



RE: 2742662 - WCH - NELSON RES.

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

Site Information:

Customer Info: Wade Custom Homes Project Name: Nelson Res. Model: Custom

Subdivision: N/A

State: FL

Lot/Block: N/A

Address: TBD SW Durant Street, N/A

City: Columbia Cty

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: N/A Wind Speed: 130 mph Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 36 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.

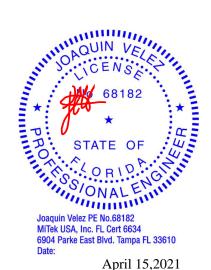
No. 1 2 3 4 5 6 7 8 9 10 11 12	Seal# T23566437 T23566439 T23566440 T23566441 T23566442 T23566443 T23566445 T23566446 T23566447 T23566447	Truss Name CJ01 CJ03 CJ05 EJ01 EJ02 HJ05 HJ10 T01 T02 T03 T04 T05	Date 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21	No. 23 24 25 26 27 28 29 30 31 32 33 34	Seal# T23566459 T23566461 T23566462 T23566463 T23566464 T23566465 T23566467 T23566468 T23566468 T23566469 T23566469	Truss Name T16 T16G T17 T17G T18 T18G T19 V01 V02 V03 V04 V05	Date 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21 4/15/21
13 14	T23566449 T23566450	T06 T07	4/15/21 4/15/21	35 36	T23566471 T23566472	V06 V07	4/15/21 4/15/21
15	T23566451	T08	4/15/21				
16 17	T23566452 T23566453	T09 T10	4/15/21 4/15/21				
18	T23566454	T11	4/15/21				
19	T23566455	T12	4/15/21				
20 21	T23566456 T23566457	T13 T14	4/15/21 4/15/21				
22	T23566458	†15	4/15/21				

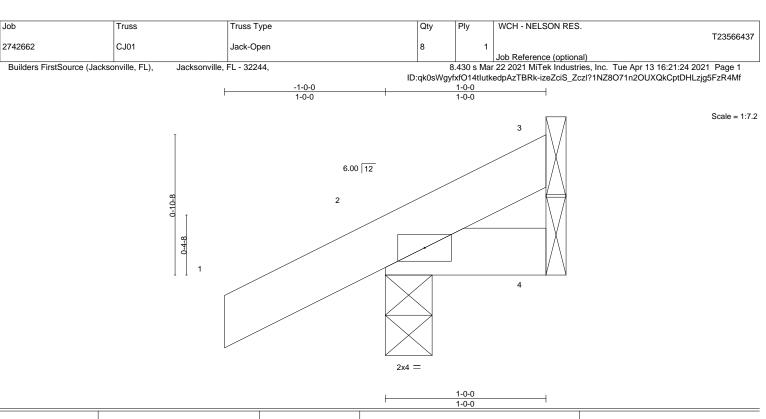
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: Velez, Joaquin

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.





LOADING TCLL TCDL BCLL BCDL	(psf) 20.0 7.0 0.0 *	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code FBC2020/T	2-0-0 1.25 1.25 YES PI2014	CSI. TC BC WB Matri	0.06 0.01 0.00 ix-MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 -0.00 -0.00	(loc) 7 7 2	I/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 5 lb	<b>GRIP</b> 244/190 FT = 20%	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	- '( - /		2			Weight: 5 lb	FT = 2	20%

**BRACING-**

**TOP CHORD** 

BOT CHORD

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

> (size) 3=Mechanical, 2=0-3-8, 4=Mechanical Max Horz 2=32(LC 12)

> Max Uplift 3=-6(LC 12), 2=-39(LC 12), 4=-4(LC 9) Max Grav 3=9(LC 1), 2=118(LC 1), 4=13(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; 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.
- \* 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) 3, 2, 4.



Structural wood sheathing directly applied or 1-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

April 15,2021

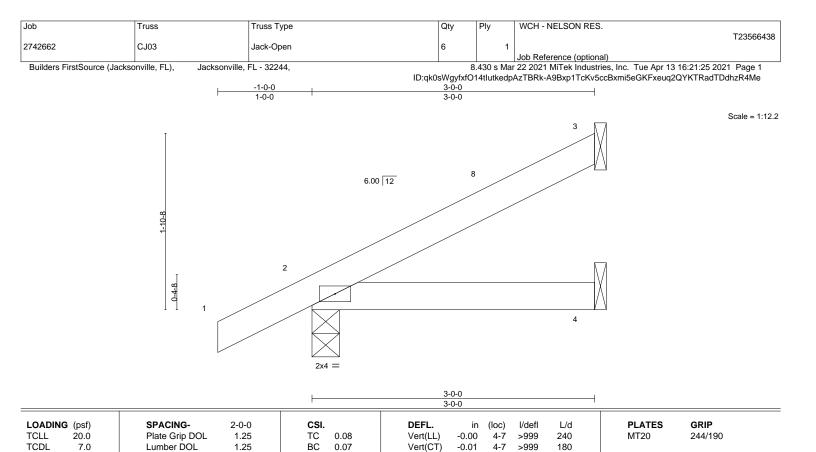
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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





Horz(CT)

**BRACING-**

**TOP CHORD** 

BOT CHORD

0.00

3

n/a

n/a

Rigid ceiling directly applied or 10-0-0 oc bracing.

Structural wood sheathing directly applied or 3-0-0 oc purlins.

Weight: 11 lb

FT = 20%

LUMBER-

REACTIONS.

**BCLL** 

**BCDL** 

TOP CHORD 2x4 SP No.2

0.0

10.0

BOT CHORD 2x4 SP No.2

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Rep Stress Incr

Max Horz 2=65(LC 12) Max Uplift 3=-38(LC 12), 2=-41(LC 12), 4=-1(LC 12)

Code FBC2020/TPI2014

Max Grav 3=65(LC 1), 2=172(LC 1), 4=51(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) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 2-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

WB

Matrix-MP

0.00

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

YES

- \* 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) 3, 2, 4.



Date:

April 15,2021

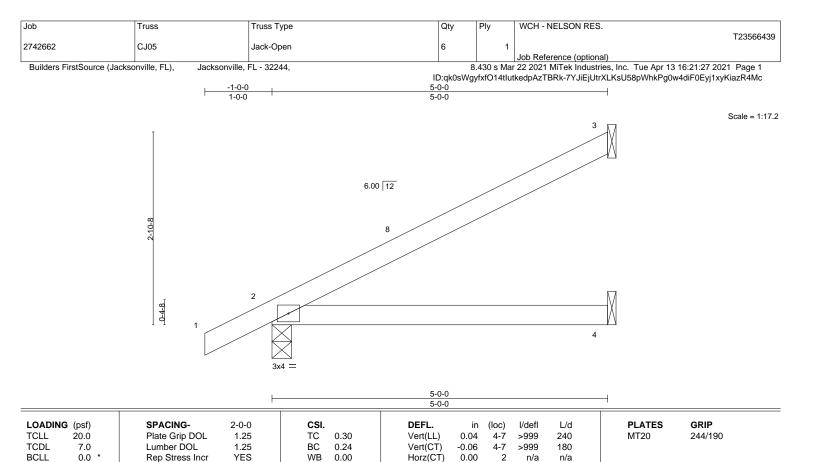


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LUMBER-

**BCDL** 

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

10.0

**BRACING-**

**TOP CHORD** BOT CHORD

Structural wood sheathing directly applied or 5-0-0 oc purlins.

Weight: 18 lb

FT = 20%

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=100(LC 12)

Max Uplift 3=-68(LC 12), 2=-51(LC 12), 4=-1(LC 12) Max Grav 3=116(LC 1), 2=242(LC 1), 4=89(LC 3)

Code FBC2020/TPI2014

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

### NOTES-

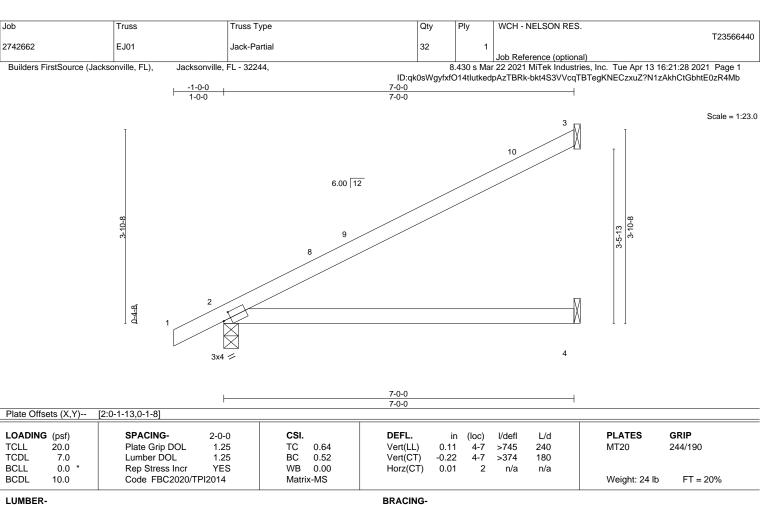
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II: Exp B: Encl. GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

Matrix-MP

- 3) 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.
- 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) 3, 2, 4.







TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

(size)

Max Horz 2=129(LC 12) Max Uplift 3=-87(LC 12), 2=-63(LC 12)

Max Grav 3=166(LC 1), 2=315(LC 1), 4=126(LC 3)

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

3=Mechanical, 2=0-3-8, 4=Mechanical

### 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 6-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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) 3, 2.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

Date:

April 15,2021



Ply WCH - NELSON RES. Job Qty Truss Truss Type T23566441 2742662 EJ02 2 Jack-Open Job Reference (optional) Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:29 2021 Page 1 Builders FirstSource (Jacksonville, FL), ID:qk0sWgyfxfO14tlutkedpAzTBRk-3wRSfPW7N8b25oFXxxjCU55JsRQ2T8\_0VFRRmSzR4Ma -1-0-0 3-0-0 1-0-0 3-0-0 Scale = 1:12.2 2x4 || 4 3 10 6.00 12 0-4-8 11 2x4 || 5 3-0-0 Plate Offsets (X,Y)-- [2:0-1-9,0-1-0]

osf) 0.0 7.0	<b>SPACING-</b> Plate Grip DOL Lumber DOL	2-0-0 1.25 1.25	CSI. TC BC	0.09 0.09	<b>DEFL.</b> Vert(LL) Vert(CT)	in 0.01 0.01	(loc) 6-9 6-9	l/defl >999 >999	L/d 240 180	PLATES MT20	<b>GRIP</b> 244/190
0.0 * 0.0	Rep Stress Incr Code FBC2020/TF	YES PI2014	WB Matri	0.03 x-MP	Horz(CT)	-0.00	2	n/a	n/a	Weight: 13 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical

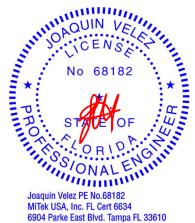
Max Horz 2=66(LC 12)

Max Uplift 2=-38(LC 12), 6=-42(LC 12) Max Grav 2=164(LC 1), 6=101(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 3-0-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.

