



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

RE: 2258676 - IC CONST. - LOT 10 HPF

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: IC Construction Project Name: Spec Hse Model: Custom  
Lot/Block: 10 Subdivision: High Pointe Farms  
Address: TBD, TBD  
City: Columbia Cty State: FL

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

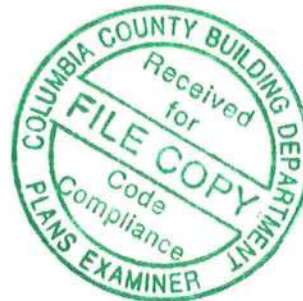
Name: License #:  
Address:  
City: State:

**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: 37.0 psf Floor Load: N/A psf

This package includes 29 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	No.	Seal#	Truss Name	Date
1	T19794659	EJ01	3/25/20	23	T19794681	T17	3/25/20
2	T19794660	PB01	3/25/20	24	T19794682	T17G	3/25/20
3	T19794661	PB01G	3/25/20	25	T19794683	T18	3/25/20
4	T19794662	T01	3/25/20	26	T19794684	T19	3/25/20
5	T19794663	T01G	3/25/20	27	T19794685	T20	3/25/20
6	T19794664	T02	3/25/20	28	T19794686	T20G	3/25/20
7	T19794665	T03	3/25/20	29	T19794687	T21	3/25/20
8	T19794666	T03G	3/25/20				
9	T19794667	T04	3/25/20				
10	T19794668	T04G	3/25/20				
11	T19794669	T05	3/25/20				
12	T19794670	T06	3/25/20				
13	T19794671	T07	3/25/20				
14	T19794672	T08	3/25/20				
15	T19794673	T09	3/25/20				
16	T19794674	T11	3/25/20				
17	T19794675	T12	3/25/20				
18	T19794676	T13	3/25/20				
19	T19794677	T14	3/25/20				
20	T19794678	T14G	3/25/20				
21	T19794679	T15	3/25/20				
22	T19794680	T16	3/25/20				



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:

March 25, 2020

Velez, Joaquin

1 of 1



Job 2258676	Truss EJ01	Truss Type Jack-Partial	Qty 18	Ply 1	IC CONST. - LOT 10 HPF	T19794659
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Builders FirstSource, Jacksonville, FL - 32244,

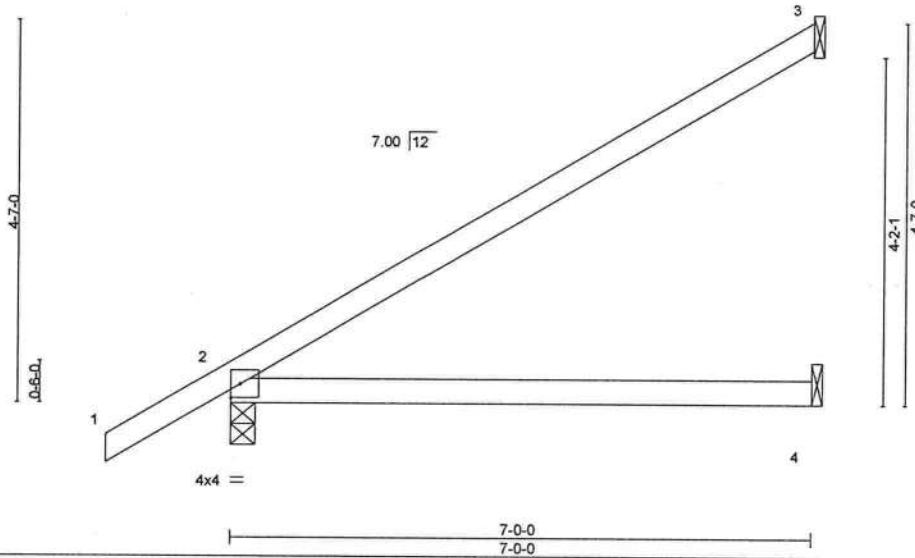
8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:10:07 2020 Page 1

ID:Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-T54?\_8p\_UuBKR17cExeAiWSDE1o3aupptL5ugbzXNy\_

Job Reference (optional)



Scale = 1:26.6



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 0.70	Vert(LL)	0.15	4-7	>544	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.53	Vert(CT)	-0.24	4-7	>348	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS							
									Weight: 25 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

#### 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) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=233(LC 12)  
Max Uplift 3=165(LC 12), 2=113(LC 12), 4=9(LC 12)  
Max Grav 3=188(LC 19), 2=346(LC 1), 4=127(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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
- 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'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=165, 2=113.



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Date:

March 25,2020

**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 BCS1 Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

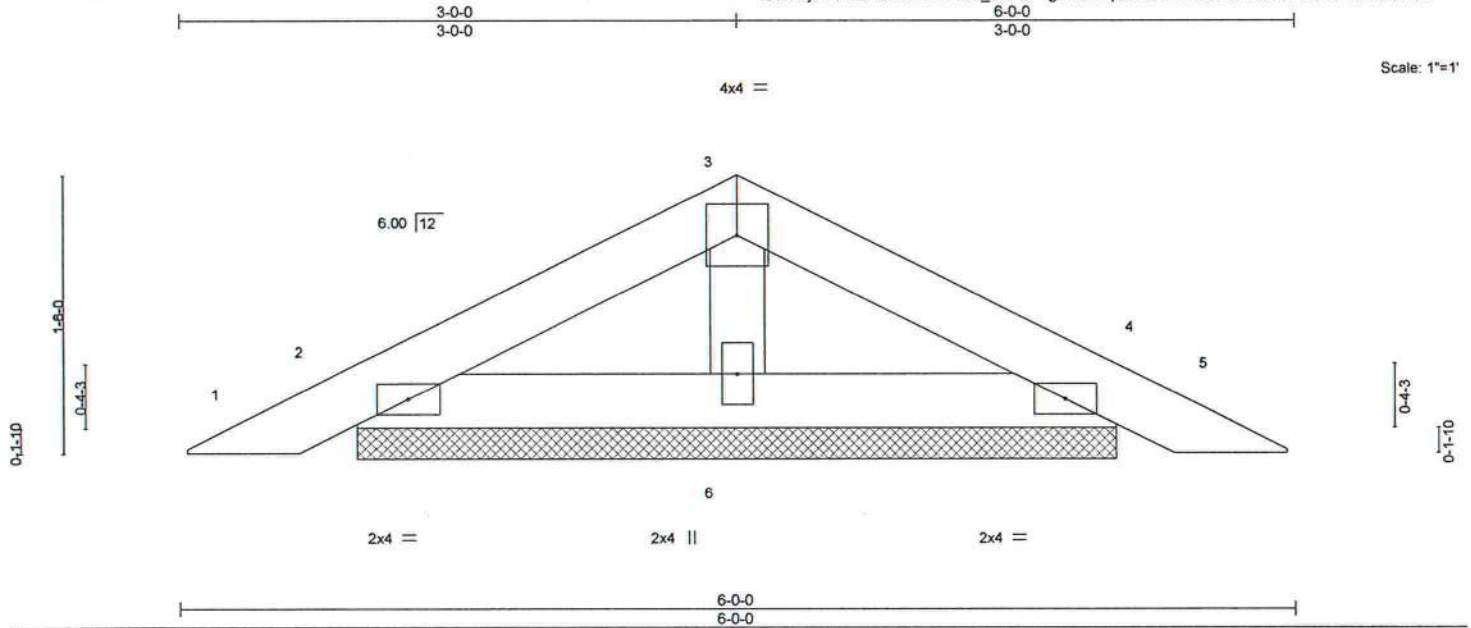
**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2258676	Truss PB01	Truss Type Piggyback	Qty 19	Ply 1	IC CONST. - LOT 10 HPF T19794660
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:10:10 2020 Page 1  
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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 0.07	Vert(LL)	0.00	4	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.04	Vert(CT)	0.00	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-P						Weight: 17 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
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 10'-0-0 oc bracing.

#### REACTIONS.

(size) 2=4-0-14, 4=4-0-14, 6=4-0-14  
Max Horz 2=28(LC 12)  
Max Uplift 2=63(LC 12), 4=69(LC 13), 6=29(LC 12)  
Max Grav 2=114(LC 1), 4=114(LC 1), 6=141(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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Date:

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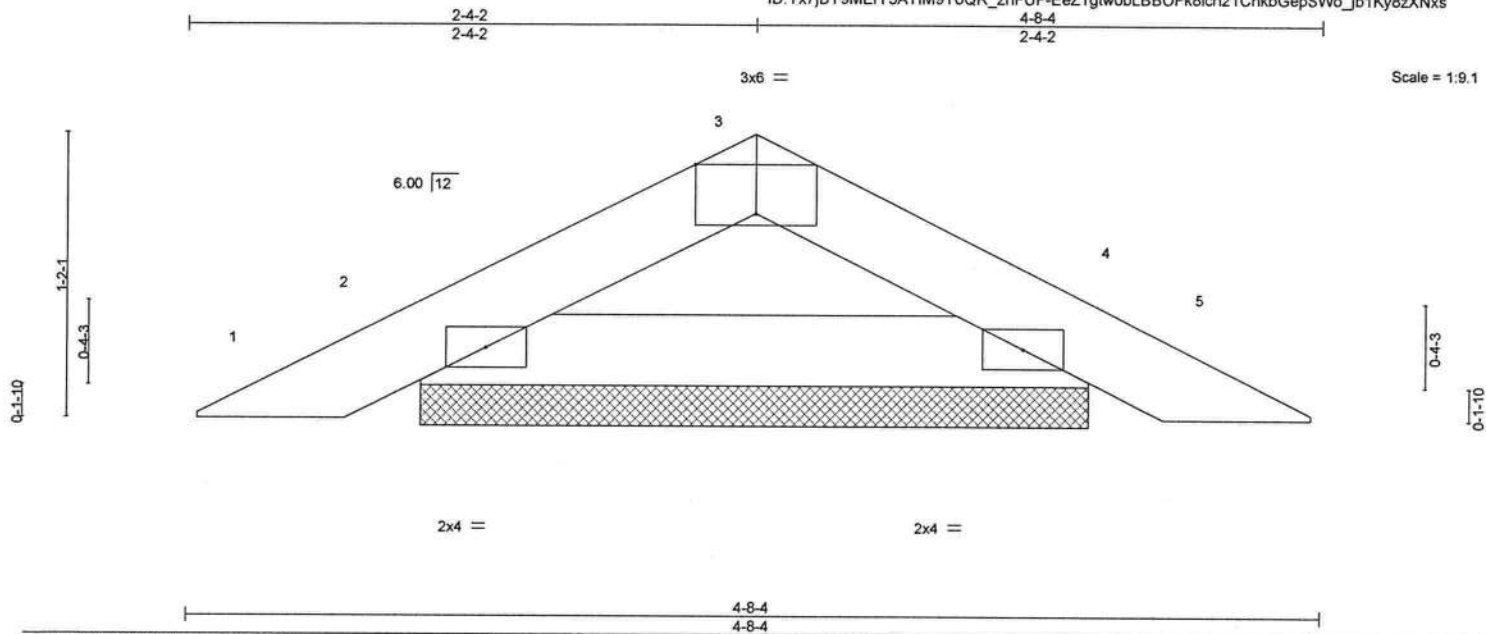
Job 2258676	Truss PB01G	Truss Type PIGGYBACK	Qty 2	Ply 1	IC CONST. - LOT 10 HPF	T19794661
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Job Reference (optional)



Scale = 1:9.1

Plate Offsets (X,Y)-		[3-0-3-0-Edge]									
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 0.04	Vert(LL)	0.00	4	n/r	MT20	244/190		
TCDL 7.0	Lumber DOL	1.25	BC 0.09	Vert(CT)	0.00	4	n/r				
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a				
BCDL 10.0	Code FBC2017/TP12014		Matrix-P								
										Weight: 12 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=2-9-2, 4=2-9-2  
Max Horz 2=21(LC 12)  
Max Uplift 2=60(LC 12), 4=60(LC 13)  
Max Grav 2=135(LC 1), 4=135(LC 1)

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

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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
- 3) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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Date:

March 25,2020

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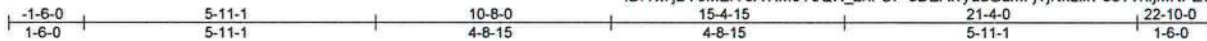
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Tampa, FL 33610

Job 2258676	Truss T01	Truss Type Common	Qty 8	Ply 1	IC CONST. - LOT 10 HPF	T19794662
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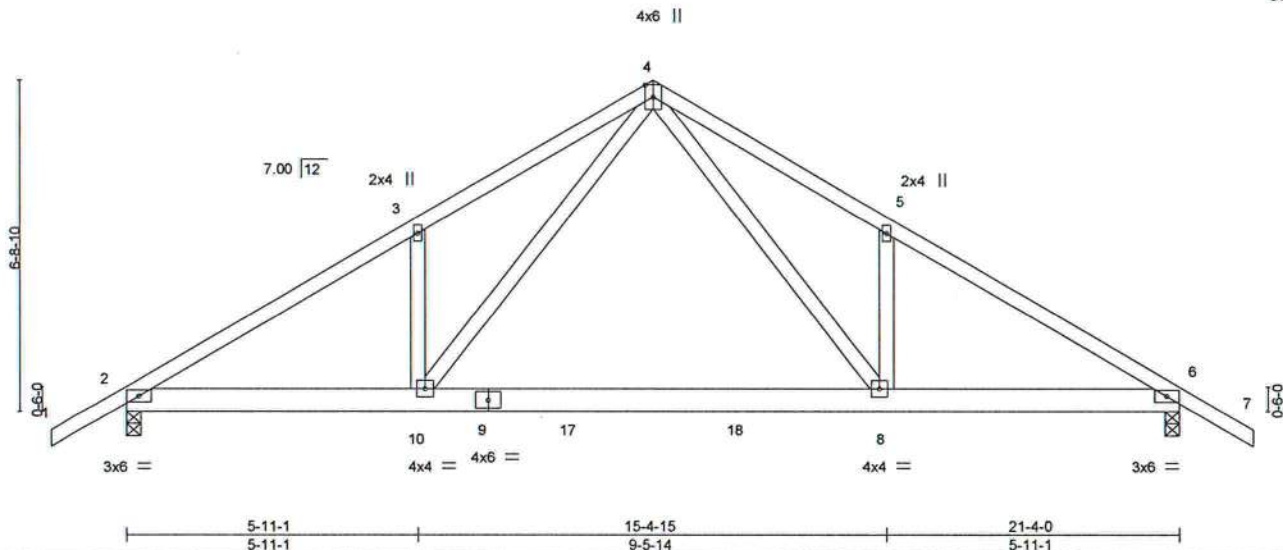
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Scale = 1:44.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	Vert(LL) 0.18	8-10	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.85	Vert(CT) -0.35	8-10	>732	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.63	Horz(CT) 0.03	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS						
	Code FBC2017/TP12014						Weight: 124 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-2-3 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=221(LC 11)  
Max Uplift 2=-473(LC 12), 6=-473(LC 13)  
Max Grav 2=1166(LC 19), 6=1166(LC 20)

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

TOP CHORD 2-3=-1910/775, 3-4=-1949/936, 4-5=-1949/936, 5-6=-1911/775  
BOT CHORD 2-10=-619/1726, 8-10=-297/1043, 6-8=-538/1578  
WEBS 4-8=-537/1137, 5-8=-333/305, 4-10=-537/1136, 3-10=-333/305

#### 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 C; 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
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=473, 6=473.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-7=-54, 10-11=-20, 8-10=-80(F=-60), 8-14=-20



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March 25,2020

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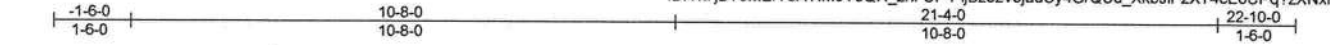
Job 2258676	Truss T01G	Truss Type Common Supported Gable	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794663
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:10:26 2020 Page 1

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Job Reference (optional)



Scale = 1:43.4

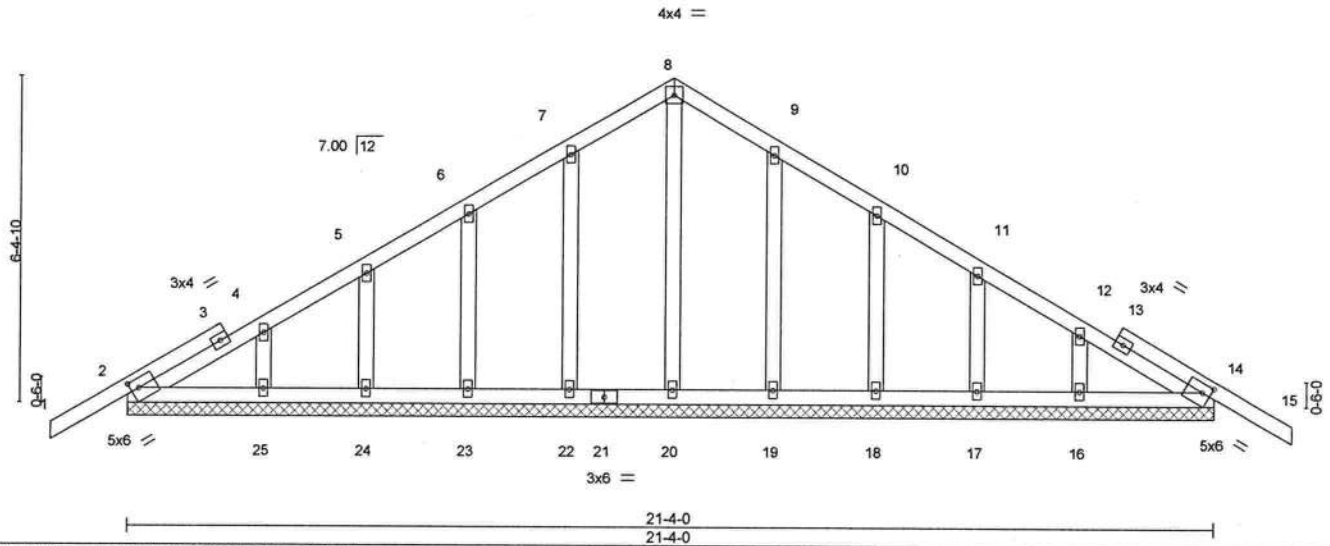


Plate Offsets (X,Y)~		[2:0-1-14,0-2-1], [14:0-1-14,0-2-1]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.13
TCDL 7.0	Lumber DOL	1.25	BC 0.05
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09
BCDL 10.0	Code	FBC2017/TPI2014	Matrix-S
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.01 15 n/r 120
			Vert(CT) -0.01 15 n/r 120
			Horz(CT) 0.01 14 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 123 lb FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
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 10-0-0 oc bracing.

**REACTIONS.** All bearings 21-4-0.  
(lb) - Max Horz 2=211(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 25, 16 except 22=105(LC 12), 23=102(LC 12),  
24=104(LC 12), 19=102(LC 13), 18=103(LC 13), 17=104(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 14, 20, 22, 23, 24, 25, 19, 18, 17, 16

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

#### 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 C; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 25, 16 except (it=lb) 22=105, 23=102, 24=104, 19=102, 18=103, 17=104.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 14.



Joaquin Velez PE No.68182  
MiTek USA, Inc. FL Cert 6634  
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Date:

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**MiTek**

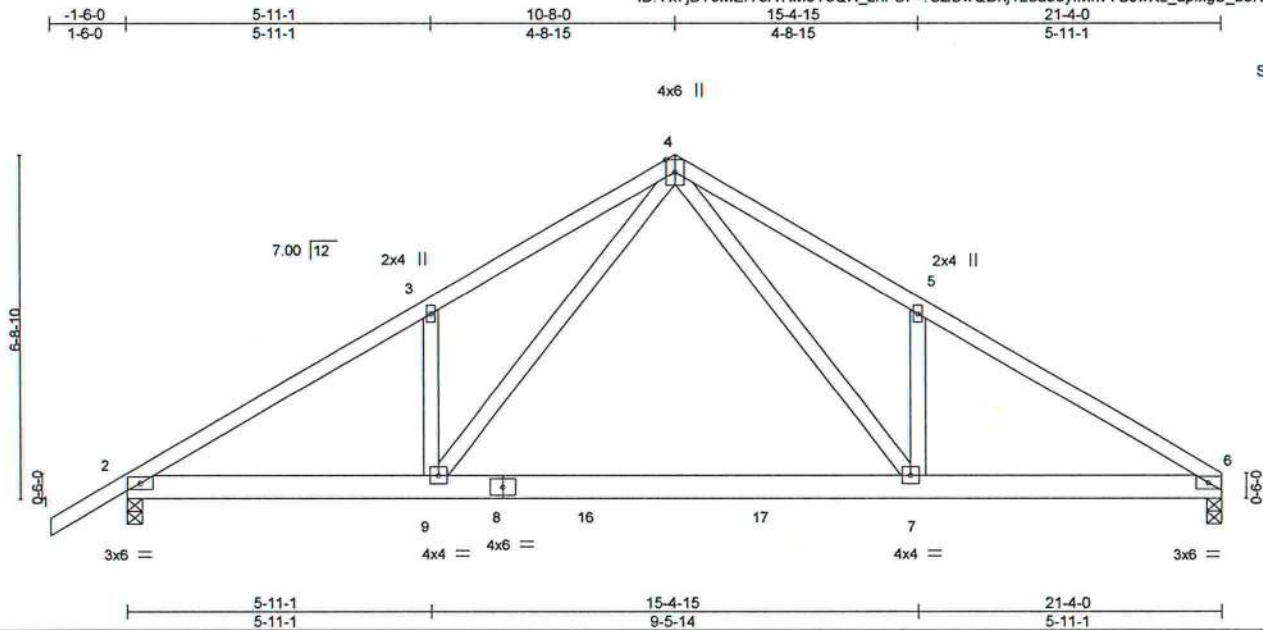
6904 Parke East Blvd.  
Tampa, FL 36610



Job 2259676	Truss T02	Truss Type Common	Qty 2	Ply 1	IC CONST. - LOT 10 HPF	T19794664
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:10:40 2020 Page 1  
ID: Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-7SZUwQDhj1Leu58yfMkvYUJwXL\_upfxgS\_b8KBzXNxT



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	Vert(LL)	0.18	7-9	>999	240	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.84	Vert(CT)	-0.35	7-9	>735	180	
BCLL 0.0 *	Lumber DOL 1.25	WB 0.64	Horz(CT)	0.03	6	n/a	n/a	
BCDL 10.0	Rep Stress Incr NO	Matrix-MS						
	Code FBC2017/TPI2014							

Weight: 122 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-0-11 oc bracing.

