



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

RE: 2380547 - GIEBEIG HOMES - LOT 31 CCP

MiTek USA, Inc.

6904 Parke East Blvd. Tampa, FL 33610-4115

Site Information:

Customer Info: Giebeig Const. Project Name: Spec Hse Model: Custom

Subdivision: Cannon Creek Place

Lot/Block: 31 Address: TBD, TBD

City: Columbia Cty

State: FL

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

Name:

License #:

Address:

City:

State:

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

Design Code: FBC2017/TPI2014

Design Program: MiTek 20/20 8.2

Truss Name

Wind Code: ASCE 7-10

Wind Speed: 130 mph

Roof Load: 37.0 psf

Floor Load: N/A psf

T15 T16 T17

This package includes 27 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.

> T20519025 T20519026

> T20519028

Seal# T20519024

No.

| No.<br>12345678910   | Seal# T20519002 T20519003 T20519004 T20519005 T20519007 T20519008 T20519009 T20519010 T20519011 T20519011         | Truss Name CJ01 CJ03 CJ05 EJ01 EJ02 EJ02A EJ03 HJ06 HJ10 T01 T02   | Date<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20 |
|--|---|--|--|
| 12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22 | T20519014<br>T20519015<br>T20519016<br>T20519017<br>T20519018<br>T20519020<br>T20519021<br>T20519022<br>T20519023 | T04<br>T05<br>T06<br>T07<br>T08<br>T09<br>T10<br>T11<br>T12<br>T13 | 6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20<br>6/22/20         |



Date

6/22/20

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

Truss Design Engineer's Name: Velez, Joaquin

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

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



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

June 22,2020

GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Qty T20519002 2380547 CJ01 Jack-Open 12 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:26 2020 Page 1 Builders FirstSource, Jacksonville, FL - 32244, ID:aWWYZLKSHCowoxc8cTivEVyrGuq-sGvVJkrNXCkoDI\_olJfZfRnQwxc2ZxK18L1aYZz3pX? -2-0-0 2-0-0 1-0-0 1-0-0 Scale = 1:9.5 6.00 12

1-0-0

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

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

| OADIN | G (psf) | SPACING-        | 2-0-0  | CSI.  |      | DEFL.    | in   | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------|---------|-----------------|--------|-------|------|----------|------|-------|--------|-----|----------------|----------|
| CLL   | 20.0    | Plate Grip DOL  | 1.25   | TC    | 0.32 | Vert(LL) | 0.00 | 7     | >999   | 240 | MT20           | 244/190  |
| CDL   | 7.0     | Lumber DOL      | 1.25   | BC    | 0.07 | Vert(CT) | 0.00 | 7     | >999   | 180 | 12.2.1.3.2.3.1 |          |
| BCLL  | 0.0 *   | Rep Stress Incr | YES    | WB    | 0.00 | Horz(CT) | 0.00 | 2     | n/a    | n/a |                |          |
| BCDL  | 10.0    | Code FBC2017/TI | PI2014 | Matri | x-MP |          |      |       |        |     | Weight: 7 lb   | FT = 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=66(LC 12)

Max Uplift 3=-27(LC 1), 2=-162(LC 12), 4=-46(LC 1)

Max Grav 3=25(LC 16), 2=254(LC 1), 4=44(LC 16)

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

### NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (it=lb) 2=162.



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

June 22,2020

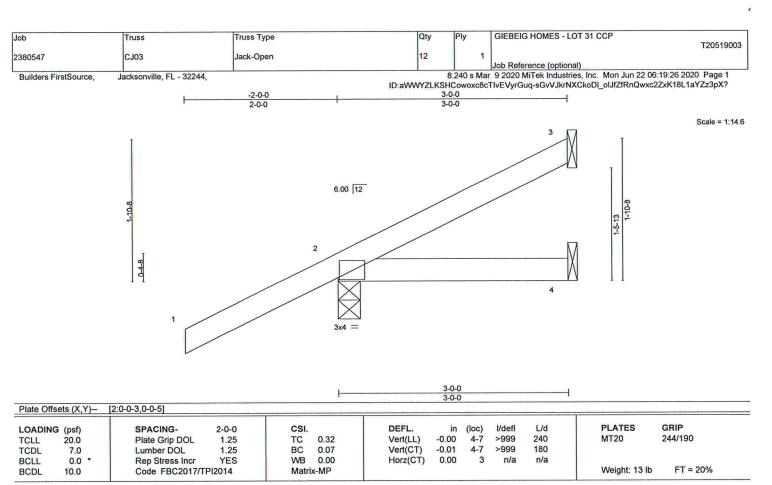
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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

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

available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





LUMBER-

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

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

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

REACTIONS.

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

Max Horz 2=113(LC 12)

Max Uplift 3=-48(LC 12), 2=-126(LC 12) Max Grav 3=52(LC 1), 2=253(LC 1), 4=48(LC 3)

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

### NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=126.



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June 22,2020

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Job Truss Truss Type Qty GIEBEIG HOMES - LOT 31 CCP T20519004 CJ05 2380547 Jack-Open Job Reference (optional) Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:27 2020 Page 1 ID:aWWYZLKSHCowoxc8cTIvEVyrGuq-KTStW4r0IWservZ?J1AoCeJbfLwsINaBM?m750z3pX\_ 5-0-0 -2-0-0 2-0-0 Scale = 1:19.5 6.00 12 0-4-8 3x4 LOADING (psf) SPACING-2-0-0 CSI. DEFL I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.32 Vert(LL) 0.03 4-7 >999 240 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 BC 0.23 Vert(CT) -0.05 4-7 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a Code FBC2017/TPI2014 BCDL 10.0 Matrix-MP Weight: 19 lb FT = 20% LUMBER-**BRACING-**TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.

**BOT CHORD** 

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

TOP CHORD

REACTIONS.

2x4 SP No.2

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

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

Max Horz 2=162(LC 12)

Max Uplift 3=-98(LC 12), 2=-137(LC 12), 4=-1(LC 12)

Max Grav 3=108(LC 1), 2=313(LC 1), 4=87(LC 3)

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

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=137.



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

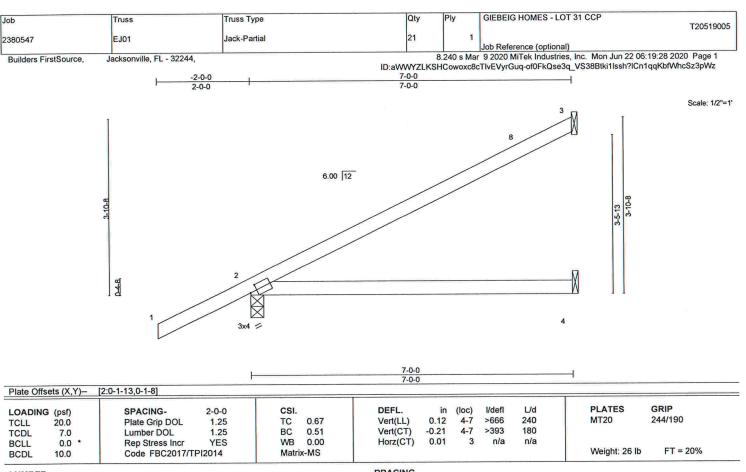
June 22,2020

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ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





LUMBER-

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

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.

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

Max Horz 2=204(LC 12)

Max Uplift 3=-130(LC 12), 2=-156(LC 12), 4=-5(LC 12) Max Grav 3=160(LC 1), 2=380(LC 1), 4=125(LC 3)

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

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=130, 2=156.



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June 22,2020

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ANSITPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Qty T20519006 EJ02 2380547 Common Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:28 2020 Page 1 Jacksonville, FL - 32244, Builders FirstSource, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-of0FkQse3q\_VS38Btki1lssmXlEh1pxKbfWhcSz3pWz 6-4-0 7-0-0 Scale = 1:25.5 4x6 = 2x4 || 6.00 12 0-4-B 3x6 = 3x4 / Plate Offsets (X,Y)- [2:0-1-13,0-1-8] LOADING (psf) SPACING-2-0-0 CSI. DEFL. **PLATES** GRIP (loc) I/defl L/d TCLL 20.0 Plate Grip DOL 1.25 TC Vert(LL) -0.07 240 244/190 0.38 >999 TCDL 7.0 Lumber DOL 1.25 BC 0.38 Vert(CT) -0.14 >577 180 BCLL 0.0 Rep Stress Incr YES WB 0.12 Horz(CT) 0.00 n/a n/a BCDL 10.0 Code FBC2017/TPI2014 Matrix-MS Weight: 34 lb FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

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

WEBS 2x4 SP No.3

REACTIONS.

(size) 2=0-3-8, 5=Mechanical

Max Horz 2=189(LC 12)

Max Uplift 2=-162(LC 12), 5=-128(LC 12) Max Grav 2=377(LC 1), 5=238(LC 1)

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

3-5=-304/407 WEBS

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=162, 5=128.



Structural wood sheathing directly applied or 6-0-0 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:

June 22,2020

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GIEBEIG HOMES - LOT 31 CCP Job Truss Type Qtv Plv Truss T20519007 2380547 EJ02A Common Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:29 2020 Page 1 Jacksonville, FL - 32244. Builders FirstSource, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-GraexmtGq76M4DjNQSDGH3Px39Z2mGfUqJFE8uz3pWy 6-9-8 6-9-8 Scale = 1:23.2 4x6 = 2x4 || 6.00 12 0-4-8 5 3x6 = 3x4 = 7-0-0 Plate Offsets (X,Y)-[2:0-1-8,0-1-9] LOADING (psf) GRIP SPACING-2-0-0 CSI DEFL (loc) I/defl 1/d PLATES 244/190 TCLL 20.0 Plate Grip DOL 1.25 TC 0.33 Vert(LL) -0.06 5-8 >999 240 MT20 TCDL 7.0 Lumber DOL 1.25 BC 0.38 Vert(CT) -0.145-8 >598 180 BCLL 0.0 Rep Stress Incr YES WB 0.09 Horz(CT) 0.00 n/a n/a FT = 20%Weight: 34 lb BCDL 10.0 Code FBC2017/TPI2014 Matrix-MS BRACING-LUMBER-2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

**BOT CHORD** 

except end verticals.

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

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

WEBS 2x4 SP No.3

(size) 2=0-3-8, 5=Mechanical

Max Horz 2=185(LC 12)

Max Uplift 2=-162(LC 12), 5=-118(LC 12) Max Grav 2=377(LC 1), 5=238(LC 1)

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

WEBS 3-5=-231/307

### NOTES-

REACTIONS.