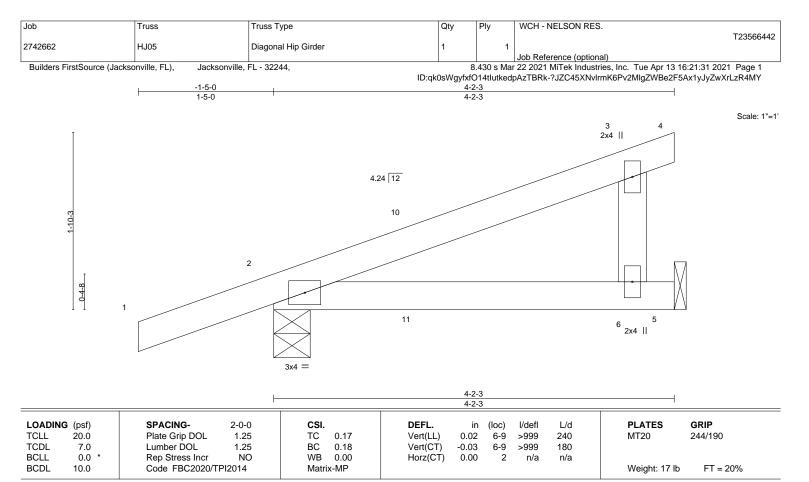


Structural wood sheathing directly applied or 3-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

Date:





**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

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

2x4 SP No.3 WFBS

REACTIONS. (size) 2=0-4-9, 5=Mechanical

Max Horz 2=73(LC 4) Max Uplift 2=-129(LC 4), 5=-75(LC 4)

Max Grav 2=237(LC 1), 5=140(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; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2 = 129.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 52 lb down and 9 lb up at 1-6-1, and 52 lb down and 9 lb up at 1-6-1 on top chord, and 28 lb down and 7 lb up at 1-6-1, and 28 lb down and 7 lb up at 1-6-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-54, 3-4=-54, 5-7=-20

Concentrated Loads (lb)

Vert: 11=8(F=4, B=4)



Structural wood sheathing directly applied or 4-2-3 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals

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

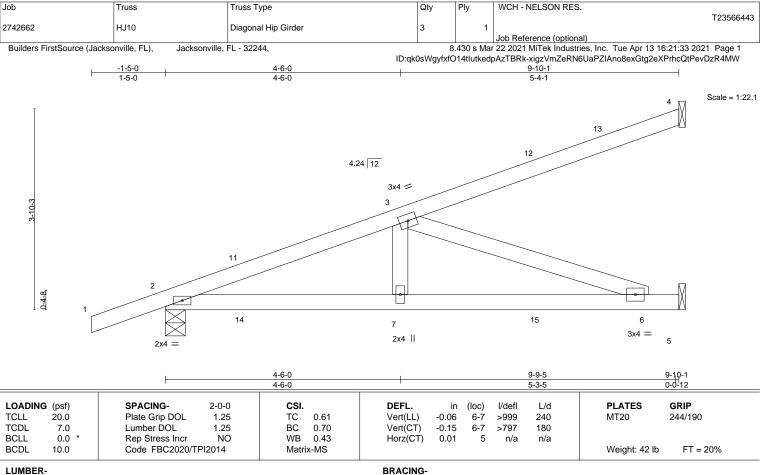
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TOP CHORD

BOT CHORD

TOP CHORD

REACTIONS.

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

2x4 SP No.3 WFBS

> (size) 4=Mechanical, 2=0-4-9, 5=Mechanical Max Horz 2=137(LC 4)

Max Uplift 4=-79(LC 4), 2=-175(LC 4), 5=-95(LC 8) Max Grav 4=153(LC 1), 2=485(LC 1), 5=316(LC 1)

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

TOP CHORD 2-3=-859/250

**BOT CHORD** 2-7=-321/787, 6-7=-321/787 3-7=-13/303, 3-6=-834/340 WEBS

### 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; Lumber DOL=1.60 plate grip DOL=1.60
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- 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.
- 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) 4, 5 except (jt=lb) 2 = 175.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 52 lb down and 9 lb up at 1-6-1, 52 lb down and 9 lb up at 1-6-1, 23 lb down and 41 lb up at 4-4-0, 23 lb down and 41 lb up at 4-4-0, and 43 lb down and 80 lb up at 7-1-15, and 43 lb down and 80 lb up at 7-1-15 on top chord, and 5 lb down and 7 lb up at 1-6-1, 5 lb down and 7 lb up at 1-6-1, 21 lb down and 10 lb up at 4-4-0, 21 lb down and 10 lb up at 4-4-0, and 40 lb down and 16 lb up at 7-1-15, and 40 lb down and 16 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 5-8=-20

Concentrated Loads (lb)

Vert: 3=-1(F=-1, B=-1) 7=-15(F=-8, B=-8) 12=-79(F=-39, B=-39) 14=8(F=4, B=4) 15=-66(F=-33, B=-33)



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing

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

April 15,2021

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WCH - NELSON RES. Job Qty Truss Truss Type Plv T23566444 2742662 T01 Half Hip Girder Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:35 2021 Page 1

5-1-11

ID:qk0sWgyfxfO14tlutkedpAzTBRk-u4ojwSauz\_MCpjihHCqcjML9YsPjtdGvtBul\_6zR4MU <u>22-6-14</u> 33-0-0 27-8-9 5-1-11 5-1-11 5-3-7

Structural wood sheathing directly applied or 2-5-7 oc purlins,

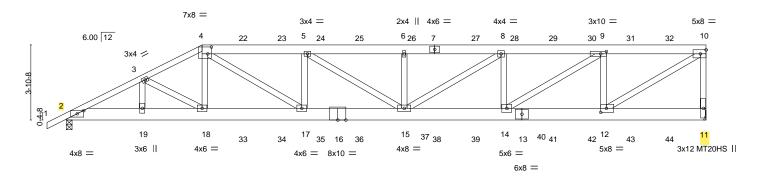
Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

except end verticals.

8-5-5 oc bracing: 15-17

8-9-10 oc bracing: 14-15.

Scale = 1:59.4



H	3-10-15 3-10-15	7-0-0 3-1-1	12-3-7 5-3-7	17-5-2 5-1-11	22-6-14 5-1-11	27-8-9 5-1-11	33-0-0 5-3-7	—
Plate Offse	ets (X,Y)	[2:0-4-0,0-1-15], [4:0-2-4	4,0-4-4], [9:0-3-8,0	1-1-8], [12:0-3-8,0-2-8]	-	-		
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 0.84	Vert(LL) -0.31 15	>999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.33	Vert(CT) -0.57 15-17	>691 180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB 0.94	Horz(CT) 0.07 11	n/a n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Matrix-MS			Weight: 250 lb	FT = 20%

BOT CHORD

LUMBER-**BRACING-**TOP CHORD

TOP CHORD 2x6 SP No.2 \*Except\*

3-10-15

3-10-15

3-1-1

5-3-7

1-0-0

1-4: 2x4 SP No.2 BOT CHORD 2x8 SP 2400F 2.0E

2x4 SP No.3 \*Except\* **WEBS** 4-17,5-15,8-15,9-14,10-12: 2x4 SP No.2

REACTIONS. (size) 11=Mechanical, 2=0-3-8

Max Horz 2=134(LC 8)

Max Uplift 11=-848(LC 5), 2=-719(LC 8) Max Grav 11=2615(LC 1), 2=2480(LC 1)

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

TOP CHORD 2-3=-4838/1449, 3-4=-4927/1547, 4-5=-6215/2008, 5-6=-6549/2120, 6-8=-6549/2120,

8-9=-5702/1852, 9-10=-3531/1149, 10-11=-2479/839

BOT CHORD 2-19=-1333/4287, 18-19=-1333/4287, 17-18=-1403/4421, 15-17=-2006/6211,

14-15=-1852/5702, 12-14=-1149/3531

WEBS 3-18=-203/255, 4-18=-159/707, 4-17=-734/2175, 5-17=-933/426, 5-15=-152/447,

6-15=-544/280, 8-15=-320/1011, 8-14=-1113/461, 9-14=-839/2588, 9-12=-2012/770,

10-12=-1352/4162

- 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; 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) All plates are MT20 plates unless otherwise indicated.
- 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) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=848 2=719



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

April 15,2021

### Continued on page 2



Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 

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



Job	Truss	Truss Type	Qty	Ply	WCH - NELSON RES.	
07.40000	T04	H. KUP. O'. I			_	T23566444
2742662	T01	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:35 2021 Page 2 ID:qk0sWgyfxfO14tlutkedpAzTBRk-u4ojwSauz\_MCpjihHCqcjML9YsPjtdGvtBul\_6zR4MU

### NOTES-

- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 131 lb down and 91 lb up at 7-0-0, 112 lb down and 91 lb up at 9-0-12, 112 lb down and 91 lb up at 11-0-12, 112 lb down and 91 lb up at 11-0-12, 112 lb down and 91 lb up at 15-0-12, 112 down and 91 lb up at 19-0-12, 112 lb down and 91 lb up at 21-0-12, 112 lb down and 91 lb up at 23-0-12, 112 lb down and 91 lb up at 25-0-12, 112 lb down and 91 up at 27-0-12, and 112 lb down and 91 lb up at 29-0-12, and 112 lb down and 91 lb up at 31-0-12 on top chord, and 355 lb down and 143 lb up at 7-0-0, 86 lb down and 20 lb up at 9-0-12, 86 lb down and 20 lb up at 11-0-12, 86 lb down and 20 lb up at 13-0-12, 86 lb down and 20 lb up at 15-0-12, 86 lb down lb down and 20 lb up at 19-0-12, 86 lb down and 20 lb up at 21-0-12, 86 lb down and 20 lb up at 23-0-12, 86 lb down and 20 lb up at 25-0-12, 86 lb down and 20 lb up at 27-0-12, and 86 lb down and 20 lb up at 29-0-12, and 86 lb down and 20 lb up at 31-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

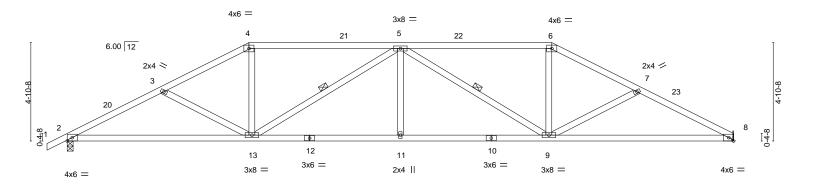
Vert: 1-4=-54, 4-10=-54, 2-11=-20

Concentrated Loads (lb)

Vert: 4=-112(B) 7=-112(B) 18=-355(B) 22=-112(B) 23=-112(B) 24=-112(B) 25=-112(B) 26=-112(B) 27=-112(B) 28=-112(B) 29=-112(B) 30=-112(B) 31=-112(B) 32=-112(B) 33=-67(B) 34=-67(B) 35=-67(B) 36=-67(B) 37=-67(B) 38=-67(B) 39=-67(B) 40=-67(B) 41=-67(B) 42=-67(B) 42=-67(B) 43=-67(B) 44=-67(B)

Qty Ply WCH - NELSON RES. Job Truss Truss Type T23566445 2742662 T02 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:37 2021 Page 1 Jacksonville, FL - 32244, ID:qk0sWgyfxfO14tlutkedpAzTBRk-qTwTL8c8Vbcv31s3Pds4pnRY8f\_SLhJCKVNs2?zR4MS 24-0-0 28-2-8 33-0-0 1-0-0 4-9-8 4-2-8 7-6-0 7-6-0 4-2-8 4-9-8

Scale = 1:57.1



	9-0-0	16-6-0	24-0-0	33-0-0
	9-0-0	7-6-0	7-6-0	9-0-0
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.25 Lumber DOL 1.25 Rep Stress Incr YES Code FBC2020/TPI2014	CSI. TC 0.64 BC 0.83 WB 0.26 Matrix-MS	DEFL.         in (loc)         l/defl           Vert(LL)         -0.16         11         >999           Vert(CT)         -0.34         9-16         >999           Horz(CT)         0.11         8         n/a	L/d PLATES GRIP 240 MT20 244/190 180 n/a Weight: 161 lb FT = 20%

**BRACING-**

WFBS

TOP CHORD

**BOT CHORD** 

LUMBER-

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

BOT CHORD 2x4 SP No.3 WFBS

REACTIONS.

(size) 8=Mechanical, 2=0-3-8

Max Horz 2=82(LC 12)

Max Uplift 8=-264(LC 13), 2=-286(LC 12) Max Grav 8=1220(LC 1), 2=1276(LC 1)

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

TOP CHORD 2-3=-2295/512, 3-4=-2044/437, 4-5=-1799/423, 5-6=-1802/425, 6-7=-2048/439,

7-8=-2303/517

BOT CHORD 2-13=-474/2025, 11-13=-447/2278, 9-11=-447/2278, 8-9=-412/2034

WEBS 3-13=-279/158, 4-13=-83/601, 5-13=-661/209, 5-11=0/265, 5-9=-659/208, 6-9=-83/604,

7-9=-286/162

### 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) -1-0-0 to 2-3-10, Interior(1) 2-3-10 to 9-0-0, Exterior(2R) 9-0-0 to 13-8-0, Interior(1) 13-8-0 to 24-0-0, Exterior(2R) 24-0-0 to 28-4-7, Interior(1) 28-4-7 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=264, 2=286.



Structural wood sheathing directly applied or 3-3-12 oc purlins.

5-13. 5-9

Rigid ceiling directly applied or 8-6-13 oc bracing.