#### REACTIONS.

(size) 6=0-3-8, 2=0-3-8  
Max Horz 2=212(LC 11)  
Max Uplift 6=421(LC 13), 2=474(LC 12)  
Max Grav 6=1085(LC 20), 2=1167(LC 19)

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

TOP CHORD 2-3=-1912/782, 3-4=-1953/943, 4-5=-1964/954, 5-6=-1927/791  
BOT CHORD 2-9=-638/1714, 7-9=-316/1032, 6-7=-587/1583  
WEBS 4-7=-551/1154, 5-7=-331/307, 4-9=-536/1135, 3-9=-333/305

#### 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 C; 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
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=421, 2=474.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-6=-54, 9-13=-20, 7-9=-80(F=-60), 7-10=-20



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

March 25,2020

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8 340 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:10:51 2020 Page 1

1-6-0 5-4-0 10-0-8 14-2-4 18-4-0 25-0-0 31-8-0 38-8-0 40-2-0  
1-6-0 5-4-0 4-8-8 4-1-12 4-1-12 6-8-0 6-8-0 7-0-0 1-6-0

Scale = 1:70.7

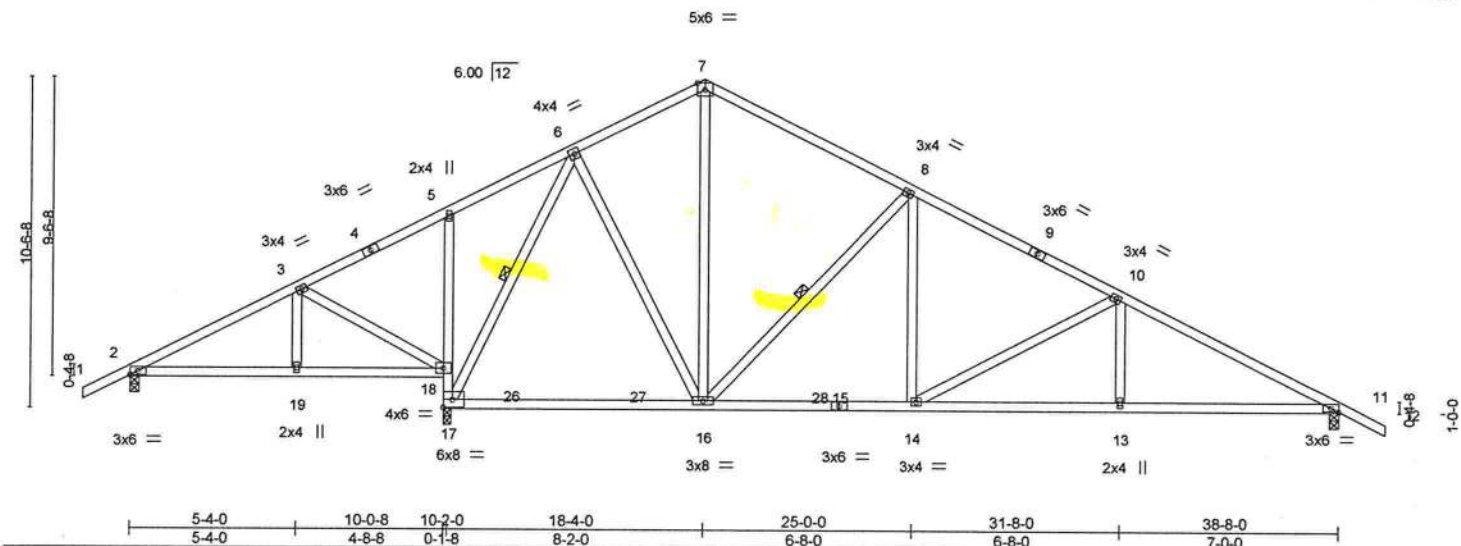


Plate Offsets (X,Y)=-												[11:0-2-15,Edge]											
LOADING (psf)				SPACING- 2-0-0				CSI.				DEFL. in (loc) l/defl L/d				PLATES				GRIP			
TCLL 20.0				Plate Grip DOL 1.25				TC 0.50				Vert(LL) -0.18 16-17 >999 240				MT20				244/190			
TCDL 7.0				Lumber DOL 1.25				BC 0.68				Vert(CT) -0.31 16-17 >999 180											
BCLL 0.0 *				Rep Stress Incr YES				WB 0.63				Horz(CT) 0.03 17 n/a n/a											
BCDL 10.0				Code FBC2017/TPI2014				Matrix-MS												Weight: 228 lb FT = 20%			

**LUMBER.**

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 5-17: 2x4 SP No.3
WEBS	2x4 SP No.3

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 3-9-11 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt                      6-17, 8-16

### REACTIONS.

(size) 2=0-3-8, 17=0-3-0, 11=0-3-8  
Max Horz 2=-257(LC 13)  
Max Uplift 2=-212(LC 8), 17=-550(LC 12), 11=-520(LC 13)  
Max Grav 2=424(LC 23), 17=1516(LC 1), 11=1112(LC 1)

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

TOP CHORD 2-3=416/551, 3-5=87/281, 5-6=97/365, 6-7=697/625, 7-8=732/605, 8-10=1278/804,  
10-11=1839/999

BOT CHORD 2-19=299/327, 18-19=299/327, 17-18=514/631, 5-18=253/268, 16-17=46/419,  
14-16=390/1073, 13-14=752/1582, 11-13=752/1582

WEBS 3-18=434/571, 6-17=1037/410, 6-16=47/461, 7-16=310/365, 8-16=728/533,  
8-14=150/448, 10-14=578/411, 10-13=0/289

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCp=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=212, 17=550, 11=520.



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

March 25, 2020

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6904 Parke East Blvd.  
Tampa, FL 36610

Job 2258676	Truss T03G	Truss Type GABLE	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794665
Builders FirstSource, Jacksonville, FL - 32244,						

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:10:55 2020 Page 1  
ID:Yx7jBY9MEfY5ATIM9YoQR\_zhFUF-3Kz93YP5AeEWBPoq10VQfeRYVOGOqY2IvpjRMpZNXE

1-6-0 5-3-0 10-0-8 18-4-0 38-8-0 40-2-0  
1-6-0 5-3-0 4-9-8 8-3-8 20-4-0 1-6-0

Scale = 1:75.4

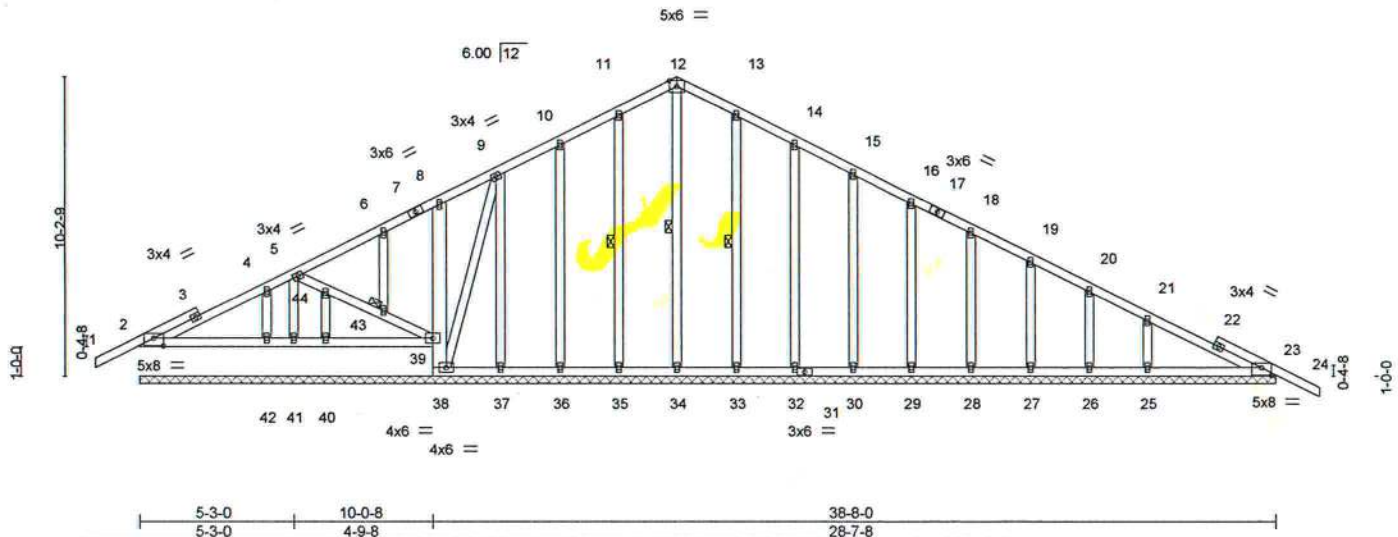


Plate Offsets (X,Y)– [2:0-4-0,0-3-1], [23:0-4-0,0-3-1]									
LOADING (psf)		SPACING- 2-0-0		CSI.	DEFL. in (loc) l/defl L/d			PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.17	Vert(LL)	0.00	23	n/r	120
TCDL	7.0	Lumber DOL	1.25	BC 0.14	Vert(CT)	0.00	24	n/r	120
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0.02	23	n/a	n/a
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S					
								Weight: 285 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
8-38: 2x6 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, Except:  
10-0-0 oc bracing: 38-39.  
WEBS 1 Row at midpt 12-34, 11-35, 13-33  
JOINTS 1 Brace at Jt(s): 43

#### REACTIONS.

All bearings 38-8-0.  
(lb) - Max Horz 2=250(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 35, 36, 40, 42, 33, 32, 30, 29, 28, 27, 26, 23 except  
2=106(LC 13), 39=197(LC 12), 25=158(LC 13), 41=112(LC 3), 37=113(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 2, 39, 38, 35, 36, 40, 33, 32, 30, 29, 28, 27, 26, 23, 41, 37  
except 34=257(LC 13), 42=270(LC 3), 25=289(LC 1)

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

TOP CHORD 8-9=87/306, 9-10=99/307, 10-11=122/374, 11-12=142/427, 12-13=142/427,  
13-14=122/374, 14-15=100/310, 15-16=80/251  
WEBS 12-34=273/54

#### 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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.
- 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.
- Bearing at joint(s) 39 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) 35, 36, 40, 42, 33, 32, 30, 29, 28, 27, 26, 23 except (jt=lb) 2=106, 39=197, 25=158, 41=112, 37=113.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 40, 42, 41.



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

March 25,2020

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6904 Parke East Blvd.  
Tampa, FL 36610



Job 2258676	Truss T04	Truss Type Piggyback Base	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794667
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:00 2020 Page 1  
ID:Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-Pln26GTE?AspHAgqZ5cMi8lhPrZViEc35RC11zXNx9

1-6-0	5-4-0	10-0-8	12-9-8	19-0-0	22-10-8	25-0-0	32-0-0	39-0-0	46-0-0	47-6-0
1-6-0	5-4-0	4-8-8	2-9-0	6-2-8	3-10-8	2-1-8	7-0-0	7-0-0	7-0-0	1-6-0

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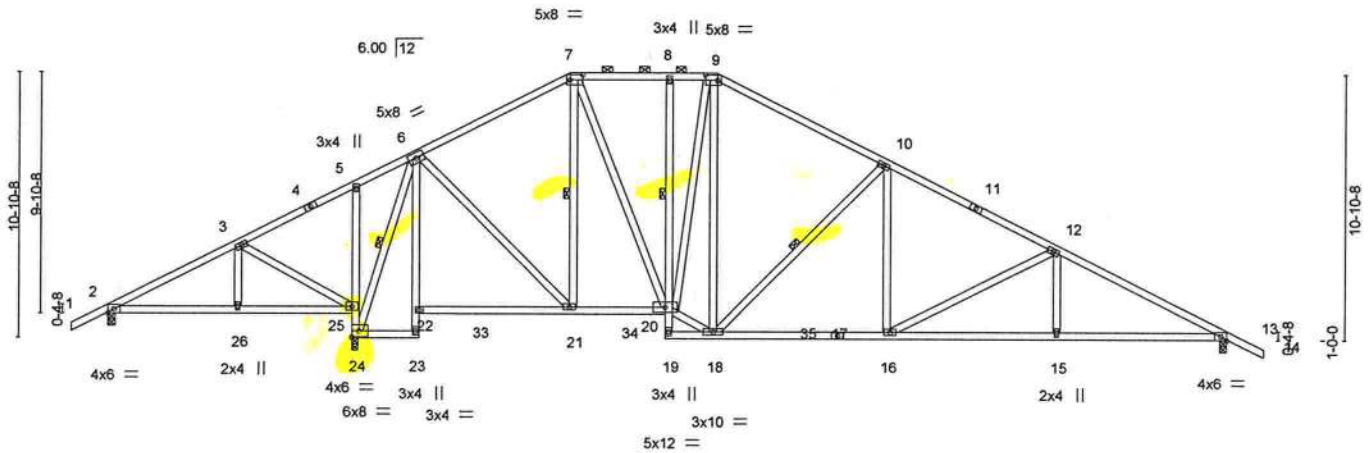


Plate Offsets (X,Y)- [7:0-6-0,0-2-8], [9:0-6-0,0-2-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.59	Vert(LL)	-0.14 16-18	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.71	Vert(CT)	-0.27 16-18	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.69	Horz(CT)	-0.06 24	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 321 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
5-24,6-23,8-19: 2x4 SP No.3  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-3-13 oc purlins, except  
2-0-0 oc purlins (5-7-13 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied or 5-8-7 oc bracing. Except:  
WEBS 1 Row at midpt 8-20  
1 Row at midpt 6-24, 7-21, 10-18

**REACTIONS.** (size) 2=0-3-8, 24=0-3-0, 13=0-3-8  
Max Horz 2=-264(LC 13)  
Max Uplift 2=-226(LC 8), 24=-625(LC 12), 13=-609(LC 13)  
Max Grav 2=317(LC 23), 24=1938(LC 1), 13=1354(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-184/562, 3-5=-65/603, 5-6=-11/572, 6-7=-968/759, 7-8=-1008/848, 8-9=-1006/848,  
9-10=-1198/879, 10-12=-1797/1093, 12-13=-2367/1298  
BOT CHORD 2-26=-309/121, 25-26=-309/121, 24-25=-472/534, 20-21=-134/785, 16-18=-645/1534,  
15-16=-1020/2053, 13-15=-1020/2053  
WEBS 3-25=-435/580, 6-24=-1602/626, 6-21=-169/803, 7-21=-418/157, 7-20=-275/633,  
18-20=-277/1092, 9-18=-244/254, 10-18=-771/556, 10-16=-144/487, 12-16=-584/420,  
12-15=0/284

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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.
  - All plates are 3x6 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=226, 24=625, 13=609.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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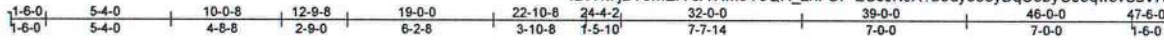


Job	Truss	Truss Type	Qty	Ply	IC CONST. - LOT 10 HPF	T19794668
2258676	T04G	GABLE	1	1	Job Reference (optional)	

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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:06 2020 Page 1

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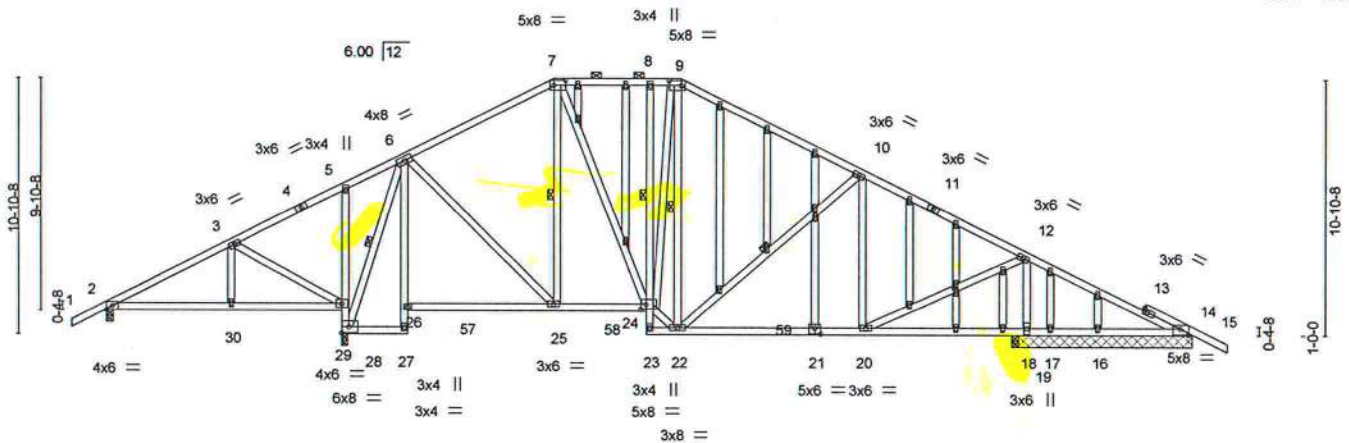


Plate Offsets (X,Y) -		[7:0-6-0,0-2-8], [9:0-6-0,0-2-8], [14:0-4-0,0-3-1], [21:0-3-0,0-3-0], [24:0-2-12,0-2-8], [39:0-1-14,0-1-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 20.0	Plate Grip DOL	1.25	TC 0.60	Vert(LL)	-0.08	20-22	>999	240	244/190		
TCDL 7.0	Lumber DOL	1.25	BC 0.59	Vert(CT)	-0.17	20-22	>999	180			
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	-0.04	28	n/a	n/a			
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 388 lb FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 5-28,6-27,8-23: 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-2 oc purlins, except  
 2-0-0 oc purlins (6-0-0 max.): 7-9.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
 1 Row at midpt 8-24  
 WEBS 1 Row at midpt 6-28, 7-25, 9-22, 10-22

#### REACTIONS.

All bearings 7-7-8 except (jt=length) 2=0-3-8, 28=0-3-0, 19=0-3-8.  
 (lb) - Max Horz 2=-264(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 17, 14 except 2=-242(LC 8), 28=-542(LC 12), 18=-719(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 17, 14, 14 except 2=356(LC 23), 28=1568(LC 1), 18=1134(LC 1), 19=432(LC 3)

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

TOP CHORD 2-3=-269/642, 3-5=-52/515, 5-6=-17/497, 6-7=-730/631, 7-8=-671/667, 8-9=-668/666,  
 9-10=-814/659, 10-12=-894/594, 12-14=-169/334  
 BOT CHORD 2-30=-380/197, 29-30=-380/197, 28-29=-450/522, 24-25=-55/596, 20-22=-212/734,  
 19-20=-228/257, 18-19=-228/257, 17-18=-228/257, 16-17=-228/257, 14-16=-228/257  
 WEBS 3-29=-439/583, 6-28=-1229/414, 6-25=-40/532, 7-24=-100/316, 22-24=-68/800,  
 9-24=-130/326, 10-20=-303/260, 12-20=-505/1054, 12-18=-1275/822

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 17, 14, 14 except (jt=lb) 2=242, 28=542, 18=719.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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

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6904 Parke East Blvd.  
 Tampa, FL 33610



Job 2258676	Truss T05	Truss Type Piggyback Base	Qty 2	Ply 1	IC CONST. - LOT 10 HPF	T19794669
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:13 2020 Page 1

ID: Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-Xo3yridOxAVzLAAI5oqfORBWWbHb2aBX2c4O\_mzXNwy

Job Reference (optional)

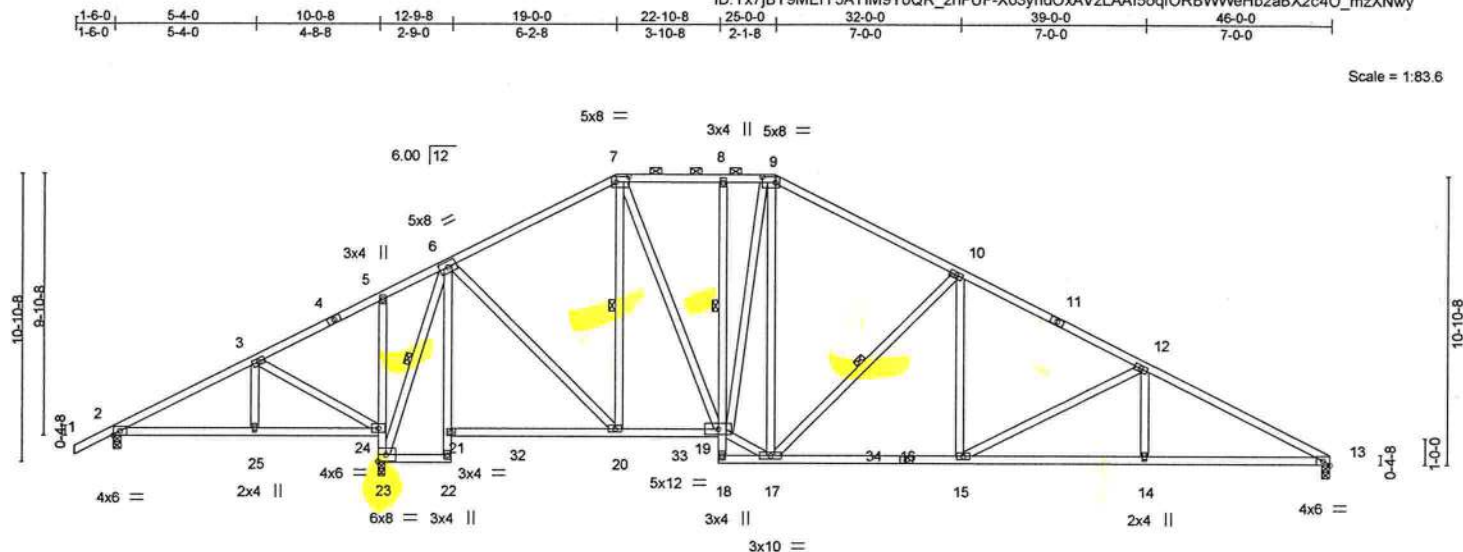


Plate Offsets (X, Y) - [7:0-6-0,0-2-8], [9:0-6-0,0-2-8]		LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
		TCLL 20.0		2-0-0		TC 0.58		in (loc) l/defl L/d		MT20	
		TCDL 7.0		Plate Grip DOL 1.25		BC 0.72		Vert(LL) -0.14 15-17 >999 240		GRIP 244/190	
		BCLL 0.0 *		Lumber DOL 1.25		WB 0.70		Vert(CT) -0.27 15-17 >999 180			
		BCDL 10.0		Rep Stress Incr YES		Matrix-MS		Horz(CT) -0.06 23 n/a n/a		Weight: 318 lb FT = 20%	
				Code FBC2017/TPI2014							

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2		TOP CHORD	
BOT CHORD 2x4 SP No.2 *Except*		Structural wood sheathing directly applied or 3-2-12 oc purlins, except	
WEBS 2x4 SP No.3		2-0-0 oc purlins (5-7-12 max.): 7-9.	
		BOT CHORD	
		Rigid ceiling directly applied or 5-6-5 oc bracing. Except:	
		WEBS	
		1 Row at midpt 8-19	
		1 Row at midpt 6-23, 7-20, 10-17	

<b>REACTIONS.</b>	
(size) 2=0-3-8, 23=0-3-0, 13=0-3-8	
Max Horz 2=233(LC 13)	
Max Uplift 2=217(LC 8), 23=636(LC 12), 13=552(LC 13)	
Max Grav 2=317(LC 23), 23=1940(LC 1), 13=1271(LC 1)	

<b>FORCES.</b>	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-183/491, 3-5=-91/577, 5-6=-37/546, 6-7=-969/735, 7-8=-1010/832, 8-9=-1009/832, 9-10=-1200/859, 10-12=-1802/1078, 12-13=-2385/1301	
BOT CHORD 2-25=-310/120, 24-25=-310/120, 23-24=-472/536, 19-20=-158/786, 15-17=-673/1539, 14-15=-1059/2071, 13-14=-1059/2071	
WEBS 3-24=-435/581, 6-23=-1604/654, 6-20=-189/804, 7-20=-419/170, 7-19=-283/635, 17-19=-305/1095, 9-17=-234/255, 10-17=-774/559, 10-15=-148/488, 12-15=-599/433, 12-14=0/285	

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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.
  - All plates are 3x6 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=217, 23=636, 13=552.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25, 2020

