



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

RE: 2135435 - TABERNACLE ADDITION

MiTek USA, Inc.

6904 Parke East Blvd.
Tampa, FL 33610-4115

Site Information:

Customer Info: HMI, INC. Project Name: Tabernacle Baptist Addition Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: 144 SE Montrose Ave., N/A
City: Columbia Cty State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: FBC2017/TPI2014 Design Program: MiTek 20/20 8.2
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 3 individual, Truss Design Drawings and 0 Additional Drawings.

With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

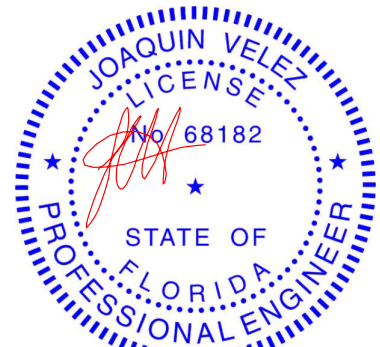
No.	Seal#	Truss Name	Date
1	T18389652	T01	10/16/19
2	T18389653	T01G	10/16/19
3	T18389654	T02	10/16/19

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

Truss Design Engineer's Name: Velez, Joaquin

My license renewal date for the state of Florida is February 28, 2021.

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



Joaquin Velez PE No.68182
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

October 16,2019

Job	Truss	Truss Type	Qty	Ply	TABERNACLE ADDITION
2135435	T01	SCISSORS	13	1	T18389652

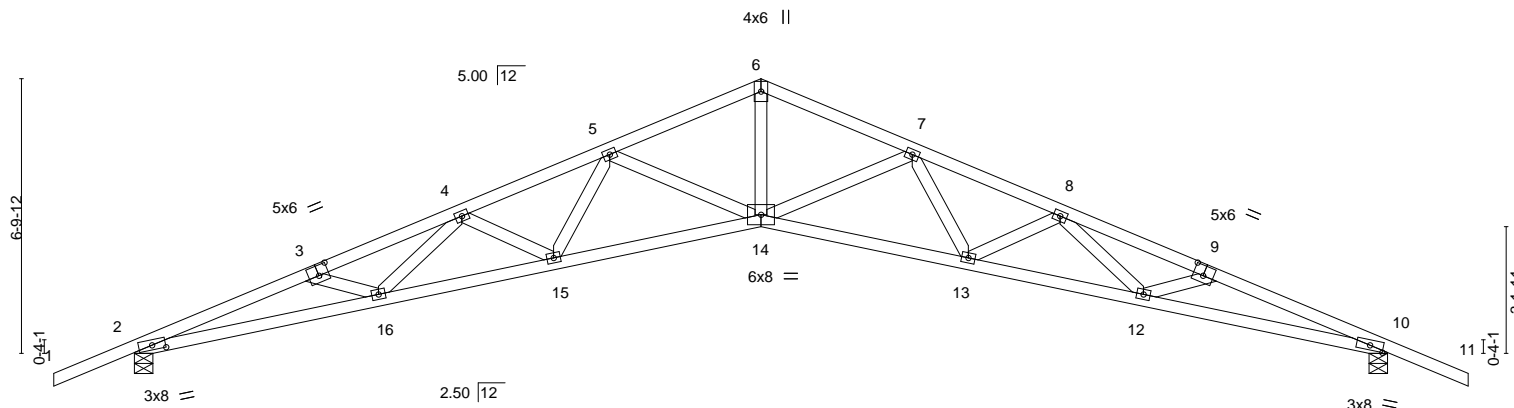
Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Jul 14 2019 MiTek Industries, Inc. Wed Oct 16 09:38:25 2019 Page 1

ID:urBi2CDpEN7mWD6LziUSOYz8lDX-tBW90jkMy0hhOEgGsN?Tli4qQhPFyCwb8G0JSpyStYS

-2-0-0	4-5-10	8-1-7	11-9-8	15-6-8	19-3-8	22-11-9	26-7-6	31-1-0	33-1-0
2-0-0	4-5-10	3-7-14	3-8-0	3-9-0	3-9-0	3-8-0	3-7-14	4-5-10	2-0-0

Scale = 1:57.1



	6-0-10	10-4-12	15-6-8	20-8-4	25-0-6	31-1-0
	6-0-10	4-4-2	5-1-12	5-1-12	4-4-2	6-0-10

Plate Offsets (X,Y)-- [2:0-4-0,0-1-6], [3:0-3-0,0-3-0], [9:0-3-0,0-3-0], [10:0-4-0,0-1-6]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.60	Vert(LL)	-0.43	14	>863	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.51	Vert(CT)	-0.87	13-14	>429		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.50	10	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 150 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP M 31
WEBS 2x4 SP No.3

BRACING-

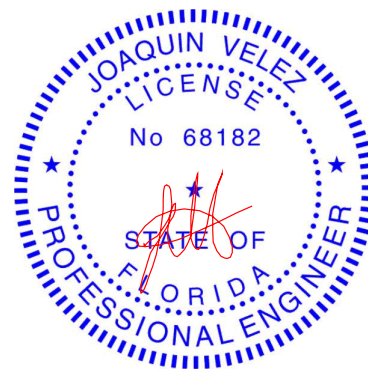
TOP CHORD Structural wood sheathing directly applied or 2-3-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-7-5 oc bracing.

