss Systems, Hesperia, CA - 92345,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Sat Apr 08 12:22:15
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Page: 1



Scale = 1:28

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	-0.01	5	>999	240	MT20	220/195
TCDL	15.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	-0.02	5	>981	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%

LUMBER
 TOP CHORD 2X4 DF No.1&Btr G
 BOT CHORD 2X4 DF No.1&Btr G
 SLIDER Left 2x4 DF Std G-- 1-5-8

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 2 and 1 lb uplift at joint 4.

LOAD CASE(S) Standard

BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4= Mechanical
 Max Horiz 2=60 (LC 12)
 Max Uplift 2=-139 (LC 12), 4=-1 (LC 9)
 Max Grav 2=306 (LC 1), 4=38 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-64/29
 BOT CHORD 2-5=0/0

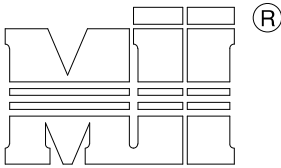
- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TC DL=9.0psf; BC DL=6.0psf; h=25ft;
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
 MWFRS (directional) and C-C Exterior(2E) -2-0-9 to 0-11-7, Interior (1) 0-11-7 to 1-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 4) A plate rating reduction of 20% has been applied for the green lumber members.
 - 5) Refer to girder(s) for truss to truss connections.



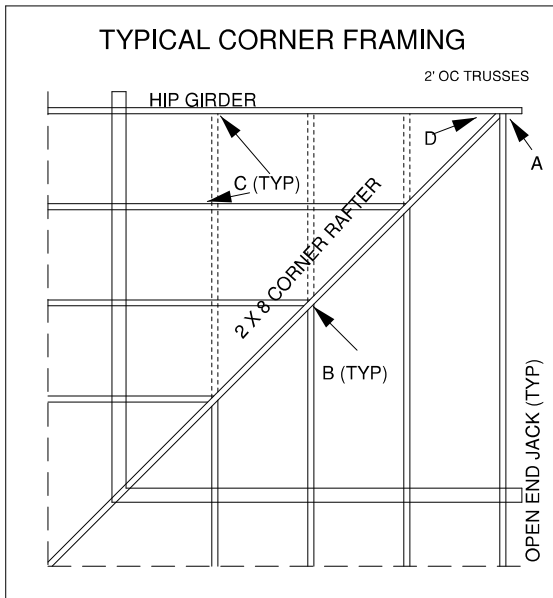
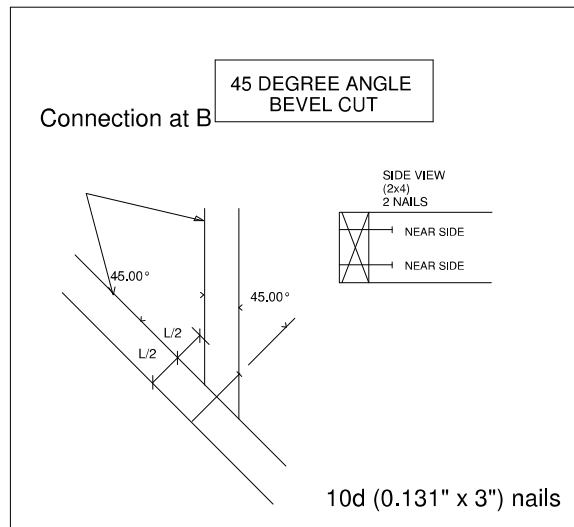
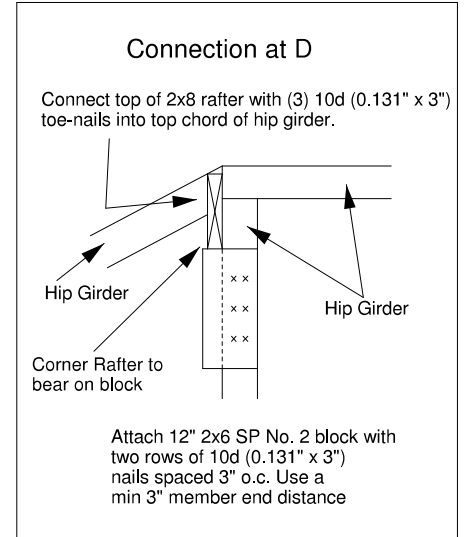
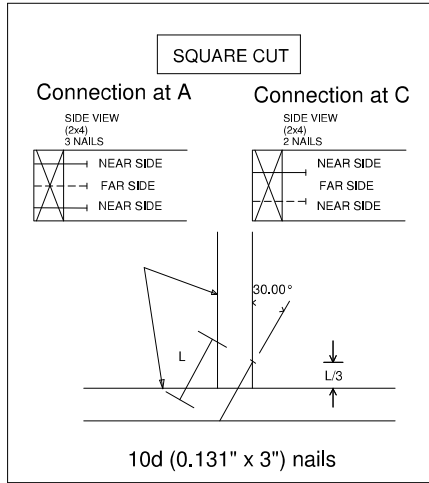
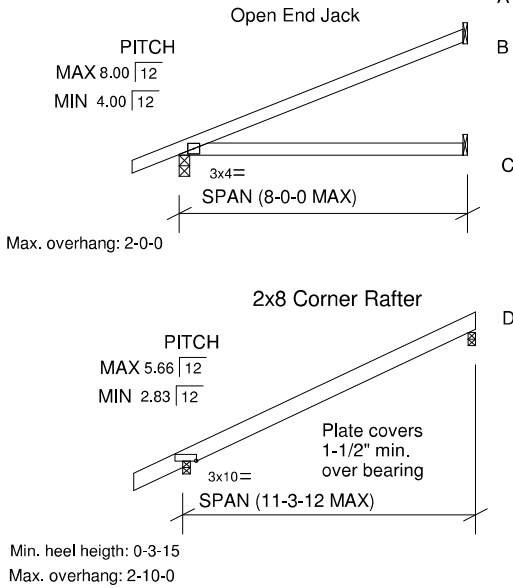
April 10, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





MiTek USA, Inc.
ENGINEERED BY
TRENCO
A MiTek Affiliate



Wind loading: ASCE 7-98, ASCE 7-02, ASCE 7-05 - 90 MPH.
ASCE 7-10, ASCE 7-16 - 115 MPH
Exposure category B or C.
Occupancy category II
4.8 psf top chord dead load.
4.2 psf bottom chord dead load.
25' roof height.
MWFRS gable end zone.
Enclosed building (Cond. I)
Duration of load is 1.60

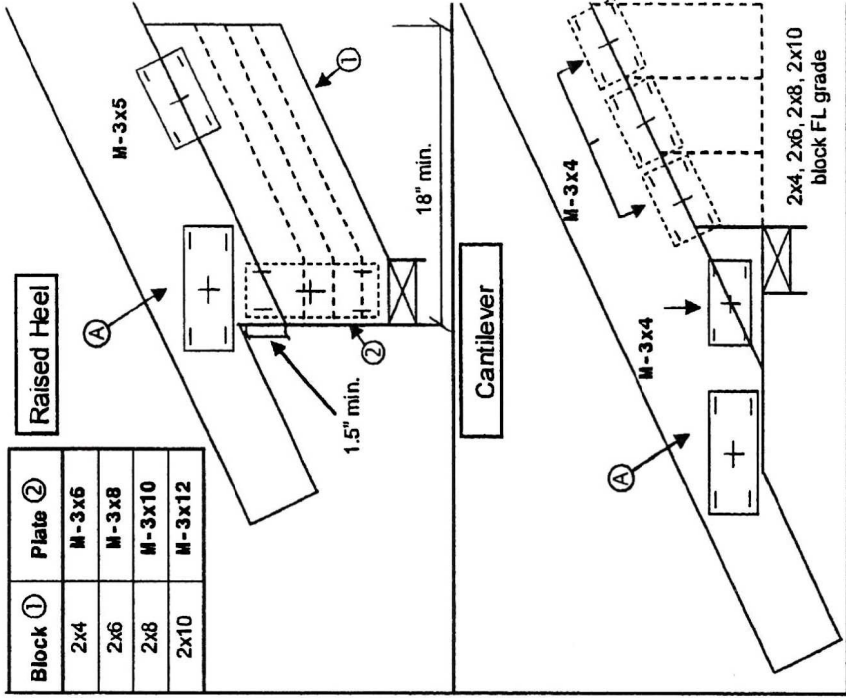
Deflection: Top chord LL- L/180 TL- L/120
Bottom chord LL- I/180 TL- L/120
Truss LL- L/240 TL- L/180

Lumber: SPF MSR 2100 1.8E min. top chord required for top chord slopes between 5.01/12 and 8/12.
SPF No. 2 min. top chord slopes between 5/12 and 4/12.
SPF No. 2 min. bottom chord.
SP No. 2 or better for corner rafter.

Loading: Duration of load is 1.25
20 psf top chord live load
8 psf top chord dead load
0 psf bottom chord live load
7 psf bottom chord dead load
10 psf non-concurrent bottom chord live load

Plates: All plates are MT20 installed on each face per TPI 1.

