



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

RE: 2719013 - IC CONST - SANTIAGO RES.

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

**Site Information:**

Customer Info: IC CONSTRUCTION Project Name: Santiago Res. Model: Custom  
Lot/Block: 9 Subdivision: Oak Haven  
Address: TBD, TBD  
City: Columbia Cty State: FL

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

Name: License #:  
Address:  
City: State:

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

Design Code: 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: 55.0 psf

This package includes 39 individual, Truss Design Drawings and 0 Additional Drawings.

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

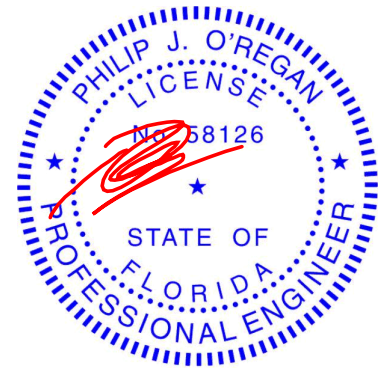
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T23909412	EJ01	5/12/21	23	T23909434	T11	5/12/21
2	T23909413	EJ02	5/12/21	24	T23909435	T12	5/12/21
3	T23909414	PB01	5/12/21	25	T23909436	T13	5/12/21
4	T23909415	PB01G	5/12/21	26	T23909437	T14	5/12/21
5	T23909416	PB02	5/12/21	27	T23909438	T15	5/12/21
6	T23909417	PB02G	5/12/21	28	T23909439	T16	5/12/21
7	T23909418	PBG01	5/12/21	29	T23909440	T17	5/12/21
8	T23909419	T01	5/12/21	30	T23909441	T17G	5/12/21
9	T23909420	T01G	5/12/21	31	T23909442	T18	5/12/21
10	T23909421	T02	5/12/21	32	T23909443	T19	5/12/21
11	T23909422	T03	5/12/21	33	T23909444	TF01	5/12/21
12	T23909423	T04	5/12/21	34	T23909445	TF01G	5/12/21
13	T23909424	T04G	5/12/21	35	T23909446	TF02	5/12/21
14	T23909425	T05	5/12/21	36	T23909447	TF03	5/12/21
15	T23909426	T06	5/12/21	37	T23909448	TF04	5/12/21
16	T23909427	T07	5/12/21	38	T23909449	TF05	5/12/21
17	T23909428	T07G	5/12/21	39	T23909450	TG01	5/12/21
18	T23909429	T08G	5/12/21				
19	T23909430	T09	5/12/21				
20	T23909431	T09G	5/12/21				
21	T23909432	T10	5/12/21				
22	T23909433	T10G	5/12/21				

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: O'Regan, Philip

My license renewal date for the state of Florida is February 28, 2023.

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



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

May 12, 2021

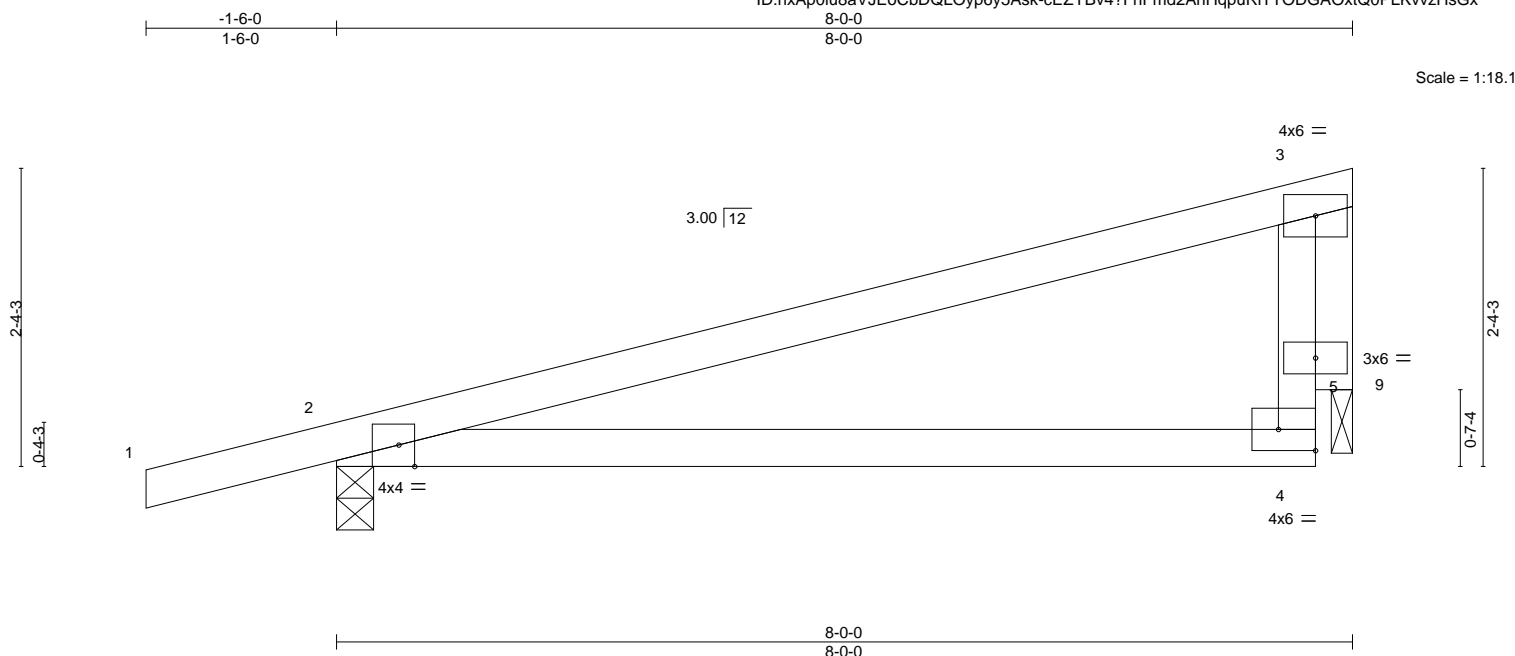


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [4:Edge,0-2-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	0.29 4-8 >329 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.64	Vert(CT)	0.25 4-8 >385 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	-0.01 2 n/a n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MR				Weight: 31 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 7-6-8 oc bracing.

### REACTIONS.

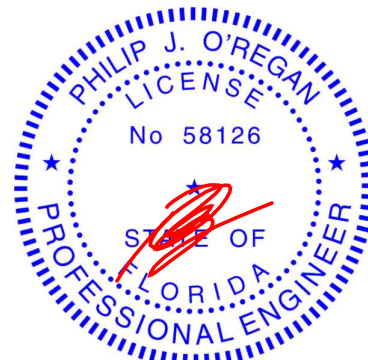
(size) 2=0-3-8, 9=0-2-0  
Max Horz 2=82(LC 8)  
Max Uplift 2=-197(LC 8), 9=-134(LC 8)  
Max Grav 2=381(LC 1), 9=260(LC 1)

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

TOP CHORD 2-3=-222/252, 4-5=-255/151, 3-5=-255/151  
BOT CHORD 2-4=-299/188  
WEBS 3-9=-279/437

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCp=-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 7-6-12 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) 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 197 lb uplift at joint 2 and 134 lb uplift at joint 9.



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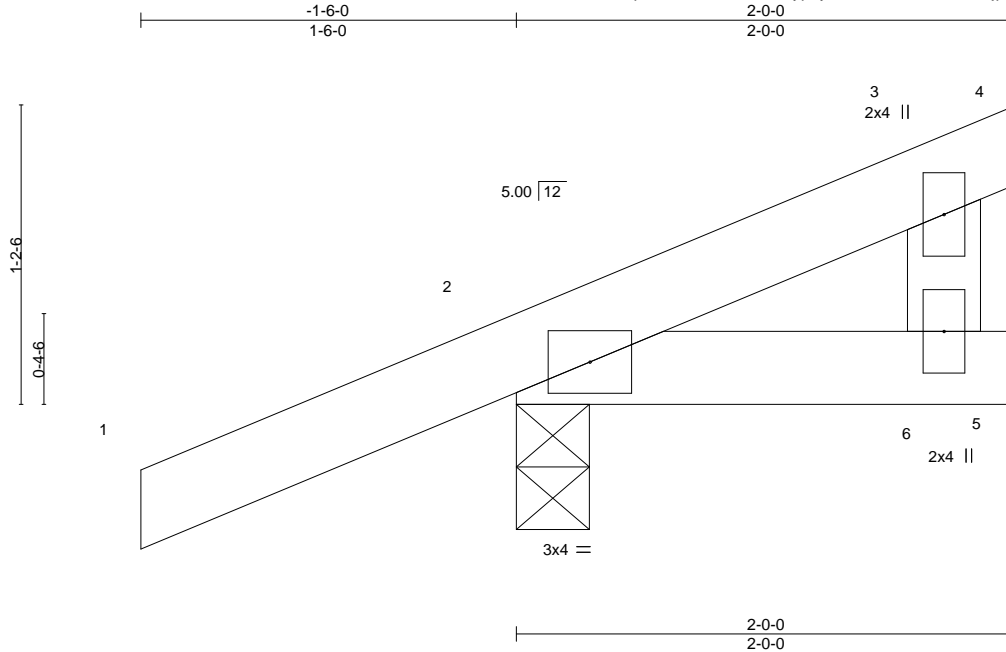
**WARNING:** Velly design parameters are listed below and are included with the key reference to AISC M17-13, 161, 319/2020 for ONE USE. Design valid for use only with MiteK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS1 Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd  
Tampa, FL 36610

Job 2719013	Truss EJ02	Truss Type Jack-Open	Qty 7	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909413
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:44:55 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-zBMREd883Ju2p2i4OP38oASRE6o3IE9Ah25a7zHsGs



Scale = 1:9.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.13	Vert(LL)	-0.00	9	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.03	Vert(CT)	-0.00	9	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	2	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 10 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 2-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

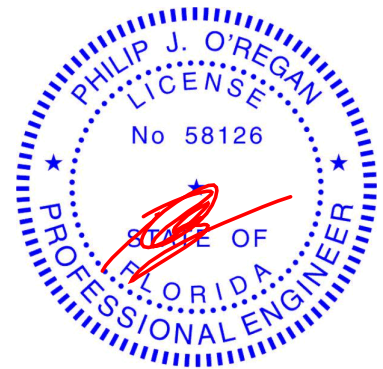
#### REACTIONS.

(size) 2=0-3-8, 5=Mechanical  
Max Horz 2=46(LC 12)  
Max Uplift 2=66(LC 8), 5=11(LC 12)  
Max Grav 2=184(LC 1), 5=46(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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 66 lb uplift at joint 2 and 11 lb uplift at joint 5.



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Date:

May 12, 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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss PB01	Truss Type Piggyback	Qty 27	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909414
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:44:58 2021 Page 1  
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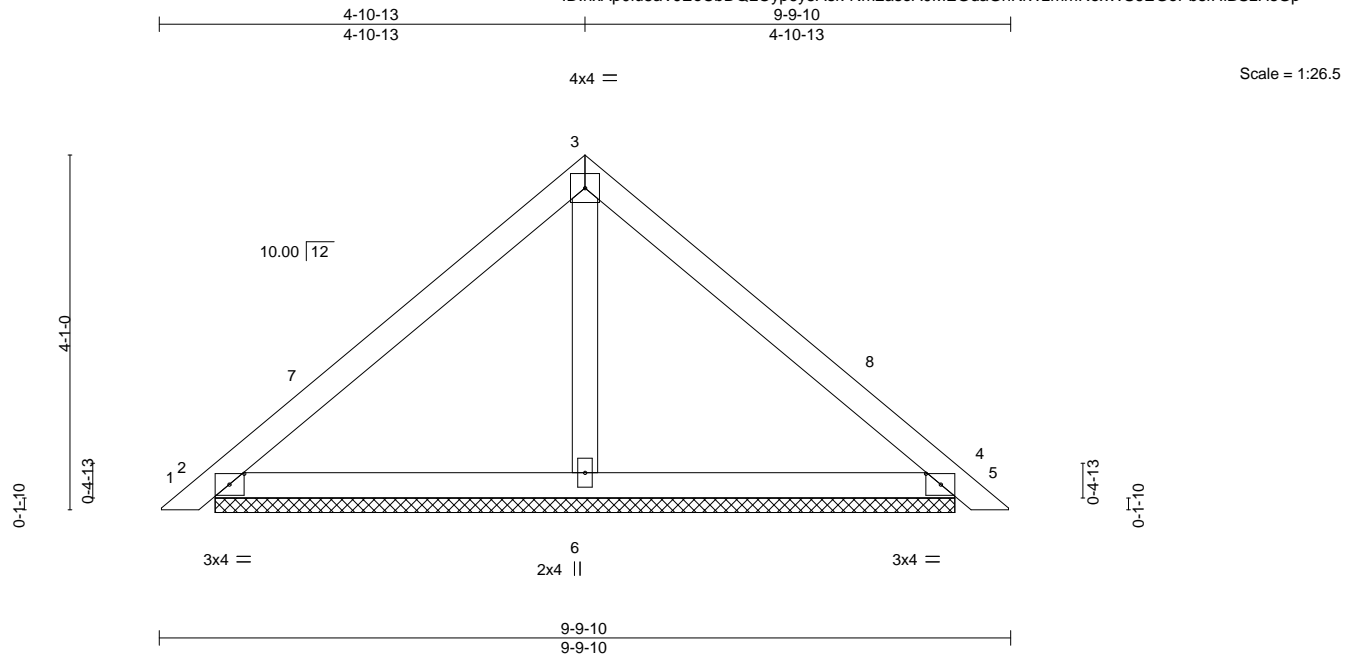


Plate Offsets (X,Y)--		[2:0-2-1,0-1-8], [4:0-2-1,0-1-8]										
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	0.01	5	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.18	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 36 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.

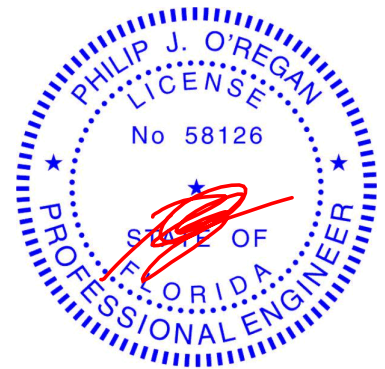
#### REACTIONS.

(size) 2=8-6-3, 4=8-6-3, 6=8-6-3  
Max Horz 2=-86(LC 10)  
Max Uplift 2=-47(LC 12), 4=-58(LC 13), 6=-39(LC 12)  
Max Grav 2=187(LC 1), 4=187(LC 1), 6=299(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-14 to 3-2-14, Interior(1) 3-2-14 to 4-10-13, Exterior(2R) 4-10-13 to 7-10-13, Interior(1) 7-10-13 to 9-6-11 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 47 lb uplift at joint 2, 58 lb uplift at joint 4 and 39 lb uplift at joint 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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Date:

May 12,2021

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

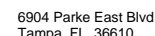
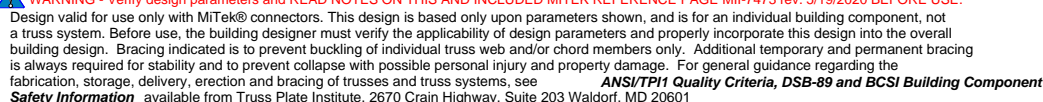
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:00 2021 Page 1  
ID: nxAp0lu8aVJEoCbDQLOvp6v5Ask-J99KHKCHusWLgaxitx?ErstKLFq0kYuuJzmsFKzHsG





Job 2719013	Truss PB02	Truss Type Piggyback	Qty 21	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909416
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:01 2021 Page 1  
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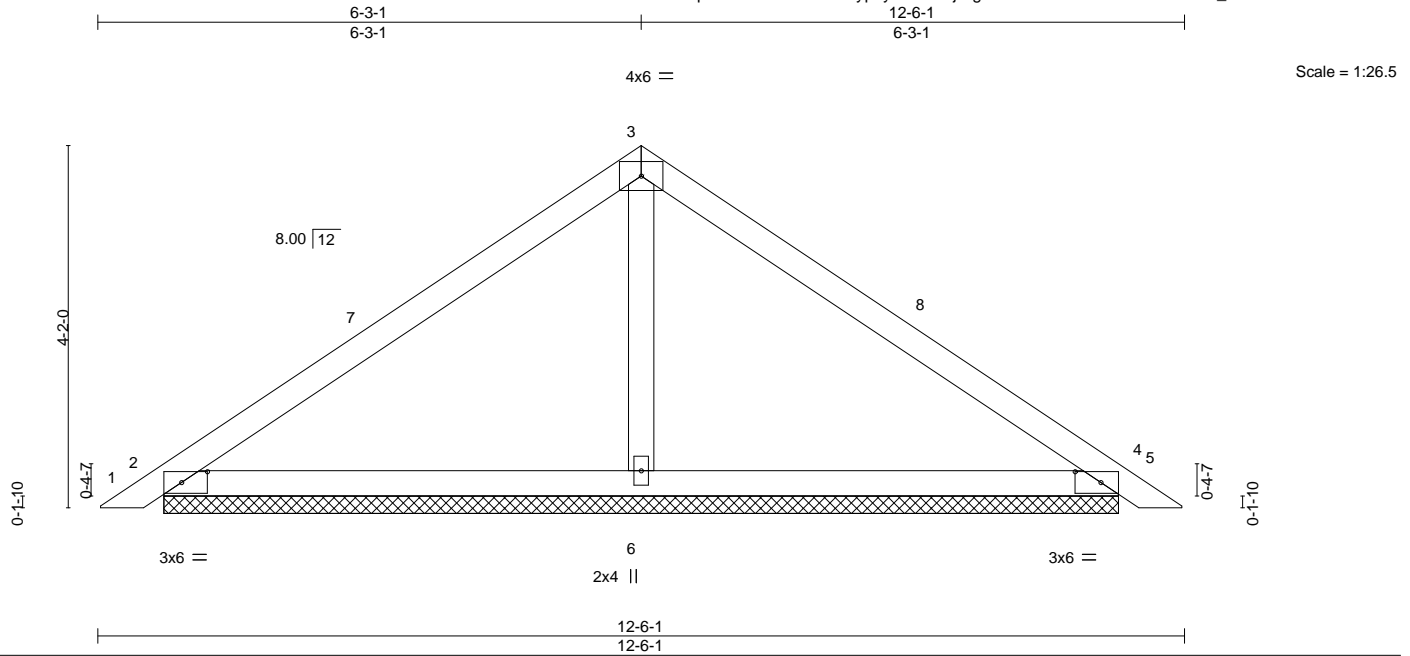


Plate Offsets (X,Y)--		[2:0-3-9,0-1-8], [4:0-3-9,0-1-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0		Plate Grip DOL 1.25		TC 0.36		Vert(LL) 0.01	5	n/r	120	MT20	244/190
TCDL 7.0		Lumber DOL 1.25		BC 0.29		Vert(CT) 0.02	5	n/r	120		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.07		Horz(CT) 0.00	4	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014		Matrix-S						Weight: 44 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.

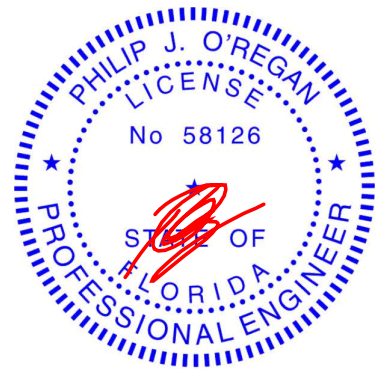
#### REACTIONS.