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=162, 5=118.



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

June 22,2020



6904 Parke East Blvd.

Qty Ply GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type T20519008 2380547 EJ03 Jack-Open Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06;19:30 2020 Page 1 ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-I28086uubREDiNIa\_9kVqHx6vZzOVkKd3z?ngLz3pWx Builders FirstSource Jacksonville, FL - 32244, -2-0-0 2-0-0 Scale = 1:16.4 6.00 12 0-4-8 LOADING (psf) SPACING-CSI. DEFL. **PLATES** GRIP 2-0-0 in I/defl L/d (loc) TCLL 20.0 Plate Grip DOL 1.25 TC 0.32 Vert(LL) -0.01 240 244/190 4-7 >999 MT20 TCDL 7.0 Lumber DOL 1.25 BC 0.11 Vert(CT) -0.02 >999 180 4-7 BCLL 0.0 \* Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 n/a n/a Code FBC2017/TPI2014 **BCDL** 10.0 Matrix-MP Weight: 15 lb FT = 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=131(LC 12) Max Uplift 3=-67(LC 12), 2=-129(LC 12)

Max Grav 3=74(LC 1), 2=273(LC 1), 4=62(LC 3)

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

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=129.



Structural wood sheathing directly applied or 3-8-14 oc purlins.

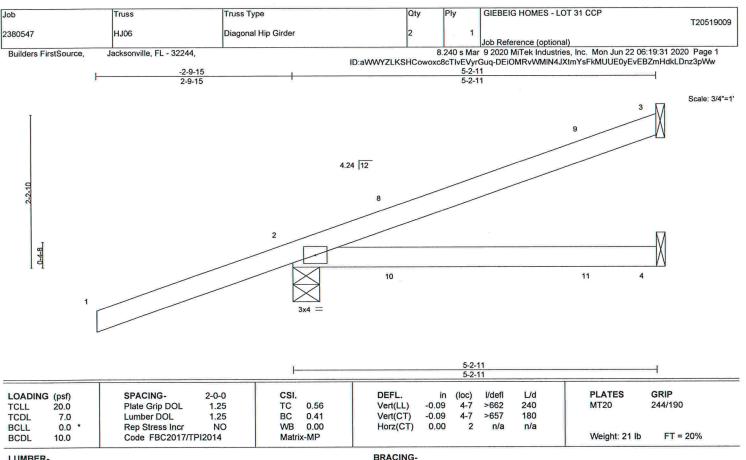
Rigid ceiling directly applied or 10-0-0 oc bracing.

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June 22,2020

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TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

(size) 3=Mechanical, 2=0-4-9, 4=Mechanical

Max Horz 2=154(LC 4)

Max Uplift 3=-75(LC 9), 2=-209(LC 4), 4=-4(LC 19) Max Grav 3=89(LC 1), 2=301(LC 1), 4=100(LC 22)

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

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=209.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 103 lb up at 1-6-1, 86 lb down and 103 lb up at 1-6-1, and 26 lb down and 49 lb up at 4-4-0, and 26 lb down and 49 lb up at 4-4-0 on top chord, and 36 lb down and 74 lb up at 1-6-1, 36 lb down and 74 lb up at 1-6-1, and 30 lb down and 2 lb up at 4-4-0, and 30 lb down and 2 Ib up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) 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, 4-5=-20

Concentrated Loads (lb)

Vert: 8=50(F=25, B=25) 9=-3(F=-1, B=-1) 10=70(F=35, B=35) 11=3(F=2, B=2)



Structural wood sheathing directly applied or 5-2-11 oc purlins.

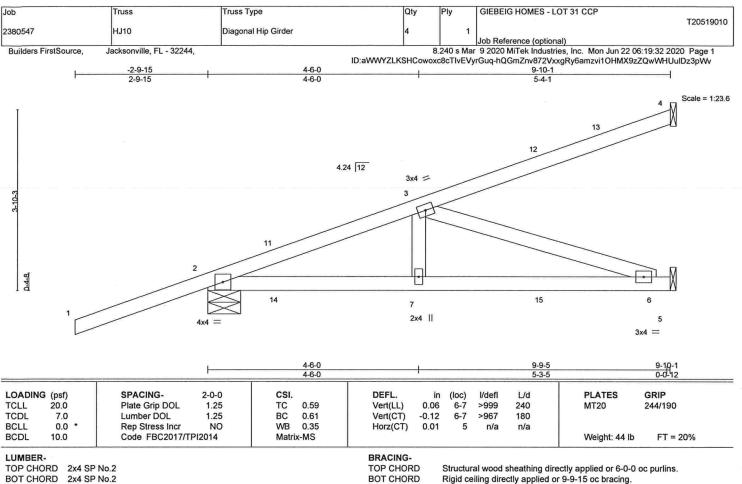
Rigid ceiling directly applied or 10-0-0 oc bracing.

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

June 22,2020

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





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

2x4 SP No.3 WEBS

REACTIONS.

(size) 4=Mechanical, 2=0-8-6, 5=Mechanical

Max Horz 2=226(LC 4)

Max Uplift 4=-123(LC 4), 2=-266(LC 4), 5=-102(LC 8) Max Grav 4=150(LC 1), 2=463(LC 1), 5=266(LC 3)

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

TOP CHORD 2-3=-628/272

**BOT CHORD** 2-7=-322/573, 6-7=-322/573

WEBS 3-6=-603/339

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ff; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=123, 2=266, 5=102.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 103 lb up at 1-6-1, 86 lb down and 103 lb up at 1-6-1, 26 lb down and 46 lb up at 4-4-0, 26 lb down and 46 lb up at 4-4-0, and 50 lb down and 106 lb up at 7-1-15, and 50 lb down and 106 lb up at 7-1-15 on top chord, and 36 lb down and 74 lb up at 1-6-1, 36 lb down and 74 lb up at 1-6-1, 28 lb down and 2 lb up at 4-4-0, 28 lb down and 2 lb up at 4-4-0, and 44 lb down and 15 lb up at 7-1-15, and 44 lb down and 15 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

7) 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: 7=5(F=2, B=2) 11=50(F=25, B=25) 12=-64(F=-32, B=-32) 14=70(F=35, B=35) 15=-49(F=-24, B=-24)



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

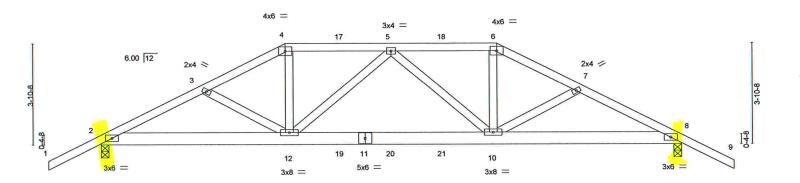
June 22,2020

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| Job                      | Truss                   | Truss Type |        | Qty          | Ply        | GIEBEIG HOMES - L       | OT 31 CCP                | Company Area IV at  |
|--------------------------|-------------------------|------------|--------|--------------|------------|-------------------------|--------------------------|---------------------|
|                          |                         |            |        |              | ·^         |                         |                          | T20519011           |
| 2380547                  | T01                     | Hip Girder |        | 1            | 1          |                         |                          |                     |
|                          |                         |            |        |              |            | Job Reference (option   | nal)                     |                     |
| Builders FirstSource.    | Jacksonville, FL - 32   | 2244.      |        |              | 8.240 s Ma | ar 9 2020 MiTek Industr | ries, Inc. Mon Jun 22 06 | 5:19:33 2020 Page 1 |
| Editoria National States | DESCRIPTION OF BUILDING |            |        | ID:aWWYZLKSH | Cowoxc8cT  | lvEVyrGuq-9dq8n7wmi     | uMdoZq08fHHCSvZcWn       | nrli0j3lxDSHfz3pWu  |
| -2-0-0                   | 3-11-15                 | 7-0-0      | 11-0-0 | 15-0-0       |            | 18-0-1                  | 22-0-0                   | 24-0-0              |
| 2-0-0                    | 3-11-15                 | 3-0-1      | 4-0-0  | 4-0-0        |            | 3-0-1                   | 3-11-15                  | 2-0-0               |

Scale = 1:42.4



|                                 | 7-0-0<br>7-0-0                |   |                             |                        |                      | 15-0-0<br>8-0-0                           |   |                               | _                        |                |                 |
|---------------------------------|-------------------------------|---|-----------------------------|------------------------|----------------------|---|---|-------------------------------|--------------------------|----------------|-----------------|
| LOADING<br>TCLL<br>TCDL<br>BCLL | (psf)<br>20.0<br>7.0<br>0.0 * | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr | 2-0-0<br>1.25<br>1.25<br>NO | CSI.<br>TC<br>BC<br>WB | 0.43<br>0.74<br>0.34 | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT) | in (loc)<br>0.16 10-12<br>-0.26 10-12<br>0.06 8 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20 | GRIP<br>244/190 |
| BCDL                            | 10.0                          | Code FBC2017/T  |                             |                        | x-MS                 | 1.012(01)                                 |   |                               | arm.                     | Weight: 128 lb | FT = 20%        |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

WEBS REACTIONS.

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

2x6 SP No.2 2x4 SP No.3

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

Max Horz 2=-95(LC 9)

Max Uplift 2=-793(LC 8), 8=-808(LC 9) Max Grav 2=1586(LC 1), 8=1613(LC 1)

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

TOP CHORD 2-3=-2947/1464, 3-4=-2777/1385, 4-5=-2494/1288, 5-6=-2545/1314, 6-7=-2836/1417,

7-8=-3006/1496

BOT CHORD 2-12=-1297/2599, 10-12=-1366/2784, 8-10=-1231/2652 WEBS 4-12=-365/899, 5-12=-447/357, 5-10=-365/278, 6-10=-313/855

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60

Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=793, 8=808.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 130 lb up at 7-0-0, 106 lb down and 130 lb up at 9-0-12, 106 lb down and 119 lb up at 11-0-0, and 106 lb down and 130 lb up at 12-11-4, and 227 lb down and 253 lb up at 15-0-0 on top chord, and 294 lb down and 155 lb up at 7-0-0, 85 lb down and 25 lb up at 9-0-12, 85 lb down and 25 lb up at 11-0-0, and 85 lb down and 25 lb up at 12-11-4, and 294 lb down and 155 lb up at 14-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### 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, 6-9=-54, 2-8=-20

Concentrated Loads (lb)

Vert: 4=-106(B) 6=-180(B) 12=-284(B) 5=-106(B) 10=-284(B) 17=-106(B) 18=-106(B) 19=-61(B) 20=-61(B) 21=-61(B)



Structural wood sheathing directly applied or 3-3-6 oc purlins.