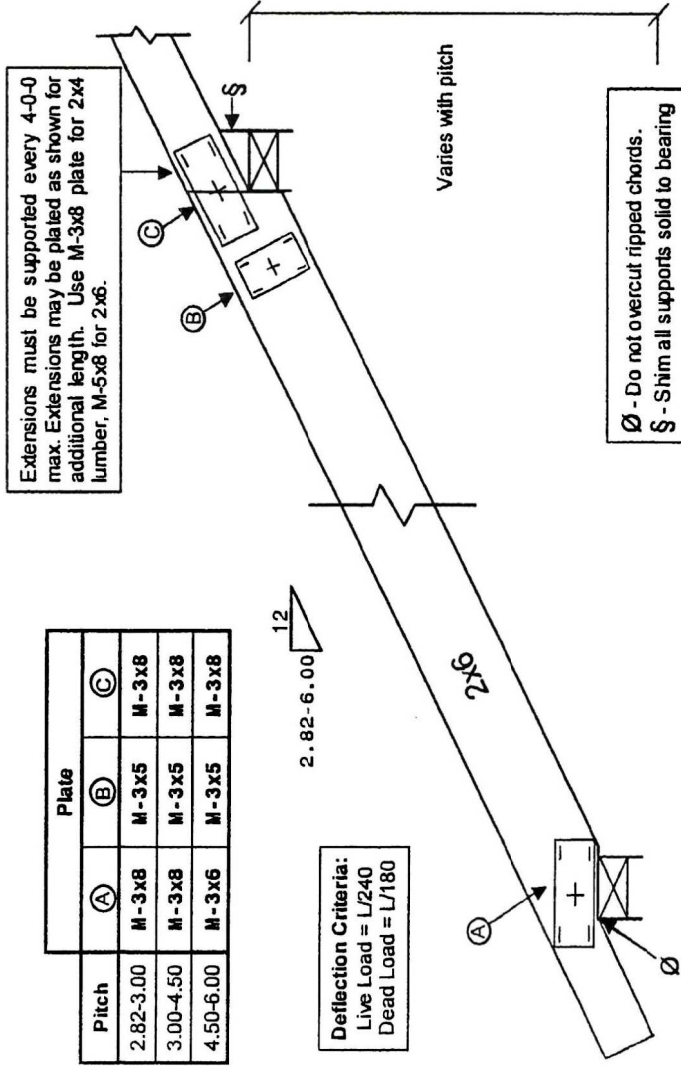
Conforms to: IRC 2000/2003/2006/2009/2012/2015/2018
IBC 2000/2003/2006/2009/2012/2015/2018



Block ①	Plate ②
2x4	M-3x6
2x6	M-3x8
2x8	M-3x10
2x10	M-3x12

Lumber Grades	TC LL/DL	Max Setback	TC LL/DL	Max Setback
SPF1650F(1.5E)	207 = 27#	*8-8-0	2014 = 34#	*8-0-0
SPF2100F(1.8E)	207 = 27#	*8-10-0	2014 = 34#	*8-4-0

* Note: Max Setback is from inside of bearings.



Pitch	Plate		
	(A)	(B)	(C)
2.82-3.00	M-3x8	M-3x5	M-3x8
3.00-4.50	M-3x8	M-3x5	M-3x8
4.50-6.00	M-3x6	M-3x5	M-3x8

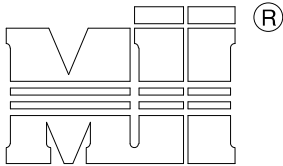
Deflection Criteria:
 Live Load = L/240
 Dead Load = L/180

R = 347# max. W = 1.5" min. ← over 2 supports → R = 694# max. W = 1.5" min.

TYPICAL "R"

FILE NO: Hip Rafter-2x6(1.25)
 DATE:
 SEQ: 2787668
 IBC 2009/CBC 2010

Note:
 Conventional framing is not the responsibility of the truss designer, plate manufacturer nor the truss fabricator. Framers erecting trusses are cautioned to seek the advice of a local, professional engineer regarding conventional framing.

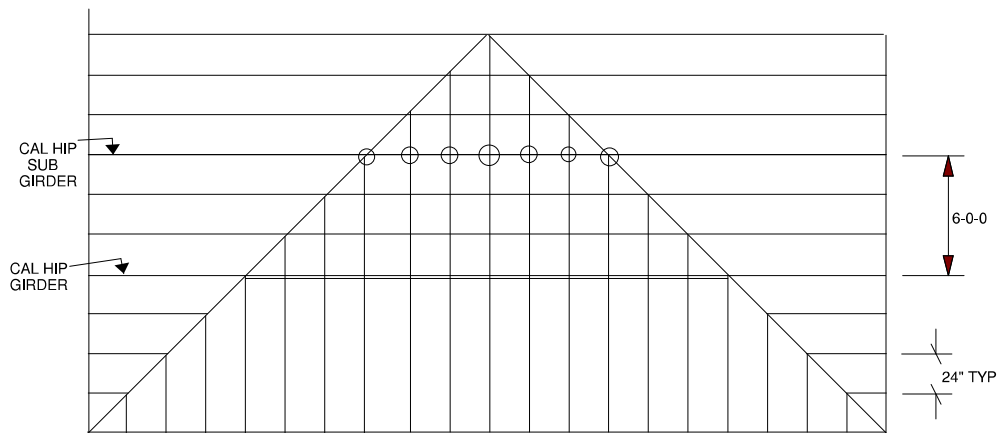
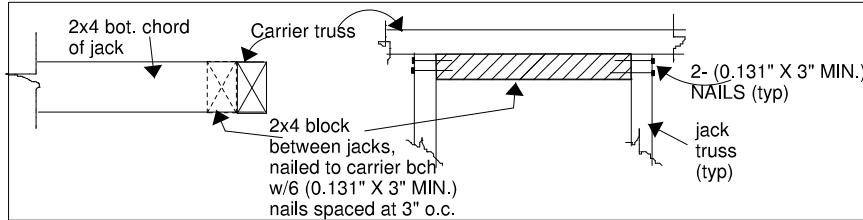


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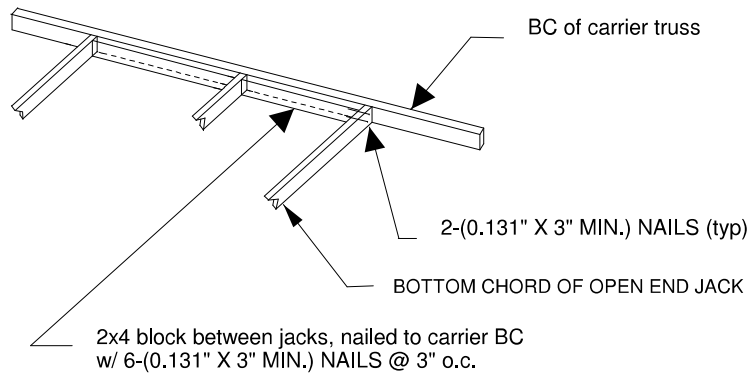


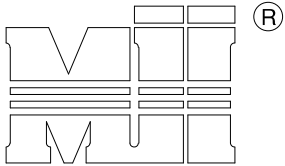
Loading (PSF):

BCDL 10.0 PSF MAX

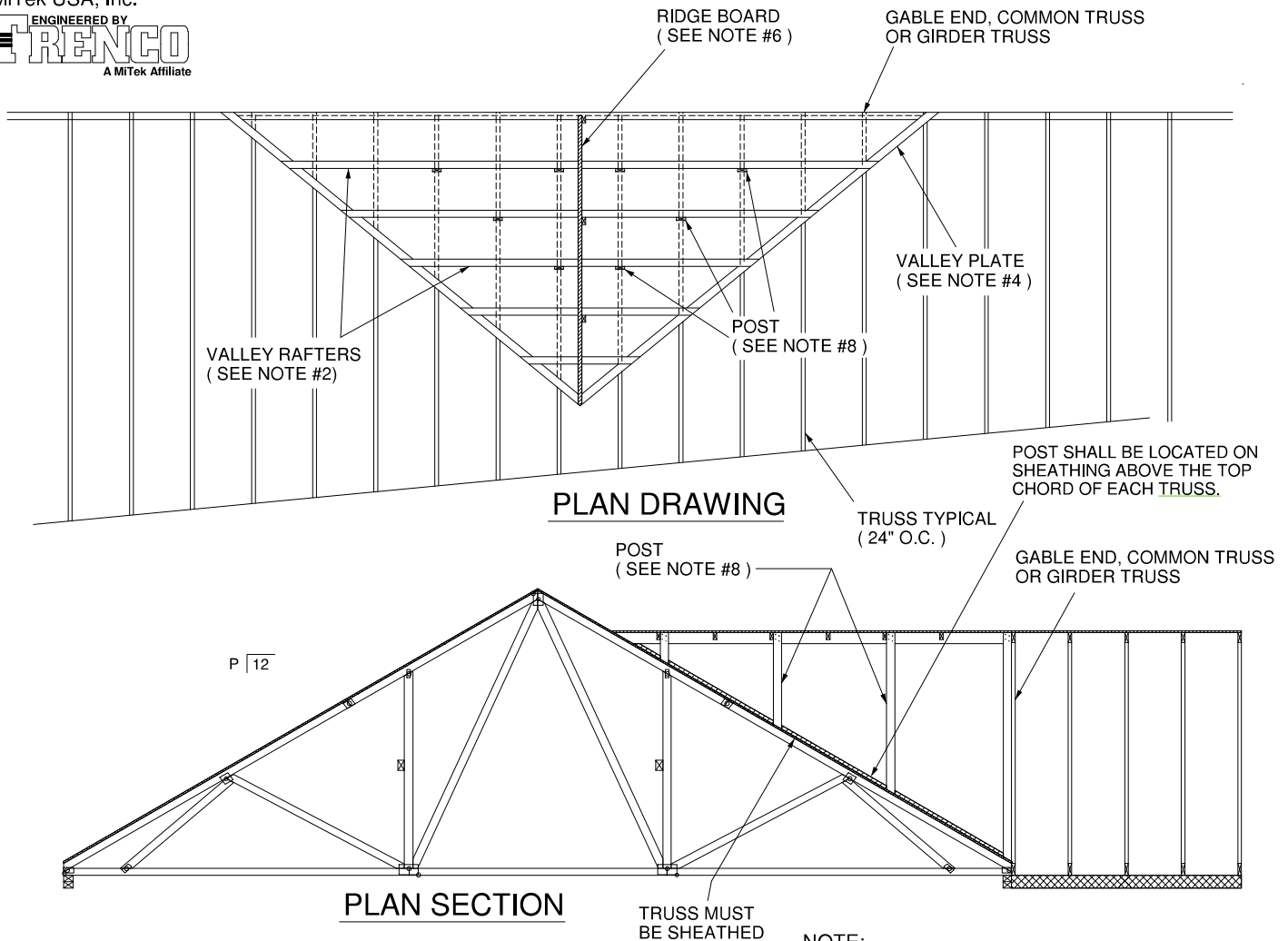


PARTIAL FRAMING PLAN OF CALIFORNIA HIP SET WITH SUB GIRDER





MiTek USA, Inc.
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TRENCO
A MiTek Affiliate