REACTIONS. (lb/size) 2=1363/0-5-8, 10=1363/0-5-8
Max Horz 2=-122(LC 13)
Max Uplift 2=-351(LC 12), 10=-351(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4626/1548, 3-4=-4463/1477, 4-5=-4051/1345, 5-6=-3134/1022, 6-7=-3134/1022,
7-8=-4051/1355, 8-9=-4463/1500, 9-10=-4626/1571
BOT CHORD 2-16=-1337/4291, 15-16=-1232/4126, 14-15=-984/3567, 13-14=-991/3567,
12-13=-1251/4126, 10-12=-1384/4291
WEBS 6-14=-659/2151, 7-14=-718/337, 7-13=-160/495, 8-13=-393/212, 5-14=-718/337,
5-15=-161/495, 4-15=-393/213

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 3x4 MT20 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 2, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=351, 10=351.



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Date:

October 16,2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



6904 Parke East Blvd.
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	TABERNACLE ADDITION
2135435	T01G	GABLE	1	1	T18389653
Job Reference (optional)					

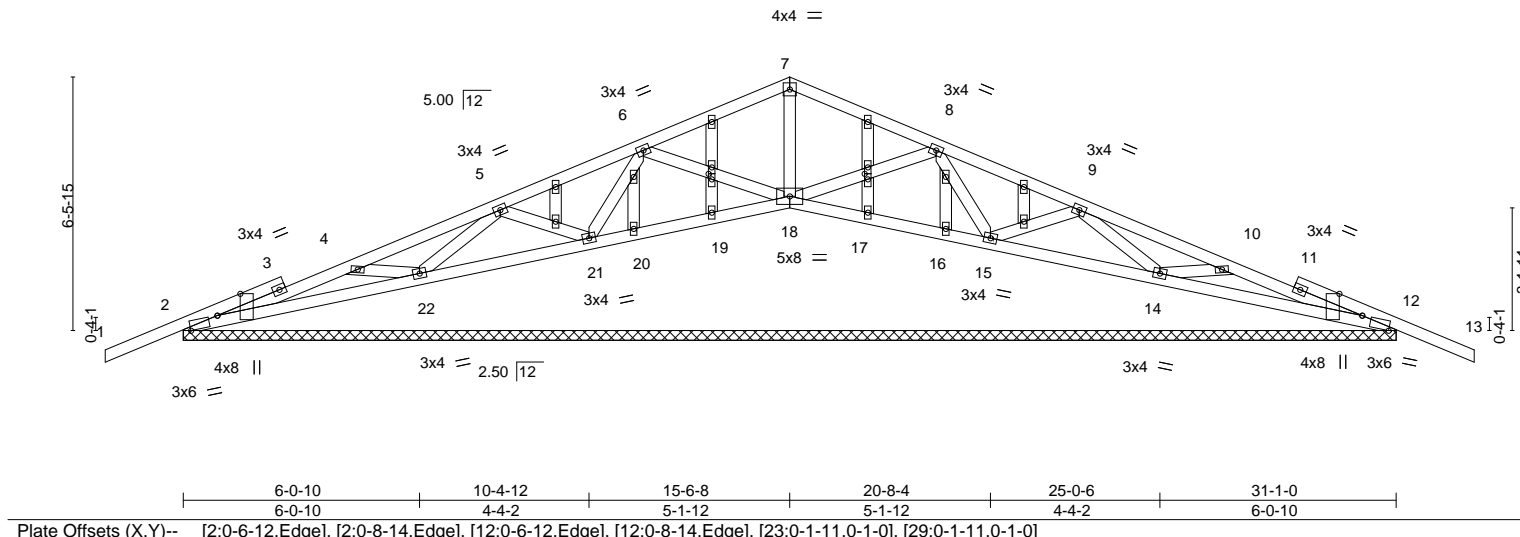
Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Jul 14 2019 MiTek Industries, Inc. Wed Oct 16 09:38:26 2019 Page 1

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-2-0-0	4-5-10	8-1-7	11-9-8	15-6-8	19-3-8	22-11-9	26-7-6	31-1-0	33-1-0
2-0-0	4-5-10	3-7-14	3-8-0	3-9-0	3-9-0	3-8-0	3-7-14	4-5-10	2-0-0

