



RE: 2806871  
SIMQUE HOMES - LOT 147 PLL

**MiTek USA, Inc.**  
6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer: Aaron Simque Homes Project Name: 2806871  
 Lot/Block: 147 Model: Ivy  
 Address: TBD Subdivision: The Preserve at Laurel Lake  
 City: Columbia Cty State: FL

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

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7-16 Wind Speed: 130 mph  
 Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 39 individual, dated 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	T23987452	CJ1	5/22/2021	21	T23987472	T02G	5/22/2021
2	T23987453	CJ3	5/22/2021	22	T23987473	T03	5/22/2021
3	T23987454	CJ3A	5/22/2021	23	T23987474	T04	5/22/2021
4	T23987455	CJ3B	5/22/2021	24	T23987475	T05	5/22/2021
5	T23987456	CJ5	5/22/2021	25	T23987476	T06	5/22/2021
6	T23987457	CJ5A	5/22/2021	26	T23987477	T07	5/22/2021
7	T23987458	EJ5	5/22/2021	27	T23987478	T08	5/22/2021
8	T23987459	EJ5B	5/22/2021	28	T23987479	T09	5/22/2021
9	T23987460	EJ6	5/22/2021	29	T23987480	T10	5/22/2021
10	T23987461	EJ7	5/22/2021	30	T23987481	T11	5/22/2021
11	T23987462	HJ7	5/22/2021	31	T23987482	T12	5/22/2021
12	T23987463	HJ10	5/22/2021	32	T23987483	T13	5/22/2021
13	T23987464	PB1	5/22/2021	33	T23987484	T14	5/22/2021
14	T23987465	PB2	5/22/2021	34	T23987485	T15	5/22/2021
15	T23987466	PB3	5/22/2021	35	T23987486	T16	5/22/2021
16	T23987467	PB4	5/22/2021	36	T23987487	T17	5/22/2021
17	T23987468	PB5	5/22/2021	37	T23987488	T18	5/22/2021
18	T23987469	T01	5/22/2021	38	T23987489	T19	5/22/2021
19	T23987470	T01G	5/22/2021	39	T23987490	T20	5/22/2021
20	T23987471	T02	5/22/2021				



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, 2023.  
 Florida COA: 6634

**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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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:

May 22, 2021



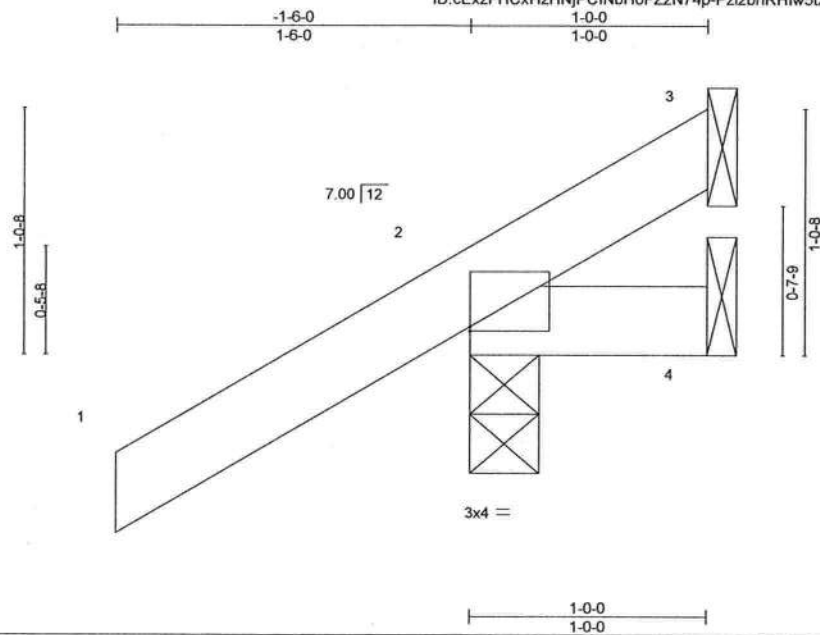
Job 2806871	Truss CJ1	Truss Type Jack-Open	Qty 6	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987452
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Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:41 2021 Page 1

ID:cExzFHCxHzHNjPCINbH0FZzN74p-Pzi2bnRHw5tXuq6Z0xGHAdUprF7IvYguDKCKXzGJ30



Scale = 1:9.4

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

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 0.23	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.06	Vert(CT)	0.00	7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MP						Weight: 6 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 1-0-0 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=64(LC 12)  
Max Uplift 3=-5(LC 1), 2=-103(LC 12), 4=-25(LC 19)  
Max Grav 3=7(LC 16), 2=179(LC 1), 4=26(LC 16)

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

**NOTES-** (7)

- 1) Wind: ASCE 7-16; 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(2E) 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
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3, 103 lb uplift at joint 2 and 25 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

May 18, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	SIMQUE HOMES - LOT 147 PLL	T23987453
2806871	CJ3	Jack-Open	3	1		

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:42 2021 Page 1  
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Scale = 1:15.3

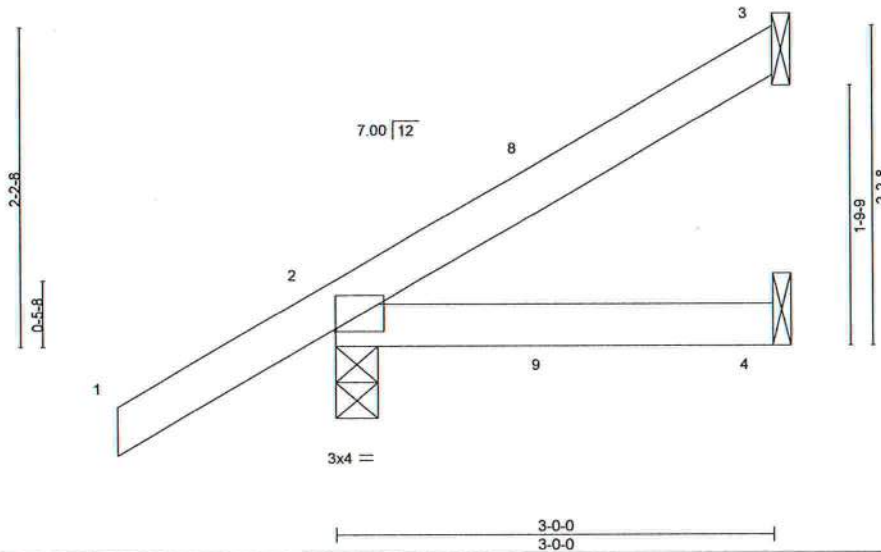


Plate Offsets (X,Y)-- [2-0-0-0,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.13	Vert(LL) 0.01 4-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Vert(CT) -0.01 4-7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) -0.00 3 n/a n/a		
	Code FBC2020/TPI2014			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 3-0-0 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=120(LC 12)  
 Max Uplift 3=63(LC 12), 2=88(LC 12), 4=26(LC 9)  
 Max Grav 3=67(LC 19), 2=210(LC 1), 4=51(LC 3)

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

- NOTES- (7)**
- 1) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 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
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 3, 88 lb uplift at joint 2 and 26 lb uplift at joint 4.
  - 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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 Date:

May 18, 2021

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 33610

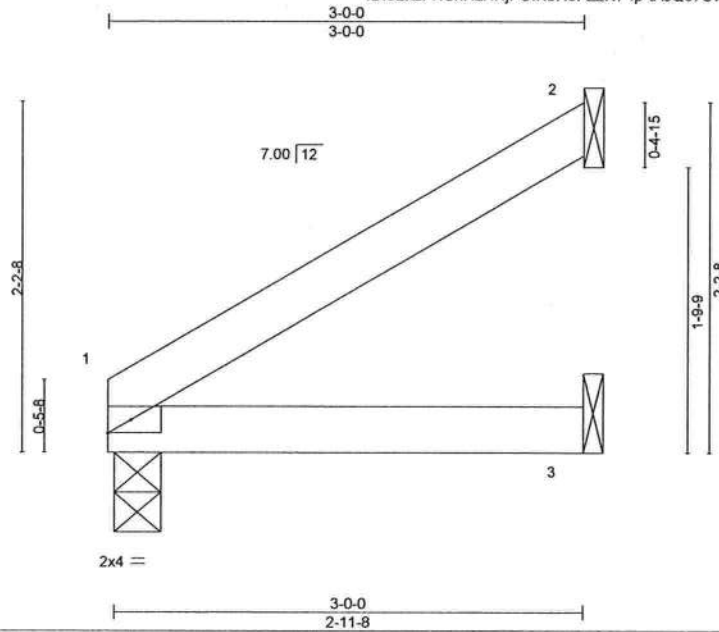
Job 2806871	Truss CJ3A	Truss Type Jack-Open	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987454
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Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:42 2021 Page 1

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Scale = 1:14.0

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.18	Vert(LL) 0.02 3-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Vert(CT) -0.01 3-6 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) -0.00 2 n/a n/a		
	Code FBC2020/TPI2014			Weight: 10 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 3-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=0-3-8, 2=Mechanical, 3=Mechanical  
Max Horz 1=83(LC 12)  
Max Uplift 1=-37(LC 9), 2=-70(LC 12), 3=-30(LC 9)  
Max Grav 1=109(LC 1), 2=76(LC 19), 3=54(LC 3)

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

**NOTES-** (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCCL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1, 70 lb uplift at joint 2 and 30 lb uplift at joint 3.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Joaquin Velez PE No.68182  
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6904 Parke East Blvd. Tampa FL 33610  
Date:

May 18,2021

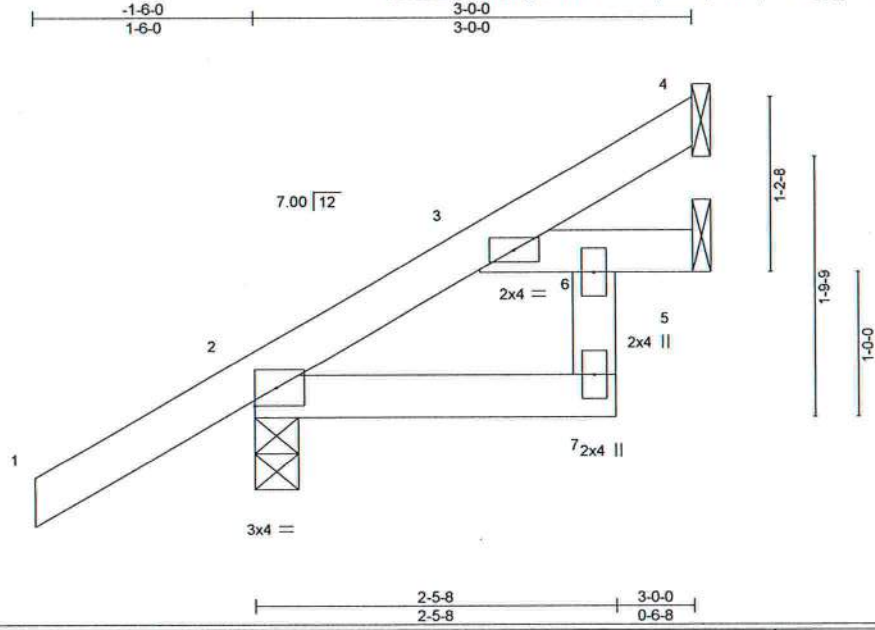
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 33610

Job 2806871	Truss CJ3B	Truss Type Jack-Open	Qty 2	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987455
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:43 2021 Page 1  
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Scale = 1:15.3

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.20	Vert(LL)	-0.00	11	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.17	Vert(CT)	-0.00	11	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MR						
								Weight: 15 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 6-7: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=120(LC 12)  
 Max Uplift 4=31(LC 12), 2=87(LC 12), 5=28(LC 12)  
 Max Grav 4=43(LC 19), 2=216(LC 1), 5=72(LC 3)

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

- NOTES-** (7)
- 1) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-8, Interior(1) 1-6-8 to 2-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 4, 87 lb uplift at joint 2 and 28 lb uplift at joint 5.
  - 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



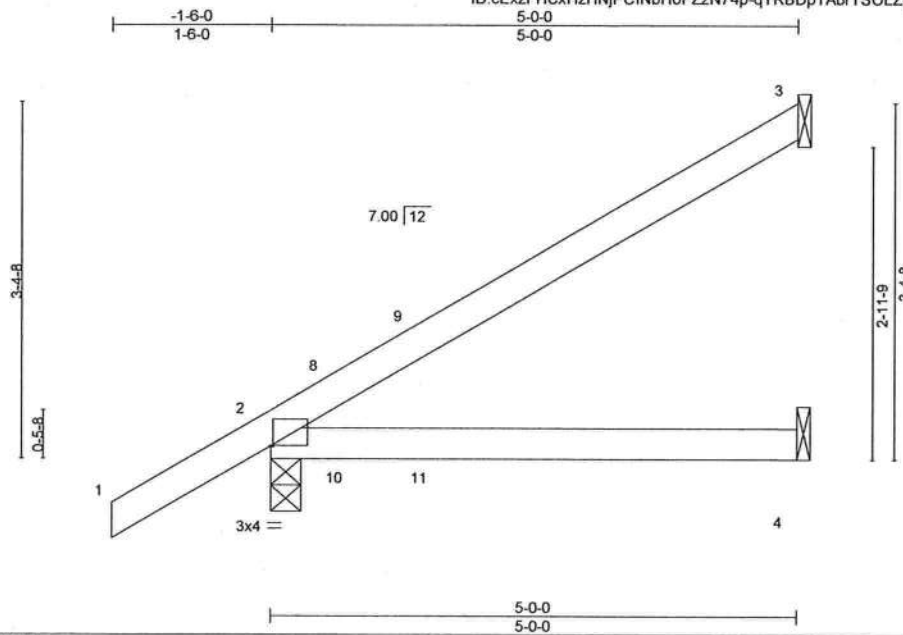
Joaquin Velez PE No.68182  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: May 18, 2021

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

Job 2806871	Truss CJ5	Truss Type Jack-Open	Qty 3	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987456
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8,430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:44 2021 Page 1  
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Scale = 1:21.0

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

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.42	Vert(LL)	0.10	4-7	>574	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.45	Vert(CT)	0.09	4-7	>642	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MP						Weight: 19 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 5-0-0 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=177(LC 12)  
Max Uplift 3=-114(LC 12), 2=-99(LC 12), 4=-47(LC 9)  
Max Grav 3=124(LC 19), 2=276(LC 1), 4=89(LC 3)

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

**NOTES-** (7)

- 1) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 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
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 3, 99 lb uplift at joint 2 and 47 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



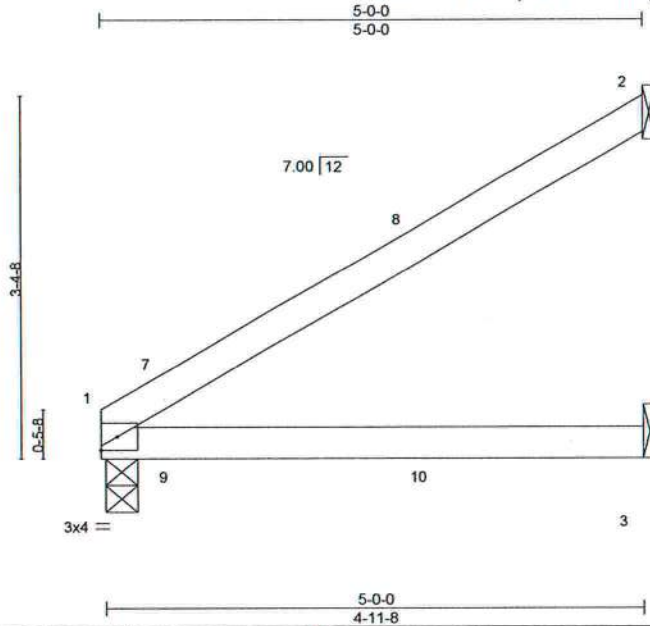
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2806871	Truss CJ5A	Truss Type Jack-Open	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987457
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:45 2021 Page 1

ID:cExzFHCxHzHNjPCINbH0FZzN74p-II\_ZR9UoM9bJ0V8tos?CS0o7SSVREjXGprlQTlzGJ3K



Scale = 1:20.6

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.44	Vert(LL)	0.11 3-6	>530	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.48	Vert(CT)	0.10 3-6	>598	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01 2	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MP					Weight: 16 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 5-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 2=Mechanical, 3=Mechanical  
Max Horz 1=140(LC 12)  
Max Uplift 1=64(LC 9), 2=119(LC 12), 3=49(LC 9)  
Max Grav 1=183(LC 1), 2=130(LC 19), 3=91(LC 3)

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

**NOTES-** (7)

- 1) Wind: ASCE 7-16; 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(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-11-4 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
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 1, 119 lb uplift at joint 2 and 49 lb uplift at joint 3.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18, 2021

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2806871	Truss EJ5	Truss Type JACK-OPEN	Qty 4	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987458
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Builders FirstSource (Jacksonville, FL),

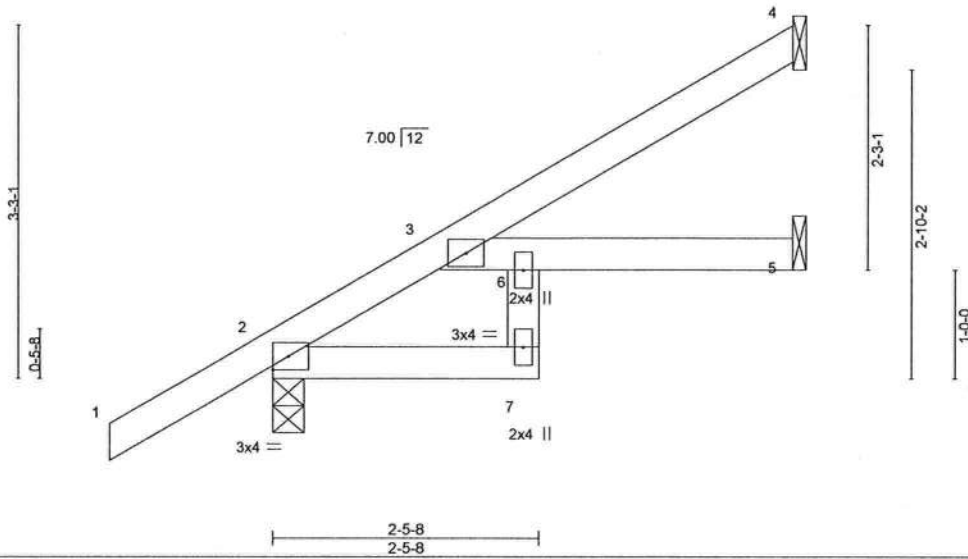
Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:45 2021 Page 1

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4-9-8  
4-9-8



Scale = 1:20.4



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.27	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.25	Vert(LL) 0.04 7 >999 240		
BCLL 0.0	Lumber DOL 1.25	WB 0.02	Vert(CT) -0.06 7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.03 5 n/a n/a		
	Code FBC2020/TPI2014			Weight: 21 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 4-9-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=171(LC 12)  
Max Uplift 4=86(LC 12), 2=95(LC 12), 5=26(LC 12)  
Max Grav 4=111(LC 19), 2=278(LC 1), 5=86(LC 3)

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

**NOTES- (7)**

- 1) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-8, Interior(1) 1-6-8 to 4-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 4, 95 lb uplift at joint 2 and 26 lb uplift at joint 5.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Joaquin Velez PE No.68182  
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6904 Parke East Blvd. Tampa FL 33610  
Date:

May 18, 2021

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6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss EJ5B	Truss Type Jack-Open	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987459
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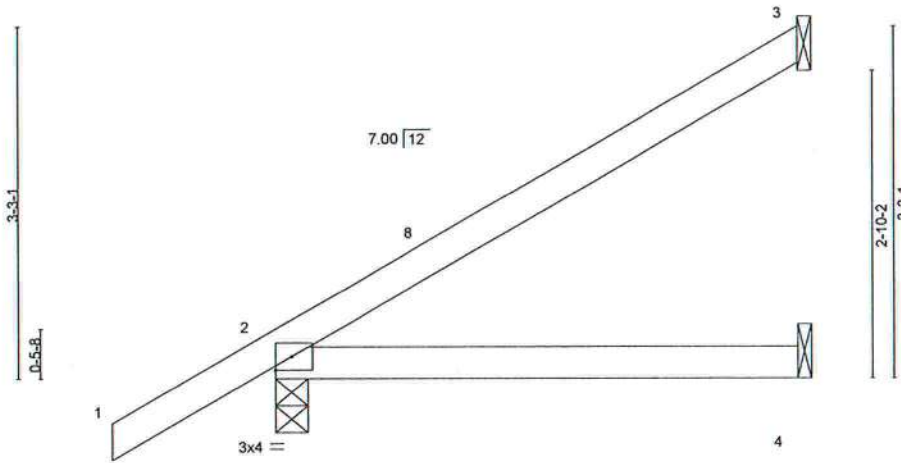
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:46 2021 Page 1

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Scale = 1:20.4



<b>LOADING (psf)</b>	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.26	Vert(LL)	0.03	4-7	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.22	Vert(CT)	-0.05	4-7	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MP						
								Weight: 18 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 4-9-8 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=171(LC 12)  
Max Uplift 3=109(LC 12), 2=-98(LC 12), 4=-5(LC 12)  
Max Grav 3=124(LC 19), 2=269(LC 1), 4=85(LC 3)

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

**NOTES- (7)**

- 1) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 3, 98 lb uplift at joint 2 and 5 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2806871	Truss EJ6	Truss Type Monopitch	Qty 5	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987460
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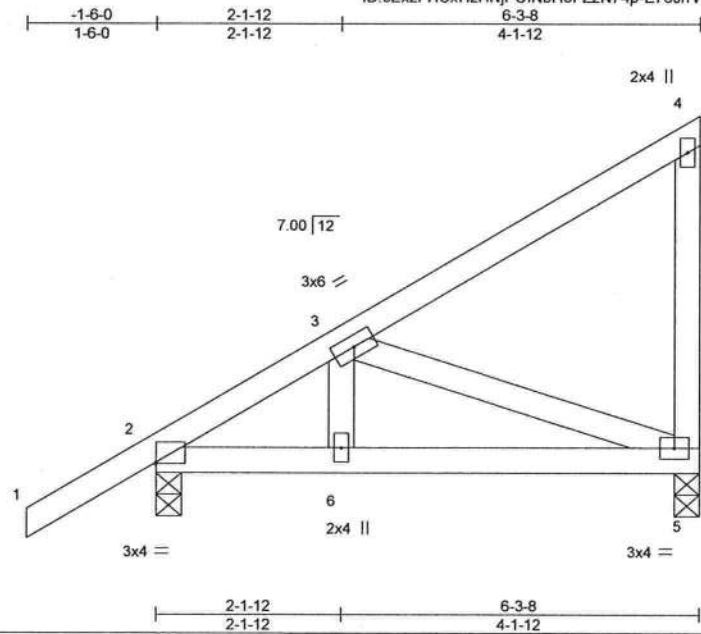


Plate Offsets (X,Y)- [2:0-0-0,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.24	Vert(LL) 0.04	5-6	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.27	Vert(CT) 0.04	5-6	>999	180			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) -0.00	5	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP							

Weight: 36 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 6-7-9 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 5=0-3-8  
 Max Horz 2=211(LC 12)  
 Max Uplift 2=-108(LC 12), 5=-152(LC 12)  
 Max Grav 2=318(LC 1), 5=218(LC 1)

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

TOP CHORD 2-3=-309/527  
 BOT CHORD 2-6=-675/254, 5-6=-675/254  
 WEBS 3-6=-310/147, 3-5=-269/715

**NOTES-** (6)

- 1) Wind= ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-1-12 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
- 2) Using Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 2 and 152 lb uplift at joint 5.
- 6) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18, 2021

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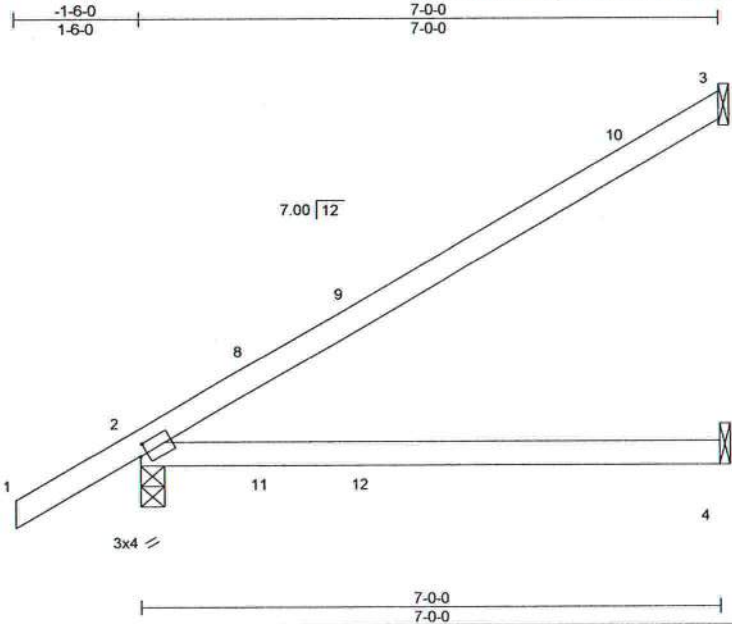
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6904 Parke East Blvd.  
 Tampa, FL 33610

Job 2806871	Truss EJ7	Truss Type Jack-Open	Qty 9	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987461
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Scale = 1:26.9

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

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.83	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.37	Vert(LL) 0.31 4-7 >268 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Vert(CT) 0.27 4-7 >305 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) -0.02 3 n/a n/a	Weight: 25 lb	FT = 20%
	Code FBC2020/TPI2014				

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP M 31

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 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=225(LC 12)  
 Max Uplift 3=144(LC 12), 2=118(LC 12), 4=70(LC 9)  
 Max Grav 3=176(LC 19), 2=346(LC 1), 4=131(LC 3)

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

- NOTES- (7)**
- 1) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-11-4 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
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 3, 118 lb uplift at joint 2 and 70 lb uplift at joint 4.
  - 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: May 18,2021

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Job 2806871	Truss HJ7	Truss Type DIAGONAL HIP GIRDER	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987462
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:50 2021 Page 1

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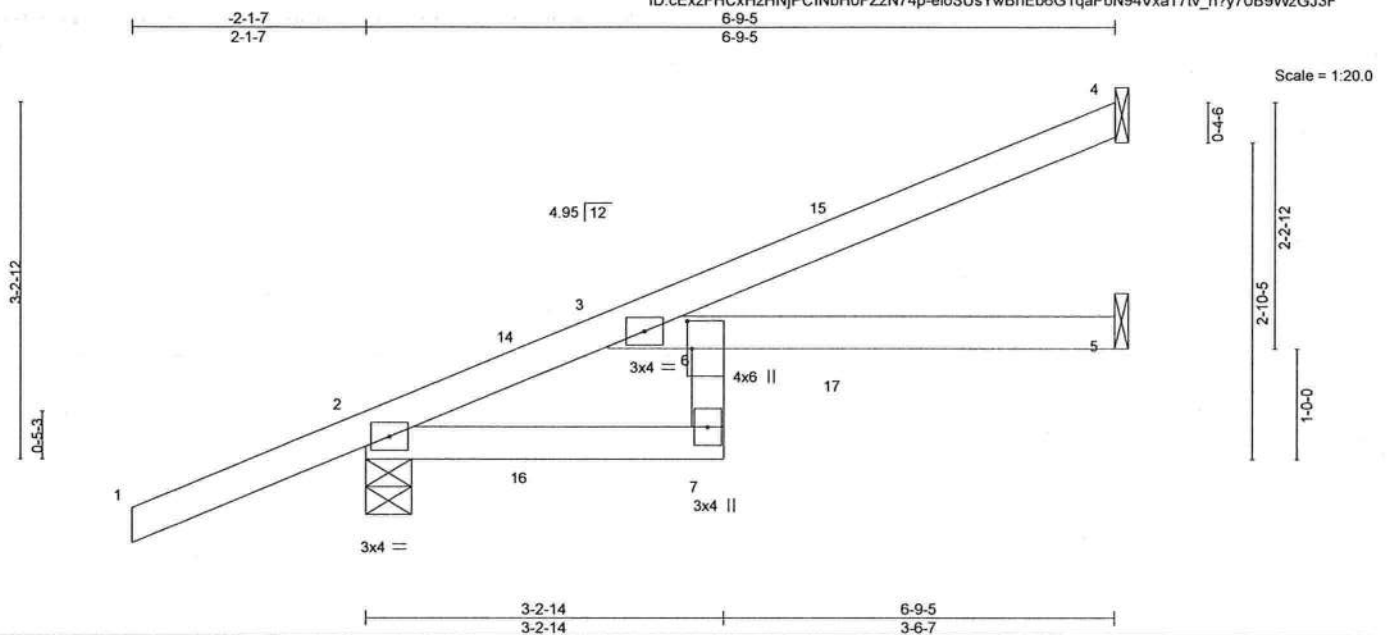


Plate Offsets (X,Y)-- [6:0-3-0,0-0-8]

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 0.54	Vert(LL)	0.17	5-6	>473	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.78	Vert(CT)	-0.19	5-6	>418	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.06	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MR							
									Weight: 27 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-7: 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) 4=Mechanical, 2=0-4-15, 5=Mechanical  
Max Horz 2=171(LC 8)  
Max Uplift 4=-123(LC 8), 2=-252(LC 8), 5=-72(LC 8)  
Max Grav 4=149(LC 1), 2=414(LC 1), 5=139(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-9=-427/164  
BOT CHORD 2-7=-230/287, 3-6=-287/230