1 Row at midpt

6904 Parke East Blvd. Tampa FL 33610 Date:

April 15,2021

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\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Qty WCH - NELSON RES. Job Truss Truss Type Plv T23566446 2742662 T03 Hip Job Reference (optional) Jacksonville, FL - 32244, Builders FirstSource (Jacksonville, FL), 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:39 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-ms2EmqdO1DsdlK0SW1vYuCWzMTj3paTUopsy7tzR4MQ 22-0-0

5-6-0

5-4-1

Structural wood sheathing directly applied or 3-7-7 oc purlins.

Rigid ceiling directly applied or 8-7-14 oc bracing.

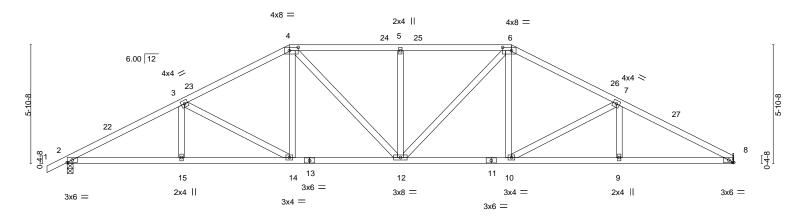
16-6-0

5-6-0

Scale = 1:57.1

33-0-0

5-7-15



Į.		5-8-0	11-0-0	16-6-0	22-0-0	27-4-1	33-0-0
'	Ę	5-8-0	5-4-1	5-6-0	5-6-0	5-4-1	5-7-15
Plate Offse	ets (X,Y)	[4:0-5-4,0-2-0], [	6:0-5-4,0-2-0], [7:0-0-0,	0-0-0], [8:0-2-15,Edge]			
LOADING	(psf)	SPACING	<b>3-</b> 2-0-0	CSI.	DEFL. in (loc)	l/defl L/d	PLATES GRIP
TCLL	20.0	Plate Grip	DOL 1.25	TC 0.34	Vert(LL) -0.13 12	>999 240	MT20 244/190
TCDL	7.0	Lumber D	OL 1.25	BC 0.56	Vert(CT) -0.24 10-12	>999 180	
BCLL	0.0 *	Rep Stres	ss Incr YES	WB 0.35	Horz(CT) 0.10 8	n/a n/a	
BCDL	10.0	Code FB	C2020/TPI2014	Matrix-MS			Weight: 175 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

1-0-0

5-8-0

TOP CHORD 2x4 SP No.2 2x4 SP No 2 **BOT CHORD** 2x4 SP No.3 WFBS

(size) 8=Mechanical, 2=0-3-8

Max Horz 2=97(LC 12)

Max Uplift 8=-262(LC 13), 2=-283(LC 12) Max Grav 8=1220(LC 1), 2=1276(LC 1)

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

2-3=-2323/487, 3-4=-1878/419, 4-5=-1838/449, 5-6=-1838/449, 6-7=-1880/421, TOP CHORD

7-8=-2331/492

BOT CHORD 2-15=-460/2027, 14-15=-460/2027, 12-14=-290/1624, 10-12=-244/1626, 9-10=-383/2036,

11-0-0

5-4-1

8-9=-383/2036

**WEBS** 3-14=-469/194, 4-14=-57/378, 4-12=-129/414, 5-12=-336/165, 6-12=-128/413,

6-10=-59/379, 7-10=-477/198

### 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) -1-0-0 to 2-3-10, Interior(1) 2-3-10 to 11-0-0, Exterior(2R) 11-0-0 to 15-8-0, Interior(1) 15-8-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-8-0, Interior(1) 26-8-0 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=262, 2=283.



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

April 15,2021

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\*\*AMSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Qty Ply WCH - NELSON RES. Job Truss Truss Type T23566447 2742662 T04 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:40 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-E2bczAe1nW\_UwUbe4lQnQQ323t\_pYzne1TbWfJzR4MP

20-0-0

7-0-0

26-2-7

6-2-7

29-2-14

3-0-7

Structural wood sheathing directly applied or 3-0-9 oc purlins.

4-11

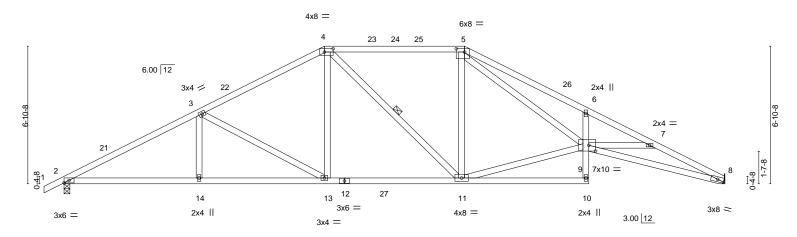
Rigid ceiling directly applied or 8-8-0 oc bracing.

1 Row at midpt

Scale = 1:57.5

33-0-0

3-9-2



-	6-8-15 6-8-15	13-0-0 6-3-1	+	20-0-0 7-0-0			26-2-7 6-2-7	+	33-0-0 6-9-9	<del></del>
Plate Offsets (X,Y)	[4:0-5-4,0-2-0], [5:0-5		0-3-8]	7-0-0			0-2-1		0-3-3	
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DO Lumber DOL Rep Stress Ind Code FBC202	1.25 cr YES	ВС	0.60 Hor	(LL) -0.28	10 10-11	l/defl >999 >802 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 182 lb	<b>GRIP</b> 244/190 FT = 20%

**BRACING-**

WFBS

TOP CHORD

**BOT CHORD** 

LUMBER-

1-0-0

6-8-15

6-3-1

TOP CHORD 2x4 SP No.2 \*Except\*

5-8: 2x4 SP M 31

**BOT CHORD** 2x4 SP No.2 \*Except\*

6-10: 2x4 SP No.3, 8-9: 2x4 SP M 31

**WEBS** 2x4 SP No.3 \*Except\*

5-9: 2x4 SP No.2

REACTIONS. (size) 8=Mechanical, 2=0-3-8

Max Horz 2=112(LC 12)

Max Uplift 8=-259(LC 13), 2=-281(LC 12) Max Grav 8=1321(LC 2), 2=1372(LC 2)

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

TOP CHORD 2-3=-2465/470, 3-4=-1892/405, 4-5=-1640/397, 5-6=-4188/880, 6-7=-4301/779,

7-8=-4325/841

**BOT CHORD** 2-14=-449/2158, 13-14=-449/2158, 11-13=-244/1643, 6-9=-267/197, 8-9=-726/3932 WEBS 3-14=0/268, 3-13=-606/235, 4-13=-70/549, 5-11=-279/137, 9-11=-190/1509,

5-9=-584/2663

### 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) -1-0-0 to 2-3-10, Interior(1) 2-3-10 to 13-0-0, Exterior(2R) 13-0-0 to 17-8-0, Interior(1) 17-8-0 to 20-0-0, Exterior(2R) 20-0-0 to 24-8-0, Interior(1) 24-8-0 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=259, 2=281,



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April 15,2021

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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



Qty WCH - NELSON RES. Job Truss Truss Type Plv T23566448 2742662 T05 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:42 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-BRjMOrgHJ8EC9ol1CASFWr8Pmger0x\_xUm4djCzR4MN

18-0-0

3-0-0

22-9-4

4-9-4

4-10-4

Structural wood sheathing directly applied or 2-5-1 oc purlins.

Rigid ceiling directly applied.

15-0-0

4-9-4

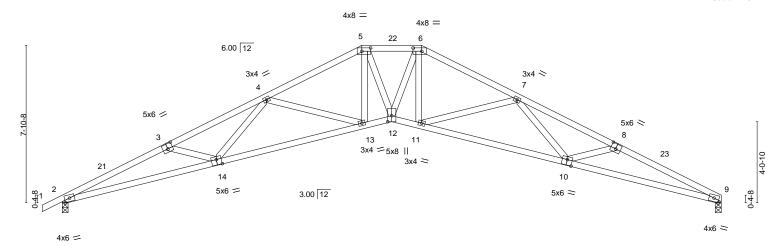
10-2-12

4-10-4

Scale = 1:57.7

33-0-0

5-4-7



	7-8-9		15-0-0		16-6-0	18-0-0	25-3-7		33-0-0	1	
	1	7-8-9	1	7-3-7	1-6-0	1-6-0	7-	3-7		7-8-9	ı
Plate Offsets	s (X,Y)	[2:0-3-0,Edge], [3:0-3-0,0-3	-0], [5:0-5-4,0	0-2-0], [6:0-5-4,0-2-	0], [8:0-3-0,0	-3-0], [9:0-3	3-0,Edge], [10:	0-3-0,0-3-	4], [12:0-	3-10,0-2-8], [14:0-3-0,0-3-4	.]
LOADING (	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defI	L/d	PLATES	GRIP
TCLL 2	20.0	Plate Grip DOL	1.25	TC 0.59		Vert(LL)	-0.44 12	>905	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 1.00		Vert(CT)	-0.84 13-14	>470	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.36		Horz(CT)	0.58 9	n/a	n/a		
BCDL '	10.0	Code FBC2020/TPI2	2014	Matrix-MS		` ,				Weight: 162 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

1-0-0

5-4-7

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

WFBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 9=0-3-8

Max Horz 2=127(LC 12)

Max Uplift 2=-277(LC 12), 9=-256(LC 13) Max Grav 2=1276(LC 1), 9=1220(LC 1)

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

2-3=-4169/939, 3-4=-3881/823, 4-5=-2950/557, 5-6=-2835/561, 6-7=-2950/553, TOP CHORD

7-8=-3892/732, 8-9=-4183/837

BOT CHORD 2-14=-921/3784, 13-14=-688/3333, 12-13=-391/2654, 11-12=-333/2655, 10-11=-544/3337,

9-10=-715/3800

**WEBS** 3-14=-254/189, 4-14=-81/470, 4-13=-675/304, 5-13=-119/556, 5-12=-122/610, 6-12=-178/609, 6-11=-117/556, 7-11=-678/308, 7-10=-91/472, 8-10=-260/197

### 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) -1-0-0 to 2-3-10, Interior(1) 2-3-10 to 15-0-0, Exterior(2E) 15-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-9-4, Interior(1) 22-9-4 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 2, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=277. 9=256.



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

April 15,2021

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 chorembers only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Ply WCH - NELSON RES. Job Truss Truss Type Qtv T23566449 2742662 T06 6 Scissor Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:43 2021 Page 1 Jacksonville, FL - 32244. ID:qk0sWgyfxfO14tlutkedpAzTBRk-fdHlbBhv4RM3nyKDltzU22hcm4?VIHL4jQqAGezR4MM

22-0-1

5-6-1

27-0-13

5-0-12

Structural wood sheathing directly applied or 2-6-4 oc purlins.

Rigid ceiling directly applied or 2-2-0 oc bracing.