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**MiTek**  
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2259676	Truss T06	Truss Type Piggyback Base	Qty 2	Ply 1	IC CONST. - LOT 10 HPF	T19794670
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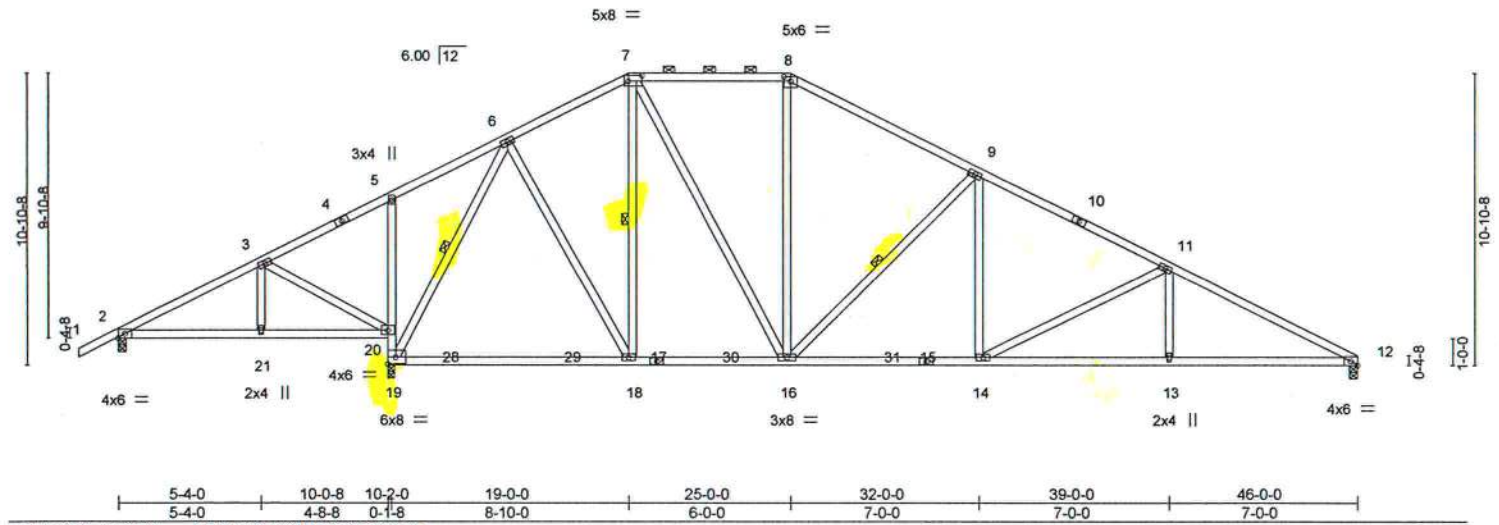
Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:19 2020 Page 1

ID:Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-MyQD5mh9X0F635dSR2x3diQX13IsSGIPQYXiBQzXNws

1-6-0	5-4-0	10-0-8	14-6-4	19-0-0	25-0-0	32-0-0	39-0-0	46-0-0
1-6-0	5-4-0	4-8-8	4-5-12	4-5-12	6-0-0	7-0-0	7-0-0	7-0-0

Scale = 1:82.2



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 0.58	Vert(LL)	-0.26 18-19	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.85	Vert(CT)	-0.46 18-19	>938	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.79	Horz(CT)	0.04 12	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 283 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
5-19: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-3 oc purlins, except 2-0-0 oc purlins (4-10-10 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied or 5-6-6 oc bracing.  
WEBS 1 Row at midpt 6-19, 7-18, 9-16

#### REACTIONS.

(size) 2=0-3-8, 19=0-3-0, 12=0-3-8  
Max Horz 2=-233(LC 13)  
Max Uplift 2=-202(LC 8), 19=-633(LC 12), 12=-547(LC 13)  
Max Grav 2=419(LC 23), 19=1791(LC 1), 12=1304(LC 1)

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

TOP CHORD 2-3=-403/480, 3-5=-111/255, 5-6=-92/339, 6-7=-1015/732, 7-8=-1087/841,  
8-9=-1288/857, 9-11=-1876/1075, 11-12=-2457/1298  
BOT CHORD 2-21=-300/316, 20-21=-300/316, 19-20=-522/636, 5-20=-261/272, 18-19=-91/574,  
16-18=-137/865, 14-16=-670/1613, 13-14=-1057/2135, 12-13=-1057/2135  
WEBS 3-20=-430/571, 6-19=-1340/590, 6-18=-108/613, 7-18=-349/138, 7-16=-287/578,  
8-16=-107/306, 9-16=-774/557, 9-14=-148/493, 11-14=-598/434, 11-13=0/283

#### 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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.
- All plates are 3x6 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=202, 19=633, 12=547.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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6904 Parke East Blvd.  
Tampa, FL 33610





Job 2258676	Truss T08	Truss Type Piggyback Base	Qty 2	Ply 1	IC CONST. - LOT 10 HPF	T19794672
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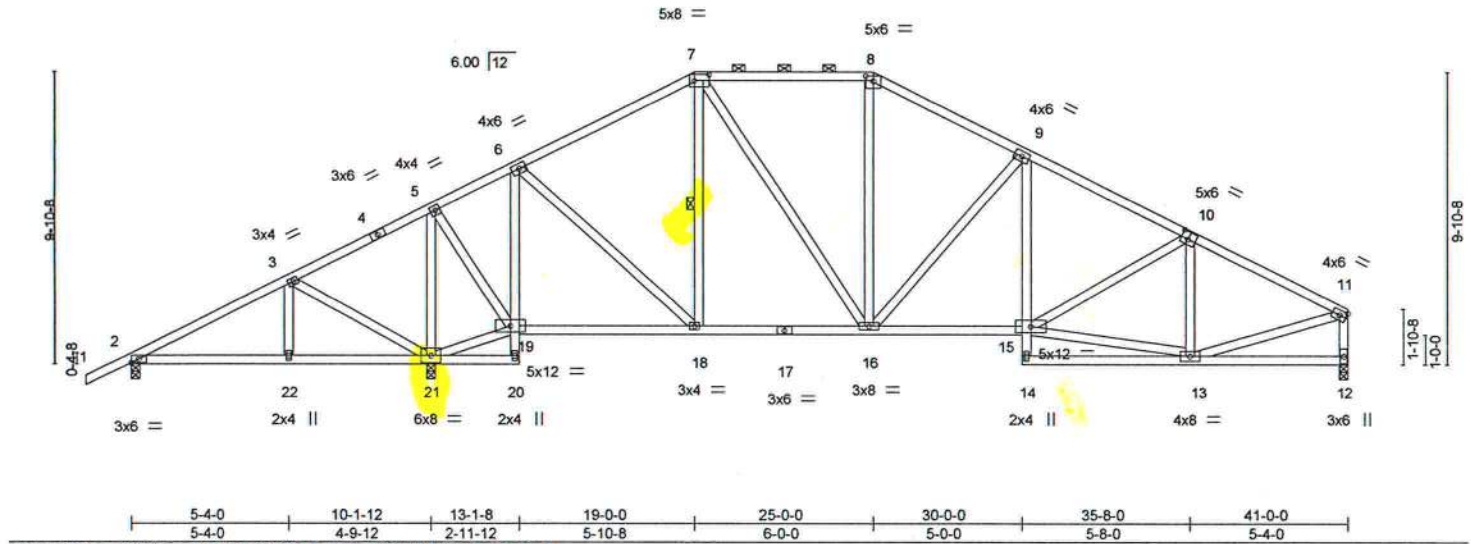
Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:31 2020 Page 1

ID: Yx7jBY9MEY5ATIM9YoQR\_zhFUF-?G9mdsrhiimPVxY18a9t6EwdEvSyFjiABPRLckzXNwg

1-6-0	5-4-0	10-1-12	13-1-8	19-0-0	25-0-0	30-0-0	35-8-0	41-0-0
1-6-0	5-4-0	4-9-12	2-11-12	5-10-8	6-0-0	5-0-0	5-8-0	5-4-0

Scale = 1:74.6



LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.50	Vert(LL)	-0.06 16-18	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.58	Vert(CT)	-0.12 15-16	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.04 12	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 275 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-20,9-14: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-2 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-1 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 7-18

#### REACTIONS.

(size) 2=0-3-8, 12=0-3-8, 21=0-3-8  
Max Horz 2=275(LC 12)  
Max Uplift 2=128(LC 8), 12=411(LC 13), 21=680(LC 12)  
Max Grav 2=279(LC 23), 12=1059(LC 1), 21=1815(LC 1)

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

TOP CHORD 3-5=-292/540, 6-7=-820/513, 7-8=-886/650, 8-9=-1055/665, 9-10=-1415/784,  
10-11=-1273/649, 11-12=-1014/545  
BOT CHORD 6-19=-955/582, 16-18=-107/659, 15-16=-480/1211, 9-15=-91/297  
WEBS 3-21=-454/599, 5-21=-1343/711, 19-21=-455/417, 5-19=-478/1055, 6-18=-269/659,  
7-18=-318/219, 7-16=-230/450, 9-16=-498/389, 13-15=-507/1062, 10-13=-418/290,  
11-13=-498/1094

#### 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=128, 12=411, 21=680.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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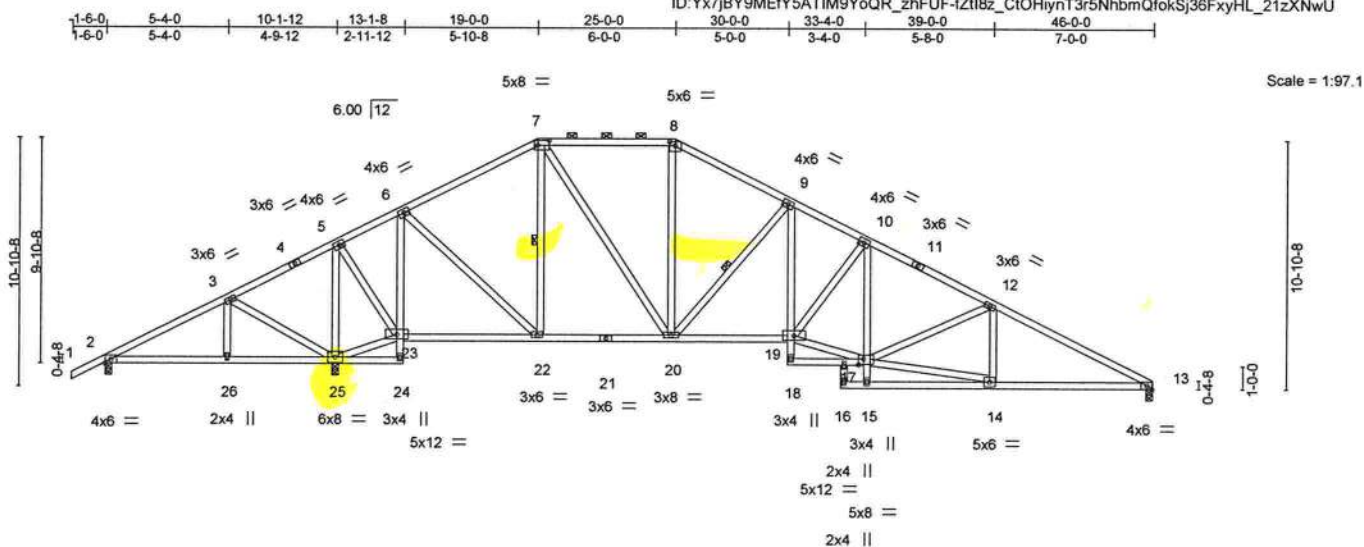
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8 240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:43 2020 Page 1



<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>5-4-010-1-1213-1-819-0-025-0-030-0-032-4-039-0-046-0-0</div> <div>5-4-04-9-122-11-125-0-66-0-05-0-02-4-01-0-05-8-07-0-0</div>										
Plate Offsets (X,Y)– [7:0-6-0,0-2-8], [8:0-3-0,0-2-0], [13:0-2-11,Edge], [17:0-2-12,0-3-0]										
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 0.52		Vert(LL) 0.15 16 >999 240			MT20	244/190
TCDL 7.0		Lumber DOL 1.25		BC 0.96		Vert(CT) -0.26 16 >999 180				
BCLL 0.0 *		Rep Stress Incr YES		WB 0.85		Horz(CT) 0.08 13 n/a n/a				
BCDL 10.0		Code FBC2017/TPI2014		Matrix-MS					Weight: 304 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-3-5 oc purlins, except
BOT CHORD	2x4 SP No.2 *Except*		2-0-0 oc purlins (4-10-3 max.): 7-8.
	6-24,9-18,10-15: 2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 5-9-12 oc bracing. Except:
WEBS	2x4 SP No.3		10-0-0 oc bracing: 15-17
<b>REACTIONS.</b>	(size) 2=0-3-8, 13=0-3-8, 25=0-3-8	WEBS	1 Row at midpt 7-22, 9-20
	Max Horz 2=-233(LC 13)		
	Max Uplift 2=-182(LC 24), 13=-499(LC 13), 25=-739(LC 12)		
	Max Grav 2=159(LC 23), 13=1217(LC 1), 25=2266(LC 1)		

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

**TOP CHORD** 2-3=-210/623, 3-5=-356/991, 6-7=-837/577, 7-8=-1065/773, 8-9=-1251/798,  
9-10=-1911/1092, 10-12=-1126/1126, 12-13=-2261/1178

**BOT CHORD** 2-26=-537/341, 25-26=-537/341, 6-23=-1326/690, 22-23=-146/318, 20-22=-89/674,  
19-20=-599/1684, 9-19=-372/775, 13-14=-946/1959

**WEBS** 3-25=-464/331, 5-25=-1642/785, 23-25=-875/629, 5-23=-541/1325, 6-25=-373/1016,  
7-22=-556/288, 7-20=-349/741, 8-20=-122/315, 9-20=-941/594, 17-19=-714/1785,  
14-17=-917/1859

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCFL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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
- 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 3-6-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=182, 13=499, 25=739.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25, 2020

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6904 Parke East Blvd.  
Tampa, FL 36610

Job 2258676	Truss T11	Truss Type Piggyback Base	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794674
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:50 2020 Page 1  
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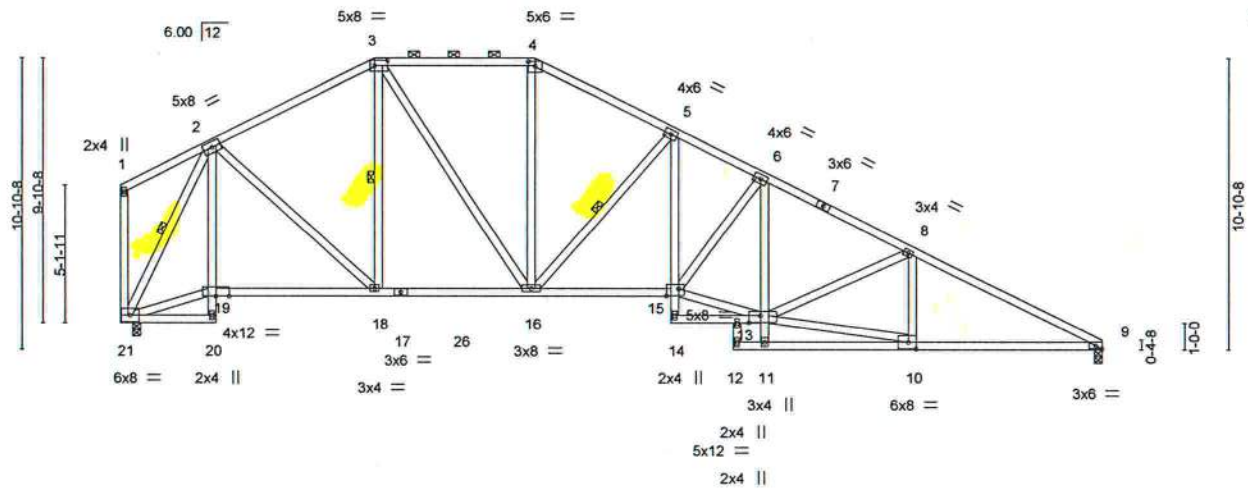


Plate Offsets (X,Y) --		[3:0-6-0,0-2-8], [4:0-3-0,0-2-0], [9:0-2-15,Edge], [10:0-3-8,0-3-0], [13:0-5-0,0-3-4], [15:0-5-8,0-3-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.56
TCDL 7.0	Lumber DOL	1.25	BC 0.72
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.81
BCDL 10.0	Code	FBC2017/TPI2014	Matrix-MS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.16 12 >999 240
			Vert(CT) -0.30 12 >999 180
			Horz(CT) 0.13 9 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 263 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
2-20,5-14,6-11: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-11 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-11-8 oc bracing: 15-16  
5-6-10 oc bracing: 9-10.  
10-0-0 oc bracing: 11-13  
WEBS 1 Row at midpt 2-21, 3-18, 5-16

#### REACTIONS.

(size) 9=0-3-8, 21=0-3-8  
Max Horz 21=382(LC 13)  
Max Uplift 9=515(LC 13), 21=401(LC 13)  
Max Grav 9=1359(LC 1), 21=1352(LC 1)

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

TOP CHORD 2-3=-1329/747, 3-4=-1413/893, 4-5=-1637/932, 5-6=-2330/1237, 6-8=-2430/1253,  
8-9=-2568/1282  
BOT CHORD 2-19=-7/345, 18-19=-145/789, 16-18=-165/1115, 15-16=-729/2059, 5-15=-389/823,  
9-10=-1041/2234  
WEBS 2-21=-1649/744, 19-21=-114/766, 2-18=-183/508, 3-16=-291/595, 4-16=-182/448,  
5-16=-986/610, 13-15=-829/2117, 10-13=-1006/2116

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=515, 21=401.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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 36610

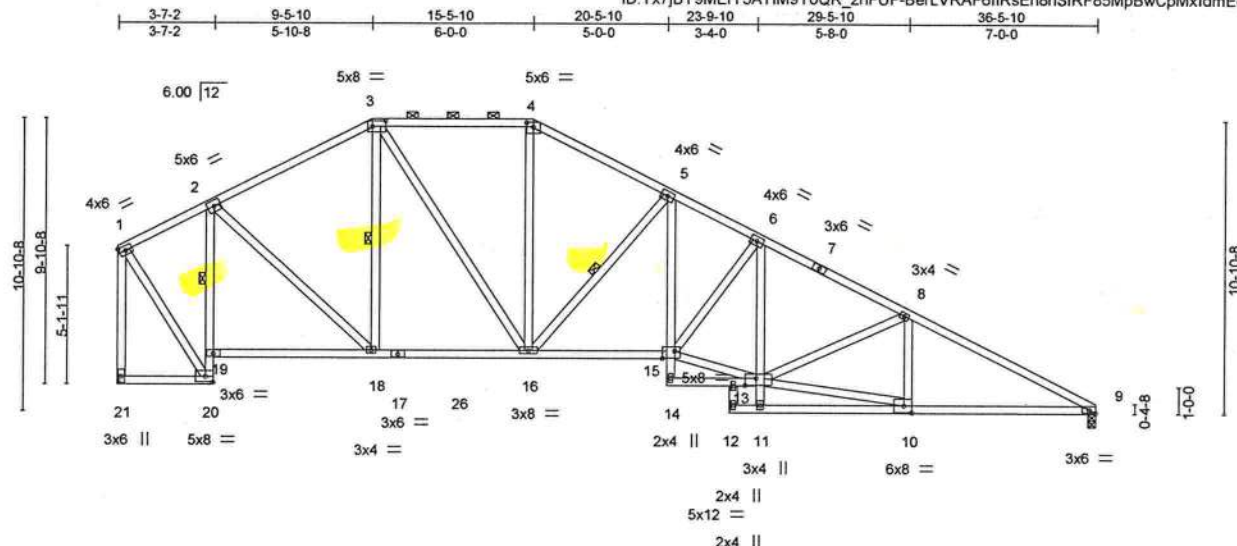


Job 2258676	Truss T12	Truss Type Piggyback Base	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794675
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:11:59 2020 Page 1

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**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
5-14,6-11: 2x4 SP No.3  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-10 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
4-1-14 oc bracing: 19-20  
6-11-8 oc bracing: 15-16  
5-6-10 oc bracing: 9-10.  
1 Row at midpt 2-19  
10-0-0 oc bracing: 11-13  
1 Row at midpt 3-18, 5-16

**REACTIONS.** (size) 21=Mechanical, 9=0-3-8  
Max Horz 21=382(LC 13)  
Max Uplift 21=401(LC 13), 9=515(LC 13)  
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**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
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6-8=2430/1253, 8-9=2568/1282, 1-21=1392/721  
BOT CHORD 20-21=107/380, 19-20=873/509, 2-19=846/526, 18-19=141/763, 16-18=165/1119,  
15-16=729/2060, 5-15=389/825, 9-10=1041/2234  
WEBS 2-18=182/538, 3-16=294/588, 4-16=182/448, 5-16=988/610, 13-15=829/2119,  
10-13=1006/2116, 1-20=599/1181

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCp=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
  - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=401, 9=515.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2258676	Truss T13	Truss Type Piggyback Base	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794676
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Builders FirstSource,

Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:07 2020 Page 1

ID:Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-yBKNAAGDIIIqTlgF8oJaqQk9PeFhzcTT0AFuezXNw6

Job Reference (optional)

4-4-6	9-5-10	15-5-10	20-2-6	23-9-10	29-5-10	36-5-10	37-11-10
4-4-6	5-1-4	6-0-0	4-8-12	3-7-4	5-8-0	7-0-0	1-6-0

Scale = 1:77.5

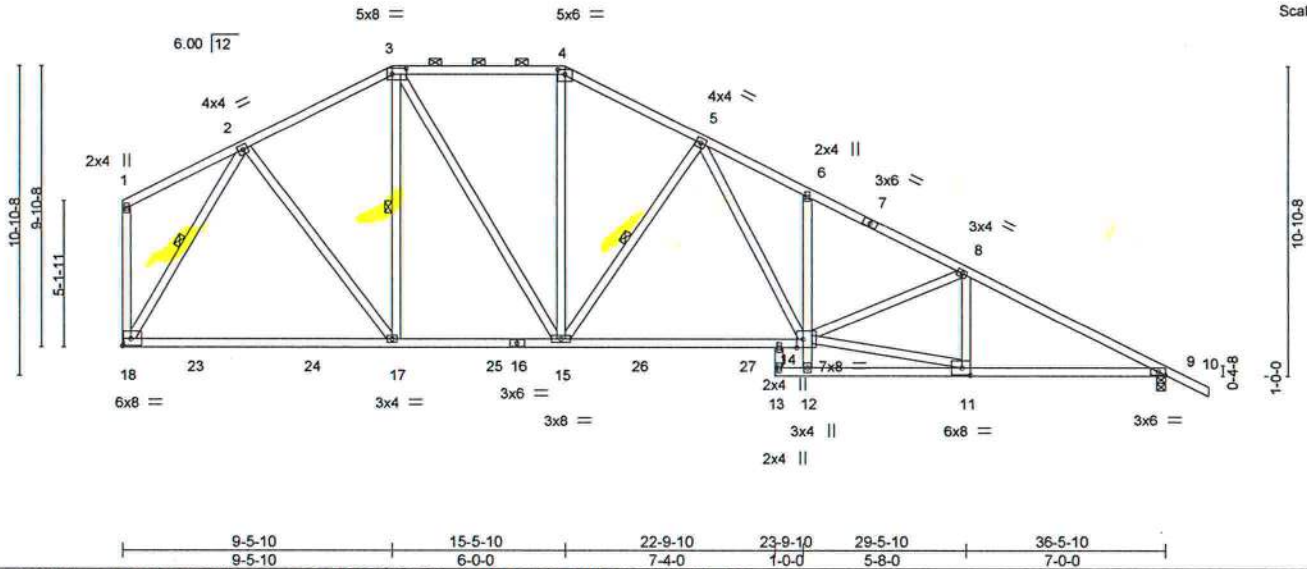


Plate Offsets (X,Y)-- [3:0-6-0,0-2-8], [4:0-3-0,0-2-0], [9:0-2-15,Edge], [11:0-3-8,0-3-0], [14:0-2-12,Edge]

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 0.63	Vert(LL)	-0.32 17-18	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.97	Vert(CT)	-0.58 17-18	>751	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 248 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-12: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### REACTIONS.