(size) 2=10-11-14, 4=10-11-14, 6=10-11-14  
Max Horz 2=-88(LC 10)  
Max Uplift 2=-63(LC 12), 4=-74(LC 13), 6=-56(LC 12)  
Max Grav 2=225(LC 1), 4=225(LC 1), 6=414(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Interior(1) 3-3-5 to 6-3-1, Exterior(2R) 6-3-1 to 9-3-1, Interior(1) 9-3-1 to 12-2-12 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, 4, 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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Date:

May 12,2021

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

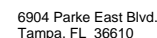
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:03 2021 Page 1  
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Job 2719013	Truss PBG01	Truss Type GABLE	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909418
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:04 2021 Page 1  
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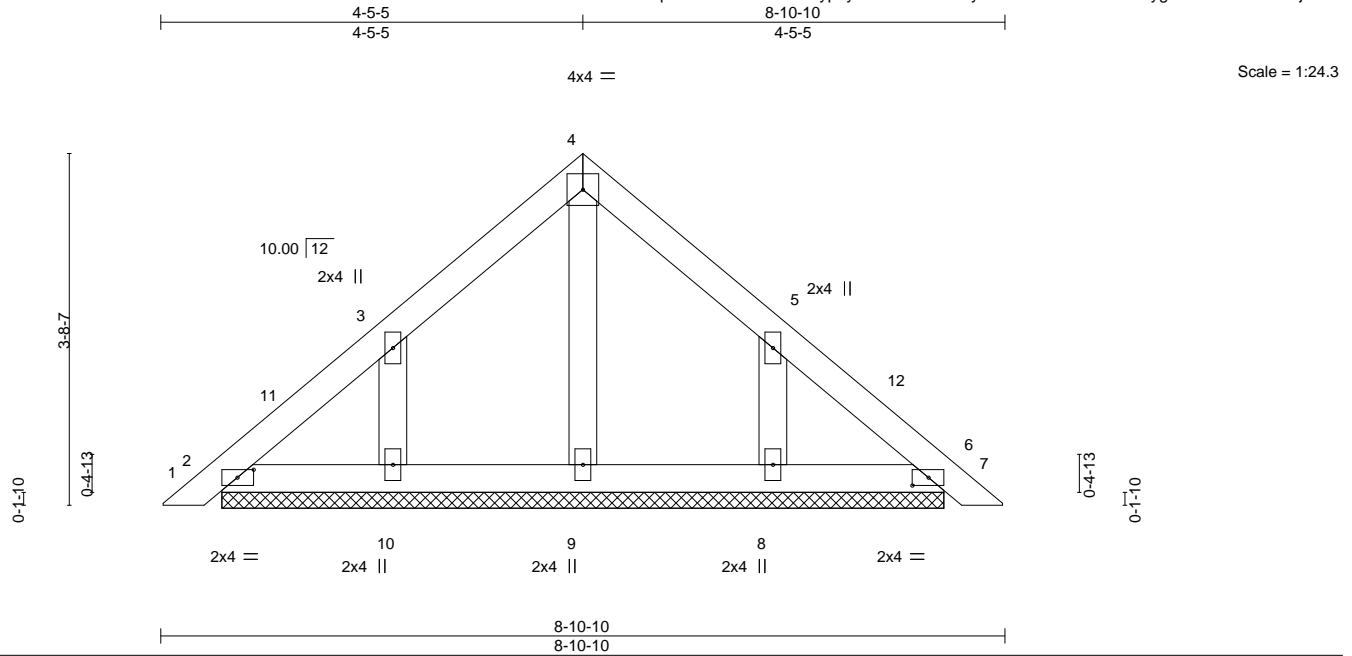


Plate Offsets (X,Y)--		[2:0-2-1,0-1-0], [6:0-2-1,0-1-0]			
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.05	Vert(LL) 0.00 6 n/r 120	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.03	Vert(CT) 0.00 6 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S		Weight: 37 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.

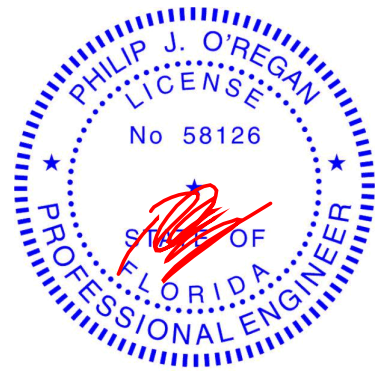
#### REACTIONS.

All bearings 7-7-3.  
(lb) - Max Horz 2=77(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-14 to 3-2-14, Interior(1) 3-2-14 to 4-5-5, Exterior(2R) 4-5-5 to 7-5-5, Interior(1) 7-5-5 to 8-7-12 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.
- 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, 6, 10, 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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May 12, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 33610



Job 2719013	Truss T01	Truss Type Attic	Qty 6	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909419
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:07 2021 Page 1  
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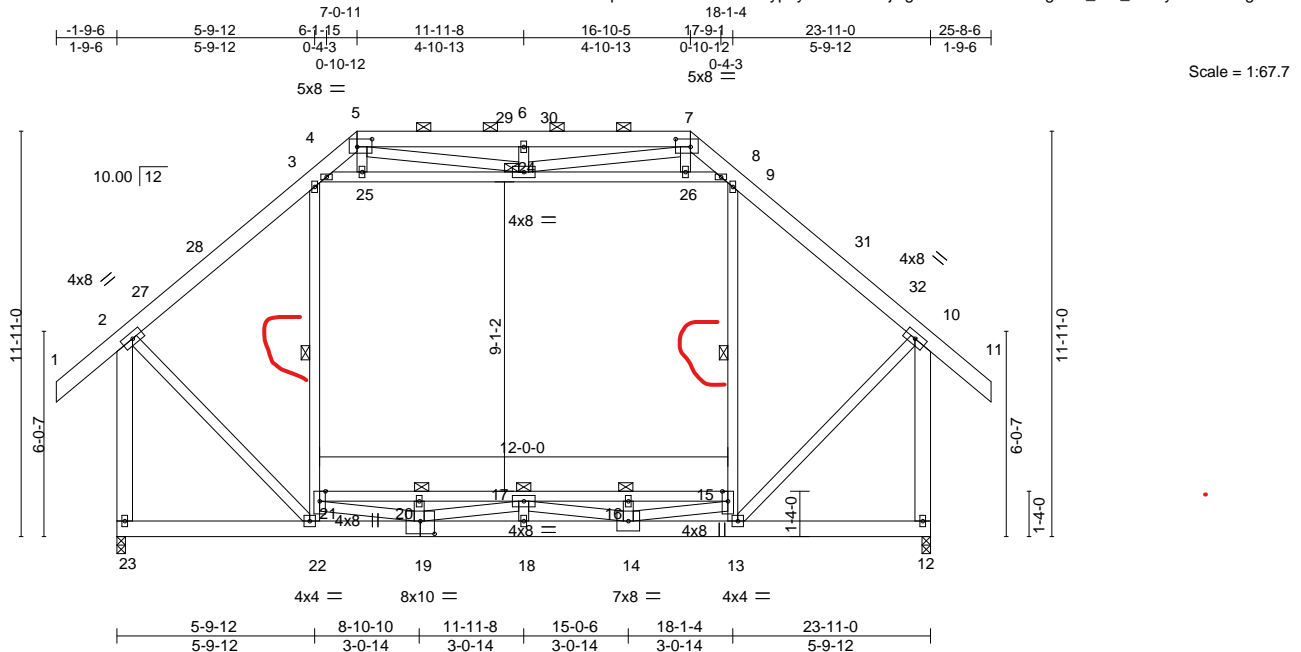


Plate Offsets (X,Y)-- [5:0-5-4,0-2-12], [7:0-5-4,0-2-12], [19:0-5-0,0-4-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.43	Vert(LL)	0.14 22 >999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.90	Vert(CT)	-0.19 17 >999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.02 12 n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS		Attic	-0.09 15-21 1677	360	Weight: 283 lb	FT = 20%

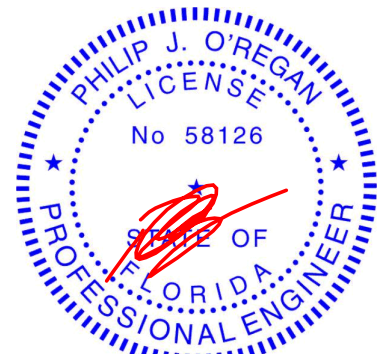
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x6 SP No.2 *Except* 15-21: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 4-0-0 oc bracing: 15-21
WEBS 2x4 SP No.3 *Except* 2-23,10-12: 2x6 SP No.2	WEBS 1 Row at midpt 3-21, 9-15
	JOINTS 1 Brace at Jt(s): 24

**REACTIONS.** (size) 23=0-3-0, 12=0-3-0  
Max Horz 23=347(LC 11)  
Max Grav 23=1595(LC 2), 12=1594(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1044/16, 3-4=-784/110, 4-5=-617/231, 5-6=-1076/377, 6-7=-1076/377, 7-8=-617/230, 8-9=-783/111, 9-10=-1044/16, 2-23=-1580/37, 10-12=-1580/37  
BOT CHORD 22-23=-337/306, 19-22=-109/883, 18-19=0/2971, 14-18=0/2971, 13-14=0/778, 20-21=-1599/0, 17-20=-1586/0, 16-17=-1583/0, 15-16=-1583/0  
WEBS 21-22=-506/0, 3-21=-149/363, 13-15=-506/0, 9-15=-149/363, 4-25=-588/131, 24-25=-575/133, 24-26=-575/133, 8-26=-588/131, 2-22=-28/1119, 10-13=-29/1120, 5-24=-443/711, 7-24=-443/711, 19-20=-397/0, 19-21=0/1668, 17-19=-812/93, 14-16=-397/0, 14-17=-796/70, 14-15=0/1653

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-9-6 to 1-2-10, Interior(1) 1-2-10 to 7-0-11, Exterior(2R) 7-0-11 to 11-3-10, Interior(1) 11-3-10 to 16-10-5, Exterior(2R) 16-10-5 to 21-1-3, Interior(1) 21-1-3 to 25-8-6 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 8-9, 4-25, 24-25, 24-26, 8-26; Wall dead load (5.0psf) on member(s).3-21, 9-15
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-21, 17-20, 16-17, 15-16
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



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May 12,2021

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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



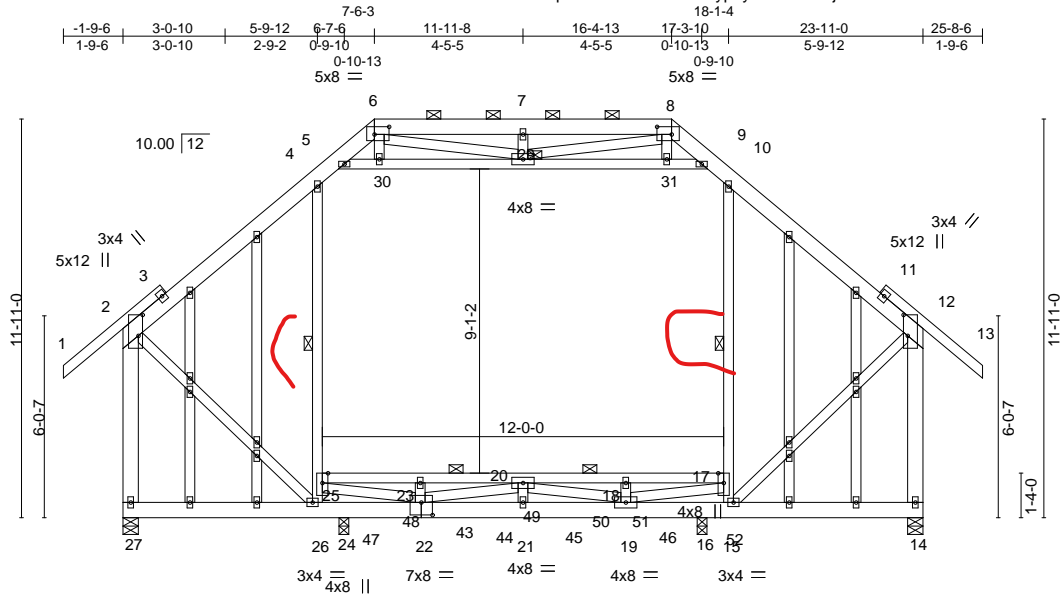
6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T01G	Truss Type GABLE	Qty 1	Ply 1	IC CONST - SANTIAGO RES. T23909420
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed May 12 15:27:40 2021 Page 1

ID:nxAp0lu8aVJEoCbDQL0yp6y5Ask-C&J4jaMmzn1ULcw5DFYAEvZcZaQJvy6afLV9OWzHDDH



Scale = 1:68.9

Plate Offsets (X,Y)--	[2:0-7-8,0-1-8], [6:0-5-4,0-2-12], [8:0-5-4,0-2-12], [12:0-7-8,0-1-8], [22:0-4-0,0-4-8]

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 0.26	Vert(LL)	-0.06	20	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.75	Vert(CT)	-0.11	20	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.47	Horz(CT)	0.01	14	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS	Attic	-0.06	17-25	2394	360	
									Weight: 320 lb FT = 20%

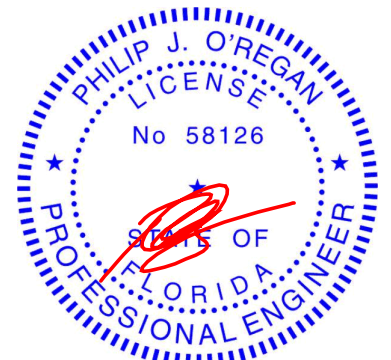
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 1-3,11-13: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD 2x6 SP No.2 *Except* 17-25: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 5-5-0 oc bracing: 17-25
WEBS 2x4 SP No.3 *Except* 2-27,12-14: 2x6 SP No.2	WEBS 1 Row at midpt 4-25, 10-17
OTHERS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 29

**REACTIONS.** All bearings 0-5-8 except (jt=length) 24=0-3-8, 16=0-3-8.  
(lb) - Max Horz 27=-341(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 24, 16 except 27=-132(LC 4),  
14=-106(LC 5)  
Max Grav All reactions 250 lb or less at joint(s) except 27=679(LC 1), 14=679(LC 1),  
24=1176(LC 16), 16=1155(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-340/97, 4-5=-408/138, 5-6=-542/145, 6-7=-1029/317, 7-8=-1029/317, 8-9=-542/143,  
9-10=-408/136, 11-12=-340/78, 2-27=-614/156, 12-14=-614/130  
BOT CHORD 26-27=-314/288, 24-26=-145/300, 24-43=-145/300, 22-43=-145/300, 22-44=0/1915,  
21-44=0/1915, 21-45=0/1915, 19-45=0/1915, 19-46=-121/289, 16-46=-121/289,  
15-16=-121/289, 25-47=-1014/0, 47-48=-1014/0, 23-48=-1014/0, 23-49=-1001/0,  
20-49=-1001/0, 20-50=-998/0, 18-50=-998/0, 18-51=-998/0, 51-52=-998/0, 17-52=-998/0  
WEBS 25-26=-810/5, 4-25=-483/160, 15-17=-808/6, 10-17=-484/160, 2-26=-176/281,  
12-15=-156/281, 6-29=-203/643, 8-29=-207/643, 20-21=6/272, 22-23=-414/0,  
22-25=-16/981, 20-22=-919/0, 18-19=-414/0, 19-20=-921/0, 17-19=0/965

- NOTES-**
- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left and right exposed; 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-30, 29-30, 29-31, 9-31; Wall dead load (5.0psf) on member(s). 4-25, 10-17

Continued on page 2



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Date:

May 12,2021

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6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	IC CONST - SANTIAGO RES.	T23909420
2719013	T01G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed May 12 15:27:41 2021 Page 2  
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#### NOTES-

- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 23-25, 20-23, 18-20, 17-18
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 16 except (jt=lb) 27=132, 14=106.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 26 lb down and 21 lb up at 6-6-4, 26 lb down and 21 lb up at 8-6-4, 26 lb down and 21 lb up at 10-6-4, 26 lb down and 21 lb up at 11-11-8, 26 lb down and 21 lb up at 13-4-12, and 26 lb down and 21 lb up at 15-4-12, and 26 lb down and 21 lb up at 17-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 15) Attic room checked for L/360 deflection.
- 16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

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

##### Uniform Loads (plf)

Vert: 1-2=-54, 2-4=-54, 4-5=-64, 5-6=-54, 6-8=-54, 8-9=-54, 9-10=-64, 10-12=-54, 12-13=-54, 14-27=-20, 17-25=-40, 5-9=-10

Drag: 4-25=-10, 10-17=-10

##### Concentrated Loads (lb)

Vert: 21=-13(F) 24=-13(F) 16=-13(F) 43=-13(F) 44=-13(F) 45=-13(F) 46=-13(F)

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T02	Truss Type Attic	Qty 5	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909421
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:18 2021 Page 1  
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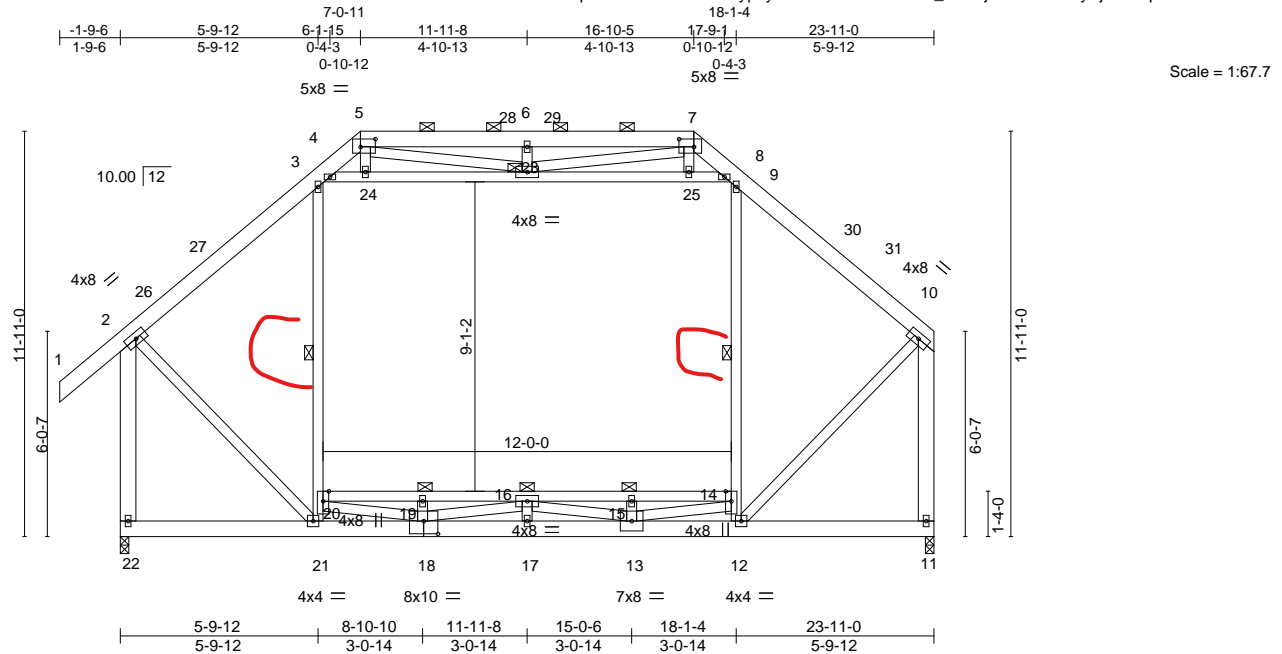