16-6-0

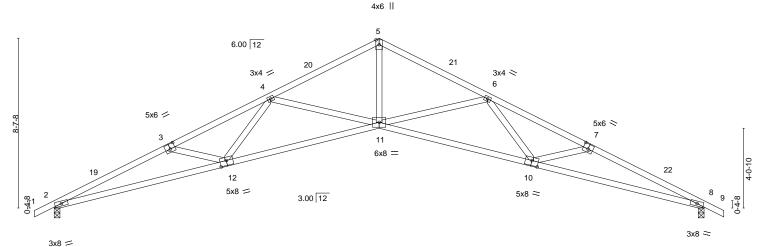
5-6-1

Scale = 1:58.5

1-0-0

33-0-0

5-11-3



8-7-15	16-6-0	24-4-1	33-0-0
8-7-15	7-10-1	7-10-1	8-7-15
[3:0-3-0,0-3-0], [7:0-3-0,0-3-0], [	10:0-4-0,0-3-0], [12:0-4-0,0-3-0]		
SPACING- 2-0-	0 CSI.	DEFL. in (loc) I/defl	L/d PLATES GRIP
Plate Grip DOL 1.2	5 TC 0.50	Vert(LL) -0.43 11-12 >925	240 MT20 244/190
Lumber DOL 1.2	5 BC 0.91	Vert(CT) -0.85 11-12 >466	180
Rep Stress Incr YE	S WB 0.81	Horz(CT) 0.54 8 n/a	n/a
Code FBC2020/TPI2014	Matrix-MS		Weight: 152 lb FT = 20%
	8-7-15 [3:0-3-0,0-3-0], [7:0-3-0,0-3-0], [  SPACING- Plate Grip DOL 1.2 Lumber DOL 1.2 Rep Stress Incr YE	8-7-15 7-10-1 [3:0-3-0,0-3-0], [7:0-3-0,0-3-0], [10:0-4-0,0-3-0], [12:0-4-0,0-3-0]  SPACING- 2-0-0 CSI.  Plate Grip DOL 1.25 TC 0.50  Lumber DOL 1.25 BC 0.91  Rep Stress Incr YES WB 0.81	8-7-15 7-10-1 7-10-1  [3:0-3-0,0-3-0], [7:0-3-0,0-3-0], [10:0-4-0,0-3-0], [12:0-4-0,0-3-0]  SPACING- 2-0-0 CSI. DEFL. in (loc) I/defl Plate Grip DOL 1.25 TC 0.50 Vert(LL) -0.43 11-12 >925 Lumber DOL 1.25 BC 0.91 Vert(CT) -0.85 11-12 >466 Rep Stress Incr YES WB 0.81 Horz(CT) 0.54 8 n/a

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

1-0-0

5-11-3

TOP CHORD 2x4 SP No.2 2x4 SP No.2 \*Except\* **BOT CHORD** 

2-12,8-10: 2x4 SP M 31

WEBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 8=0-3-8

Max Horz 2=-130(LC 13)

Max Uplift 2=-274(LC 12), 8=-274(LC 13) Max Grav 2=1275(LC 1), 8=1275(LC 1)

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

2-3=-4145/921, 3-4=-3803/782, 4-5=-2745/491, 5-6=-2745/500, 6-7=-3803/668, TOP CHORD

7-8=-4145/791

 $2\text{-}12\text{=-}904/3769,\ 11\text{-}12\text{=-}646/3236,\ 10\text{-}11\text{=-}471/3236,\ 8\text{-}10\text{=-}651/3769}$ 

10-11-15

5-0-12

5-11=-337/2116, 6-11=-781/339, 6-10=-88/527, 7-10=-316/220, 4-11=-781/336,

4-12=-82/527, 3-12=-316/216

### NOTES-

WEBS

**BOT CHORD** 

- 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) -1-0-0 to 2-3-10, Interior(1) 2-3-10 to 16-6-0, Exterior(2R) 16-6-0 to 19-9-10, Interior(1) 19-9-10 to 34-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=274, 8=274.



6904 Parke East Blvd. Tampa FL 33610 Date:

April 15,2021

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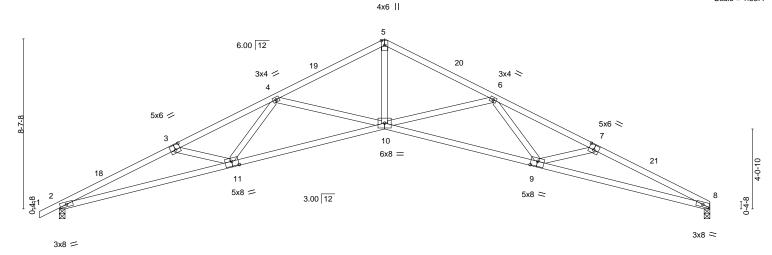
\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





ID:qk0sWgyfxfO14tlutkedpAzTBRk-7pr7pXhXrlUwO6uPJbUjbGDnVUKjUkZEx4Zjo5zR4ML 16-6-0 22-0-1 <u>27-0-13</u> 33-0-0 1-0-0 10-11-15 5-11-3 5-0-12 5-6-1 5-6-1 5-0-12 5-11-3

Scale = 1:58.4



		8-7-15	1	7-10-1		7-10-1		1	8-7-15	
Plate Offs	sets (X,Y)	[3:0-3-0,0-3-0], [7:0-3-0,0-	3-0], [9:0-4-0	,0-3-0], [11:0-4-0,0-3-0]						
LOADING	G (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
ΓCLL	20.0	Plate Grip DOL	1.25	TC 0.51	Vert(LL)	-0.43 10-11	>923	240	MT20	244/190
CDL	7.0	Lumber DOL	1.25	BC 0.91	Vert(CT)	-0.85 10-11	>465	180		
CLL	0.0 *	Rep Stress Incr	YES	WB 0.81	Horz(CT)	0.54 8	n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matrix-MS					Weight: 150 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

24-4-1

16-6-0

LUMBER-

TOP CHORD 2x4 SP No.2 2x4 SP No.2 \*Except\* **BOT CHORD** 

2-11,8-9: 2x4 SP M 31

8-7-15

WEBS 2x4 SP No.3

REACTIONS. (size) 8=0-3-8, 2=0-3-8

Max Horz 2=137(LC 12)

Max Uplift 8=-253(LC 13), 2=-275(LC 12) Max Grav 8=1220(LC 1), 2=1276(LC 1)

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

2-3=-4148/929, 3-4=-3807/790, 4-5=-2748/506, 5-6=-2748/519, 6-7=-3815/707, TOP CHORD

7-8=-4160/813

 $2\text{-}11\text{=-}918/3773,\ 10\text{-}11\text{=-}661/3239,\ 9\text{-}10\text{=-}499/3243,\ 8\text{-}9\text{=-}687/3785}$ 

5-10=-344/2118, 6-10=-785/340, 6-9=-90/529, 7-9=-321/222, 4-10=-781/335,

4-11=-82/527, 3-11=-316/216

### NOTES-

WEBS

BOT CHORD

- 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) -1-0-0 to 2-3-10, Interior(1) 2-3-10 to 16-6-0, Exterior(2R) 16-6-0 to 19-9-10, Interior(1) 19-9-10 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 8, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=253, 2=275,



33-0-0

Structural wood sheathing directly applied or 2-6-4 oc purlins.

Rigid ceiling directly applied or 2-2-0 oc bracing.

6904 Parke East Blvd. Tampa FL 33610 Date:

April 15,2021

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Qty Ply WCH - NELSON RES. Job Truss Truss Type T23566451 2742662 T08 FLAT GIRDER Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:47 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244.

ID:qk0sWgyfxfO14tlutkedpAzTBRk-XOWFRZkQ8gsVFZd\_\_j2QDurCqhWvh3xge2oOPPzR4MI

Structural wood sheathing directly applied or 2-6-7 oc purlins,

3-15, 7-11

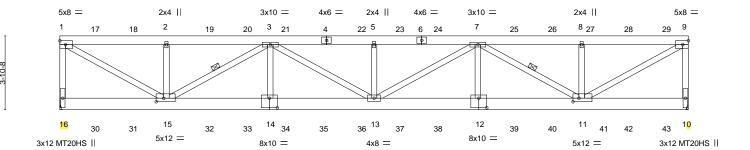
Rigid ceiling directly applied or 8-7-8 oc bracing.

except end verticals.

1 Row at midpt

27-4-13 33-0-0 16-6-0 21-11-7 5-5-7 5-5-7 5-5-7 5-7-3

Scale = 1:60.5



<u></u>	5-7-3 5-7-3	11-0-9 5-5-7	16-6-0 5-5-7	21-11-7 5-5-7	27-4-13 5-5-7	33-0-0 5-7-3
Plate Offsets (X,	) [11:0-3-12,0-2-4	], [12:0-5-0,0-6-0], [14:0	-5-0,0-6-0], [15:0-4-12,0-2	2-4]		
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 BCDL 10.0		DOL 1.25	CSI. TC 0.88 BC 0.31 WB 0.96 Matrix-MS	DEFL. in Vert(LL) -0.28 Vert(CT) -0.53 Horz(CT) 0.07	(loc) I/defl L/d 13 >999 240 13 >741 180 10 n/a n/a	PLATES GRIP MT20 244/190 MT20HS 187/143 Weight: 260 lb FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

**WEBS** 

LUMBER-

REACTIONS.

TOP CHORD 2x6 SP No.2

**BOT CHORD** 2x8 SP 2400F 2 0F WFBS

2x4 SP No.3 \*Except\*

1-15,3-15,3-13,7-13,7-11,9-11: 2x4 SP No.2

(size) 16=Mechanical, 10=Mechanical Max Uplift 16=-853(LC 4), 10=-873(LC 4) Max Grav 16=2614(LC 1), 10=2667(LC 1)

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

1-16=-2450/838, 1-2=-3655/1195, 2-3=-3655/1195, 3-5=-6515/2131, 5-7=-6515/2131, TOP CHORD

11-0-9

5-5-7

7-8=-3667/1199, 8-9=-3667/1199, 9-10=-2487/857

14-15=-1923/5871, 13-14=-1923/5865, 12-13=-1928/5878, 11-12=-1928/5883 BOT CHORD **WEBS** 

1-15=-1381/4232, 2-15=-628/329, 3-15=-2599/854, 3-14=-13/483, 3-13=-245/762, 5-13=-574/300, 7-13=-238/747, 7-12=-14/485, 7-11=-2601/855, 8-11=-632/331,

9-11=-1386/4246

### 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; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=853, 10=873,
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb down and 76 lb up at 1-9-10, 112 lb down and 76 lb up at 3-9-10, 112 lb down and 76 lb up at 3-9-10, 112 lb down and 76 lb up at 7-9-10, 112 lb down and 76 lb up at 9-9-10, 112 lb down and 76 lb up at 11-9-10, 112 lb down and 76 lb up at 13-9-10, 112 lb down and 76 lb up at 15-9-10, 112 lb down and 76 lb up at 17-9-10, 112 lb down and 76 lb up at 19-9-10, 112 lb down and 76 lb up at 21-9-10, 112 lb down and 76 lb up at 23-9-10, 112 lb down and 76 lb up at 25-9-10, 112 lb down and 76 lb up at 27-9-10, and 112 lb down and 76 lb up at 29-9-10, and 112 lb down and 76 lb up at 31-9-10 on top chord, and 86 lb down and 20 lb up at 1-9-10, 86 lb down and 20 lb up at 3-9-10, 86 lb down and 20 lb up at 5-9-10, 86 lb down and 20 lb up at 7-9-10, 86 lb down and 20 lb up at 9-9-10, 86 lb down and 20 lb up at 11-9-10, 86 lb down and 20 lb up at 13-9-10, 86 lb down and 20 lb up at 15-9-10, 86 lb down and 20 lb up at 17-9-10, 86 lb down and 20 lb up at 19-9-10, 86 lb down and 20 lb up at 21-9-10, 86 lb down and 20 lb up at 23-9-10, 86 lb down and 20 lb up at 25-9-10, 86 lb down and 20 lb up at 27-9-10, and 86 lb down and 20 lb up at 29-9-10, and 86 lb down and 20 lb up Coratnuado hopan agreement. The design/selection of such connection device(s) is the responsibility of others



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April 15,2021

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Job	Truss	Truss Type	Qty	Ply	WCH - NELSON RES.	
2742662	T00	FLAT GIRDER	4		1	T23566451
2742662	T08	FLAT GIRDER		'	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:47 2021 Page 2 ID:qk0sWgyfxfO14tlutkedpAzTBRk-XOWFRZkQ8gsVFZd\_\_j2QDurCqhWvh3xge2oOPPzR4MI

### NOTES-

10) 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: 1-9=-54, 10-16=-20

Concentrated Loads (lb)

Vert: 4=-112(F) 15=-67(F) 2=-112(F) 12=-67(F) 7=-112(F) 17=-112(F) 18=-112(F) 19=-112(F) 20=-112(F) 21=-112(F) 22=-112(F) 23=-112(F) 24=-112(F) 25=-112(F) 26=-112(F) 27=-112(F) 28=-112(F) 29=-112(F) 30=-67(F) 31=-67(F) 32=-67(F) 33=-67(F) 34=-67(F) 35=-67(F) 36=-67(F) 37=-67(F) 38=-67(F) 39=-67(F) 40=-67(F) 41=-67(F) 42=-67(F) 43=-67(F)



WCH - NELSON RES. Job Truss Type Truss Qtv Plv T23566452 2742662 T09 Half Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:48 2021 Page 1 Jacksonville, FL - 32244, ID:qk0sWgyfxfO14tlutkedpAzTBRk-?a4eevk2vz\_MtjCAYQZfl6OO85jwQY0psiXxxszR4MH 17-0-9 , 24-11-7 33-0-0

7-10-13

8-0-9

Scale = 1:55.9

8-0-9

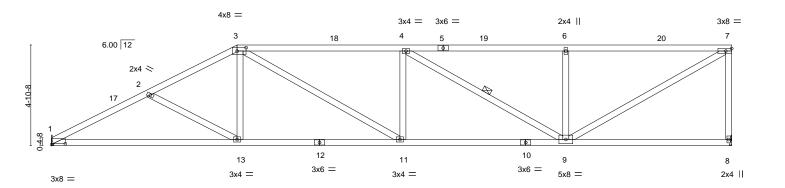
Structural wood sheathing directly applied or 2-2-0 oc purlins,

4-9

Rigid ceiling directly applied or 7-6-13 oc bracing.

except end verticals.