(size) 9=0-3-8, 18=Mechanical  
Max Horz 18=-414(LC 13)  
Max Uplift 9=-567(LC 13), 18=-399(LC 13)  
Max Grav 9=1441(LC 1), 18=1398(LC 2)

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

TOP CHORD 2-3=-1223/730, 3-4=-1290/854, 4-5=-1484/893, 5-6=-2415/1361, 6-8=-2437/1241,  
8-9=-2549/1267  
BOT CHORD 17-18=-124/799, 15-17=-107/1054, 14-15=-556/1691, 9-11=-991/2215  
WEBS 2-17=-129/565, 3-17=-253/153, 3-15=-281/569, 4-15=-171/410, 5-15=-765/544,  
5-14=-512/929, 11-14=-950/2171, 8-11=-258/195, 2-18=-1350/749

#### 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 C; 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
- 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 3-6-0 tall by 2-0-0 wide  
will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)  
9=567, 18=399.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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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 33610



Job 2258676	Truss T14	Truss Type Piggyback Base	Qty 5	Ply 1	IC CONST. - LOT 10 HPF	T19794677
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:12 2020 Page 1

ID:Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-I87GD1KO2IxbwEB2hOUH17bvQMbMF1Dc1I0ZszXNw1

Job Reference (optional)

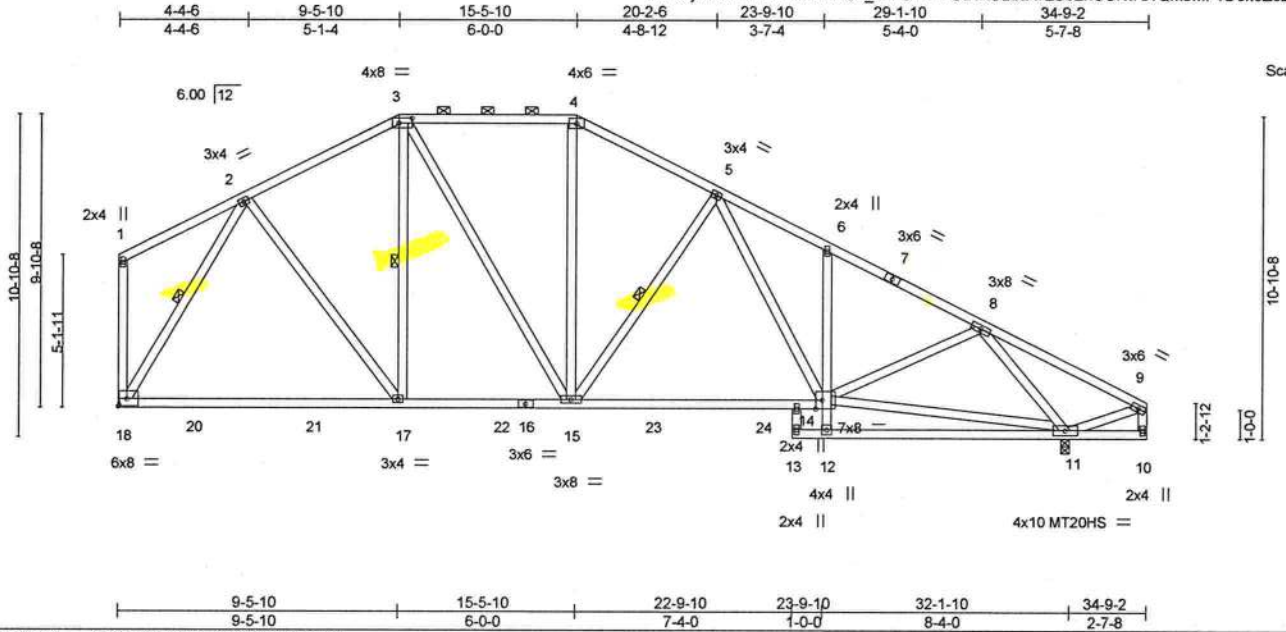


Plate Offsets (X,Y)-- [3:0-5-4,0-2-0], [14:0-2-12,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	-0.31 17-18	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.56 17-18	>684	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.06 11	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS						Weight: 250 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-12: 2x4 SP No.3  
WEBS 2x4 SP No.3

**REACTIONS.** (size) 11=0-3-8, 18=Mechanical  
Max Horz 18=-337(LC 13)  
Max Uplift 11=-512(LC 13), 18=-365(LC 12)  
Max Grav 11=1387(LC 1), 18=1241(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1051/642, 3-4=-1042/727, 4-5=-1208/752, 5-6=-1611/962, 6-8=-1618/844  
BOT CHORD 17-18=-146/686, 15-17=-129/899, 14-15=-418/1249  
WEBS 2-17=-109/468, 3-15=-212/383, 4-15=-108/303, 5-15=-419/371, 5-14=-222/361,  
11-14=-435/905, 8-14=-78/510, 8-11=-1658/920, 2-18=-1165/656

- 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 C; 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
  - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 11=512, 18=365.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-5-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-6 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 10-0-0 oc bracing: 12-14  
WEBS 1 Row at midpt 3-17, 5-15, 2-18



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

March 25,2020

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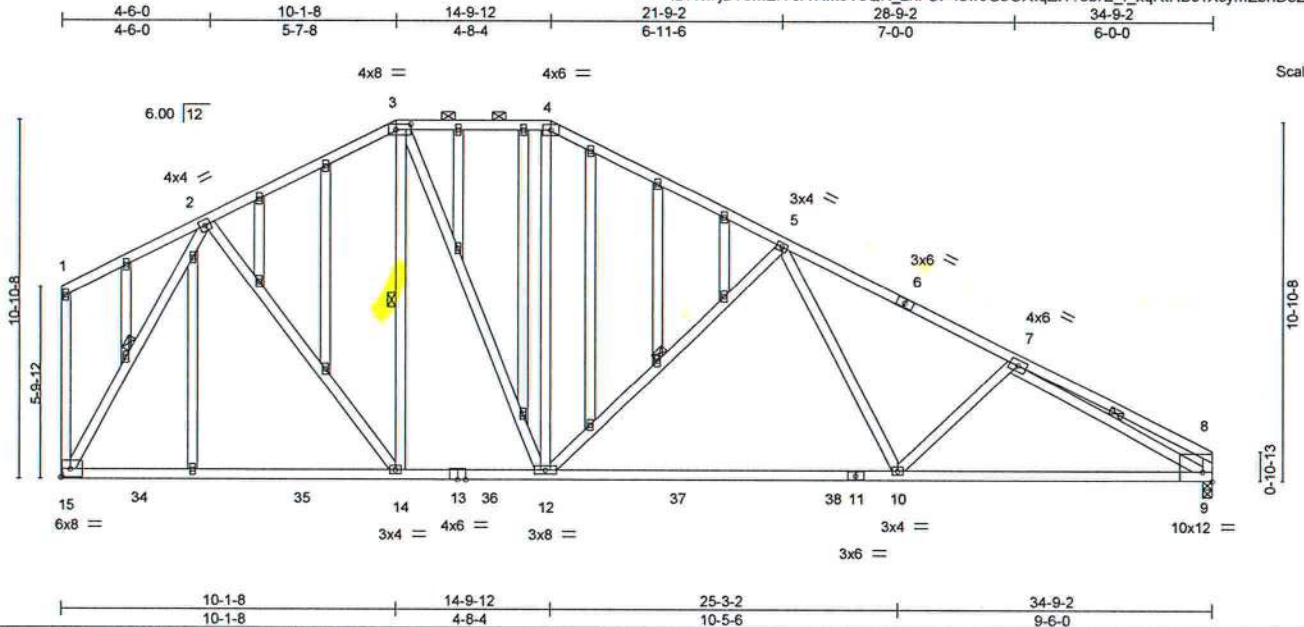


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Tampa, FL 33610

Job 2258676	Truss T14G	Truss Type GABLE	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794678
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:17 2020 Page 1  
ID:Yx7jBY9MEFY5ATIM9YoQR\_zhFUF-f6w9GbOXtqZ173brE\_f\_xqRIRBc1XcymZbnD3zXNvy



Scale = 1:66.9

Plate Offsets (X,Y) - [3:0-5-4,0-2-0], [8:0-1-12,0-0-14], [9:Edge,0-3-8]									
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 0.67	Vert(LL)	-0.35 10-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.46	Vert(CT)	-0.60 14-15	>689	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
				Weight: 306 lb		FT = 20%			

#### LUMBER-

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

#### REACTIONS.

(size) 15=Mechanical, 9=0-3-8  
Max Horz 15=-344(LC 13)  
Max Uplift 15=-395(LC 12), 9=-479(LC 13)  
Max Grav 15=1340(LC 2), 9=1275(LC 1)

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

TOP CHORD 2-3=-1097/687, 3-4=-1069/768, 4-5=-1269/779, 5-7=-1938/1030, 7-8=-393/230, 8-9=-289/211  
BOT CHORD 14-15=-159/683, 12-14=-140/925, 10-12=-601/1486, 9-10=-868/1759  
WEBS 2-14=-109/514, 3-12=-265/464, 4-12=-106/305, 5-12=-635/519, 5-10=-143/472, 7-10=-180/286, 2-15=-1244/718, 7-9=-1772/870

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=395, 9=479.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

March 25,2020

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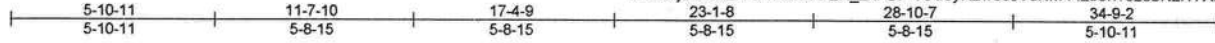
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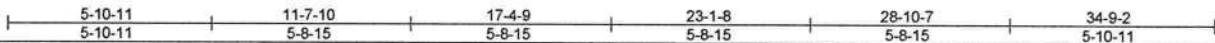
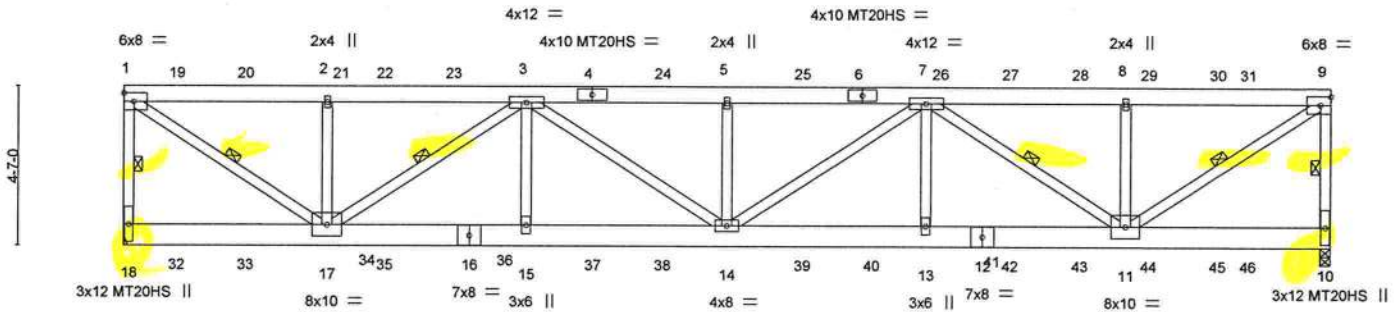
Job	Truss	Truss Type	Qty	Ply	IC CONST. - LOT 10 HPF	T19794679
2258676	T15	FLAT GIRDER	1	1		

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:21 2020 Page 1  
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Scale: 3/16"=1'



<b>LOADING</b> (psf)	<b>SPACING</b> -	<b>CSI</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.80	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.28	Vert(LL) 0.40 14 >999 240	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.25	WB 0.92	Vert(CT) -0.47 14 >884 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.07 10 n/a n/a		
	Code FBC2017/TPI2014			Weight: 283 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\*  
1-17,3-17,3-14,7-14,7-11,9-11: 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-4-15 oc bracing.  
WEBS 1 Row at midpt 1-18, 9-10, 1-17, 3-17, 7-11, 9-11

#### REACTIONS.

(size) 18=Mechanical, 10=0-3-8  
Max Uplift 18=1780(LC 4), 10=1943(LC 4)  
Max Grav 18=2748(LC 1), 10=2963(LC 1)

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

TOP CHORD 1-18=-2589/1743, 1-2=-3344/2170, 2-3=-3344/2170, 3-5=-5958/3871, 5-7=-5958/3871,  
7-8=-3381/2199, 8-9=-3381/2199, 9-10=-2737/1892  
BOT CHORD 15-17=-3480/5349, 14-15=-3480/5349, 13-14=-3484/5354, 11-13=-3484/5354  
WEBS 1-17=-2625/4050, 2-17=-669/636, 3-17=-2453/1603, 3-15=-56/501, 3-14=-478/745,  
5-14=-617/588, 7-14=-475/739, 7-13=-57/494, 7-11=-2414/1571, 8-11=-701/672,  
9-11=-2659/4093

#### NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=1780, 10=1943.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 161 lb down and 145 lb up at 1-6-6, 161 lb down and 145 lb up at 3-6-6, 161 lb down and 145 lb up at 5-6-6, 161 lb down and 145 lb up at 7-6-6, 161 lb down and 145 lb up at 9-6-6, 161 lb down and 145 lb up at 11-6-6, 161 lb down and 145 lb up at 13-6-6, 161 lb down and 145 lb up at 15-6-6, 161 lb down and 145 lb up at 17-6-6, 161 lb down and 145 lb up at 19-6-6, 161 lb down and 145 lb up at 21-6-6, 161 lb down and 145 lb up at 23-6-6, 161 lb down and 145 lb up at 25-6-6, 161 lb down and 145 lb up at 27-6-6, 161 lb down and 145 lb up at 29-6-6, 161 lb down and 145 lb up at 31-6-6, and 161 lb down and 145 lb up at 32-4-14, and 157 lb down and 153 lb up at 34-7-6 on top chord, and 87 lb down and 29 lb up at 1-6-6, 87 lb down and 29 lb up at 3-6-6, 87 lb down and 29 lb up at 5-6-6, 87 lb down and 29 lb up at 7-6-6, 87 lb down and 29 lb up at 9-6-6, 87 lb down and 29 lb up at 11-6-6, 87 lb down and 29 lb up at 13-6-6, 87 lb down and 29 lb up at 15-6-6, 87 lb down and 29 lb up at 17-6-6, 87 lb down and 29 lb up at 19-6-6, 87 lb down and 29 lb up at 21-6-6, 87 lb down and 29 lb up at 23-6-6, 87 lb down and 29 lb up at 25-6-6, 87 lb down and 29 lb up at 27-6-6, 87 lb down and 29 lb up at 29-6-6, 87 lb down and 29 lb up at 31-6-6, and 87 lb down and 29 lb up at 32-4-14, and 103 lb down and 22 lb up at 34-7-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

#### LOAD CASE(S) - Standard

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

March 25,2020



6904 Parke East Blvd.  
Tampa, FL 33610

Job 2258676	Truss T15	Truss Type FLAT GIRDER	Qty 1	Ply 1	IC CONST. - LOT 10 HPF T19794679
Job Reference (optional)					

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:21 2020 Page 2  
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#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-9=-54, 10-18=-20

Concentrated Loads (lb)

Vert: 4=-111(B) 9=-132(B) 10=-71(B) 3=-111(B) 15=-63(B) 14=-63(B) 5=-111(B) 6=-111(B) 19=-111(B) 20=-111(B) 21=-111(B) 22=-111(B) 23=-111(B) 24=-111(B)  
25=-111(B) 26=-111(B) 27=-111(B) 28=-111(B) 29=-111(B) 30=-111(B) 31=-111(B) 32=-63(B) 33=-63(B) 34=-63(B) 35=-63(B) 36=-63(B) 37=-63(B) 38=-63(B)  
39=-63(B) 40=-63(B) 41=-63(B) 42=-63(B) 43=-63(B) 44=-63(B) 45=-63(B) 46=-63(B)

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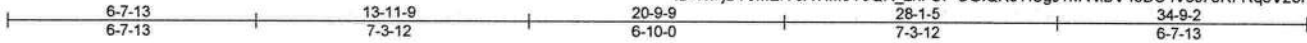
Job 2258676	Truss T16	Truss Type FLAT	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794680
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:23 2020 Page 1

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Job Reference (optional)



Scale = 1:59.2

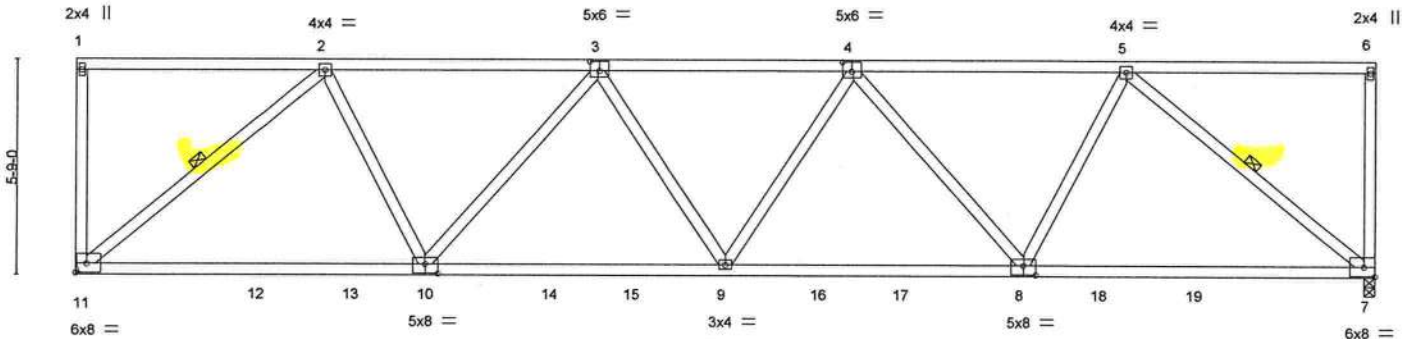


Plate Offsets (X, Y) -	9-4-6 9-4-6	17-4-9 8-0-3	25-4-12 8-0-3	34-9-2 9-4-6
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.50	Vert(LL)	-0.21 10-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.90	Vert(CT)	-0.43 10-11	>954	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.09 7	n/a	n/a		
BCDL 10.0	Code FBC2017/TP12014		Matrix-MS						
								Weight: 199 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 2-11, 5-7

**REACTIONS.** (size) 11=Mechanical, 7=0-3-8  
Max Uplift 11=590(LC 8), 7=590(LC 8)  
Max Grav 11=1275(LC 1), 7=1275(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=1590/733, 3-4=2011/946, 4-5=1590/733  
BOT CHORD 10-11=629/1269, 9-10=959/1966, 8-9=959/1966, 7-8=629/1269  
WEBS 2-11=1628/814, 2-10=232/774, 3-10=586/350, 4-8=586/350, 5-8=232/774, 5-7=1628/814

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; 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
- 2) Provide adequate drainage to prevent water ponding.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=590, 7=590.



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

March 25, 2020

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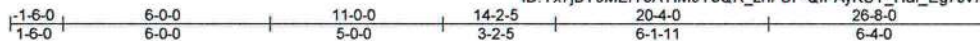
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Job	Truss	Truss Type	Qty	Ply	IC CONST. - LOT 10 HPF	T19794681
2258676	T17	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:25 2020 Page 1

ID: Yx7jBY9MEfY5ATIM9YoQR\_zhFUF-QfPayKUY\_Hal\_Eg7Jv7Xld9sqgs3vAm7cpXCWbZXNvq



4x6 //

Scale: 3/16"=1'

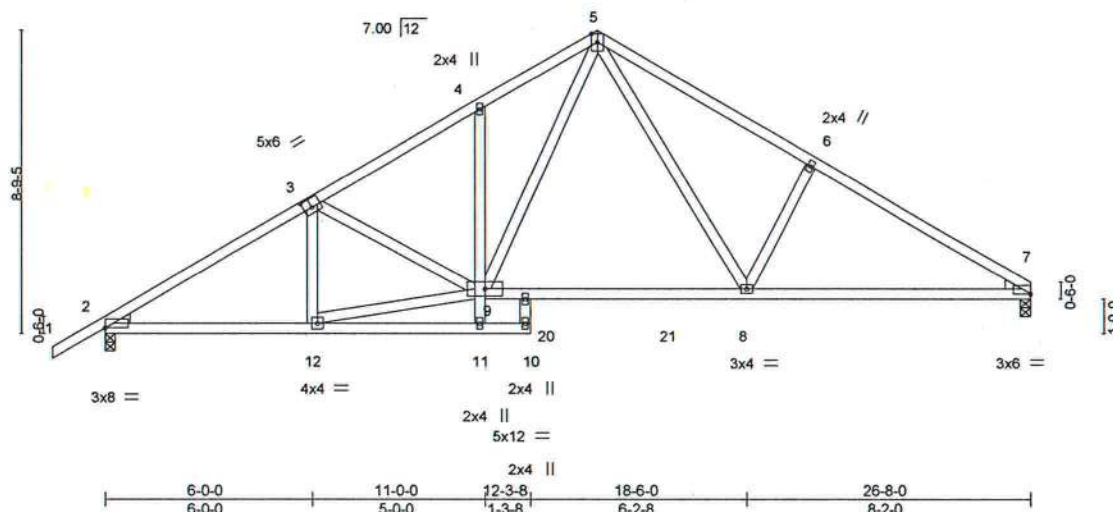


Plate Offsets (X,Y) - [3:0-2-12,0-3-0], [7:0-0-0,0-0-3]

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 0.42	Vert(LL)	-0.17	8-9	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.68	Vert(CT)	-0.30	8-9	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.53	Horz(CT)	0.05	7	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 152 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except  
4-11: 2x4 SP No.3  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3, Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
10-0-0 oc bracing: 9-11

#### REACTIONS.

(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=272(LC 9)  
Max Uplift 7=346(LC 13), 2=413(LC 12)  
Max Grav 7=997(LC 1), 2=1086(LC 1)

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

TOP CHORD 2-3=-1587/651, 3-4=-1455/651, 4-5=-1538/763, 5-6=-1490/721, 6-7=-1577/673  
BOT CHORD 2-12=-572/1440, 4-9=-251/226, 8-9=-239/962, 7-8=-489/1297  
WEBS 9-12=-548/1472, 5-9=-415/892, 5-8=-302/642, 6-8=-384/339

#### 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 C; 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
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=346, 2=413.



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

March 25,2020

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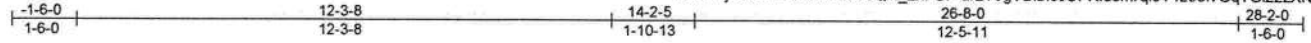
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Job 2258676	Truss T17G	Truss Type GABLE	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794682
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:26 2020 Page 1  
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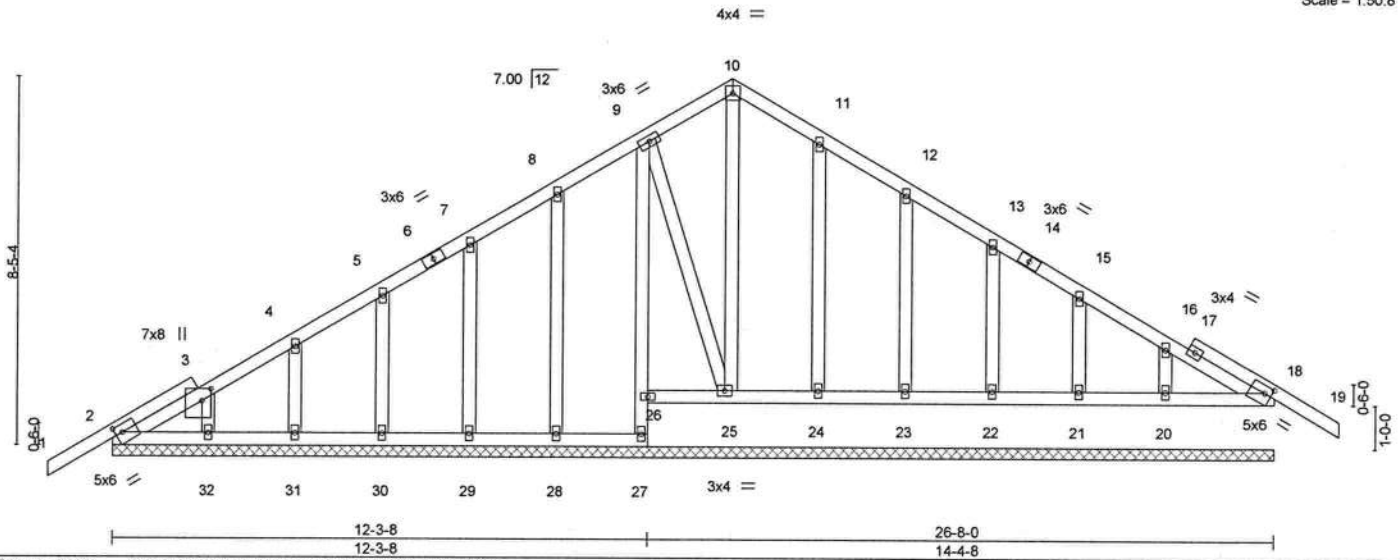


Plate Offsets (X,Y)- [2:0-1-14,0-2-1], [3:0-3-4,0-2-8], [18:0-1-14,0-2-1]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.13	Vert(LL)	-0.01	19	n/r	120	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.11	Vert(CT)	-0.01	19	n/r	120	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.01	18	n/a	n/a	
BCDL 10.0	Code	FBC2017/TPI2014	Matrix-S						
								Weight: 175 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
9-27: 2x4 SP No.3  
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 26-8-0.  
(lb) - Max Horz 2=261(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 26, 18, 25, 28, 31, 32, 20 except  
2=103(LC 8), 29=103(LC 12), 30=101(LC 12), 24=103(LC 13), 23=104(LC 13),  
22=100(LC 13), 21=105(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 26, 18, 25, 28, 29, 30, 31,  
32, 24, 23, 22, 21, 20

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 7-8=172/264, 8-9=220/299, 9-10=229/294, 10-11=229/286

- 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 C; Encl., GCp=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.
  - Bearing at joint(s) 26 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) 26, 18, 25, 28, 31, 32, 20 except (jt=lb) 2=103, 29=103, 30=101, 24=103, 23=104, 22=100, 21=105.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18, 25, 24, 23, 22, 21, 20.