**NOTES-** (9)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCCL=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
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 4, 252 lb uplift at joint 2 and 72 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 28 lb up at 4-3-11, 86 lb down and 28 lb up at 4-3-11, and 72 lb down and 76 lb up at 1-5-12, and 72 lb down and 76 lb up at 1-5-12 on top chord, and 25 lb down and 54 lb up at 1-5-12, 25 lb down and 54 lb up at 1-5-12, and 59 lb down and 42 lb up at 4-3-11, and 59 lb down and 42 lb up at 4-3-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=54, 7-8=20, 6-11=20, 5-6=20  
Concentrated Loads (lb)  
Vert: 17=-62(F=-31, B=31)



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

May 18, 2021

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

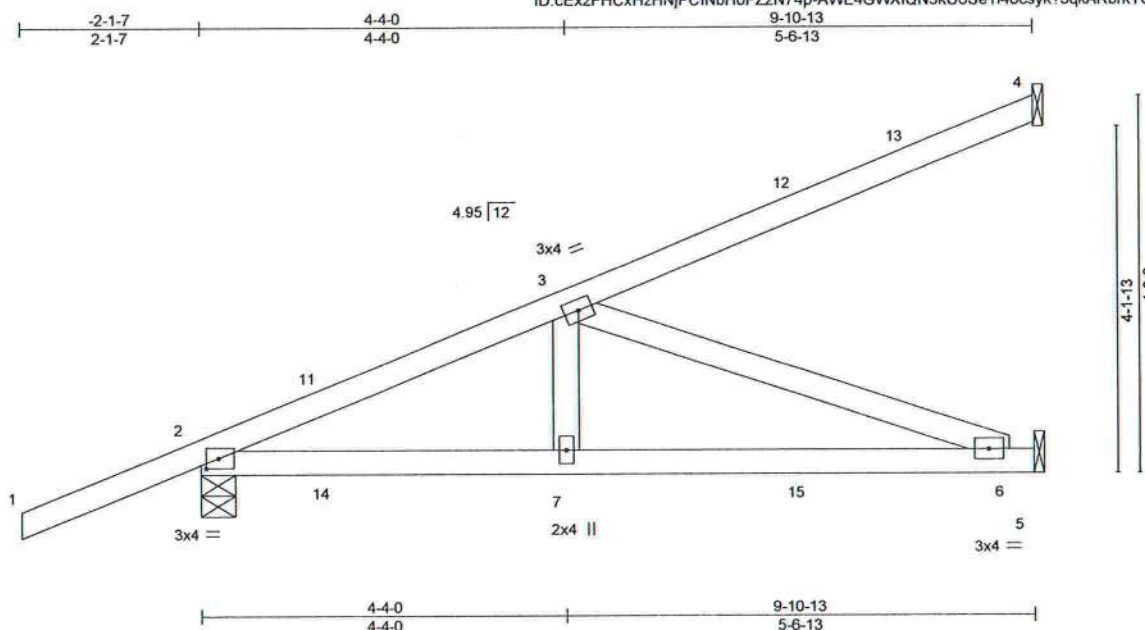
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 33610

Job 2806871	Truss HJ10	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987463
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:49 2021 Page 1  
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Scale = 1:26.4

Plate Offsets (X,Y)- [2:0-1-13,0-1-8]

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 0.66	Vert(LL)	0.13	6-7	>932	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.65	Vert(CT)	-0.13	6-7	>876	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.44	Horz(CT)	-0.01	5	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 45 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.  
 BOT CHORD Rigid ceiling directly applied or 6-8-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-4-15, 5=Mechanical  
 Max Horz 2=226(LC 8)  
 Max Uplift 4=140(LC 8), 2=425(LC 4), 5=284(LC 5)  
 Max Grav 4=158(LC 1), 2=538(LC 1), 5=304(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=745/584  
 BOT CHORD 2-7=-656/660, 6-7=-656/660  
 WEBS 3-7=-145/286, 3-6=-702/698

- NOTES-** (9)
- 1) Wind: ASCE 7-16; 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; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 4, 425 lb uplift at joint 2 and 284 lb uplift at joint 5.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down and 71 lb up at 4-3-11, 103 lb down and 62 lb up at 4-3-11, 134 lb down and 128 lb up at 7-1-10, 135 lb down and 122 lb up at 7-1-10, and 72 lb down and 76 lb up at 1-5-12, and 72 lb down and 76 lb up at 1-5-12 on top chord, and 58 lb down and 54 lb up at 1-5-12, 58 lb down and 54 lb up at 1-5-12, 23 lb down and 39 lb up at 4-3-11, 20 lb down and 34 lb up at 4-3-11, and 44 lb down and 65 lb up at 7-1-10, and 42 lb down and 62 lb up at 7-1-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-4=-54, 5-8=-20



Joaquin Velez PE No.68182  
 MiTek USA, Inc. FL Cert 6634  
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 Date: May 18,2021

Continued on page 2

<p><b>WARNING -</b> Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20687</p>	 6904 Parke East Blvd. Tampa, FL 36610
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Job 2806871	Truss HJ10	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987463
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:49 2021 Page 2  
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LOAD CASE(S) Standard  
Concentrated Loads (lb)

Vert: 3=-2(B) 7=-12(F=-2, B=-10) 12=-80(F=-37, B=-43) 15=-64(F=-28, B=-35)

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



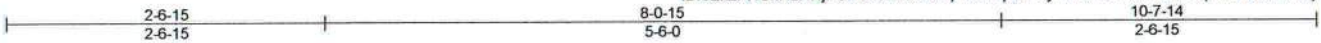
6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss PB1	Truss Type Piggyback	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987464
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8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:51 2021 Page 1

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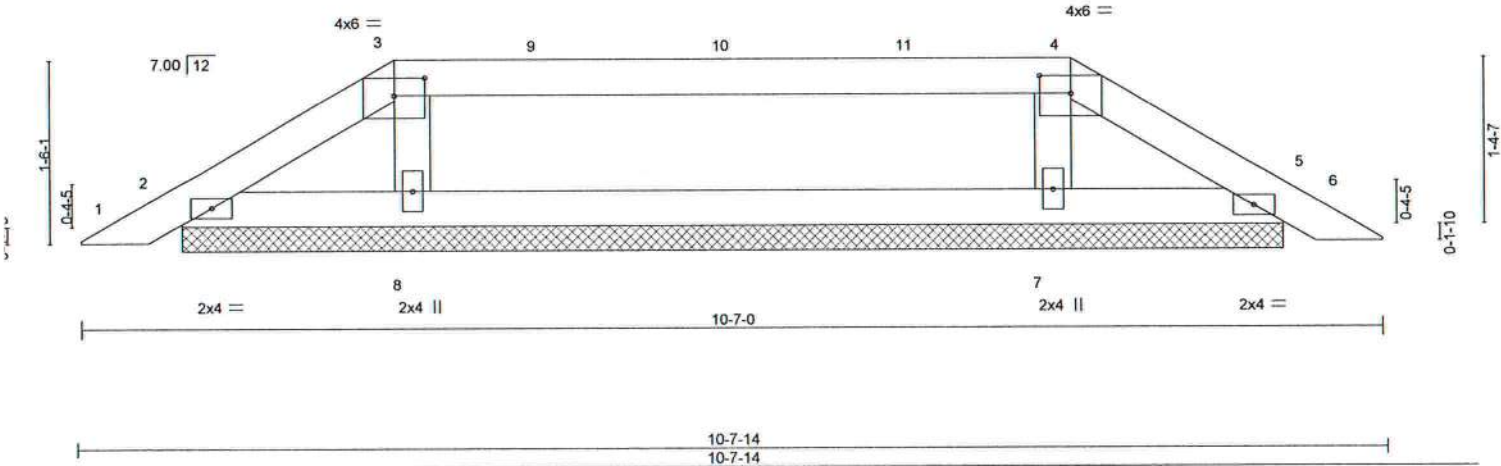


Plate Offsets (X,Y)- [3:0-3-0,0-1-12], [4:0-3-0,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	Vert(LL)	-0.00	5	n/r	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.16	Vert(CT)	-0.00	6	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 33 lb	FT = 20%
	Code FBC2020/TPI2014							

**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.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 8-11-9.  
 (lb) - Max Horz 2=42(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 5 except 8=123(LC 9), 7=114(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 5 except 8=302(LC 23), 7=302(LC 24)

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

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-3-11 to 2-6-15, Exterior(2R) 2-6-15 to 6-9-13, Interior(1) 6-9-13 to 8-0-15, Exterior(2E) 8-0-15 to 10-4-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5 except (jt=lb) 8=123, 7=114.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: May 18, 2021

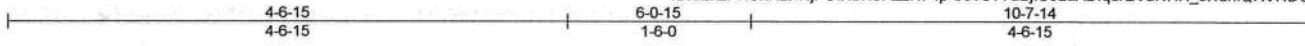
<p><b>WARNING -</b> Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev 5/19/2020 BEFORE USE.          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 6904 Parke East Blvd. Tampa, FL 33610
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Job 2806871	Truss PB2	Truss Type Piggyback	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987465
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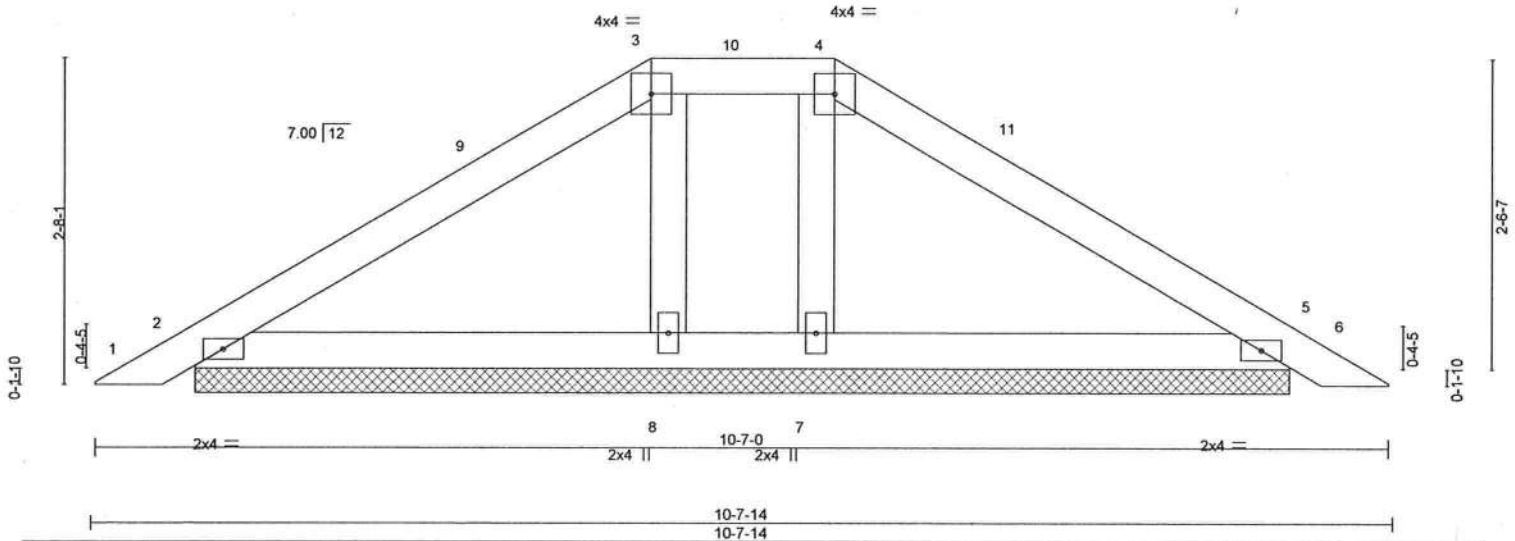
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:52 2021 Page 1

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Scale = 1:18.1



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.15	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.11	Vert(LL) 0.00 6 n/r 120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.03	Vert(CT) 0.01 6 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code FBC2020/TPI2014			Weight: 37 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.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

All bearings 8-11-9.  
 (lb) - Max Horz 2=78(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 5, 7 except 8=108(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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

**NOTES-** (10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 4-6-15, Exterior(2E) 4-6-15 to 10-4-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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, 5, 7 except (jt=lb) 8=108.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18, 2021

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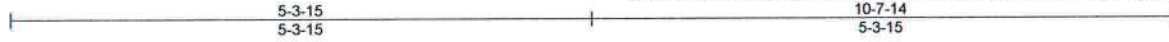
6904 Parke East Blvd.  
 Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	SIMQUE HOMES - LOT 147 PLL	T23987466
2806871	PB3	Piggyback	7	1	Job Reference (optional)	

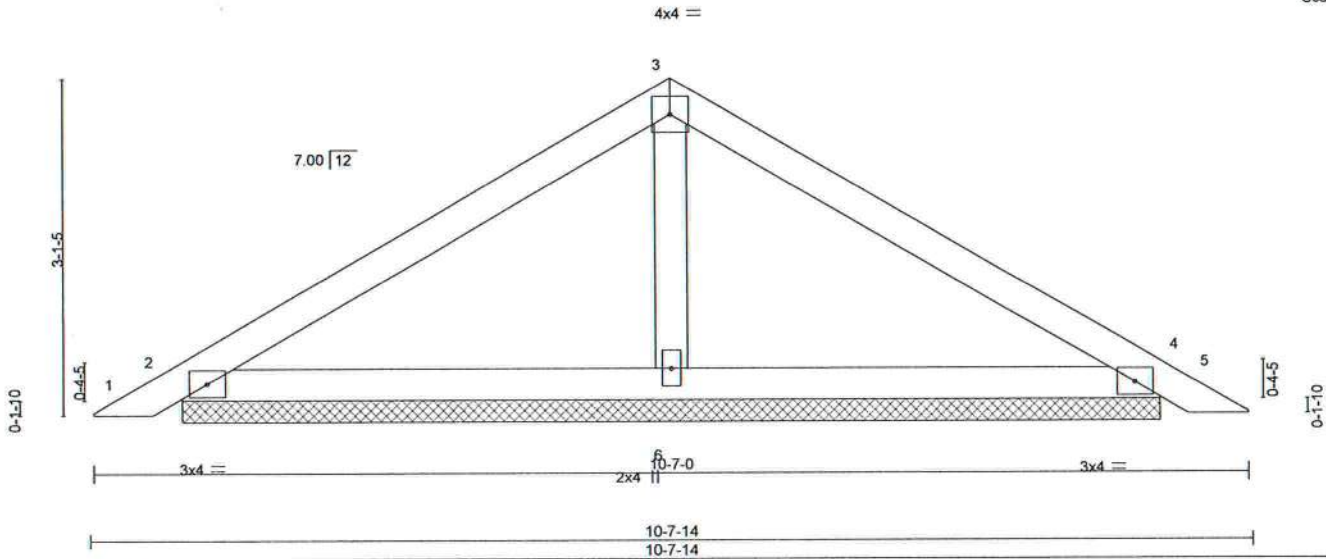
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8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:53 2021 Page 1

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Scale = 1:20.4



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.19	Vert(LL) 0.01 5 n/r 120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Vert(CT) 0.01 5 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
	Code FBC2020/TPI2014			Weight: 35 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=8-11-9, 4=8-11-9, 6=8-11-9  
 Max Horz 2=91(LC 10)  
 Max Uplift 2=92(LC 12), 4=104(LC 13), 6=96(LC 12)  
 Max Grav 2=187(LC 1), 4=190(LC 20), 6=348(LC 1)

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

- NOTES- (9)**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 5-3-15, Exterior(2R) 5-3-15 to 8-3-15, Interior(1) 8-3-15 to 10-4-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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, 6 except (jt=lb) 4=104.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18, 2021

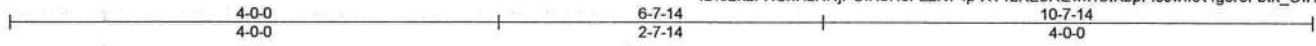
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 6904 Parke East Blvd. Tampa, FL 33610
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Job 2806871	Truss PB4	Truss Type Piggyback	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987467
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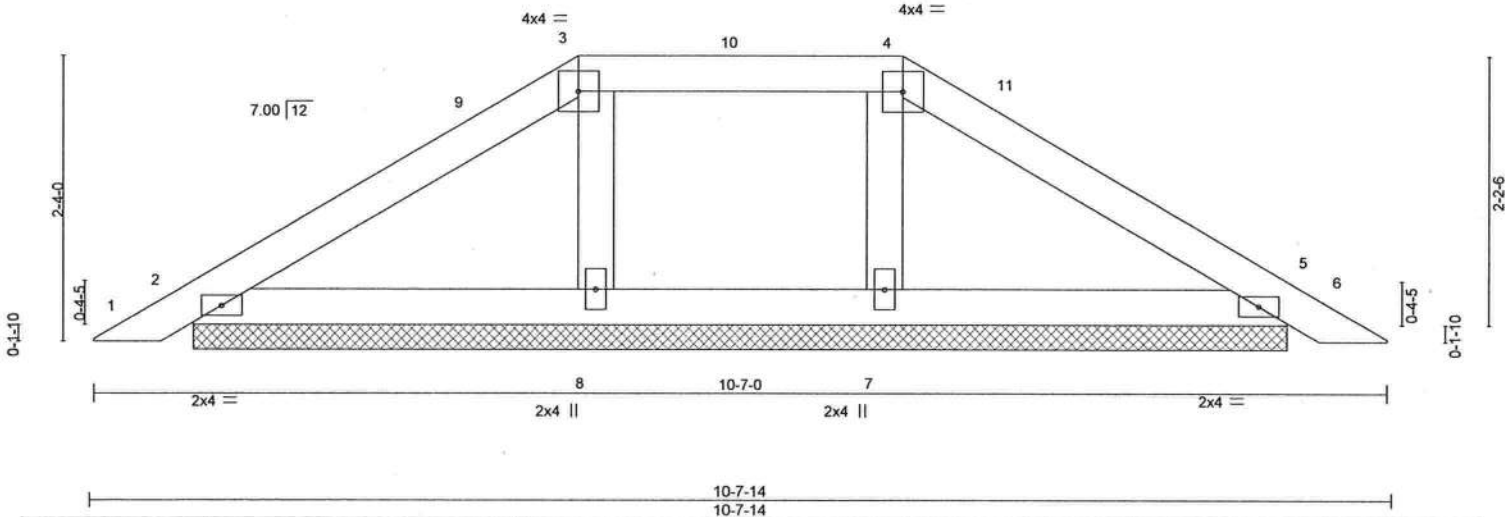
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8 430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:54 2021 Page 1

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Scale = 1:18.1



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.10	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.08	Vert(LL) 0.00 6 n/r 120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.03	Vert(CT) 0.00 6 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code FBC2020/TPI2014			Weight: 36 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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 8-11-9.  
(b) - Max Horz 2=67(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 5, 7 except 8=100(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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

**NOTES-** (10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 4-0-0, Exterior(2E) 4-0-0 to 10-4-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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, 5, 7 except (jt=lb) 8=100.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18, 2021

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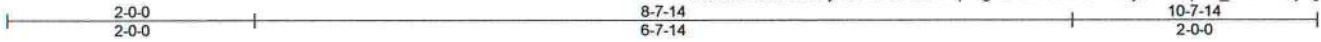
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2806871	Truss PB5	Truss Type Piggyback	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987468
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:55 2021 Page 1

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Scale = 1:18.1

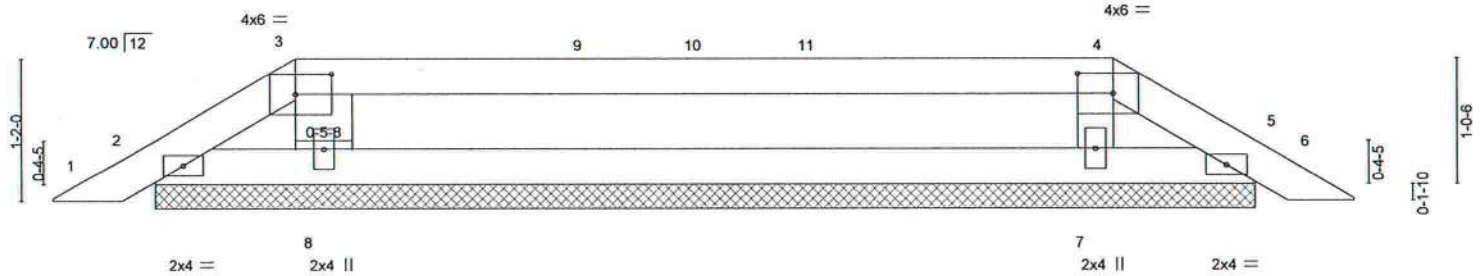


Plate Offsets (X,Y)-- [3:0-3-8,0-2-0], [4:0-3-8,0-2-0]

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 0.46	Vert(LL) -0.00	6	n/r	120		MT20	244/190
TCDL 7.0	Lumber DOL 1.25		BC 0.24	Vert(CT) -0.00	6	n/r	120			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.07	Horz(CT) -0.00	5	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S							
									Weight: 32 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x6 SP No.2 \*Except\*  
4-7: 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 8-11-9.  
(lb) - Max Horz 2=31(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 5 except 8=150(LC 9), 7=155(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 2, 5 except 8=372(LC 1), 7=391(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-8=-275/226, 4-7=-285/232

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-3-11 to 2-0-0, Exterior(2R) 2-0-0 to 6-2-15, Interior(1) 6-2-15 to 8-7-14, Exterior(2E) 8-7-14 to 10-4-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5 except (jt=lb) 8=150, 7=155.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Joaquin Velez PE No.68182  
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6904 Parke East Blvd. Tampa FL 33610  
Date: May 18, 2021

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6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss T01	Truss Type Common	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987469
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

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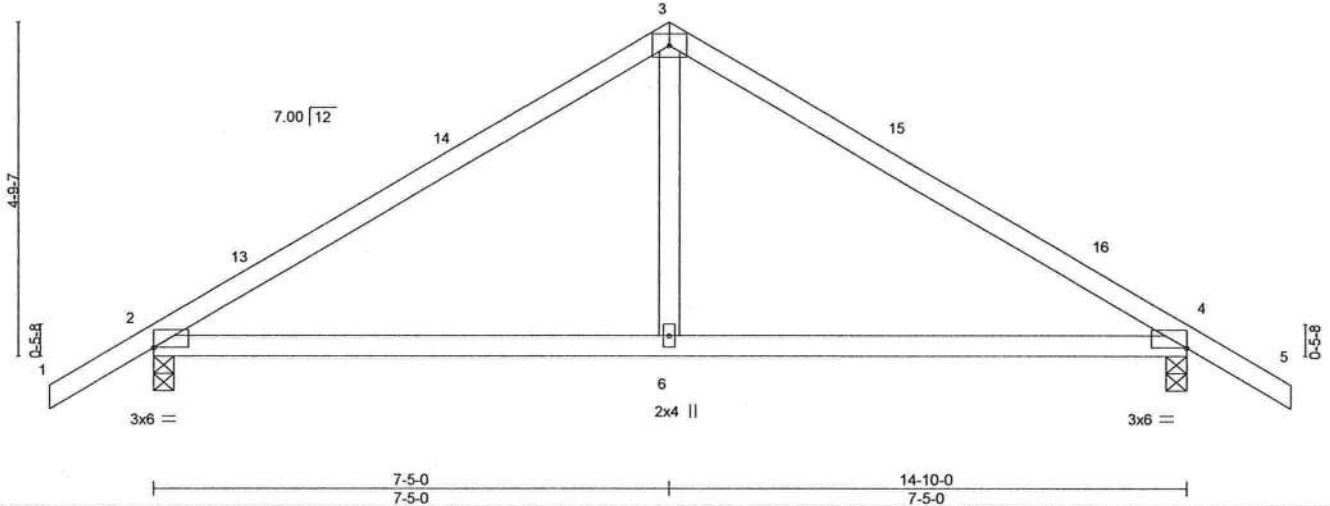
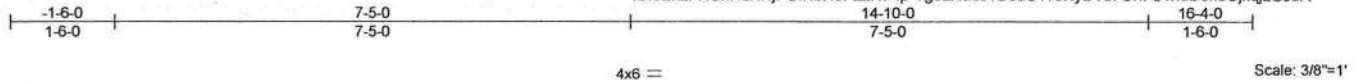


Plate Offsets (X,Y)-- [2-0-0-0,0-0-0]

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 0.62	Vert(LL)	0.11 6-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.54	Vert(CT)	-0.15 6-9	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01 2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 59 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 5-9-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=162(LC 10)  
Max Uplift 2=253(LC 12), 4=253(LC 13)  
Max Grav 2=630(LC 1), 4=630(LC 1)

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

TOP CHORD 2-3=-693/275, 3-4=-693/275  
BOT CHORD 2-6=-119/521, 4-6=-119/521  
WEBS 3-6=-6/338

**NOTES-** (7)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 7-5-0, Exterior(2R) 7-5-0 to 10-5-0, Interior(1) 10-5-0 to 16-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) 2=253, 4=253.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

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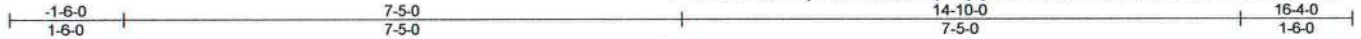
6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss T01G	Truss Type Common Supported Gable	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987470
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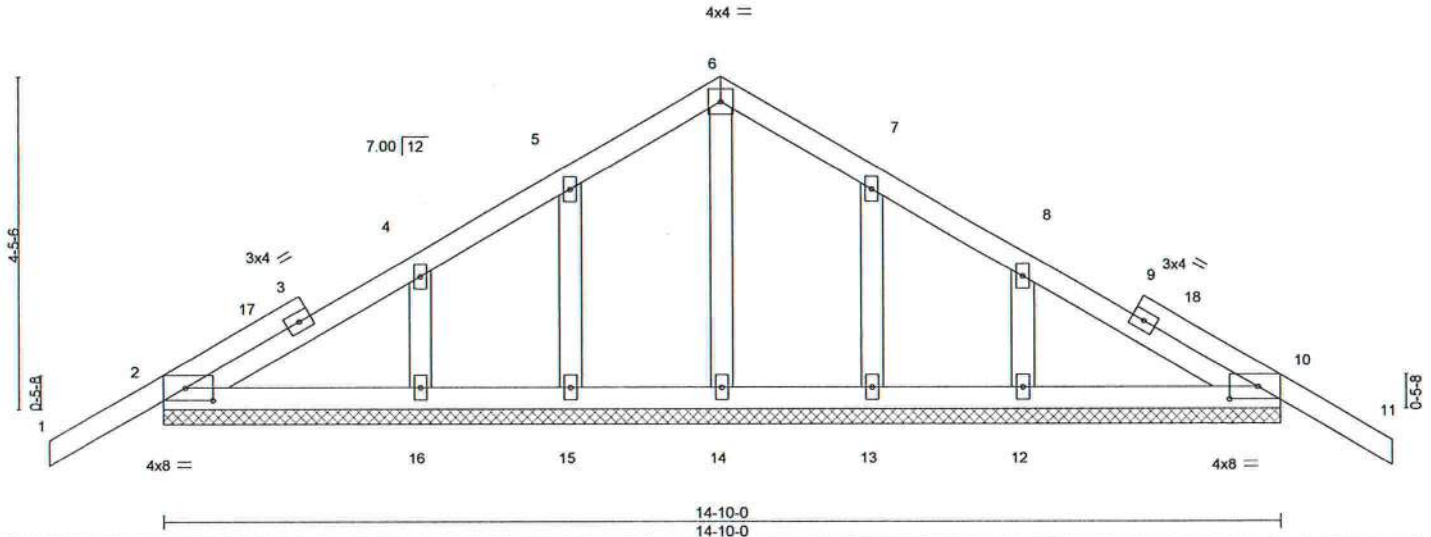
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:57 2021 Page 1

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Scale = 1:29.5



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 0.19	Vert(LL)	-0.00	11	n/r	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.07	Vert(CT)	-0.00	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-S						
								Weight: 77 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 6-0-0 oc bracing.