1 Row at midpt



<u> </u>		9-0-0 9-0-0	-	17-0-9 8-0-9		24-11- 7-10-1			-	33-0-0 8-0-9	<del></del>
Plate Offs	ets (X,Y)	[1:0-8-0,0-0-7], [3:0-5-4,0-2	2-0]	0-0-3		7-10-1	J			0-0-3	
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in (I	oc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.78	Vert(LL)	-0.15 13		>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.83	Vert(CT)	-0.33 13		>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TP	I2014	Matrix-MS						Weight: 172 lb	FT = 20%

**BRACING-**

**TOP CHORD** 

BOT CHORD

**WEBS** 

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

4-9-8

4-2-8

3-5: 2x4 SP M 31

BOT CHORD 2x4 SP No.2

2x4 SP No.3 **WEBS** 

REACTIONS. (size) 1=Mechanical, 8=Mechanical

Max Horz 1=155(LC 12)

Max Uplift 1=-286(LC 12), 8=-319(LC 9) Max Grav 1=1216(LC 1), 8=1216(LC 1)

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

1-2=-2292/563, 2-3=-2040/486, 3-4=-2264/583, 4-6=-1683/438, 6-7=-1683/438, TOP CHORD

7-8=-1144/338

**BOT CHORD** 1-13=-608/2024, 11-13=-467/1787, 9-11=-583/2264

WEBS 2-13=-278/160, 3-13=-25/412, 3-11=-223/654, 4-9=-672/260, 6-9=-450/218,

7-9=-495/1905

### 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) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 9-0-0, Exterior(2R) 9-0-0 to 13-8-0, Interior(1) 13-8-0 to 32-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=286, 8=319.



6904 Parke East Blvd. Tampa FL 33610 Date:

April 15,2021

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

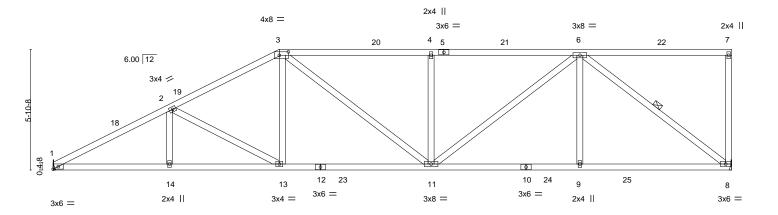
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



WCH - NELSON RES. Job Truss Truss Type Qtv Plv T23566453 2742662 T10 Half Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:49 2021 Page 1 Jacksonville, FL - 32244. ID:qk0sWgyfxfO14tlutkedpAzTBRk-Tne0sFlggH7CVtnN684ulJwbgV5i9?zz5MHUTlzR4MG 33-0-0 11-0-0 18-4-9 25-7-7 5-7-15 5-4-1 7-4-9 7-2-13 7-4-9

Scale = 1:56.0



LOADING         (psf)         SPACING-TCLL           20.0         Plate Grip D	2-0-0	CSI.	DEFL.	in (loc) I/defl L/	/d PLATES GRIP	
(1-1)	2-0-0	CSI.	DEFL.	in (loc) I/defl I/	/d PLATES GRIP	
TCDL         7.0         Lumber DOI           BCLL         0.0 *         Rep Stress I           BCDL         10.0         Code FBC2	L 1.25	TC 0.67 BC 0.73 WB 0.80 Matrix-MS	Vert(LL Vert(C) Horz(C	.) -0.18 11-13 >999 24 Γ) -0.32 11-13 >999 18	MT20 244/190	

**BRACING-**

TOP CHORD

BOT CHORD

**WEBS** 

LUMBER-

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

WFBS 2x4 SP No.3

REACTIONS. 1=Mechanical, 8=Mechanical (size)

Max Horz 1=190(LC 12)

Max Uplift 1=-286(LC 12), 8=-314(LC 9) Max Grav 1=1334(LC 2), 8=1363(LC 2)

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

TOP CHORD 1-2=-2533/542, 2-3=-2074/460, 3-4=-2029/457, 4-6=-2029/457

1-14=-617/2225, 13-14=-617/2225, 11-13=-447/1817, 9-11=-330/1462, 8-9=-330/1462 **BOT CHORD** WEBS

2-13=-488/194, 3-13=-51/491, 3-11=-143/374, 4-11=-419/202, 6-11=-245/717,

6-9=0/396, 6-8=-1817/410

### 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) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 11-0-0, Exterior(2R) 11-0-0 to 15-8-0, Interior(1) 15-8-0 to 32-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.
- \* 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=286, 8=314.



Structural wood sheathing directly applied or 3-1-4 oc purlins,

6-8

Rigid ceiling directly applied or 7-5-10 oc bracing.

except end verticals.

1 Row at midpt

6904 Parke East Blvd. Tampa FL 33610 Date:

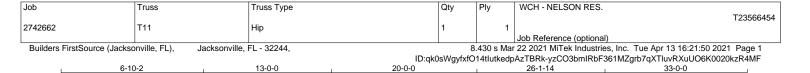
April 15,2021

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

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7-0-0

6-1-14

26-1-14

1 Row at midpt

Structural wood sheathing directly applied or 2-2-0 oc purlins.

3-9

Rigid ceiling directly applied or 8-7-7 oc bracing.

13-0-0

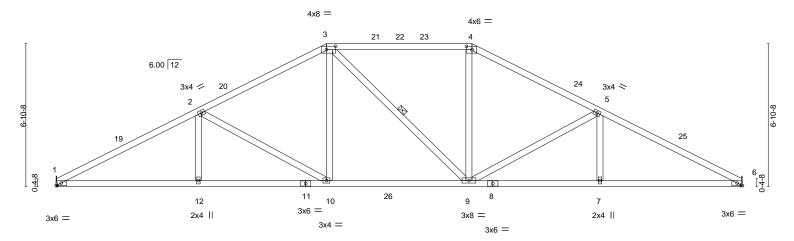
6-1-14

13-0-0

Scale = 1:55.4

6-10-2

33-0-0



Plata Offe	ets (X,Y)	6-10-2 [3:0-5-4,0-2-0], [4:0-3-4	6-1-14	ļ	+	7-0-0	-		6-1-1		6-10-2	
						DEE!		<i>(</i> 1 )	1/1.6		DIATEO	ODID
L <b>OADING</b> TCLL	20.Ó	SPACING- Plate Grip DOL	2-0-0 1.25	CSI.	0.77	<b>DEFL.</b> Vert(LL)			l/defl >999	L/d 240	PLATES MT20	<b>GRIP</b> 244/190
CDL	7.0 0.0 *	Lumber DOL Rep Stress Incr	1.25 YES	BC WB	0.76 0.59	Vert(CT) Horz(CT)	-0.31 0.10	9-10 6	>999 n/a	180 n/a		
CDL	10.0	Code FBC2020/	TPI2014	Matrix	k-MS	, ,					Weight: 165 lb	FT = 20%

**BRACING-**

WFBS

TOP CHORD

**BOT CHORD** 

20-0-0

LUMBER-

REACTIONS.

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

2x4 SP No.3 (size)

6-10-2

6-10-2

Max Horz 1=97(LC 12) Max Uplift 1=-259(LC 12), 6=-259(LC 13)

1=Mechanical, 6=Mechanical

Max Grav 1=1327(LC 2), 6=1322(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-2452/472, 2-3=-1894/407, 3-4=-1635/400, 4-5=-1882/407, 5-6=-2441/473 1-12=-451/2157, 10-12=-451/2157, 9-10=-245/1645, 7-9=-360/2147, 6-7=-360/2147 **BOT CHORD** 2-12=0/268, 2-10=-607/237, 3-10=-72/556, 4-9=-60/537, 5-9=-608/237, 5-7=0/267 WEBS

### 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) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 13-0-0, Exterior(2R) 13-0-0 to 17-8-0, Interior(1) 17-8-0 to 20-0-0, Exterior(2R) 20-0-0 to 24-8-0, Interior(1) 24-8-0 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=259, 6=259.



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

April 15,2021

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Qty WCH - NELSON RES. Job Truss Truss Type Plv T23566455 2742662 T12 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:51 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-Q9mmHwnwCuNwkAxIDZ6MNk0ybli7d?DFYgmbYBzR4ME

18-0-0

3-0-0

4-9-4

22-9-4

4-9-4

27-8-9

4-11-5

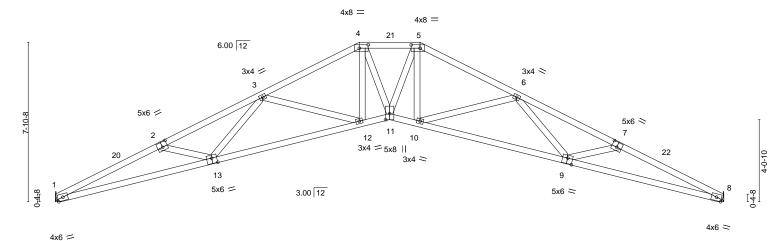
Structural wood sheathing directly applied or 2-5-3 oc purlins.

Rigid ceiling directly applied or 2-2-0 oc bracing.

Scale = 1:56.9

33-0-0

5-3-7



		7-8-9	1	15-0-0	, 1	6-6-0   18-0-0		25-3	-7		33-0-0	
	1	7-8-9	1	7-3-7	Į.	1-6-0 1-6-0		7-3-	-7		7-8-9	<u>'</u>
Plate Offse	ets (X,Y)	[1:0-3-0,Edge], [2:0-3-0,0-	3-0], [4:0-5-4,0	0-2-0], [5:0-5	-4,0-2-0], [7:0	0-3-0,0-3-0], [8:0-3	3-0,Edge	], [9:0-	3-0,0-3-4	], [11:0-3	-10,0-2-8], [13:0-3-0,0-3-4]	
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defI	L/d	PLATES GI	RIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.58	Vert(LL)	-0.44	11	>903	240	MT20 24	4/190
TCDL	7.0	Lumber DOL	1.25	BC	0.99	Vert(CT)	-0.84	9-10	>470	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.58	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TP	12014	Matri	k-MS	,					Weight: 161 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

WFBS 2x4 SP No.3

> 1=Mechanical, 8=Mechanical (size)

Max Horz 1=112(LC 12)

Max Uplift 1=-256(LC 12), 8=-256(LC 13) Max Grav 1=1221(LC 1), 8=1221(LC 1)

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

1-2=-4187/947, 2-3=-3895/829, 3-4=-2954/558, 4-5=-2839/562, 5-6=-2954/554, TOP CHORD

6-7=-3895/733, 7-8=-4187/838

BOT CHORD 1-13=-930/3803, 12-13=-691/3340, 11-12=-393/2658, 10-11=-335/2658, 9-10=-550/3340,

8-9=-715/3803

5-3-7

4-11-5

**WEBS** 2-13=-260/192, 3-13=-85/472, 3-12=-678/305, 4-12=-120/556, 4-11=-122/611, 5-11=-179/611, 5-10=-117/556, 6-10=-678/308, 6-9=-91/472, 7-9=-260/197

### 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) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 15-0-0, Exterior(2E) 15-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-9-4, Interior(1) 22-9-4 to 33-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=256, 8=256,



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April 15,2021

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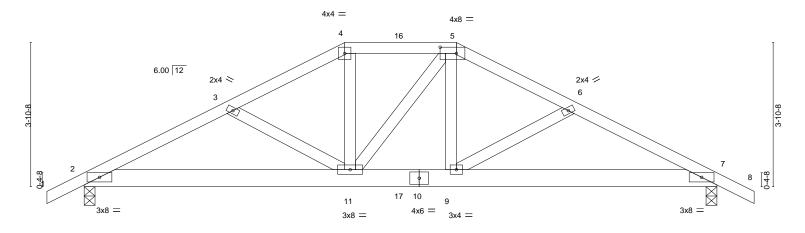
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\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Truss Type WCH - NELSON RES. Job Qty Truss Plv T23566456 2742662 T13 Hip Girder Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:52 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-uMK8UGoYzCVnMKWynGdbwxYB4i9jMUNPnKV84dzR4MD 18-0-0 10-0-0 13-0-1 17-0-0 1-0-0 3-11-15 3-0-1 3-0-0 3-0-1 3-11-15 1-0-0