GENERAL SPECIFICATIONS

1. WITH BASE TRUSSES ERECTED (INSTALLED), APPLY SHEATHING TO TOP CHORD OF SUPPORTING (BASE) TRUSSES.
2. BRACE BOTTOM CHORD AND WEB MEMBERS PER TRUSS DESIGNS.
3. DEFINE VALLEY RIDGE BY RUNNING A LEVEL STRING FROM THE INTERSECTING RIDGE OF THE (a.) GABLE END, (b.) GIRDER TRUSS OR (c.) COMMON TRUSS TO THE ROOF SHEATHING.
4. INSTALL 2 x 4 VALLEY PLATES. FASTEN TO EACH SUPPORTING TRUSS WITH (2) 16d (0.131" X 3.5") NAILS.
5. SET 2 x 6 #2 RIDGE BOARD. SUPPORT WITH 2 x 4 POSTS SPACED 48" O.C.. BEVEL BOTTOM OF POST TO SET EVENLY ON THE SHEATHING. FASTEN POST TO RIDGE WITH (4) 10d (0.131" X 3") NAILS. FASTEN POST TO ROOF SHEATHING WITH (3) 10d (0.131" X 3") TOE-NAILS.
6. FRAME VALLEY RAFTERS FROM VALLEY PLATE TO RIDGE BOARD. MAXIMUM RAFTER SPACING IS 24" O.C.. FASTEN VALLEY RAFTER TO RIDGE BEAM WITH (3) 16d (0.131" X 3.5") TOE-NAILS. FASTEN VALLEY RAFTER TO VALLEY PLATE WITH (3) 16d (0.131" X 3.5") TOE-NAILS.
7. SUPPORT THE VALLEY RAFTERS WITH 2 x 4 POSTS 48" O.C (OR LESS) ALONG EACH RAFTER. INSTALL POSTS IN A STAGGERED PATTERN AS SHOWN ON PLAN DRAWING. ALIGN POSTS WITH TRUSSES BELOW. FASTEN VALLEY RAFTER TO POST WITH (4) 10d (0.131" X 3") NAILS. FASTEN POST THROUGH SHEATHING TO SUPPORTING TRUSS WITH (2) 16d (0.131" X 3.5") NAILS.
8. POSTS SHALL BE 2 x 4 #2 OR BETTER SPRUCE PINE FIR, DOUG FIR LARCH OR SOUTHERN PINE. POSTS EXCEEDING 75" SHALL BE INCREASED TO 4 x 4 OR BE PRE-ASSEMBLED (2) PLY 2 x 4's FASTENED TOGETHER WITH 2 ROWS OF 10d (0.131" X 3") NAILS 6" O.C..

NOTE:

48" O.C. MAXIMUM POST SPACING

LIVE LOAD = 30 PSF (MAX)

DEAD LOAD = 15 PSF (MAX)

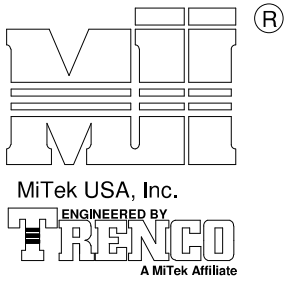
D.O.L. INC = 1.15

ASCE 7-98, ASCE 7-02, ASCE 7-05 90 MPH (MWFRS)

ASCE7-10, ASCE 7-16 115 MPH (MWFRS)



California Fill



MAXIMUM TRUSS WEB FORCE (lbs.)								
BRACE BAY SIZE ⁸	24" O.C. TRUSS SPACING			48" O.C. TRUSS SPACING			72" O.C. TRUSS SPACING	
	BRACING MATERIAL TYPE			BRACING MATERIAL TYPE			BRACING MATERIAL TYPE	
	A	B	C	A	B	C	B	C
10'-0"	1886	1886	2829	-----	-----	-----	-----	-----
12'-0"	1572	1572	2358	3143	3143	4715	4715	7074
14'-0"	1347	1347	2021	-----	-----	-----	-----	-----
16'-0"	1179	1179	1768	2358	2358	3536	-----	-----
18'-0"	1048	1048	1572	-----	-----	-----	3143	4715
20'-0"	943	943	1414	1886	1886	2829	-----	-----

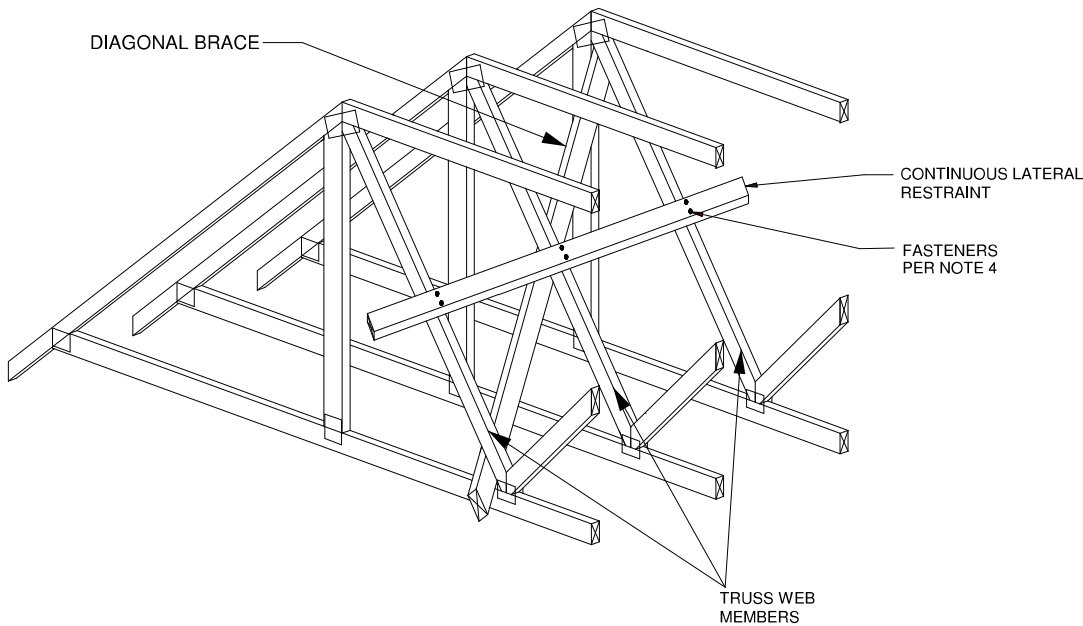
GENERAL NOTES

TYPE	BRACING MATERIALS
A	2 X 3 #3, STD, CONST (SPF, DF, HF, OR SP)
B	2 X 4 #3, STD, CONST (SPF, DF, HF, OR SP)
C	2 X 6 #3 OR BETTER (SPF, DF, HF, OR SP)

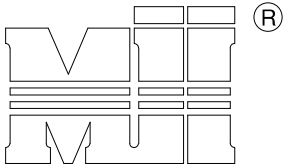
1. DIAGONAL BRACING AND BLOCKING IS REQUIRED TO TRANSFER THE CUMULATIVE LATERAL BRACE FORCE INTO THE ROOF AND/OR CEILING DIAPHRAGM. THE DIAPHRAGM IS AND ANY BLOCKING TO BE DESIGNED BY A QUALIFIED PROFESSIONAL.
2. TABULATED VALUES ARE BASED ON LATERAL BRACE CARRYING 2% OF THE WEB FORCE WITH A DOL = 1.15.
3. DIAGONAL BRACING MATERIAL MUST BE SAME SIZE AND GRADE OR BETTER, AS THE LATERAL BRACE MATERIAL, AND SHALL BE INSTALLED IN SUCH A MANNER THAT IT INTERSECTS WEB MEMBERS AT APPROX. 45 DEGREES AND SHALL BE NAILED AT EACH END AND EACH INTERMEDIATE TRUSS WITH 2 - (0.131"x 3") FOR 2x3 and 2x4 BRACES, AND 3 - (0.131"x3") FOR 2x6 BRACES.
4. CONNECT LATERAL BRACE TO EACH TRUSS WITH 2 - (0.131"x3") NAILS FOR 2x3 AND 2x4 LATERAL BRACES AND 3 - (0.131"x3") FOR 2x6 LATERAL BRACES.
5. LATERAL BRACE SHOULD BE CONTINUOUS AND SHOULD OVERLAP AT LEAST ONE TRUSS SPACE FOR CONTINUITY.
6. FOR ADDITIONAL GUIDANCE REGARDING DESIGN AND INSTALLATION OF BRACING, CONSULT DSB-89 TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES AND BCSI 1 GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES, PRODUCED BY STRUCTURAL BUILDING COMPONENT ASSOCIATION. www.sbcindustry.com
7. REFER TO SPECIFIC MITEK/TRENCO TRUSS DESIGN DRAWING FOR WEB MEMBER FORCE.
8. BAY SIZE SHALL BE MEASURED IN BETWEEN THE CENTERS OF PAIRS OF DIAGONALS.