**REACTIONS.** All bearings 14-10-0.  
(lb) - Max Horz 2=-151(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 13 except 16=-130(LC 12), 12=-134(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

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

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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 Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 7-5-0, Corner(3R) 7-5-0 to 10-5-0, Exterior(2N) 10-5-0 to 16-4-0 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.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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, 10, 15, 13 except (jt=lb) 16=130, 12=134.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

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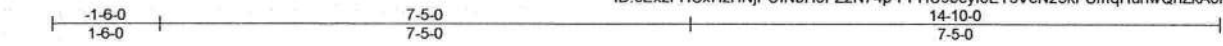
6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss T02	Truss Type Common	Qty 3	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987471
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:37:58 2021 Page 1

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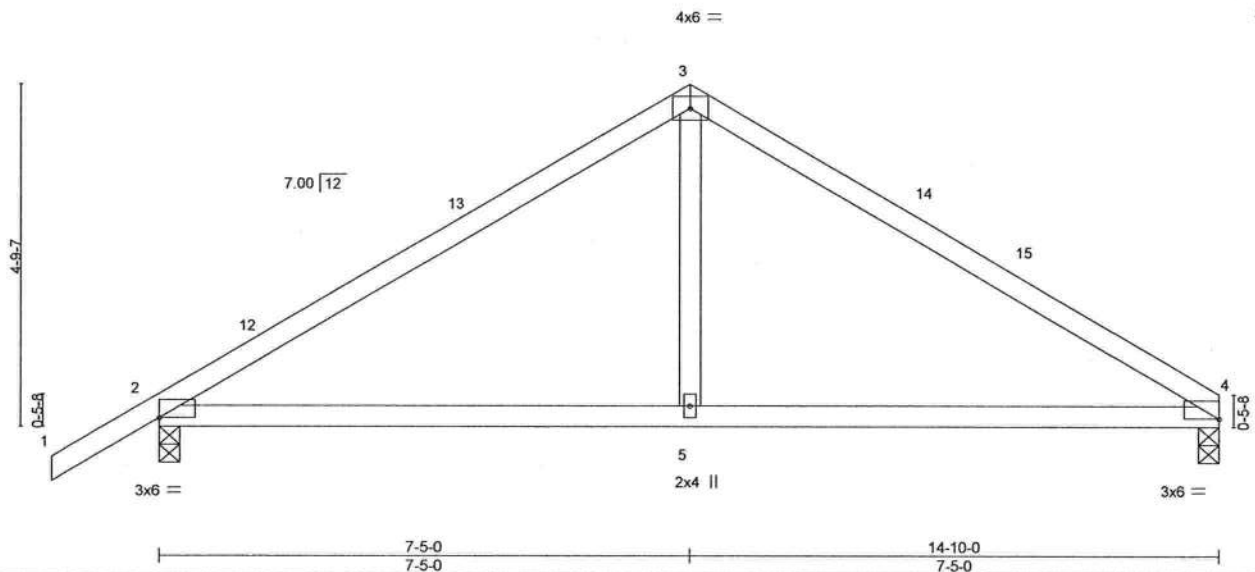


Plate Offsets (X,Y)- [2:Edge,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	Vert(LL)	0.13 5-8	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.55	Vert(CT)	-0.17 5-8	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.13	Horz(CT)	0.01 2	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS						
	Code FBC2020/TPI2014						Weight: 57 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 5-4-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=0-3-8, 2=0-3-8  
 Max Horz 2=153(LC 9)  
 Max Uplift 4=200(LC 13), 2=254(LC 12)  
 Max Grav 4=545(LC 1), 2=634(LC 1)

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

TOP CHORD 2-3=-703/283, 3-4=-702/288  
 BOT CHORD 2-5=-140/524, 4-5=-140/524  
 WEBS 3-5=-15/339

**NOTES-** (7)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 7-5-0, Exterior(2R) 7-5-0 to 10-5-0, Interior(1) 10-5-0 to 14-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) 4=200, 2=254.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

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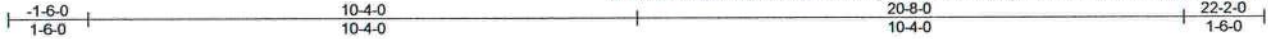


Job	Truss	Truss Type	Qty	Ply	SIMQUE HOMES - LOT 147 PLL	T23987472
2806871	T02G	Common Supported Gable	1	1	Job Reference (optional)	

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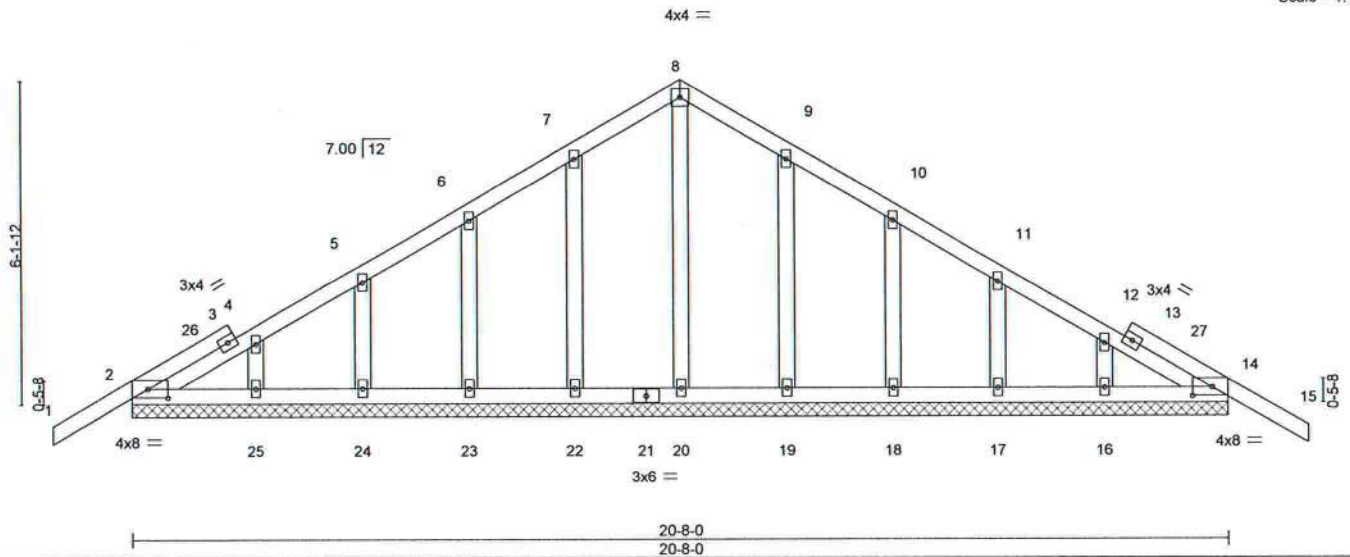


Plate Offsets (X,Y)- [2:0-4-7,0-2-0], [14:0-4-7,0-2-0]

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 0.17	Vert(LL)	-0.01	15	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.04	Vert(CT)	-0.01	15	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-S						Weight: 117 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 20-8-0.  
(lb) - Max Horz 2=-204(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 25, 16 except 22=-105(LC 12), 23=-101(LC 12), 24=-106(LC 12), 19=-103(LC 13), 18=-102(LC 13), 17=-106(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-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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 Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 22-2-0 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.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 (jt=lb) 22=105, 23=101, 24=106, 19=103, 18=102, 17=106.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

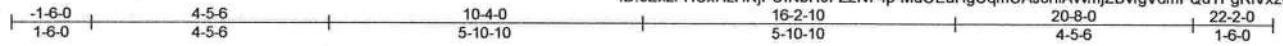


Job 2806871	Truss T03	Truss Type Common	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987473
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:00 2021 Page 1

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4x6 ||

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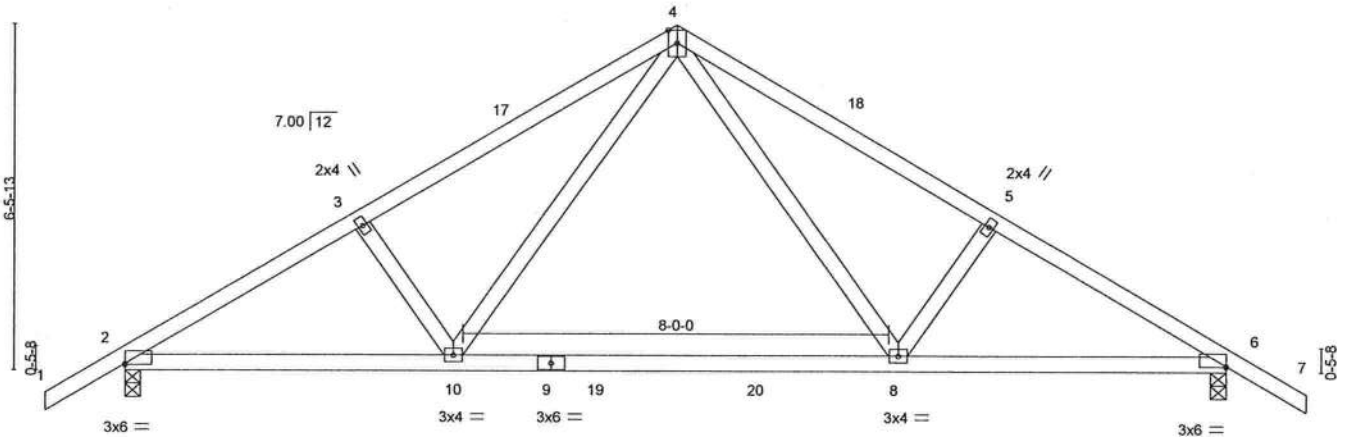


Plate Offsets (X,Y)--	[2:0-0-0,0-0-4], [6:0-0-0,0-0-4]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.57	Vert(LL)	-0.24 8-10	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.49	Vert(CT)	-0.45 8-10	>557	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.34	Horz(CT)	0.03 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 102 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-9-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-215(LC 10)  
 Max Uplift 2=-409(LC 12), 6=-409(LC 13)  
 Max Grav 2=1146(LC 19), 6=1146(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1769/606, 3-4=-1663/616, 4-5=-1664/616, 5-6=-1770/606  
 BOT CHORD 2-10=-565/1624, 8-10=-237/988, 6-8=-420/1463  
 WEBS 4-8=-319/868, 5-8=-269/269, 4-10=-318/868, 3-10=-269/269

**NOTES- (8)**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 22-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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=409, 6=409.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**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=-60(F=40), 8-14=-20



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

May 18, 2021

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6904 Parke East Blvd.  
 Tampa, FL 36610

Job 2806871	Truss T04	Truss Type Common	Qty 3	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987474
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:01 2021 Page 1  
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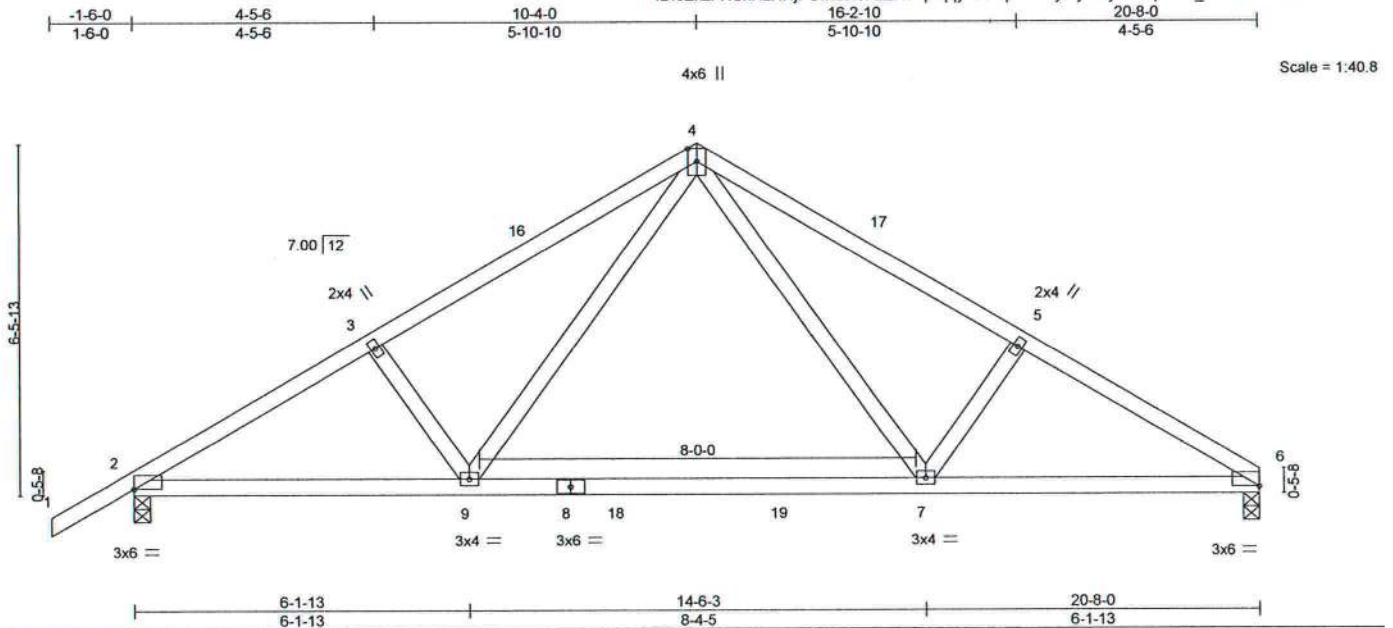


Plate Offsets (X,Y)- [2: Edge,0-0-0]	
<b>LOADING (psf)</b>	<b>SPACING-</b> 2-0-0
TCLL 20.0	Plate Grip DOL 1.25
TCDL 7.0	Lumber DOL 1.25
BCLL 0.0 *	Rep Stress Incr NO
BCDL 10.0	Code FBC2020/TPI2014
<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d
TC 0.57	Vert(LL) -0.24 7-9 >999 240
BC 0.49	Vert(CT) -0.44 7-9 >561 180
WB 0.36	Horz(CT) 0.03 6 n/a n/a
Matrix-MS	
<b>PLATES</b> MT20	<b>GRIP</b> 244/190
Weight: 100 lb FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-13 oc purlins.
BOT CHORD 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8  
 Max Horz 2=206(LC 11)  
 Max Uplift 6=357(LC 13), 2=410(LC 12)  
 Max Grav 6=1066(LC 20), 2=1148(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1772/608, 3-4=-1666/617, 4-5=-1681/629, 5-6=-1787/620  
 BOT CHORD 2-9=-585/1612, 7-9=-257/977, 6-7=-472/1489  
 WEBS 4-7=-332/884, 5-7=-277/276, 4-9=-318/867, 3-9=-269/269

- NOTES-** (8)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 20-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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, 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) 6=357, 2=410.
  - 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) 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=-60(F=-40), 7-10=-20



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

May 18, 2021

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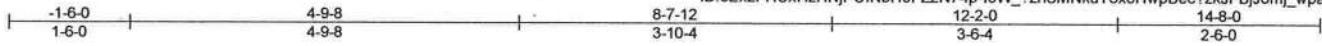


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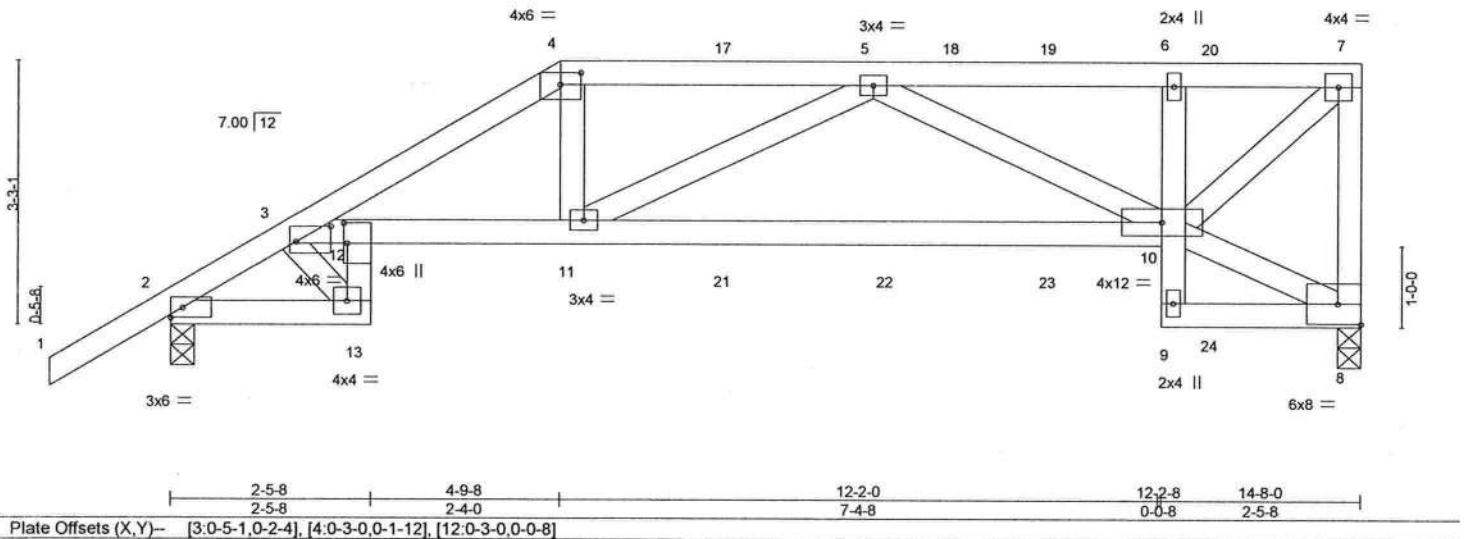
Job 2806871	Truss T05	Truss Type Half Hip Girder	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987475
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:02 2021 Page 1

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Scale = 1:27.3



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 0.66	Vert(LL)	0.19 11-12	>894	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.75	Vert(CT)	-0.23 10-11	>755	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.45	Horz(CT)	0.13 8	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 80 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 3-10: 2x4 SP M 31, 6-9: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
 Max Horz 2=174(LC 8)  
 Max Uplift 8=535(LC 5), 2=529(LC 8)  
 Max Grav 8=873(LC 1), 2=921(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-15=-1245/714, 3-4=-2018/1224, 4-5=-1783/1143, 5-6=-930/562, 6-7=-875/538,  
 7-8=-845/528  
 BOT CHORD 2-13=-670/975, 12-13=-623/928, 3-12=-979/1528, 11-12=-1121/1737, 10-11=-1061/1632  
 WEBS 4-11=-299/615, 5-11=-94/286, 5-10=-795/594, 7-10=-721/1169, 3-13=-1185/819

- NOTES-** (9)
- 1) Wind: ASCE 7-16; 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
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 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) except (jt=lb) 8=535, 2=529.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 251 lb down and 221 lb up at 4-9-8, 117 lb down and 87 lb up at 6-10-4, 117 lb down and 85 lb up at 8-10-4, and 117 lb down and 87 lb up at 10-10-4, and 122 lb down and 109 lb up at 12-10-4 on top chord, and 176 lb down and 137 lb up at 4-9-8, 61 lb down and 43 lb up at 6-10-4, 61 lb down and 43 lb up at 8-10-4, and 61 lb down and 43 lb up at 10-10-4, and 50 lb down and 20 lb up at 12-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25



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

May 18,2021

Continued on page 2

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6904 Parke East Blvd.  
 Tampa, FL 33610

Job 2806871	Truss T05	Truss Type Half Hip Girder	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987475 Job Reference (optional)
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**LOAD CASE(S) Standard**

**Uniform Loads (plf)**

Vert: 1-4=-54, 4-7=-54, 13-14=-20, 10-12=-20, 8-9=-20

**Concentrated Loads (lb)**

Vert: 4=-116(F) 11=-151(F) 5=-44(F) 17=-44(F) 19=-44(F) 20=-54(F) 21=-51(F) 22=-51(F) 23=-51(F) 24=-34(F)

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

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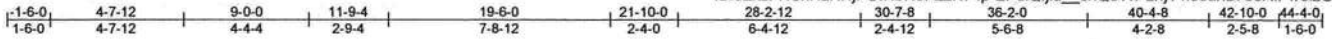


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Tampa, FL 36610

Job 2806871	Truss T06	Truss Type ROOF SPECIAL	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987476
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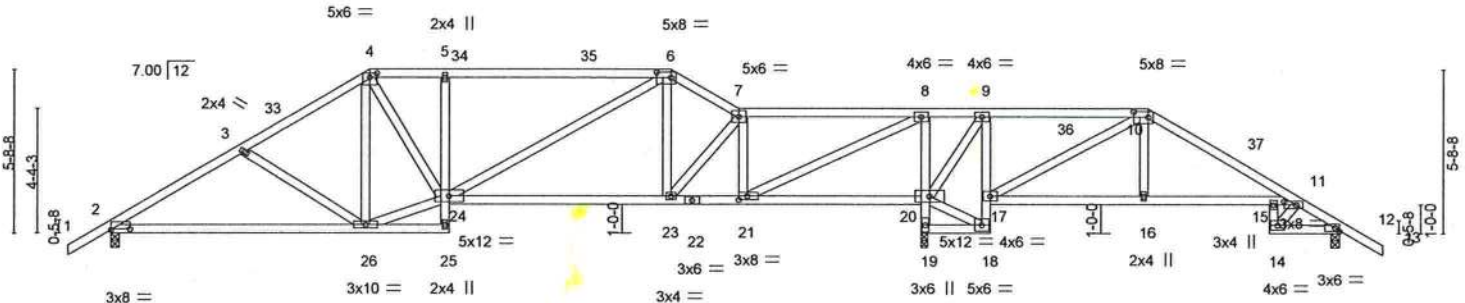


Plate Offsets (X,Y)-	[2:0-8-0,0-0-4], [4:0-3-0,0-1-12], [6:0-6-0,0-2-4], [10:0-6-0,0-2-4], [11:0-5-4,0-1-8], [21:0-3-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.69	Vert(LL) 0.16 15-16 >999 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.87	Vert(CT) -0.29 23-24 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.78	Horz(CT) 0.07 12 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 245 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
5-25,8-19,9-18: 2x4 SP No.3, 14-15: 2x4 SP M 31  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-0-1 oc bracing. Except:  
10-0-0 oc bracing: 15-16

**REACTIONS.** (size) 2=0-3-8, 19=0-2-12, 12=0-3-8  
Max Horz 2=-191(LC 10)  
Max Uplift 2=-376(LC 12), 19=-643(LC 13), 12=-258(LC 13)  
Max Grav 2=1034(LC 1), 19=1871(LC 1), 12=434(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1514/595, 3-4=-1283/524, 4-5=-1405/618, 5-6=-1437/632, 6-7=-1240/563,  
7-8=-1004/511, 8-9=-135/869, 9-10=-10/404, 10-11=-364/243, 11-12=-454/298  
BOT CHORD 2-26=-512/1262, 5-24=-386/297, 23-24=-432/1059, 21-23=-461/1043, 20-21=-835/330,  
19-20=-1780/616, 8-20=-1140/471, 9-17=-142/524, 16-17=-52/288, 15-16=-51/279,  
14-15=-114/288, 12-14=-182/348  
WEBS 3-26=-302/255, 24-26=-373/1092, 4-24=-349/698, 6-24=-205/469, 7-21=-817/312,  
8-21=-655/2038, 10-17=-766/248, 10-16=-13/295, 9-20=-904/358, 18-20=-370/188,  
11-14=-348/170

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 1-6-0 to 1-6-0, Interior(1) 1-6-0 to 9-0-0, Exterior(2R) 9-0-0 to 12-0-0, Interior(1) 12-0-0 to 19-6-0, Exterior(2E) 19-6-0 to 21-10-0, Interior(1) 21-10-0 to 36-2-0, Exterior(2R) 36-2-0 to 39-2-0, Interior(1) 39-2-0 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 19.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=376, 19=643, 12=258.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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Tampa, FL 36610

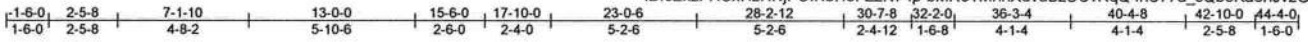


Job 2806871	Truss T08	Truss Type Roof Special	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987478
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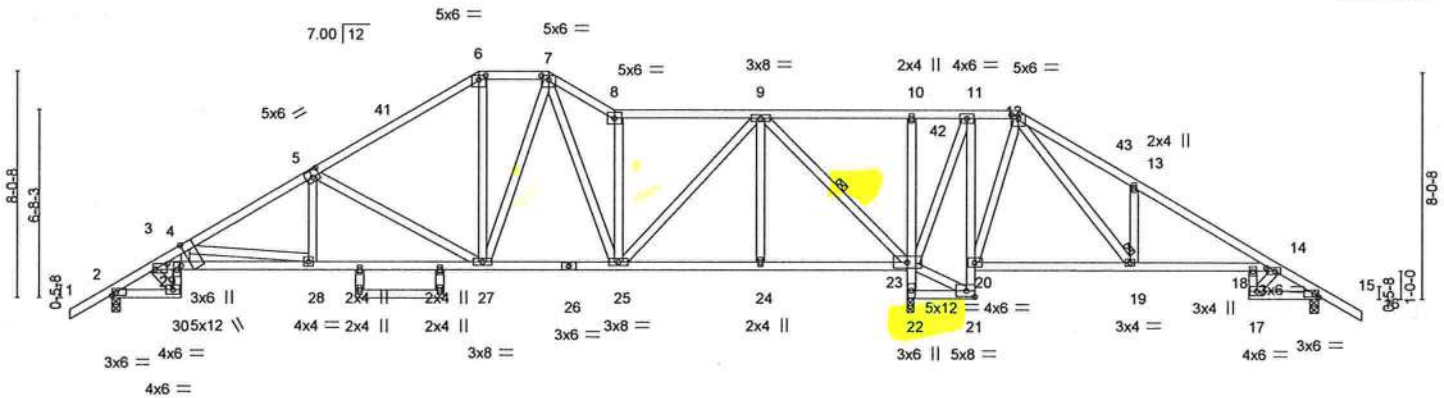
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:09 2021 Page 1

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Scale = 1:78.6



3x6 = 4x6 =  
4x6 =

8'-0" 8'  
1'-0" 0'-0"

Plate Offsets (X,Y)-	[3:0-5-1,0-2-4], [5:0-3-0,0-3-0], [6:0-3-0,0-1-12], [7:0-3-0,0-1-12], [12:0-3-0,0-1-12], [14:0-3-12,0-1-8], [29:0-7-12,Edge]
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LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.93	Vert(LL) 0.17 28-29 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.70	Vert(CT) -0.26 28-29 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.13 22 n/a n/a		
				Weight: 292 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-1 oc purlins.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
29-30,32-33: 2x4 SP No.3, 17-18: 2x4 SP M 31	6-0-0 oc bracing: 19-20, 18-19
WEBS 2x4 SP No.3	7-8-0 oc bracing: 27-28
	1 Row at midpt 9-23
	WEBS JOINTS 1 Brace at Jt(s): 19

REACTIONS.	(size)
	2=0-3-8, 22=0-2-12, 15=0-3-8
Max Horz	2=-264(LC 10)
Max Uplift	2=-400(LC 12), 22=-713(LC 13), 15=-238(LC 13)
Max Grav	2=967(LC 1), 22=2063(LC 1), 15=371(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD
3-36=-1326/505, 3-4=-3320/1429, 4-5=-1653/666, 5-6=-999/476, 6-7=-788/472,
7-8=-916/580, 8-9=-742/458, 9-10=-77/833, 10-11=-78/835, 11-12=-42/532,
12-13=-313/383, 14-15=-353/259
BOT CHORD
2-30=-506/1119, 29-30=-461/1053, 3-29=-1202/2725, 28-29=-1240/2779,
27-28=-593/1458, 25-27=-318/713, 24-25=-275/180, 23-24=-275/180, 22-23=-1926/658,
11-20=-264/770, 19-20=-363/204, 15-17=-147/258
WEBS
6-27=-100/276, 8-25=-634/399, 9-25=-257/822, 21-23=-528/291, 11-23=-943/349,
4-29=-397/1026, 13-19=-361/312, 12-20=-601/229, 12-19=-385/673, 7-27=-138/311,
7-25=-269/198, 9-23=-1439/456, 5-28=-85/399, 4-28=-1343/656, 5-27=-789/453,
3-30=-1310/592, 14-17=-252/141

- NOTES- (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-5-10, Interior(1) 1-5-10 to 13-0-0, Exterior(2E) 13-0-0 to 17-10-0, Interior(1) 17-10-0 to 32-2-0, Exterior(2R) 32-2-0 to 35-2-0, Interior(1) 35-2-0 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 22.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=400, 22=713, 15=238.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Joaquin Velez PE No.68182  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date: May 18,2021

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss T09	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987479
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:11 2021 Page 1  
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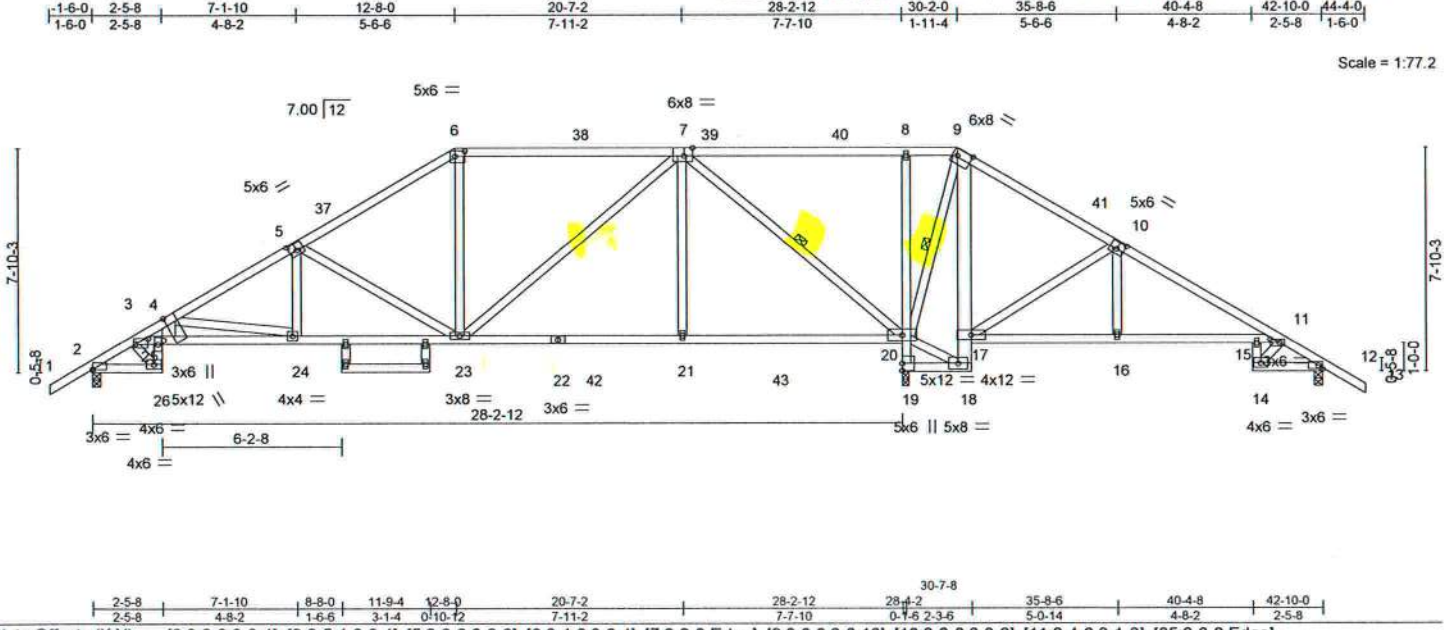