Rigid ceiling directly applied or 6-4-2 oc bracing.

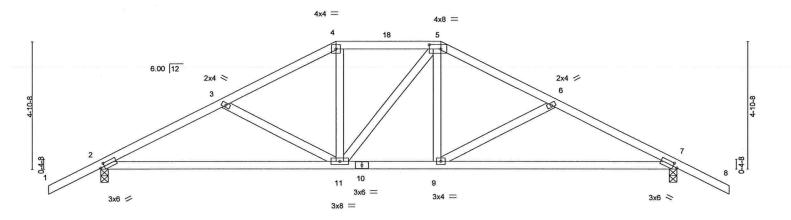
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Bivd. Tampa FL 33610 Date:

June 22,2020



GIEBEIG HOMES - LOT 31 CCP Truss Truss Type Qty Job T20519012 2380547 T02 Hip | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:34 2020 Page 1 Builders FirstSource, Jacksonville, FL - 32244, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-dpNX\_TxPfglfA\_bLD?pR\_76nJACGRWzDzbz?p6z3pWt 4-9-8 4-9-8 24-0-0 9-0-0 13-0-0 17-2-8 22-0-0 4-0-0 2-0-0 4-2-8

Scale = 1:42.4



|           | i           | 9                          | -0-0             |           |      | 13-0-0   | Ĭ     |       |        | 22-0-0 |                |          |
|-----------|-------------|----------------------------|------------------|-----------|------|----------|-------|-------|--------|--------|----------------|----------|
|           |             | 9                          | -0-0             |           |      | 4-0-0    | 1     |       |        | 9-0-0  |                | 1        |
| Plate Off | sets (X,Y)- | [2:0-1-15,0-1-8], [5:0-5-4 | ,0-2-0], [7:0-1- | 15,0-1-8] |      |          |       |       |        |        |                |          |
| 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        | 0.42 | Vert(LL) | -0.16 | 9-17  | >999   | 240    | MT20           | 244/190  |
| TCDL      | 7.0         | Lumber DOL                 | 1.25             | BC        | 0.69 | Vert(CT) | -0.32 | 9-17  | >823   | 180    |                |          |
| BCLL      | 0.0 *       | Rep Stress Incr            | YES              | WB        | 0.15 | Horz(CT) | 0.04  | 7     | n/a    | n/a    |                |          |
| BCDL      | 10.0        | Code FBC2017/T             | PI2014           | Matri     | x-MS | 507      |       |       |        |        | Weight: 111 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

REACTIONS.

(size) 2=0-3-8, 7=0-3-8 Max Horz 2=-116(LC 13)

Max Uplift 2=-378(LC 12), 7=-378(LC 13) Max Grav 2=922(LC 1), 7=922(LC 1)

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

TOP CHORD 2-3=-1378/742, 3-4=-1115/596, 4-5=-952/583, 5-6=-1114/595, 6-7=-1378/742

2-11=-513/1207, 9-11=-294/951, 7-9=-539/1207 **BOT CHORD** 

**WEBS** 

3-11=-300/281, 4-11=-90/318, 5-9=-97/318, 6-9=-300/281

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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=378, 7=378.



Structural wood sheathing directly applied or 4-10-0 oc purlins.

Rigid ceiling directly applied or 7-11-15 oc bracing.

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

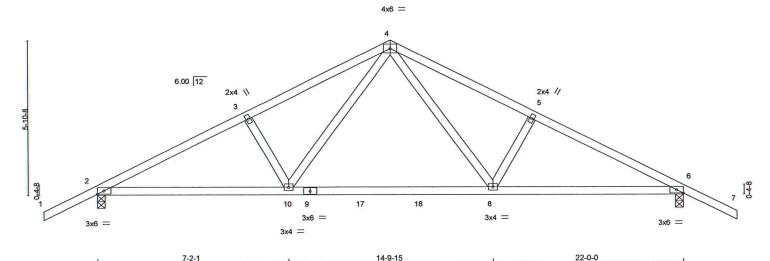
June 22,2020

Marning - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTek® 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 buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of truss systems, see ANSI/TH1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



GIEBEIG HOMES - LOT 31 CCP Qty Job Truss Type Ply Truss T20519013 2380547 T03 Common Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:35 2020 Page 1 Jacksonville, FL - 32244. Builders FirstSource, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-5?xvCpy1QztWo8AXniKgXKfx8aT8AwhMCFiYMYz3pWs 16-4-0 5-4-0 22-0-0 5-8-0 -2-0-0 2-0-0 5-8-0 5-8-0 11-0-0 24-0-0 2-0-0

Scale = 1:41.9



|            |             | 7-2-1           |        | 1     |      | 7-7-14   |       |       | !      |     | 7-2-1          |          |
|------------|-------------|-----------------|--------|-------|------|----------|-------|-------|--------|-----|----------------|----------|
| Plate Offs | sets (X,Y)- | [6:0-2-15,Edge] |        |       |      |          |       |       |        |     | <del></del>    |          |
| LOADING    | G (psf)     | SPACING-        | 2-0-0  | CSI.  |      | DEFL.    | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
| TCLL       | 20.0        | Plate Grip DOL  | 1.25   | TC    | 0.48 | Vert(LL) | 0.25  | 8-10  | >999   | 240 | MT20           | 244/190  |
| CDL        | 7.0         | Lumber DOL      | 1.25   | BC    | 0.97 | Vert(CT) | -0.42 | 8-10  | >628   | 180 |                |          |
| CLL        | 0.0 *       | Rep Stress Incr | NO     | WB    | 0.38 | Horz(CT) | 0.04  | 6     | n/a    | n/a |                |          |
| BCDL       | 10.0        | Code FBC2017/T  | PI2014 | Matri | x-MS |          |       |       |        |     | Weight: 105 lb | FT = 20% |

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 \*Except\*
6-9: 2x4 SP M 31
WEBS 2x4 SP No.3

227 01 110.0

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

Max Horz 2=137(LC 12) Max Uplift 2=-479(LC 12), 6=-479(LC 13) Max Grav 2=1152(LC 1), 6=1152(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1933/1018, 3-4=-1800/1027, 4-5=-1812/1032, 5-6=-1946/1023

BOT CHORD 2-10=-752/1673, 8-10=-400/1117, 6-8=-778/1683

WEBS 4-8=-425/794, 5-8=-264/284, 4-10=-417/774, 3-10=-266/284

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=479, 6=479.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Vert: 1-4=-54, 4-7=-54, 10-11=-20, 8-10=-80(F=-60), 8-14=-20



Structural wood sheathing directly applied or 3-11-6 oc purlins.

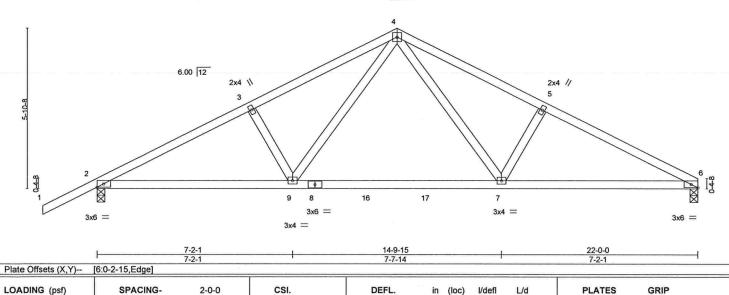
Rigid ceiling directly applied or 6-7-9 oc bracing.

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

June 22,2020



Job Truss Truss Type Qty GIEBEIG HOMES - LOT 31 CCP T20519014 2380547 T04 Common Job Reference (optional) Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:36 2020 Page 1 ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-ZCVHP9yfBH?NQIIjLQrv3YB6uzoTvMbVRvS6u\_z3pWr -2-0-0 2-0-0 11-0-0 16-4-0 Scale = 1:40.6 4x4 =



Vert(LL)

Vert(CT)

Horz(CT)

**BRACING-**

TOP CHORD

**BOT CHORD** 

I/defl

>999

>636

n/a

(loc)

7-9

7-9

6

0.25

-0.42

0.04

L/d

240

180

n/a

Rigid ceiling directly applied or 6-3-10 oc bracing.

MT20

Structural wood sheathing directly applied or 3-11-7 oc purlins.

Weight: 101 lb

244/190

FT = 20%

LUMBER-

TCLL

TCDL

**BCLL** 

BCDL

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

6-8: 2x4 SP M 31

**WEBS** 2x4 SP No.3

20.0

7.0

0.0

10.0

REACTIONS.

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

Max Horz 2=157(LC 12)

Max Uplift 6=-409(LC 13), 2=-481(LC 12) Max Grav 6=1039(LC 1), 2=1157(LC 1)

Plate Grip DOL

Rep Stress Incr

Code FBC2017/TPI2014

Lumber DOL

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

TOP CHORD 2-3=-1943/1036, 3-4=-1810/1044, 4-5=-1843/1068, 5-6=-1977/1060

**BOT CHORD** 2-9=-836/1682, 7-9=-465/1127, 6-7=-861/1715

4-7=-450/822, 5-7=-276/296, 4-9=-412/774, 3-9=-267/285 WEBS

### NOTES-

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

1.25

1.25

NO

TC

BC

WB 0.40

Matrix-MS

0.48

0.97

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=409, 2=481,
- 6) 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, 4-6=-54, 9-13=-20, 7-9=-80(F=-60), 7-10=-20



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

June 22,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property 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 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Qty T20519015 T05 Common Girder 2380547 2 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:37 2020 Page 1 Builders FirstSource, Jacksonville, FL - 32244, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-1O3fdVzHyb7E1SKwu7M8clkLSNKreoCfgZBfQRz3pWq 12-10-0 5-10-0 1-10-0 Scale = 1:35.3 4×4 = 4x4 > 6.00 12 4x4 = 11 7 6 5 3x8 | 4x8 3x8 || 8x10 = 5-10-0 11-0-0 12-10-0 1-10-0 5-2-0 [1:0-4-0,0-1-15], [6:0-5-0,0-5-12] Plate Offsets (X,Y)-DEFL. L/d PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. (loc) I/def 240 0.05 6-7 >999 MT20 244/190 TCLL 20.0 Plate Grip DOL 1.25 TC 0.24 Vert(LL) 0.25 Vert(CT) -0.08 >999 180 TCDL 7.0 Lumber DOL 1.25 BC 6-7 WB 0.50 Horz(CT) 0.01 BCLL 0.0 Rep Stress Incr 5 n/a n/a BCDL 10.0 Code FBC2017/TPI2014 Matrix-MS Weight: 186 lb FT = 20%BRACING-LUMBER-TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

**BOT CHORD** 

except end verticals.