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

March 25,2020

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2258676	Truss T18	Truss Type Roof Special	Qty 3	Ply 1	IC CONST. - LOT 10 HPF	T19794683
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:28 2020 Page 1

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-1-6-0 6-0-0 11-0-0 14-2-5 20-4-0 24-4-8 26-8-0  
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5x8 ||

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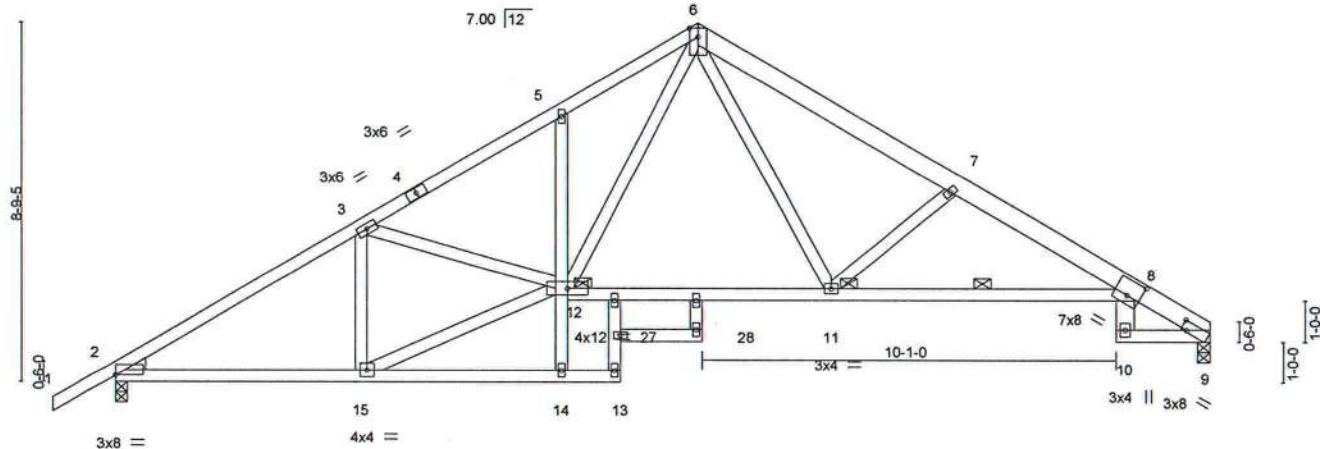


Plate Offsets (X,Y)-- [8:0-4-0,0-4-10], [9:0-1-12,0-2-9]

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 0.54	Vert(LL)	-0.21	8-11	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.88	Vert(CT)	-0.44	8-11	>726	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.28	9	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 168 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
6-9: 2x6 SP M 26  
BOT CHORD 2x4 SP No.2 \*Except\*  
5-14,17-18: 2x4 SP No.3, 8-10: 2x6 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
6-8-0 oc bracing: 8-11  
10-0-0 oc bracing: 12-14, 11-12  
JOINTS 1 Brace at Jt(s): 12, 11

#### REACTIONS.

(size) 9=0-3-8, 2=0-3-8  
Max Horz 2=272(LC 9)  
Max Uplift 9=341(LC 13), 2=412(LC 12)  
Max Grav 9=997(LC 1), 2=1081(LC 1)

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

TOP CHORD 2-3=-1577/645, 3-5=-1740/741, 5-6=-1799/853, 6-7=-1680/754, 7-8=-2033/877,  
8-22=-593/268  
BOT CHORD 2-15=-566/1407, 5-12=-254/223, 11-12=-271/1079, 8-11=-730/1905  
WEBS 3-15=-475/256, 12-15=-600/1510, 6-12=-486/1049, 6-11=-295/775, 7-11=-801/473

#### 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 C; 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 2x4 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=341, 2=412.



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

March 25,2020

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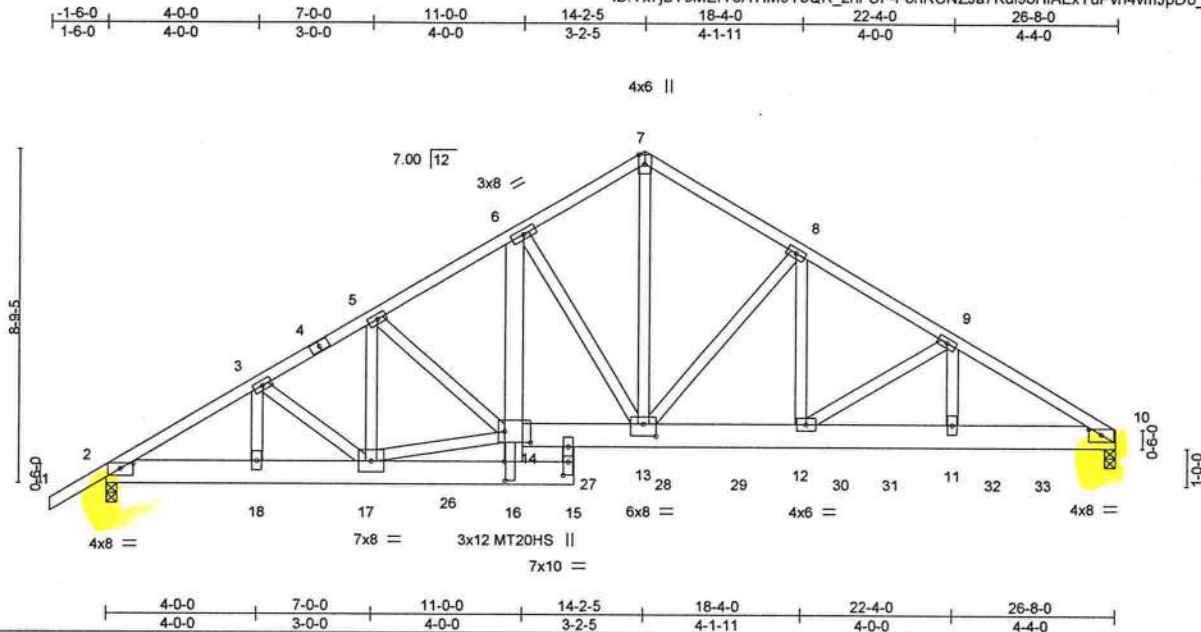
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Tampa, FL 36610



Job 2258676	Truss T19	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 4	IC CONST. - LOT 10 HPF	T19794684
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:31 2020 Page 1  
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Scale = 1:58.3

Plate Offsets (X,Y)- [2:0-4-0,0-1-11], [10:0-4-0,0-1-11], [13:0-4-0,0-3-12], [14:0-8-0,0-3-8], [15:0-4-4,0-1-8], [16:0-6-0,0-0-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.33	Vert(LL)	0.15	15	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.66	Vert(CT)	-0.25	15	>999	180	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.85	Horz(CT)	0.06	10	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 874 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
6-16: 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
7-13: 2x4 SP No.2

**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. Except:  
10-0-0 oc bracing: 14-16

**REACTIONS.** (size) 10=0-3-8, 2=0-3-8  
Max Horz 2=272(LC 24)  
Max Uplift 10=3057(LC 9), 2=3153(LC 8)  
Max Grav 10=8664(LC 1), 2=7156(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-12935/5663, 3-5=-13249/5835, 5-6=-12412/5019, 6-7=-9814/3831, 7-8=-9838/3852,  
8-9=-12390/4559, 9-10=-14796/5273  
BOT CHORD 2-18=-5013/11117, 17-18=-5013/11117, 16-17=-1771/4000, 14-16=-1011/2667,  
6-14=-2235/4664, 13-14=-4300/10734, 12-13=-3828/10669, 11-12=-4477/12747,  
10-11=-4477/12747  
WEBS 3-18=-534/286, 3-17=-385/501, 5-17=-976/871, 14-17=-3391/7636, 5-14=-993/1016,  
6-13=-4170/2107, 7-13=-3737/9594, 8-13=-3474/1208, 8-12=-1139/3797, 9-12=-2477/859,  
9-11=-675/2360

- NOTES-**
- 4-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: 2x8 - 2 rows staggered at 0-5-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 5-17 2x4 - 2 rows staggered at 0-6-0 oc.  
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 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; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x6 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=3057, 2=3153.



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

March 25,2020

Continued on page 2

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Tampa, FL 33610

Job 2258676	Truss T19	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 4	IC CONST. - LOT 10 HPF Job Reference (optional)	T19794684
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:31 2020 Page 2  
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#### NOTES-

- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2728 lb down and 1800 lb up at 7-0-12, 1255 lb down and 610 lb up at 9-0-12, 1320 lb down and 415 lb up at 10-9-4, 1221 lb down and 385 lb up at 12-8-12, 1221 lb down and 385 lb up at 14-8-12, 1221 lb down and 385 lb up at 16-8-12, 1221 lb down and 385 lb up at 18-8-12, 1221 lb down and 385 lb up at 20-8-12, and 1378 lb down and 419 lb up at 22-8-12, and 1332 lb down and 421 lb up at 24-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) Filler applied to ply: 1(Front)

#### LOAD CASE(S) Standard

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

##### Uniform Loads (plf)

Vert: 1-7=-54, 7-10=-54, 16-23=-20, 15-16=-20, 14-20=-20

##### Concentrated Loads (lb)

Vert: 16=-1255(B) 17=-2728(B) 26=-1255(B) 27=-1167(B) 28=-1167(B) 29=-1167(B) 30=-1167(B) 31=-1167(B) 32=-1331(B) 33=-1332(B)



**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.

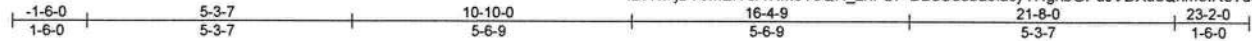


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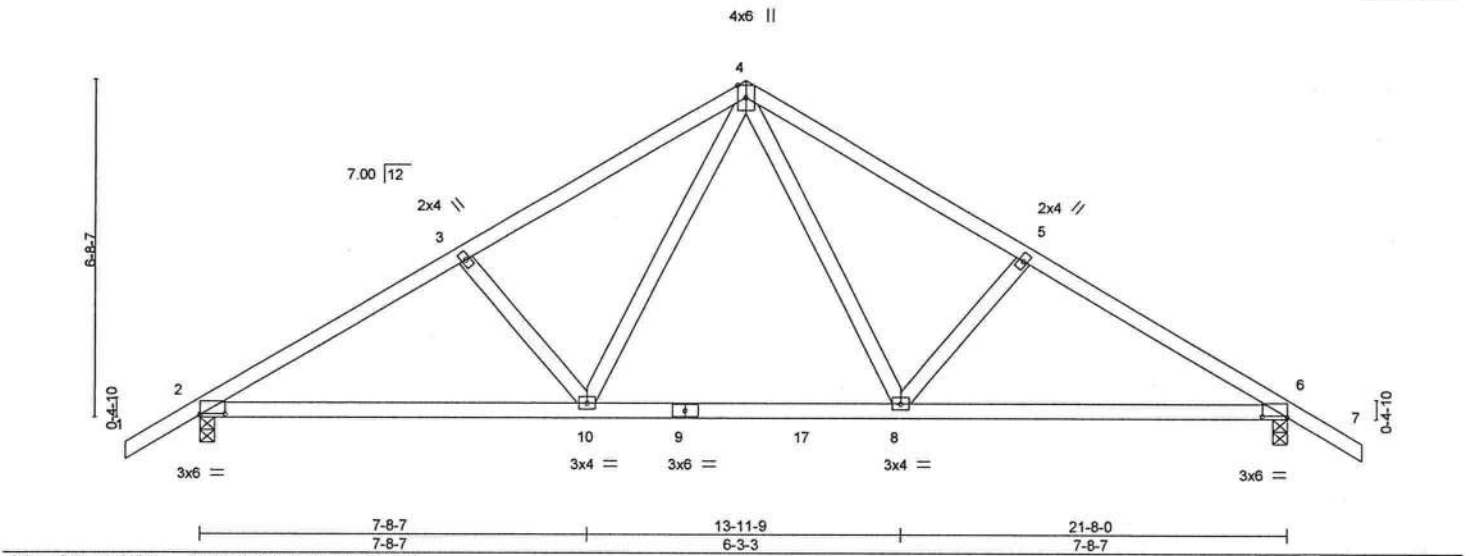


Job 2258676	Truss T20	Truss Type Common	Qty 3	Ply 1	IC CONST. - LOT 10 HPF	T19794685
Builders FirstSource, Jacksonville, FL - 32244,						

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:33 2020 Page 1  
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Scale = 1:44.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.50	Vert(LL)	0.19 8-16 >999	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	-0.17 8-16 >999				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.03 6 n/a				
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							
								Weight: 107 lb FT = 20%			

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-0-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-11-8 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
Max Horz 2=224(LC 10)  
Max Uplift 2=346(LC 12), 6=346(LC 13)  
Max Grav 2=883(LC 1), 6=883(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=1234/1400, 3-4=1075/1378, 4-5=1075/1378, 5-6=1234/1400  
BOT CHORD 2-10=1107/1034, 8-10=629/680, 6-8=1116/1034  
WEBS 4-8=668/411, 5-8=349/308, 4-10=668/411, 3-10=350/308

#### 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=346, 6=346.



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

March 25,2020

**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.



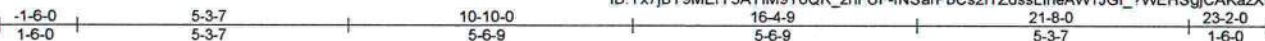
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Job 2258676	Truss T20G	Truss Type GABLE	Qty 1	Ply 1	IC CONST. - LOT 10 HPF	T19794686
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8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:34 2020 Page 1

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Scale = 1:43.2

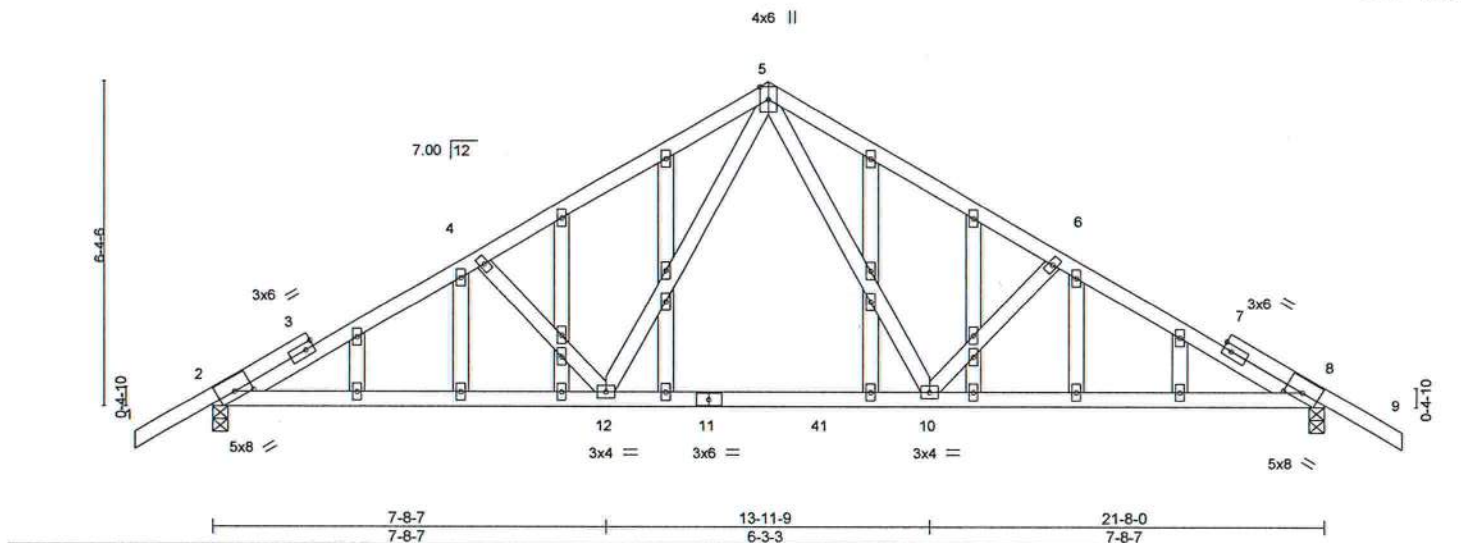


Plate Offsets (X,Y)=[2:0-4-1,0-1-12],[8:0-4-1,0-1-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.25		TC 0.82		Vert(LL) 0.18 10-39 >999 240		MT20	244/190
TCDL 7.0		Lumber DOL 1.25		BC 0.49		Vert(CT) -0.16 10-39 >999 180			
BCLL 0.0 *		Rep Stress Incr YES		WB 0.64		Horz(CT) 0.03 8 n/a n/a			
BCDL 10.0		Code FBC2017/TP12014		Matrix-MS				Weight: 144 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 4-1-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-9-13 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 8=0-3-8  
Max Horz 2=-214(LC 10)  
Max Uplift 2=-348(LC 12), 8=-348(LC 13)  
Max Grav 2=880(LC 1), 8=880(LC 1)

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

TOP CHORD 2-4=-1281/1484, 4-5=-1124/1429, 5-6=-1124/1429, 6-8=-1281/1484  
BOT CHORD 2-12=-1223/1124, 10-12=-654/694, 8-10=-1235/1124  
WEBS 4-12=-401/378, 5-12=-710/441, 5-10=-710/440, 6-10=-401/378

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch 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/TP1 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=348, 8=348.



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MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

March 25,2020

#### 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 on 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/TP11 Quality Criteria, DSB-89 and BCS1 Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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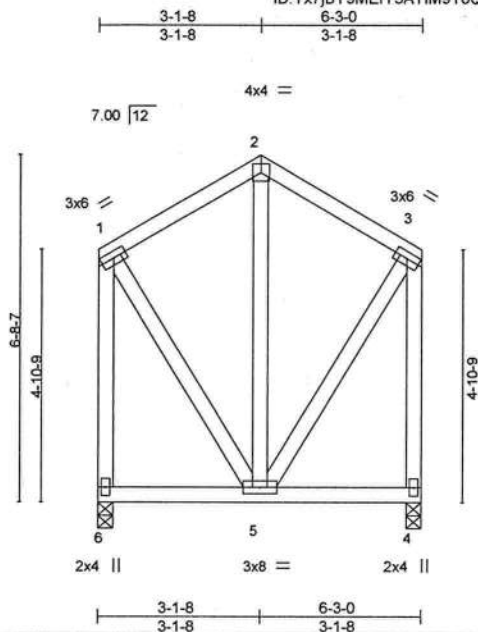


Job 2258676	Truss T21	Truss Type Common	Qty 2	Ply 1	IC CONST. - LOT 10 HPF	T19794687
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Mar 25 13:12:35 2020 Page 1

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Scale = 1:42.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	-0.00	5-6	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.08	Vert(CT)	-0.01	5-6	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014	Matrix-MP						Weight: 58 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**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) 6=0-3-8, 4=0-3-8  
Max Horz 6=54(LC 9)  
Max Uplift 6=89(LC 13), 4=89(LC 12)  
Max Grav 6=220(LC 1), 4=220(LC 1)

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

#### 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 C; 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.



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

March 25,2020

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

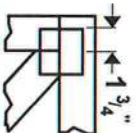
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



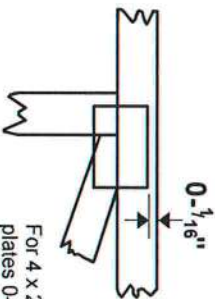
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Tampa, FL 33610

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

\* Plate location details available in MITek 20120 software or upon request.

## PLATE SIZE

4 X 4

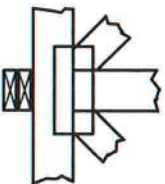
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



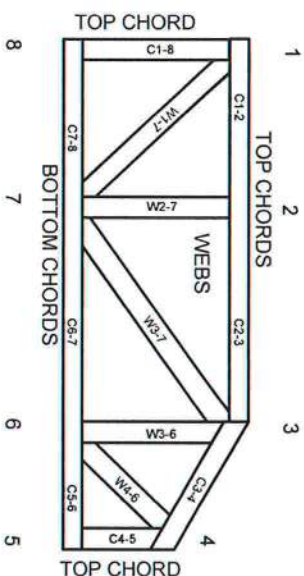
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## 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

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/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: MIL-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 warps 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.