Plate Offsets (X,Y) - [2:0-0-0,0-0-4], [3:0-5-1,0-2-4], [5:0-3-0,0-3-0], [6:0-4-0,0-2-4], [7:0-3-8,Edge], [9:0-6-0,0-2-12], [10:0-3-0,0-3-0], [11:0-4-0,0-1-8], [25:0-8-0,Edge]

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 0.81	Vert(LL)	-0.17 24-25	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.95	Vert(CT)	-0.28 24-25	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.93	Horz(CT)	0.14 19	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						
								Weight: 276 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins.
BOT CHORD 2x4 SP No.2 *Except* 25-26,28-29,8-19: 2x4 SP No.3, 9-18: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 7-1-0 oc bracing: 23-24
WEBS 2x4 SP No.3 *Except* 4-25: 2x6 SP No.2	WEBS 1 Row at midpt 7-20, 9-20

**REACTIONS.** (size) 2=0-3-8, 19=0-2-12 (req. 0-2-14), 12=0-3-8  
 Max Horz 2=258(LC 10)  
 Max Uplift 2=452(LC 12), 19=662(LC 13), 12=219(LC 13)  
 Max Grav 2=1037(LC 25), 19=2443(LC 2), 12=323(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-32=-1463/590, 3-4=-3693/1629, 4-5=-1783/792, 5-6=-1123/544, 6-7=-918/535,  
 7-8=-113/960, 8-9=-113/961, 9-10=-129/877, 10-11=-198/476  
 BOT CHORD 2-26=-574/1259, 25-26=-511/1171, 3-25=-1342/3010, 24-25=-1383/3037,  
 23-24=-694/1574, 21-23=-414/521, 20-21=-415/517, 19-20=-2294/609, 8-20=-334/256,  
 9-17=-273/643, 16-17=-344/175, 15-16=-348/174, 11-15=-345/173  
 WEBS 7-21=0/452, 7-20=-1750/601, 18-20=-660/375, 9-20=-1189/353, 6-23=-38/263,  
 3-26=-1429/649, 5-24=-107/463, 4-25=-444/1217, 4-24=-1491/701, 5-23=-864/439,  
 7-23=-248/706, 10-16=0/256, 10-17=-671/357

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-5-10, Interior(1) 1-5-10 to 12-8-0, Exterior(2R) 12-8-0 to 16-10-15, Interior(1) 16-10-15 to 30-2-0, Exterior(2R) 30-2-0 to 34-4-15, Interior(1) 34-4-15 to 44-4-0 zone.C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - 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.
  - WARNING: Required bearing size at joint(s) 19 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=452, 19=662, 12=219.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Joaquin Velez PE No.68182  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: May 18,2021

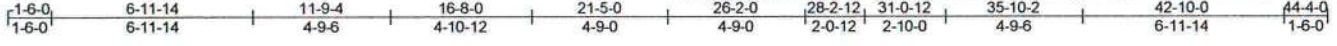
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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6904 Parke East Blvd.  
 Tampa, FL 33610



Job 2806871	Truss T11	Truss Type HIP	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987481
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:14 2021 Page 1  
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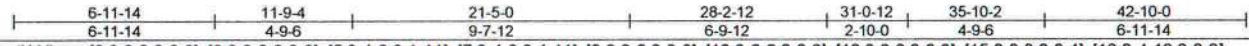
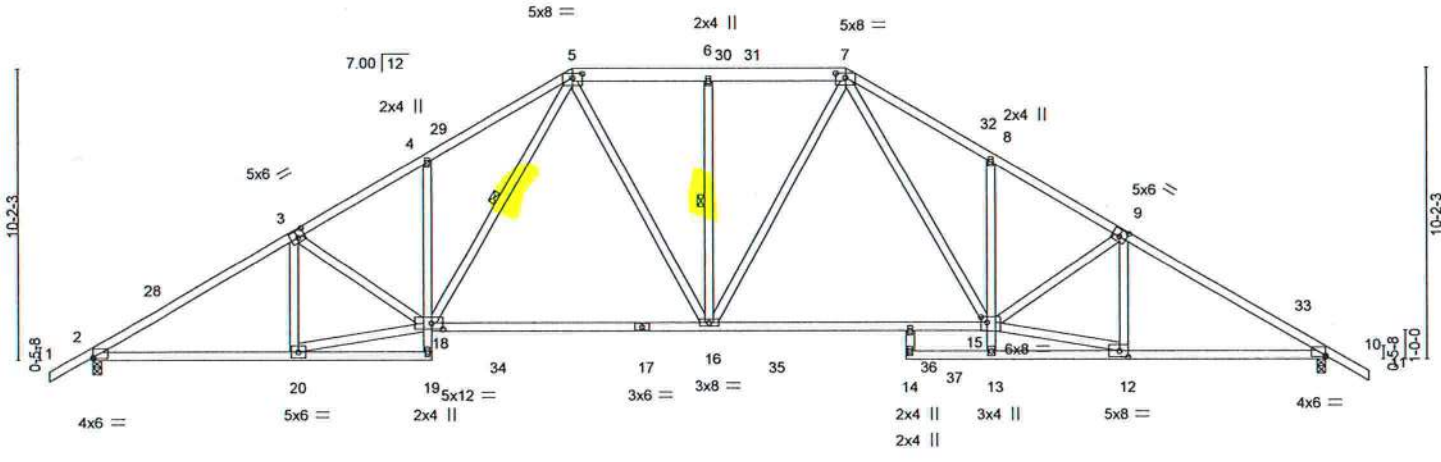


Plate Offsets (X,Y)- [2:0-0-0,0-0-8], [3:0-3-0,0-3-0], [5:0-4-0,0-1-11], [7:0-4-0,0-1-11], [9:0-3-0,0-3-0], [10:0-0-0,0-0-8], [12:0-3-8,0-2-8], [15:0-2-8,0-2-4], [18:0-4-12,0-2-8]

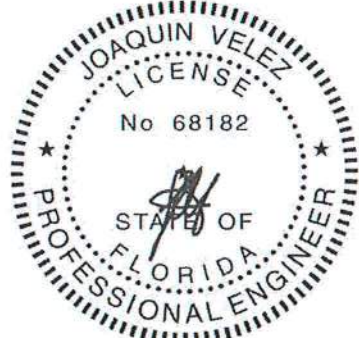
<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.85	Vert(LL) -0.41 15-16 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 1.00	Vert(CT) -0.70 15-16 >739 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.18 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 285 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 5-7: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-10 oc purlins.
BOT CHORD 2x4 SP No.2 *Except* 4-19,8-13: 2x4 SP No.3, 17-18,15-17: 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 13-15
WEBS 2x4 SP No.3 *Except* 18-20,12-15: 2x4 SP No.2	WEBS 1 Row at midpt 5-18, 6-16

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=-330(LC 10)  
 Max Uplift 2=-643(LC 12), 10=-636(LC 13)  
 Max Grav 2=1877(LC 19), 10=1921(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3046/961, 3-4=-3124/1036, 4-5=-3142/1191, 5-6=-2345/778, 6-7=-2345/777,  
 7-8=-3277/1130, 8-9=-3260/973, 9-10=-3125/949  
 BOT CHORD 2-20=-897/2706, 4-18=-288/260, 16-18=-530/2123, 15-16=-402/2161, 10-12=-666/2630,  
 8-15=-288/261  
 WEBS 3-20=-377/208, 18-20=-862/2772, 5-18=-549/1280, 5-16=-247/582, 6-16=-314/231,  
 7-16=-260/502, 7-15=-503/1415, 9-12=-425/152, 9-15=-137/256, 12-15=-614/2796

- NOTES-** (8)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 1-6-0 to 1-6-0, Interior(1) 1-6-0 to 16-8-0, Exterior(2R) 16-8-0 to 20-10-15, Interior(1) 20-10-15 to 26-2-0, Exterior(2R) 26-2-0 to 30-4-15, Interior(1) 30-4-15 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* 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.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=643, 10=636.
  - 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

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Job 2806871	Truss T12	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987482
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc Sat May 15 08:38:16 2021 Page 1

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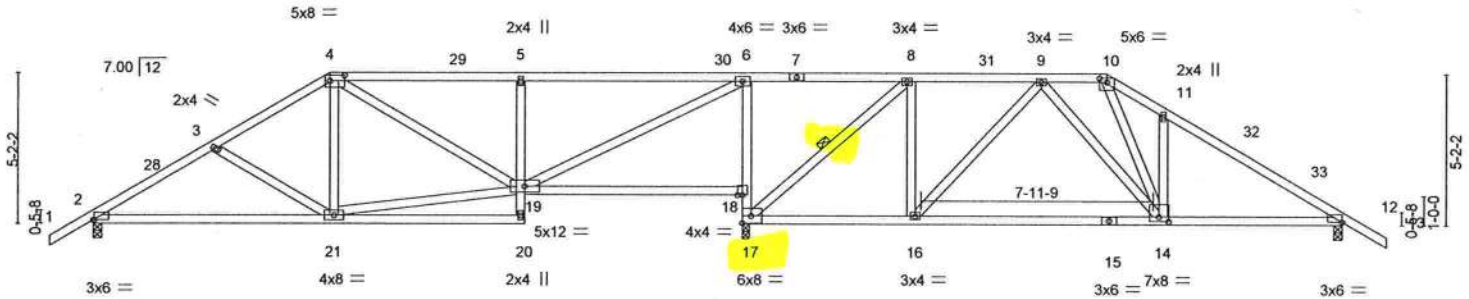


Plate Offsets (X, Y)--	[2:0-0-4, 0-0-0], [4:0-6-0, 0-2-4], [10:0-3-0, 0-1-12], [14:0-4-0, 0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.90	Vert(LL) 0.18 14-16 >999 240		
BCLL 0.0	Rep Stress Incr NO	WB 0.83	Vert(CT) -0.35 14-16 >699 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.02 17 n/a n/a		
				Weight: 244 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
5-20,6-17: 2x4 SP No.3, 15-17: 2x4 SP M 31  
WEBS 2x4 SP No.3

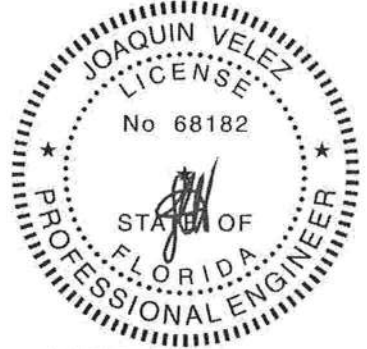
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-8-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-5-13 oc bracing.  
WEBS 1 Row at midpt 8-17

**REACTIONS.** (size) 2=0-3-8, 17=0-2-12, 12=0-3-8  
Max Horz 2=-175(LC 10)  
Max Uplift 2=-419(LC 12), 17=-758(LC 9), 12=-488(LC 13)  
Max Grav 2=854(LC 23), 17=1879(LC 1), 12=944(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1187/596, 3-4=-988/515, 4-5=-918/582, 5-6=-933/588, 6-8=-74/314, 8-9=-728/558,  
9-10=-882/567, 10-11=-1334/834, 11-12=-1378/695  
BOT CHORD 2-21=-524/982, 5-19=-417/315, 18-19=-251/113, 17-18=-1062/518, 6-18=-975/537,  
16-17=-291/728, 14-16=-357/892, 12-14=-459/1114  
WEBS 3-21=-266/210, 4-21=-17/273, 19-21=-307/765, 6-19=-590/1317, 8-17=-1262/509,  
8-16=-125/575, 11-14=-294/280, 10-14=-430/647

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 8-1-1, Exterior(2R) 8-1-1 to 12-4-0, Interior(1) 12-4-0 to 34-8-15, Exterior(2R) 34-8-15 to 38-11-14, Interior(1) 38-11-14 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 17.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=419, 17=758, 12=488.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard



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

May 18, 2021

Continued on page 2

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	SIMQUE HOMES - LOT 147 PLL	T23987482
2806871	T12	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8 430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:16 2021 Page 2  
 ID:cExzFHCxHzHNjPCINbH0FZzN74p-UiMHxIsE3gVvEG0q6I3TCZaNFyzA?XBqxAJZ2?zGJ2r

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-10=-54, 10-13=-54, 20-22=-20, 18-19=-20, 16-17=-20, 14-16=-60(F=-40), 14-25=-20

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

Job 2806871	Truss T13	Truss Type HIP	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987483
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:17 2021 Page 1

ID:cExzFHCxHzHNjPCINbHOFZzN74p-Mvwf85tsq\_dmrQb0gaaim6YwMI5k?RzAq36bRzGJ2q



Scale = 1:75.9

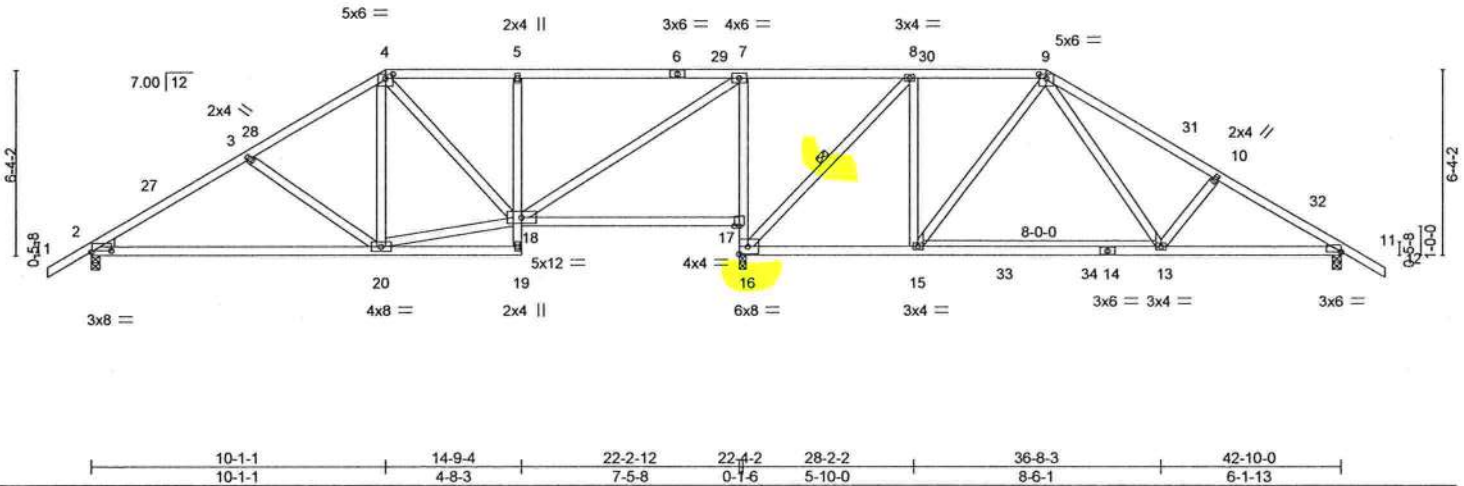


Plate Offsets (X,Y)-- [2:0-8-4,0-0-8], [4:0-3-0,0-1-12], [9:0-3-0,0-1-12], [11:0-0-0,0-0-4]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.98	Vert(LL) -0.23 13-15 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.77	Vert(CT) -0.44 13-15 >560 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.02 16 n/a n/a	Weight: 248 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 "Except"  
5-19,7-16: 2x4 SP No.3, 14-16: 2x4 SP M 31  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-3-6 oc bracing.  
WEBS 1 Row at midpt 8-16

**REACTIONS.** (size) 2=0-3-8, 16=0-2-12, 11=0-3-8  
Max Horz 2=-211(LC 10)  
Max Uplift 2=418(LC 12), 16=695(LC 9), 11=498(LC 13)  
Max Grav 2=886(LC 19), 16=2007(LC 2), 11=1057(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1145/580, 3-4=-936/487, 4-5=-727/492, 5-7=-743/501, 7-8=-50/368, 8-9=-624/530,  
9-10=-1475/769, 10-11=-1595/776  
BOT CHORD 2-20=-519/1037, 5-18=-365/277, 16-17=-1102/507, 7-17=-987/527, 15-16=-206/617,  
13-15=-251/738, 11-13=-568/1316  
WEBS 3-20=-368/282, 4-20=-65/361, 18-20=-243/803, 7-18=-478/1162, 8-16=-1222/444,  
8-15=-120/749, 9-15=-255/87, 9-13=-288/836, 10-13=-274/262

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-1-1, Exterior(2R) 10-1-1 to 14-7-8, Interior(1) 14-7-8 to 32-8-15, Exterior(2R) 32-8-15 to 36-11-14, Interior(1) 36-11-14 to 44-4-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 at joint(s) 16.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=418, 16=695, 11=498.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
Continued on page 2



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

May 18,2021

<p><b>WARNING</b> - Verify design parameters and READ NOTES on THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 6904 Parke East Blvd. Tampa, FL 33610
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Job 2806871	Truss T13	Truss Type HIP	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987483
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Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:17 2021 Page 2

ID:cExzFHCxHzHNjPCINbH0FZzN74p-Mvwf85tsq\_dmrQb0gaailm6YwMI5k?RzAq36bRzGJ2q

**LOAD CASE(S) Standard**

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-9=-54, 9-12=-54, 19-21=-20, 17-18=-20, 15-16=-20, 13-15=-60(F=-40), 13-24=-20

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Tampa, FL 36610

Job 2806871	Truss T14	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987484
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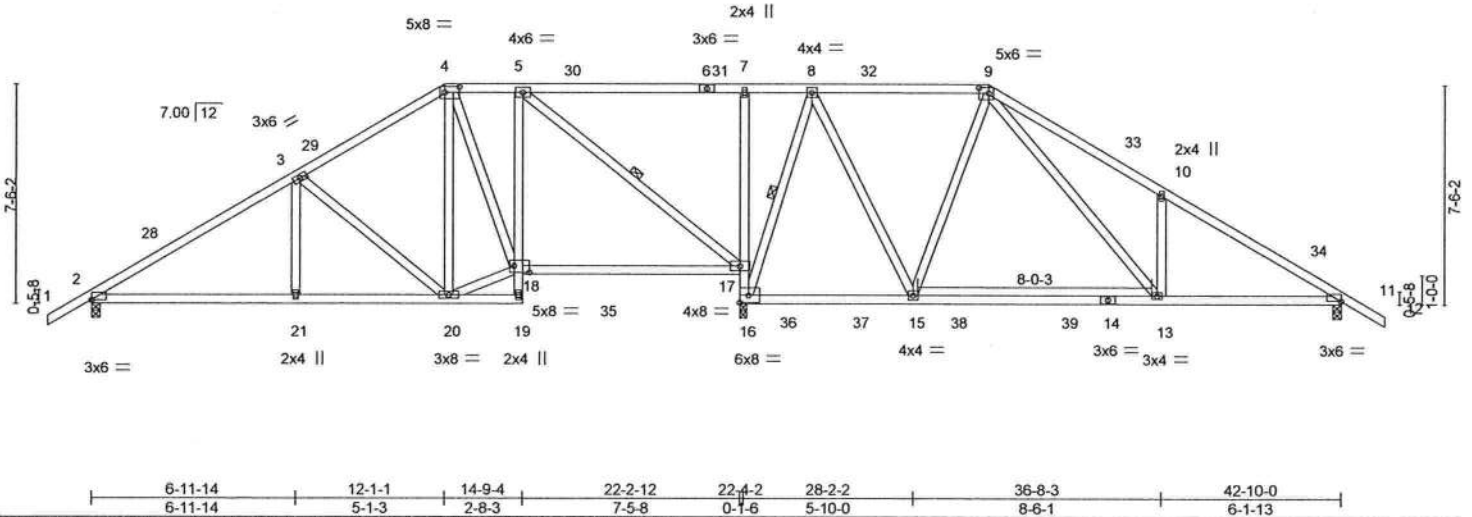
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:18 2021 Page 1

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Scale = 1:75.9



Job 2806871	Truss T14	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987484 Job Reference (optional)
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:18 2021 Page 2  
ID:cExzFHCxHzHNjPCINbH0FZzN74p-q5U1MRuUblldTZADDI5xH\_fjUlfOTRy7OTof7uzGJ2p

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-9=-54, 9-12=-54, 19-22=-20, 17-18=-20, 15-16=-20, 13-15=-60(F=-40), 13-25=-20

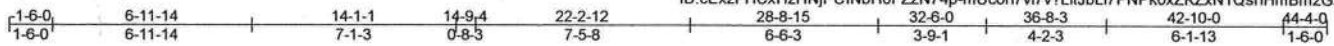
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2806871	Truss T15	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987485
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:20 2021 Page 1  
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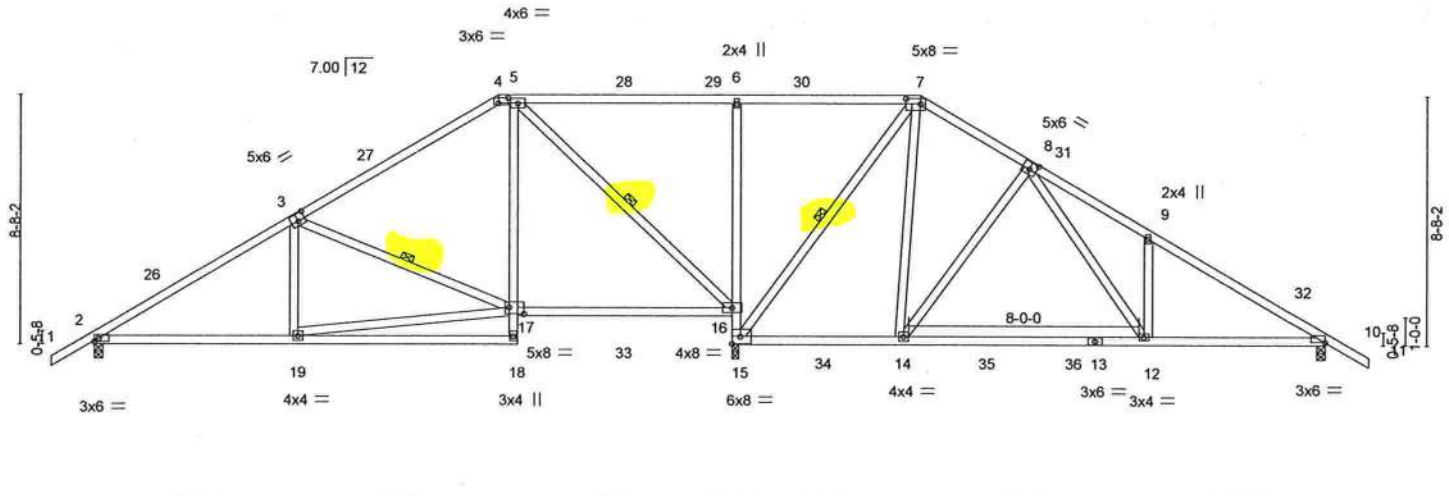


Plate Offsets (X,Y) -	6-11-14	14-9-4	22-2-12	22-4-2	28-2-2	36-8-3	42-10-0
	6-11-14	7-9-6	7-5-8	0-1-6	5-10-0	8-6-1	6-1-13

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 1.00	Vert(LL) -0.23 12-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.72	Vert(CT) -0.45 12-14 >542 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.03 15 n/a n/a		
	Code FBC2020/TPI2014			Weight: 261 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 3-7-11 oc bracing.  
 WEBS 1 Row at midpt 5-16, 7-15, 3-17

**REACTIONS.** (size) 2=0-3-8, 15=0-2-12, 10=0-3-8  
 Max Horz 2=-284(LC 10)  
 Max Uplift 2=-407(LC 12), 15=-601(LC 12), 10=-518(LC 13)  
 Max Grav 2=908(LC 19), 15=2186(LC 2), 10=1089(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1154/519, 3-4=-580/383, 4-5=-428/410, 5-6=-59/468, 6-7=-58/469, 7-8=-570/517, 8-9=-1608/916, 9-10=-1587/752  
 BOT CHORD 2-19=-495/1122, 5-17=-153/704, 16-17=-186/505, 15-16=-1213/519, 6-16=-441/334, 14-15=-86/444, 12-14=-278/738, 10-12=-508/1277  
 WEBS 5-16=-1069/389, 7-15=-1239/361, 7-14=-359/1113, 8-14=-649/371, 8-12=-415/972, 9-12=-299/291, 3-17=-676/361, 17-19=-456/1108

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 14-1-1, Exterior(2R) 14-1-1 to 18-4-0, Interior(1) 18-4-0 to 28-8-15, Exterior(2R) 28-8-15 to 32-11-14, Interior(1) 32-11-14 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 at joint(s) 15.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=407, 15=601, 10=518.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard



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

May 18, 2021

Continued on page 2

<p><b>WARNING</b> - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 6904 Parke East Blvd. Tampa, FL 36610
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Job 2806871	Truss T15	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987485
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:20 2021 Page 2  
ID:cExzFHCxHzHNjPCINbH0FZzN74p-mUcon7vi7v7LiJbLi7PNPk0xZKZxN1QsnHmBmzGJ2n

**LOAD CASE(S)** Standard

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

Vert: 1-4=-54, 4-7=-54, 7-11=-54, 18-20=-20, 16-17=-20, 14-15=-20, 12-14=-60(F=-40), 12-23=-20

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Tampa, FL 36610

Job 2806871	Truss T16	Truss Type Hip	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987486
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8 430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:21 2021 Page 1

ID:cExzFHCxHzHNjPCINbH0FZzN74p-EgAA\_TwNID7CK1uovQeevcHDlZgwgoQZ5R1KkDzGJ2m

Job Reference (optional)



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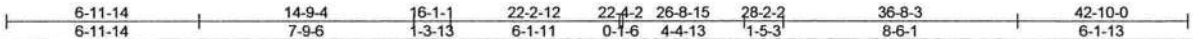
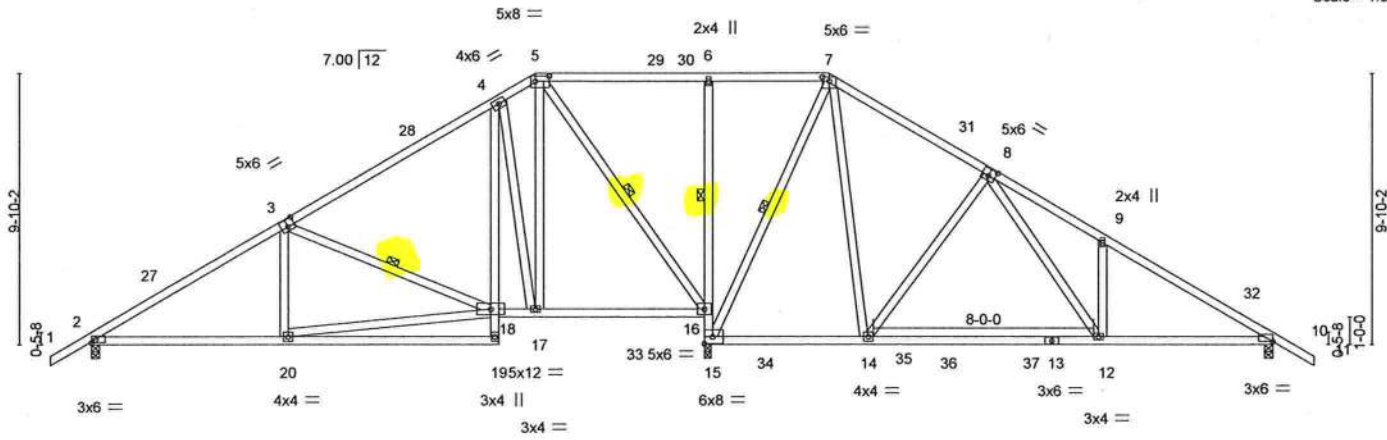


Plate Offsets (X,Y) - [3:0-3-0,0-3-4], [5:0-6-0,0-2-4], [7:0-3-0,0-1-12], [8:0-3-0,0-3-0]

<b>LOADING (psf)</b>	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.61	Vert(LL)	-0.23 12-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.99	Vert(CT)	-0.45 12-14	>552	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.83	Horz(CT)	0.04 15	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 290 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-4-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-2-0 oc bracing. Except:  
WEBS 1 Row at midpt 6-16  
1 Row at midpt 3-18, 5-16, 7-15