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

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

2x4 SP No.3

(size) 1=0-3-8, 5=0-7-15

Max Horz 1=241(LC 27) Max Uplift 1=-717(LC 8), 5=-1193(LC 8) Max Grav 1=1572(LC 1), 5=2631(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 1-2=-3361/1550, 2-3=-1101/459, 3-4=-1046/490, 4-5=-2959/1374 1-7=-1540/2955, 6-7=-1540/2955 TOP CHORD

**BOT CHORD** 

2-7=-881/1850, 2-6=-2312/1261, 3-6=-362/779, 4-6=-1237/2636 WEBS

### NOTES-

REACTIONS.

- 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 0-6-0 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 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1752 lb down and 952 lb up at 7-0-12, and 761 lb down and 361 lb up at 9-0-12, and 761 lb down and 244 lb up at 11-0-12 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: 1-3=-54, 3-4=-54, 1-5=-20

Concentrated Loads (lb)

Vert: 6=-761(F) 10=-1752(F) 11=-761(F)



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

June 22,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTFek® 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



6904 Parke East Blvd

GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Ply Qty T20519016 2380547 T06 Hip Girder Job Reference (optional) Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:38 2020 Page 1 ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-Wad1qr\_vjuF5fbv6SrtN9zHPGnVVNDnouDxDytz3pWp 25-3-10 10-0-9 3-0-9 22-0-0 18-11-7 29-0-0 31-0-0 3-8-6 4-5-7 3-3-10

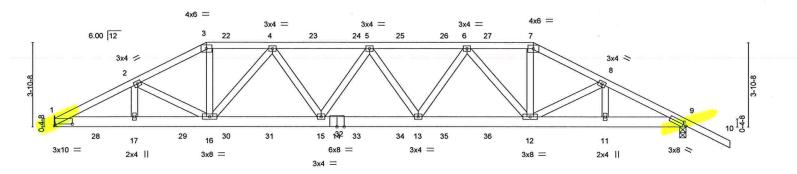
Scale = 1:50.9

2-0-0

3-8-6

Structural wood sheathing directly applied or 2-2-12 oc purlins.

Rigid ceiling directly applied or 4-8-10 oc bracing.



|             | 3-8-6      | 7-0-0                       | 12-3-5    |          | 16-8-12     | 22-0-0         |        | 25-3-10 | 29-0-0         |          |
|-------------|------------|-----------------------------|-----------|----------|-------------|----------------|--------|---------|----------------|----------|
|             | 3-8-6      | 3-3-10                      | 5-3-5     |          | 4-5-7       | 5-3-5          |        | 3-3-10  | 3-8-6          |          |
| Plate Offse | ets (X,Y)- | [1:0-10-0,0-0-15], [9:0-1-1 | 12,0-1-8] |          |             |                |        |         |                |          |
| LOADING     | (psf)      | SPACING-                    | 2-0-0     | CSI.     | DEFL        | in (loc)       | l/defi | L/d     | PLATES         | GRIP     |
| TCLL        | 20.0       | Plate Grip DOL              | 1.25      | TC 0     | 0.68 Vert(L | .) 0.33 13-15  | >999   | 240     | MT20           | 244/190  |
| CDL         | 7.0        | Lumber DOL                  | 1.25      | BC 0     | 0.93 Vert(C | T) -0.47 13-15 | >744   | 180     |                |          |
| BCLL        | 0.0 *      | Rep Stress Incr             | NO        | WB 0     | 0.61 Horz(  | T) 0.11 9      | n/a    | n/a     |                |          |
| BCDL        | 10.0       | Code FBC2017/T              | PI2014    | Matrix-N | //S         |                |        |         | Weight: 176 lb | FT = 20% |

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

2x6 SP M 26 \*Except\* 9-14: 2x6 SP No.2

**WEBS** 2x4 SP No.3

REACTIONS.

(size) 1=Mechanical, 9=0-3-8

Max Horz 1=-116(LC 28)

Max Uplift 1=-1233(LC 8), 9=-1114(LC 9) Max Grav 1=2356(LC 1), 9=2185(LC 1)

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

TOP CHORD 1-2=-4697/2470, 2-3=-4095/2147, 3-4=-3698/1985, 4-5=-4733/2463, 5-6=-4740/2425,

6-7=-3688/1945, 7-8=-4090/2108, 8-9=-4218/2130

1-17=-2207/4180, 16-17=-2207/4180, 15-16=-2260/4435, 13-15=-2463/4898, BOT CHORD

12-13=-2205/4429, 11-12=-1804/3746, 9-11=-1804/3746

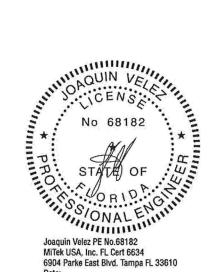
WEBS 2-17=-204/385, 2-16=-622/422, 3-16=-794/1600, 4-16=-1205/702, 4-15=-246/595, 5-15=-344/272, 5-13=-316/258, 6-13=-254/602, 6-12=-1195/689, 7-12=-662/1464

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1233, 9=1114.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 108 lb down and 130 lb up at 7-11-4, 106 lb down and 130 lb up at 9-11-4, 106 lb down and 130 lb up at 11-11-4, 106 lb down and 125 lb up at 13-11-4, 106 lb down and 130 lb up at 15-11-4, 106 lb down and 130 lb up at 17-11-4, and 106 lb down and 130 lb up at 19-11-4, and 227 lb down and 253 lb up at 22-0-0 on top chord, and 218 lb down and 148 lb up at 1-11-4, 218 lb down and 148 lb up at 3-11-4, 218 lb down and 148 lb up at 5-11-4, 85 lb down and 25 lb up at 7-11-4, 85 lb down and 25 lb up at 9-11-4, 85 lb down and 25 lb up at 11-11-4, 85 lb down and 25 lb up at 13-11-4, 85 lb down and 25 lb up at 15-11-4, 85 lb down and 25 lb up at 17-11-4, and 85 lb down and 25 lb up at 19-11-4, and 294 lb down and 155 lb up at 21-11-4 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

Continued on page 2



6904 Parke East Blvd. Tampa FL 33610 Date:

June 22,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTek® 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 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TH1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



| Job     | Truss | Truss Type | Qty | Ply | GIEBEIG HOMES - LOT 31 CCP T20519016 |
|---------|-------|------------|-----|-----|--------------------------------------|
| 2380547 | T06   | Hip Girder | 1   | 1   | 120313010                            |
|         |       | ,          |     |     | Job Reference (optional)             |

Builders FirstSource,

Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:38 2020 Page 2 ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-Wad1qr\_vjuF5fbv6SrtN9zHPGnVVNDnouDxDytz3pWp

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)
Vert: 1-3=-54, 3-7=-54, 7-10=-54, 1-9=-20

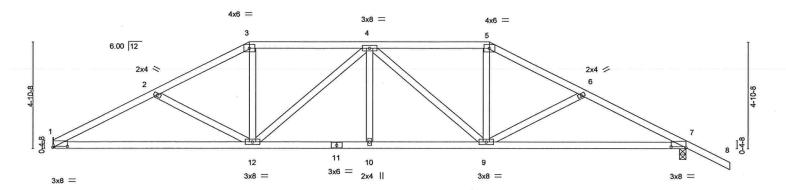
Concentrated Loads (lb)

Vert: 7=-180(F) 17=-218(F) 4=-106(F) 12=-284(F) 22=-106(F) 23=-106(F) 24=-106(F) 25=-106(F) 26=-106(F) 27=-106(F) 28=-218(F) 29=-218(F) 30=-61(F) 31=-61(F) 32=-61(F) 33=-61(F) 34=-61(F) 35=-61(F) 36=-61(F)



GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Qty T20519017 2380547 T07 Hip | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:39 2020 Page 1 Jacksonville, FL - 32244, Builders FirstSource, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-\_nBQ1A?XTCNyHIUI0YOchApeGBuK6kfy7sgmVJz3pWo 14-6-0 5-6-0 20-0-0 5-6-0 24-2-8 29-0-0 31-0-0 4-9-8 2-0-0

Scale = 1:50.8



| 1          |             | 9-0-0                       | 1      | 14-6-0 |      | 20-0-    | 0 1         |        |     | 29-0-0         | 1        |
|------------|-------------|-----------------------------|--------|--------|------|----------|-------------|--------|-----|----------------|----------|
| 1          |             | 9-0-0                       | 1      | 5-6-0  |      | 5-6-0    | )           |        |     | 9-0-0          | 1        |
| Plate Offs | sets (X,Y)- | [1:0-8-0,0-0-7], [7:0-8-0,0 | -0-8]  |        |      |          |             |        |     |                |          |
| LOADING    | G (psf)     | SPACING-                    | 2-0-0  | CSI.   |      | DEFL.    | in (loc)    | l/defi | L/d | PLATES         | GRIP     |
| TCLL       | 20.0        | Plate Grip DOL              | 1.25   | TC     | 0.41 | Vert(LL) | -0.15 12-15 | >999   | 240 | MT20           | 244/190  |
| CDL        | 7.0         | Lumber DOL                  | 1.25   | BC     | 0.76 | Vert(CT) | -0.33 12-15 | >999   | 180 |                |          |
| BCLL       | 0.0 *       | Rep Stress Incr             | YES    | WB     | 0.38 | Horz(CT) | 0.08 7      | n/a    | n/a |                |          |
| BCDL       | 10.0        | Code FBC2017/T              | PI2014 | Matrix | c-MS |          |             |        |     | Weight: 146 lb | FT = 20% |

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2

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

REACTIONS.