FOR STABILIZERS:

FOR A SPACING OF 24" O.C. ONLY, MITEK "STABILIZER" TRUSS BRACING SYSTEMS CAN BE SUBSTITUTED FOR TYPE A, B AND C BRACING MATERIAL. DIAGONAL BRACING FOR STABILIZERS ARE TO BE PROVIDED AT BAY SIZE INDICATED ABOVE. WHERE DIAPHRAGM BRACING IS REQUIRED AT PITCH BREAKS, STABILIZERS MAY BE REPLACED WITH WOOD BLOCKING. SEE "STABILIZER" TRUSS BRACING INSTALLATION GUIDE AND PRODUCT SPECIFICATION.



This information is provided to assist in the requirement for permanent bracing of the individual truss web members. Additional bracing may still be required for the stability of the overall roof system. The method shown here is just one method that can be used to provide stability against web buckling. Engineering seal, if any, is supporting the web force chart only.



Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

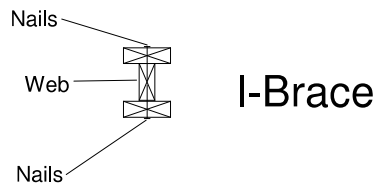
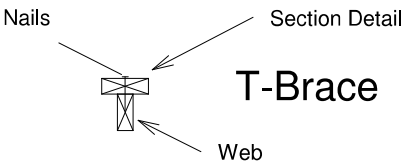
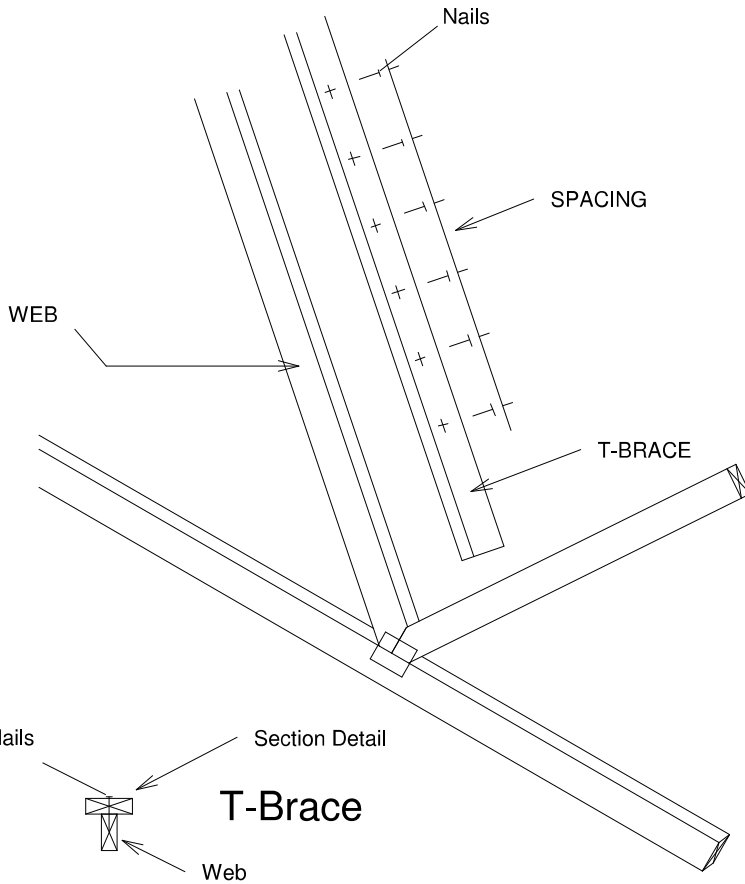
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
1x4 or 1x6	10d (0.131" X 3")	8" o.c.
2x4 or 2x6 or 2x8	16d (0.131" X 3.5")	8" o.c.

Note: Nail along entire length of T-Brace / I-Brace
(On Two-Ply's Nail to Both Plies)

Brace Size for One-Ply Truss		
Specified Continuous Rows of Lateral Bracing		
Web Size	1	2
2x3 or 2x4	1x4 (*) T-Brace	1x4 (*) I-Brace
2x6	1x6 (*) T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

Brace Size for Two-Ply Truss		
Specified Continuous Rows of Lateral Bracing		
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace



T-Brace / I-Brace must be same species and grade (or better) as web member.

(*) NOTE: If SP webs are used in the truss, 1x4 or 1x6 SP braces must be stress rated boards with design values that are equal to (or better) the truss web design values.

For SP truss lumber grades up to #2 with 1X_ bracing material, use IND 45 for T-Brace/I-Brace
For SP truss lumber grades up to #1 with 1X_ bracing material, use IND 55 for T-Brace/I-Brace

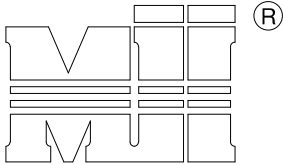
AUGUST 1, 2016

L-BRACE DETAIL

MII - L-BRACE

MiTek USA, Inc.

Page 1 of 1



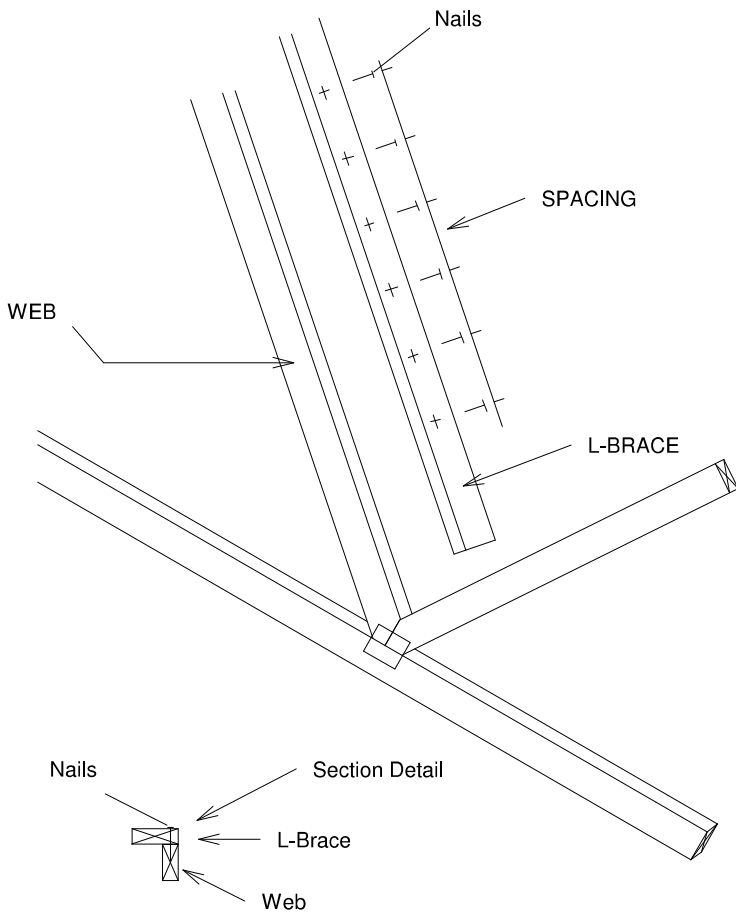
MiTek USA, Inc.



Nailing Pattern		
L-Brace size	Nail Size	Nail Spacing
1x4 or 6	10d (0.131" X 3")	8" o.c.
2x4, 6, or 8	16d (0.131" X 3.5")	8" o.c.

Note: Nail along entire length of L-Brace
(On Two-Ply's Nail to Both Plies)

Note: L-Bracing to be used when continuous lateral bracing is impractical. L-brace must cover 90% of web length.



L-Brace Size for One-Ply Truss

Web Size	Specified Continuous Rows of Lateral Bracing	
	1	2
2x3 or 2x4	1x4	***
2x6	1x6	***
2x8	2x8	***

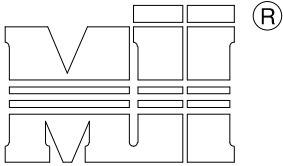
*** DIRECT SUBSTITUTION NOT APPLICABLE.

L-Brace Size for Two-Ply Truss

Web Size	Specified Continuous Rows of Lateral Bracing	
	1	2
2x3 or 2x4	2x4	***
2x6	2x6	***
2x8	2x8	***

*** DIRECT SUBSTITUTION NOT APPLICABLE.

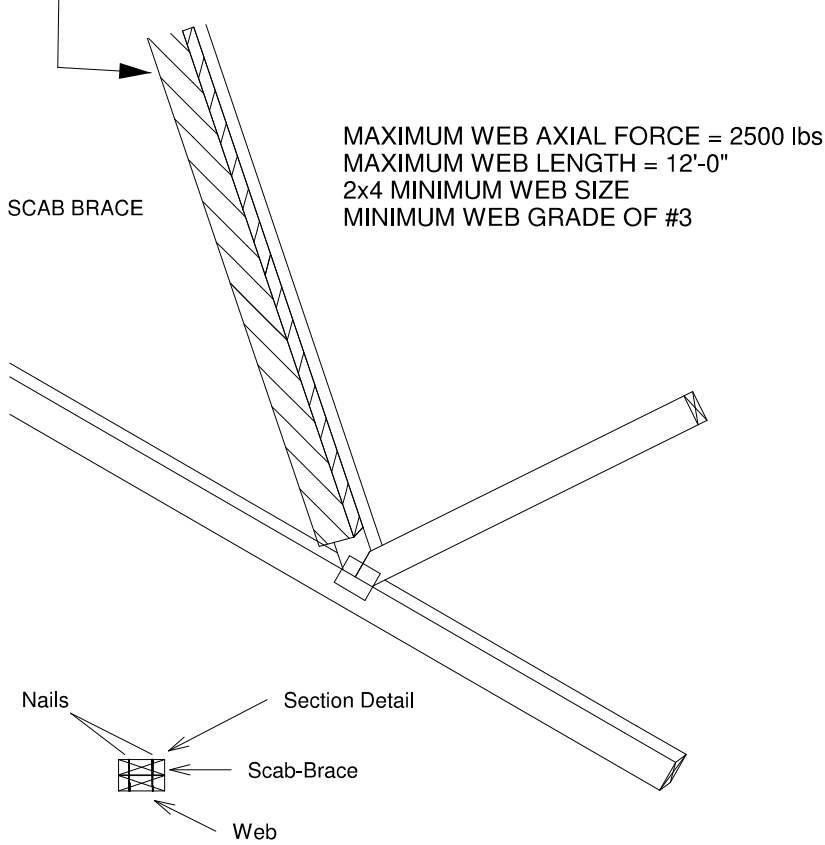
L-Brace must be same species grade (or better) as web member.



Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** THIS DETAIL IS NOT APPLICABLE WHEN BRACING IS REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED. ***

APPLY 2x___ SCAB TO ONE FACE OF WEB WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. SCAB MUST BE THE SAME GRADE, SIZE AND SPECIES (OR BETTER) AS THE WEB.



Scab-Brace must be same species grade (or better) as web member.



TIMBER PRODUCTS
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TP METAL PLATE CONNECTED WOOD TRUSS PLANT QUALITY AUDIT REPORT

www.tpinspection.com

INSPECTION DATE: **01/25/23**

PLANT NAME: **Brown & Honeycutt Truss**

TIME IN: **7:15 am**

PLANT LOCATION: **Hesperia, CA**

TIME OUT: **8:30 am**

PLANT MANAGER: **Mike Lutz**

PLANT NUMBER: **7011**

PLANT Q.C.: **Mike Lutz**

LINE ITEM REF.	DRAWING TYPE USED	JOB REF. #	TRUSS CONFIGURATION			LUMBER CRITERIA		NO. TRUSSES INSPECTED	NO. JOINTS/PLATES INSPECTED F= Front Side / B= Back Side	PLATING & JOINT INSPECTION NON-CONFORMANCES				LUMBER DEFECTS
			TYPE/ID	SPAN	PITCH DEPTH	MEMBER LAYOUT	GRADE & SPECIES			MOISTURE CONTENT	PLATE SIZE & GAUGE	PLATE TOOTH EMBED.	PLATE LOCATION	
A	<input checked="" type="checkbox"/> SEAL <input type="checkbox"/> SHOP	220233-A	B8 Piggyback	36-0-0	6/12	<input checked="" type="checkbox"/> OK <input type="checkbox"/> S.C.	<input checked="" type="checkbox"/> OK <input type="checkbox"/> S.C.	1	13	0	0	0	0	0
B	<input checked="" type="checkbox"/> SEAL <input type="checkbox"/> SHOP	220233-A	B5 Attic	51-4-0	6/12	<input checked="" type="checkbox"/> OK <input type="checkbox"/> S.C.	<input checked="" type="checkbox"/> OK <input type="checkbox"/> S.C.	1	21	0	0	0	0	0
C	<input type="checkbox"/> SEAL <input type="checkbox"/> SHOP					<input type="checkbox"/> OK <input type="checkbox"/> S.C.	<input type="checkbox"/> OK <input type="checkbox"/> S.C.							
D	<input type="checkbox"/> SEAL <input type="checkbox"/> SHOP					<input type="checkbox"/> OK <input type="checkbox"/> S.C.	<input type="checkbox"/> OK <input type="checkbox"/> S.C.							
E	<input type="checkbox"/> SEAL <input type="checkbox"/> SHOP					<input type="checkbox"/> OK <input type="checkbox"/> S.C.	<input type="checkbox"/> OK <input type="checkbox"/> S.C.							

NON-CONFORMANCE CLASSIFICATIONS FOR THIS VISIT:

Major/Minor Major/Minor Major/Minor Major/Minor Major/Minor
 Major Minor Major Minor Major Minor Major Minor Major Minor

NOTES: All non-conformances must be accompanied by comments.
 A MAJOR Non-Conformance may result in a "Plant Status" change.

COMMENTS:
 Inspection with Mike Lutz. Lumber grades and plate sizes exceeded or met.
 Facility Missing 1 week of IQC records (minor). Reviewed joint blowup/QC details with Mike Lutz.
 Plant will remain in GOOD status.
 No other trusses available.

RECORDS REVIEW TALLY NOTES		PREVIOUS VISIT STATUS:		PLANT STATUS (current audit)	
# SHIFTS: 1	# SETUP LOCATIONS: 1	GOOD <input checked="" type="checkbox"/>	WARNING <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	WARNING <input type="checkbox"/>
PLATE MANUFACTURER: Mitek		ON NOTICE <input type="checkbox"/>	SUSPENDED <input type="checkbox"/>	ON NOTICE <input type="checkbox"/>	
ESR NUMBER ON PLATE BOXES: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		(Refer to TP QA Manual Section 13.0 for Plant Status Procedures) REQUESTED SEALED DRAWING FOR LINE ITEM: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E (MINIMUM 1 SEALED DRAWING PER AUDIT REQUIRED)			
GENERAL ATTRIBUTES		CONFORMING?			
INCOMING MATERIAL: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		<input checked="" type="checkbox"/> GOOD			
TRUSS STORAGE/HANDLING: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> WARNING			
STAMP/TAG LEGIBILITY: <input type="checkbox"/> N/A <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> ON NOTICE			
Missing week PLANT Q.C. RECORDS: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		<input type="checkbox"/> SUSPENDED			
TP OFFICE NOTIFICATIONS		SIGNATURES			
PLANT Q.C. RECORDS: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		PLANT Q.C.: Mike Lutz		TP INSPECTOR: <i>Red Lutz</i>	
REQUESTED SEALED DRAWING FOR LINE ITEM: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E		TP INSPECTOR PRINTED NAME: David Cervantes		REPORTS / SEALED DRAWINGS SEND TO: trussdivision@tpinspection.com	



CERTIFICATE OF ACCREDITATION

This is to attest that

TIMBER PRODUCTS INSPECTION, INC.

100 KEDRON DRIVE
PEACHTREE CITY, GEORGIA 30269, U.S.A.

Inspection Agency AA-696 (Type A)

has met the requirements of AC98, IAS Accreditation Criteria for Inspection Agencies, and has demonstrated compliance with ISO/IEC Standard 17020:2012, Conformity assessment - Requirements for the operation of various types of bodies performing inspection. This organization is accredited to provide the services specified in the scope of accreditation.

Effective date: July 2, 2020



President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

TIMBER PRODUCTS INSPECTION, INC.

www.tpinspection.com

Contact Name Patrick C. Edwards**Contact Phone** +1 770 922 8000*Accredited to ISO/IEC 17020:2012**Effective date: July 2, 2020*

Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
Fabricated Products	
Basic Hardboard	CPA-EWST-QAM; ANSI A135.4
Cold Formed Steel Trusses	QUAL-PM Sec. 7.0; E30-PM-CFS Truss; E30-SOP-CFS Truss; AISI S214
Composite Wood Products – Formaldehyde Emissions	CPA-HCHO-QAM-EPA CTCS QP-13-2 CARB ATCM per CCR 93120 EPA TSCA Title VI
Cross Laminated Timber (CLT)	QUAL-PM Sec. 7.0; TP Inspection Procedures for CLT and ANSI/APA PRG 320 Standard for Performance-Rated Cross-Laminated Timber
Engineered Wood Siding	CPA-EWST-QAM; ANSI A135.6
Engineered Wood Trim	CPA-EWST-QAM; ANSI A135.7
Hardwood and Decorative Plywood – Formaldehyde Emissions	CPA-HCHO-QAM-EPA CTCS QP-13-2 per ANSI/HPVA HP-1
Metal Plate Connected Trusses	QUAL-PM Sec. 7.0; TP Quality Assurance Program for Metal Plate Connected Wood Trusses; ANSI/TPI 1 Standard
Mechanically Laminated Wood Assemblies	QUAL-PM Sec. 7.0; TP Inspection Procedure for Fingerjoints Used in Mechanically Laminated Wood Assemblies; ANSI/ASAE EP 559.1 Section 4.5
Non-Structural Use Panels: Particleboard and MDF	QUAL-PM Sec.7.0; TP Certification Requirements for Non-Structural Panels; ANSI A208.1 and A208.2
Prefinished Hardboard Paneling	QUAL-PM Sec. 7.0; CPA-EWST-QAM; ANSI A135.5
Structural Composite Lumber	QUAL-PM Sec 7.0; TP Quality Auditing Procedures for Lumber, TP Stud Use End Jointed Lumber QC Program; WWPA Glued Products Procedures (referencing ASTM D5456)
Structural Glued-Laminated Timber	QUAL-PM Sec. 7.0; TP Engineered Product Audit Procedure; AITC 200 Inspection Manual for Structural Glued Laminated Timbers; ANSI/AITC