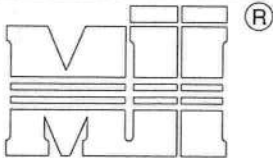


AUGUST 1, 2016

# T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY

MII-T-BRACE 2

MiTek USA, Inc. Page 1 of 1



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**  
A MiTek Affiliate

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
2x4 or 2x6 or 2x8	10d (0.131" X 3")	6" 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

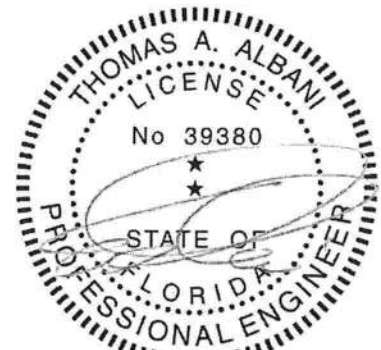
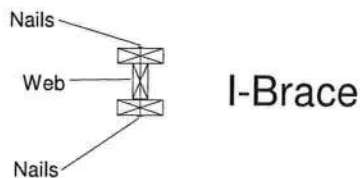
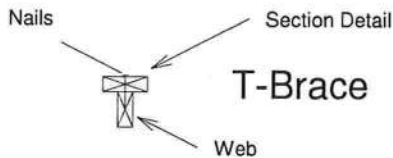
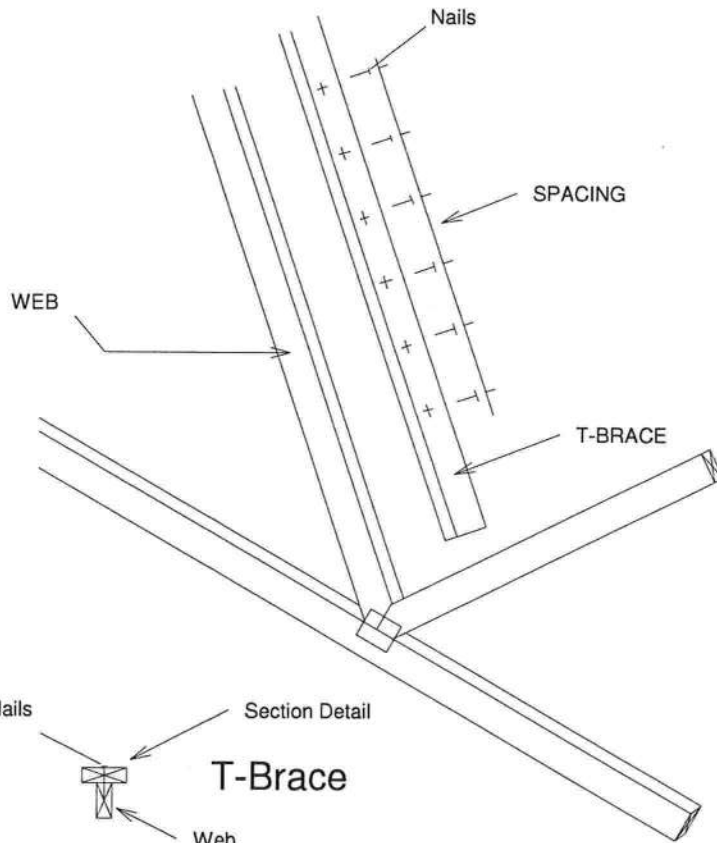
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

## Brace Size for Two-Ply Truss

### Specified Continuous Rows of Lateral Bracing

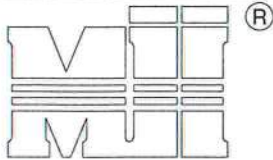
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

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



Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018



MiTek USA, Inc.

**ENGINEERED BY**  
**TRENCO**  
 A MiTek Affiliate

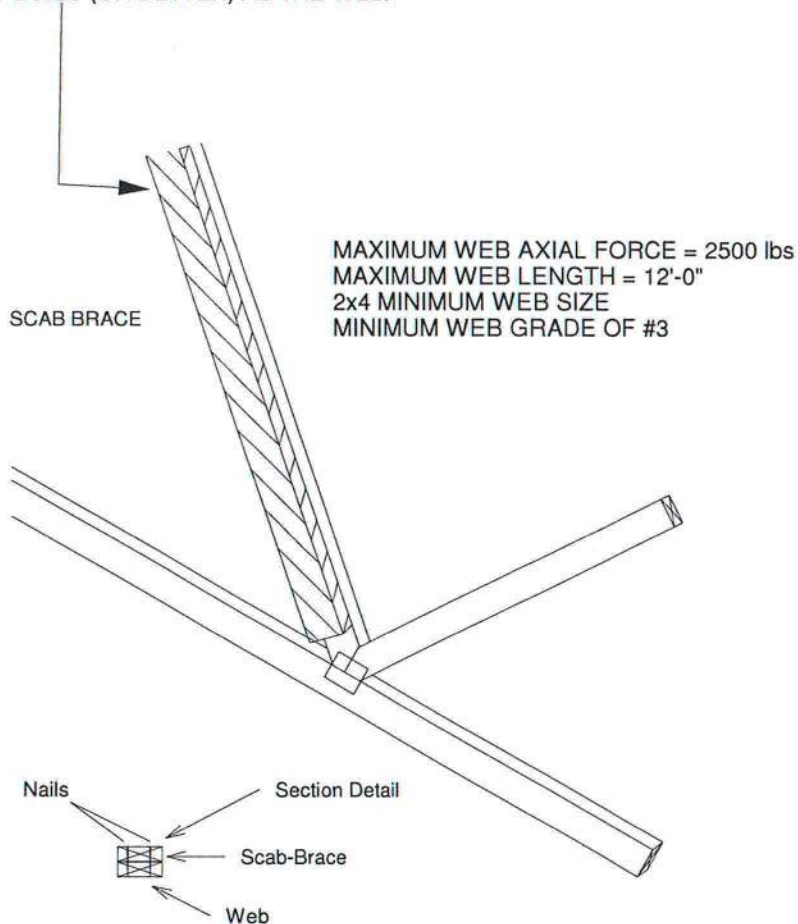
MiTek USA, Inc.

Page 1 of 1

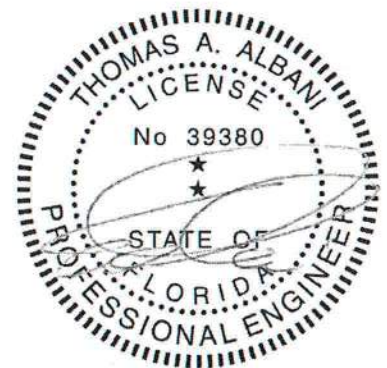
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.  
 Scab must cover full length of web +/- 6".

\*\*\* 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.



Thomas A. Albani PE No. 39380  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

**February 12, 2018**

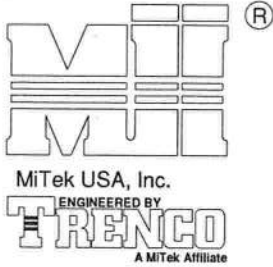


AUGUST 1, 2016

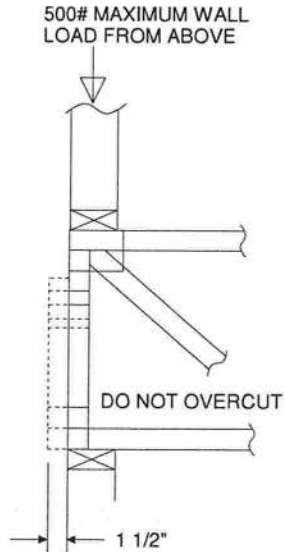
# STANDARD REPAIR TO REMOVE END VERTICAL (RIBBON NOTCH VERTICAL)

MII-REP05

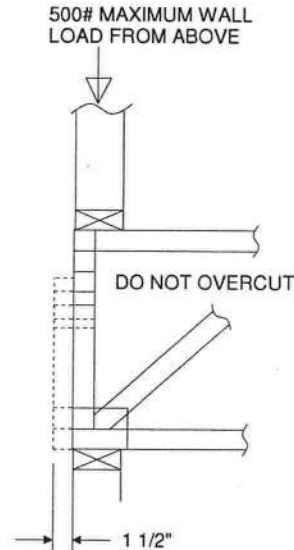
MiTek USA, Inc. Page 1 of 1



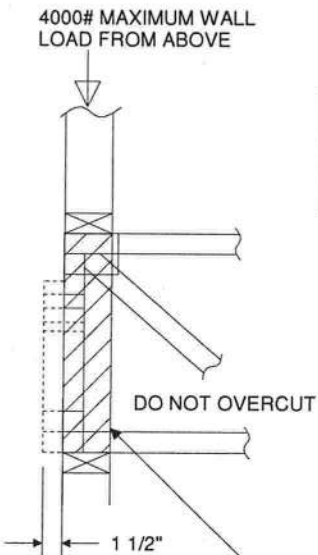
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X ORIENTATION ONLY.
6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.



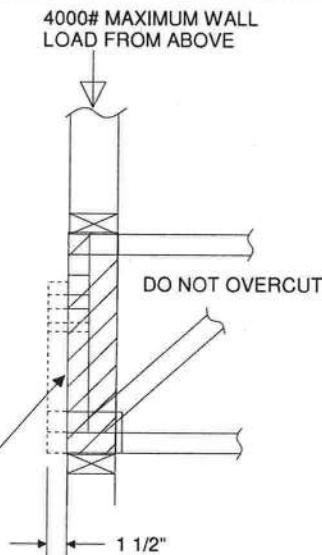
REFER TO INDIVIDUAL  
TRUSS DESIGN FOR  
PLATE SIZES AND  
LUMBER GRADES



TRUSSES BUILT  
WITH 4x2 MEMBERS



REFER TO INDIVIDUAL  
TRUSS DESIGN FOR  
PLATE SIZES AND  
LUMBER GRADES



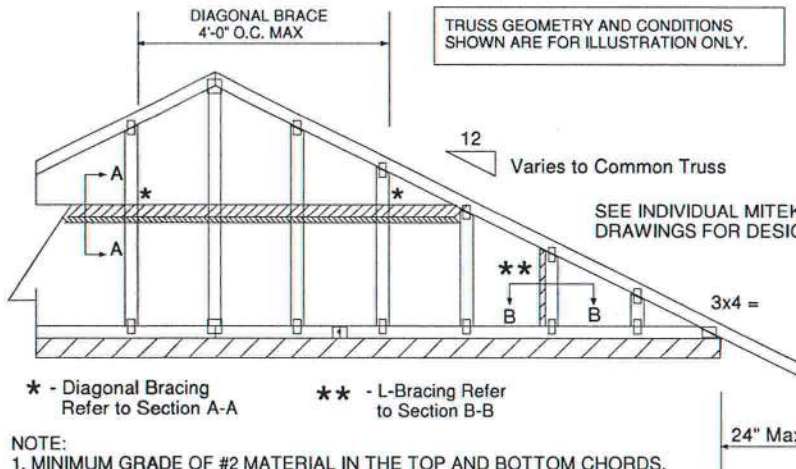
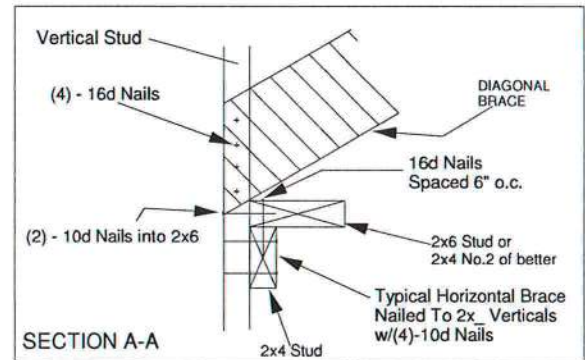
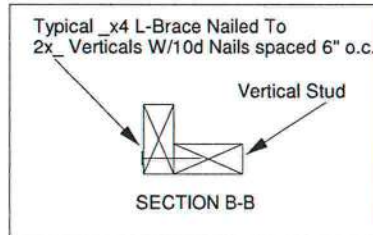
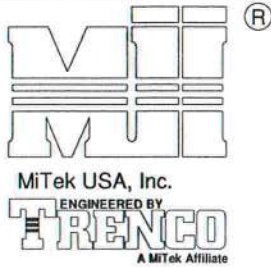
TRUSSES BUILT  
WITH 4x2 MEMBERS

ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY)  
TO BOTH SIDES OF THE TRUSS AS SHOWN WITH  
10d (0.131" X 3") NAILS SPACED 3" O.C.



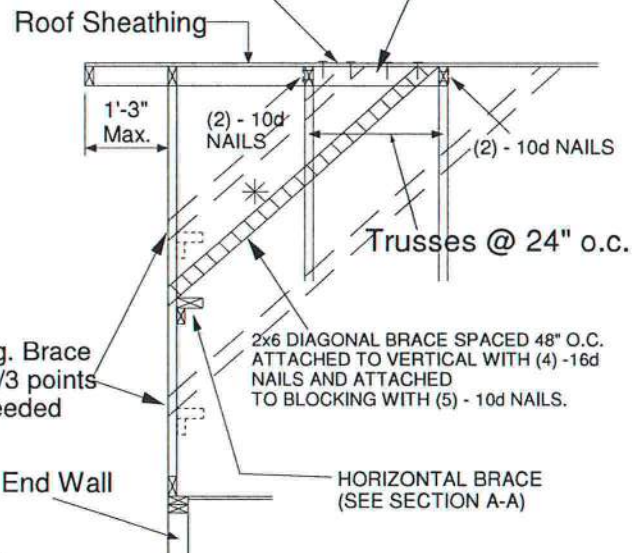
Thomas A. Albani PE No. 39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd, Tampa FL 33610  
Date:

February 12, 2018



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



## NOTE:

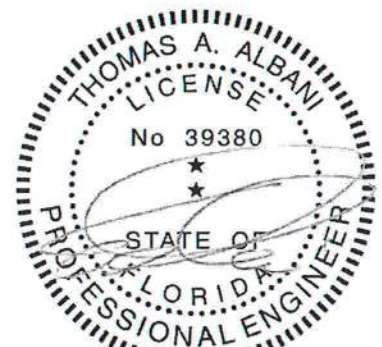
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud	24" O.C.	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 l-braces attached to both edges. Fasten T and l braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE D  
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
ASCE 7-10 160 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

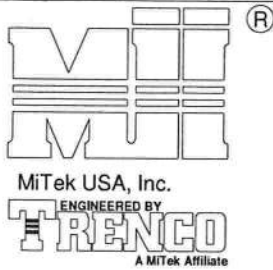
February 12, 2018



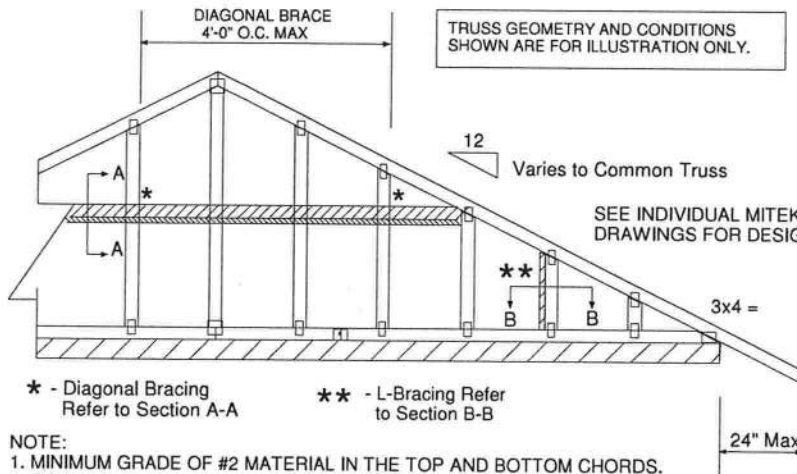
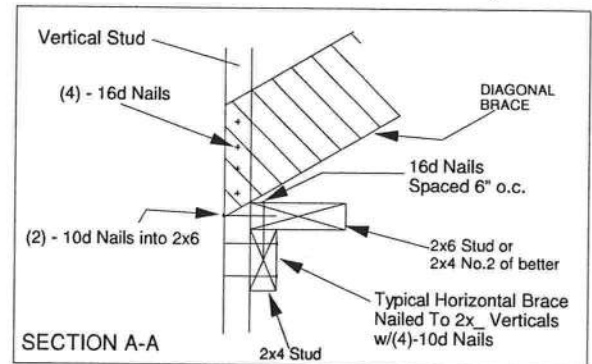
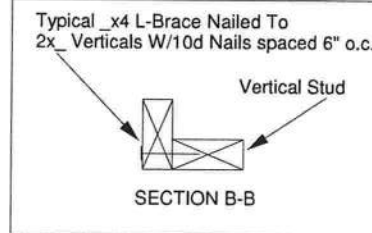
AUGUST 1, 2016

## Standard Gable End Detail

MII-GE130-SP



MiTek USA, Inc. Page 1 of 2

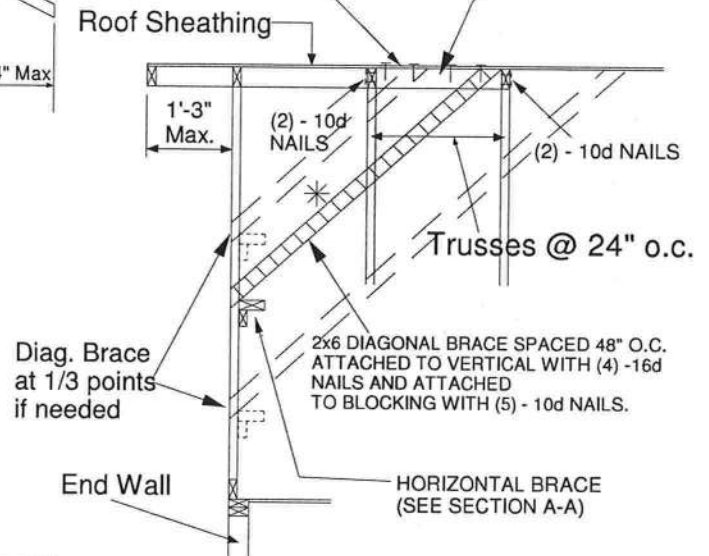


## NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4	2x4	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
			L-Brace	L-Brace		
Maximum Stud Length						
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

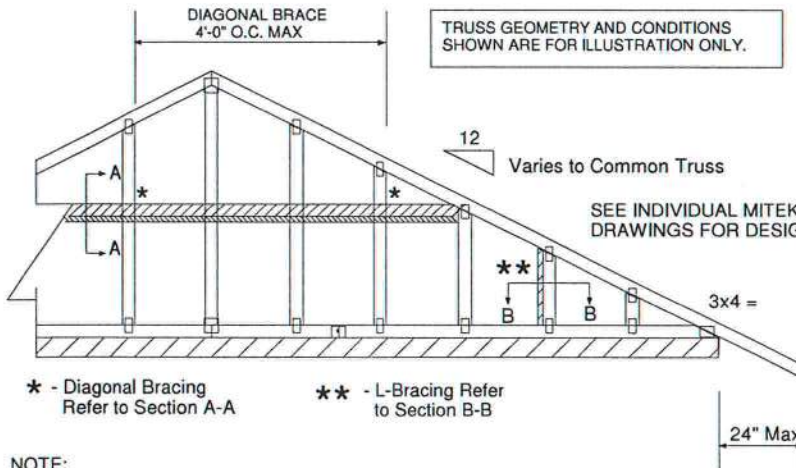
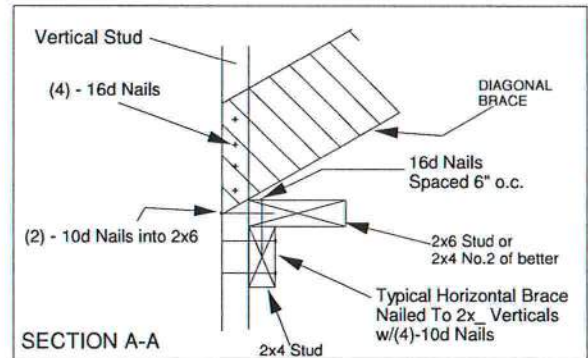
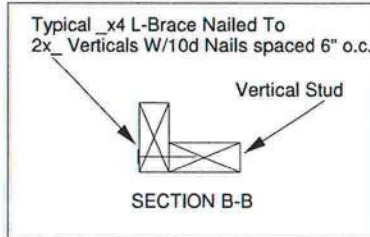
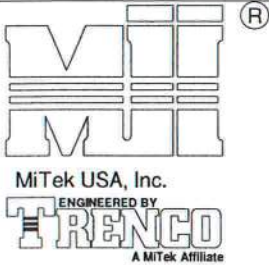
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
ASCE 7-10 160 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018



\* - Diagonal Bracing  
Refer to Section A-A

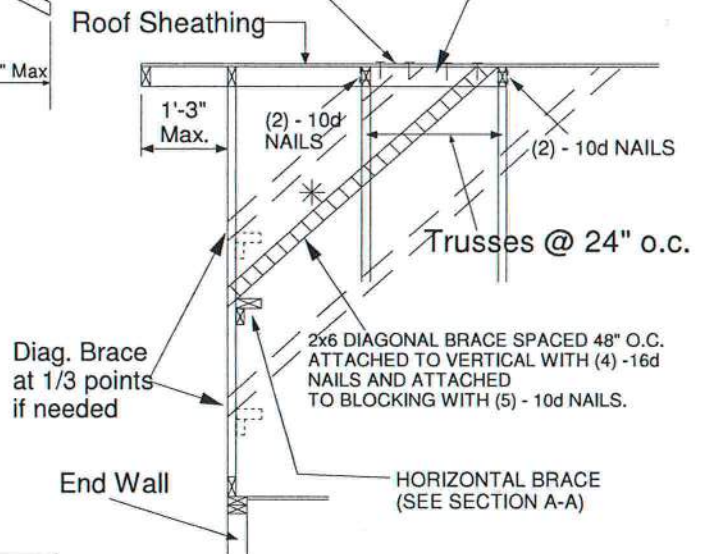
\*\* - L-Bracing Refer  
to Section B-B

## NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD DF/SPF BLOCK



Diag. Brace  
at 1/3 points  
if needed

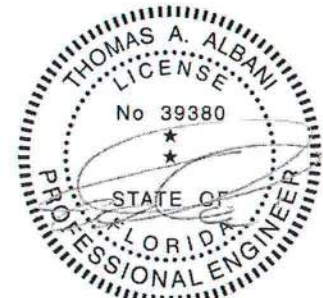
End Wall

Minimum Stud Size Species and Grade	Stud Spacing	Maximum Stud Length				
		Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 140 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

January 19, 2018



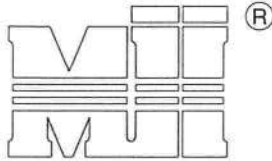
AUGUST 1, 2016

## Standard Gable End Detail

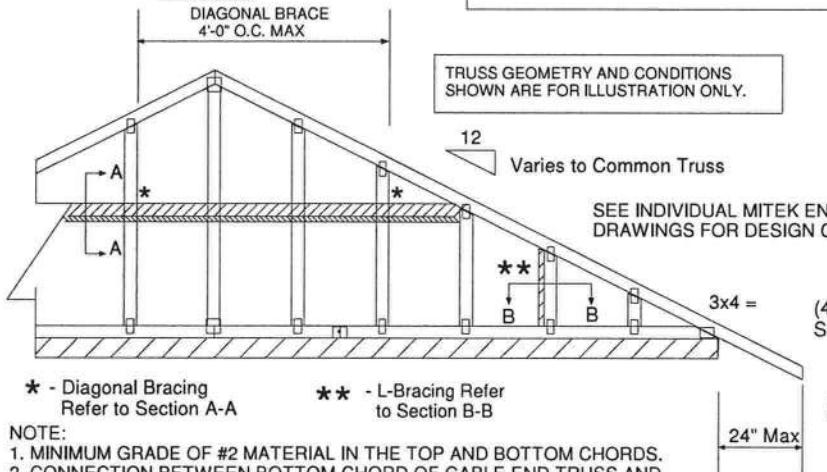
MII-GE170-D-SP

MiTek USA, Inc.

Page 1 of 2



MiTek USA, Inc.