(size) 1=Mechanical, 7=0-3-8

Max Horz 1=-137(LC 13)

Max Uplift 1=-412(LC 12), 7=-482(LC 13) Max Grav 1=1069(LC 1), 7=1185(LC 1)

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

1-2=-1978/1052, 2-3=-1710/896, 3-4=-1492/855, 4-5=-1481/845, 5-6=-1696/883, TOP CHORD 6-7=-1959/1025

BOT CHORD 1-12=-821/1746, 10-12=-696/1723, 9-10=-696/1723, 7-9=-791/1713 2-12=-308/297, 3-12=-206/506, 4-12=-398/221, 4-9=-405/227, 5-9=-197/501, WEBS

6-9=-282/273

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=412, 7=482.



Structural wood sheathing directly applied or 3-10-9 oc purlins.

Rigid ceiling directly applied or 6-5-13 oc bracing.

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

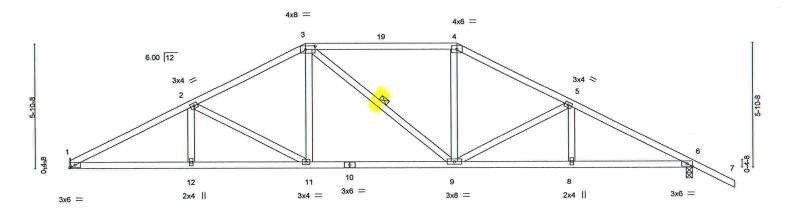
June 22,2020

🛦 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and 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 properly 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



| Job                   | Truss                     | Truss Type   | Qty              | Ply        | GIEBEIG HOMES - LOT      | 31 CCP              |                   |
|-----------------------|---------------------------|--------------|------------------|------------|--------------------------|---------------------|-------------------|
|                       |                           | ~            |                  |            |                          |                     | T20519018         |
| 2380547               | T08                       | Hip          | 1                | 1          |                          |                     |                   |
| 100                   |                           |              |                  |            | Job Reference (optional) |                     |                   |
| Builders FirstSource, | Jacksonville, FL - 32244, |              | 8                | .240 s Mar | 9 2020 MiTek Industries  | Inc. Mon Jun 22 06: | 19:40 2020 Page 1 |
|                       | 772                       |              | ID:aWWYZLKSHCowo | xc8cTlvEV  | yrGuq-SzloFW?9EWVou      | v3VaFvrEOMjubHGrB   | T5MWQJ1lz3pWn     |
| 1                     | 5-7-15                    | 11-0-0 , 18- | 0-0              |            | 23-4-1                   | 29-0-0              | 31-0-0            |
|                       | 5-7-15                    | 5-4-1 7-1    | 0-0              |            | 5-4-1                    | 5-7-15              | 2-0-0             |

Scale = 1:52.0



| 1   | 5-7-15<br>5-7-15  | 11-0-0<br>5-4-1              |                        |                              | 8-0-0<br>7-0-0                            |                              |                          | 23-4-1<br>5-4-1               |                          | 29-0-0<br>5-7-15                 |                             |
|---|---|------------------------------|------------------------|------------------------------|---|------------------------------|--------------------------|-------------------------------|--------------------------|----------------------------------|-----------------------------|
| Plate Offsets (X,Y)-                                  | [3:0-5-4,0-2-0], [6:0-2-15  |                              |                        |                              |   |                              |                          |                               |                          |                                  |                             |
| LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0 | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code FBC2017/7 | 2-0-0<br>1.25<br>1.25<br>YES | CSI.<br>TC<br>BC<br>WB | 0.74<br>0.53<br>0.34<br>x-MS | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT) | in<br>-0.09<br>-0.20<br>0.07 | (loc)<br>11<br>9-11<br>6 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 147 lb | GRIP<br>244/190<br>FT = 20% |

LUMBER-

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

TOP CHORD **BOT CHORD** WEBS

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

Rigid ceiling directly applied or 6-6-4 oc bracing.

1 Row at midpt 3-9

REACTIONS.

(size) 1=Mechanical, 6=0-3-8

Max Horz 1=-158(LC 13)

Max Uplift 1=-408(LC 12), 6=-479(LC 13) Max Grav 1=1069(LC 1), 6=1185(LC 1)

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

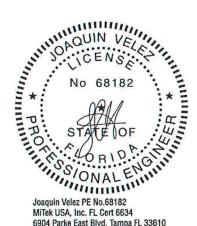
TOP CHORD 1-2=-2000/1034, 2-3=-1555/856, 3-4=-1336/823, 4-5=-1550/851, 5-6=-1969/1006

BOT CHORD 1-12=-794/1740, 11-12=-794/1740, 9-11=-483/1339, 8-9=-765/1707, 6-8=-765/1707

2-11=-466/355, 3-11=-125/407, 4-9=-118/405, 5-9=-433/325 WEBS

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=408, 6=479.



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

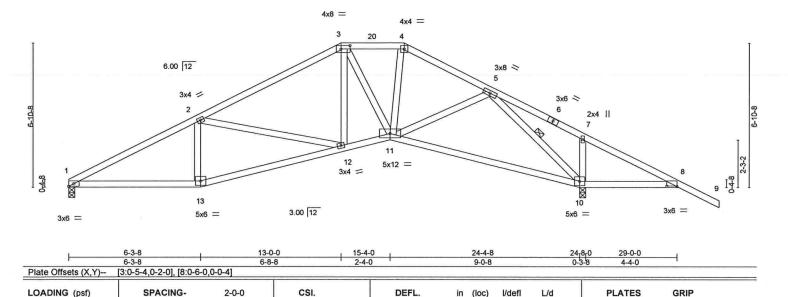
June 22,2020

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



Qty GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type T20519019 T09 2380547 Hip Job Reference (optional) Jacksonville, FL - 32244. 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:41 2020 Page 1 Builders FirstSource, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-w9JASs0o?pdfW3dh7zR4mbvyS\_Z5adeFaA9tZCz3pWm 24-4-8 6-3-8 6-3-8 13-0-0 16-0-0 20-1-5 29-0-0 31-0-0 6-8-8 2-0-0

Scale = 1:52.8



Vert(LL)

Vert(CT)

Horz(CT)

BRACING-

WEBS

TOP CHORD

**BOT CHORD** 

-0.25 10-11

-0.50 10-11

10

1 Row at midpt

0.07

>999

>583

n/a

240

180

n/a

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

LUMBER-

REACTIONS.

TCLL

TCDL

**BCLL** 

BCDL

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

20.0

7.0

0.0

10.0

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

> (size) 1=0-3-8, 10=0-3-8 Max Horz 1=-179(LC 13)

Max Uplift 1=-345(LC 12), 10=-564(LC 13) Max Grav 1=844(LC 1), 10=1410(LC 1)

Plate Grip DOL

Rep Stress Incr

Code FBC2017/TPI2014

Lumber DOL

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

TOP CHORD 1-2=-1485/740, 2-3=-1199/523, 3-4=-1000/469, 4-5=-1120/463, 5-7=-693/624,

7-8=-816/614

BOT CHORD 1-13=-582/1294, 12-13=-596/1343, 11-12=-292/1032, 10-11=-159/610, 8-10=-498/864 WEBS 2-12=-319/417, 3-12=-157/265, 4-11=-148/357, 5-11=-144/420, 5-10=-1577/1005,

1.25

1.25

YES

7-10=-250/292

### NOTES-

Unbalanced roof live loads have been considered for this design.

 Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

TC

BC

WB

Matrix-MS

0.49

0.81

0.41

- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=345, 10=564.



244/190

FT = 20%

MT20

Structural wood sheathing directly applied or 4-4-14 oc purlins.

5-10

Weight: 149 lb

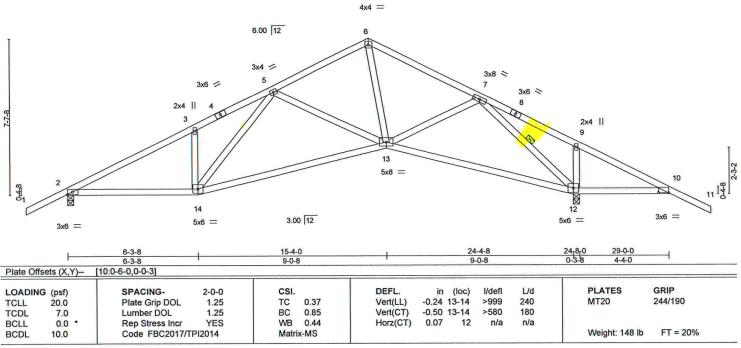
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

June 22,2020



| Job  | Truss                     | Truss Type   |        |          | Qty     | Ply       | GIEBEIG HOMES - LOT 3       | 1 CCP                |                 |
|--|---------------------------|--------------|--------|----------|---------|-----------|-----------------------------|----------------------|-----------------|
| 1  |                           | 1.0          |        |          |         |           |                             |                      | T20519020       |
| 2380547  | T10                       | Roof Special |        |          | 2       | 1         |                             |                      |                 |
| The state of the s |                           |              |        |          |         |           | Job Reference (optional)    |                      |                 |
| Builders FirstSource,  | Jacksonville, FL - 32244. |              |        |          | 8       | 240 s Mar | 9 2020 MiTek Industries, In | nc. Mon Jun 22 06:19 | :42 2020 Page 1 |
| # ####################################   |                           |              |        | ID:aWWYZ | LKSHCov | oxc8cTlvE | VyrGuq-OLsYgC1Qm7IW8I       | OCthgyJJpR9COtiJ4N   | NOpqvQ5ez3pWI   |
| -2-0-0   | 6-3-8                     | 9-10-14      | 14-6-0 | 1        | 19-10-2 |           | 24-4-8                      | 29-0-0               | 31-0-0          |
| 2-0-0  | 6-3-8                     | 3-7-6        | 4-7-2  |          | 5-4-1   |           | 4-6-6                       | 4-7-8                | 2-0-0           |

Scale = 1:53.8



LUMBER-

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

2x4 SP No.3

**BRACING-**

TOP CHORD **BOT CHORD WEBS** 

Structural wood sheathing directly applied or 4-4-14 oc purlins.

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

7-12 1 Row at midpt

REACTIONS.

(size) 2=0-3-8, 12=0-3-8

Max Horz 2=173(LC 12) Max Uplift 2=-411(LC 12), 12=-558(LC 13) Max Grav 2=957(LC 1), 12=1405(LC 1)

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

2-3=-1451/663, 3-5=-1420/786, 5-6=-974/429, 6-7=-1100/454, 7-9=-694/636, TOP CHORD 9-10=-816/618

2-14=-529/1238, 13-14=-463/1181, 12-13=-173/658, 10-12=-502/864 **BOT CHORD** 

3-14=-262/282, 5-13=-369/395, 6-13=-221/631, 7-13=-82/346, 7-12=-1619/1039, WEBS

9-12=-248/288

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=411, 12=558.