Scale = 1:59.0



LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.25	TC 0.26	Vert(LL)	-0.01	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL 1.25	BC 0.27	Vert(CT)	-0.02	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014	Matrix-S						Weight: 167 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

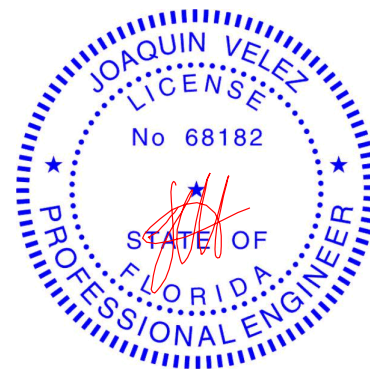
- All bearings 31-1-0.
(lb) - Max Horz 2=-117(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 18 except 2=-117(LC 8), 12=-130(LC 13), 15=-125(LC 13), 14=-157(LC 13), 21=-141(LC 12), 22=-151(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 19, 20, 17, 16 except 2=332(LC 23), 12=332(LC 24), 18=330(LC 1), 15=340(LC 24), 14=471(LC 24), 21=340(LC 23), 22=471(LC 23)

FORCES.

- (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-164/337, 9-10=-119/337
WEBS 8-15=-280/125, 9-14=-370/214, 10-14=-445/297, 6-21=-280/131, 5-22=-370/215, 4-22=-445/298

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18 except (jt=lb) 2=-117, 12=130, 15=125, 14=157, 21=141, 22=151.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18, 15, 14, 21, 22, 19, 20, 17, 16.



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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	TABERNACLE ADDITION
2135435	T02	SCISSORS	2	2	T18389654

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jul 14 2019 MiTek Industries, Inc. Wed Oct 16 09:38:28 2019 Page 1
ID:urBi2CDpEN7mWD6LziUSOYz8IDX-HmCHelmEE4FFiZrXWYANLiOmuMR9aQ1qEF_27yStYP
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2-0-0 4-5-9 3-7-14 3-8-0 3-9-0 3-9-0 3-8-0 3-7-14 4-5-9 2-0-0
Scale = 1:57.1