Plate Offsets (X,Y)-- [5:0-5-4,0-2-12], [7:0-5-4,0-2-12], [18:0-5-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.43	Vert(LL) -0.13	21	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.90	Vert(CT) -0.19	16	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT) 0.02	11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Attic -0.09	14-20	1677	360	Weight: 277 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\*  
14-20: 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
2-22,10-11: 2x6 SP No.2

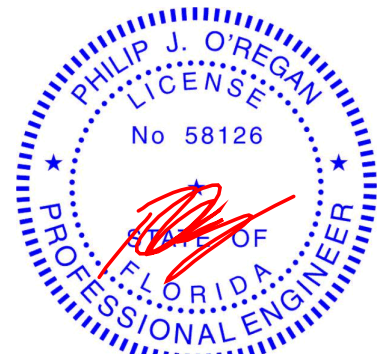
REACTIONS. (size) 22=0-3-0, 11=0-3-0  
Max Horz 22=276(LC 10)  
Max Grav 22=1598(LC 2), 11=1502(LC 2)

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

TOP CHORD 2-3=-1048/16, 3-4=-788/87, 4-5=-615/226, 5-6=-1073/381, 6-7=-1073/381,  
7-8=-607/200, 8-9=-787/114, 9-10=-1042/5, 2-22=-1587/0, 10-11=-1484/0  
BOT CHORD 18-21=-47/833, 17-18=0/2973, 13-17=0/2973, 12-13=0/789, 19-20=-1595/0,  
16-19=-1582/0, 15-16=-1588/0, 14-15=-1588/0  
WEBS 20-21=-505/1, 3-20=-148/363, 12-14=-520/21, 9-14=-160/360, 4-24=-570/137,  
23-24=-557/138, 23-25=-573/157, 8-25=-586/156, 2-21=0/1104, 10-12=0/1080,  
18-19=-397/0, 13-15=-397/0, 18-20=0/1665, 16-18=-792/53, 13-16=-773/62,  
13-14=0/1656, 5-23=-409/708, 7-23=-426/709

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-9-6 to 1-2-10, Interior(1) 1-2-10 to 7-0-11, Exterior(2R) 7-0-11 to 11-3-10, Interior(1) 11-3-10 to 16-10-5, Exterior(2R) 16-10-5 to 21-1-3, Interior(1) 21-1-3 to 23-8-4 zone; end vertical left exposed;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.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 8-9, 4-24, 23-24, 23-25, 8-25; Wall dead load (5.0psf) on member(s).3-20, 9-14
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 19-20, 16-19, 15-16, 14-15
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



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Date:

May 12,2021

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6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T03	Truss Type Attic Girder	Qty 1	Ply 3	IC CONST - SANTIAGO RES. T23909422
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Builders FirstSource, Lake City, FL 32055

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed May 12 15:30:19 2021 Page 1  
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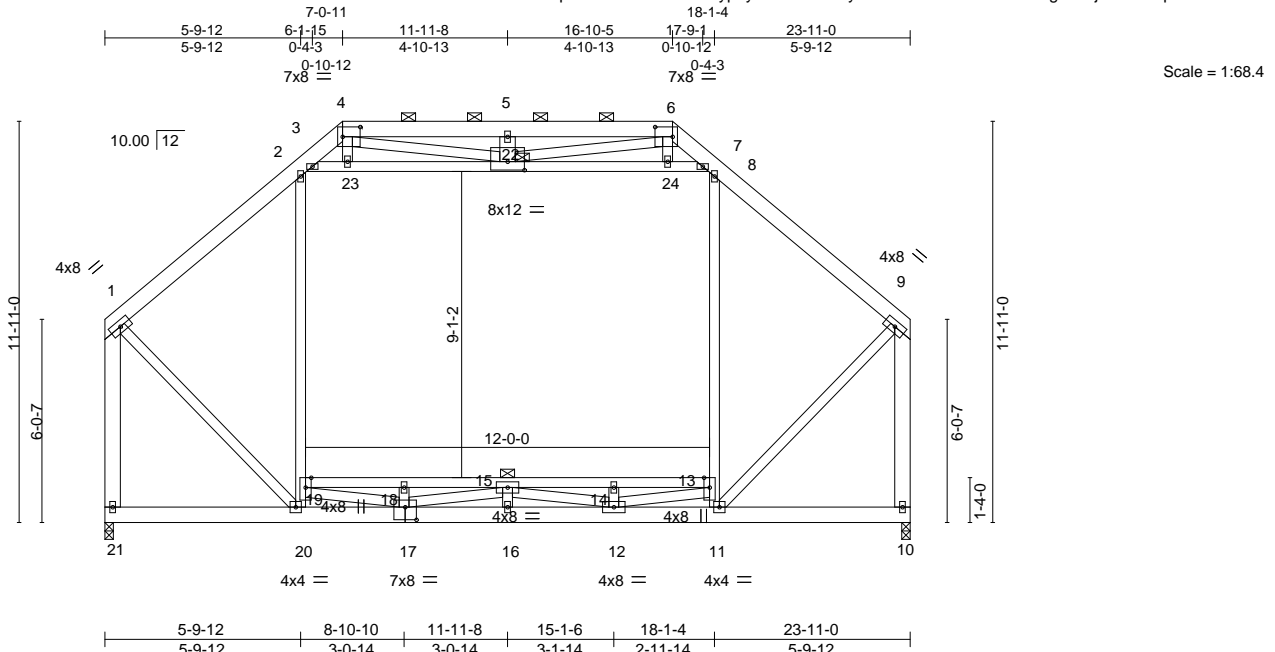


Plate Offsets (X,Y)-- [4:0-6-4,0-3-8], [6:0-6-4,0-3-8], [17:0-4-0,0-4-8], [22:0-6-0,0-3-0]

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 1.00	Vert(LL)	-0.04 14-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.35	Vert(CT)	-0.07 14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.84	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS	Attic	-0.03 13-19	4851	360	Weight: 817 lb	FT = 20%

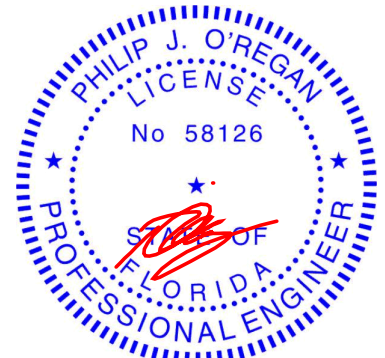
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-10-13 max.): 4-6.
BOT CHORD 2x6 SP No.2 *Except* 13-19: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 13-19
WEBS 2x4 SP No.3 *Except* 3-7,4-22,6-22: 2x4 SP No.2, 1-21,9-10,5-22: 2x6 SP No.2	JOINTS 1 Brace at Jt(s): 22

**REACTIONS.** (lb/size) 21=3718/0-3-0, 10=3718/0-3-0  
Max Horz 21=-263(LC 6)  
Max Uplift 21=-661(LC 8), 10=-664(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2590/519, 2-3=-3341/868, 3-4=-4691/1426, 4-5=-14428/4341, 5-6=-14428/4341, 6-7=-4691/1417, 7-8=-3340/868, 8-9=-2590/487, 1-21=-3690/656, 9-10=-3690/658  
BOT CHORD 17-20=-514/2230, 16-17=-10/4000, 12-16=-10/4000, 11-12=-392/2230, 18-19=-1670/0, 15-18=-1657/0, 14-15=-1630/0, 13-14=-1630/0  
WEBS 19-20=-1875/454, 2-19=-1593/684, 11-13=-1876/448, 8-13=-1594/650, 3-23=-948/1580, 22-23=-952/1637, 22-24=-993/1637, 7-24=-989/1580, 1-20=-605/2854, 9-11=-585/2854, 5-22=-3918/1214, 4-23=-114/482, 6-24=-114/482, 4-22=-3503/11114, 6-22=-3502/11114, 17-18=-399/0, 12-14=-401/0, 17-19=0/1640, 15-17=-788/39, 12-15=-820/30, 12-13=0/1605

#### NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left 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.
- 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.
- Ceiling dead load (5.0 psf) on member(s). 2-3, 7-8, 3-23, 22-23, 22-24, 7-24; Wall dead load (5.0psf) on member(s).2-19, 8-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 18-19, 15-18, 14-15, 13-14



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

May 12,2021

Continued on page 2

**WARNING - 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 20601



6904 Parke East Blvd.  
Tampa, FL 36610



Job	Truss	Truss Type	Qty	Ply	IC CONST - SANTIAGO RES.	T23909422
2719013	T03	Attic Girder	1	3	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed May 12 15:30:19 2021 Page 2  
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#### NOTES-

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=661, 10=664.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4909 lb down and 1483 lb up at 11-11-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 15) Attic room checked for L/360 deflection.

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-54, 2-3=-64, 3-4=-54, 4-6=-54, 6-7=-54, 7-8=-64, 8-9=-54, 10-21=-20, 13-19=-40, 3-7=-10

Drag: 2-19=-10, 8-13=-10

Concentrated Loads (lb)

Vert: 5=-4909

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T04	Truss Type Piggyback Base	Qty 4	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909423
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:23 2021 Page 1  
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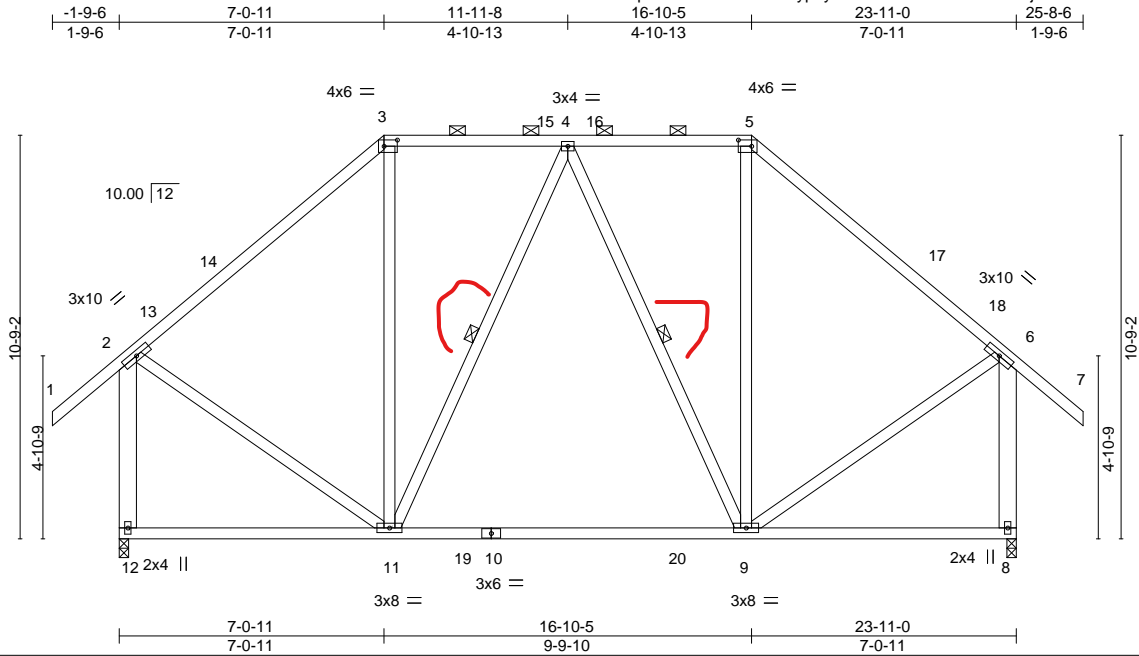


Plate Offsets (X,Y)-- [3:0-4-4,0-2-0], [5:0-4-4,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.49	Vert(LL) -0.33	9-11	>859	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.90	Vert(CT) -0.48	9-11	>591	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 194 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
2-12,6-8: 2x6 SP No.2

#### BRACING-

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

#### REACTIONS.

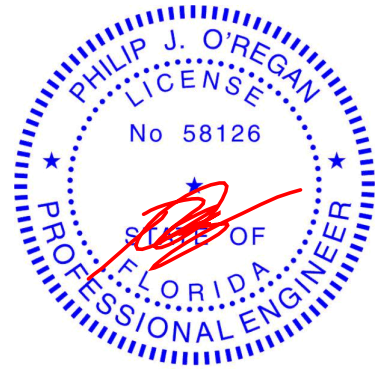
(size) 12=0-3-0, 8=0-3-0  
Max Horz 12=316(LC 11)  
Max Uplift 12=-217(LC 12), 8=-217(LC 13)  
Max Grav 12=1058(LC 2), 8=1058(LC 2)

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

TOP CHORD 2-3=-743/195, 3-4=-488/217, 4-5=-488/217, 5-6=-743/195, 2-12=-973/251, 6-8=-973/251  
BOT CHORD 11-12=-288/288, 9-11=-193/555  
WEBS 2-11=-125/551, 6-9=-126/551

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-9-6 to 1-2-10, Interior(1) 1-2-10 to 7-0-11, Exterior(2R) 7-0-11 to 11-3-10, Interior(1) 11-3-10 to 16-10-5, Exterior(2R) 16-10-5 to 21-1-3, Interior(1) 21-1-3 to 25-8-6 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 12=217, 8=217.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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May 12,2021

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T04G	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909424
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:28 2021 Page 1  
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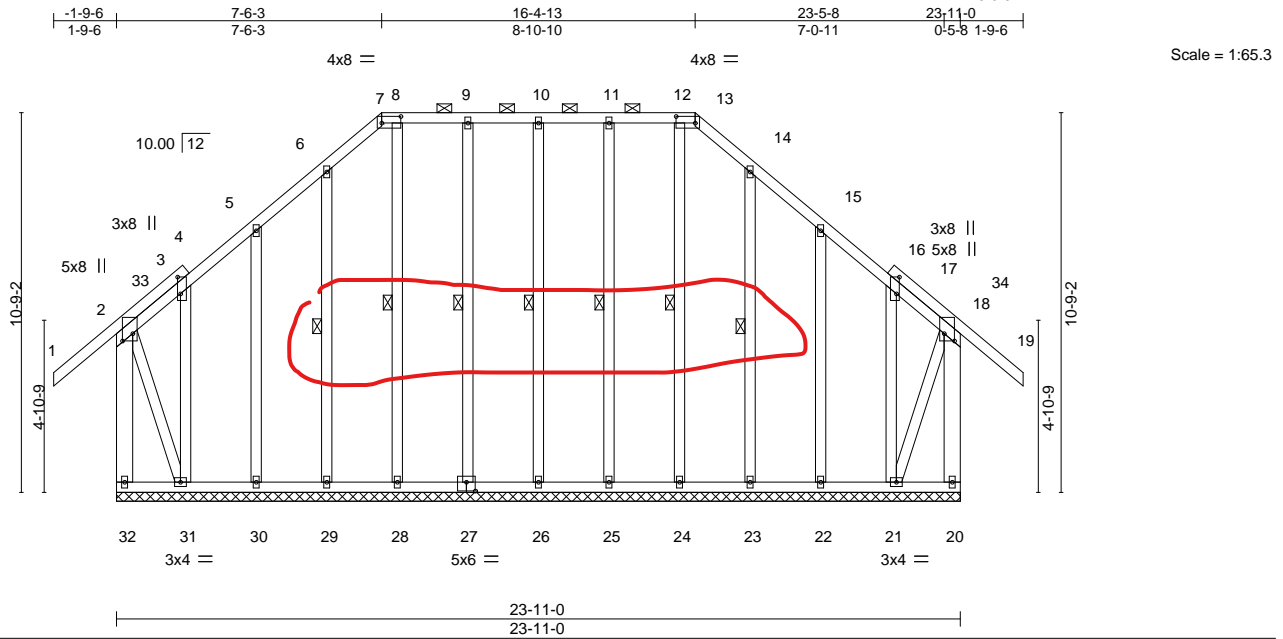


Plate Offsets (X,Y)-- [2:0-2-8,0-3-8], [3:0-5-11,0-1-0], [7:0-6-8,0-2-4], [13:0-6-8,0-2-4], [17:0-5-11,0-1-0], [18:0-2-8,0-3-8], [27:0-3-0,0-3-0]

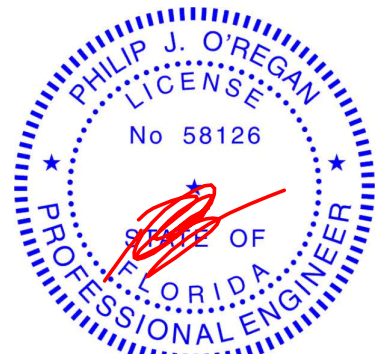
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.26	Vert(LL) -0.02	19	n/r	120		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.07	Vert(CT) -0.03	19	n/r	120			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.17	Horz(CT) -0.01	20	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S						Weight: 267 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-13.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x6 SP No.2 *Except*	WEBS 1 Row at midpt
2-31,18-21: 2x4 SP No.3	10-26, 9-27, 8-28, 6-29, 11-25, 12-24, 14-23
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 23-11-0.  
(lb) - Max Horz 32=310(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 26, 27, 28, 29, 30, 25, 23, 22 except 32=317(LC 8),  
20=234(LC 9), 31=376(LC 9), 21=312(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 26, 27, 28, 29, 30, 25, 24, 23, 22 except 32=403(LC 20),  
20=335(LC 19), 31=442(LC 10), 21=373(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-32=-382/311, 18-20=-316/229  
BOT CHORD 31-32=-286/253  
WEBS 2-31=-381/377, 18-21=-309/310

- NOTES-**
- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) 1-9-6 to 1-2-10, Exterior(2N) 1-2-10 to 7-6-3, Corner(3R) 7-6-3 to 10-6-3, Exterior(2N) 10-6-3 to 16-4-13, Corner(3R) 16-4-13 to 19-4-13, Exterior(2N) 19-4-13 to 25-8-6 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 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.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 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) 26, 27, 28, 29, 30, 25, 23, 22 except (jt=lb) 32=317, 20=234, 31=376, 21=312.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Date:

May 12,2021

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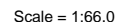
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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




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

TOP CHORD	2-3=-699/197, 3-4=-599/224, 4-5=-503/219, 5-6=-726/213, 6-7=-399/144, 2-16=-922/254, 7-9=-1066/251
BOT CHORD	15-16=-285/291, 12-13=-209/618, 11-12=-74/308, 10-11=-591/116, 6-11=-529/132
WEBS	13-15=-193/520, 3-13=-129/345, 4-12=-257/161, 6-12=-111/296, 2-15=-128/503, 7-10=-130/737

- NOTES-**
- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-9-6 to 1-2-10, Interior(1) 1-2-10 to 7-0-11, Exterior(2R) 7-0-11 to 11-3-10, Interior(1) 11-3-10 to 16-10-5, Exterior(2R) 16-10-5 to 21-1-3, Interior(1) 21-1-3 to 25-8-6 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) 16=218, 9=216.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
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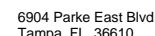


May 12, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH-7473 (REV. 3/19/2020) BEFORE USE.**