ENGINEERED BY  
**TREXCO**  
A MiTek Affiliate★ - Diagonal Bracing  
Refer to Section A-A★★ - L-Bracing Refer  
to Section B-B

## NOTE:

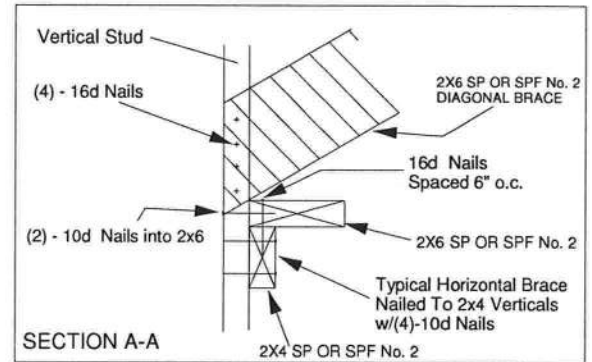
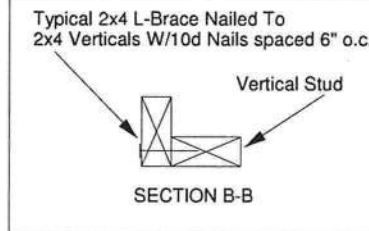
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-9-7	5-8-8	6-11-1	11-4-4
2x4 SP No. 3 / Stud	16" O.C.	3-4-12	4-11-15	6-9-8	10-2-3
2x4 SP No. 3 / Stud	24" O.C.	2-9-4	4-0-7	5-6-8	8-3-13
2x4 SP No. 2	12" O.C.	3-11-13	5-8-8	6-11-1	11-11-7
2x4 SP No. 2	16" O.C.	3-7-7	4-11-5	6-11-1	10-10-5
2x4 SP No. 2	24" O.C.	3-1-15	4-0-7	6-3-14	9-5-14

- ✱ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10 170 MPH  
DURATION OF LOAD INCREASE : 1.60

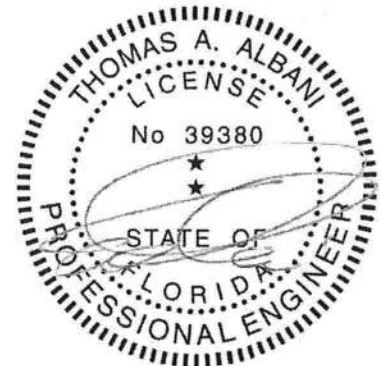
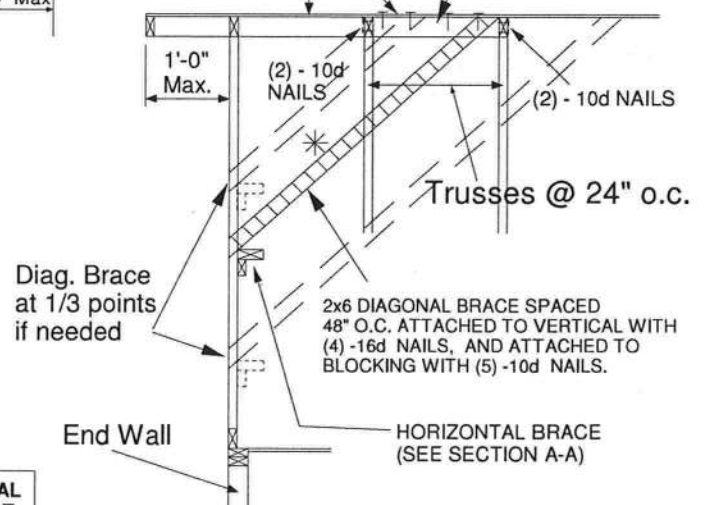
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

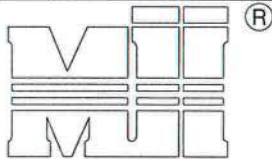
(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing



Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018



MiTek USA, Inc.  
ENGINEERED BY  
**TRENCO**

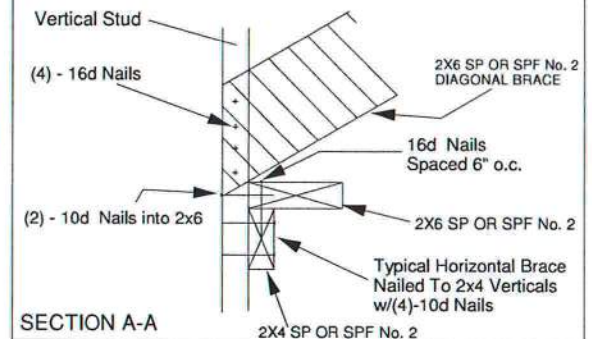
A MiTek Affiliate  
DIAGONAL BRACE  
4'-0" O.C. MAX

Typical 2x4 L-Brace Nailed To  
2x4 Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

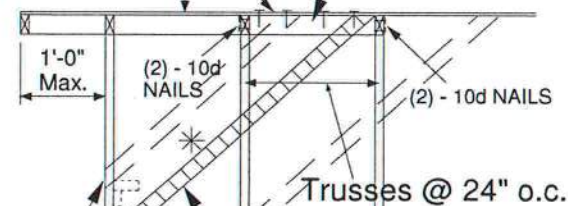
TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST  
TWO TRUSSES AS NOTED. TOENAIL BLOCKING  
TO TRUSSES WITH (2) - 10d NAILS AT EACH END.  
ATTACH DIAGONAL BRACE TO BLOCKING WITH  
(5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD  
SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing



Diag. Brace  
at 1/3 points  
if needed

2x6 DIAGONAL BRACE SPACED  
48" O.C. ATTACHED TO VERTICAL WITH  
(4) - 16d NAILS, AND ATTACHED TO  
BLOCKING WITH (5) - 10d NAILS.

End Wall

HORIZONTAL BRACE  
(SEE SECTION A-A)

\* - Diagonal Bracing  
Refer to Section A-A

\*\* - L-Bracing Refer  
to Section B-B

#### NOTE:

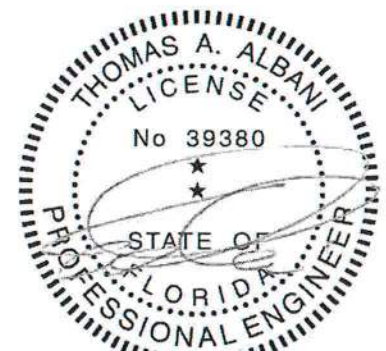
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10 180 MPH  
DURATION OF LOAD INCREASE : 1.60

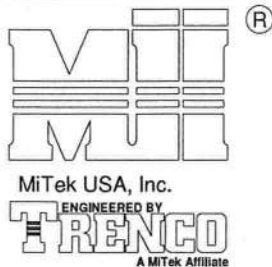
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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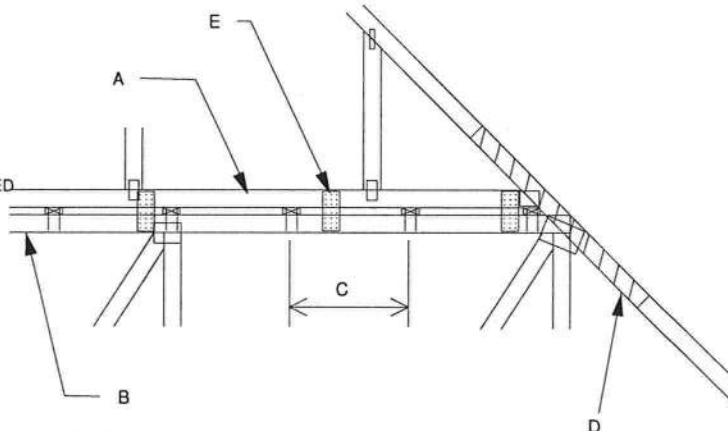




MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 MAX TRUSS SPACING = 24" O.C.  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 ASCE 7-10  
 DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES  
 TRANSFERRING DRAG LOADS (SHEAR TRUSSES).  
 ADDITIONAL CONSIDERATIONS BY BUILDING  
 ENGINEER/DESIGNER ARE REQUIRED.

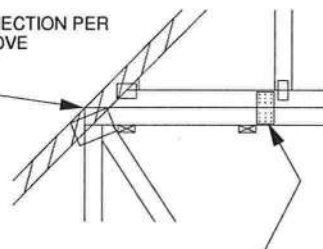
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X  $\frac{1}{2}$ " X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



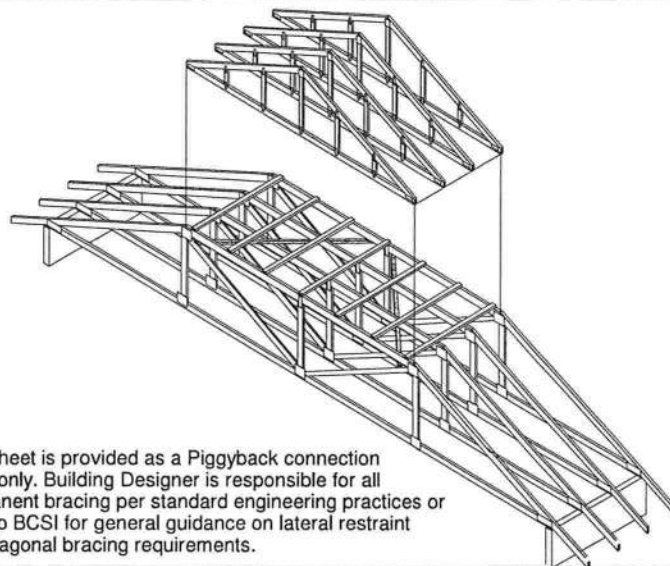
#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER  
NOTE D ABOVE

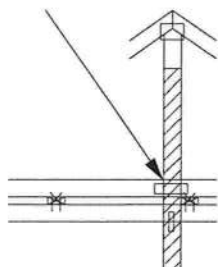


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



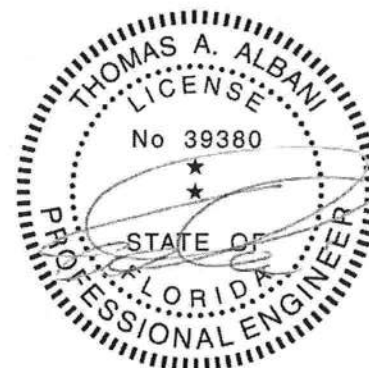
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO  
EXTEND THROUGH  
BOTTOM CHORD  
OF PIGGYBACK



#### FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x  $\frac{1}{2}$ " x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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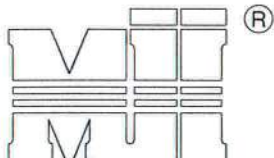
February 12, 2018

AUGUST 1, 2016

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT  
7-10

MiTek USA, Inc. Page 1 of 1



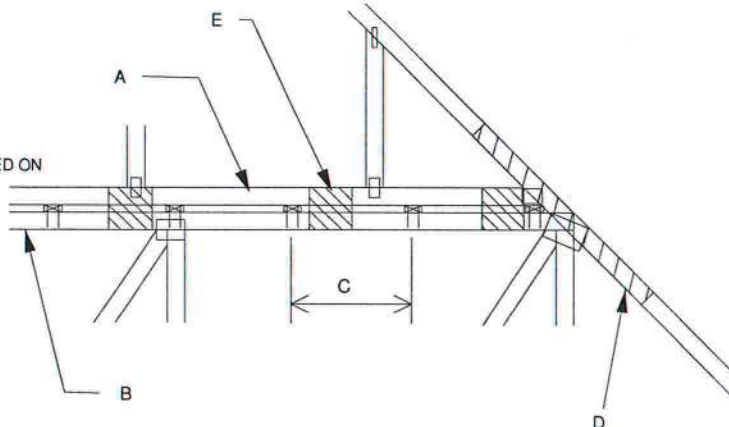
MiTek USA, Inc.



MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
MAX MEAN ROOF HEIGHT = 30 FEET  
MAX TRUSS SPACING = 24" O.C.  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-10  
DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES  
TRANSFERING DRAG LOADS (SHEAR TRUSSES).  
ADDITIONAL CONSIDERATIONS BY BUILDING  
ENGINEER/DESIGNER ARE REQUIRED.

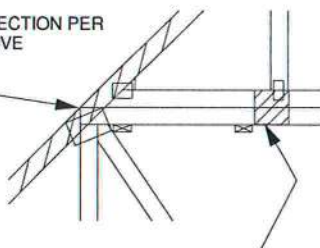
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X        X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



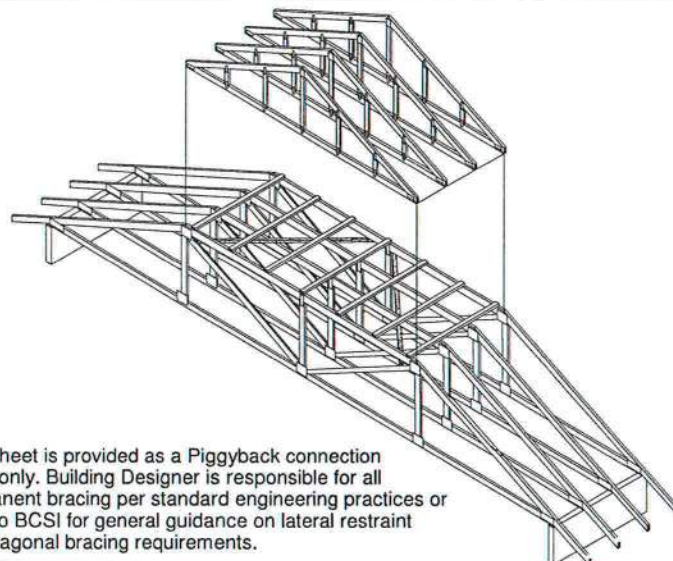
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER  
NOTE D ABOVE

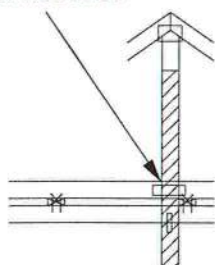


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO  
EXTEND THROUGH  
BOTTOM CHORD  
OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED  
TO CAP TRUSS REQUIRING A VERTICAL WEB:

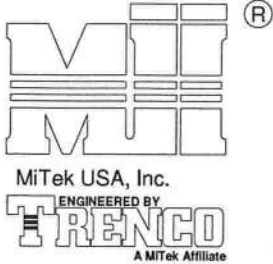
- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x        x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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January 19, 2018





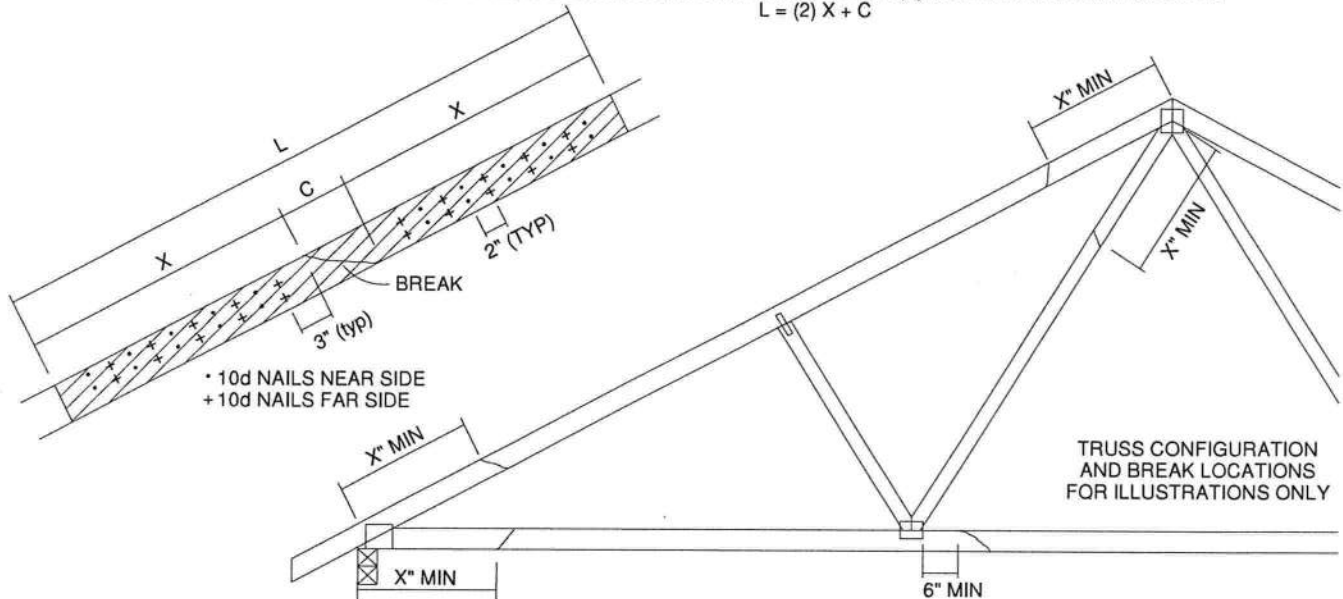
TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

\* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS (TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C. SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)  
THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:

$$L = (2) X + C$$



THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

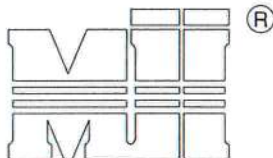
#### NOTES:

1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.



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Date:

January 19, 2018



MiTek USA, Inc.

**ENGINEERED BY**  
**TRENCO**  
 A MiTek Affiliate

## NOTES:

1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

 THIS DETAIL APPLICABLE TO THE  
 THREE END DETAILS SHOWN BELOW

 VIEWS SHOWN ARE FOR  
 ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)

	DIAM.	SP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

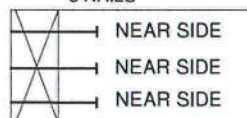
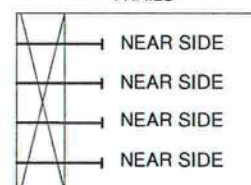
 VALUES SHOWN ARE CAPACITY PER TOE-NAIL.  
 APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

## EXAMPLE:

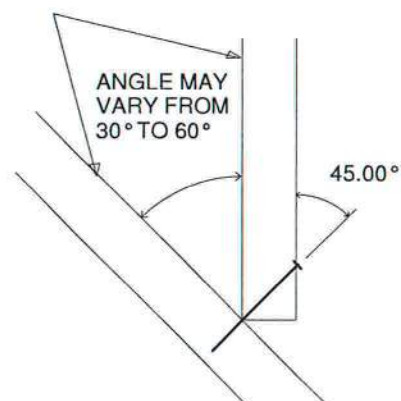
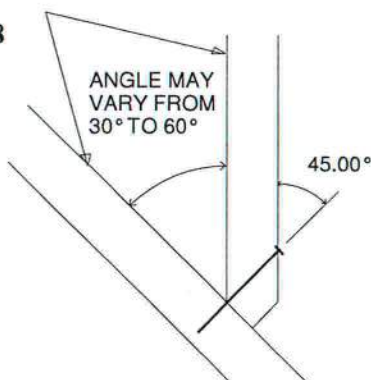
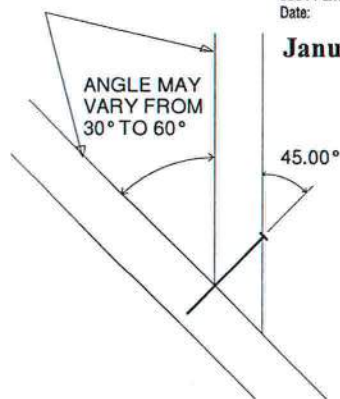
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1.15:

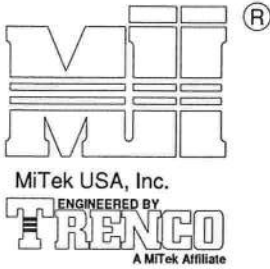
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

SIDE VIEW  
(2x3)  
2 NAILSSIDE VIEW  
(2x4)  
3 NAILSSIDE VIEW  
(2x6)  
4 NAILS
 Thomas A. Albani PE No.39380  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

January 19, 2018

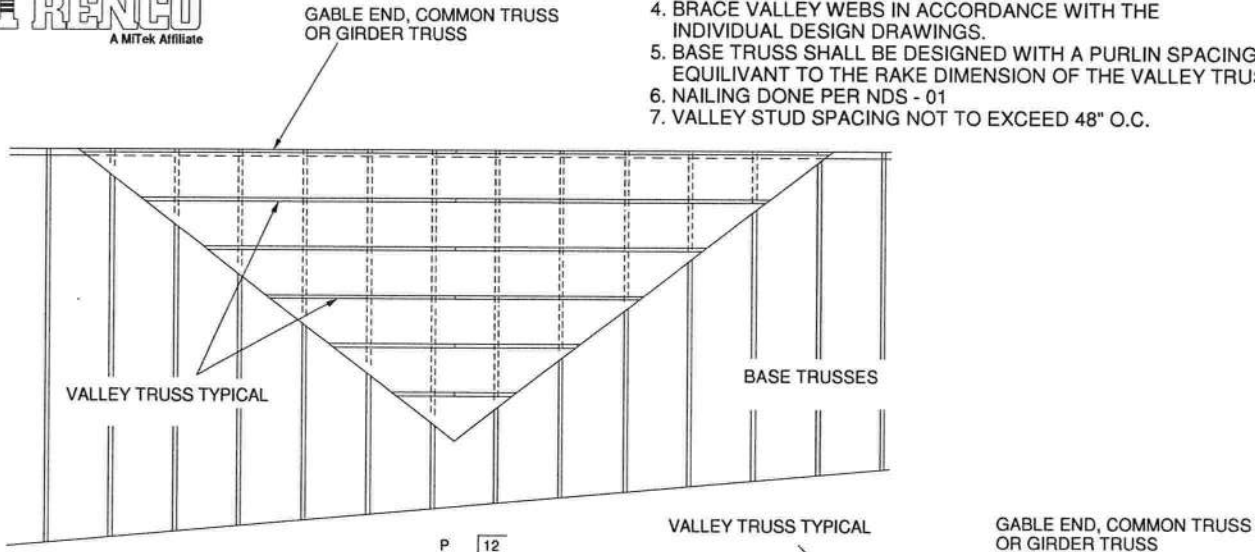






## GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT  
DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.

ATTACH 2x4 CONTINUOUS NO.2 SP  
TO THE ROOF W/ TWO USP WS3 (1/4" X 3")  
WOOD SCREWS INTO EACH BASE TRUSS.

DETAIL A  
(NO SHEATHING)  
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 6 PSF  
ON THE TRUSSES



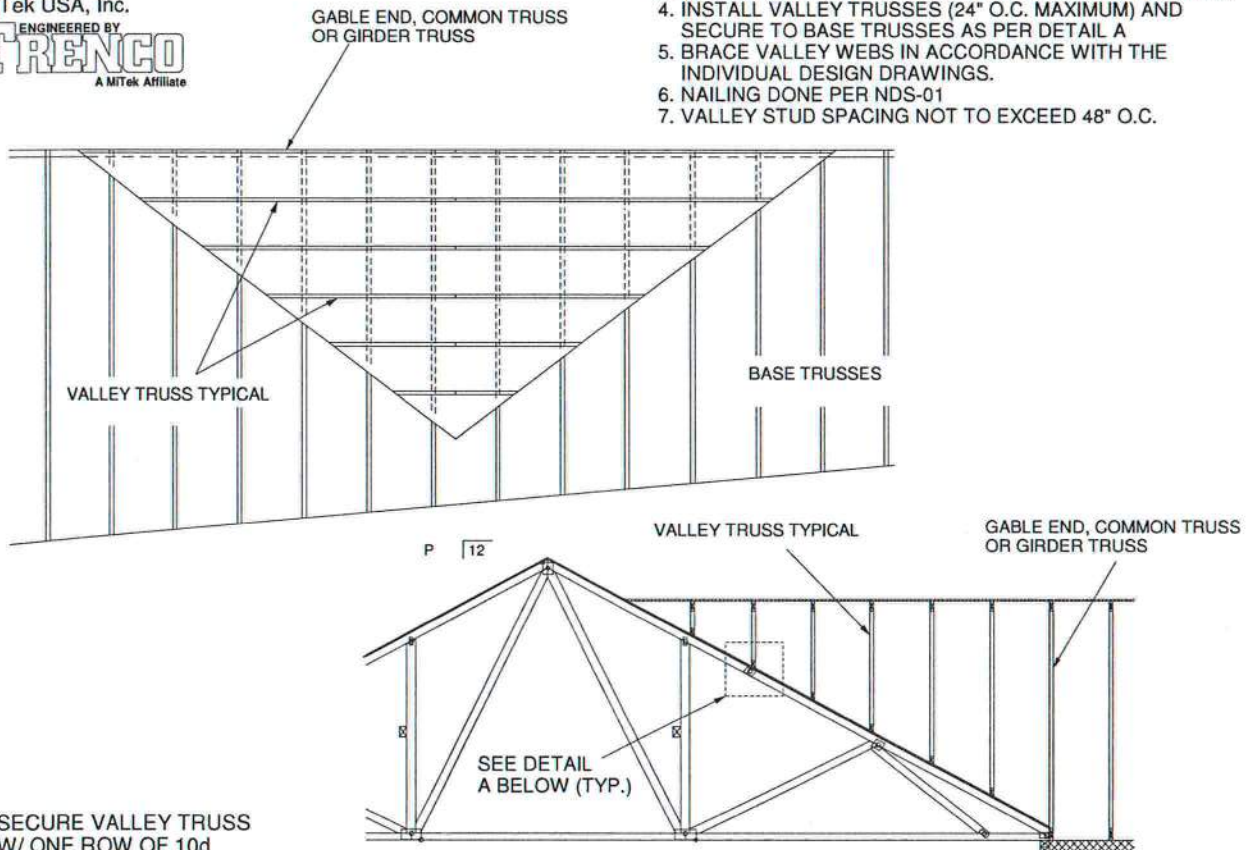
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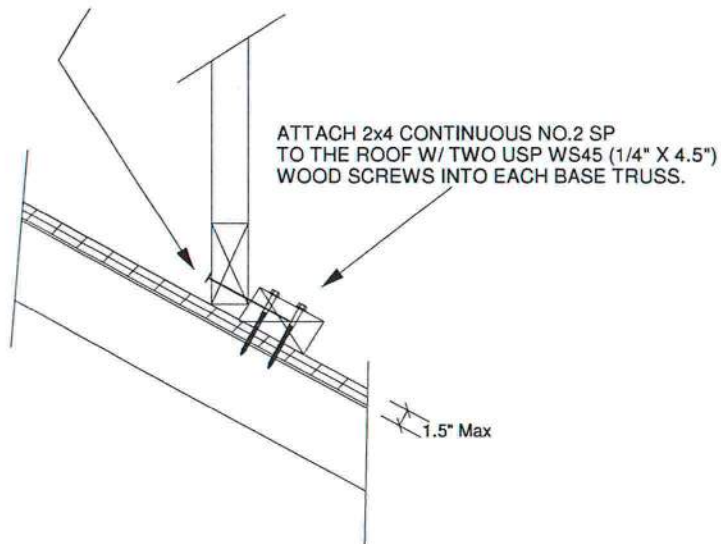


## GENERAL SPECIFICATIONS

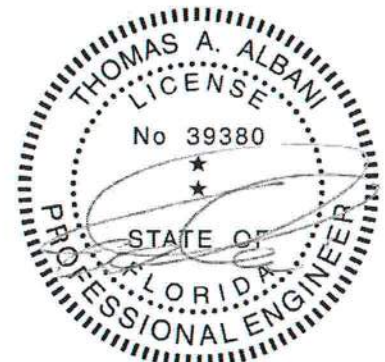
1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER NDS-01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.