Scale = 1:31.0



	-	7-0-0 7-0-0			+	10-0-0 3-0-0	-			17-0-0 7-0-0		———
Plate Offse	ets (X,Y)	[5:0-5-4,0-2-0]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	_	0.34	Vert(LL)	-0.06	9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	-0.12	9-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matrix	-MS						Weight: 97 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 2x6 SP No 2 **BOT CHORD** WFBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 7=0-3-8 Max Horz 2=60(LC 27)

Max Uplift 2=-395(LC 8), 7=-393(LC 9) Max Grav 2=1270(LC 1), 7=1284(LC 1)

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

TOP CHORD 2-3=-2370/768. 3-4=-2195/716. 4-5=-1953/667. 5-6=-2221/726. 6-7=-2398/765

2-11=-687/2099, 9-11=-589/1974, 7-9=-625/2124 BOT CHORD

4-11=-153/635, 5-9=-149/613 WEBS

### 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; 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.
- 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=395, 7=393,
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 131 lb down and 91 lb up at 7-0-0, and 112 lb down and 84 lb up at 8-6-0, and 235 lb down and 176 lb up at 10-0-0 on top chord, and 355 lb down and 143 lb up at 7-0-0, and 86 lb down and 20 lb up at 8-6-0, and 355 lb down and 143 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others
- 9) 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: 1-4=-54, 4-5=-54, 5-8=-54, 2-7=-20 Concentrated Loads (lb)

Vert: 4=-112(B) 5=-188(B) 11=-355(B) 9=-355(B) 16=-112(B) 17=-67(B)



Structural wood sheathing directly applied or 3-8-1 oc purlins.

Rigid ceiling directly applied or 8-11-0 oc bracing.

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

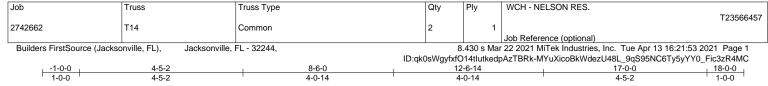
April 15,2021

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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







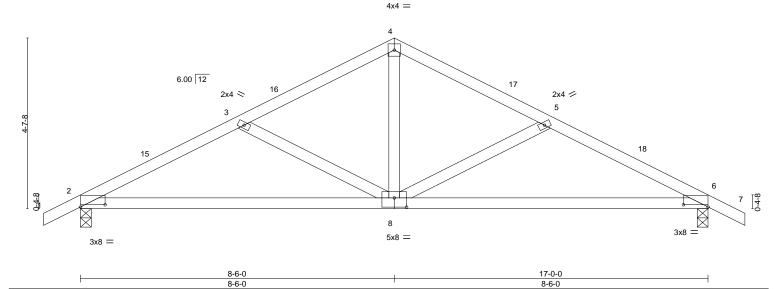


Plate Off	sets (X,Y)	[2:0-8-0,0-0-11], [6:0-8-0,	,0-0-11], [8:0-4	-0,0-3-0]								
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.08	8-14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-0.18	8-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matri	x-MS						Weight: 77 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8 Max Horz 2=71(LC 12)

Max Uplift 2=-152(LC 12), 6=-152(LC 13) Max Grav 2=683(LC 1), 6=683(LC 1)

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

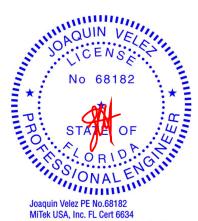
2-3=-1041/353, 3-4=-787/271, 4-5=-787/271, 5-6=-1041/353 TOP CHORD

**BOT CHORD** 2-8=-250/912, 6-8=-255/912

WEBS 4-8=-108/478, 5-8=-304/181, 3-8=-304/181

### 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) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-6-0, Exterior(2R) 8-6-0 to 11-6-0, Interior(1) 11-6-0 to 18-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=152, 6=152.

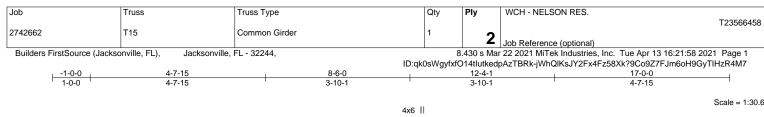


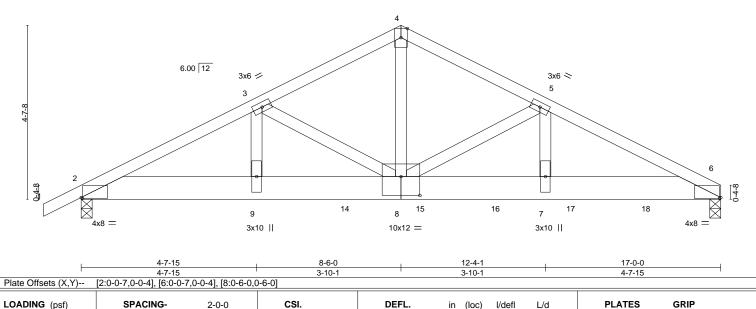
Structural wood sheathing directly applied or 5-6-12 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

6904 Parke East Blvd. Tampa FL 33610 Date:







-0.10

-0.18

0.03

8-9

8-9

6

>999

>999

n/a

Vert(LL)

Vert(CT)

Horz(CT)

**BRACING-**

TOP CHORD

**BOT CHORD** 

240

180

n/a

Rigid ceiling directly applied or 10-0-0 oc bracing.

MT20

Structural wood sheathing directly applied or 3-10-7 oc purlins.

Weight: 211 lb

244/190

FT = 20%

LUMBER-

**TCLL** 

TCDL

**BCLL** 

**BCDL** 

TOP CHORD 2x4 SP No.2 BOT CHORD 2x8 SP 2400F 2 0F 2x4 SP No.3 \*Except\* WFBS 4-8: 2x4 SP No.2

20.0

7.0

0.0

10.0

REACTIONS. (size) 6=0-3-8, 2=0-3-8

Max Horz 2=79(LC 31) Max Uplift 6=-1269(LC 9), 2=-982(LC 8)

Max Grav 6=5110(LC 1), 2=3575(LC 1)

Plate Grip DOL

Rep Stress Incr

Code FBC2020/TPI2014

Lumber DOL

1.25

1.25

NO

TC

вс

WB

Matrix-MS

0.53

0.38

0.63

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-7414/2042, 3-4=-6551/1790, 4-5=-6553/1790, 5-6=-9064/2302 TOP CHORD 2-9=-1833/6580, 8-9=-1833/6580, 7-8=-2008/8079, 6-7=-2008/8079 BOT CHORD WEBS 4-8=-1512/5586, 5-8=-2685/619, 5-7=-445/2361, 3-8=-876/346, 3-9=-202/669

### 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: 2x8 - 2 rows staggered at 0-4-0 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) Unbalanced roof live loads have been considered for this design.
- 4) 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
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 6) 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1269, 2=982.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2594 lb down and 873 lb up at 7-0-12, 1196 lb down and 306 lb up at 9-0-12, 1314 lb down and 306 lb up at 11-0-12, and 1307 lb down and 279 lb up at 13-0-12, and 1201 lb down and 276 lb up at 15-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others

LOAD CASE(S) Standard



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

April 15,2021

### Continued on page 2

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

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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



Truss Type WCH - NELSON RES. Job Truss Qty Ply T23566458 2742662 T15 Common Girder Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:21:59 2021 Page 2 ID:qk0sWgyfxfO14tlutkedpAzTBRk-BiFoyftxJMNohPYIhEFEiQLKJXbYVZ1ROwi0qjzR4M6

### LOAD CASE(S) Standard

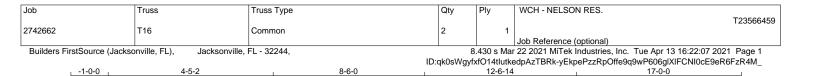
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)

Vert: 1-4=-54, 4-6=-54, 2-6=-20

Concentrated Loads (lb)

Vert: 14=-2594(F) 15=-1196(F) 16=-1196(F) 17=-1201(F) 18=-1201(F)

6904 Parke East Blvd. Tampa, FL 36610



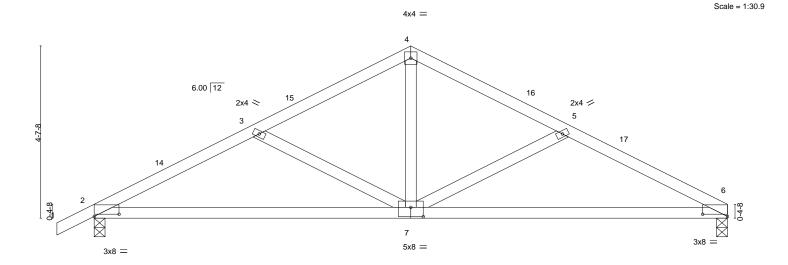
4-0-14

4-5-3

Structural wood sheathing directly applied or 5-5-14 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

4-0-14



	8-6-0								8-6-0		
Plate Offsets (X,Y)	[2:0-8-0,0-0-11], [6:0-8-0,0-0	,0-3-0]									
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code FBC2020/TPI2	2-0-0 1.25 1.25 YES 014	CSI. TC BC WB Matrix	0.32 0.65 0.18 k-MS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.08 -0.18 0.02	(loc) 7-10 7-10 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 75 lb	<b>GRIP</b> 244/190 FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

1-0-0

4-5-2

REACTIONS. (size) 6=0-3-8, 2=0-3-8 Max Horz 2=78(LC 16)

Max Uplift 6=-130(LC 13), 2=-152(LC 12) Max Grav 6=627(LC 1), 2=685(LC 1)

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

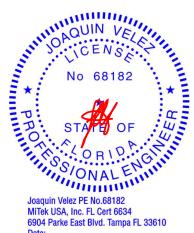
2-3=-1045/359, 3-4=-791/273, 4-5=-792/278, 5-6=-1050/364 TOP CHORD

**BOT CHORD** 2-7=-282/916, 6-7=-275/922

4-7=-115/480, 5-7=-311/184, 3-7=-304/180 WEBS

### 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) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-6-0, Exterior(2R) 8-6-0 to 11-6-0, Interior(1) 11-6-0 to 17-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=130, 2=152.



Date:

April 15,2021



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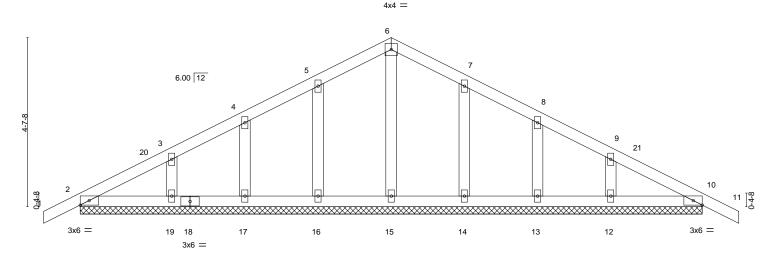
ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





Scale = 1:31.5

1-0-0



17-0-0 Plate Offsets (X,Y)--[10:0-2-15,Edge] LOADING (psf) SPACING-2-0-0 CSI DEFL I/defI L/d **PLATES** GRIP in (loc) TCLL Plate Grip DOL 1.25 TC 0.06 MT20 244/190 20.0 Vert(LL) -0.00 10 n/r 120 TCDL Lumber DOL 1.25 вс 0.04 Vert(CT) -0.00 10 120 7.0 n/r **BCLL** 0.0 Rep Stress Incr YES WB 0.03 Horz(CT) 0.00 10 n/a n/a **BCDL** 10.0 Code FBC2020/TPI2014 Matrix-S Weight: 82 lb FT = 20%

LUMBER-

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

-1-0-0 1-0-0

**BRACING-**

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

8-6-0

REACTIONS. All bearings 17-0-0

Max Horz 2=71(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 19, 14, 13, 12, 10 All reactions 250 lb or less at joint(s) 2, 15, 16, 17, 19, 14, 13, 12, 10

8-6-0

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) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 8-6-0, Corner(3R) 8-6-0 to 11-6-0, Exterior(2N) 11-6-0 to 18-0-0 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.
- \* 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, 17, 19, 14, 13, 12, 10.