SCOPE OF ACCREDITATION

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Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
	A190.1; AITC 200 Inspection Manual for Structural Glued-Laminated Timber
Structural Use Panels: Plywood, Composite Panels, OSB, and Other Approved Materials	QUAL-PM Sec. 7.0; TP M-4 Panel Certification; AS/NZS 2269; CSA 0325; CAN/CSA 0121; CAN/CSA 0151; United States Department of Commerce Product Standard PS-1, (Sections 5.7, 5.8.1, 5.8.2, 5.8.3, 5.8.4, 5.8.5, 5.9, 5.10, 5.11, 5.12, 7.3, 7.4, Appendix A- Species grouping, Appendix B- Reinspection Practices, Appendix D- Recommended Practices); United States Department of Commerce Product Standard PS-2 (Sections 5.2, 6.3.2, 8.0, Appendix A - Shipment Reinspection Practices, Appendix B- Performance Rated Panel Qualification for Roof, Subfloor, Single Floor and Wall Application, Appendix D - Recommended Thickness Labels)
Wood I-Joist	QUAL-PM Sec. 7.0; TP EWP-SOP-Wood I-Joist; ASTM D5055
Wood Wall and Floor Panel Assemblies	QUAL-PM Sec. 7.0; E31-DOC-MOCA Wood Wall Panel Plant Manual; E31-PM-MOCA Wood Wall Panel; E31-SOP-MOCA Wood Wall Panel; IBC Chapter 23; IRC Section 602
Fire Retardant/Preservative Treated Wood	
Preservative and Fire Retardant Treated Lumber and Plywood	QUAL-PM Sec. 7.0; TP TRT-SOP-TRT Inspection (referencing AWPA U1, T1, M2, M19, M21, M22, M23, M24 and M25); ICC-ES AC326; and TP FRT-SOP-FRTW Inspection (referencing ICC-ES AC66).
Grading of Wood Products	
Log Grading	QUAL-PM Sec. 7.0; TP E35-SOP-Log Home Program; TP Building Log Grading Rules; ASTM Standard D3957
Lumber Grading	QUAL-PM Sec. 7.0; TP E10-SOP-Lumber_ALSC; Voluntary Product Standard PS-20, American Softwood Lumber Standard
Manufacturing in fields specified above	ICC-ES AC304



ICC-ES Evaluation Report



ESR-1988

Reissued December 2020

Revised August 17, 2021

This report is subject to renewal December 2022.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 17 53—Shop-Fabricated Wood Trusses

REPORT HOLDER:

MITEK® INC.

EVALUATION SUBJECT:

MITEK METAL TRUSS CONNECTOR PLATES: MII16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20, MT20HS™, AND M18AHS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-1988 LABC and LARC Supplement](#).

Property evaluated:

Structural

2.0 USES

MiTek metal truss connector plates are used as joint connector components of light wood-frame trusses.

3.0 DESCRIPTION

3.1 MiTek MII 16:

Model MII 16 metal truss connector plates are manufactured from minimum No. 16 gage [0.0575 inch total thickness (1.46 mm)], ASTM A653 SS, Grade 40 steel, with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base-metal thickness of 0.0565 inch (1.44 mm). Slots 0.54 inch (13.7 mm) in length are punched along the perpendicular axis of the plates. The metal displaced by the slot is lanced and formed into two opposing teeth, protruding at right angles from the flat plate. Each tooth is diagonally cut, thereby forming a sharp point. The teeth are additionally shaped into a twisted concave form, facing the slot cutout area. Teeth are 0.16 inch (4.1 mm) wide and 0.37 inch (9.4 mm) long, and there are 4.8 teeth per square inch (0.0074 teeth per square millimeter) of plate area. Plates are available in 1-inch (25.4 mm) width increments, up to 12 inches (305 mm), and lengthwise in 1¹/₄-inch (31.7 mm) multiples. See Figure 1 of this report for details.

3.2 MiTek TL18 and MT18:

Models TL18 and MT18 metal truss connector plates are manufactured from minimum No. 18 gage [0.0466 inch total thickness (1.18 mm)], ASTM A653 SS, Grade 40 steel, with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base-metal thickness of 0.0456 inch (1.16 mm). The plates have teeth ³/₈ inch (9.5 mm) long, punched in pairs formed at right angles to the face of the parent metal so that two teeth per hole occur along the length. The spacing along the longitudinal direction of each punched slot is 1 inch (25.4 mm) on center. The transverse centerlines of adjacent slots are staggered 0.10 inch (2.54 mm). The distance between longitudinal centerlines of the slots is 0.25 inch (6.35 mm). There are eight teeth per square inch (645 mm²) of surface area. Plates are available in 1/2-inch-width (12.7 mm) increments, up to 12 inches (304.8 mm), and lengthwise in 1-inch (25.4 mm) multiples. See Figure 2 for details.

3.3 MiTek MT18HS™:

Model MT18HS™ metal truss connector plates are manufactured from minimum No. 18 gage [0.0466 inch total thickness (1.18 mm)], ASTM A653, Grade 60, high-strength, low-alloy steel (HSLAS) with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base-metal thickness of 0.0456 inch (1.16 mm). The plate has teeth ³/₈-inch long (9.5 mm), punched in pairs formed at right angles to the face of the parent metal so that two teeth per hole occur along the length. The spacing along the longitudinal direction of each punched slot is 1 inch (25.4 mm) on center. The transverse centerlines of adjacent slots are staggered 0.10 inch (2.54 mm). The distance between longitudinal centerlines of the slots is 0.25 inch (6.35 mm). There are eight teeth per square inch (645 mm²) of surface area. Plates are available in 1/2-inch-width (12.7 mm) increments, up to 12 inches (304.8 mm), and lengthwise in 1-inch (25.4 mm) multiples. See Figure 2 for details.

3.4 MiTek M18SHS™:

Model M18SHS™ metal truss connector plates are manufactured from minimum No. 18 gage [0.0466-inch (1.18 mm) total thickness], hot-dipped galvanized steel that meets the requirements of ASTM A653 SS, Grade 80 steel, with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base metal thickness of 0.0456 inch (1.16 mm). The plates have ³/₈-inch-long (9.5 mm) teeth, punched in pairs formed at right angles to the face of the parent metal so that two teeth per hole occur along the length. The spacing along the longitudinal direction of each punched slot is 1 inch (25.4 mm) on center. The transverse centerlines of adjacent slots are staggered 0.10 inch (2.54 mm). The distance between longitudinal

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centerlines of slots is 0.25 inch (6.35 mm). There are eight teeth per square inch (645 mm²) of surface area. Plates are available in 1/2-inch-width (12.7 mm) increments, up to 12 inches (304.8 mm), and lengthwise in 1-inch (25.4 mm) multiples. See Figure 2 for details.

3.5 MiTek TL20 and MT20™:

Models TL20 and MT20™ metal truss connector plates are manufactured from minimum No. 20 gage [0.0356 inch total thickness (0.9 mm)], ASTM A653 SS, Grade 40 steel, with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base-metal thickness of 0.0346 inch (0.88 mm). The plates have teeth 3/8 inch (9.5 mm) long, punched in pairs formed at right angles to the face of the parent metal so that two teeth per hole occur along the length. The spacing along the longitudinal direction of each punched slot is 1 inch (25.4 mm) on center. The transverse centerlines of adjacent slots are staggered 0.10 inch (2.54 mm). The distance between longitudinal centerlines of the slots is 0.25 inch (6.35 mm). There are eight teeth per square inch (645 mm²) of surface area. Plates are available in 1/2-inch width (12.7 mm) increments, up to 12 inches (304.8 mm), and lengthwise in 1-inch (25.4 mm) multiples. See Figure 2 for details.

3.6 MiTek MT20HS™:

Model MT20HS™ metal truss connector plates are manufactured from minimum No. 20 gage [0.0356 inch total thickness (0.9 mm)], ASTM A653 Grade 60, high-strength, low-alloy steel with improved formability (HSLAS-F), with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base-metal thickness of 0.0346 inch (0.88 mm). Repeating 3/4-inch-by-1-inch (19 mm by 25.4 mm) modules of teeth are stamped out and formed at right angles to the face of the parent metal. Each module has three slots, 0.45 inch (11.4 mm) long and 0.125 inch (3.2 mm) wide, fabricated by punching two teeth out of each slot area, and resulting in each module having six teeth. Each module is separated by a 0.25-inch-wide (6.4 mm) strip of unpunched steel. The transverse centerlines of adjacent slots are staggered 0.15 inch (3.8 mm) in the longitudinal direction. Longitudinal centerlines of slots are spaced 0.25 inch (6.4 mm). Each slot has a 0.33-inch-long (8.4 mm) tooth at each end. Each tooth is additionally shaped, twisting an approximate 22 degrees to its point. See Figure 3 of this report for details.

3.7 MiTek M18AHS:

Model M18AHS metal truss connector plates are manufactured from minimum No. 18 gage [0.0466 inch total thickness (1.18 mm)], ASTM A653, Grade 60, high-strength, low-alloy steel (HSLAS) with a G60 galvanization coating [0.0005 inch thickness on each side (0.013 mm)] and having a base-metal thickness of 0.0456 inch (1.16 mm). The teeth are 3/8 inch long (9.5 mm), punched in pairs formed at right angles to the face of the parent metal so that two teeth per slot occur along the length. The spacing along the longitudinal direction of each punched slot is 1 inch (25.4 mm) on center. The transverse centerlines of adjacent slots are staggered 0.10 inch (2.54 mm). The distance between longitudinal centerlines of the slots is 0.25 inch (6.35 mm). The plates have repeating 0.75 inch x 1 inch (19.1 mm x 25.4 mm) modules of teeth. Each module has three slots with two teeth each. Each module is separated by a 0.25 inch (6.4 mm) wide strip of unpunched steel. There are six teeth per square inch (645 mm²) of surface area. Plates are available in 1-inch-width (25.4 mm) increments, up to 12 inches (304.8 mm), and lengthwise in 1 inch (25.4 mm) multiples. See Figure 4 for Model M18AHS metal truss connector plate details.