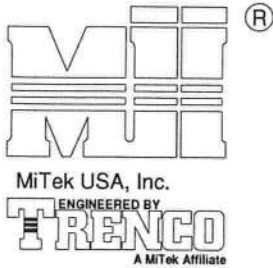
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 6 PSF  
ON THE TRUSSES



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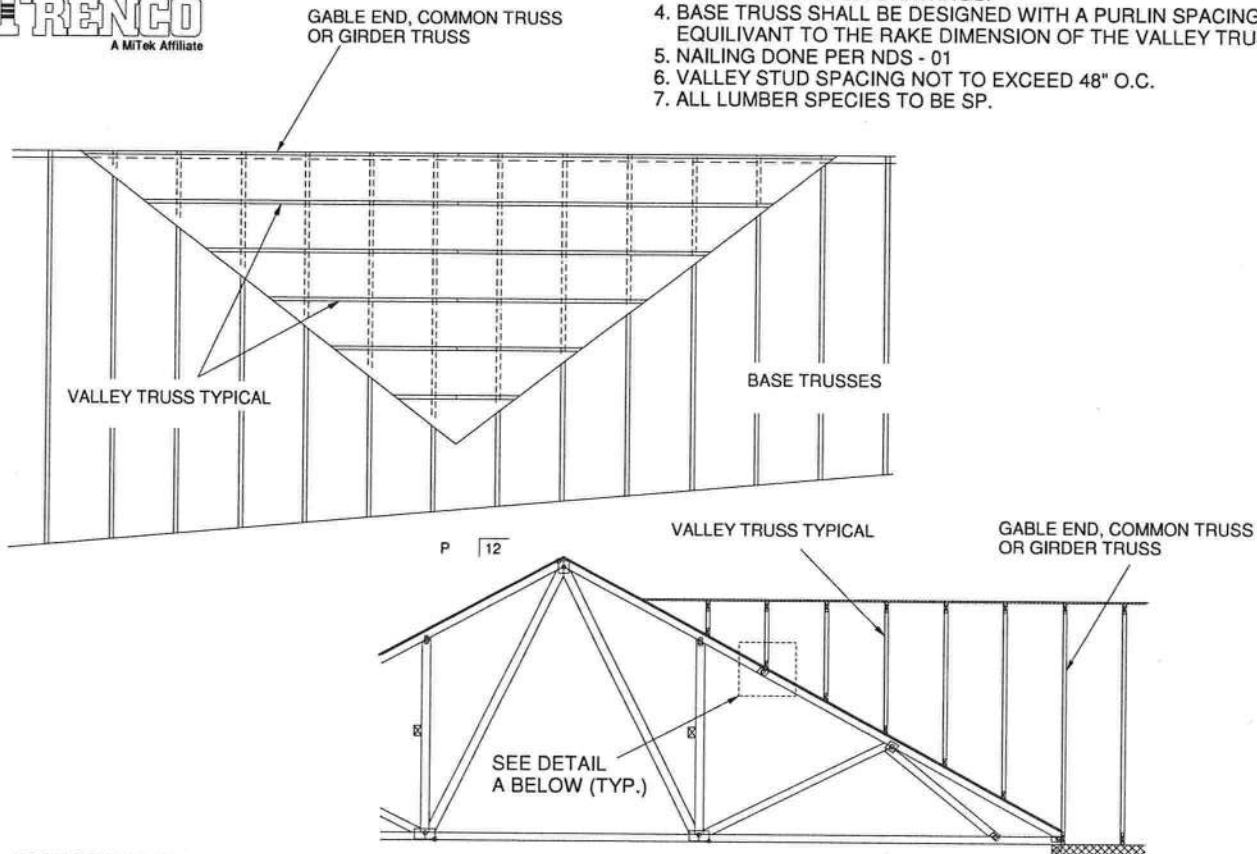
February 12, 2018



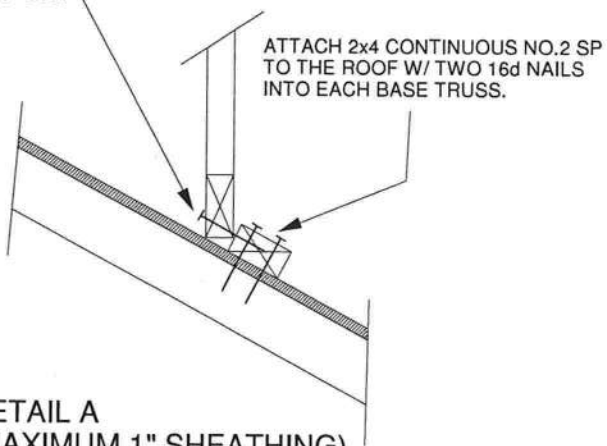


## GENERAL SPECIFICATIONS

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 16d  
NAILS 6" O.C.



DETAIL A  
(MAXIMUM 1" SHEATHING)  
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH  
WIND DESIGN PER ASCE 7-10 150 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12  
CATEGORY II BUILDING  
EXPOSURE C OR B  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 60 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF  
ON THE TRUSSES



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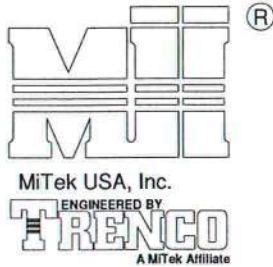
February 12, 2018

AUGUST 1, 2016

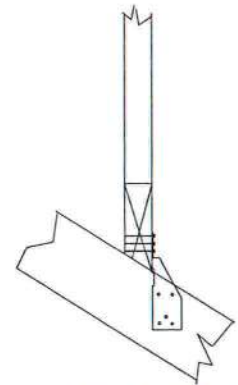
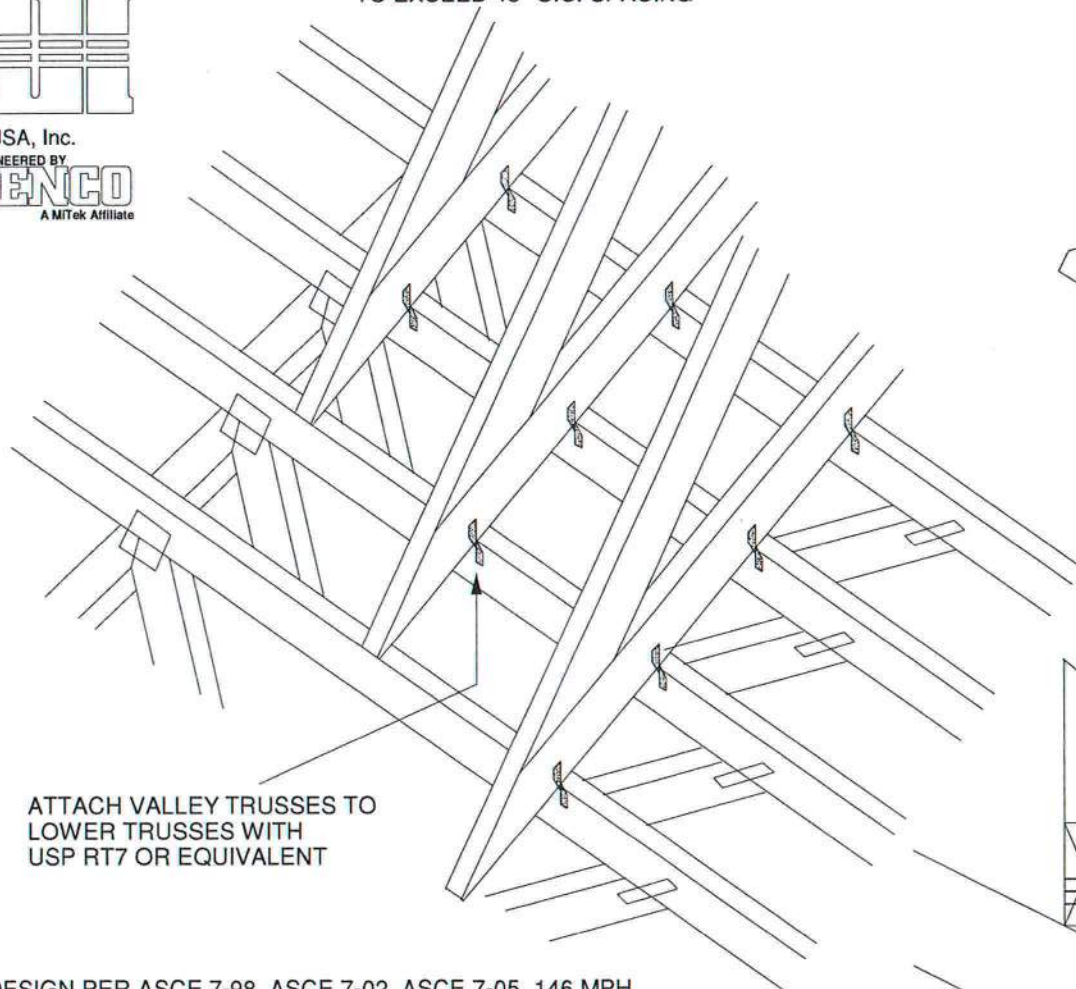
TRUSSED VALLEY SET DETAIL  
(HIGH WIND VELOCITY)

MII-VALLEY

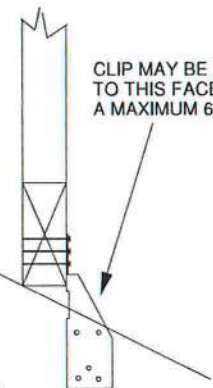
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NOTE: VALLEY STUD SPACING NOT  
TO EXCEED 48" O.C. SPACING



FOR BEVELED BOTTOM  
CHORD, CLIP MAY BE  
APPLIED TO EITHER FACE



CLIP MAY BE APPLIED  
TO THIS FACE UP TO  
A MAXIMUM 6/12 PITCH

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
WIND DURATION OF LOAD INCREASE : 1.6  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)

SUPPORTING TRUSSES DIRECTLY UNDER  
VALLEY TRUSSES MUST BE DESIGNED  
WITH A MAXIMUM UNBRACED LENGTH OF  
2'-10" ON AFFECTED TOP CHORDS.

NOTES:  
- SHEATHING APPLIED AFTER  
INSTALLATION OF VALLEY TRUSSES  
- THIS DETAIL IS NOT APPLICABLE FOR  
SPF-S SPECIES LUMBER.

NON-BEVELED  
BOTTOM CHORD

NON-BEVELED  
BOTTOM CHORD

CLIP MUST BE APPLIED  
TO THIS FACE WHEN  
PITCH EXCEEDS 6/12.  
(MAXIMUM 12/12 PITCH)



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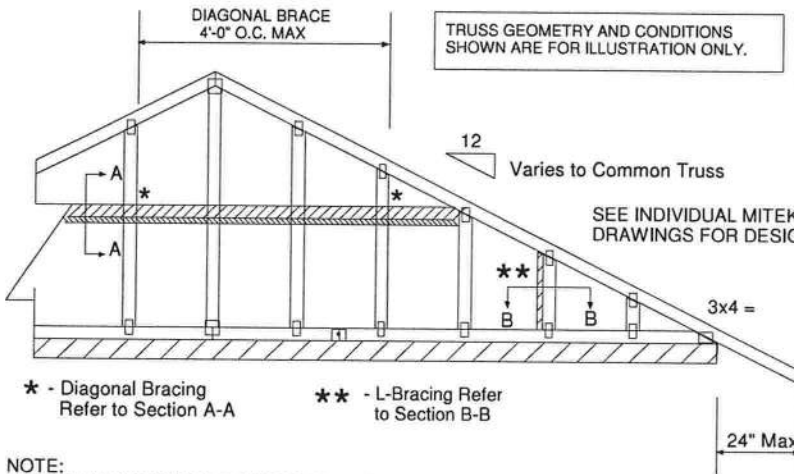
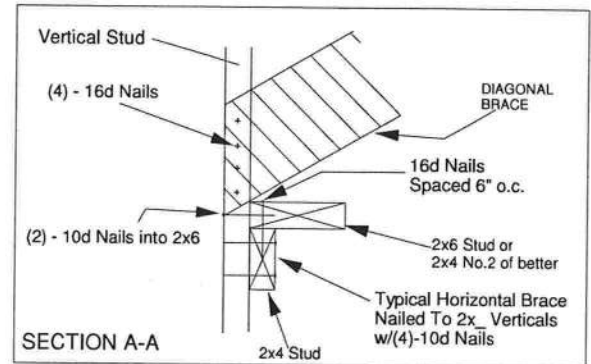
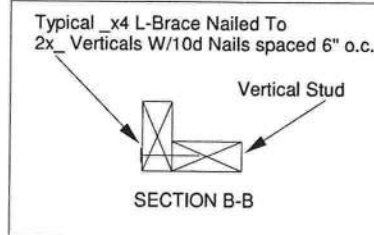
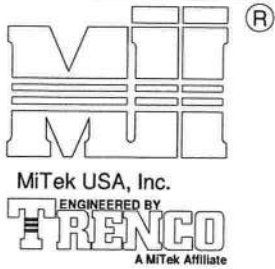


AUGUST 1, 2016

## Standard Gable End Detail

MII-GE146-001

MiTek USA, Inc. Page 1 of 2

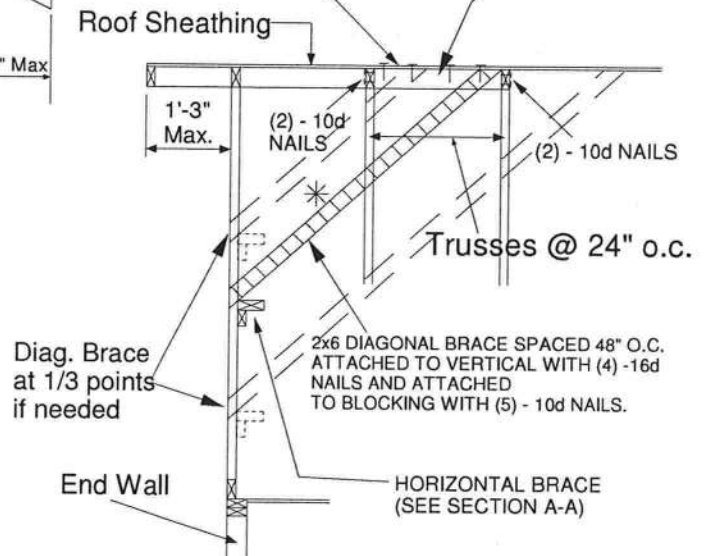


## NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

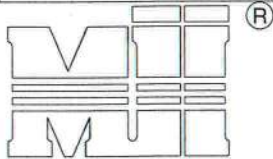
MAXIMUM WIND SPEED = 146 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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## TRUSS CRITERIA:

LOADING: 40-10-0-10

DURATION FACTOR: 1.15

SPACING: 24" O.C.

TOP CHORD: 2x4 OR 2x6

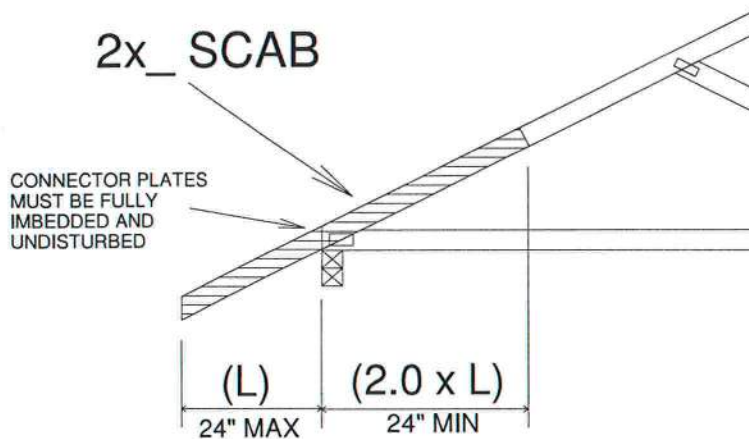
PITCH: 4/12 - 12/12

HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL

END BEARING CONDITION

## NOTES:

1. ATTACH 2x SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.

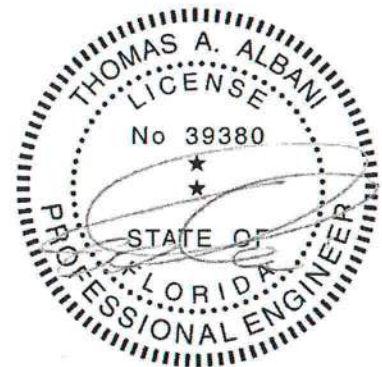


## IMPORTANT

This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf.

Trusses not fitting these criteria should be examined individually.

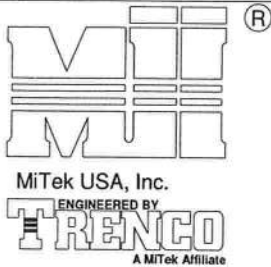
REFER TO INDIVIDUAL TRUSS DESIGN  
FOR PLATE SIZES AND LUMBER GRADES



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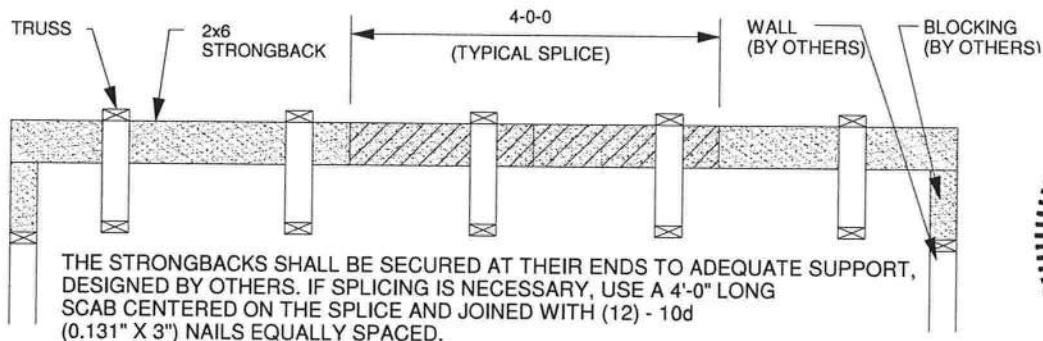
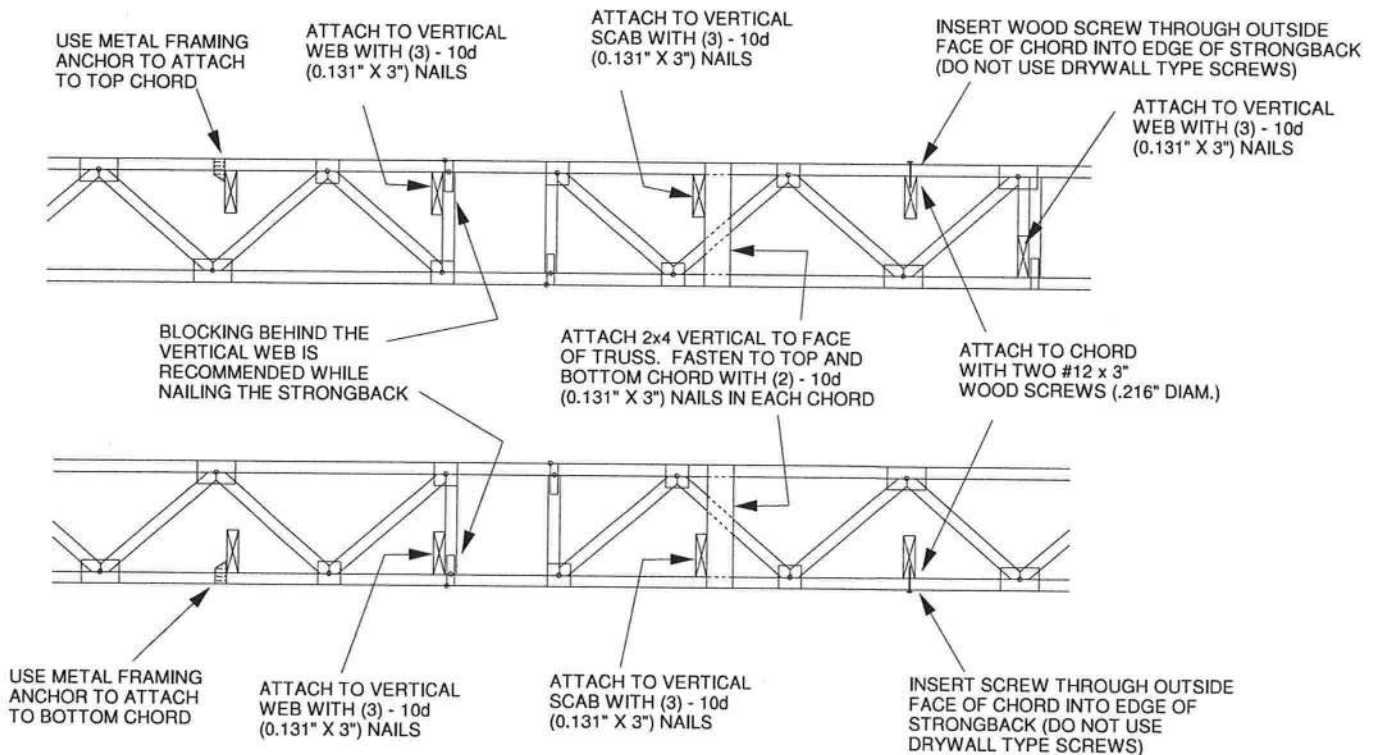




TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.



ALTERNATE METHOD OF SPLICING:  
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.  
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)



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