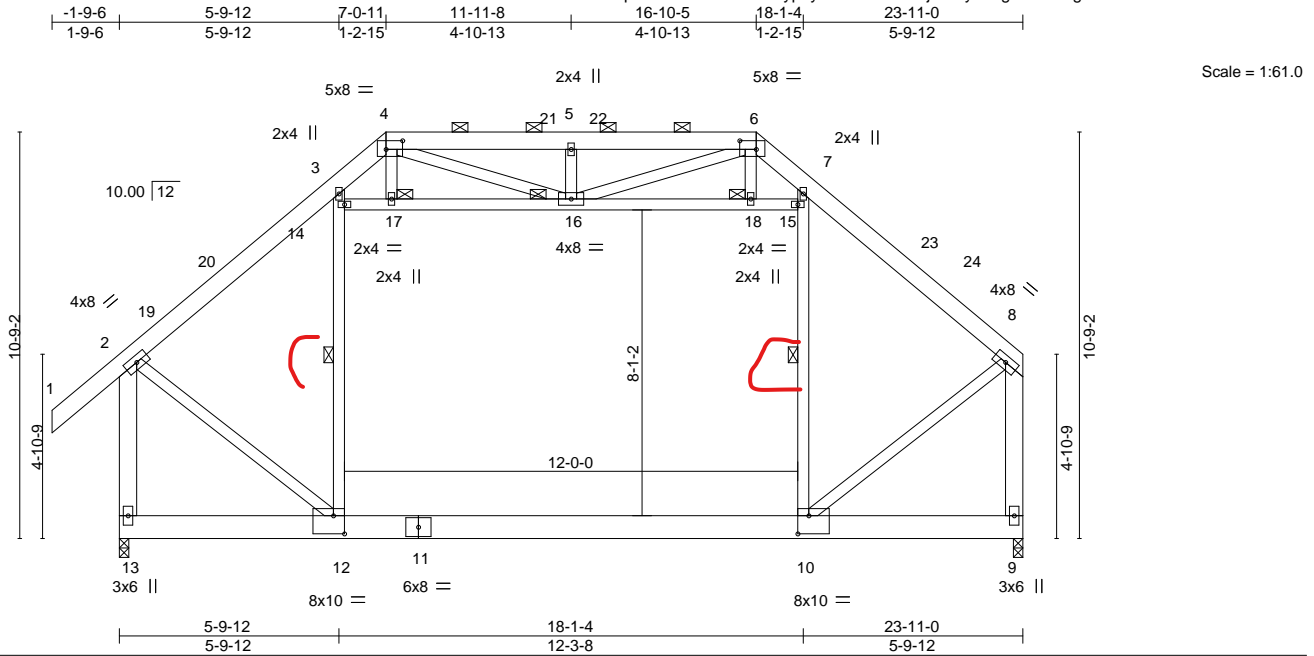
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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 2719013	Truss T06	Truss Type Attic	Qty 6	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909426
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:31 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLQyp6y5Ask-v6X2nxajbNQy2LogBx2VbOgZflJ4VO7SSIm?s1zHsGI



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.30	Vert(LL) -0.21	10-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.43	Vert(CT) -0.31	10-12	>895	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.78	Horz(CT) 0.01	9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Attic -0.18	10-12	833	360	Weight: 249 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\*  
2-13,8-9: 2x6 SP No.2

#### REACTIONS.

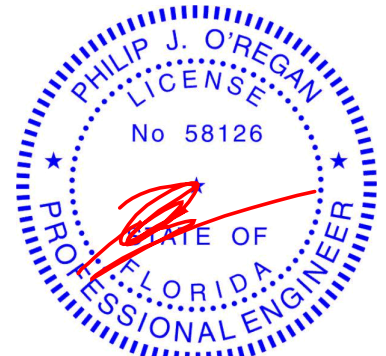
(size) 13=0-3-0, 9=0-3-0  
Max Horz 13=-246(LC 10)  
Max Uplift 13=-10(LC 12)  
Max Grav 13=1481(LC 2), 9=1385(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1184/15, 3-4=-772/110, 4-5=-905/206, 5-6=-905/206, 6-7=-775/113, 7-8=-1175/4,  
2-13=-1600/17, 8-9=-1494/0  
BOT CHORD 10-12=0/836  
WEBS 12-14=-112/495, 3-14=-59/438, 10-15=-125/487, 7-15=-75/429, 2-12=0/1072,  
8-10=0/1049, 4-16=-276/437, 6-16=-280/441

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-9-6 to 1-2-10, Interior(1) 1-2-10 to 7-0-11, Exterior(2R) 7-0-11 to 11-3-10, Interior(1) 11-3-10 to 16-10-5, Exterior(2R) 16-10-5 to 21-1-3, Interior(1) 21-1-3 to 23-8-4 zone; end vertical left exposed;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.
- Ceiling dead load (5.0 psf) on member(s). 14-17, 16-17, 16-18, 15-18; Wall dead load (5.0psf) on member(s).12-14, 10-15
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



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Date:

May 12,2021

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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

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

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



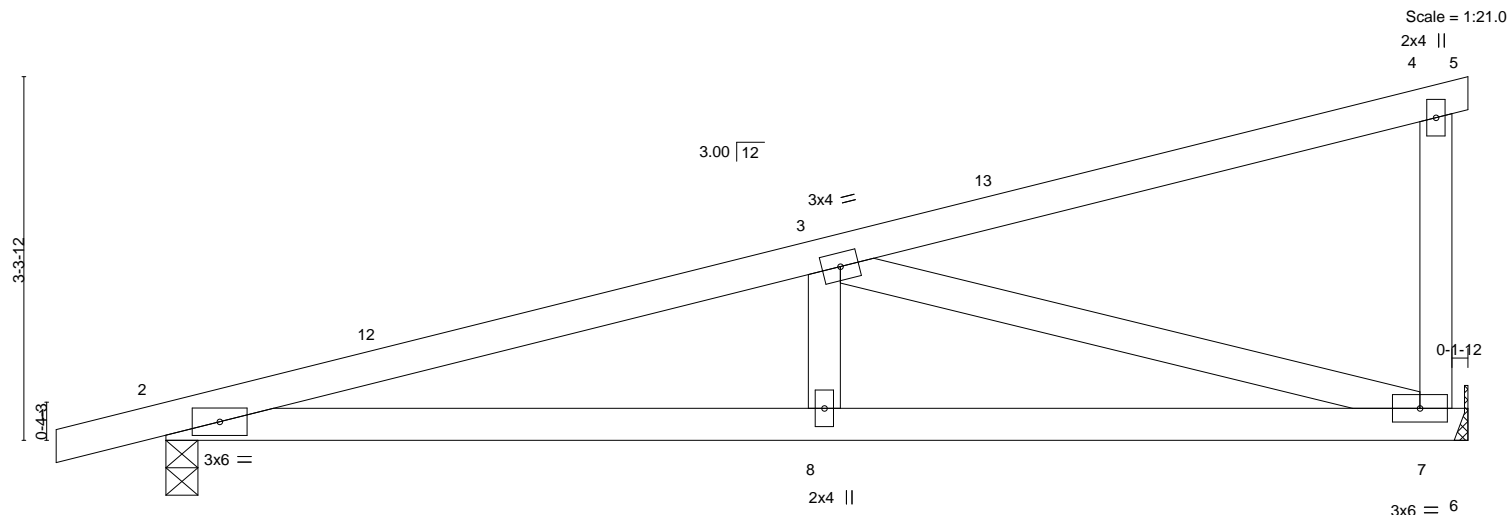
6904 Parke East Blvd.  
Tampa, FL 36610



Job 2719013	Truss T07	Truss Type Jack-Closed	Qty 5	Ply 1	IC CONST - SANTIAGO RES. T23909427
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:32 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-NJ5Q?GbLMhYpfVNsIfak8cCj29ffEulbgYWZOUzHsGH

-1-0-0 6-0-0 11-10-6  
1-0-0 6-0-0 5-10-6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	2-0-0	TC	0.32	in (loc)	l/defl	L/d	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.40	Vert(LL)	-0.05 8-11	>999			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Vert(CT)	-0.10 8-11	>999			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		Horz(CT)	0.02 7	n/a			
Weight: 51 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 5-7-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 9-7-12 oc bracing.

#### REACTIONS.

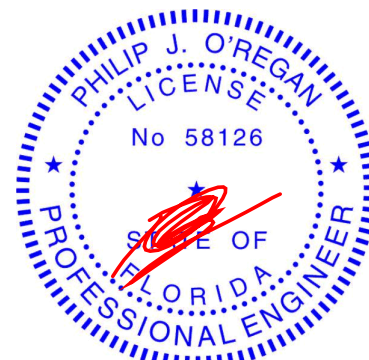
(size) 2=0-3-8, 7=Mechanical  
Max Horz 2=113(LC 8)  
Max Uplift 2=141(LC 8), 7=132(LC 8)  
Max Grav 2=484(LC 1), 7=436(LC 1)

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

TOP CHORD 2-3=-975/282  
BOT CHORD 2-8=-369/929, 7-8=-369/929  
WEBS 3-7=-924/358

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 11-10-6 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 100 lb uplift at joint(s) except (jt=lb) 2=141, 7=132.



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Date:

May 12,2021

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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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T07G	Truss Type GABLE	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909428
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:34 2021 Page 1  
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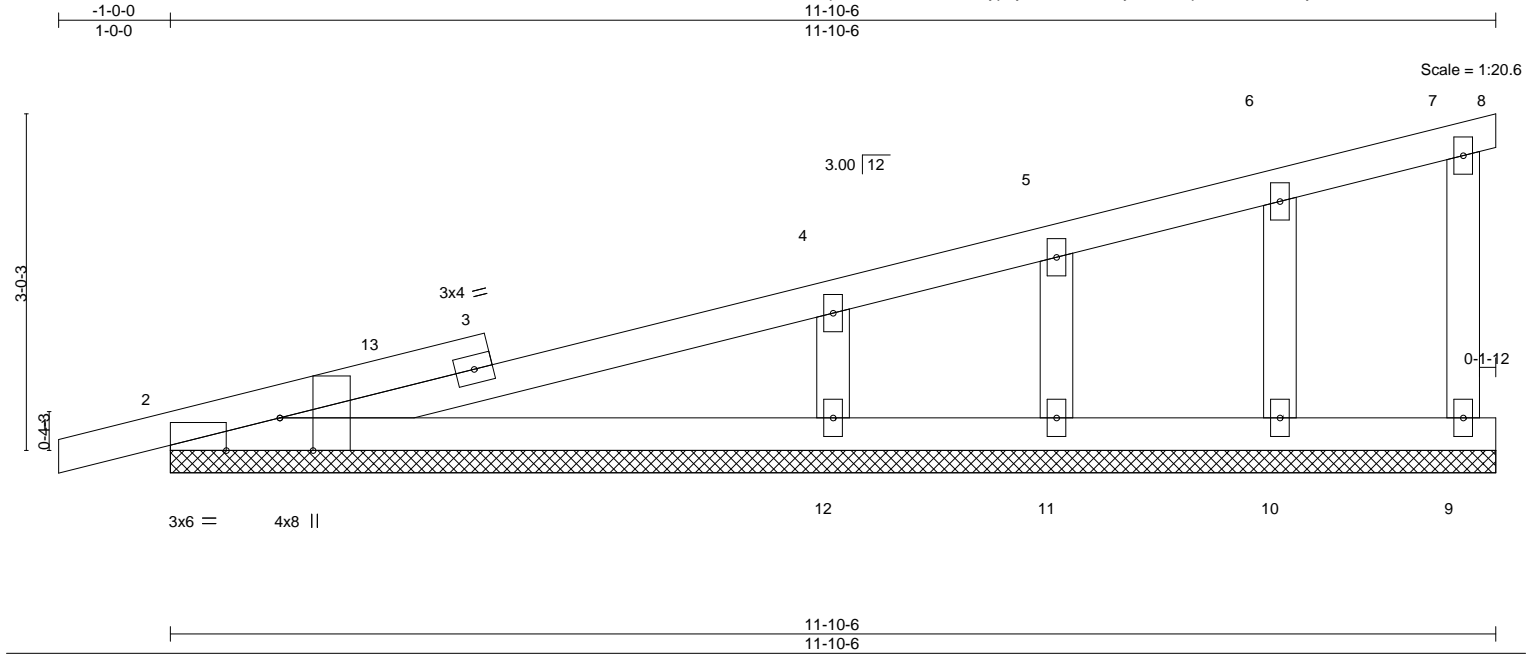


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [2:0-5-12,Edge]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 20.0	2-0-0	TC 0.37	in (loc) l/defl L/d
TCDL 7.0	Plate Grip DOL 1.25	BC 0.26	Vert(LL) -0.00 1 n/r 120
BCLL 0.0 *	Lumber DOL 1.25	WB 0.06	Vert(CT) 0.01 1 n/r 120
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.01 8 n/a n/a
	Code FBC2020/TPI2014		
			PLATES MT20 GRIP 244/190
			Weight: 50 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

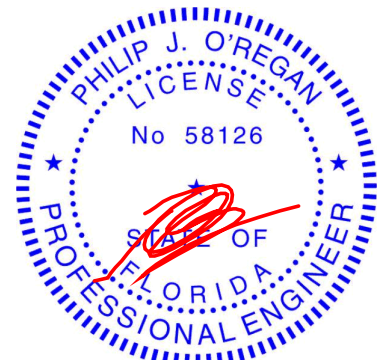
#### REACTIONS.

All bearings 11-10-6.  
(lb) - Max Horz 2=103(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 9, 11, 10 except 12=117(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 9, 11, 10 except 12=447(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 4-12=314/160

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 11-10-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 9, 11, 10 except (jt=lb) 12=117.



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Date:

May 12,2021

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T08G	Truss Type GABLE	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909429
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:35 2021 Page 1  
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-1-0-0  
1-0-0

4-6-0  
4-6-0

Scale = 1:10.4

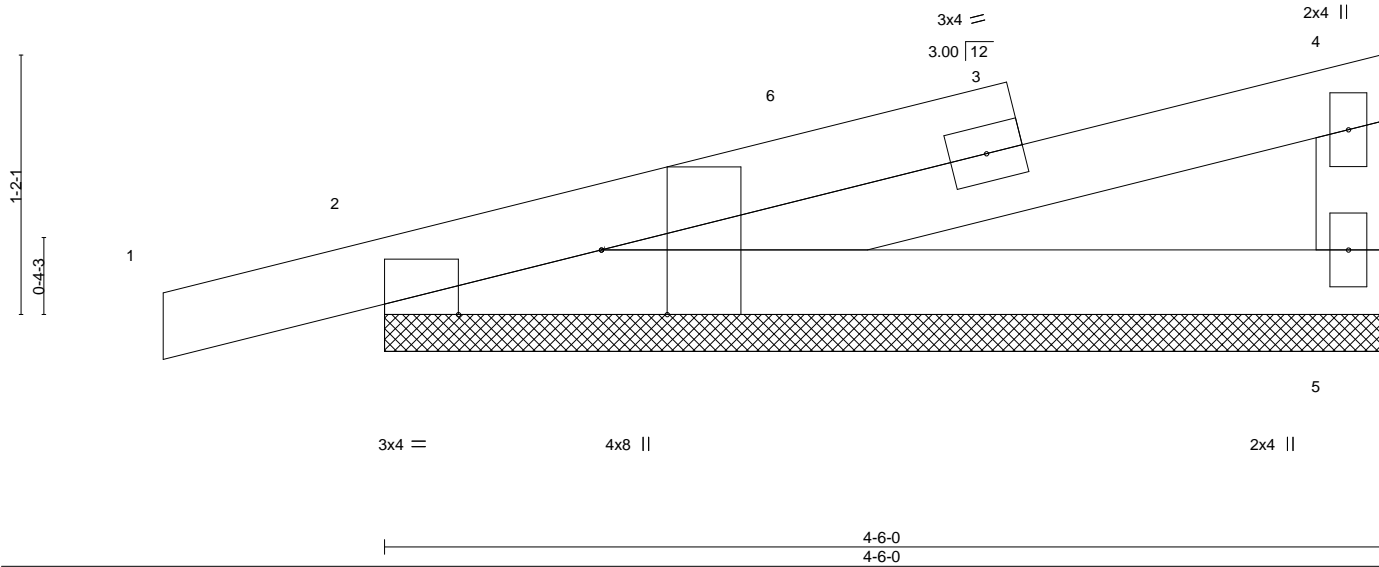


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [2:0-7-12,Edge]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		<b>CSI.</b>	
		TC 0.25	
		BC 0.23	
		WB 0.00	
		Matrix-P	
		<b>DEFL.</b>	
		Vert(LL)	-0.00 1 n/r 120
		Vert(CT)	0.00 1 n/r 120
		Horz(CT)	0.00 n/a n/a
		<b>PLATES</b>	MT20
		<b>GRIP</b>	244/190
		Weight: 19 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 4-6-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

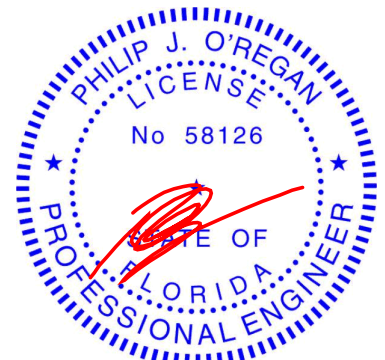
#### REACTIONS.

(size) 2=4-6-0, 5=4-6-0  
Max Horz 2=38(LC 8)  
Max Uplift 2=83(LC 8), 5=44(LC 12)  
Max Grav 2=221(LC 1), 5=155(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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.



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Date:

May 12,2021

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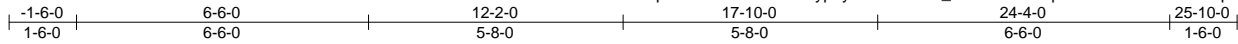
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T09	Truss Type Common	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909430
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:37 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-kGuJ2\_fUADA5mGGpYC9vrfwYHAIbVDPLqDDJ3hzHsGC



4x6 ||

Scale = 1:51.3

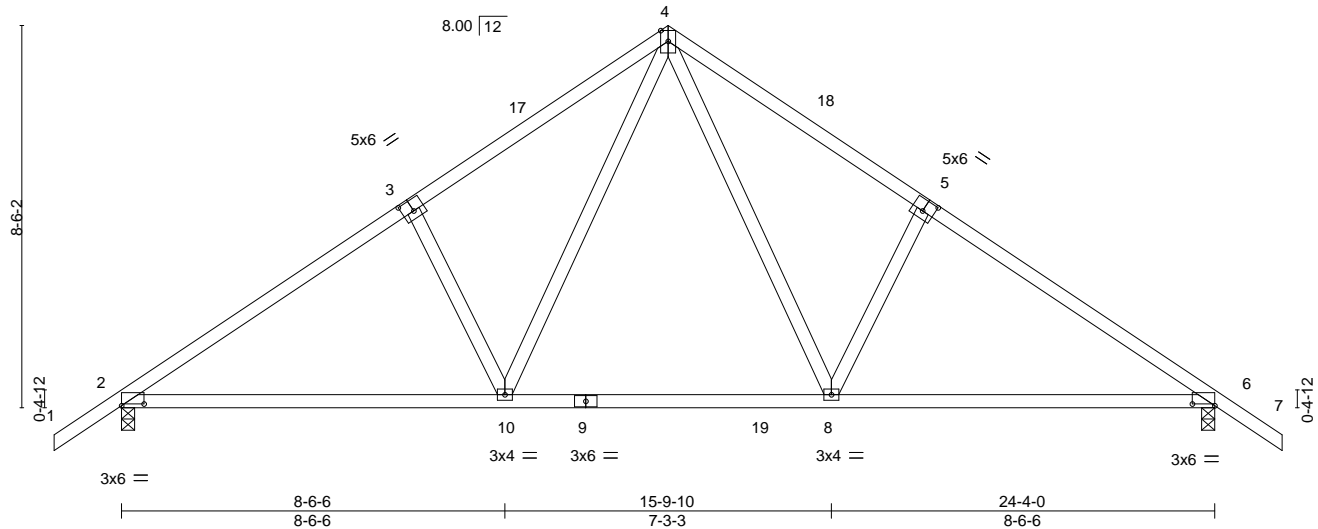


Plate Offsets (X,Y)-- [2:0-6-0,0-0-7], [3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-6-0,0-0-7]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	Vert(LL)	-0.12 10-13	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.70	Vert(CT)	-0.26 10-13	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.28	Horz(CT)	0.03 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 125 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 4-6-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

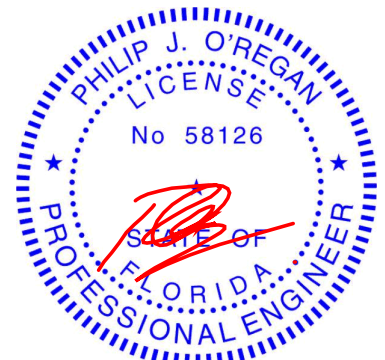
(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=201(LC 11)  
Max Uplift 2=210(LC 12), 6=210(LC 13)  
Max Grav 2=1105(LC 19), 6=1106(LC 20)

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

TOP CHORD 2-3=-1399/251, 3-4=-1313/308, 4-5=-1314/308, 5-6=-1400/251  
BOT CHORD 2-10=-229/1256, 8-10=-55/828, 6-8=-120/1136  
WEBS 4-8=-183/691, 5-8=-342/229, 4-10=-183/689, 3-10=-342/229

#### NOTES-

- 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=20ft; Cat. II; Exp B; 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 12-2-0, Exterior(2R) 12-2-0 to 15-2-0, Interior(1) 15-2-0 to 25-10-0 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, 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=210, 6=210.