4.0 DESIGN AND INSTALLATION

4.1 General:

All MiTek metal truss connector plates are pressed into the wood for the full depth of their teeth by hydraulic-platen embedment presses, multiple roller presses that use partial embedment followed by full-embedment rollers, or combinations of partial embedment roller presses and hydraulic-platen presses that feed trusses into a stationary finish roller press. Trusses must be assembled within the tolerances provided by the Truss Plate Institute's (TPI) Quality Criteria for the Manufacture of Metal Plate Connected Wood Trusses, shown as Chapter 3 in ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction.

4.2 Allowable Design Values:

Allowable design values for MiTek metal truss connector plates to be used in the design of metal plate connected wood roof and floor trusses are shown in Tables 1 and 2. Allowable design values are applicable when the connection is made with identical plates on opposite sides of the joint. This evaluation report is limited to the evaluation of connection capacity of the MiTek metal truss connector plates listed in this report. The design, manufacture, and installation of trusses employing the truss plates have not been evaluated.

Allowable values shown in Tables 1 and 2 have not been adjusted for metal connector plates embedded in fire-retardant-treated or preservative-treated lumber. Proper adjustments must be made in accordance with the requirements indicated in a current ICC-ES evaluation report issued to the chemical treatment manufacturer. If the evaluation report does not contain information on the adjustments, the chemical manufacturer must be contacted for this information. Compliance with Section 2304.10.6 of the 2021 IBC (Section 2304.10.5 of the 2018 and 2015 IBC; Section 2304.9.5 of the 2012, 2009 and 2006 IBC) and Section R317.3 of the 2021, 2018, 2015, 2012 and 2009 IRC (Section R319.3 of the 2006 IRC) is also required.

5.0 CONDITIONS OF USE

The MiTek metal truss connector plates described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 This evaluation report and the manufacturer's published installation instructions, when required by the code official, must be submitted at the time of permit application. In the event of a conflict between the manufacturer's published installation instructions and this document, the instructions in this document govern.
- 5.2 Each application for a building permit, using these truss plate connectors, must be accompanied by documentation showing that the design, manufacture, and proposed installation conform to the requirements of the applicable code.
- 5.3 This report establishes plate design values only. For items not covered by this report, such as truss design, fabrication, quality assurance and special inspection, refer to ANSI/TPI 1, engineering drawings and the applicable code.
- 5.4 The design values (lateral resistance values, effective tension strength ratios, and effective shear resistance ratios) used in the design of trusses, using MiTek metal truss connector plates, must not exceed those listed in Tables 1 and 2 of this report. Load combination reductions must be in accordance with the applicable code.

- 5.5 All lumber used in the fabrication of trusses using MiTek metal truss connector plates must be graded in compliance with the applicable building code, and must have a moisture content not exceeding 19 percent at the time of assembly. Wet service factors from ANSI/TPI 1 Section 6.4 must be applied to the table values when the lumber moisture content exceeds 19 percent.
- 5.6 Metal truss connector plates must be installed in pairs on opposite faces of truss members.
- 5.7 Galvanized G60 metal truss plate connectors subject to corrosive environments must be protected in accordance with Section 6.5 of ANSI/TPI 1.
- 5.8 MiTek metal truss connector plates are manufactured in Hazelwood, Missouri; Tolleson, Arizona; Tampa, Florida; Edenton, North Carolina; and Bradford, Ontario, Canada, under a quality control program with inspections by ICC-ES.

- 6.2 Manufacturer's descriptive literature.
- 6.3 A quality control manual.

7.0 IDENTIFICATION

- 7.1 The MiTek metal truss connector plates are identified by an imprint of the plate name embossed into the surface of the plate (for example, the MT20™ plate is embossed "MT20"). Additionally, boxes containing the connector plates must be labeled with the MiTek name, the metal connector plate model, and either the evaluation report number (ESR-1988) or the number of the ICC-ES index evaluation report for MiTek (ESR-2685).
- 7.2 The report holder's contact information is the following:

MITEK INC.
16023 SWINGLEY RIDGE ROAD
CHESTERFIELD, MISSOURI 63017
(800) 328-5934
www.mitek-us.com

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the National Design Standard for Metal Plate Connected Wood Truss Construction, ANSI/TPI 1-2002, 2007 and 2014.

TABLE 1—ALLOWABLE LATERAL RESISTANCE VALUES, HYDRAULIC-PLATEN EMBEDMENT³ (lb/in²/PLATE)

LUMBER SPECIES	SG	AA	EA	AE	EE
M11 16					
Douglas fir-larch	0.50	176	121	137	126
Hem-fir	0.43	119	64	102	98
Spruce-pine-fir	0.42	127	82	75	107
Southern pine	0.55	174	126	147	122
TL18, MT18, MT18HS™, M18SHS™, TL20 and MT20™					
Douglas fir-larch	0.50	248	203	170	171
Hem-fir	0.43	188	159	133	141
Spruce-pine-fir	0.42	206	162	125	122
Southern pine	0.55	244	192	171	178
MT20HS™					
Douglas fir-larch	0.50	165	146	135	143
Hem-fir	0.43	139	111	97	109
Spruce-pine-fir	0.42	148	108	107	103
Southern pine	0.55	187	143	138	150
M18AHS					
Douglas fir-larch	0.50	169	162	125	145
Hem-fir	0.43	145	140	108	125
Spruce-pine-fir	0.42	142	136	105	122
Southern pine	0.55	186	179	138	160

For S1: 1lb/in² = 6.9 kPa.

NOTES:

¹Tooth-holding units = psi for a single plate (double for plates on both faces when applying to area on only one face). To achieve values, plates must be installed on opposite sides of joint.

²AA = Plate parallel to load, wood grain parallel to load.

EA = Plate perpendicular to load, wood grain parallel to load.

AE = Plate parallel to load, wood grain perpendicular to load.

EE = Plate perpendicular to load, wood grain perpendicular to load.

³All truss plates are pressed into the wood for the full depth of their teeth by hydraulic-platen embedment presses, multiple roller presses that use partial embedment followed by full-embedment rollers, or combinations of partial-embedment roller presses and hydraulic-platen presses that feed trusses into a stationary finish roller press.

TABLE 2—EFFECTIVE TENSION AND SHEAR RESISTANCE ALLOWABLE DESIGN VALUES¹

PROPERTY FORCE DIRECTION	M11 16		TL18 AND MT18		MT18HS™		M18SHS™		TL20 AND MT20™		MT20HS™		M18AHS	
	Efficiency	Pounds/ inch/Pair of Connector Plates	Efficiency	Pounds/ inch/Pair of Connector Plates	Efficiency	Pounds/ inch/Pair of Connector Plates	Efficiency	Pounds/ inch/Pair of Connector Plates	Efficiency	Pounds/ inch/Pair of Connector Plates	Efficiency	Pounds/ inch/Pair of Connector Plates	Efficiency	Pounds/ inch/Pair of Connector Plates
Tension @ 0°	0.694	1982	0.50	1,149	0.538	1,809	0.532	2,299	0.499	873	0.624	1590	0.643	2,161
Tension @ 90°	0.300	857	0.52	1,208	0.550	1,847	0.533	2,301	0.492	860	0.523	1333	0.574	1,928
Tension @ 0° SG=0.42	---	---	---	---	0.613	2,060	0.579	2,502	0.629	1,100	0.671	1712	0.708	2,380
Tension @ 0° SG=0.50	---	---	---	---	0.623	2,094	0.584	2,522	0.654	1,144	0.697	1778	0.725	2,435
Shear Values														
Shear @ 0°	0.54	1041	0.56	874	0.55	1,099	0.53	1,363	0.51	604	0.43	761	0.610	1,229
Shear @ 30°	0.61	1173	0.66	1,023	0.57	1,153	0.57	1,482	0.74	876	0.61	1085	0.649	1,309
Shear @ 60°	0.73	1402	0.83	1,283	0.74	1,492	0.7	1,805	0.82	970	0.67	1184	0.819	1,651
Shear @ 90°	0.55	1055	0.49	757	0.52	1,052	0.39	1,012	0.58	686	0.45	792	0.501	1,011
Shear @ 120°	0.48	914	0.39	608	0.4	802	0.41	1,073	0.42	498	0.34	608	0.466	940
Shear @ 150°	0.35	672	0.45	702	0.37	745	0.33	868	0.5	592	0.3	537	0.415	837

For SI: 1 lb/inch = 0.175 N/mm, 1 inch = 25.4 mm.

NOTES:

¹Minimum coated thickness is 0.0356 inch (0.904 mm) for 20 gage, or 0.0466 inch (1.184 mm) for 18 gage. Minimum coating thickness for G60 is 0.0010 inch (0.025 mm) total for both sides in accordance with Section 6.3.4.1.3 of ANSI/TPI 1.

²Minimum Net Section – A line through the plate's tooth pattern with the minimum amount of steel for a specified orientation. For these plates, this line passes through a line of holes.

³Maximum Net Section – A line through the plate's tooth pattern with the maximum amount of steel for a specified orientation. For these plates, this line passes through a section of the plate with no holes.