**REACTIONS.** (size) 2=0-3-8, 15=0-2-12, 10=0-3-8  
Max Horz 2=-320(LC 10)  
Max Uplift 2=-402(LC 12), 15=-600(LC 12), 10=-531(LC 13)  
Max Grav 2=906(LC 19), 15=2181(LC 2), 10=1110(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1151/512, 3-4=-567/381, 4-5=-407/456, 5-6=-45/455, 6-7=-46/453, 7-8=-619/558, 8-9=-1627/924, 9-10=-1621/774  
BOT CHORD 2-20=-515/1146, 4-18=-172/375, 17-18=-175/492, 16-17=-136/369, 15-16=-1157/462, 6-16=-345/261, 12-14=-315/786, 10-12=-526/1304  
WEBS 3-20=0/264, 18-20=-499/959, 3-18=-697/363, 4-17=-698/473, 5-17=-445/1034, 5-16=-1061/358, 7-15=-1178/360, 8-14=-711/436, 8-12=-381/933, 9-12=-269/262, 7-14=-415/1171

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 16-1-1, Exterior(2R) 16-1-1 to 20-4-0, Interior(1) 20-4-0 to 26-8-15, Exterior(2R) 26-8-15 to 30-11-14, Interior(1) 30-11-14 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 at joint(s) 15.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=402, 15=600, 10=531.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

Continued on page 2



Joaquin Velez PE No.68182  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date: May 18, 2021

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Job	Truss	Truss Type	Qty	Ply	SIMQUE HOMES - LOT 147 PLL	T23987486
2806871	T16	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:21 2021 Page 2  
 ID:cExzFHCxHzHNjPCINbH0FZzN74p-EgAA\_TwNID7CK1uovQeevcHDlZgwgoQZ5R1KkDzGJ2m

**LOAD CASE(S) Standard**

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

Uniform Loads (plf)

Vert: 1-5=-54, 5-7=-54, 7-11=-54, 19-21=-20, 16-18=-20, 14-15=-20, 12-14=-60(F=-40), 12-24=-20

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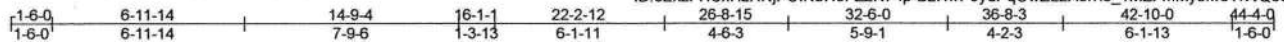


6904 Parke East Blvd.  
 Tampa, FL 36610

Job 2806871	Truss T17	Truss Type PIGGYBACK BASE	Qty 2	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987487
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:23 2021 Page 1

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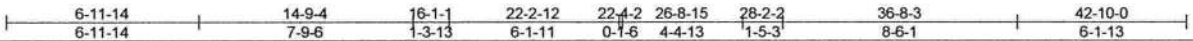
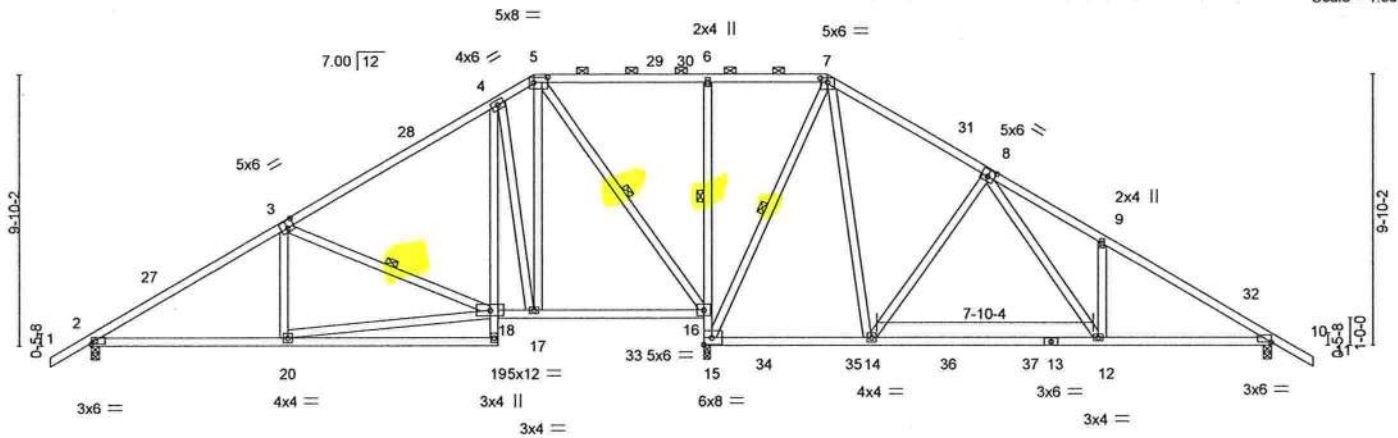


Plate Offsets (X,Y)-- [3:0-3:0,0-3:4], [5:0-6:0,0-2:4], [7:0-3:0,0-1:12], [8:0-3:0,0-3:0]

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 0.61	Vert(LL)	-0.22 12-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.95	Vert(CT)	-0.42 12-14	>586	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.83	Horz(CT)	0.04 15	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						
								Weight: 290 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-15 oc purlins, except
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (10-0-0 max.): 5-7.
4-19,6-15: 2x4 SP No.3, 13-15: 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 4-1-14 oc bracing. Except:
WEBS 2x4 SP No.3	1 Row at midpt 6-16
	WEBS 1 Row at midpt 3-18, 5-16, 7-15

**REACTIONS.** (size) 2=0-3-8, 15=0-2-12, 10=0-3-8  
 Max Horz 2=320(LC 10)  
 Max Uplift 2=402(LC 12), 15=597(LC 12), 10=531(LC 13)  
 Max Grav 2=908(LC 19), 15=2173(LC 2), 10=1111(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1156/513, 3-4=-573/382, 4-5=-413/457, 5-6=-45/448, 6-7=-46/446, 7-8=-638/565, 8-9=-1627/923, 9-10=-1620/773  
 BOT CHORD 2-20=-515/1151, 4-18=-172/375, 17-18=-176/497, 16-17=-137/374, 15-16=-1154/462, 6-16=-345/261, 12-14=-314/791, 10-12=-525/1304  
 WEBS 3-20=0/264, 18-20=-499/963, 3-18=-696/363, 4-17=-698/473, 5-17=-445/1035, 5-16=-1058/358, 7-15=-1161/356, 8-14=-706/435, 8-12=-380/924, 9-12=-270/262, 7-14=-416/1167

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 1-6-0 to 1-6-0, Interior(1) 1-6-0 to 16-1-1, Exterior(2R) 16-1-1 to 20-4-0, Interior(1) 20-4-0 to 26-8-15, Exterior(2R) 26-8-15 to 30-11-14, Interior(1) 30-11-14 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 at joint(s) 15.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=402, 15=597, 10=531.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

May 18,2021

**LOAD CASE(S)** Standard

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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**MiTek**  
 6904 Parke East Blvd.  
 Tampa, FL 33610

Job 2806871	Truss T17	Truss Type PIGGYBACK BASE	Qty 2	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987487 Job Reference (optional)
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:23 2021 Page 2  
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**LOAD CASE(S) Standard**

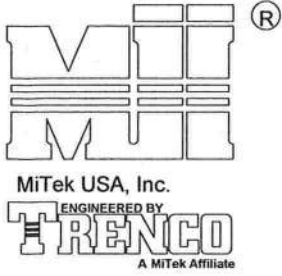
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

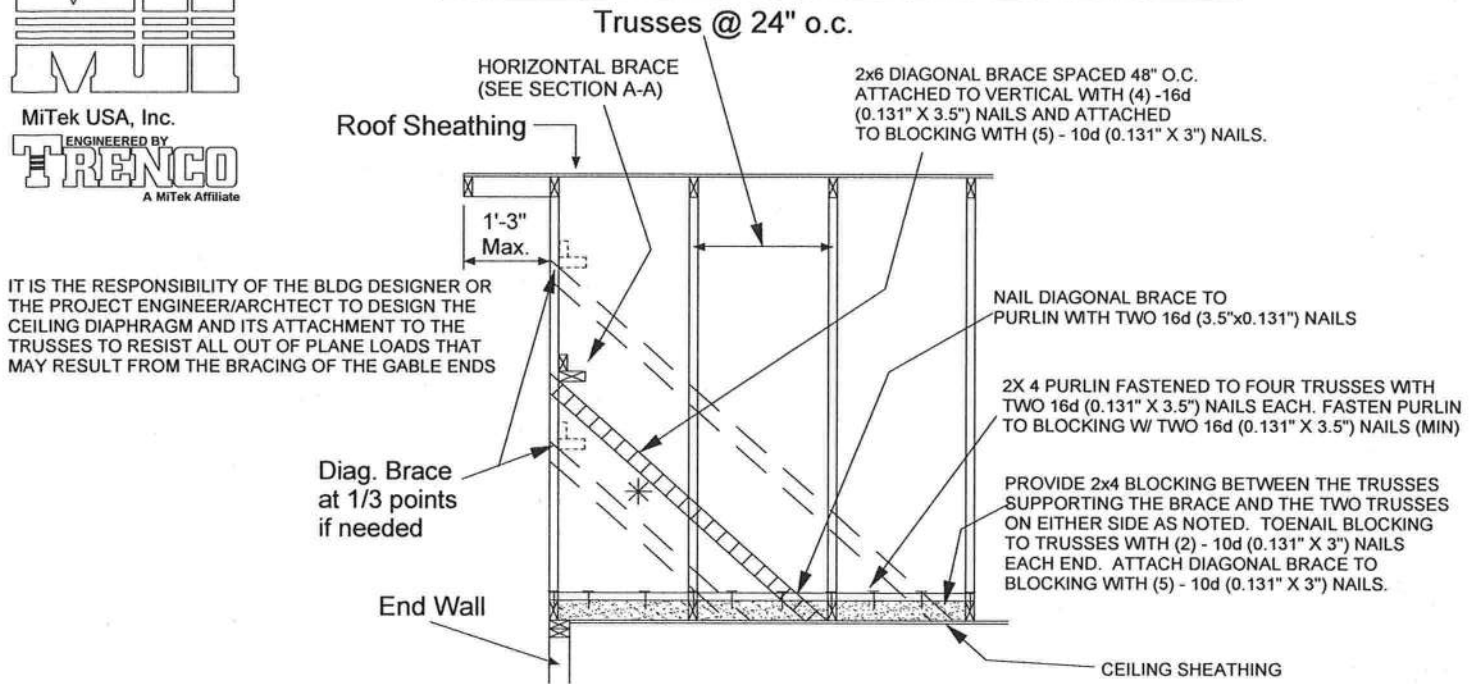
Vert: 1-5=-54, 5-7=-54, 7-11=-54, 19-21=-20, 16-18=-20, 14-15=-20, 12-14=-60(F=-40), 12-24=-20

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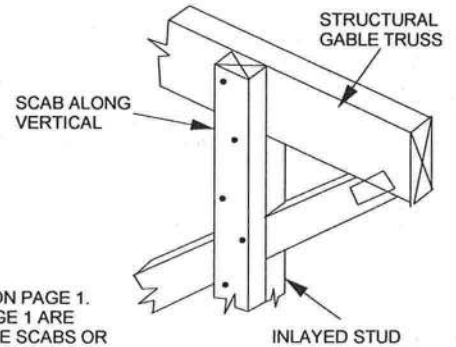
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHTECT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

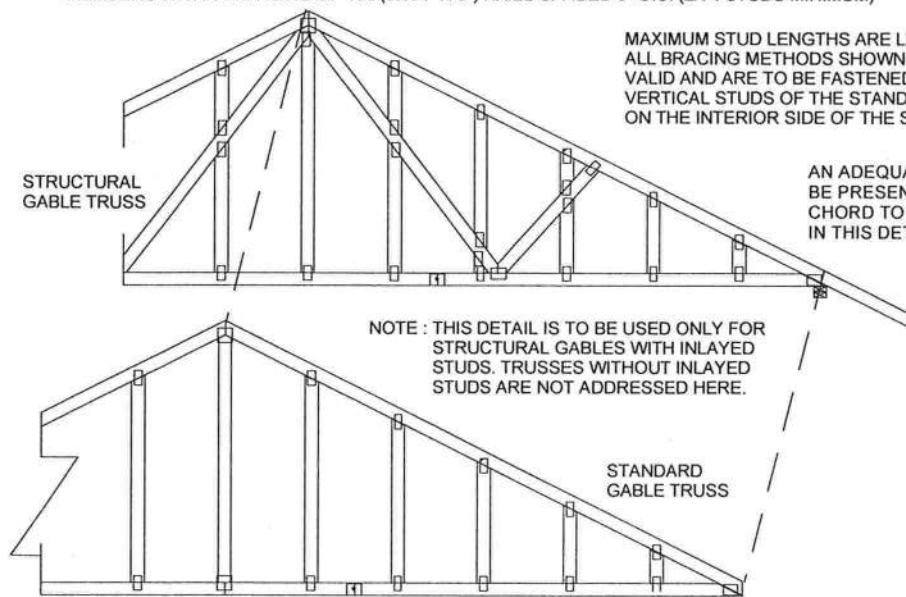
BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
- METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.
- METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS
- NAILING SCHEDULE:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
  - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



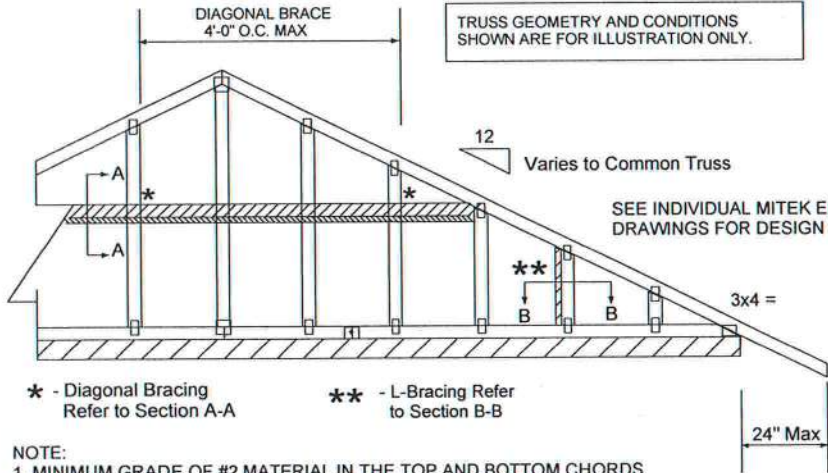
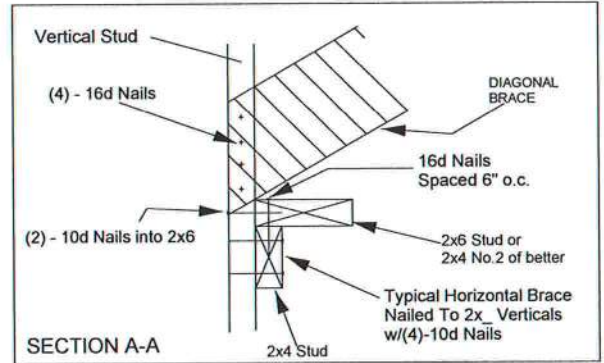
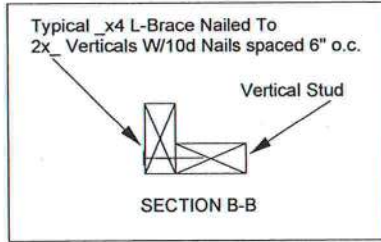
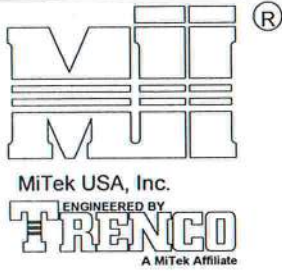
MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.



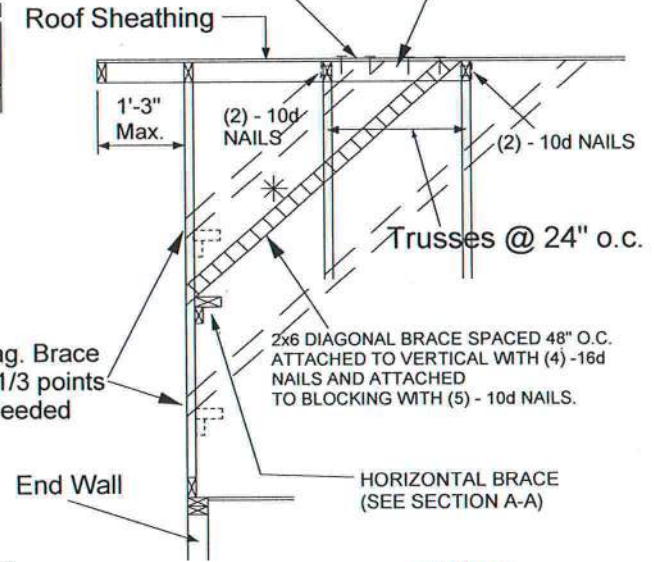
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see *ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





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



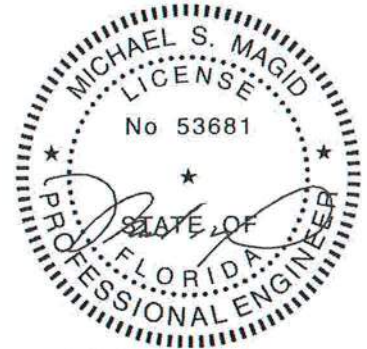
- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING 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, ASCE 7-16 160 MPH  
 DURATION OF LOAD INCREASE: 1.00

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

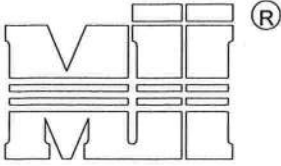


Michael S. Magid PE No. 53681  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

May 17, 2021

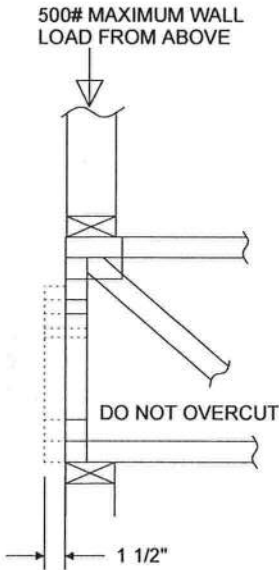
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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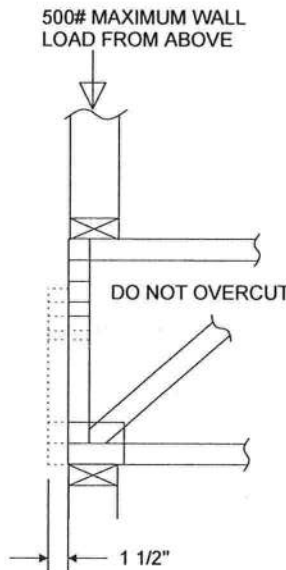


MiTek USA, Inc.  
ENGINEERED BY  
**TRENCO**  
A MiTek Affiliate

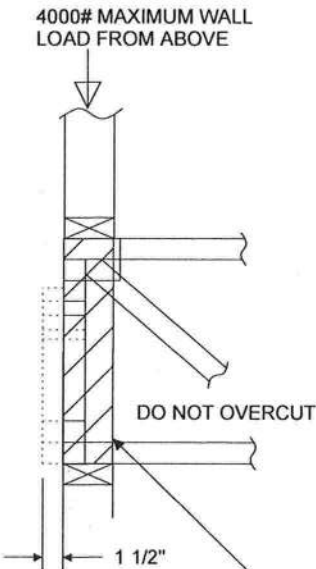
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS 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.



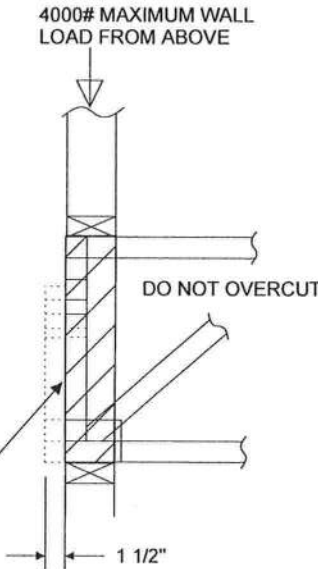
REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



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.

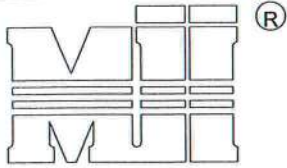


Michael S. Magid PE No. 53681  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

May 17, 2021

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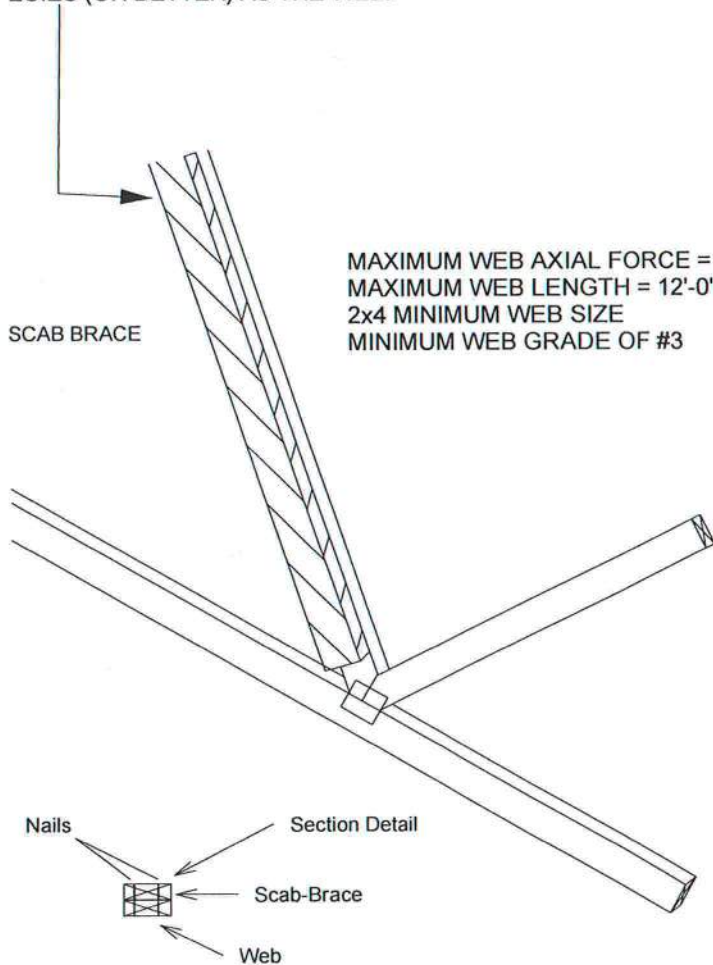


MiTek USA, Inc.  
ENGINEERED BY  
**TRENCO**  
A MiTek Affiliate

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.



MAXIMUM WEB AXIAL FORCE = 2500 lbs  
MAXIMUM WEB LENGTH = 12'-0"  
2x4 MINIMUM WEB SIZE  
MINIMUM WEB GRADE OF #3

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



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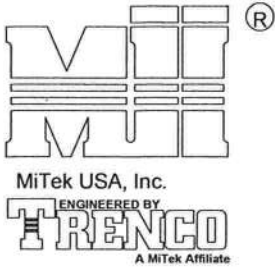
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APRIL 9, 2020

WEB BRACING RECOMMENDATIONS

MII-WEBBRACE-2

T23949106



MAXIMUM TRUSS WEB FORCE (lbs.) <sup>7</sup>								
BRACE BAY SIZE <sup>8</sup>	24" O.C. TRUSS SPACING			48" O.C. TRUSS SPACING			72" O.C. TRUSS SPACING	
	BRACING MATERIAL TYPE			BRACING MATERIAL TYPE			BRACING MATERIAL TYPE	
	A	B	C	A	B	C	B	C
10'-0"	1886	1886	2829	-----	-----	-----	-----	-----
12'-0"	1572	1572	2358	3143	3143	4715	4715	7074
14'-0"	1347	1347	2021	-----	-----	-----	-----	-----
16'-0"	1179	1179	1768	2358	2358	3536	-----	-----
18'-0"	1048	1048	1572	-----	-----	-----	3143	4715
20'-0"	943	943	1414	1886	1886	2829	-----	-----

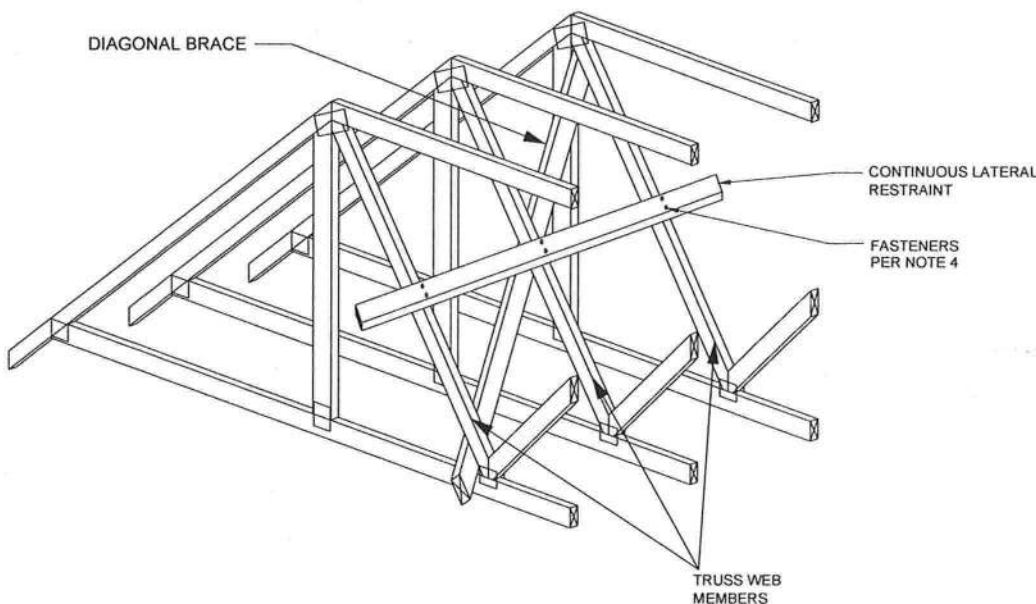
GENERAL NOTES

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

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

FOR STABILIZERS:

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



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

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 Date:

May 17, 2021

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

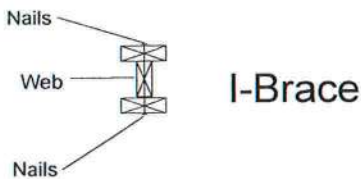
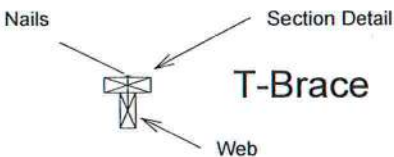
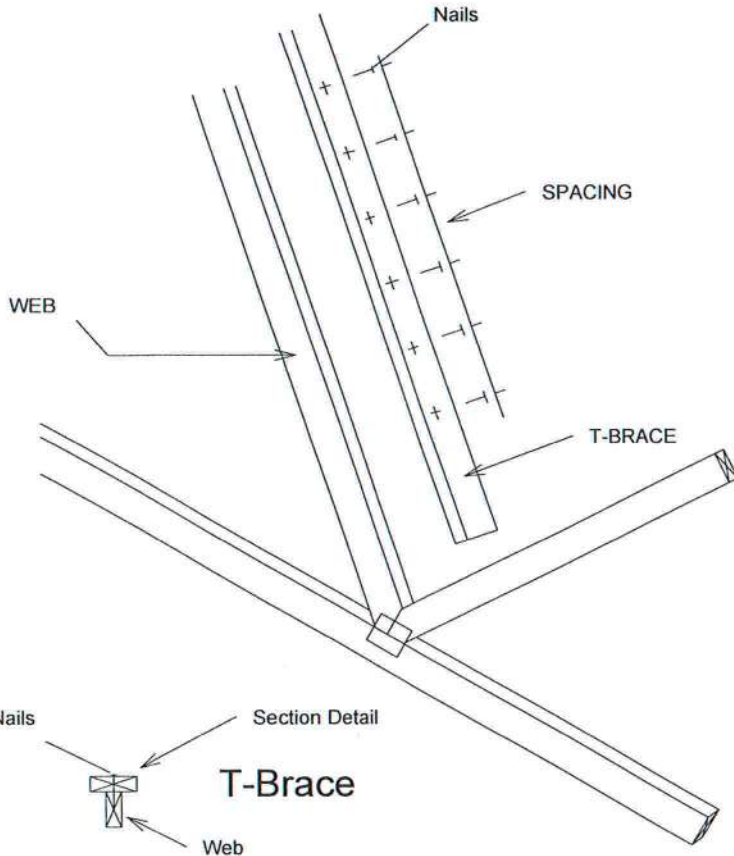
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

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.