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Date:

May 12,2021

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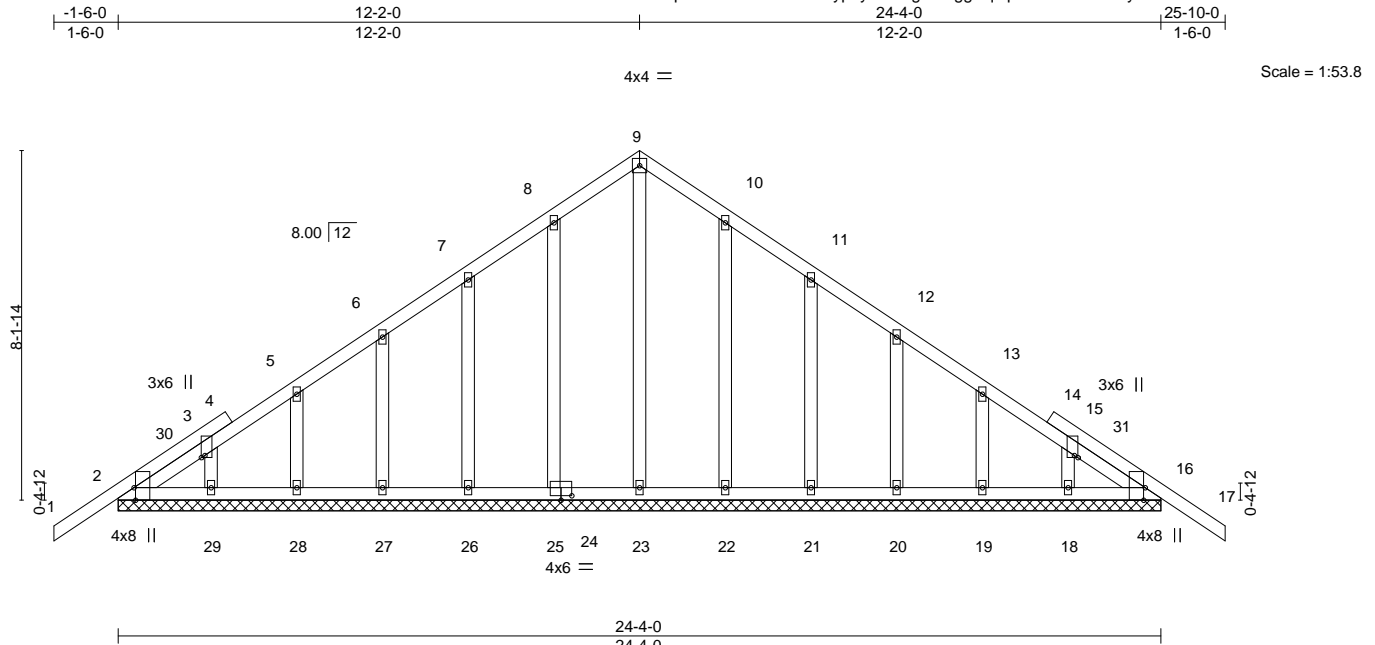
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T09G	Truss Type Common Supported Gable	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909431
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:39 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-gf04TggkqQp?aPCfdCNw4?yHz74N9ndHXiQ8azHsGA



24-4-0											
Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-0-9,0-1-0], [15:0-0-9,0-1-0], [16:0-3-8,Edge], [24:0-3-0,0-1-4]									
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	0.13	Vert(LL)	-0.01	17	n/r	120	MT20 244/190
TCDL	7.0	Lumber DOL 1.25		BC	0.03	Vert(CT)	-0.01	17	n/r	120	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.16	Horz(CT)	0.01	16	n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 158 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 24-4-0.

(lb) - Max Horz 2=-193(LC 10)

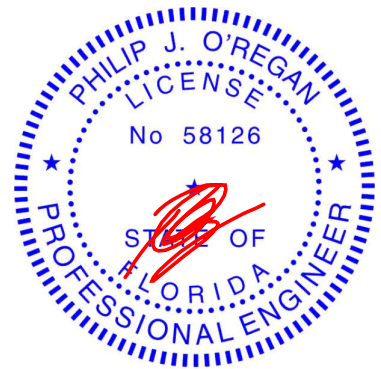
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18

Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18

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

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; 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 12-2-0, Corner(3R) 12-2-0 to 15-2-0, Exterior(2N) 15-2-0 to 25-10-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18.



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Date:

May 12,2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

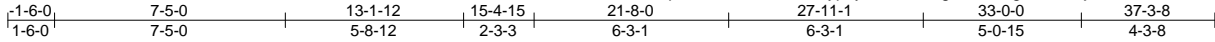


6904 Parke East Blvd.  
Tampa, FL 36610



Job 2719013	Truss T10	Truss Type Piggyback Base	Qty 5	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909432
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:40 2021 Page 1  
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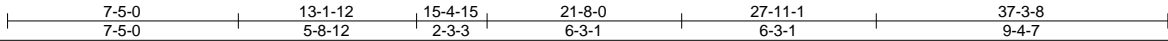
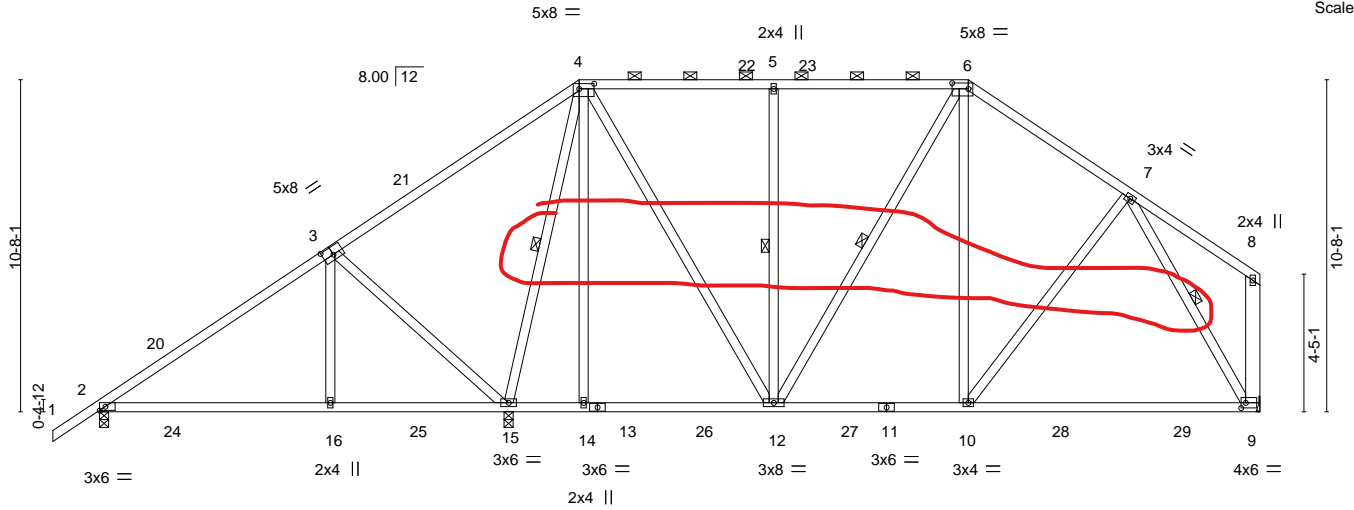


Plate Offsets (X,Y)-- [3:0-4-0,0-3-0], [4:0-5-12,0-2-0], [6:0-6-4,0-2-4], [9:0-1-12,0-2-0]

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 0.69	Vert(LL)	-0.31 9-10	>927	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.91	Vert(CT)	-0.50 9-10	>570	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.02 9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 268 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
8-9: 2x6 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-15, 5-12, 6-12, 7-9

#### REACTIONS.

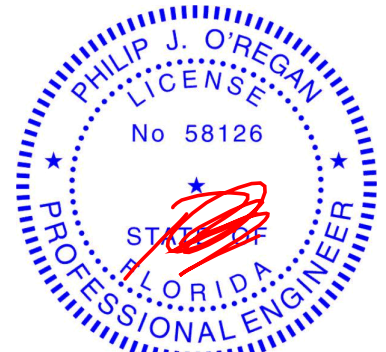
(size) 2=0-3-8, 15=0-3-8, 9=Mechanical  
Max Horz 2=292(LC 11)  
Max Uplift 2=-108(LC 12), 15=-364(LC 9), 9=-194(LC 13)  
Max Grav 2=569(LC 25), 15=1574(LC 2), 9=1031(LC 26)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-519/265, 4-5=-569/202, 5-6=-569/202, 6-7=-785/220  
BOT CHORD 2-16=-250/459, 15-16=-249/458, 10-12=-92/600, 9-10=-124/477  
WEBS 3-16=-244/298, 3-15=-598/412, 4-15=-1121/192, 4-14=0/254, 4-12=-170/681, 5-12=-387/196, 6-10=-31/304, 7-9=-858/202

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-12, Interior(1) 2-2-12 to 15-4-15, Exterior(2R) 15-4-15 to 20-8-4, Interior(1) 20-8-4 to 27-11-1, Exterior(2R) 27-11-1 to 33-1-1, Interior(1) 33-1-1 to 37-0-12 zone; end vertical right exposed; porch left exposed; 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=108, 15=364, 9=194.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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May 12,2021

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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 36610



Job 2719013	Truss T11	Truss Type Piggyback Base	Qty 2	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909434
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:46 2021 Page 1  
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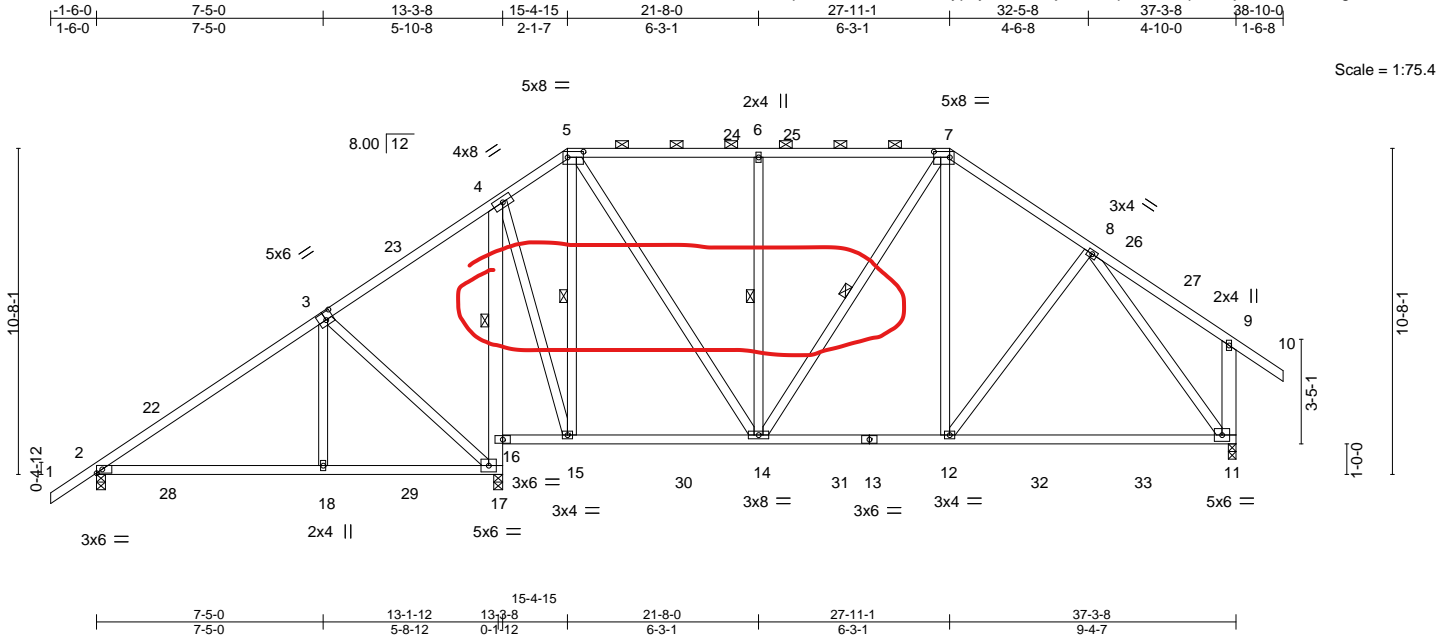


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [5:0-6-4,0-2-4], [7:0-6-4,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.50	Vert(LL)	-0.29 11-12	>979	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.90	Vert(CT)	-0.49 11-12	>591	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.99	Horz(CT)	0.03 11	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS					Weight: 276 lb	FT = 20%
	Code FBC2020/TPI2014							

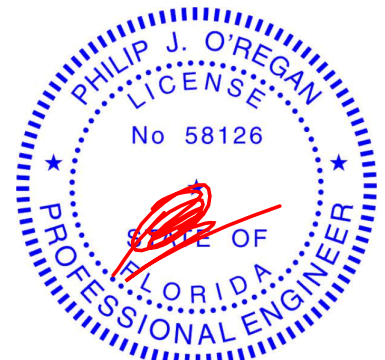
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 4-17: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.
WEBS 2x4 SP No.3 *Except* 9-11: 2x6 SP No.2	WEBS 1 Row at midpt 4-16 5-15, 6-14, 7-14

**REACTIONS.** (size) 2=0-3-8, 17=0-3-8, 11=0-3-0  
Max Horz 2=277(LC 11)  
Max Uplift 2=123(LC 12), 17=372(LC 9), 11=247(LC 13)  
Max Grav 2=596(LC 25), 17=1520(LC 2), 11=1117(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-595/374, 4-5=-390/206, 5-6=-647/240, 6-7=-647/240, 7-8=-860/260, 9-11=-285/135  
BOT CHORD 2-18=-258/442, 17-18=-257/441, 16-17=-1099/215, 4-16=-1101/218, 14-15=-75/274, 12-14=-76/669, 11-12=-115/578  
WEBS 3-18=-255/304, 3-17=-531/369, 4-15=-131/816, 5-15=-555/156, 5-14=-152/677, 6-14=-394/192, 7-12=-33/335, 8-11=-885/171

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-12, Interior(1) 2-2-12 to 15-4-15, Exterior(2R) 15-4-15 to 20-8-4, Interior(1) 20-8-4 to 27-11-1, Exterior(2R) 27-11-1 to 33-2-5, Interior(1) 33-2-5 to 38-10-0 zone; end vertical right exposed; porch left exposed; 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=123, 17=372, 11=247.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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May 12,2021

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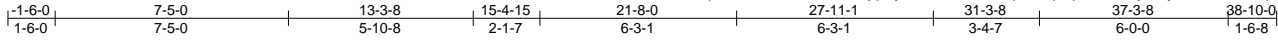
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T12	Truss Type Piggyback Base	Qty 7	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909435
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:50 2021 Page 1  
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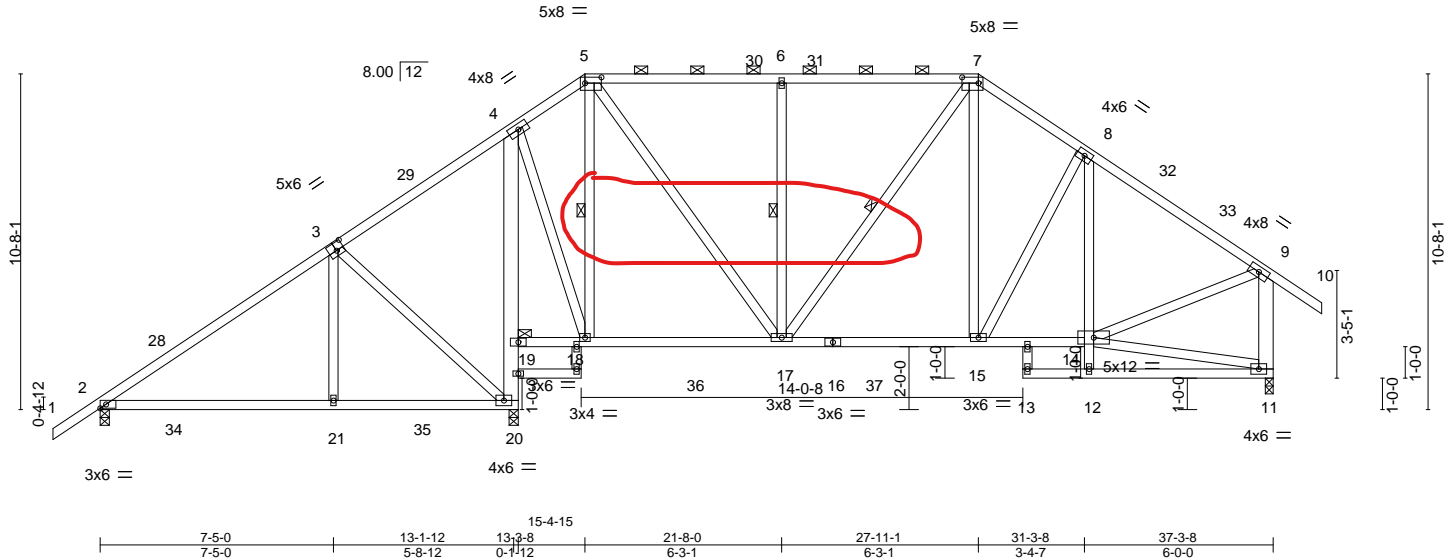


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [5:0-6-4,0-2-4], [7:0-6-4,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.50	Vert(LL)	0.12 21-27	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.51	Vert(CT)	-0.18 21-27	>867	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.56	Horz(CT)	0.03 11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 290 lb	FT = 20%

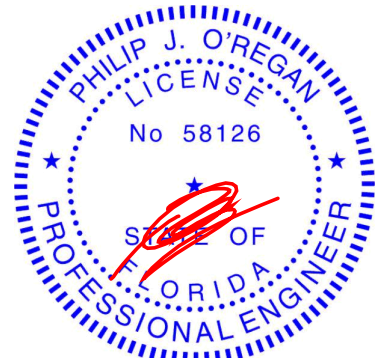
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 4-20: 2x6 SP No.2, 8-12,22-23: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 19-20 10-0-0 oc bracing: 12-14
WEBS 2x4 SP No.3 *Except* 9-11: 2x6 SP No.2	WEBS 1 Row at midpt 5-18, 6-17, 7-17
	JOINTS 1 Brace at Jt(s): 19