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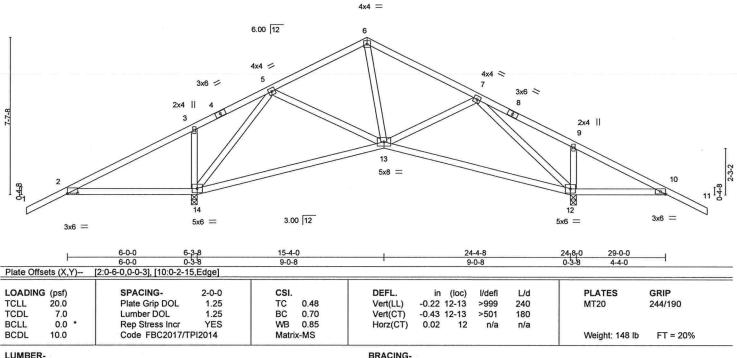
June 22,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTek® connectors. This design is based only upon parameters and not not use only with MTek® 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 ucallapse with possible personal injury and properly 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 Compo Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



| Job                   | Truss                     | Truss Type   |        | Qty          | Ply     |      | GIEBEIG HOMES - LOT 3         | 1 CCP                |                |       |
|-----------------------|---------------------------|--------------|--------|--------------|---------|------|-------------------------------|----------------------|----------------|-------|
| 2380547               | T11                       | Roof Special |        | 12           |         | 1    |                               |                      | T205           | 19021 |
|                       |                           |              |        |              |         |      | Job Reference (optional)      |                      |                |       |
| Builders FirstSource, | Jacksonville, FL - 32244, |              |        |              | 8.240 s | Mai  | r 9 2020 MiTek Industries, Ir | nc. Mon Jun 22 06:19 | 9:43 2020 Page | e 1   |
|                       |                           |              |        | ID:aWWYZLKSH | Cowoxc8 | cTlv | EVyrGuq-sYQwtY22XRtNIN        | n3FOTYr0_IAoFB2Q     | FX2Ueze4z3pV   | Λk    |
| -2-0-0                | 6-3-8                     | 9-10-14      | 14-6-0 | 19-10        | 2       |      | 24-4-8                        | 29-0-0               | 31-0-0         | 36    |
| 2-0-0                 | 6-3-8                     | 3-7-6        | 4-7-2  | 5-4-         |         |      | 4-6-6                         | 4-7-8                | 2-0-0          | 7     |

Scale = 1:53.8



TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

> (size) 14=0-3-8, 12=0-3-8

Max Horz 14=173(LC 12)

Max Uplift 14=-553(LC 12), 12=-482(LC 13) Max Grav 14=1290(LC 1), 12=1074(LC 24)

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

2-3=-947/767, 3-5=-791/739, 5-6=-358/112, 6-7=-390/126, 7-9=-698/639, TOP CHORD 9-10=-817/619

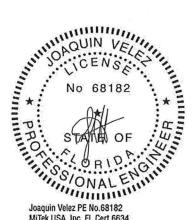
2-14=-616/1000, 13-14=-121/600, 12-13=0/464, 10-12=-504/866

**BOT CHORD** 3-14=-296/350, 5-14=-996/690, 5-13=-165/356, 6-13=0/305, 7-12=-1018/631, WEBS

9-12=-242/284

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=553, 12=482.



Structural wood sheathing directly applied or 5-6-15 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing, Except:

10-0-0 oc bracing: 12-13.

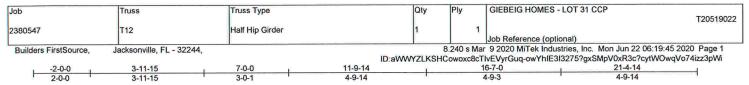
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

June 22,2020

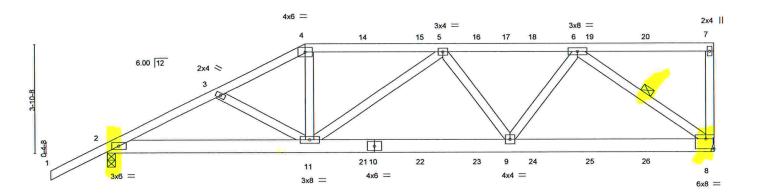
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MITe&0 connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 

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





Scale = 1:39.3



| 7-0-0       |           |                 | 1      | 14-2-7 |       |          |       | ĭ     | 21-4-14 |       |                |          |
|-------------|-----------|-----------------|--------|--------|-------|----------|-------|-------|---------|-------|----------------|----------|
|             | -         | 7-0-0           |        |        | 7-2-6 | 7-2-6    |       |       |         | 7-2-7 |                |          |
| Plate Offse | ets (X,Y) | [8:Edge,0-4-4]  |        |        |       |          |       |       |         |       |                |          |
| LOADING     | (psf)     | SPACING-        | 2-0-0  | CSI.   |       | DEFL.    | in    | (loc) | I/defl  | L/d   | PLATES         | GRIP     |
| CLL         | 20.0      | Plate Grip DOL  | 1.25   | TC     | 0.59  | Vert(LL) | 0.12  | 9-11  | >999    | 240   | MT20           | 244/190  |
| CDL         | 7.0       | Lumber DOL      | 1.25   | BC     | 0.69  | Vert(CT) | -0.18 | 9-11  | >999    | 180   |                |          |
| BCLL        | 0.0 *     | Rep Stress Incr | NO     | WB     | 0.52  | Horz(CT) | 0.05  | 8     | n/a     | n/a   |                |          |
| BCDL        | 10.0      | Code FBC2017/TI | PI2014 | Matri  | x-MS  |          |       |       |         |       | Weight: 129 lb | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

WEBS

LUMBER-

REACTIONS.

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

2x4 SP No 3 WERS

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

Max Horz 2=213(LC 27)

Max Uplift 8=-932(LC 5), 2=-751(LC 8) Max Grav 8=1772(LC 1), 2=1499(LC 1)

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

TOP CHORD 2-3=-2738/1367, 3-4=-2570/1294, 4-5=-2307/1205, 5-6=-2278/1136, 7-8=-291/230

2-11=-1328/2413, 9-11=-1347/2532, 8-9=-947/1758 **BOT CHORD** 

4-11=-279/778, 5-11=-344/275, 5-9=-451/386, 6-9=-374/936, 6-8=-2152/1162 WEBS

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=932, 2=751,
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 130 lb up at 7-0-0, 106 lb down and 130 lb up at 9-0-12, 106 lb down and 130 lb up at 11-0-12, 106 lb down and 130 lb up at 13-0-12, 106 lb down and 129 lb up at 15-0-12, 106 lb down and 130 lb up at 17-0-12, and 106 lb down and 130 lb up at 19-0-12, and 128 lb down and 130 lb up at 21-3-2 on top chord, and 294 lb down and 155 lb up at 7-0-0, 85 lb down and 25 lb up at 9-0-12, 85 lb down and 25 lb up at 11-0-12, 85 lb down and 25 lb up at 13-0-12, 85 lb down and 25 lb up at 15-0-12, 85 lb down and 25 lb up at 17-0-12, and 85 lb down and 25 lb up at 19-0-12, and 101 lb down and 17 lb up at 21-3-2 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, 4-7=-54, 2-8=-20

Continued on page 2



Structural wood sheathing directly applied or 3-2-14 oc purlins,

6-8

Rigid ceiling directly applied or 6-4-11 oc bracing.

except end verticals.

1 Row at midpt

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

June 22,2020

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



6904 Parke East Blvd

| Job     | Truss | Truss Type      | Qty | Ply  | GIEBEIG HOMES - LOT 31 CCP |
|---------|-------|-----------------|-----|------|----------------------------|
| 2380547 | T40   | Half Hip Girder | 4   |      | T20519022                  |
| 2380547 | 112   | Hall Hip Girder |     | 7.5. | Job Reference (optional)   |

Builders FirstSource,

Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:45 2020 Page 2 ID:aWWYZLKSHCowoxc8cTivEVyrGuq-owYhIE3I3275?gxSMpV0xR3c?cytWOwqVo74izz3pWi

LOAD CASE(S) Standard

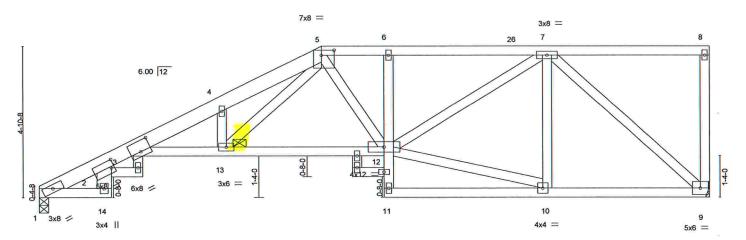
Concentrated Loads (lb)

Vert: 42-106(B) 7=-128(B) 8=-69(B) 11=-284(B) 14=-106(B) 15=-106(B) 16=-106(B) 18=-106(B) 19=-106(B) 20=-106(B) 21=-61(B) 22=-61(B) 23=-61(B) 25=-61(B) 26=-61(B)



GIEBEIG HOMES - LOT 31 CCP Job Truss Type Qty Truss T20519023 2380547 T13 Half Hip Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:46 2020 Page 1 Builders FirstSource, Jacksonville, FL - 32244 ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-H763Va4wqMGycqWewW0FTfco\_?KsFni\_kSteEPz3pWh 9-0-0 11-0-0 16-2-7 21-4-14 2-0-0 5-2-7