6904 Parke East Blvd. Tampa FL 33610 Date:

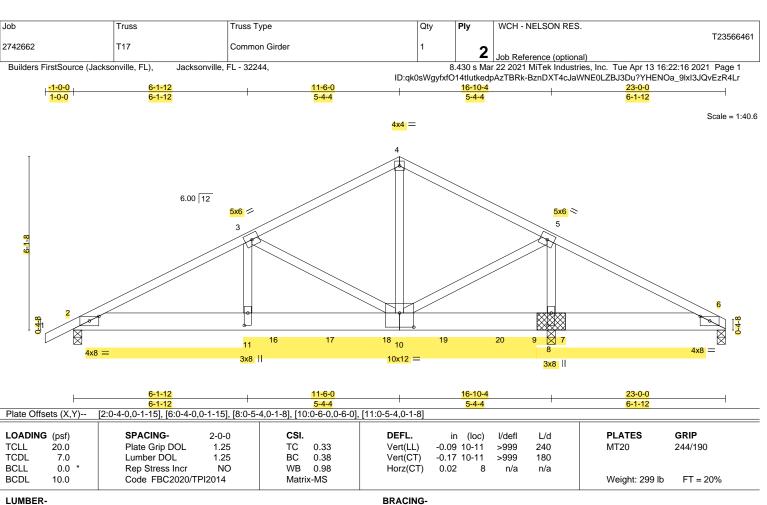
April 15,2021

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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





TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2 2x8 SP 2400F 2.0E **BOT CHORD** 

WFBS 2x4 SP No.3

(size) 6=0-3-8, 2=0-3-8, 8=(0-3-8 + bearing block) (req. 0-3-13)

Max Horz 2=101(LC 31)

Max Uplift 6=-722(LC 19), 2=-949(LC 8), 8=-1658(LC 9) Max Grav 6=260(LC 12), 2=3306(LC 1), 8=6493(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-7048/2033. 3-4=-3748/1024. 4-5=-3755/1043. 5-6=-410/1416 **BOT CHORD** 2-11=-1835/6244, 10-11=-1835/6244, 8-10=-1239/397, 6-8=-1239/397

4-10=-823/3056, 5-10=-1409/5157, 5-8=-5061/1399, 3-10=-3378/1140, 3-11=-865/2851 WEBS

### 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: 2x8 - 2 rows staggered at 0-4-0 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) 2x8 SP 2400F 2.0E bearing block 12" long at jt. 8 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SP No.2.
- 4) Unbalanced roof live loads have been considered for this design.
- 5) 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; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 6) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=722, 2=949, 8=1658,
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2647 lb down and 893 lb up at 7-0-12, 1196 lb down and 339 lb up at 9-0-12, 1343 lb down and 334 lb up at 11-0-12, and 1302 lb down and 279 lb up at 13-0-12 , and 1201 lb down and 276 lb up at 15-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



Structural wood sheathing directly applied or 4-7-4 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing

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

April 15,2021

### Continued on page 2

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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



Truss Type WCH - NELSON RES. Job Truss Qty Ply T23566461 2742662 T17 Common Girder Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:16 2021 Page 2 ID:qk0sWgyfxfO14tlutkedpAzTBRk-BznDXT4cJaWNE0LZBJ3Du?YHENOa\_9lxl3JQvEzR4Lr

### LOAD CASE(S) Standard

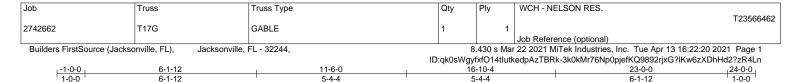
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)

Vert: 1-4=-54, 4-6=-54, 2-6=-20

Concentrated Loads (lb)

Vert: 16=-2647(B) 17=-1196(B) 18=-1196(B) 19=-1201(B) 20=-1201(B)





5-4-4

5-4-4

Scale = 1:41.2

1-0-0

6-1-12

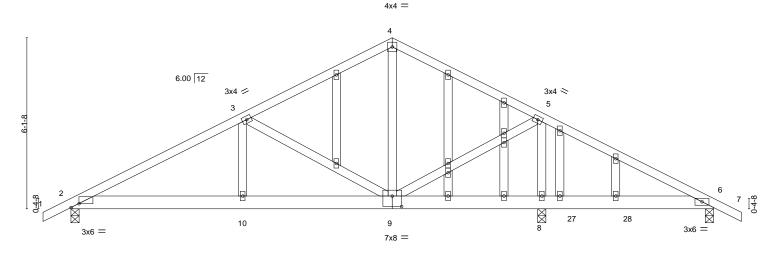


Plate Offsets (X,Y)	[2:0-3-7,0-1-10], [9:0-4-0,0-4-8]	J-4-4	J=4=4	0-1-12
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.25 Lumber DOL 1.25 Rep Stress Incr NO Code FBC2020/TPI2014	CSI. TC 0.45 BC 0.39 WB 0.39 Matrix-MS	DEFL.         in (loc)         l/defl           Vert(LL)         0.05         8-26         >999           Vert(CT)         -0.06         8-26         >999           Horz(CT)         0.01         8         n/a	L/d PLATES GRIP 240 MT20 244/190 180 n/a Weight: 151 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No 2 **BOT CHORD** 2x6 SP No 2 2x4 SP No.3 WFBS 2x4 SP No.3 **OTHERS** 

**BRACING-**

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 5-10-9 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8, 6=0-3-8

6-1-12

Max Horz 2=93(LC 12)

Max Uplift 2=-161(LC 27), 8=-313(LC 9), 6=-124(LC 9) Max Grav 2=625(LC 1), 8=1209(LC 1), 6=291(LC 20)

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

2-3=-912/219, 3-4=-400/139, 4-5=-402/149 TOP CHORD

BOT CHORD 2-10=-209/766, 9-10=-209/766

**WEBS** 5-9=-113/501, 5-8=-808/193, 3-9=-548/220, 3-10=0/272

### 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; porch right exposed; 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 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.
- \* 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=161, 8=313, 6=124.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 62 lb up at 17-11-4, and 192 lb down and 169 lb up at 19-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

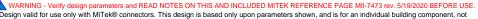
Vert: 1-4=-54, 4-7=-54, 2-6=-20



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

April 15,2021

### Continued on page 2



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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	Truss	Truss Type	Qty	Ply	WCH - NELSON RES.
2742662	T17G	GABLE	1	1	T23566462
2742002	1176	GABLE	'		Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:20 2021 Page 2 ID:qk0sWgyfxfO14tlutkedpAzTBRk-3k0kMr76Np0pjefKQ9892rjxG?lKw6zXDhHd2?zR4Ln

LOAD CASE(S) Standard Concentrated Loads (lb)

Vert: 27=-81(F) 28=-192(F)





ID:qk0sWgyfxfO14tlutkedpAzTBRk-M5xNqEDVjyvp2ihgK7moqKV5Np5\_3KlZqHUVo5zR4Lg 15-0-0 16-0-0 7-6-0 1-0-0

Structural wood sheathing directly applied or 5-1-14 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

Scale = 1:28.2

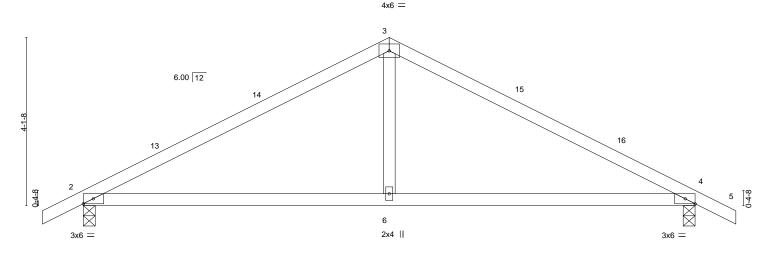


Plate Offsets (X,Y)	7-6-0 [4:0-2-15,Edge]		7-6-0	1
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING-         2-0-0           Plate Grip DOL         1.25           Lumber DOL         1.25           Rep Stress Incr         YES           Code FBC2020/TPI2014	CSI. TC 0.65 BC 0.58 WB 0.13 Matrix-MS	DEFL.         in (loc)         l/defl         L/d           Vert(LL)         -0.10         6-9         >999         240           Vert(CT)         -0.18         6-9         >983         180           Horz(CT)         0.01         4         n/a         n/a	PLATES         GRIP           MT20         244/190           Weight: 56 lb         FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

1-0-0

REACTIONS. (size) 2=0-3-8, 4=0-3-8

Max Horz 2=63(LC 12)

Max Uplift 2=-137(LC 12), 4=-137(LC 13) Max Grav 2=609(LC 1), 4=609(LC 1)

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

TOP CHORD 2-3=-788/276, 3-4=-788/276 **BOT CHORD** 2-6=-131/633, 4-6=-131/633

WEBS 3-6=-5/347

### 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) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 7-6-0, Exterior(2R) 7-6-0 to 10-6-0, Interior(1) 10-6-0 to 16-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

7-6-0

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=137, 4=137.



6904 Parke East Blvd. Tampa FL 33610 Date:

April 15,2021

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

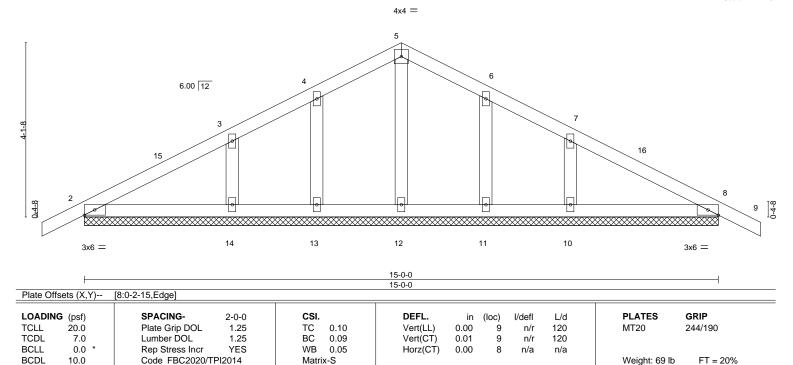
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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



WCH - NELSON RES. Job Ply Truss Truss Type Qtv T23566464 2742662 T18G GABLE Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:42 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:qk0sWgyfxfO14tlutkedpAzTBRk-QzL2\_MOwBZohM0KZimXJxUdo7sKF49nmH6coqjzR4LR 16-0-0 15-0-0 1-0-0 7-6-0 7-6-0 1-0-0

Scale = 1:27.3



LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3 **BRACING-**

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 15-0-0. (lb) - Max Horz 2=-63(LC 17)

Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 7-6-0, Corner(3R) 7-6-0 to 10-6-0, Exterior(2N) 10-6-0 to 16-0-0 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.
- \* 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, 8, 13, 14, 11, 10.



6904 Parke East Blvd. Tampa FL 33610 Date:

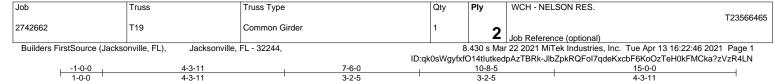
April 15,2021

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

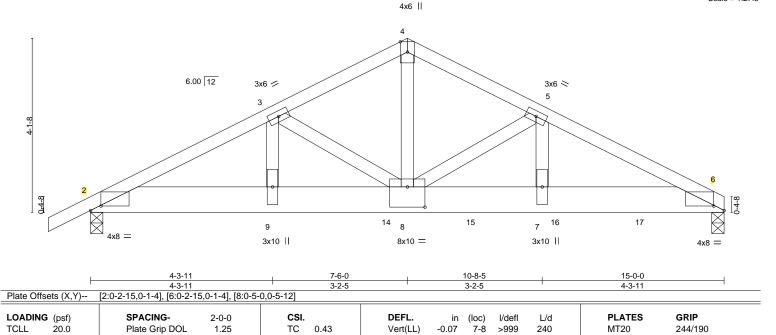
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





Scale = 1:27.3



Vert(CT)

Horz(CT)

**BRACING-**

TOP CHORD

**BOT CHORD** 

-0.14

0.03

7-8

6

>999

n/a

180

n/a

Rigid ceiling directly applied or 10-0-0 oc bracing.

Structural wood sheathing directly applied or 4-3-10 oc purlins.

LUMBER-

TCDL

**BCLL** 

**BCDL** 

TOP CHORD 2x4 SP No.2 2x8 SP 2400F 2.0E **BOT CHORD** WFBS 2x4 SP No.3

7.0

0.0

10.0

REACTIONS.