**REACTIONS.** (size) 2=0-3-8, 11=0-3-0, 20=0-3-8  
Max Horz 2=277(LC 11)  
Max Uplift 2=135(LC 12), 11=248(LC 13), 20=391(LC 9)  
Max Grav 2=581(LC 25), 11=1123(LC 20), 20=1549(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=602/431, 4-5=419/248, 5-6=717/257, 6-7=717/257, 7-8=919/289, 8-9=1010/233, 9-11=1030/269  
BOT CHORD 2-21=275/406, 20-21=274/406, 19-20=1129/234, 4-19=1120/237, 17-18=63/278, 15-17=74/729, 14-15=118/778  
WEBS 3-21=255/305, 3-20=533/369, 4-18=147/826, 5-18=571/167, 5-17=140/736, 6-17=393/190, 7-15=61/386, 9-14=93/804

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-12, Interior(1) 2-2-12 to 15-4-15, Exterior(2R) 15-4-15 to 20-8-4, Interior(1) 20-8-4 to 27-11-1, Exterior(2R) 27-11-1 to 33-2-5, Interior(1) 33-2-5 to 38-10-0 zone; end vertical right exposed; porch left exposed; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=135, 11=248, 20=391.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Date:

May 12,2021

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

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6904 Parke East Blvd.  
Tampa, FL 36610







Job 2719013	Truss T14	Truss Type Piggyback Base	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909437
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:45:56 2021 Page 1  
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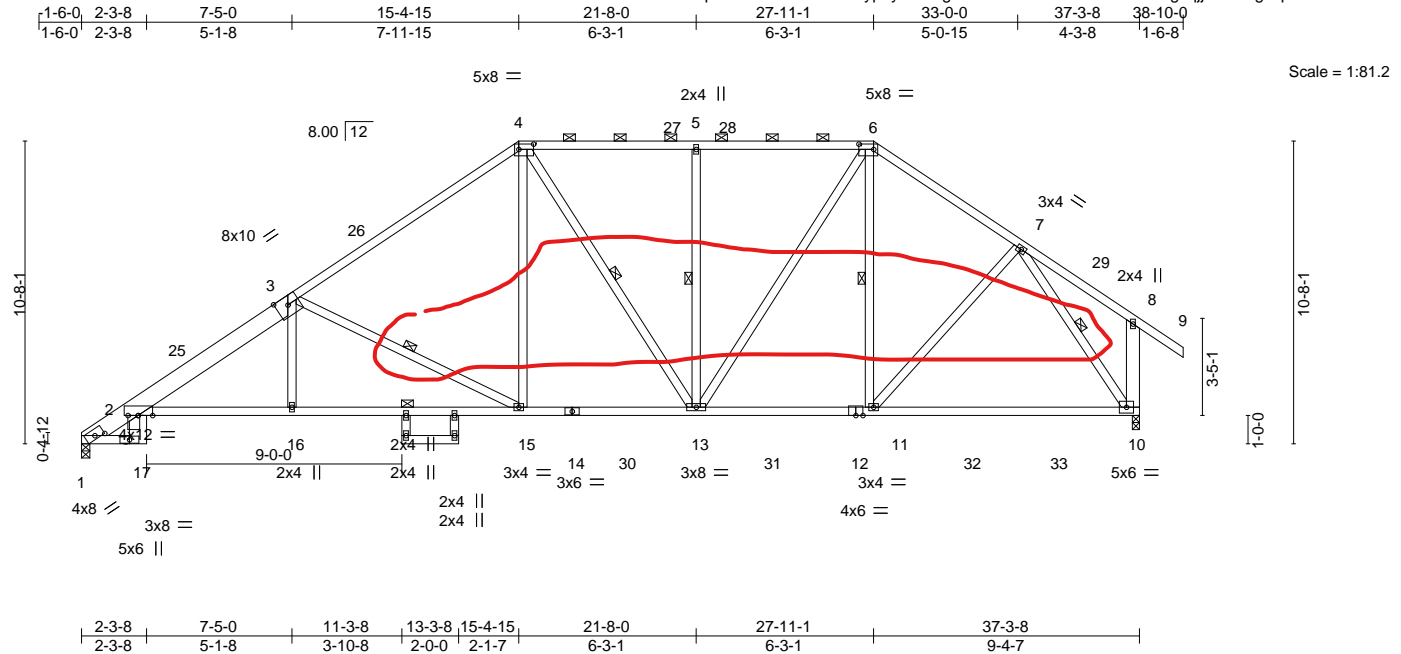


Plate Offsets (X,Y)--		[1:0-4-0,0-1-9], [2:0-6-2,0-0-0], [2:0-0-0,0-4-5], [4:0-6-4,0-2-4], [6:0-6-4,0-2-4]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 20.0	2-0-0	TC 0.90	in (loc) l/defl L/d
TCDL 7.0	Plate Grip DOL 1.25	BC 0.95	Vert(LL) -0.30 10-11 >999 240
BCLL 0.0 *	Lumber DOL 1.25	WB 0.49	Vert(CT) -0.51 10-11 >874 180
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.22 10 n/a n/a
	Code FBC2020/TPI2014		
			<b>PLATES</b> MT20
			<b>GRIP</b> 244/190
			Weight: 263 lb FT = 20%

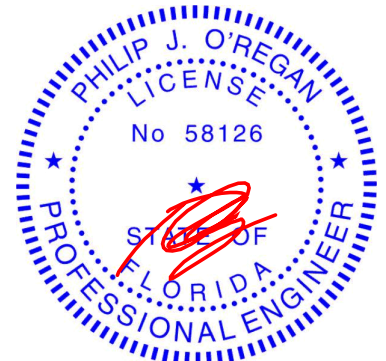
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 1-3: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-7 max.): 4-6.
BOT CHORD 2x4 SP No.2 *Except* 2-17: 2x8 SP 2400F 2.0E, 18-19: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 7-8-0 oc bracing: 15-16
WEBS 2x4 SP No.3 *Except* 8-10: 2x6 SP No.2	WEBS 1 Row at midpt 3-15, 4-13, 5-13, 6-11, 7-10

**REACTIONS.** (size) 1=0-3-8, 10=0-3-0  
Max Horz 1=263(LC 11)  
Max Uplift 1=298(LC 12), 10=300(LC 13)  
Max Grav 1=1522(LC 2), 10=1641(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-24=959/163, 2-3=2698/570, 3-4=1912/428, 4-5=1508/378, 5-6=1508/378,  
6-7=1486/317, 8-10=258/125  
BOT CHORD 2-16=588/2481, 15-16=587/2492, 13-15=291/1503, 11-13=166/1181, 10-11=153/904  
WEBS 3-16=0/328, 3-15=1110/395, 4-15=121/777, 5-13=387/195, 6-13=208/633,  
7-11=115/453, 7-10=1517/260

#### NOTES-

- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-10-8, Interior(1) 3-10-8 to 15-4-15, Exterior(2R) 15-4-15 to 20-8-4, Interior(1) 20-8-4 to 27-11-1, Exterior(2R) 27-11-1 to 33-1-3, Interior(1) 33-1-3 to 38-10-0 zone; end vertical right exposed; 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) 1=298, 10=300.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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May 12, 2021

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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

Job 2719013	Truss T15	Truss Type PIGGYBACK BASE	Qty 4	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909438
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:04 2021 Page 1  
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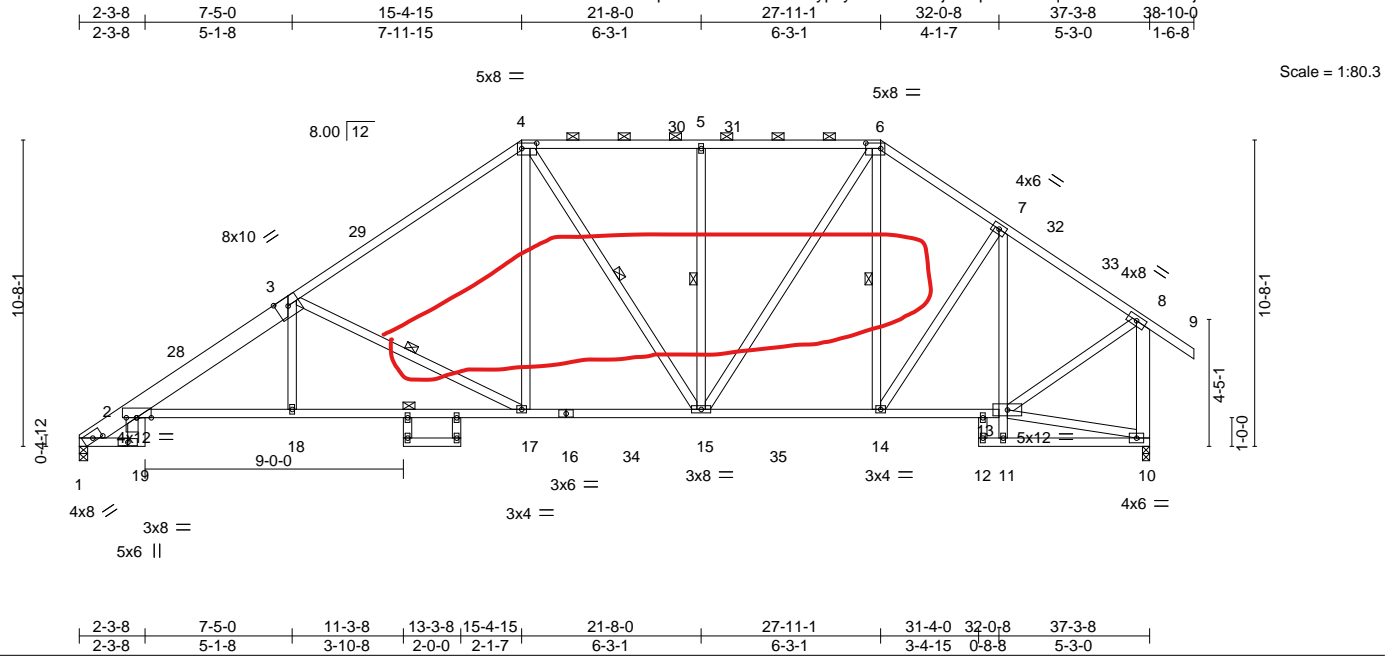
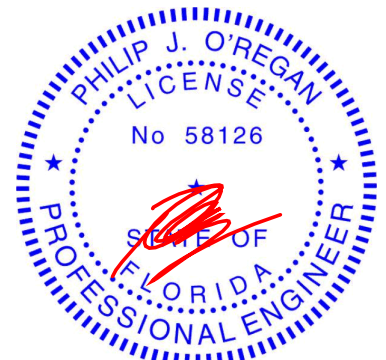


Plate Offsets (X,Y)-- [1:0-4-0,0-1-9], [2:0-6-2,0-0-0], [2:0-0-0,0-4-5], [4:0-6-4,0-2-4], [6:0-6-4,0-2-4]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	20.0	Plate Grip DOL	1.25	TC	0.91	Vert(LL)	-0.21 17-18 >999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.41 17-18 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.23 10 n/a n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS				Weight: 283 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 1-3: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-1 max.): 4-6.
BOT CHORD 2x4 SP No.2 *Except* 2-19: 2x8 SP 2400F 2.0E, 7-11,20-21: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 7-8-13 oc bracing: 2-18. 7-10-0 oc bracing: 17-18 10-0-0 oc bracing: 11-13
WEBS 2x4 SP No.3 *Except* 8-10: 2x6 SP No.2	WEBS 1 Row at midpt 3-17, 4-15, 5-15, 6-14
<b>REACTIONS.</b> (size) 1=0-3-8, 10=0-3-0 Max Horz 1=287(LC 11) Max Uplift 1=297(LC 12), 10=296(LC 13) Max Grav 1=1521(LC 2), 10=1626(LC 2)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-27=-973/185, 2-3=-2697/565, 3-4=-1908/425, 4-5=-1510/375, 5-6=-1510/375, 6-7=-1450/328, 7-8=-1285/247, 8-10=-1537/316	
BOT CHORD 2-18=-566/2488, 17-18=-564/2499, 15-17=-305/1505, 14-15=-182/1158, 13-14=-156/1019, 7-13=-504/110	
WEBS 3-18=0/330, 3-17=-1113/391, 4-17=-121/767, 5-15=-390/196, 6-15=-201/676, 7-14=-128/302, 8-13=-153/1204	

- NOTES-**
- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-10-8, Interior(1) 3-10-8 to 15-4-15, Exterior(2R) 15-4-15 to 20-8-4, Interior(1) 20-8-4 to 27-11-1, Exterior(2R) 27-11-1 to 33-2-5, Interior(1) 33-2-5 to 38-10-0 zone; end vertical right exposed;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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=297, 10=296.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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May 12,2021

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2719013	Truss T16	Truss Type Piggyback Base	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909439
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:11 2021 Page 1  
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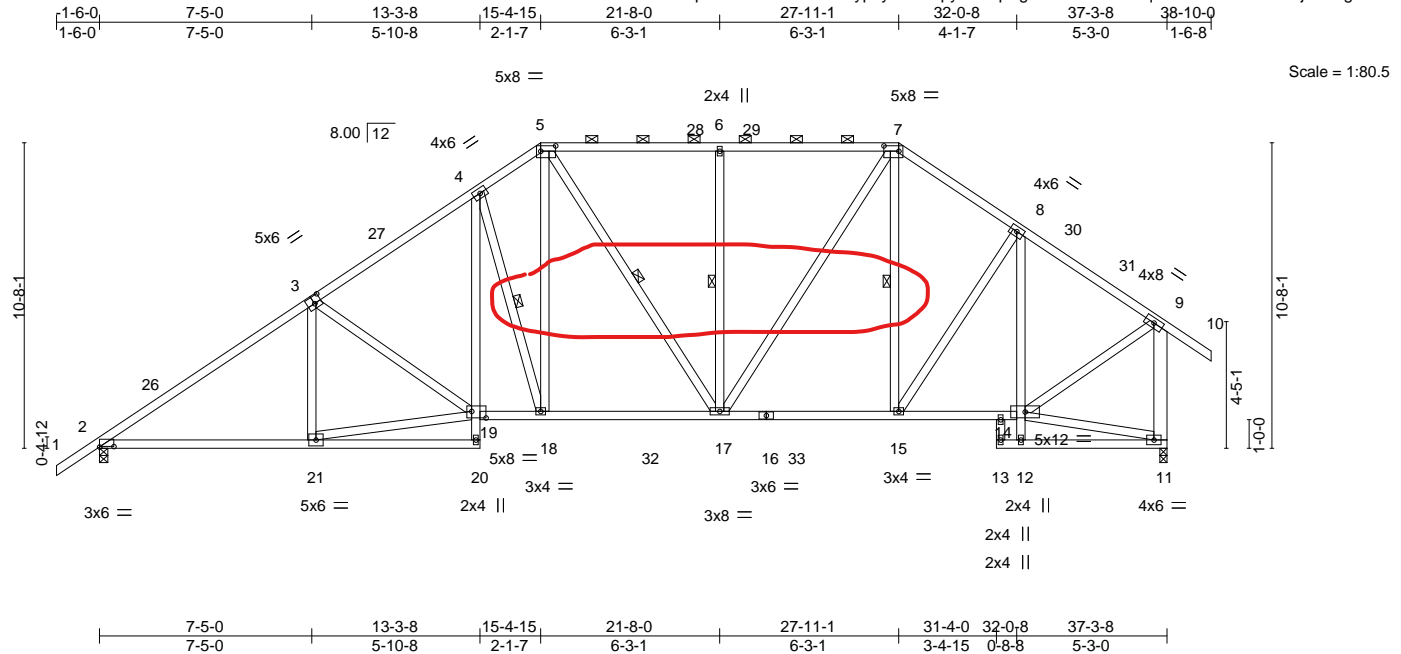
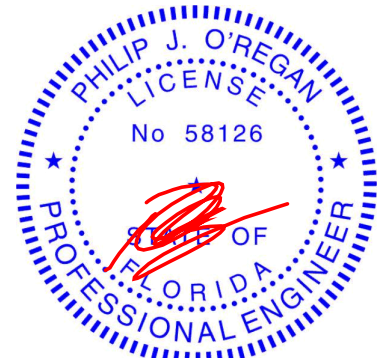


Plate Offsets (X,Y)--		[2:0-6-0,0-0-3], [3:0-3-0,0-3-0], [5:0-6-4,0-2-4], [7:0-6-4,0-2-4], [19:0-6-0,0-2-12]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 20.0	2-0-0	TC 0.55	in (loc) l/defl L/d
TCDL 7.0	Plate Grip DOL 1.25	BC 0.74	Vert(LL) -0.13 17-18 >999 240
BCLL 0.0 *	Lumber DOL 1.25	WB 0.66	Vert(CT) -0.23 21-25 >999 180
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.10 11 n/a n/a
	Code FBC2020/TPI2014		
			<b>PLATES</b> MT20
			<b>GRIP</b> 244/190
			Weight: 295 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-2-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-2 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 4-20,8-12: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-9-2 oc bracing: 2-21. 10-0-0 oc bracing: 12-14
WEBS 2x4 SP No.3 *Except* 9-11: 2x6 SP No.2	WEBS 1 Row at midpt 4-18, 5-17, 6-17, 7-15
<b>REACTIONS.</b> (size) 2=0-3-8, 11=0-3-0	
Max Horz 2=300(LC 11)	
Max Uplift 2=334(LC 12), 11=296(LC 13)	
Max Grav 2=1578(LC 2), 11=1630(LC 2)	
<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=2311/455, 3-4=2073/474, 4-5=1820/477, 5-6=1520/376, 6-7=1520/376, 7-8=1454/329, 8-9=1289/248, 9-11=1542/316	
BOT CHORD 2-21=426/1955, 4-19=147/557, 18-19=338/1686, 17-18=305/1501, 15-17=183/1162, 14-15=157/1023, 8-14=505/111	
WEBS 19-21=420/1830, 3-19=329/172, 4-18=677/261, 5-18=228/906, 6-17=390/191, 7-17=201/687, 8-15=129/302, 9-14=154/1207	

- NOTES-**
- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-12, Interior(1) 2-2-12 to 15-4-15, Exterior(2R) 15-4-15 to 20-8-4, Interior(1) 20-8-4 to 27-11-1, Exterior(2R) 27-11-1 to 33-2-5, Interior(1) 33-2-5 to 38-10-0 zone; end vertical right exposed; 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=334, 11=296.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Date:

May 12,2021

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



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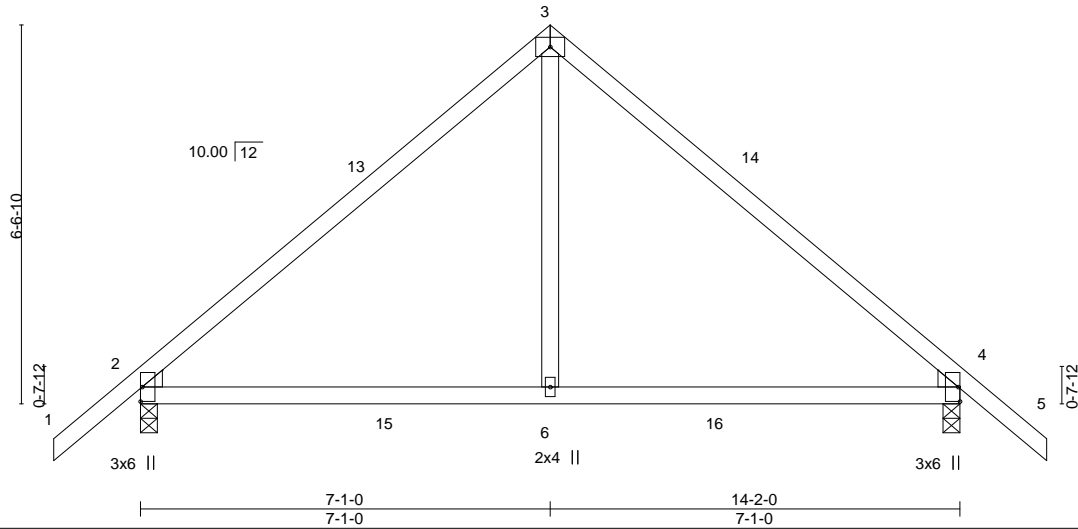
Job 2719013	Truss T17	Truss Type Common	Qty 3	Ply 1	IC CONST - SANTIAGO RES. T23909440
Job Reference (optional)					

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:13 2021 Page 1  
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4x6 =

Scale = 1:39.8



LOADING (psf)	SPACING-	CS.	DEFL.	PLATES	GRIP
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 0.58	Vert(LL) -0.09 6-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.16	Vert(CT) -0.14 6-12 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 2 n/a n/a		
	Code FBC2020/TPI2014			Weight: 65 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3, Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 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=158(LC 11)  
Max Uplift 2=-128(LC 12), 4=-128(LC 13)  
Max Grav 2=693(LC 19), 4=693(LC 20)

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

TOP CHORD 2-3=-659/164, 3-4=-659/164  
BOT CHORD 2-6=-17/474, 4-6=-17/474  
WEBS 3-6=-12/415

#### NOTES-

- 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=20ft; Cat. II; Exp B; 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 7-1-0, Exterior(2R) 7-1-0 to 10-1-0, Interior(1) 10-1-0 to 15-8-0 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=128, 4=128.