Scale = 1:35.6



| î.         | 2-3-8      | 3-3-8 5-10-0              | ï                  | 10-0-0          | 11-0               | -0           | 16-2-7      |        |     | 21-4-14        |          |
|------------|------------|---------------------------|--------------------|-----------------|--------------------|--------------|-------------|--------|-----|----------------|----------|
| 15         | 2-3-8      | 1-0-0 2-6-8               | 1                  | 4-2-0           | 1-0-               | 0 '          | 5-2-7       |        |     | 5-2-7          | 1        |
| Plate Offs | sets (X,Y) | [2:0-0-13,0-1-9], [2:0-1- | 3,0-3-0], [3:0-4-0 | 0,0-4-2], [3:0- | -1-9,0-0-13], [5:0 | )-5-0,0-2-0] |             |        |     |                |          |
| LOADING    | 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              | 0.57               | Vert(LL)     | 0.28 13-25  | >899   | 240 | MT20           | 244/190  |
| TCDL       | 7.0        | Lumber DOL                | 1.25               | BC              | 0.51               | Vert(CT)     | -0.38 13-25 | >673   | 180 |                |          |
| BCLL       | 0.0 *      | Rep Stress Incr           | YES                | WB              | 0.81               | Horz(CT)     | 0.23 9      | n/a    | n/a |                |          |
| BCDL       | 10.0       | Code FBC2017/             | TPI2014            | Matri           | ix-MS              |              |             |        |     | Weight: 136 lb | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

JOINTS

LUMBER-

2x6 SP M 26 \*Except\* TOP CHORD

5-8: 2x4 SP No.2

2x4 SP No.3 \*Except\* **BOT CHORD** 

1-14,9-11: 2x4 SP No.2, 2-14: 2x6 SP No.2, 3-12: 2x4 SP M 31

WEBS 2x4 SP No.3

REACTIONS. (size) 1=0-3-8, 9=Mechanical

Max Horz 1=221(LC 12)

Max Uplift 1=-323(LC 12), 9=-342(LC 9) Max Grav 1=768(LC 1), 9=779(LC 1)

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

TOP CHORD 1-2=-903/362, 2-3=-279/11, 3-4=-2262/1234, 4-5=-2531/1500, 5-6=-1279/722,

1-14=-399/591, 3-13=-1351/2185, 12-13=-730/1223, 9-10=-371/695

**BOT CHORD** 4-13=-718/559, 5-13=-890/1377, 10-12=-362/678, 7-12=-417/686, 7-9=-923/494 WEBS

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 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) 1=323, 9=342.



Structural wood sheathing directly applied or 5-0-2 oc purlins,

Rigid ceiling directly applied or 9-1-6 oc bracing. Except:

except end verticals.

1 Brace at Jt(s): 13

10-0-0 oc bracing: 11-12

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

June 22,2020

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



GIEBEIG HOMES - LOT 31 CCP Truss Truss Type Qty Job T20519024 2380547 T14 Hip | Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06;19:47 2020 Page 1 Builders FirstSource Jacksonville, FL - 32244. ID:aWWYZLKSHCowoxc8cTIvEVyrGuq-IJgRjw5YbfOpE\_5rUEXV0s8ylPh9\_J77z6cBnrz3pWg 11-0-0 18-0-0 21-4-14 3-4-14 4-2-0 Scale = 1:38.0 5x6 = 4x8 = 6 3x4 6.00 12 11 0-8-0 12 4x8 = 2x4 비염 2x4 || 2x4 || 13 10 3x4 3x4 || 4x8 = 3x8 3x6 || 6-10-0 11-0-0 3-3-8 10-0-0 21-4-14 3-6-8 [2:0-0-13,0-1-9], [2:0-1-3,0-3-0], [3:0-4-0,0-2-2], [3:0-1-9,0-0-13], [5:0-3-0,0-2-0], [6:0-5-4,0-2-0] Plate Offsets (X,Y)-LOADING (psf) SPACING-CSI. DEFL. I/defl L/d **PLATES** GRIP in (loc) MT20 TCLL 20.0 Plate Grip DOL 1.25 TC 0.63 Vert(LL) 0.29 12-24 >874 240 244/190 -0.42 12-24 TCDL 7.0 Lumber DOL 1.25 BC 0.51 Vert(CT) >609 180 **BCLL** 0.0 Rep Stress Incr WB 0.47 Horz(CT) 0.24 8 n/a n/a Code FBC2017/TPI2014 BCDL 10.0 Matrix-MS Weight: 140 lb FT = 20% LUMBER-BRACING-TOP CHORD 2x4 SP No.2 \*Except\* TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins, 1-5: 2x6 SP M 26 except end verticals. **BOT CHORD** 2x4 SP No.3 \*Except\* BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 1-13,8-10: 2x4 SP No.2, 2-13: 2x6 SP No.2, 3-11: 2x4 SP M 31 10-0-0 oc bracing: 10-11 WEBS JOINTS 1 Brace at Jt(s): 12 REACTIONS. (size) 1=0-3-8, 8=Mechanical

Max Horz 1=223(LC 12)

Max Uplift 1=-288(LC 12), 8=-224(LC 12) Max Grav 1=768(LC 1), 8=779(LC 1)

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

TOP CHORD 1-2=-903/393, 2-3=-279/25, 3-4=-1985/1093, 4-5=-1176/661, 5-6=-997/634,

6-7=-497/277, 7-8=-766/418

**BOT CHORD** 1-13=-393/591, 3-12=-1155/1903, 11-12=-1155/1903, 5-11=-73/307 WEBS

4-11=-1015/680, 9-11=-196/368, 6-11=-403/690, 6-9=-442/320, 7-9=-315/649,

4-12=-71/279

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.

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

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=288, 8=224.

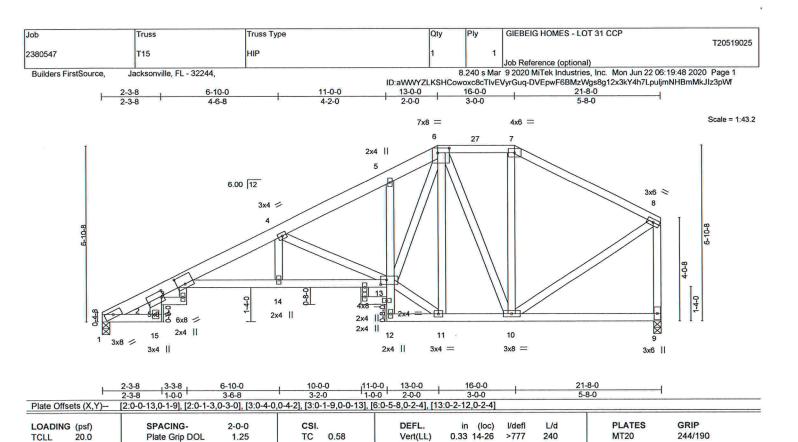


Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

June 22,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





Vert(CT)

Horz(CT)

BRACING-TOP CHORD

BOT CHORD

-0.45 14-26

0.27

>578

except end verticals.

10-0-0 oc bracing: 12-13

n/a

180

n/a

Structural wood sheathing directly applied or 4-11-13 oc purlins,

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

Weight: 156 lb

FT = 20%

LUMBER-

TCDL

BCLL

BCDL

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

7.0

0.0

10.0

1-6: 2x6 SP M 26

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

2-15: 2x6 SP No.2, 5-12,2-16,17-18: 2x4 SP No.3

Lumber DOL

Rep Stress Incr

Code FBC2017/TPI2014

WEBS 2x4 SP No.3

REACTIONS.

(size) 1=0-3-8, 9=0-3-8

Max Horz 1=241(LC 12) Max Uplift 1=-315(LC 12), 9=-274(LC 12)

Max Grav 1=778(LC 1), 9=789(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 1-2=-915/410, 2-3=-283/53, 3-4=-2019/1130, 4-5=-1186/678, 5-6=-1100/737,

TOP CHORD 6-7=-515/400, 7-8=-642/374, 8-9=-735/443

1-15=-399/599, 3-14=-1192/1951, 13-14=-1192/1951, 10-11=-316/619 **BOT CHORD** 

4-13=-1078/722, 11-13=-350/707, 6-13=-633/1013, 6-11=-354/192, 6-10=-313/192, WEBS

1.25

YES

BC

WB 0.47

Matrix-MS

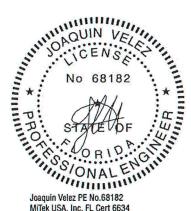
1.00

8-10=-281/590, 4-14=-49/252

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=315, 9=274.



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

June 22,2020

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTEk® 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 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TH1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Qty T20519026 T16 Roof Special 2380547 Job Reference (optional) Jacksonville, FL - 32244 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:49 2020 Page 1 Builders FirstSource, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-hinC8b6p7HeXTIFDbeaz5HEH7DM6SDHQQQ5lrkz3pWe 21-8-0 4-2-0 Scale: 1/4"=1" 5x8 = 6.00 12 2x4 || 4x4 5x6 / 11 89 12 I BIE 2x4 || 2x4 X 2x4 II 10 3x6 11 2x4 || 3x8 = 1-0-0 6-10-0 3-6-8 10-0-0 11-0-0 21-8-0 7-2-0 3-2-0 3-6-0 Plate Offsets (X,Y)-[2:0-0-13,0-1-9], [2:0-1-3,0-3-0], [3:0-4-0,0-2-2], [3:0-1-9,0-0-13], [4:0-1-0,0-1-12], [7:Edge,0-1-12] LOADING (psf) SPACING-DEFL. **PLATES** GRIP 2-0-0 CSI. I/defi in (loc) L/d 20.0 Plate Grip DOL 1.25 TC 0.64 Vert(LL) 0.32 12-24 >796 240 MT20 244/190 TCLL 7.0 Lumber DOL 1.25 BC 0.48 Vert(CT) -0.43 12-24 >596 180 TCDL BCLL 0.0 Rep Stress Incr YES WB 0.50 Horz(CT) 0.25 8 n/a n/a BCDL 10.0 Code FBC2017/TPI2014 Matrix-MS Weight: 139 lb FT = 20% LUMBER-**BRACING-**TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins,

**BOT CHORD** 

except end verticals.

10-0-0 oc bracing: 10-11

Rigid ceiling directly applied or 6-11-13 oc bracing. Except:

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

1-4: 2x6 SP M 26

BOT CHORD 2x4 SP No.3 \*Except\*

1-13,8-10: 2x4 SP No.2, 2-13: 2x6 SP No.2, 3-11: 2x4 SP M 31

WEBS

REACTIONS.

(size) 1=0-3-8, 8=0-3-8

Max Horz 1=257(LC 12)

Max Uplift 1=-310(LC 12), 8=-279(LC 12) Max Grav 1=778(LC 1), 8=789(LC 1)

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

TOP CHORD 1-2=-915/415, 2-3=-283/69, 3-4=-1927/1091, 4-5=-1164/678, 5-6=-1110/758,

6-7=-682/405, 7-8=-724/455

BOT CHORD 1-13=-402/599, 3-12=-1140/1838, 11-12=-1145/1855 WEBS

4-12=-77/284, 4-11=-964/654, 9-11=-238/537, 6-11=-580/886, 6-9=-336/258,

7-9=-258/563

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=310, 8=279.