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May 17, 2021

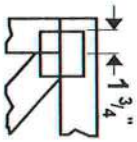
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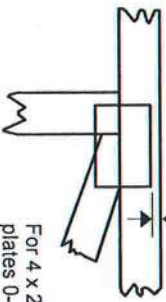


# Symbols

## 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 20/20** software or upon request.

## PLATE SIZE

**4 X 4**

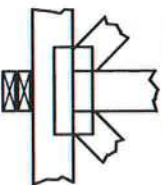
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



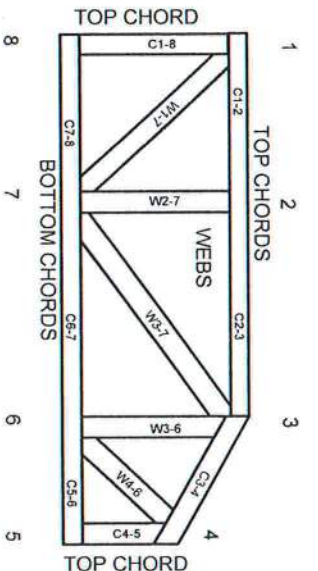
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

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

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative for 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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

Job 2806871	Truss T20	Truss Type Hip Girder	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL T23987490 Job Reference (optional)
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:28 2021 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: 1-4=-54, 4-7=-54, 7-9=-54, 14-17=-20

Concentrated Loads (lb)

Vert: 4=-188(B) 7=-188(B) 13=-343(B) 11=-68(B) 10=-343(B) 20=-106(B) 21=-106(B) 22=-106(B) 23=-106(B) 24=-106(B) 25=-106(B) 26=-106(B) 27=-68(B)  
28=-68(B) 29=-68(B) 30=-68(B) 31=-68(B) 32=-68(B)

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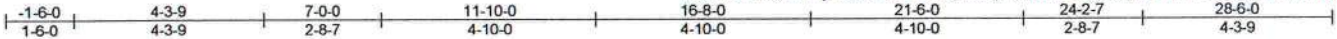
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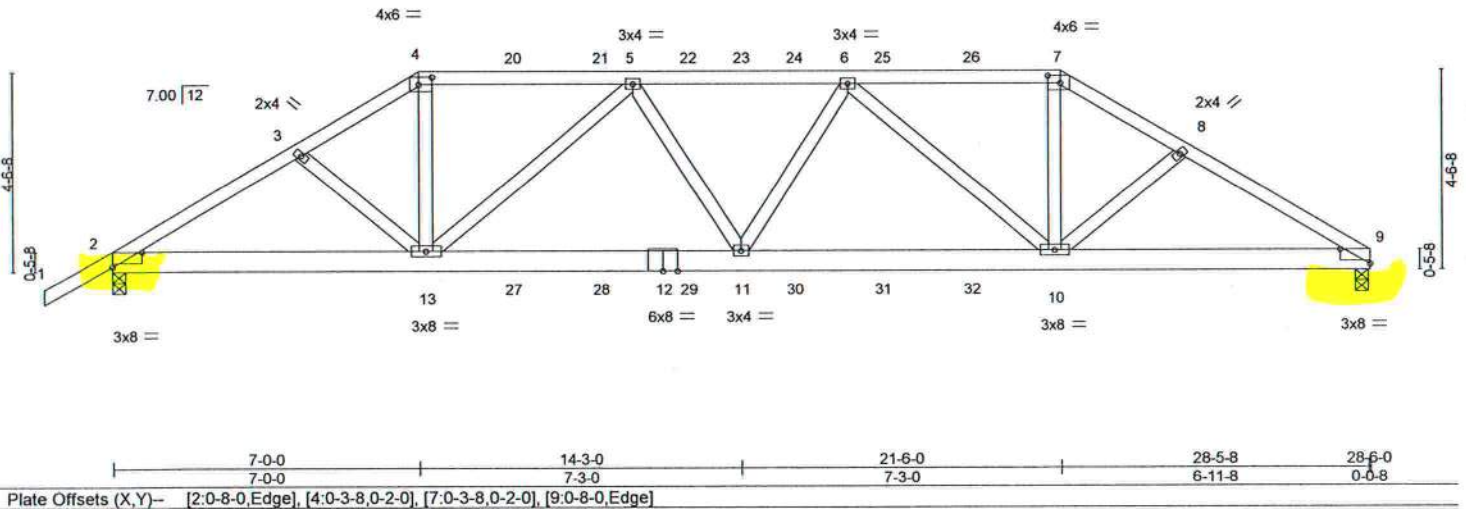
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Tampa, FL 36610

Job 2806871	Truss T20	Truss Type Hip Girder	Qty 1	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987490
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:28 2021 Page 1  
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Scale = 1:50.2



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.75	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.92	Vert(LL) 0.35 11-13 >967 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.96	Vert(CT) -0.35 11-13 >982 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) -0.11 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 168 lb	FT = 20%

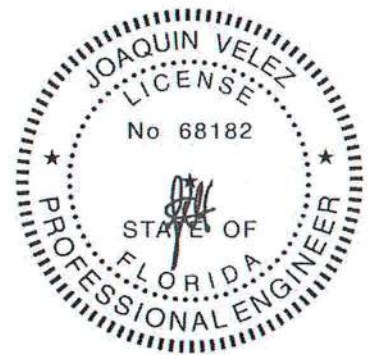
**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 4-7: 2x4 SP M 31  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 3-9-13 oc bracing.

**REACTIONS.** (size) 9=0-3-8, 2=0-3-8  
 Max Horz 2=146(LC 5)  
 Max Uplift 9=1713(LC 4), 2=1733(LC 5)  
 Max Grav 9=2192(LC 1), 2=2277(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3959/3154, 3-4=-3813/3151, 4-5=-3321/2785, 5-6=-4395/3644, 6-7=-3331/2789,  
 7-8=-3825/3156, 8-9=-3974/3160  
 BOT CHORD 2-13=-2796/3362, 11-13=-3562/4255, 10-11=-3531/4258, 9-10=-2675/3377  
 WEBS 4-13=-1200/1466, 5-13=-1285/1105, 5-11=-254/418, 6-11=-252/416, 6-10=-1281/1103,  
 7-10=-1204/1474

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=1713, 2=1733.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 235 lb down and 295 lb up at 7-0-0, 148 lb down and 144 lb up at 9-0-12, 148 lb down and 144 lb up at 11-0-12, 148 lb down and 144 lb up at 13-0-12, 148 lb down and 133 lb up at 14-3-0, 148 lb down and 144 lb up at 15-5-4, 148 lb down and 144 lb up at 17-5-4, and 148 lb down and 144 lb up at 19-5-4, and 235 lb down and 295 lb up at 21-6-0 on top chord, and 343 lb down and 404 lb up at 7-0-0, 91 lb down and 90 lb up at 9-0-12, 91 lb down and 90 lb up at 11-0-12, 91 lb down and 90 lb up at 13-0-12, 91 lb down and 90 lb up at 14-3-0, 91 lb down and 90 lb up at 15-5-4, 91 lb down and 90 lb up at 17-5-4, and 91 lb down and 90 lb up at 19-5-4, and 343 lb down and 404 lb up at 21-5-4 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).
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date: May 18, 2021

**LOAD CASE(S) Standard**

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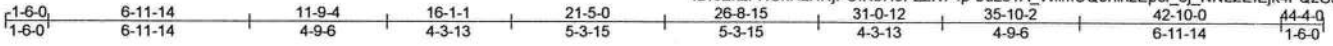
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Job 2806871	Truss T19	Truss Type PIGGYBACK BASE	Qty 5	Ply 1	SIMQUE HOMES - LOT 147 PLL Job Reference (optional)	T23987489
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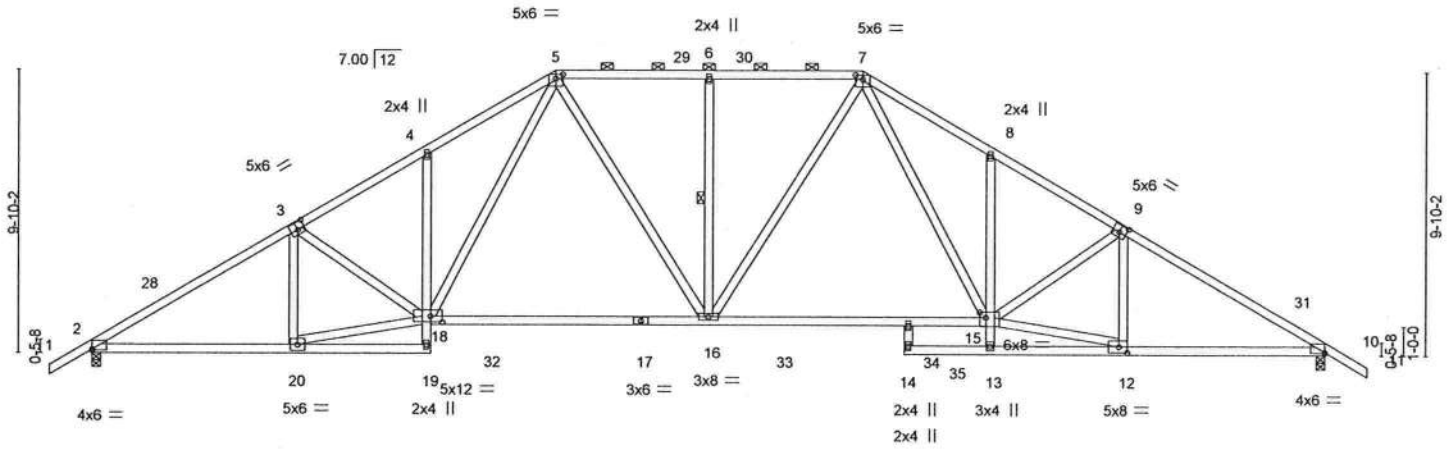
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Scale = 1:77.1



6-11-14 6-11-14	11-9-4 4-9-6	21-5-0 9-7-12	28-2-12 6-9-12	31-0-12 2-10-0	35-10-2 4-9-6	42-10-0 6-11-14
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Plate Offsets (X,Y)- [2:0-0-0,0-0-8], [3:0-3-0,0-3-0], [5:0-3-0,0-1-12], [7:0-3-0,0-1-12], [9:0-3-0,0-3-0], [10:0-0-0,0-0-8], [12:0-3-8,0-2-8], [15:0-2-8,0-2-4], [18:0-4-12,0-2-8]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.97	Vert(LL) -0.47 16-18 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.93	Vert(CT) -0.80 16-18 >643 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.19 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 275 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-13 oc purlins, except
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (3-6-14 max.); 5-7.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
18-20,12-15: 2x4 SP No.2	10-0-0 oc bracing: 13-15
<b>REACTIONS.</b>	WEBS 1 Row at midpt 6-16
(size) 2=0-3-8, 10=0-3-8	
Max Horz 2=320(LC 10)	
Max Uplift 2=644(LC 12), 10=637(LC 13)	
Max Grav 2=1872(LC 2), 10=1917(LC 2)	

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3049/963, 3-4=-3129/1038, 4-5=-3144/1181, 5-6=-2425/792, 6-7=-2425/792,  
 7-8=-3278/1118, 8-9=-3264/975, 9-10=-3128/951  
 BOT CHORD 2-20=-895/2676, 4-18=-283/243, 16-18=-553/2169, 15-16=-409/2213, 8-15=-281/242,  
 10-12=-668/2633  
 WEBS 3-20=-373/209, 18-20=-866/2754, 5-18=-523/1250, 5-16=-253/593, 6-16=-325/250,  
 7-16=-266/510, 7-15=-474/1379, 12-15=-619/2800, 9-15=-145/256, 9-12=-427/153

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 16-1-1, Exterior(2R) 16-1-1 to 20-4-0, Interior(1) 20-4-0 to 26-8-15, Exterior(2R) 26-8-15 to 31-3-6, Interior(1) 31-3-6 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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=644, 10=637.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Joaquin Velez PE No.68182  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: May 18,2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



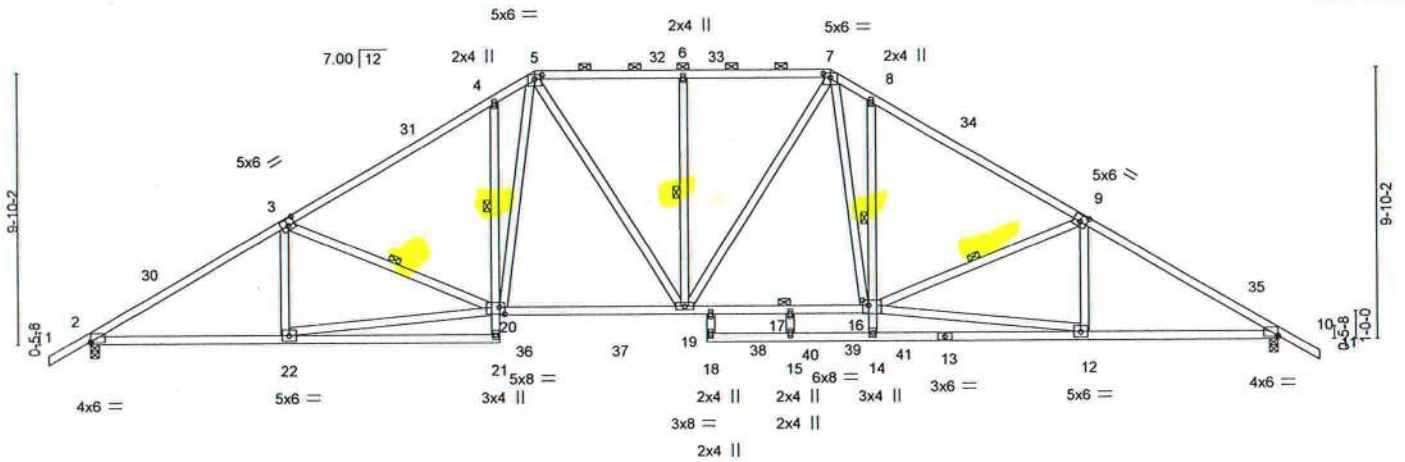
Job 2806871	Truss T18	Truss Type PIGGYBACK BASE	Qty 4	Ply 1	SIMQUE HOMES - LOT 147 PLL	T23987488
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Sat May 15 08:38:25 2021 Page 1

ID:cExzFHCxHzHNjPCINbH0FZzN74p-7RPhqzuxRedpeCZ8Gja4SS1?a3Scb8973?X1\_zGJ2i



Scale = 1:80.0



6-11-14	14-9-4	21-5-0	22-2-12	25-2-12	28-0-12	35-10-2	42-10-0
6-11-14	7-9-6	6-7-12	0-9-12	3-0-0	2-10-0	7-9-6	6-11-14

Plate Offsets (X,Y) - [2:0-0-0,0-0-8], [3:0-3-0,0-3-0], [5:0-3-0,0-1-12], [7:0-3-0,0-1-12], [9:0-3-0,0-3-0], [10:0-0-0,0-0-8], [16:0-2-8,0-2-4], [20:0-2-4,0-3-0]

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 0.72	Vert(LL)	-0.54	18	>945	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.89	Vert(CT)	-0.96	18	>537	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.18	10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 300 lb	FT = 20%

**LUMBER-**  
**TOP CHORD** 2x4 SP No.2  
**BOT CHORD** 2x4 SP No.2 \*Except\*  
 4-21,8-14: 2x4 SP No.3, 16-20: 2x4 SP M 31  
**WEBS** 2x4 SP No.3 \*Except\*  
 20-22,12-16: 2x4 SP No.2

**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-6-5 max.): 5-7.  
**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
 1 Row at midpt 4-20  
 6-0-0 oc bracing: 8-14  
 10-0-0 oc bracing: 17-19  
**WEBS** 1 Row at midpt 3-20, 6-19, 9-16  
**JOINTS** 1 Brace at Jt(s): 17

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=320(LC 10)  
 Max Uplift 2=641(LC 12), 10=639(LC 13)  
 Max Grav 2=1893(LC 2), 10=1926(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-3117/967, 3-4=-2851/909, 4-5=-2833/1084, 5-6=-2478/791, 6-7=-2478/791,  
 7-8=-2943/1039, 8-9=-2958/865, 9-10=-3171/965  
**BOT CHORD** 2-22=-905/2743, 4-20=-415/347, 19-20=-542/2228, 17-19=-399/2296, 16-17=-399/2296,  
 8-16=-416/345, 10-12=-687/2674  
**WEBS** 20-22=-889/2598, 3-20=-402/290, 5-20=-545/1161, 5-19=-255/575, 6-19=-326/247,  
 7-19=-268/445, 7-16=-508/1309, 12-16=-637/2656, 9-16=-387/329

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 16-1-1, Exterior(2R) 16-1-1 to 20-4-0, Interior(1) 20-4-0 to 26-8-15, Exterior(2R) 26-8-15 to 30-11-13, Interior(1) 30-11-13 to 44-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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=641, 10=639.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



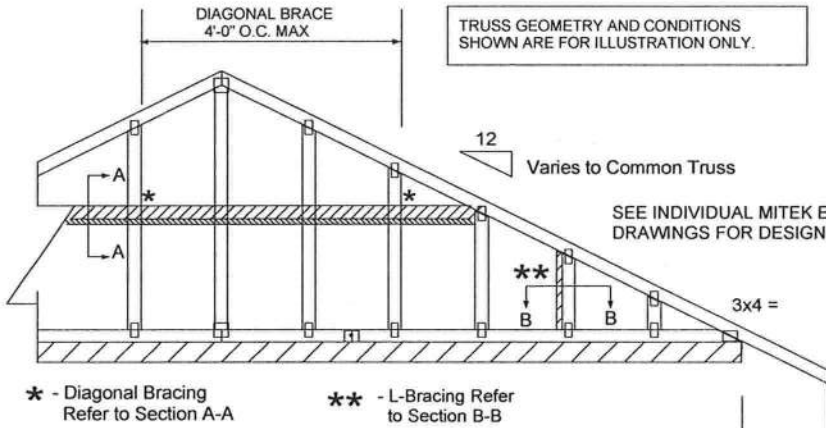
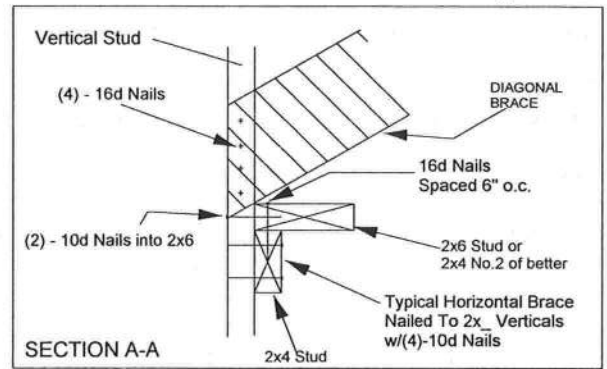
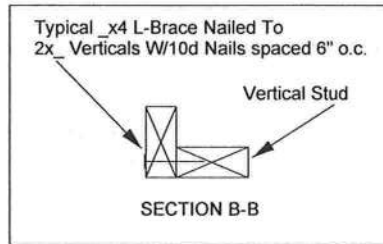
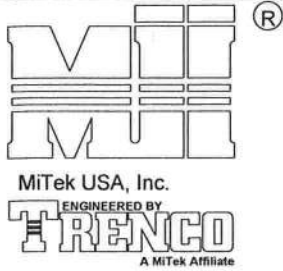
Joaquin Velez PE No.68182  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

May 18,2021

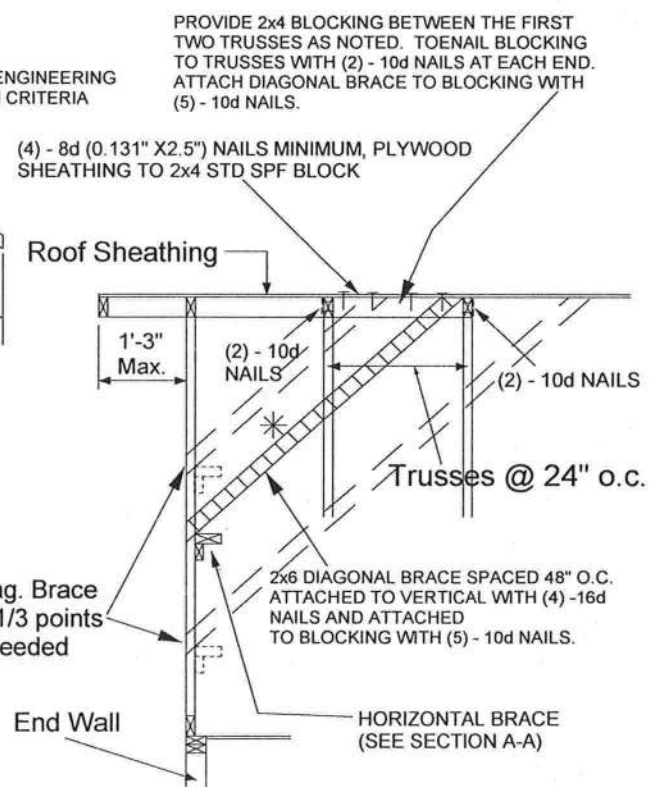
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 33610



- 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.	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.



Michael S. Magid PE No.53681  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

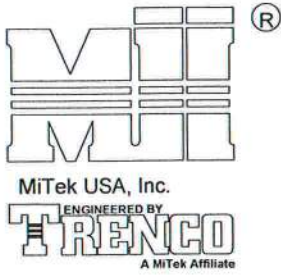
May 17, 2021

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, ASCE 7-16 160 MPH  
 DURATION OF LOAD INCREASE : 1.60

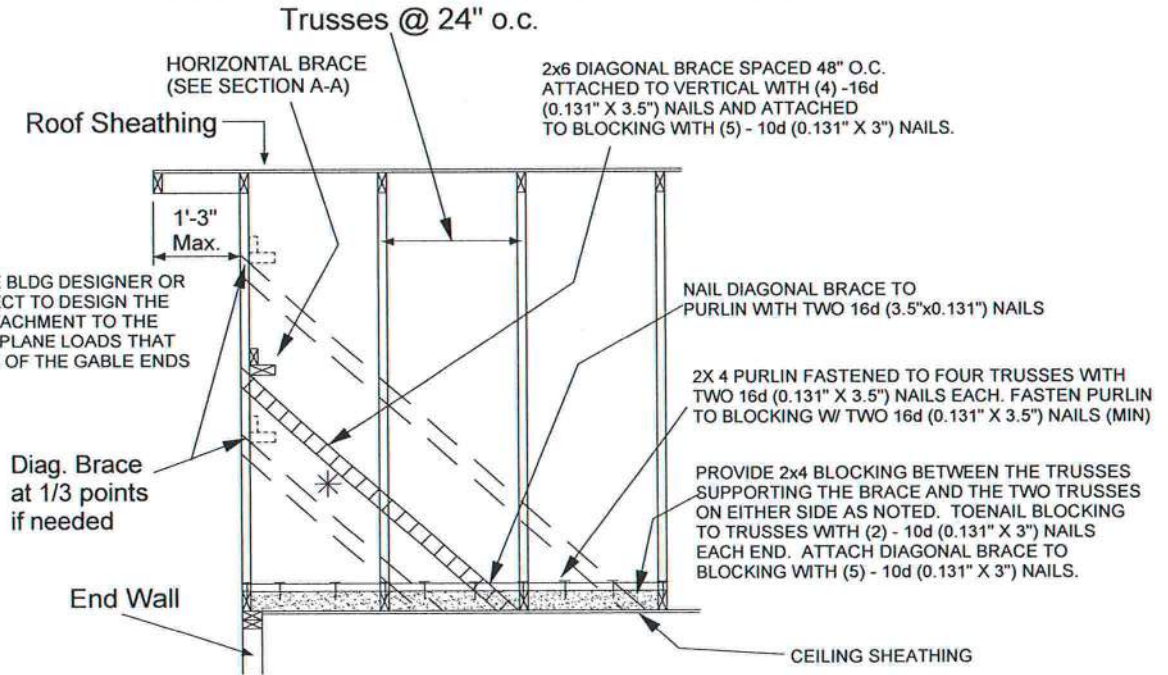
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING  
 CONNECTION OF BRACING IS BASED ON MWFRS.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 3/19/2020 BEFORE USE.  
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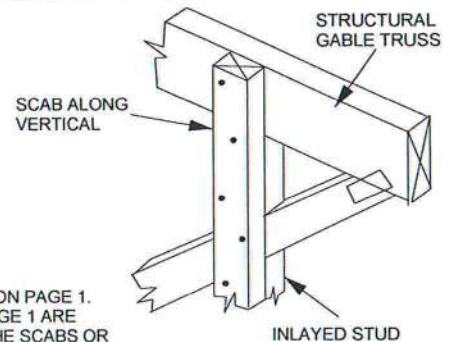
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



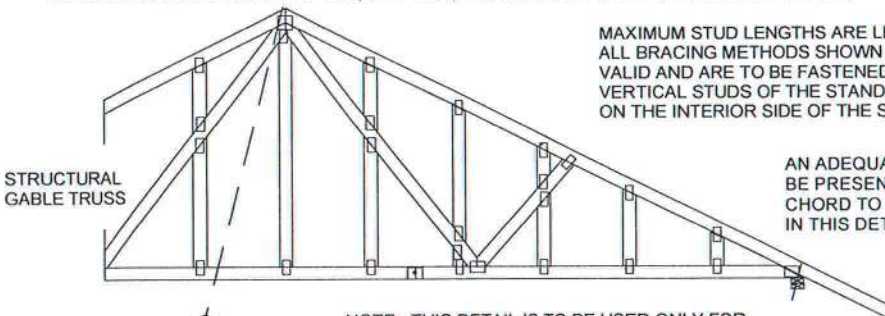
BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:  
 METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.  
 METHOD 2: ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:  
 - FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.  
 - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)

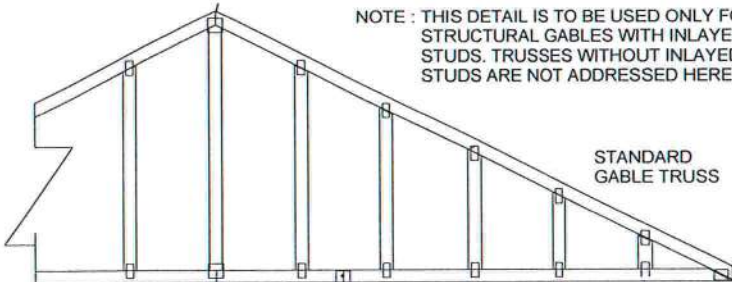


MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

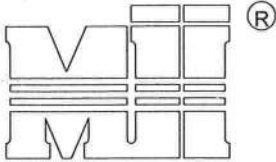
NOTE: THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610



MiTek USA, Inc.

**MiTek USA, Inc.**  
6904 Parke East Blvd.  
Tampa, FL 33610-4115  
T23949111

May 17, 2021

TO WHOM IT MAY CONCERN:

RE: MiTek 20/20 drawings showing continuous lateral bracing  
or "T" bracing on interior webs and chords.

Truss design drawings designed using MiTek 20/20 software show the bracing to be located on a side of the member needing to be braced. The actual side of the member where the brace is to be located does not change the design. If the brace cannot physically be placed on the side of the member as the drawings show, then place the brace on the member at the same location except attach it to the opposite edge.

If we can be of any further assistance in this matter, please feel free to contact our office.

Sincerely,

Michael Magid, PE



Michael S. Magid PE No. 53681  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

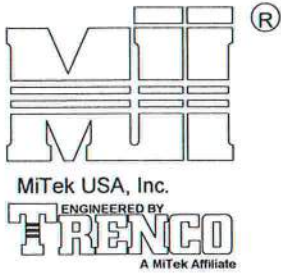
May 17, 2021

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

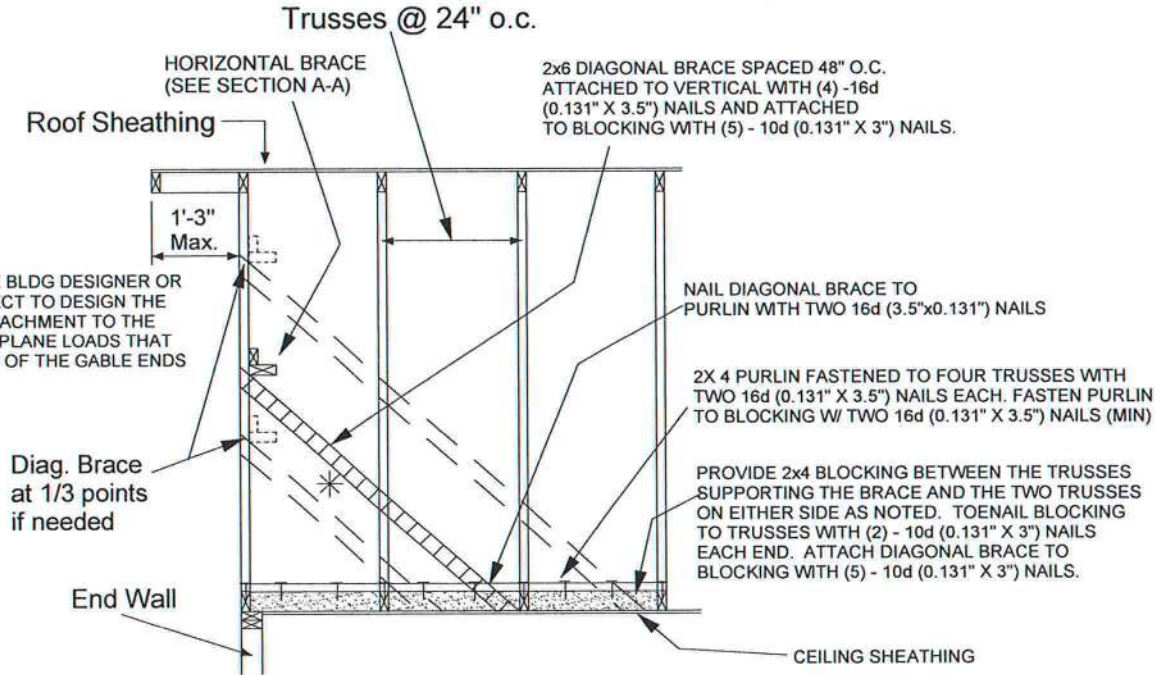
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610



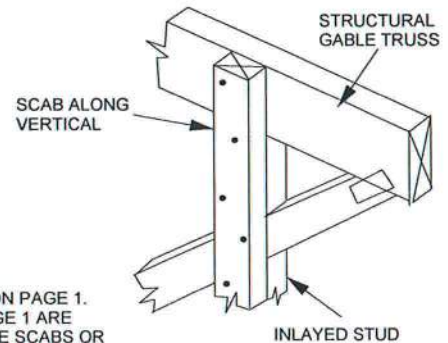
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHITECT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
- METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.
  - METHOD 2 : ATTACH 2X 4 SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS
- NAILING SCHEDULE:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
  - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

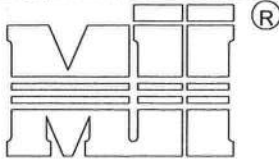
NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAYS STUDS. TRUSSES WITHOUT INLAYS STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

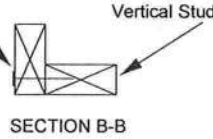


6904 Parke East Blvd.  
Tampa, FL 36610



DIAGONAL BRACE  
4'-0" O.C. MAX

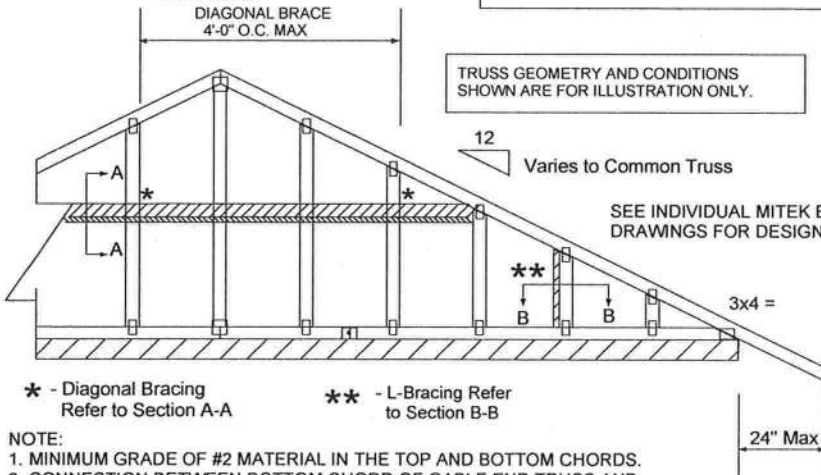
Typical 2x4 L-Brace Nailed To  
2x4 Verticals W/10d Nails spaced 6" o.c.



TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

12  
Varies to Common Truss

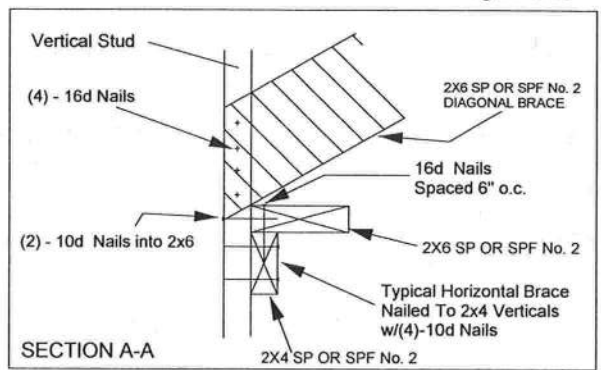
SEE INDIVIDUAL MITEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA



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

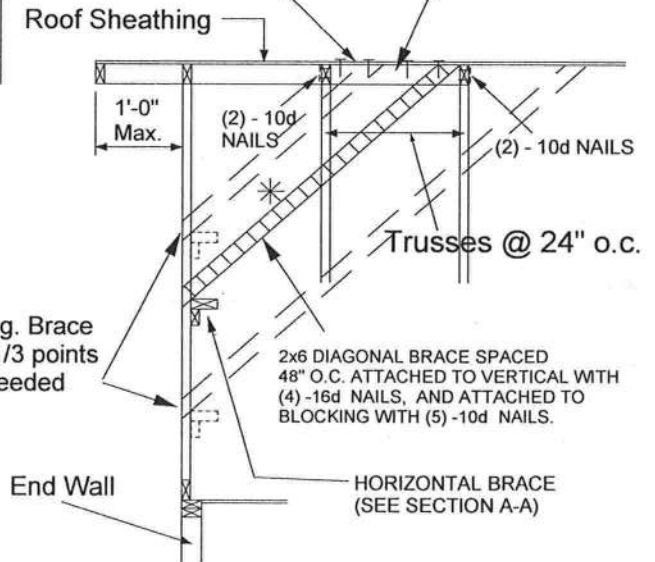
NOTE:

- MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
- CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
- BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
- "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.
- DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
- 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)
- GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
- THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
- DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
- SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
- 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	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
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, ASCE 7-16 170 MPH  
DURATION OF LOAD INCREASE : 1.60

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

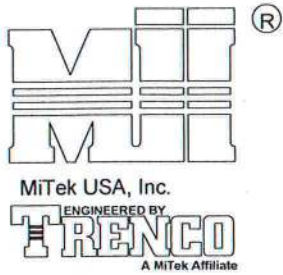


Michael S. Magid PE No.53681  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

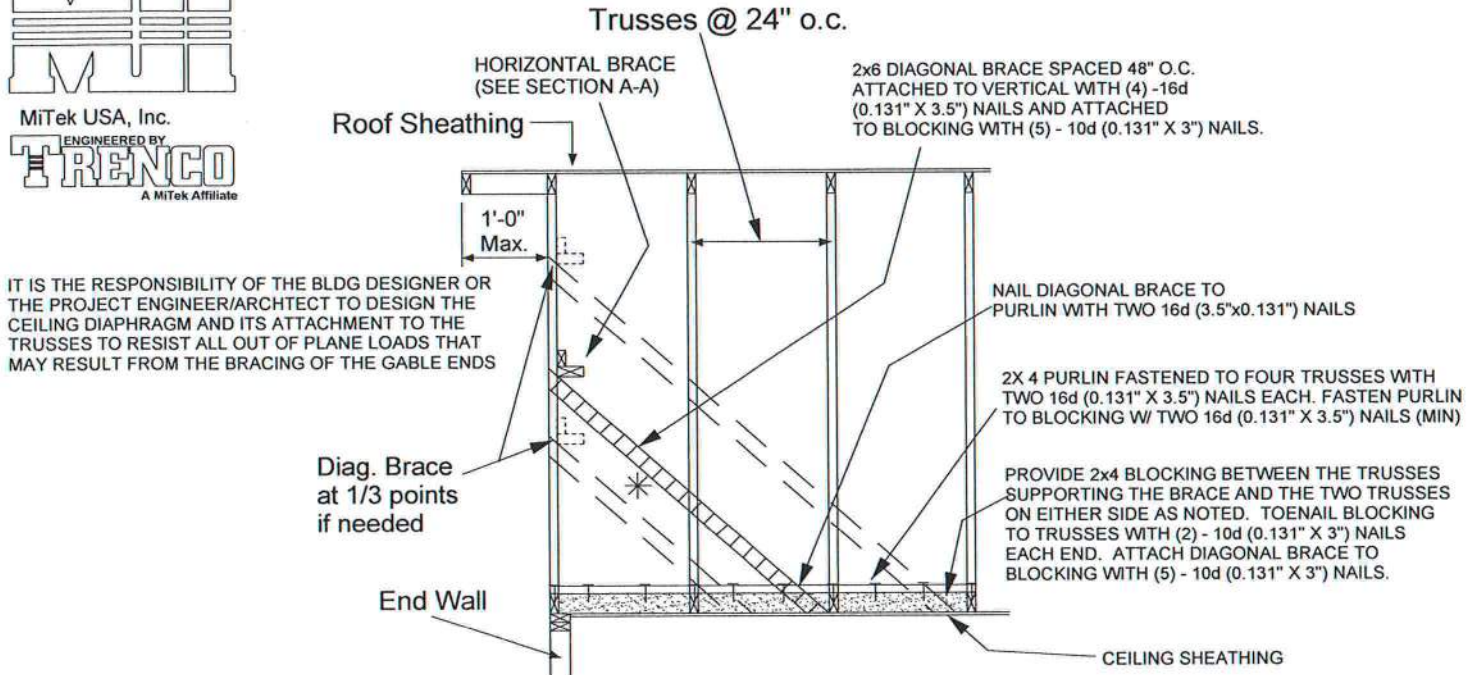
May 17, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





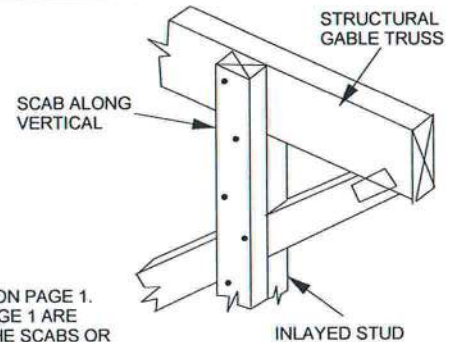
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



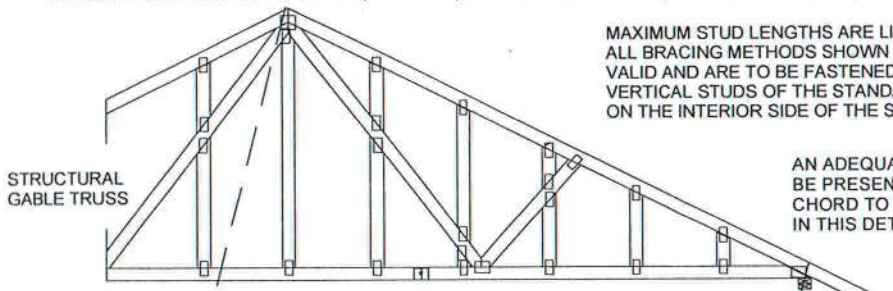
IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHITECT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
- METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.
- METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS
- NAILING SCHEDULE:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
  - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)

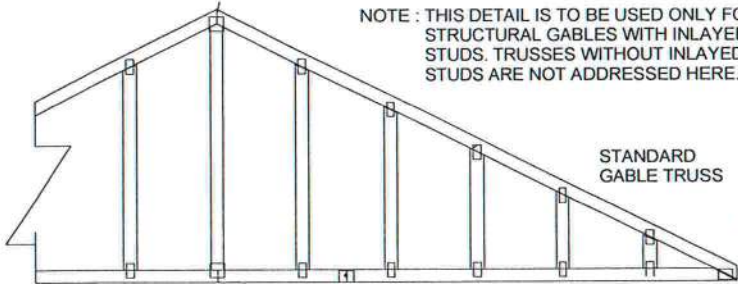


MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

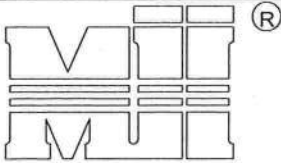
NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.



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6804 Parke East Blvd.  
Tampa, FL 36610



MiTek USA, Inc.



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.

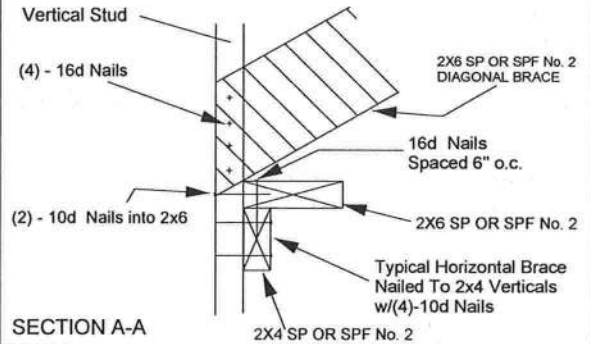
Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA



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

1'-0" Max.

(2) - 10d NAILS

(2) - 10d NAILS

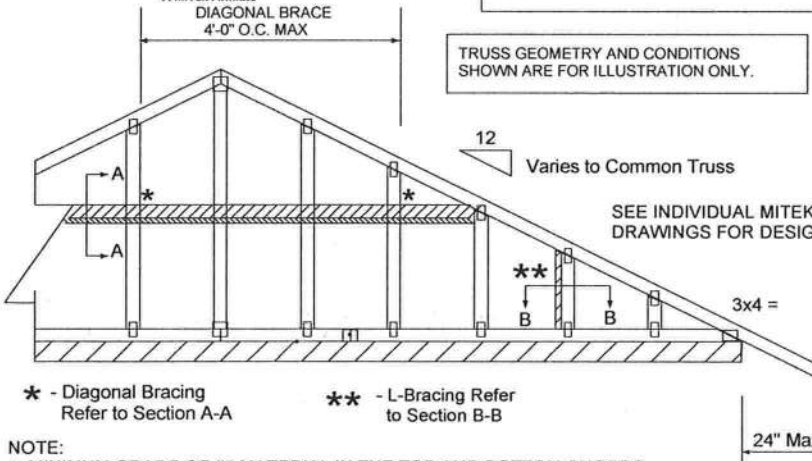
Trusses @ 24" o.c.

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)



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
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, ASCE 7-16 180 MPH  
DURATION OF LOAD INCREASE = 1.60

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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

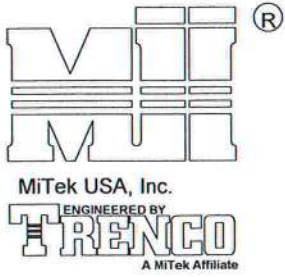


Michael S. Magid PE No.53681  
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Date:

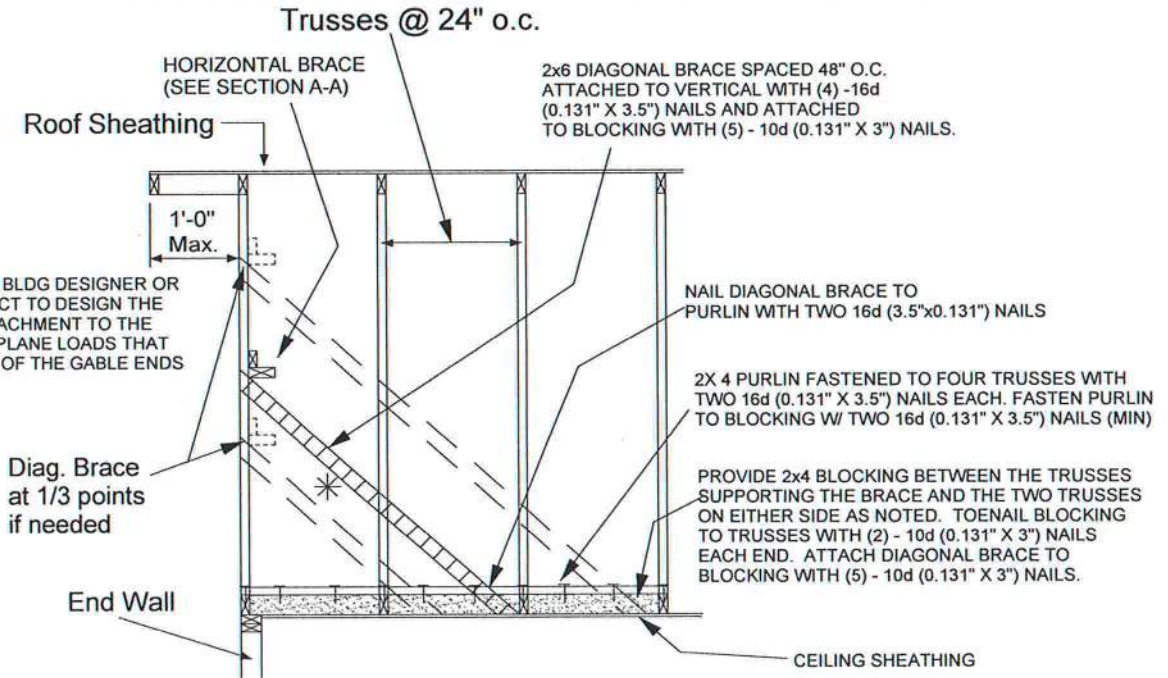
May 17, 2021



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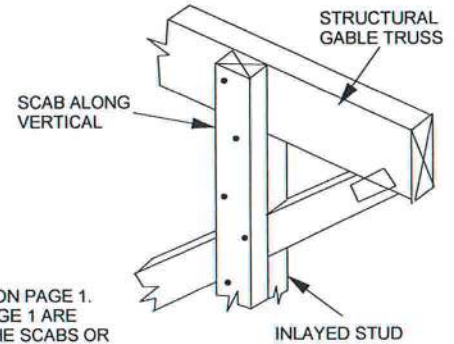
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHTECT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
- METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.
  - METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS
- NAILING SCHEDULE:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
  - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

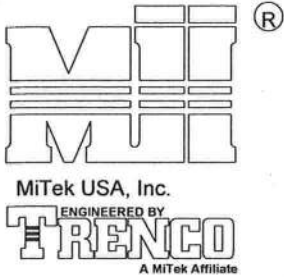
NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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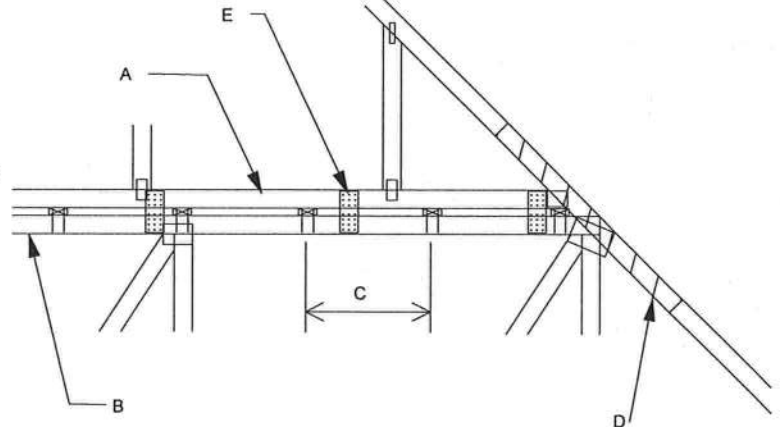
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Tampa, FL 36610



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  
 ENCLOSED BUILDING  
 LOADING = 5 PSF TCDL  
 ASCE 7-10, ASCE 7-16  
 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.

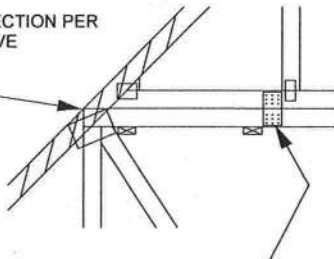
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X      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 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 116 AND 180 MPH, ATTACH MITEK NP37 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" NAIL EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



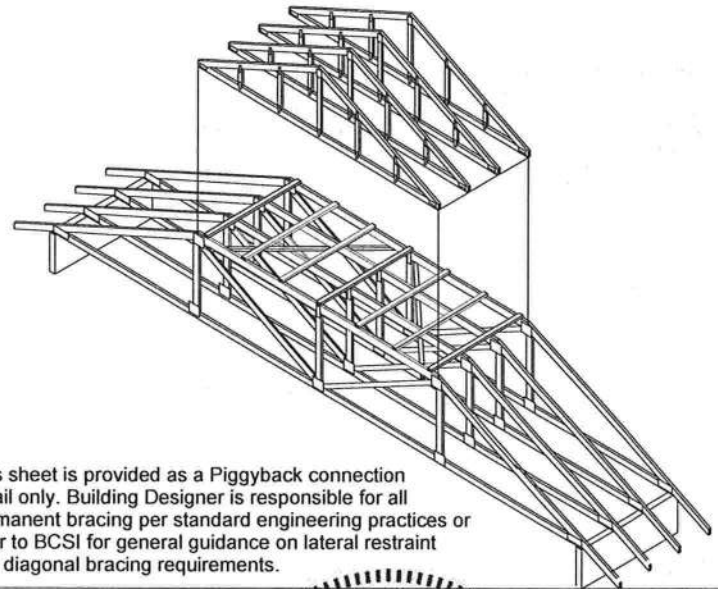
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

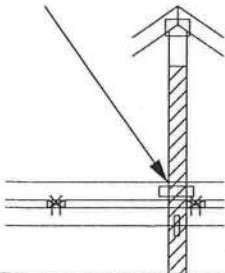


FOR ALL WIND SPEEDS, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" NAIL EDGE DISTANCE.



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      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.



Michael S. Magid PE No.53681  
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 Date:

May 17, 2021

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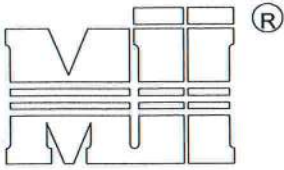


JANUARY 8, 2019

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT 7-16

T23949115 MiTek USA, Inc. Page 1 of 1

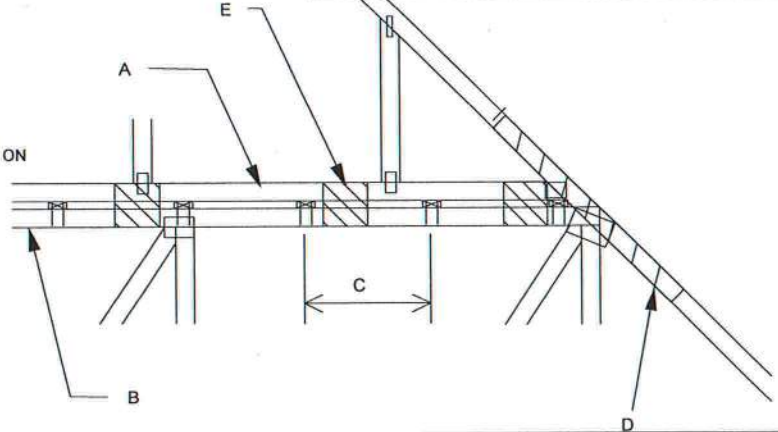


MiTek USA, Inc.



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  
 ENCLOSED BUILDING  
 LOADING = 5 PSF TCDL MINIMUM  
 ASCE 7-10, ASCE 7-16  
 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.

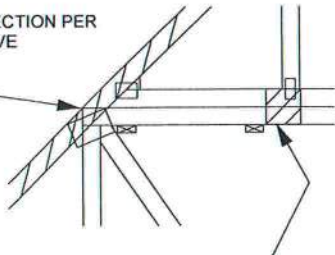
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X  $\frac{7}{8}$  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 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 116 MPH - 180 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)



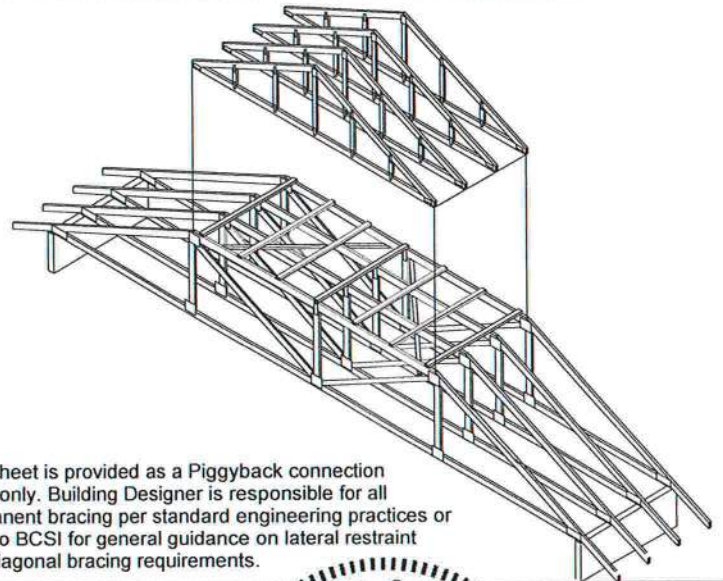
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

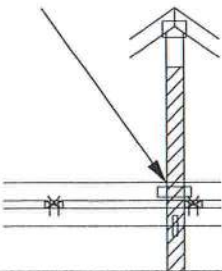


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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  $\frac{7}{8}$  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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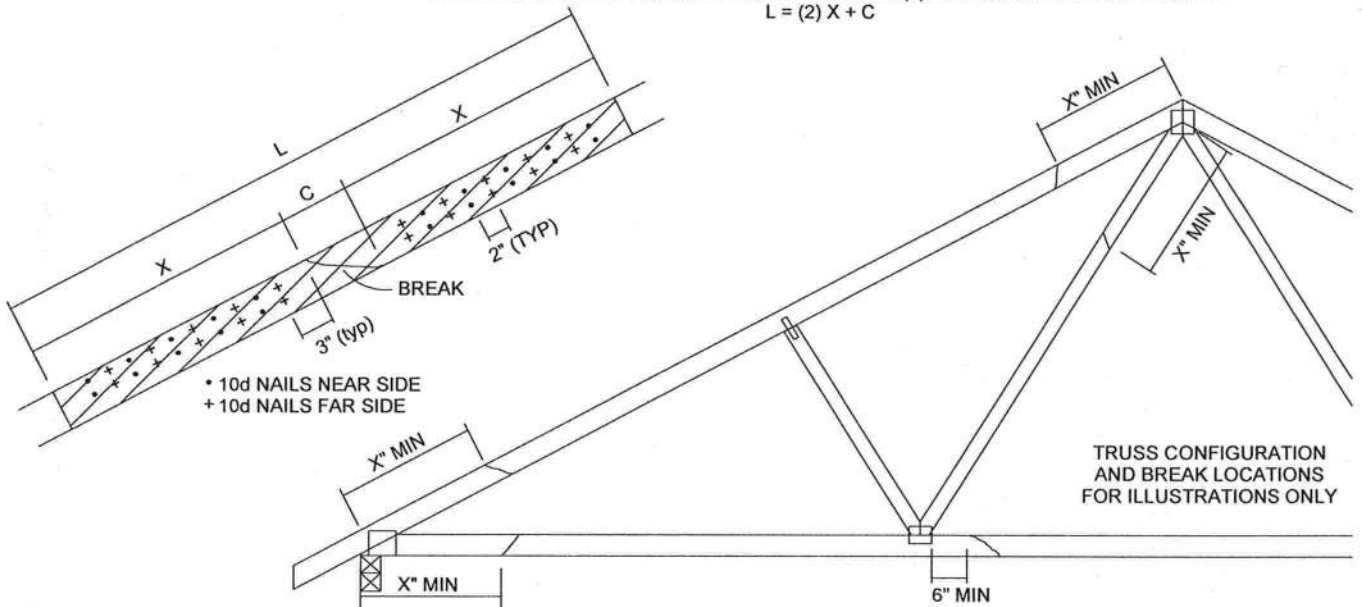


TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	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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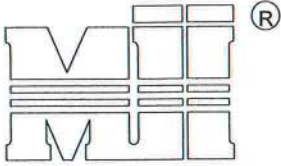
Date:

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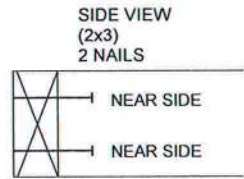
- NOTES:
- TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
  - THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF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

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THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

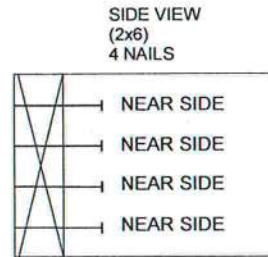
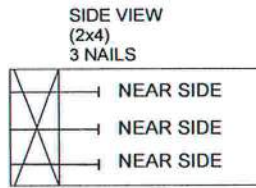
VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2018 (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



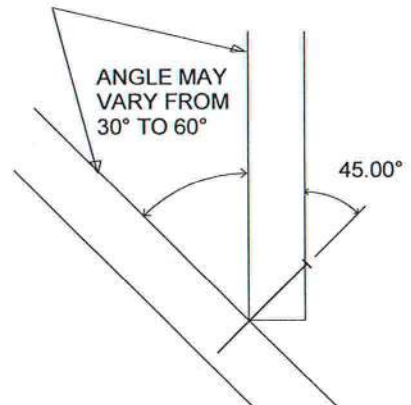
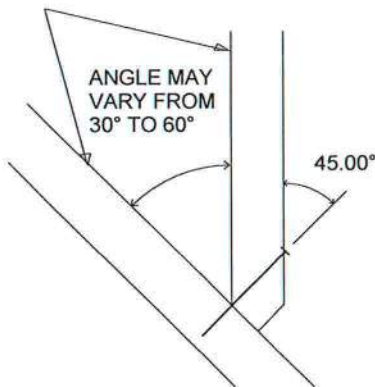
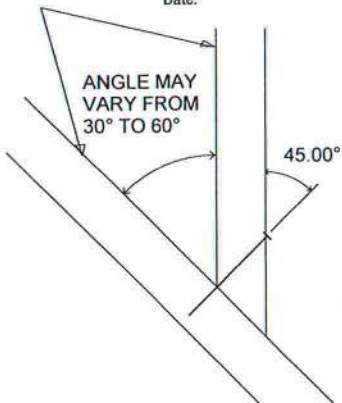
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.  
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

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



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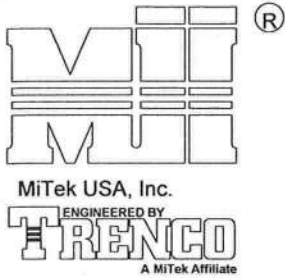
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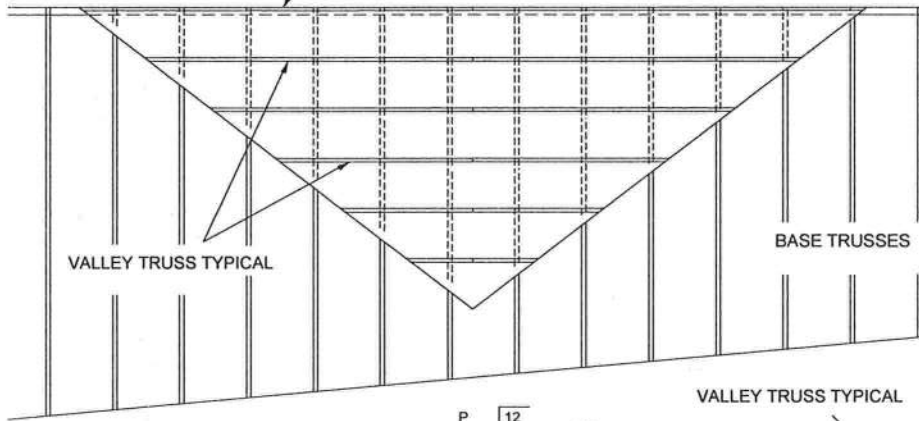
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GENERAL SPECIFICATIONS

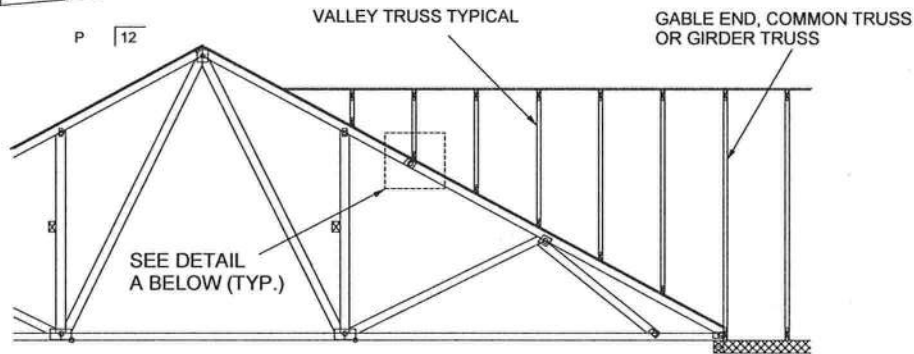
1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT  
DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN 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.