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May 12, 2021

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T17G	Truss Type Common Supported Gable	Qty 1	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909441
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:15 2021 Page 1  
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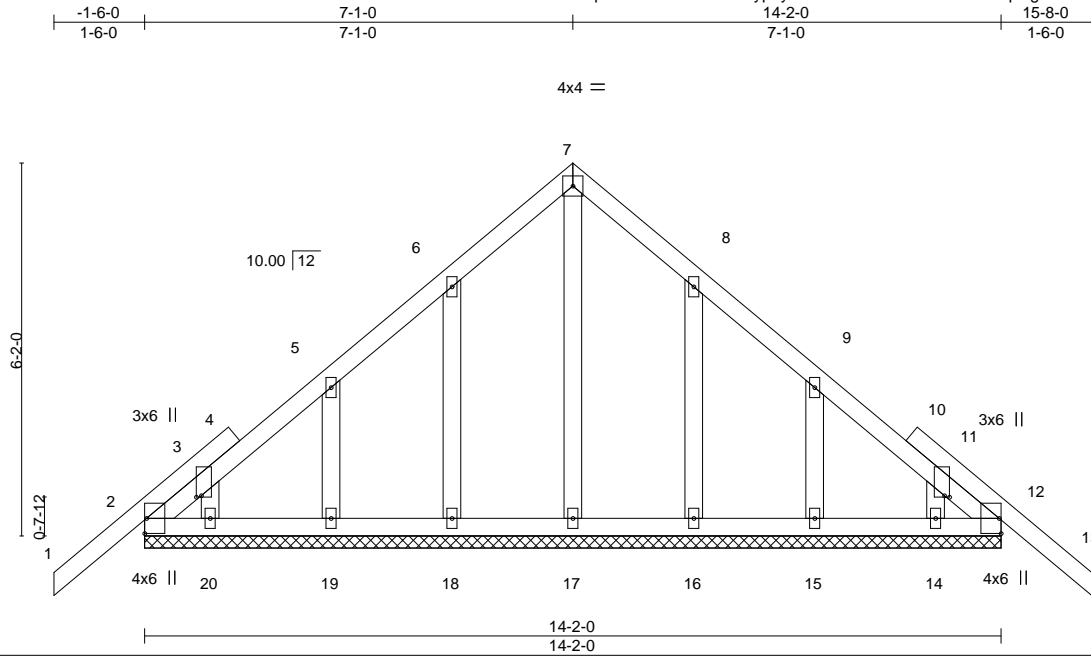


Plate Offsets (X,Y)-- [3:0-0-5,0-1-0], [11:0-0-5,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	Vert(LL)	-0.01 13	n/r	120	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.05	Vert(CT)	-0.01 13	n/r	120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.08	Horz(CT)	0.00 12	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 89 lb	FT = 20%
	Code FBC2020/TPI2014							

#### 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 14-2-0.

(lb) - Max Horz 2--149(LC 10)

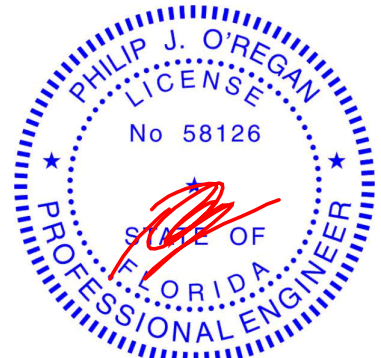
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 18, 19, 20, 16, 15, 14

Max Grav All reactions 250 lb or less at joint(s) 2, 12, 17, 18, 19, 20, 16, 15, 14

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; 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 7-1-0, Corner(3R) 7-1-0 to 10-1-0, Exterior(2N) 10-1-0 to 15-8-0 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, 12, 18, 19, 20, 16, 15, 14.



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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

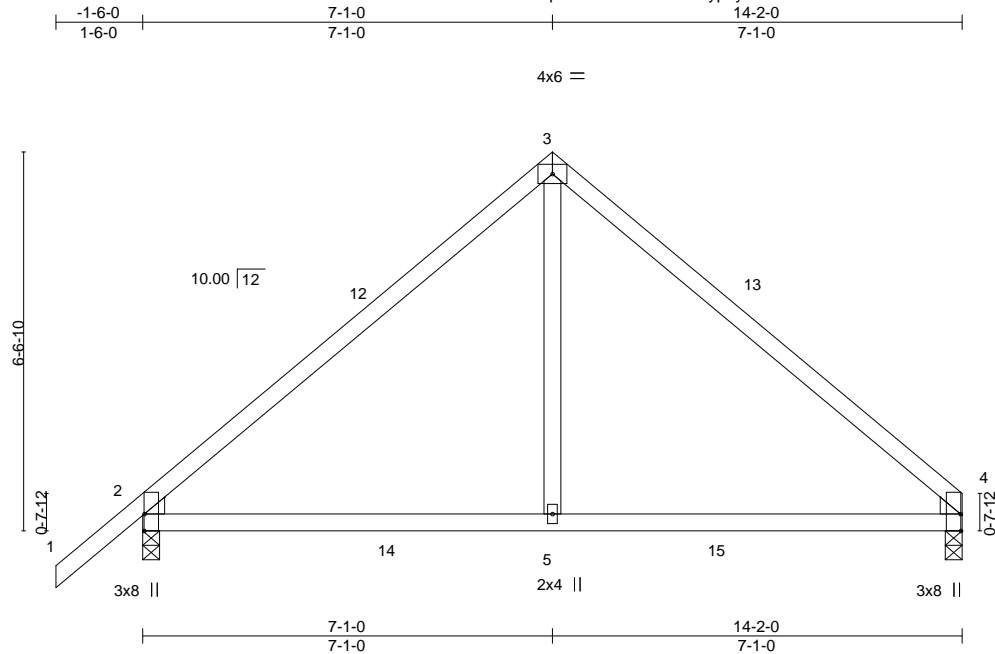


6904 Parke East Blvd.  
Tampa, FL 36610



Job 2719013	Truss T18	Truss Type Common	Qty 3	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909442
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:17 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-ZzJRR7aiWDQZPJVuctHS5aM?lyFGLFD1SwRTNzHsFa



Scale = 1:39.8

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-3-8,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 0.56	Vert(LL)	-0.10 5-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.59	Vert(CT)	-0.15 5-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.02 4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 62 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

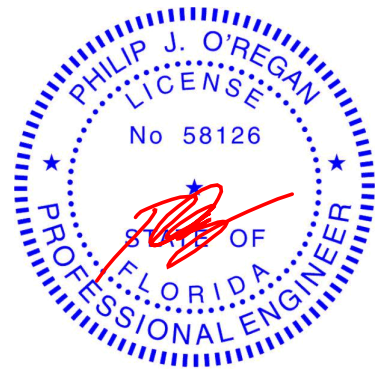
(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=148(LC 11)  
Max Uplift 2=-129(LC 12), 4=-94(LC 13)  
Max Grav 2=695(LC 19), 4=614(LC 20)

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

TOP CHORD 2-3=-668/169, 3-4=-663/171  
BOT CHORD 2-5=-37/464, 4-5=-37/464  
WEBS 3-5=-19/417

#### NOTES-

- 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=20ft; Cat. II; Exp B; 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 7-1-0, Exterior(2R) 7-1-0 to 10-1-0, Interior(1) 10-1-0 to 14-2-0 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) 4 except (jt=lb) 2=129.



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MiTek USA, Inc. FL Cert 6634  
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Date:

May 12, 2021

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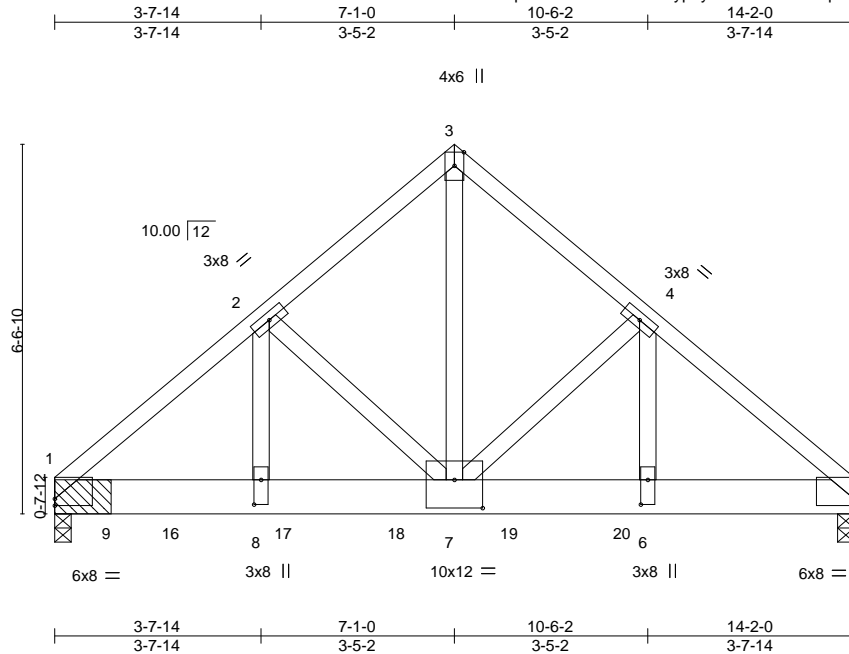
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2719013	Truss T19	Truss Type Common Girder	Qty 1	Ply 1	IC CONST - SANTIAGO RES. T23909443
Job Reference (optional)					

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:19 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-VLRBsL9qh7T8ojTu?1wYwffQ5j6k5ZWUIPYXFzHsFY



Scale = 1:40.8

Plate Offsets (X,Y)-- [1:0-0-0,0-1-7], [5:Edge,0-1-7], [6:0-5-4,0-1-8], [7:0-6-0,0-6-0], [8:0-5-4,0-1-8]												
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	0.37	Vert(LL)	-0.08	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	-0.12	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 104 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=(0-3-8 + bearing block) (req. 0-3-15), 5=0-3-8  
Max Horz 1=130(LC 25)  
Max Uplift 1=667(LC 8), 5=523(LC 9)  
Max Grav 1=3345(LC 2), 5=2617(LC 2)

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

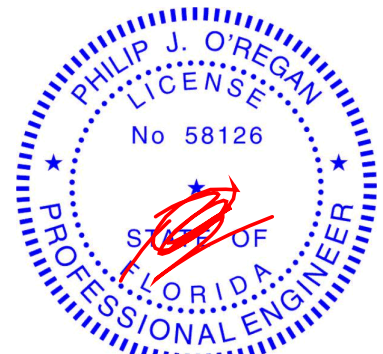
TOP CHORD 1-2=-4169/843, 2-3=-2960/655, 3-4=-2958/655, 4-5=-3665/742  
BOT CHORD 1-8=-668/3165, 7-8=-668/3165, 6-7=-529/2770, 5-6=-529/2770  
WEBS 3-7=-752/3571, 4-7=-719/247, 4-6=-144/813, 2-7=-1260/353, 2-8=-277/1494

#### NOTES-

- 2x8 SP 2400F 2.0E bearing block 12" long at jt. 1 attached to front face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners. Bearing is assumed to be SP No.2.
- 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=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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) 1=667, 5=523.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1011 lb down and 214 lb up at 2-0-12, 1011 lb down and 214 lb up at 4-0-12, 1011 lb down and 214 lb up at 6-0-12, and 1011 lb down and 214 lb up at 8-0-12, and 1011 lb down and 214 lb up at 10-0-12 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).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 3-5=-54, 10-13=-20



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Date:

May 12, 2021

Continued on page 2

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	IC CONST - SANTIAGO RES.	T23909443
2719013	T19	Common Girder	1	1	Job Reference (optional)	

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 16=-861(F) 17=-861(F) 18=-861(F) 19=-861(F) 20=-861(F)

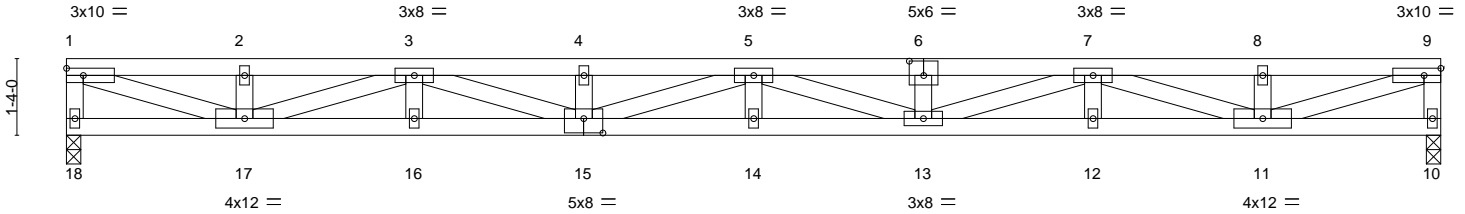
Job 2719013	Truss TF01	Truss Type FLOOR	Qty 2	Ply 2	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909444
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:20 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-zY?Z3hAS2Rb?Qt24ZkR\_4jByvV0zTZYgjP853hzHsFX

3-1-3	6-0-10	9-0-1	11-11-8	14-10-15	17-10-6	20-9-13	23-11-0
3-1-3	2-11-7	2-11-7	2-11-7	2-11-7	2-11-7	2-11-7	3-1-3

Scale = 1:40.1



THIS TRUSS IS DESIGNED TO SUPPORT ONLY 2'-0"  
OF UNIFORM LOAD AS SHOWN.

3-1-3	6-0-10	9-0-1	11-11-8	14-10-15	17-10-6	20-9-13	23-11-0
3-1-3	2-11-7	2-11-7	2-11-7	2-11-7	2-11-7	2-11-7	3-1-3

Plate Offsets (X,Y)-- [6:0-3-0,0-3-0], [15:0-4-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.20	Vert(LL)	-0.40	14	>702	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.46	Vert(CT)	-0.56	14	>510	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.06	10	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 228 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 18=0-3-0, 10=0-3-0  
Max Grav 18=1299(LC 1), 10=1299(LC 1)

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

TOP CHORD 1-18=-1239/0, 1-2=-3170/0, 2-3=-3170/0, 3-4=-6778/0, 4-5=-6779/0, 5-6=-6779/0,  
6-7=-6781/0, 7-8=-3170/0, 8-9=-3170/0, 9-10=-1239/0  
BOT CHORD 16-17=0/5441, 15-16=0/5441, 14-15=0/7233, 13-14=0/7233, 12-13=0/5441, 11-12=0/5441  
WEBS 1-17=0/3207, 2-17=-278/0, 3-17=-2408/0, 3-15=0/1418, 4-15=-289/0, 5-15=-481/0,  
5-13=-481/0, 6-13=-289/0, 7-13=0/1420, 7-11=-2409/0, 8-11=-278/0, 9-11=0/3207

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.



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6904 Parke East Blvd. Tampa FL 33610  
Date:

May 12,2021

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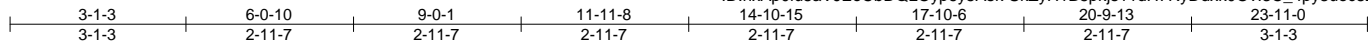
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



6904 Parke East Blvd.  
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Job 2719013	Truss TF01G	Truss Type FLOOR	Qty 1	Ply 3	IC CONST - SANTIAGO RES. T23909445
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:21 2021 Page 1  
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Scale = 1:40.6

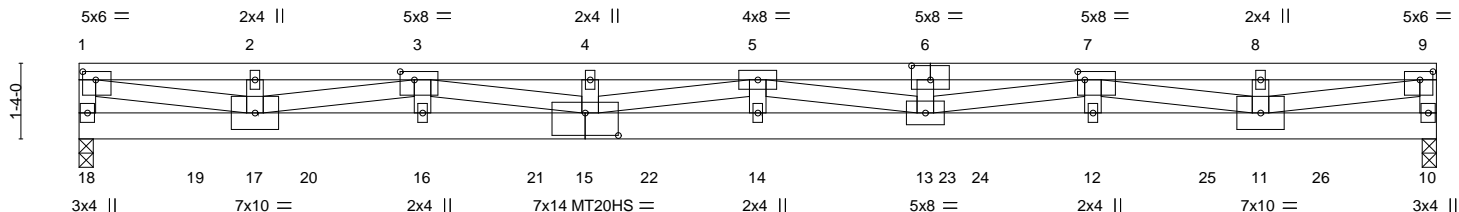


Plate Offsets (X,Y)--	[1:0-2-12,0-1-12], [3:0-3-0,0-1-12], [6:0-4-0,0-3-0], [7:0-1-8,0-1-12], [9:0-2-12,0-1-12], [15:0-7-0,0-4-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.66	Vert(LL)	-0.70 13-14	>406	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.73	Vert(CT)	-0.94 13-14	>300	240	MT20HS	187/143
BCLL 0.0	Rep Stress Incr	NO	WB 0.87	Horz(CT)	0.08 10	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 394 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP M 31  
BOT CHORD 2x6 SP M 26  
WEBS 2x4 SP No.3 \*Except\*  
1-17,3-17,3-15,5-15,5-13,7-13,7-11,9-11: 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 18=0-3-0, 10=0-3-0  
Max Grav 18=2936(LC 1), 10=3651(LC 1)

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

TOP CHORD 1-18=-2558/0, 1-2=-7644/0, 2-3=-7644/0, 3-4=-18025/0, 4-5=-18042/0, 5-6=-20792/0,  
6-7=-20804/0, 7-8=-9467/0, 8-9=-9467/0, 9-10=-3138/0  
BOT CHORD 17-18=0/515, 16-17=0/14371, 15-16=0/14371, 14-15=0/21615, 13-14=0/21615,  
12-13=0/17530, 11-12=0/17530, 10-11=0/642  
WEBS 1-17=0/7496, 3-17=-7072/0, 3-16=0/586, 3-15=0/3853, 5-15=-3747/0, 5-14=0/967,  
5-13=-865/0, 7-13=0/3441, 7-12=0/1149, 7-11=-8477/0, 9-11=0/9278

#### NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- All plates are MT20 plates unless otherwise indicated.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 183 lb down at 2-0-12, 183 lb down at 4-0-12, 183 lb down at 6-0-12, 183 lb down at 8-0-12, 183 lb down at 10-0-12, 533 lb down at 11-9-15, 1062 lb down at 15-3-12, 370 lb down at 15-10-12, 370 lb down at 17-10-12, and 370 lb down at 19-10-12, and 370 lb down at 21-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 1-9=100, 10-18=10  
Concentrated Loads (lb)  
Vert: 16=-183(F) 14=-533(F) 12=-370(F) 19=-183(F) 20=-183(F) 21=-183(F) 22=-183(F) 23=-1062(F) 24=-370(F) 25=-370(F)  
26=-370(F)



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Date:

May 12,2021

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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 36610



Job 2719013	Truss TF02	Truss Type FLOOR	Qty 5	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909446
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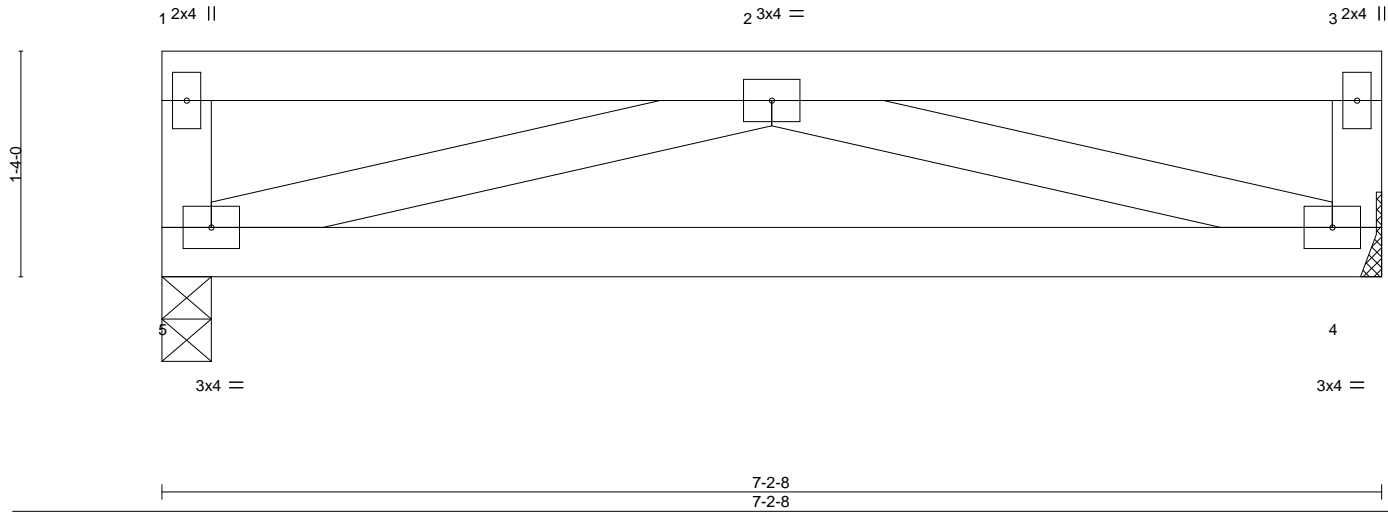
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:24 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-sJE4v2Dz6f5QvUMroaVwFZMdR6QSPV8Fe16JCTzHsFT

3-7-4  
3-7-4

7-2-8  
3-7-4

Scale = 1:13.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.23	Vert(LL)	-0.00 4-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.30	Vert(CT)	-0.04 4-5	>999	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.01 4	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 34 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

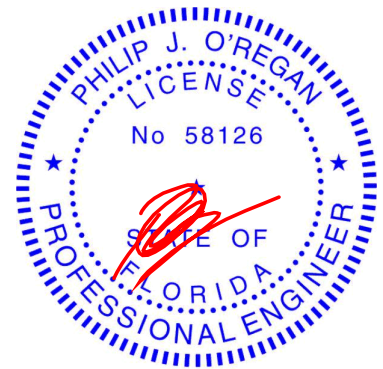
(size) 5=0-3-8, 4=Mechanical  
Max Grav 5=380(LC 1), 4=380(LC 1)

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

BOT CHORD 4-5=0/686  
WEBS 2-5=-643/0, 2-4=-643/0

#### NOTES-

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.



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Date:

May 12, 2021

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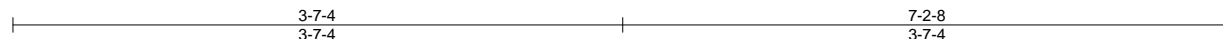
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:28 2021 Page 1  
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**LUMBER-**

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

**BRACING-**

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

## REACTIONS.

(size) 6=0-3-8, 4=Mechanical  
Max Grav 6=1072(LC 1), 4=1072(LC 1)

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

TOP CHORD 1-6=-914/0, 1-2=-1844/0, 2-3=-1844/0, 3-4=-914/0  
BOT CHORD 5-6=0/290, 4-5=0/290  
WEBS 1-5=0/1613, 2-5=-1109/0, 3-5=0/1613

**NOTES-**

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

## LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 1-3=-300, 4-6=-10



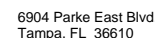
May 12, 2021



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

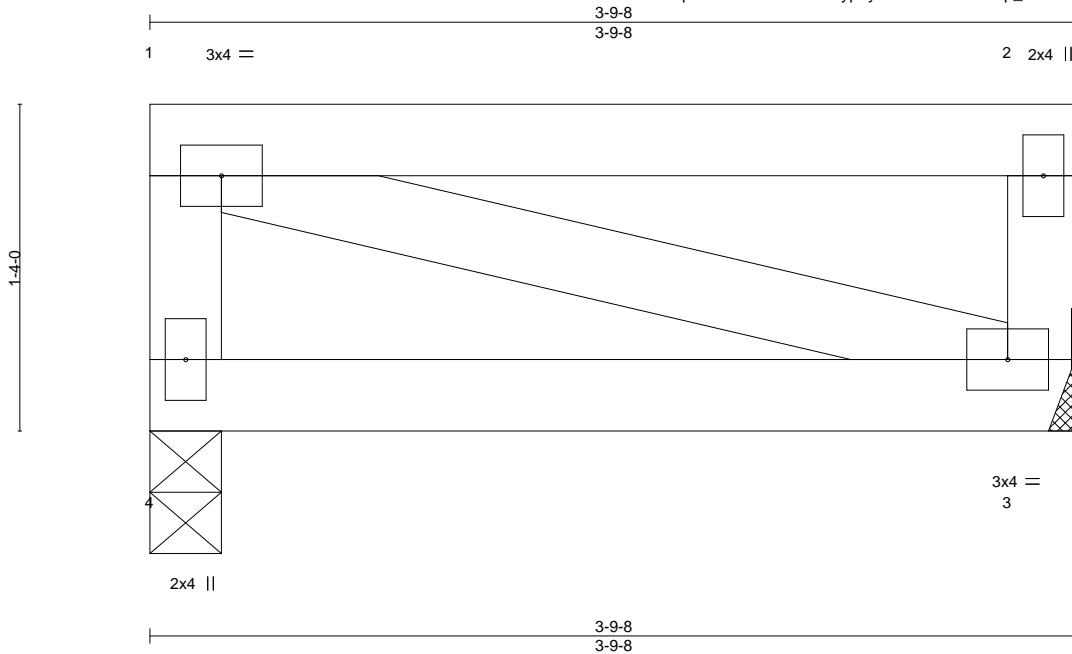
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 2719013	Truss TF04	Truss Type FLOOR	Qty 6	Ply 1	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909448
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8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:31 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLOyp6y5Ask-9f9kNSIMSp\_REZOCiY7Z129nUxt3YIBHFdJAyZzHsFM



Scale = 1:9.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.43	Vert(LL)	0.00 4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.04	Vert(CT)	-0.00 3-4	>999	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MP					Weight: 18 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

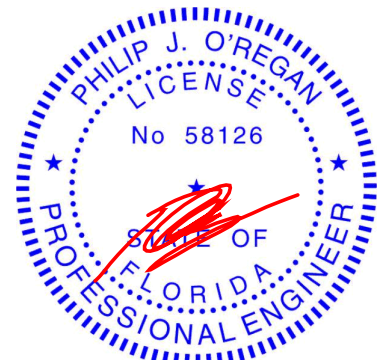
#### REACTIONS.

(size) 4=0-3-8, 3=Mechanical  
Max Grav 4=193(LC 1), 3=193(LC 1)

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

#### NOTES-

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

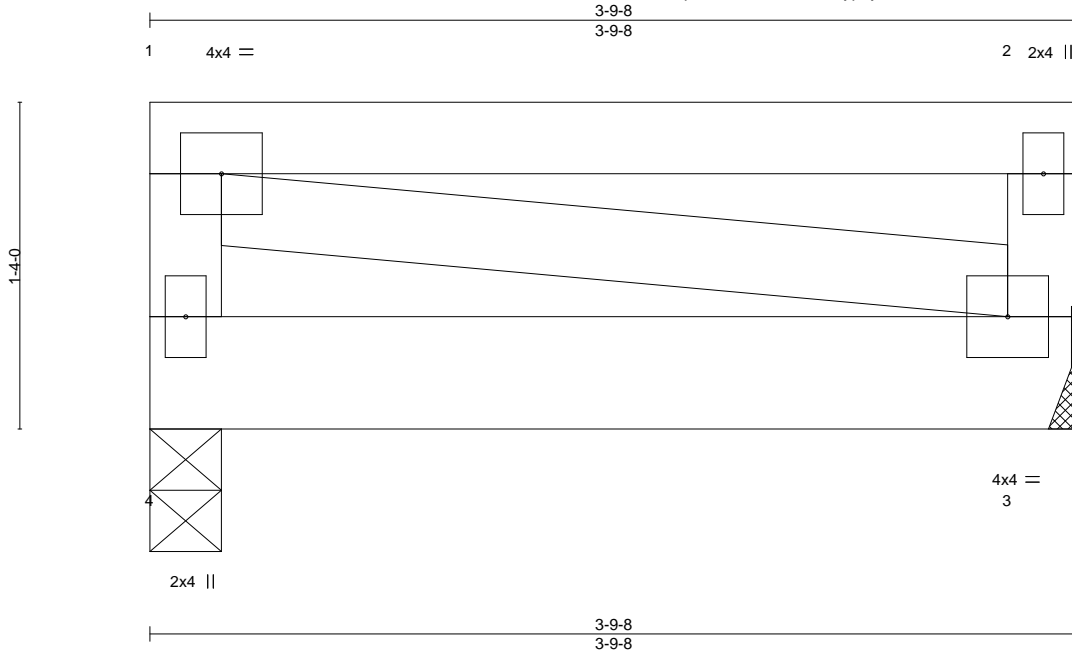


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Job 2719013	Truss TF05	Truss Type FLOOR	Qty 1	Ply 2	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909449
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8.430 s Apr 20 2021 MiTek Industries, Inc. Mon May 10 15:46:33 2021 Page 1  
ID:nxAp0lu8aVJEoCbDQLQyp6y5Ask-52HUo7Kc\_QE9UiYaqzA16TE25IZ30chaixoH1RzHsFK



LOADING (psf)	SPACING-	CS.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(LL) 0.00 4 >999 360		
BCLL 0.0	Lumber DOL 1.00	WB 0.00	Vert(CT) -0.00 4 >999 240		
BCDL 5.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.00 3 n/a n/a		
	Code FBC2020/TPI2014			Weight: 42 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=0-3-8, 3=Mechanical  
Max Grav 4=543(LC 1), 3=543(LC 1)

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

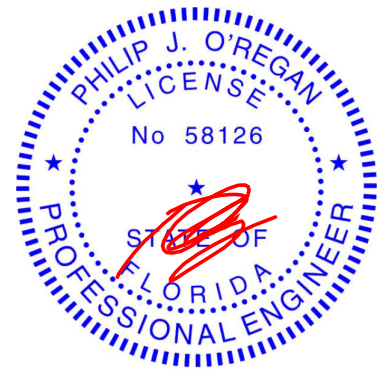
TOP CHORD 1-4=-525/0, 2-3=-525/0

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 1-2=-300(F=-200), 3-4=-10



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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



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Tampa, FL 36610

Job 2719013	Truss TG01	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 2	IC CONST - SANTIAGO RES. Job Reference (optional)	T23909450
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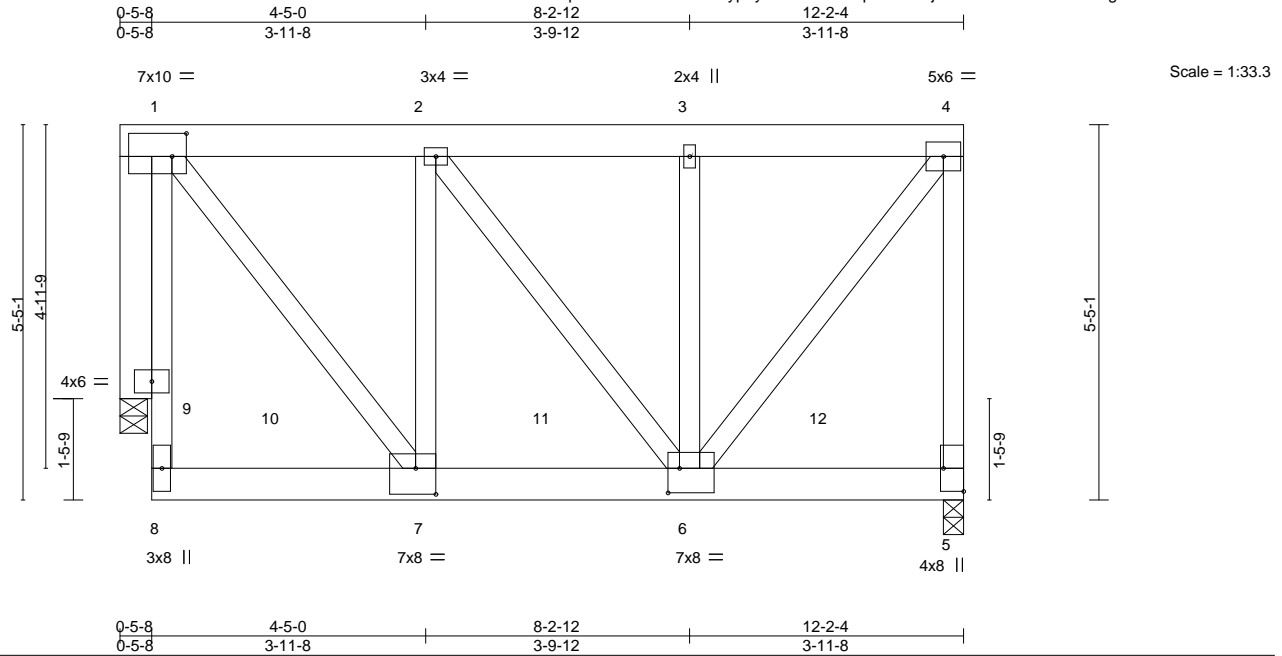


Plate Offsets (X,Y)-- [1:0-2-8,0-4-0], [5:Edge,0-3-8], [6:0-2-0,0-4-4], [7:0-3-8,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.60	Vert(LL) -0.03	6-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.59	Vert(CT) -0.06	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.86	Horz(CT) -0.01	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 233 lb	FT = 20%

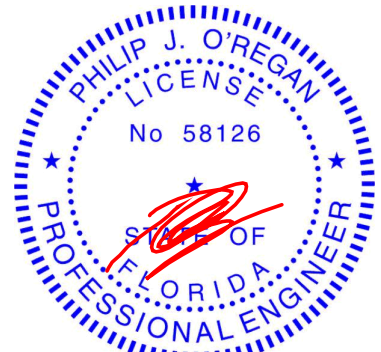
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* 1-8: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x6 SP No.2	

**REACTIONS.** (size) 5=0-3-8, 9=0-4-12  
Max Horz 9=244(LC 10)  
Max Uplift 5=1460(LC 4), 9=1476(LC 4)  
Max Grav 5=4984(LC 1), 9=4973(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2819/811, 2-3=-2806/818, 3-4=-2806/818, 4-5=-4025/1161  
BOT CHORD 8-9=-295/971, 1-9=-4028/1180, 6-7=-811/2819  
WEBS 1-7=-1337/4476, 2-7=-871/256, 3-6=-949/246, 4-6=-1324/4541

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 2 rows staggered at 0-3-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=1460, 9=1476.
- Girder carries tie-in span(s): 15-0-0 from 0-0-0 to 12-2-4; 12-0-0 from 0-0-0 to 12-2-4; 12-0-0 from 0-0-0 to 12-2-4
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 416 lb down and 152 lb up at 2-2-8, 416 lb down and 152 lb up at 4-2-8, 416 lb down and 152 lb up at 6-1-8, 416 lb down and 152 lb up at 8-1-8, and 416 lb down and 152 lb up at 10-1-8, and 48 lb down and 30 lb up at 12-0-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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Date:

May 12,2021

Continued on page 2

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6904 Parke East Blvd.  
Tampa, FL 33610



Job	Truss	Truss Type	Qty	Ply	IC CONST - SANTIAGO RES.
2719013	TG01	ROOF SPECIAL GIRDER	1	2	T23909450

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

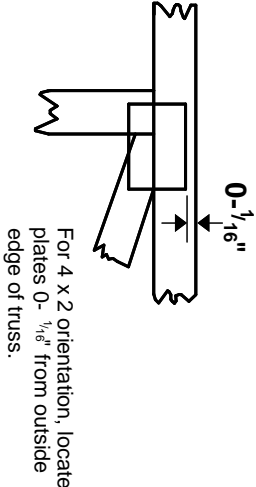
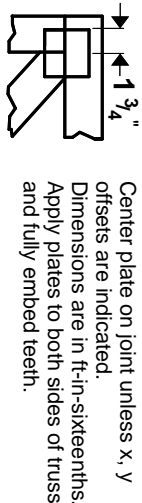
Vert: 1-4=-239(F=-185), 5-8=-446(F=-426)

Concentrated Loads (lb)

Vert: 5=-48 7=-416(B) 6=-416(B) 10=-416(B) 11=-416(B) 12=-416(B)

# Symbols

## PLATE LOCATION AND ORIENTATION



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

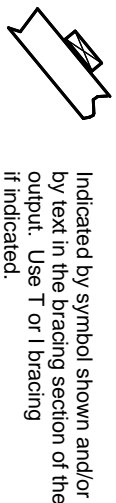
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

## PLATE SIZE

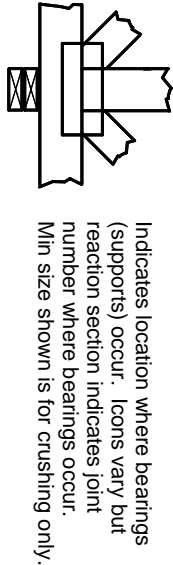
4 X 4

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

## LATERAL BRACING LOCATION



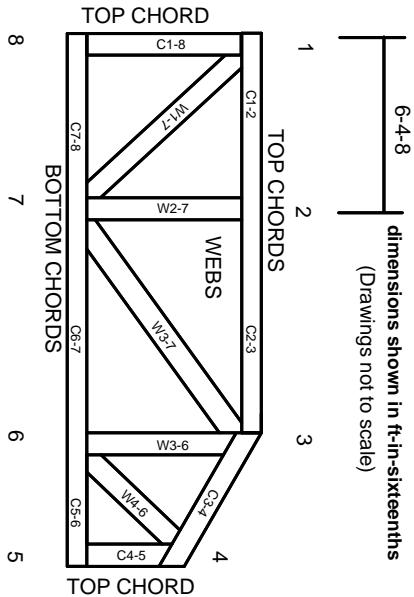
## BEARING



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

**Industry Standards:**  
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:  
ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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