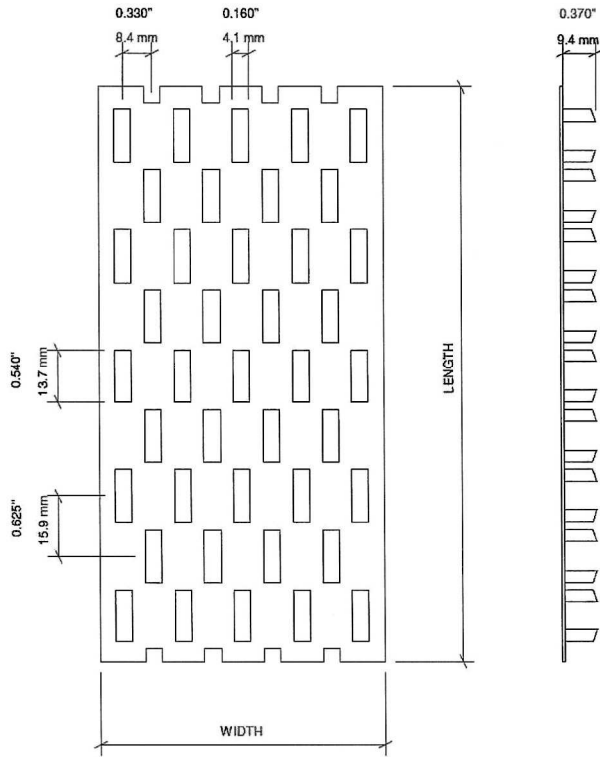


FIGURE 1—APPROXIMATE DIMENSIONS OF MITEK CONNECTOR PLATE MODEL MII 16

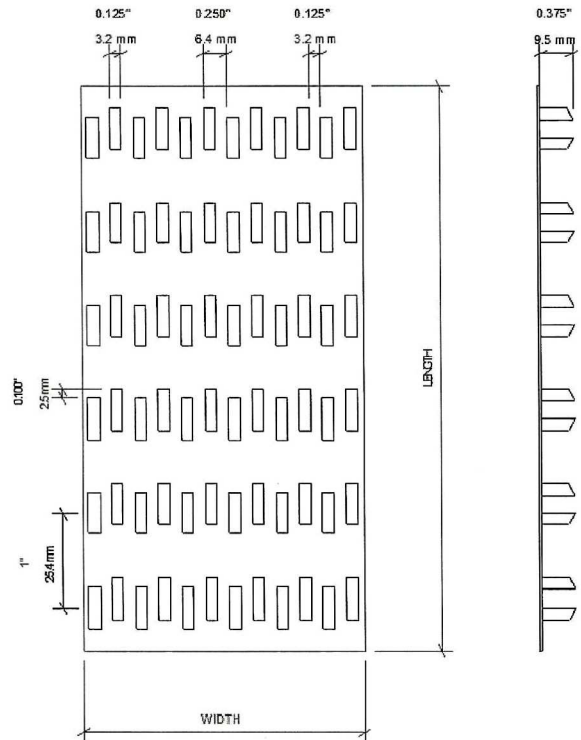


FIGURE 2—APPROXIMATE DIMENSIONS OF MITEK CONNECTOR PLATE MODELS TL18, MT18, MT18HS, MT18SHS, TL20 AND MT20

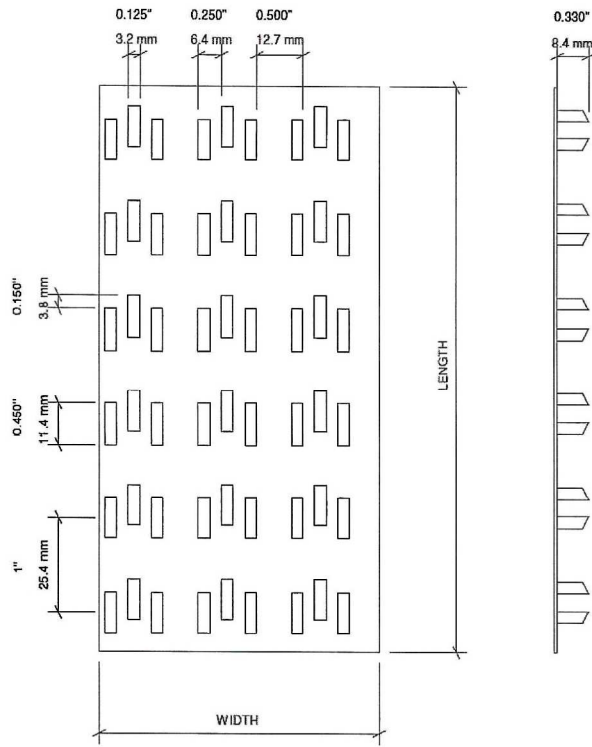


FIGURE 3—APPROXIMATE DIMENSIONS OF MITEK CONNECTOR PLATE MODEL MT20HS™

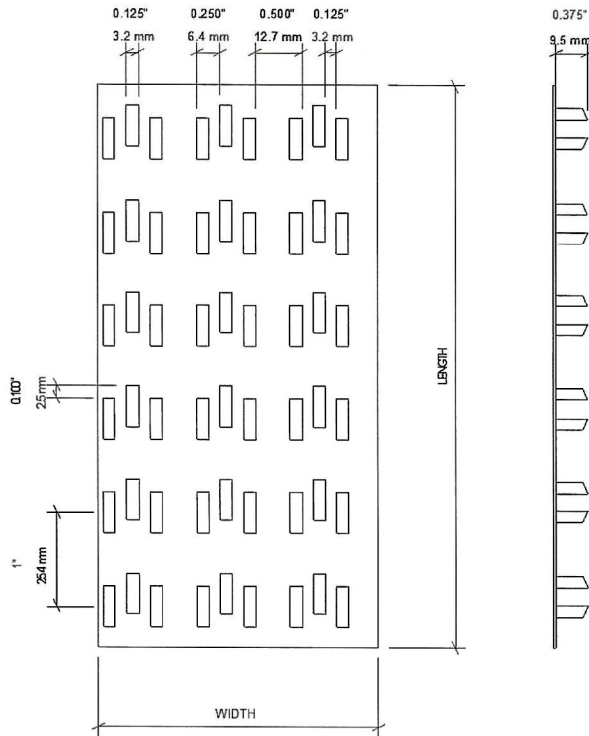


FIGURE 4—APPROXIMATE DIMENSIONS OF MITEK CONNECTOR PLATE MODEL M18AHS

Note: 1 inch = 25.4 mm



ICC-ES Evaluation Report

ESR-1988 LABC and LARC Supplement

Reissued December 2020

Revised August 17, 2021

This report is subject to renewal December 2022.

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A Subsidiary of the International Code Council®

DIVISION: 06 00 00—WOOD, PLASTICS, AND COMPOSITES
Section: 06 17 53—Shop-Fabricated Wood Trusses

REPORT HOLDER:

MITEK INC.

EVALUATION SUBJECT:

MITEK METAL TRUSS CONNECTOR PLATES: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, AND M18AHS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the MiTek Metal Truss Connector Plates: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, and M18AHS, described in ICC-ES evaluation report [ESR-1988](#), have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 *City of Los Angeles Building Code* (LABC)
- 2020 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The MiTek Metal Truss Connector Plates: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, and M18AHS, described in Sections 2.0 through 7.0 of the evaluation report [ESR-1988](#), comply with the LABC Chapter 23, and the LARC, and are subjected to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The MiTek Metal Truss Connector Plates: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, and M18AHS described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-1988](#).
- The design, installation, conditions of use and labeling are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-1988](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16, 17 and 23, and LARC Section R802, as applicable.
- Metal connector plate teeth within 1/2 inch (12.7 mm) of the ends of truss wood members must be considered ineffective to carry any load.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted

This supplement expires concurrently with the evaluation report, reissued December 2020 and revised August 17, 2021.

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ICC-ES Evaluation Report

ESR-1988 CBC and CRC Supplement

Issued February 2021

Revised August 17, 2021

This report is subject to renewal December 2022.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES

Section: 06 17 53—Shop-Fabricated Wood Trusses

REPORT HOLDER:

MITEK® INC.

EVALUATION SUBJECT:

MITEK METAL TRUSS CONNECTOR PLATES: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20, MT20HS™, AND M18AHS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Mitek Metal Truss Connector Plates: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20, MT20HS™, and M18AHS, described in ICC-ES evaluation report ESR-1988, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 California Building Code (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 California Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Mitek Metal Truss Connector Plates: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20, MT20HS™, and M18AHS, described in Sections 2.0 through 7.0 of the evaluation report ESR-1988, comply with CBC Chapter 23, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report, and the additional requirements of CBC Chapters 16, 17 and 23, as applicable.

2.1.1 OSHPD: The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Mitek Metal Truss Connector Plates: MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20, MT20HS™, and M18AHS, described in Sections 2.0 through 7.0 of the evaluation report ESR-1988, comply with CRC Sections R502.11 and R802.10, provided the design and installation are in accordance with the 2018 *International Residential Code*® (2018 IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapters 5 and 8, as applicable.

This supplement expires concurrently with the evaluation report, reissued December 2020 and revised August 17, 2021.



ICC-ES Evaluation Report

ESR-1988 FBC Supplement

Reissued December 2020

Revised August 17, 2021

This report is subject to renewal December 2022.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 17 53—Shop-Fabricated Wood Trusses

REPORT HOLDER:

MITEK INC.

EVALUATION SUBJECT:

MITEK METAL TRUSS CONNECTOR PLATES: TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™ AND M18AHS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that MiTek Metal Truss Connector Plates MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, and M18AHS, described in ICC-ES evaluation report ESR-1988, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 Florida Building Code—Building
- 2020 Florida Building Code—Residential

2.0 CONCLUSIONS

The MiTek Metal Truss Connector Plates MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, and M18AHS, described in Sections 2.0 through 7.0 of the evaluation report ESR-1988, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design requirements are determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-1988 for the 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, with the following condition:

- a) Compliance with Section 2304.10.5 of the *Florida Building Code—Building* and Section R317.3 of the *Florida Building Code—Residential* is required as described in Section 4.2 of the evaluation report ESR-1988.

Use of the MiTek Metal Truss Connector Plates MII 16, TL18, MT18, MT18HS™, M18SHS™, TL20, MT20™, MT20HS™, and M18AHS has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* with the following condition:

- a) For connections subject to uplift, the connection must be designed for no less than 700 pounds (3114 N).

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

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