(size) 6=0-3-8, 2=0-3-8 Max Horz 2=72(LC 12)

Max Uplift 6=-1111(LC 9), 2=-800(LC 8) Max Grav 6=4440(LC 1), 2=2917(LC 1)

Lumber DOL

Rep Stress Incr

Code FBC2020/TPI2014

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-5843/1600, 3-4=-5634/1559, 4-5=-5634/1558, 5-6=-7769/1992 2-9=-1433/5179, 8-9=-1433/5179, 7-8=-1733/6921, 6-7=-1733/6921 BOT CHORD

4-8=-1317/4797, 5-8=-2275/537, 5-7=-406/2037 WEBS

### 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: 2x8 2 rows staggered at 0-4-0 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) Unbalanced roof live loads have been considered for this design.
- 4) 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
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

1.25

NO

вс

WB

Matrix-MS

0.34

0.91

- 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) except (jt=lb) 6=1111, 2=800.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2606 lb down and 871 lb up at 7-0-12, 1200 lb down and 284 lb up at 9-0-12, and 1200 lb down and 282 lb up at 11-0-12, and 1301 lb down and 279 lb up at 13-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

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

Vert: 1-4=-54, 4-6=-54, 2-6=-20



Weight: 186 lb

FT = 20%

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

April 15,2021

### Continued on page 2

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



Job	Truss	Truss Type	Qty	Ply	WCH - NELSON RES.
	T10				T2356646
2742662	119	Common Girder	1	2	Joh Reference (ontional)
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:46 2021 Page 2 ID:qk0sWgyfxfO14tlutkedpAzTBRk-JlbZpkRQFoI7qdeKxcbF6KoOzTeH0kFMCka?zVzR4LN

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 14=-2606(F) 15=-1200(F) 16=-1200(F) 17=-1200(F)



Qty WCH - NELSON RES. Job Truss Truss Type Plv T23566466 2742662 V01 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:46 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-JlbZpkRQFoI7qdeKxcbF6KoQhThX0xQMCka?zVzR4LN

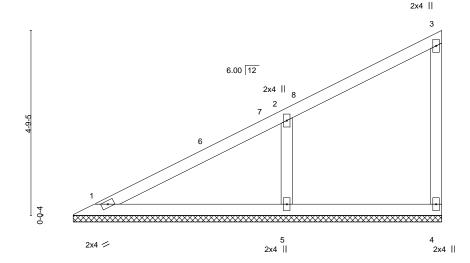
Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

9-6-10 5-6-10 4-0-0

Scale = 1:29.7



LOADING (psf) TCLL 20.0 TCDL 7.0	SPACING-         2-0-0           Plate Grip DOL         1.25           Lumber DOL         1.25	<b>CSI.</b> TC 0.26 BC 0.19	DEFL. Vert(LL) Vert(CT)	in (loc) n/a - n/a -	l/defl n/a n/a	L/d 999 999	PLATES MT20	<b>GRIP</b> 244/190
BCLL 0.0 * BCDL 10.0	Rep Stress Incr YES Code FBC2020/TPI2014	WB 0.07 Matrix-S	Horz(CT)	0.00 4	n/a	n/a	Weight: 38 lb	FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

2x4 SP No 3 WFBS 2x4 SP No.3 **OTHERS** 

(size) 1=9-6-2, 4=9-6-2, 5=9-6-2

Max Horz 1=134(LC 12)

Max Uplift 4=-21(LC 14), 5=-135(LC 12) Max Grav 1=147(LC 1), 4=98(LC 1), 5=405(LC 1)

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

WFBS 2-5=-288/236

### 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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-4-14 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=135.



6904 Parke East Blvd. Tampa FL 33610 Date:



WCH - NELSON RES. Job Truss Truss Type Qtv Plv T23566467 2742662 V02 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

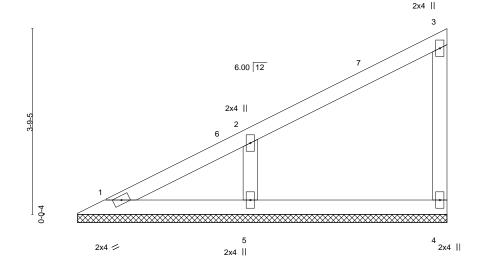
8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:48 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-F7iJEQTgnPYr4xoi31ejBltowHNEUr0ef2362NzR4LL

Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.





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	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matri	x-S	, ,					Weight: 29 lb	FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

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

2x4 SP No.3 **OTHERS** 

REACTIONS. (size) 1=7-6-2, 4=7-6-2, 5=7-6-2

Max Horz 1=110(LC 12)

Max Uplift 4=-32(LC 12), 5=-114(LC 12) Max Grav 1=77(LC 1), 4=119(LC 1), 5=305(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) 0-7-9 to 3-6-10, Interior(1) 3-6-10 to 7-4-14 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=114.



April 15,2021



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

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Ply WCH - NELSON RES. Job Truss Truss Type Qtv T23566468 2742662 V03 2 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:49 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-jJGhSmUJXjgih5Mvdk9yjzQwBhgpDJGouipgapzR4LK

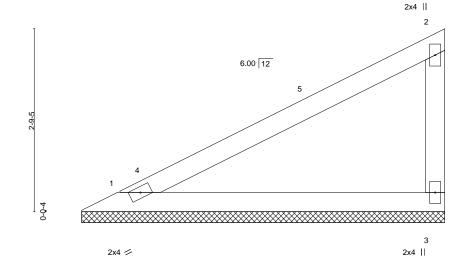
Structural wood sheathing directly applied or 5-6-10 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

5-6-10

Scale = 1:17.5



LOADING (psf) TCLL 20.0 TCDL 7.0	SPACING-         2-0-0           Plate Grip DOL         1.25           Lumber DOL         1.25	CSI. TC 0.37 BC 0.28		in (loc) n/a - n/a -	l/defl L/d n/a 999 n/a 999	PLATES GRIP MT20 244/190
BCLL 0.0 * BCDL 10.0	Rep Stress Incr YES Code FBC2020/TPI2014	WB 0.00 Matrix-P	` '	0.00	n/a n/a	Weight: 20 lb FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

2x4 SP No.3 WFBS

> (size) 1=5-6-2, 3=5-6-2

Max Horz 1=82(LC 12) Max Uplift 1=-27(LC 12), 3=-68(LC 12) Max Grav 1=177(LC 1), 3=177(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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-4-14 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



6904 Parke East Blvd. Tampa FL 33610 Date:



Ply WCH - NELSON RES. Job Truss Truss Type Qtv T23566469 2742662 V04 2 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

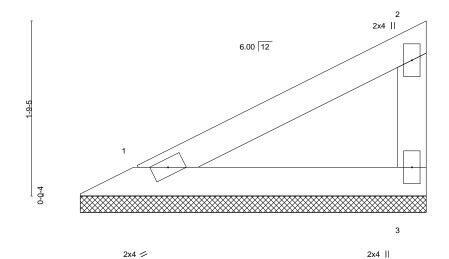
8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:50 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-BWq4f6UxI1oYJFx5ASgBGAy9y534ymVx7MYD6GzR4LJ

Structural wood sheathing directly applied or 3-6-10 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

3-6-10



LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	n/a	` -	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matri	x-P						Weight: 12 lb	FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

2x4 SP No.3 WFBS

> (size) 1=3-6-2, 3=3-6-2

Max Horz 1=48(LC 12) Max Uplift 1=-16(LC 12), 3=-40(LC 12)

Max Grav 1=103(LC 1), 3=103(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) 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



Date:



Qty Ply WCH - NELSON RES. Job Truss Truss Type T23566470 2742662 V05 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:50 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-BWq4f6UxI1oYJFx5ASgBGAy2\_5\_oymVx7MYD6GzR4LJ

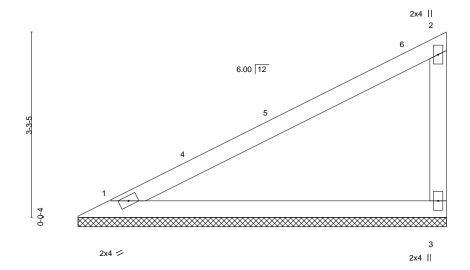
Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

6-6-10 6-6-10

Scale = 1:20.4



LOADIN	G (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)	n/a -	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL 1.25	BC 0.43	Vert(CT)	n/a -	n/a	999		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014	Matrix-P					Weight: 23 lb	FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 1=6-6-2, 3=6-6-2

Max Horz 1=98(LC 12) Max Uplift 1=-34(LC 12), 3=-78(LC 12) Max Grav 1=214(LC 1), 3=214(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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-4-14 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



6904 Parke East Blvd. Tampa FL 33610 Date:



Qty WCH - NELSON RES. Job Truss Truss Type Plv T23566471 2742662 V06 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:51 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-fiOStRVZ3KwPxPWHk9BQpOVI?UO1hDI5L0ImfizR4LI

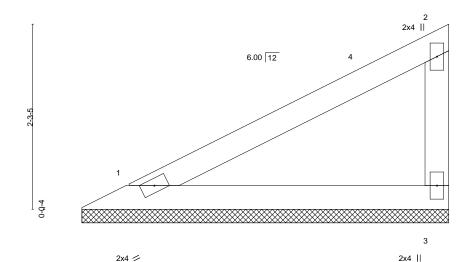
Structural wood sheathing directly applied or 4-6-10 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

4-6-10 4-6-10

Scale = 1:14.2



LOADING (psf) SPACING-2-0-0 CSI. DEFL. in I/defI L/d PLATES GRIP **TCLL** 20.0 Plate Grip DOL 1.25 TC 0.22 Vert(LL) n/a n/a 999 MT20 244/190 1.25 TCDL Lumber DOL вс 0.17 Vert(CT) 7.0 n/a n/a 999 **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 n/a n/a Code FBC2020/TPI2014 **BCDL** 10.0 Matrix-P Weight: 16 lb FT = 20%

**BRACING-**

**TOP CHORD** 

BOT CHORD

LUMBER-

REACTIONS.

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

2x4 SP No.3 **WEBS** 

> (size) 1=4-6-2, 3=4-6-2 Max Horz 1=65(LC 12)

Max Uplift 1=-21(LC 12), 3=-54(LC 12) Max Grav 1=140(LC 1), 3=140(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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-4-14 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



6904 Parke East Blvd. Tampa FL 33610 Date:



Qty Ply WCH - NELSON RES. Job Truss Truss Type T23566472 2742662 V07 Valley Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

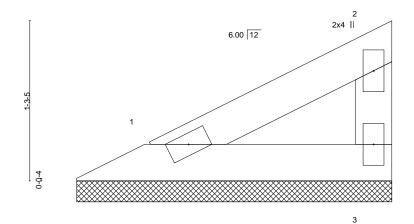
8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 13 16:22:52 2021 Page 1 ID:qk0sWgyfxfO14tlutkedpAzTBRk-7uyq4nWBqe3GYY5UItifLb1WZumOQg?Eaf1KB8zR4LH

Structural wood sheathing directly applied or 2-6-10 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

2-6-10

Scale = 1:9.2



2x4 /

2x4 ||

except end verticals.

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.04	Vert(LL) n/a - n/a 999	MT20 244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.03	Vert(CT) n/a - n/a 999	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 n/a n/a	
BCDL 10.0	Code FBC2020/TPI2014	Matrix-P	, ,	Weight: 8 lb FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

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

2x4 SP No.3 WFBS

REACTIONS. (size) 1=2-6-2, 3=2-6-2

Max Horz 1=31(LC 12) Max Uplift 1=-10(LC 12), 3=-26(LC 12)

Max Grav 1=66(LC 1), 3=66(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) 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



Date:

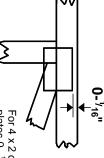


### Symbols

## 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- <sup>1</sup>/16" from outside edge of truss.

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

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

### PLATE SIZE

4 × 4

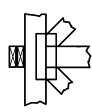
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

### **BEARING**



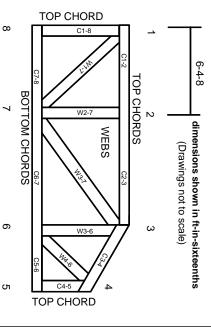
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-89:

## **Numbering System**



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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

# **General Safety Notes**

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.