GABLE END, COMMON TRUSS OR GIRDER TRUSS

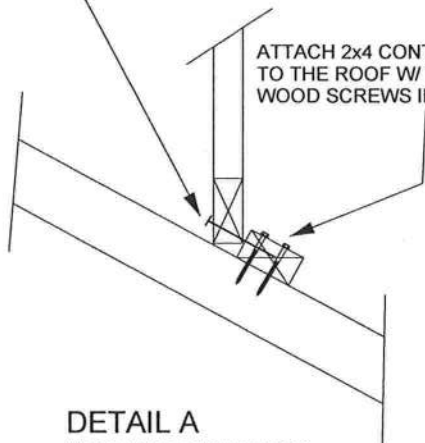


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Date:



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.

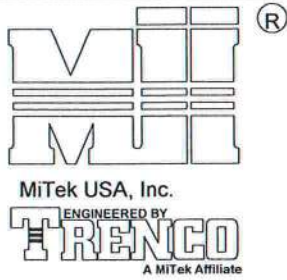


DETAIL A  
(NO SHEATHING)  
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 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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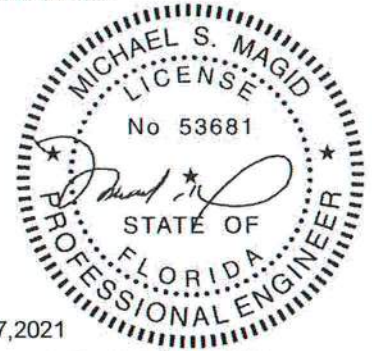
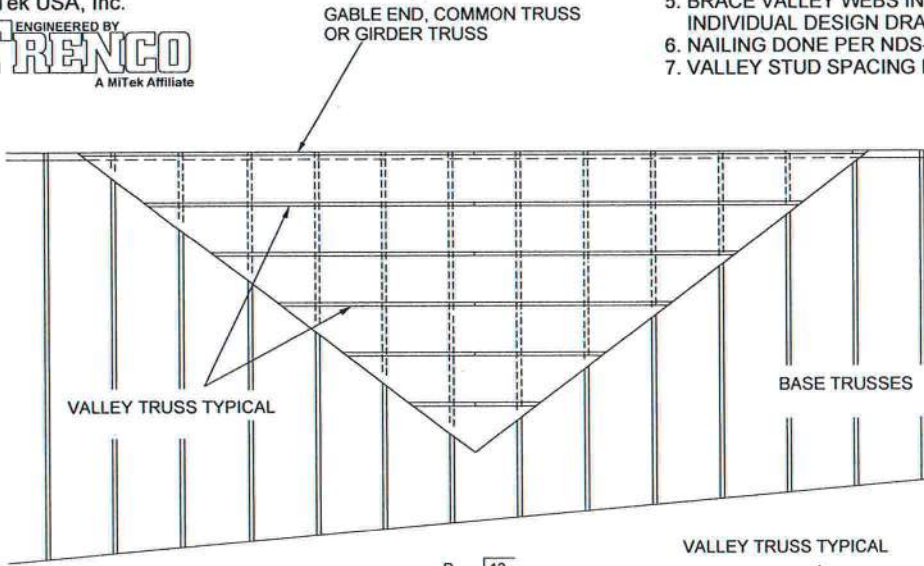




GENERAL SPECIFICATIONS

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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.



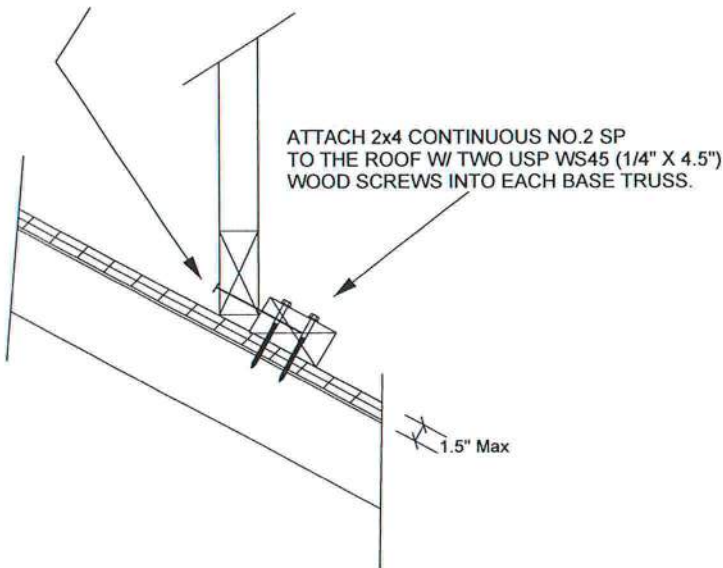
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SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.

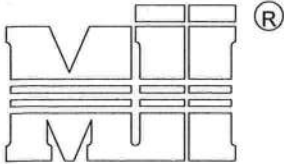
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 6 PSF  
ON THE TRUSSES



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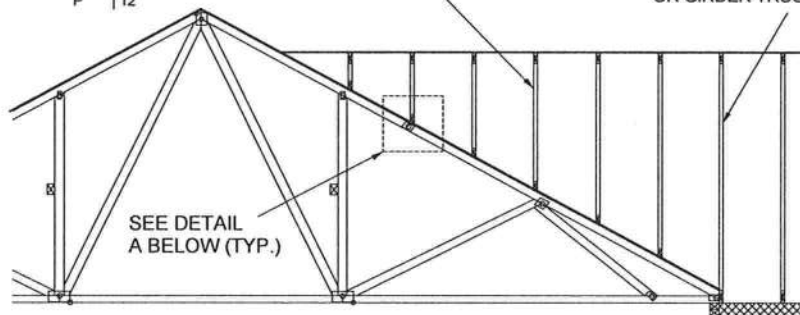
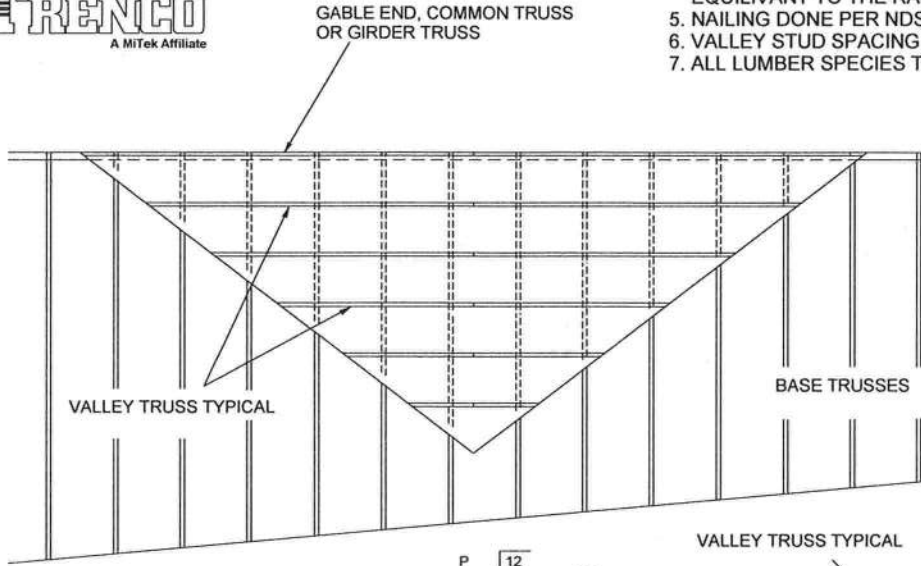
GENERAL SPECIFICATIONS

1. NAIL SIZE 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.

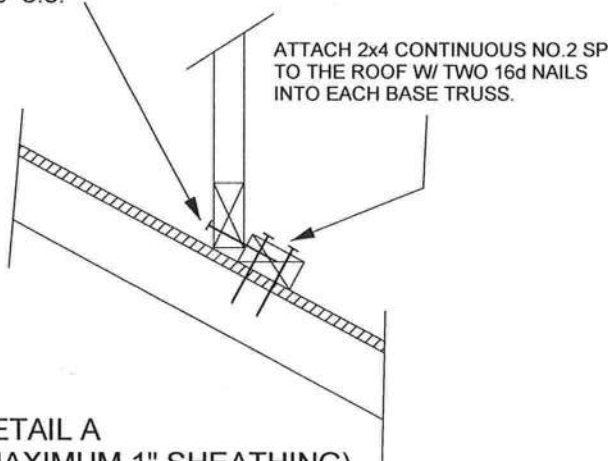


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SECURE VALLEY TRUSS W/ ONE ROW OF 16d NAILS 6" O.C.



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, ASCE 7-16 150 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

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

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

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



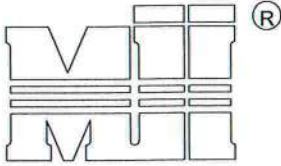
6904 Parke East Blvd.  
Tampa, FL 33610

APRIL 12, 2019

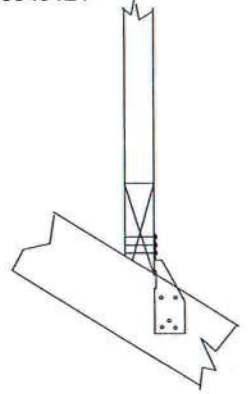
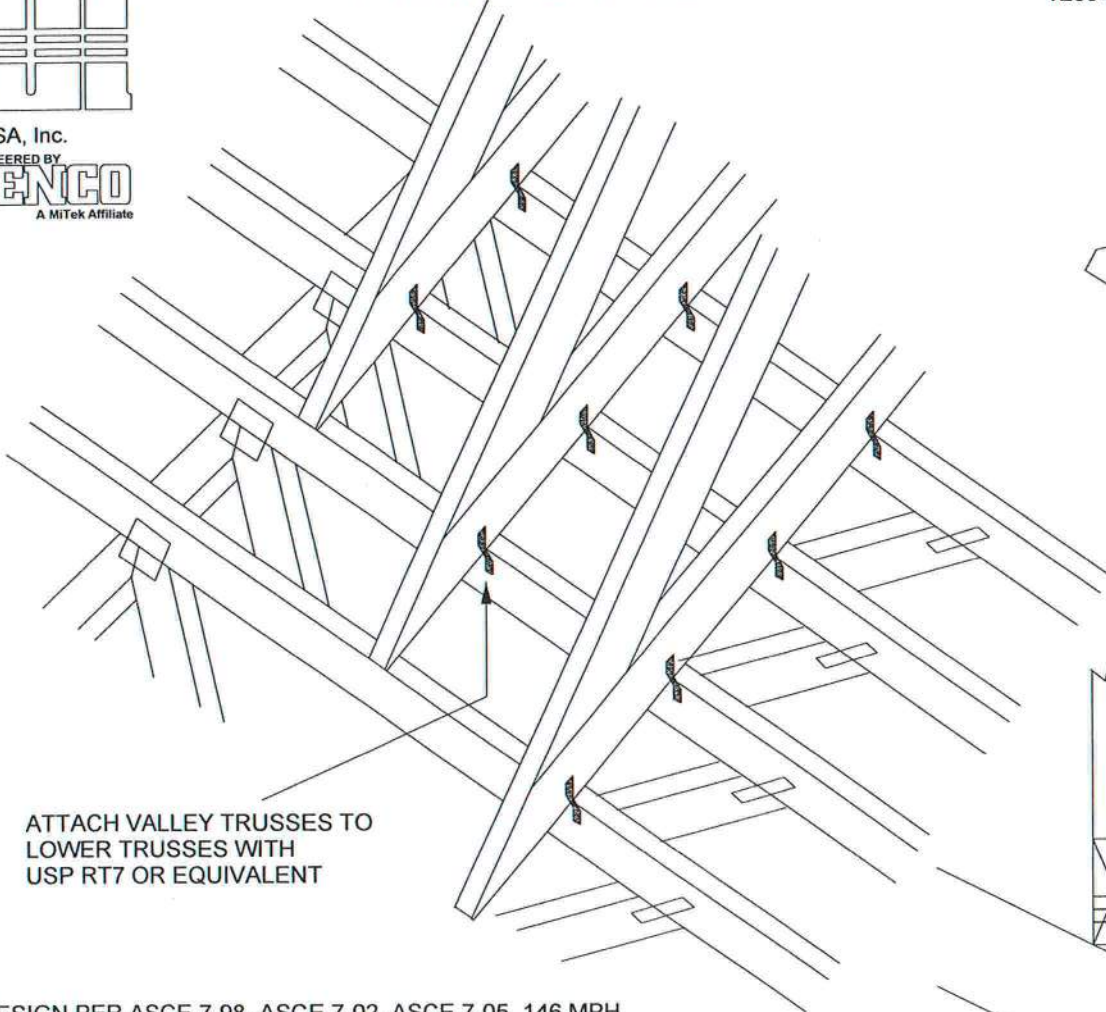
### TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)

MII-VALLEY

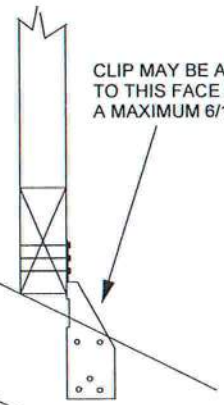
MiTek USA, Inc. Page 1 of 1  
T23949121



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

ATTACH VALLEY TRUSSES TO LOWER TRUSSES WITH USP RT7 OR EQUIVALENT

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 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

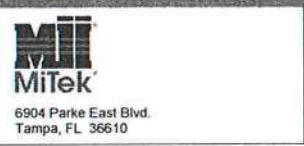
CLIP MUST BE APPLIED TO THIS FACE WHEN PITCH EXCEEDS 6/12. (MAXIMUM 12/12 PITCH)



Michael S. Magid PE No.53681  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

May 17, 2021

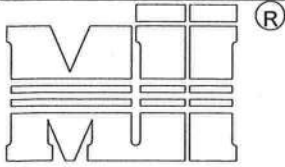
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



OCTOBER 5, 2016

REPLACE BROKEN OVERHANG

MII-REP13B



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

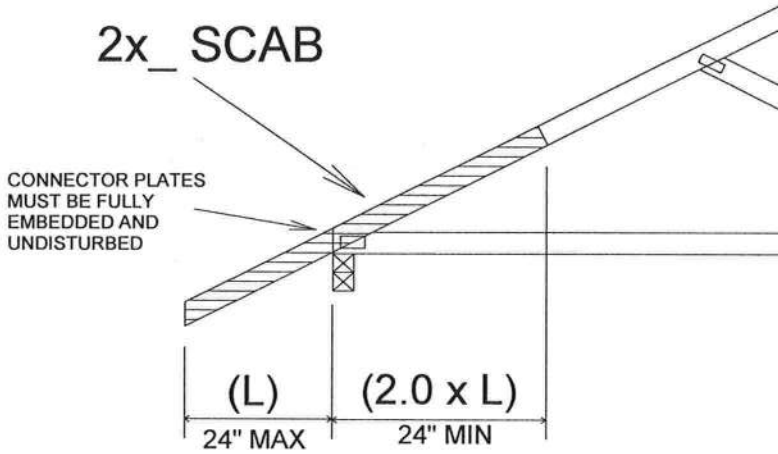
MiTek USA, Inc. Page 1 of 1  
T23949122

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

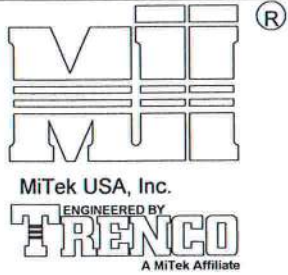


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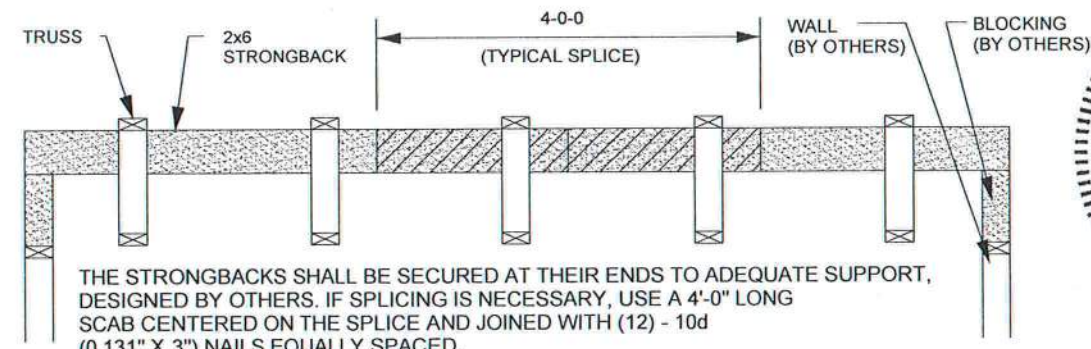
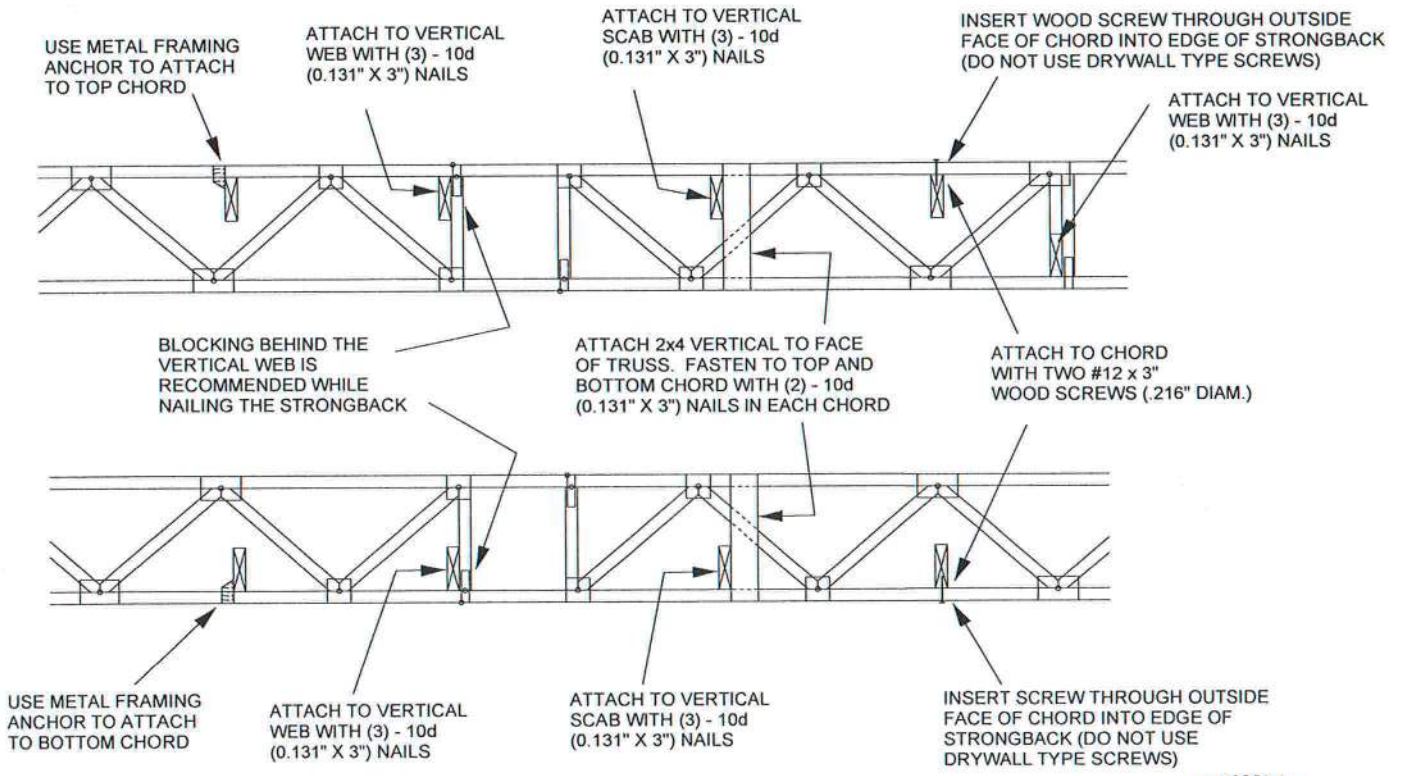
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Tampa, FL 36610



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.



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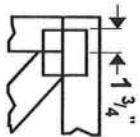
May 17, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

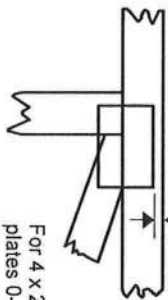


# Symbols

## 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 20/20 software or upon request.

## PLATE SIZE

4 X 4

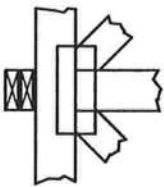
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

Building Component Safety Information,

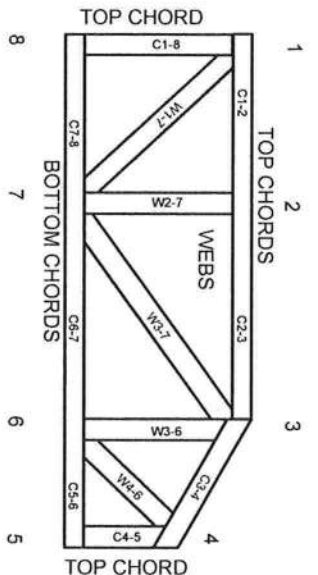
Guide to Good Practice for Handling,

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

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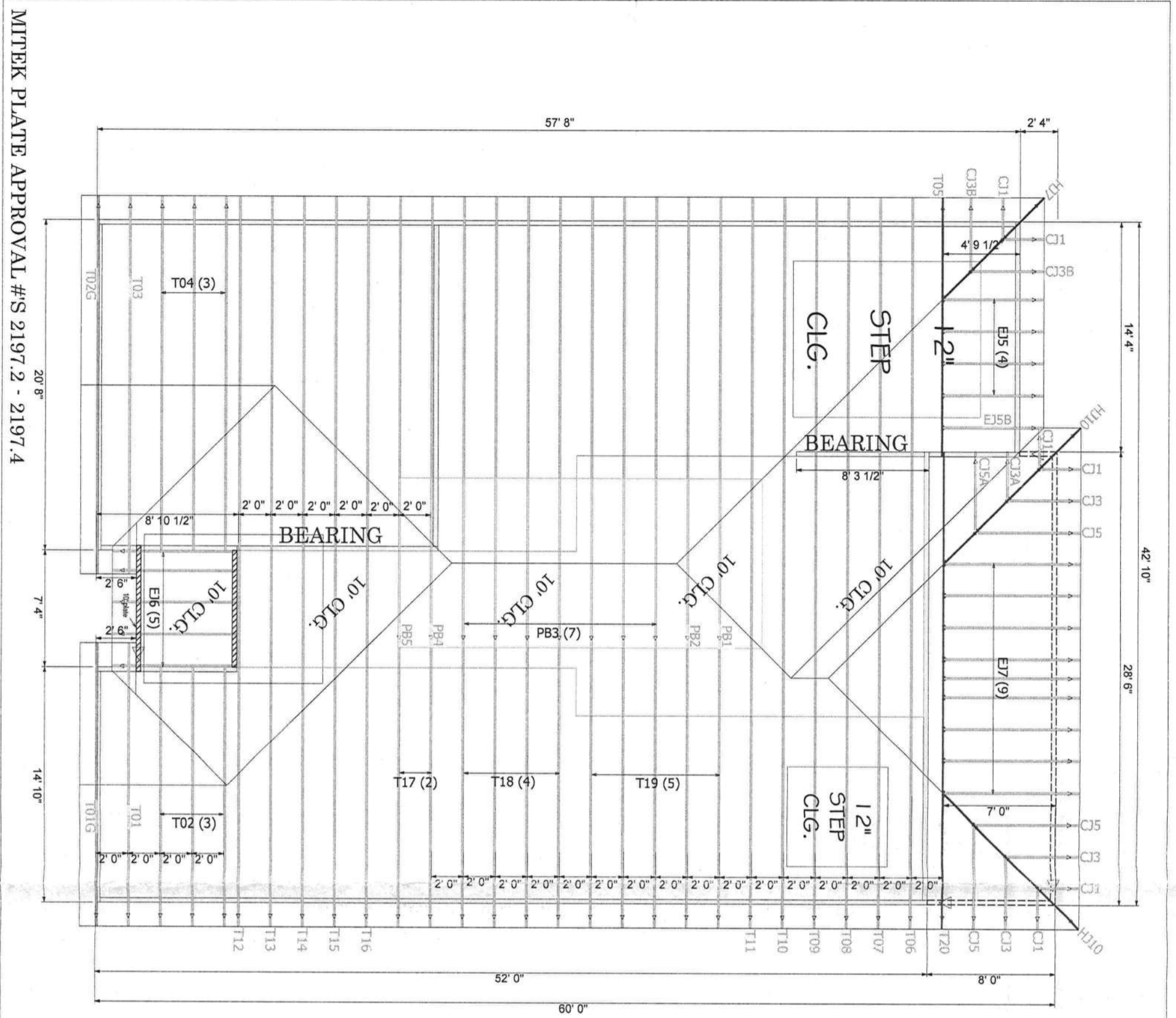
MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor l bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
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. Gamber 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 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



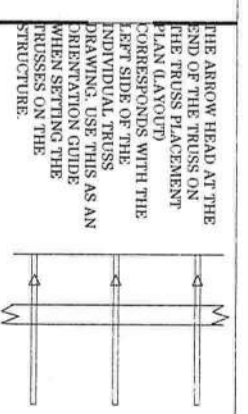


MITTEK PLATE APPROVAL #'S 2197.2 - 2197.4

# 7/12 PITCH 18" O/H

NOTE BEARING ADDED

Hatch Legend	
9' 1-1/8"	
10' 1-1/8"	



**General Notes:**

- Per ANSI/TPI 1-2002 all "Truss to Wall" connections are the responsibility of the Building Designer, not the Truss Manufacturer.
- Use Manufacturer's specifications for all hanger connections unless otherwise noted.
- Trusses are to be 24" o.c. U.N.O.
- All beams are to be Simpson or equivalent U.N.O.
- Use 104 x 1 1/2" Nails in hanger connections to single ply trusses.
- Trusses are not designed to support brick U.N.O.
- Dimensions are Feet-Inches-Sixteenths

**Notes:**

- No back charges will be accepted by Builders FirstSource unless approved in writing first.
- 850-835-4641
- ACQ Lumber is restrictive to truss plates. Any ACQ Lumber that comes in contact with truss plates (i.e. scabbled on tails) must have an approved barrier applied first.
- Refer to BCSI-B1 Summary Sheet-Guide for handling, installing and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

It is the responsibility of the Contractor to ensure the proper orientation of the truss placement plans as to the construction documents and field conditions of the structure orientation. If a reversed or flipped layout is required, it will be supplied at no extra cost by Builders FirstSource.

It is the responsibility of the Contractor to make sure the placement of trusses are adjusted for plumbing drops, can lights, ect... so the trusses do not interfere with these type of items.

All common framed roof or floor systems must be designed as to NOT impose any loads on the floor trusses below. The floor trusses have not been designed to carry any additional loads from above.

This truss placement plan was not created by an engineer, but rather by the Builders FirstSource staff and is solely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the truss design drawings which may be sealed by the truss design engineer.

Gable end trusses require continuous bottom chord bearing. Refer to local codes for wall framing requirements.

Although all attempts have been made to do so, trusses may not be designed symmetrically. Please refer to the individual truss drawings and truss placement plans for proper orientation and placement.

**Builders**  
**FIRSTSOURCE**

Lake City  
PHONE: 386-755-6894  
FAX: 386-755-7973

Jacksonville  
PHONE: 904-772-6100  
FAX: 904-772-1973

Tallahassee  
PHONE: 850-576-5177

Builder:  
**Aaron Simgue Homes**  
Legal Address:  
**Lot 147 The Preserve at  
Laurel Lake**

Date: <b>5-22-21</b>	Drawn By: <b>KLH</b>
Model: <b>Floor 1 100#</b>	Original Ref #: <b>2806871</b>
	Roof Job #: <b>2806871</b>