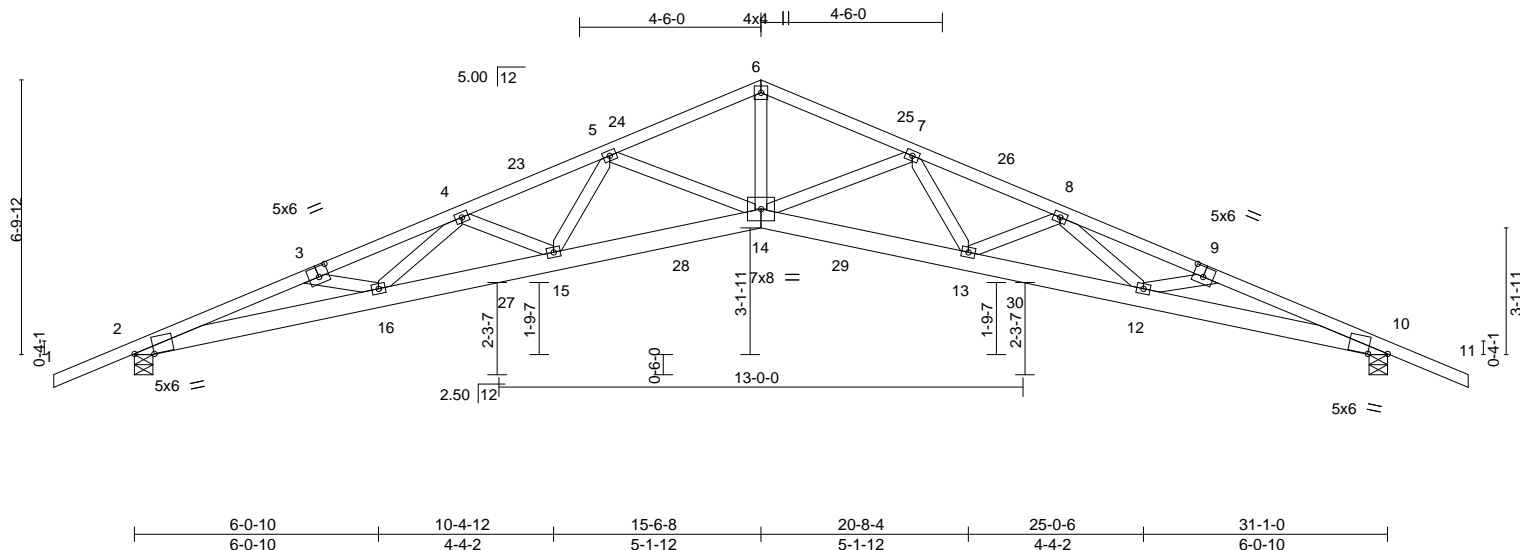


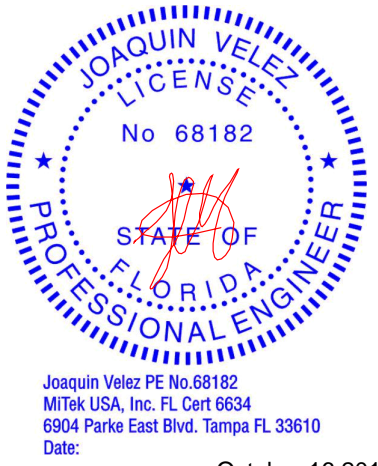
Plate Offsets (X,Y)--										[2:0-5-13,0-1-3], [3:0-3-0,0-3-0], [9:0-3-0,0-3-0], [10:0-5-13,0-1-3]									
LOADING (psf)		SPACING- 2-0-0				CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP					
TCLL	20.0	Plate Grip DOL 1.25				TC 0.40		Vert(LL) -0.34 14 >999 240				MT20		244/190					
TCDL	10.0	Lumber DOL 1.25				BC 0.80		Vert(CT) -0.69 13-14 >542 180											
BCLL	0.0 *	Rep Stress Incr NO				WB 0.71		Horz(CT) 0.38 10 n/a n/a											
BCDL	10.0	Code FBC2017/TPI2014				Matrix-MS						Weight: 352 lb		FT = 20%					

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-3 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (lb/size) 2=1893/0-5-8, 10=1893/0-5-8
Max Horz 2=-122(LC 17)
Max Uplift 2=-512(LC 12), 10=-512(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7297/2487, 3-4=-7169/2420, 4-5=-6779/2291, 5-6=-5209/1735, 6-7=-5209/1735,
7-8=-6779/2301, 8-9=-7169/2445, 9-10=-7297/2512
BOT CHORD 2-16=-2218/6823, 15-16=-2149/6761, 14-15=-1822/5974, 13-14=-1828/5974,
12-13=-2171/6762, 10-12=-2266/6823
WEBS 6-14=-1202/3708, 7-14=-1203/509, 7-13=-285/852, 8-13=-432/228, 5-14=-1203/509,
5-15=-285/852, 4-15=-432/229

- NOTES-
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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 7-10; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 3x4 MT20 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Bearing at joint(s) 2, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=512, 10=512.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 90 lb down and 32 lb up at 9-9-8, 90 lb down and 32 lb up at 12-3-8, and 90 lb down and 32 lb up at 18-9-8, and 90 lb down and 32 lb up at 21-3-8 on top chord, and 175 lb down and 62 lb up at 9-0-8, 175 lb down and 62 lb up at 13-4-8, and 175 lb down and 62 lb up at 17-8-8, and 175 lb down and 62 lb up at 22-0-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of



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Date:

October 16,2019

Job	Truss	Truss Type	Qty	Ply	TABERNACLE ADDITION
2135435	T02	SCISSORS	2	2	T18389654
					Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-6=-60, 6-11=-60, 14-17=-20, 14-20=-20

Concentrated Loads (lb)

Vert: 23=-90 24=-90 25=-90 26=-90 27=-175(F) 28=-175(F) 29=-175(F) 30=-175(F)

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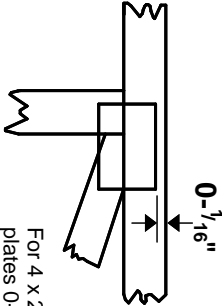
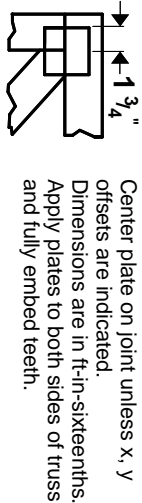
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



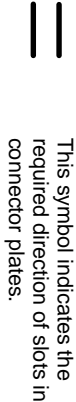
6904 Parke East Blvd.
Tampa, FL 36610

Symbols

PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



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

PLATE SIZE

4 X 4

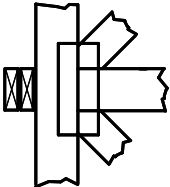
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

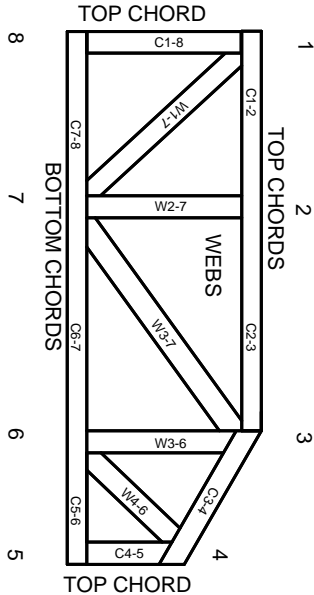


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: 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/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.