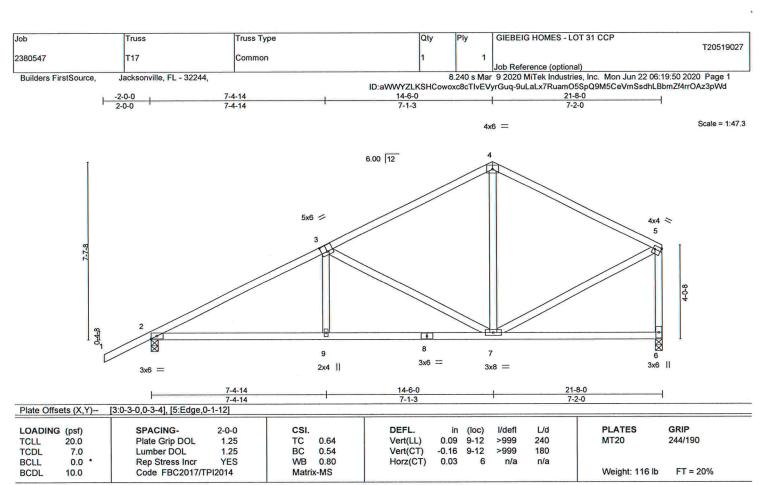
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

June 22,2020

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ANSI/TPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.





LUMBER-

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-6-15 oc purlins,

except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 7-0-1 oc bracing.

REACTIONS.

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

Max Horz 2=297(LC 12)

Max Uplift 2=-380(LC 12), 6=-277(LC 12) Max Grav 2=909(LC 1), 6=791(LC 1)

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

TOP CHORD 2-3=-1307/646, 3-4=-698/413, 4-5=-687/403, 5-6=-727/451

**BOT CHORD** 2-9=-669/1104, 7-9=-669/1104

3-9=0/298, 3-7=-652/466, 4-7=-43/313, 5-7=-258/572 WEBS

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=380, 6=277.



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June 22,2020

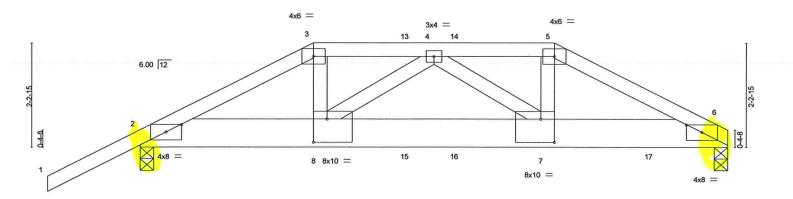
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MTE-k8 connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building component, not 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 properly 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



GIEBEIG HOMES - LOT 31 CCP Job Truss Truss Type Qty Ply T20519028 2380547 T18 Hip Girder 2 Job Reference (optional)
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:52 2020 Page 1 Builders FirstSource, Jacksonville, FL - 32244, ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-5HTKmd9hQC05LlzoHn7gjwsuPQP5fZis6OKyS3z3pWb 8-11-2 12-8-0 3-8-14 2-0-0

Scale: 1/2"=1"



|  |                               | 3-8-14<br>3-8-14  |                             |                        |                      | 8-11-2<br>5-2-4                           |                             |                     |                               | 12-8-0<br>3-8-14         |                |                 |
|--|-------------------------------|---|-----------------------------|------------------------|----------------------|---|-----------------------------|---------------------|-------------------------------|--------------------------|----------------|-----------------|
| Plate Offsets (X,Y) [2:0-4-0,0-1-15], [6:0-4-0,0-1-15], [7:0-3-8,0-6-0], [8:0-3-8,0-6-0] |                               |   |                             |                        |                      | 5-2                                       |                             |                     |                               |                          | 3-0-14         |                 |
| LOADING<br>TCLL<br>TCDL<br>BCLL  | (psf)<br>20.0<br>7.0<br>0.0 * | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr | 2-0-0<br>1.25<br>1.25<br>NO | CSI.<br>TC<br>BC<br>WB | 0.32<br>0.40<br>0.52 | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT) | in<br>0.08<br>-0.12<br>0.02 | (loc)<br>7-8<br>7-8 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20 | GRIP<br>244/190 |
| BCDL   | 10.0                          | Code FBC2017/T  |                             | Matri                  |                      | (2.7)                                     |                             |                     |                               |                          | Weight: 150 lb | FT = 20%        |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

WEBS 2x4 SP No.3

REACTIONS.

(size) 6=0-3-8, 2=0-3-8 Max Horz 2=83(LC 12)

Max Uplift 6=-1566(LC 9), 2=-1060(LC 8) Max Grav 6=3438(LC 1), 2=2156(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-4494/2169, 3-4=-4119/2025, 4-5=-5810/2784, 5-6=-6307/2982

BOT CHORD 2-8=-1905/3965, 7-8=-2448/5102, 6-7=-2596/5591

WEBS 3-8=-897/1911, 4-8=-1237/624, 4-7=-376/889, 5-7=-1244/2710

### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 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.
- 3) Obtained for the ladds have been considered for this design.
  4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1566, 2=1060.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 38 lb down and 66 lb up at 3-8-14, 35 lb down and 61 lb up at 5-9-10, and 35 lb down and 61 lb up at 6-10-6, and 38 lb down and 66 lb up at 8-11-2 on top chord, and 130 lb down and 20 lb up at 3-8-14, 36 lb down at 5-9-10, 36 lb down at 6-10-6, 2336 lb down and 1253 lb up at 7-0-12, 130 lb down and 20 lb up at 8-10-6, and 1049 lb down and 428 lb up at 9-0-12, and 1049 lb down and 428 lb up at 11-0-12 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

No 68182

Structural wood sheathing directly applied or 4-11-7 oc purlins.

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

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

June 22,2020

Continued on page 2

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

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



| Job     | Truss | Truss Type | Qty | Ply | GIEBEIG HOMES - LOT 31 CCP T20519028 |
|---------|-------|------------|-----|-----|--------------------------------------|
| 2380547 | T18   | Hip Girder | 1   | 2   | 120519020                            |
|         | 2 50  |            |     |     | Job Reference (optional)             |

Builders FirstSource,

Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:52 2020 Page 2 ID:aWWYZLKSHCowoxc8cTlvEVyrGuq-5HTKmd9hQC05LlzoHn7gjwsuPQP5fZis60KyS3z3pWb

LOAD CASE(S) Standard Uniform Loads (plf) Vert: 1-3=-54, 3-5=-54, 5-6=-54, 2-6=-20

Concentrated Loads (lb)

Vert: 3=-20(B) 5=-20(B) 8=-11(B) 7=-1061(F=-1049, B=-11) 13=-20(B) 14=-20(B) 15=-13(B) 16=-2350(F=-2336, B=-13) 17=-1049(F)

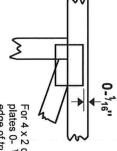


### Symbols

# PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/18" from outside edge of truss.

ω

required direction of slots in This symbol indicates the

\* Plate location details available in MiTek 20/20 connector plates.

### PLATE SIZE

software or upon request.



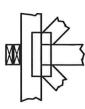
width measured perpendicular to slots. Second dimension is the length parallel to slots. The first dimension is the plate

## LATERAL BRACING LOCATION



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

### BEARING



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

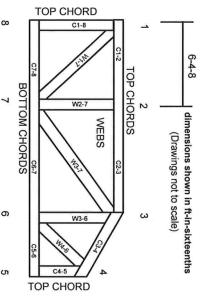
### Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.

DSB-89:

Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses. Building Component Safety Information,

## 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

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

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

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

# General Safety Notes

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

- 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 bracing should be considered may require bracing, or alternative Tor I
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

ω

Provide copies of this truss design to the building all other interested parties. designer, erection supervisor, property owner and

4

Cut members to bear tightly against each other

5

- Place plates on each face of truss at each locations are regulated by ANSI/TPI 1. oint and embed fully. Knots and wane at joint
- 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
- 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
- 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
- Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- 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.

|  |  |  | * |
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### AUGUST 1, 2016

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

MII-T-BRACE 2

MiTek USA, Inc. Page 1 of 1



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

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

| Nailing Pattern   |                   |              |  |  |  |  |  |  |
|-------------------|-------------------|--------------|--|--|--|--|--|--|
| T-Brace size      | Nail Size         | Nail Spacing |  |  |  |  |  |  |
| 2x4 or 2x6 or 2x8 | 10d (0.131" X 3") | 6" o.c.      |  |  |  |  |  |  |

Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)

|            | Brace Size for One-Ply Truss  Specified Continuous Rows of Lateral Bracing |             |  |  |  |  |  |
|------------|--|-------------|--|--|--|--|--|
|            |  |             |  |  |  |  |  |
| Web Size   | 1  | 2           |  |  |  |  |  |
| 2x3 or 2x4 | 2x4 T-Brace  | 2x4 I-Brace |  |  |  |  |  |
| 2x6        | 2x6 T-Brace  | 2x6 I-Brace |  |  |  |  |  |
| 2x8        | 2x8 T-Brace  | 2x8 I-Brace |  |  |  |  |  |

| Nails  |
|--|
| SPACING  |
| WEB The state of t |
| T-BRACE  |
| Nails Section Detail  T-Brace  Web   |

| WEB   | SPACING  T-BRACE |  |
|-------|------------------|--|
| Vails | Section Detail   |  |
|       |                  |  |

| Nails |         |
|-------|---------|
| Web   | I-Brace |
| Nails |         |

|            | Brace Size<br>for Two-Ply Truss |                             |
|------------|---------------------------------|-----------------------------|
|            |                                 | Continuous<br>teral Bracing |
| Web Size   | 1                               | 2                           |
| 2x3 or 2x4 | 2x4 T-Brace                     | 2x4 I-Brace                 |
| 2x6        | 2x6 T-Brace                     | 2x6 I-Brace                 |
| 2x8        | 2x8 T-Brace                     | 2x8 I-Brace                 |

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



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

February 12, 2018

### **AUGUST 1, 2016**

### SCAB-BRACE DETAIL

### MII-SCAB-BRACE

MiTek USA, Inc.

Page 1 of 1

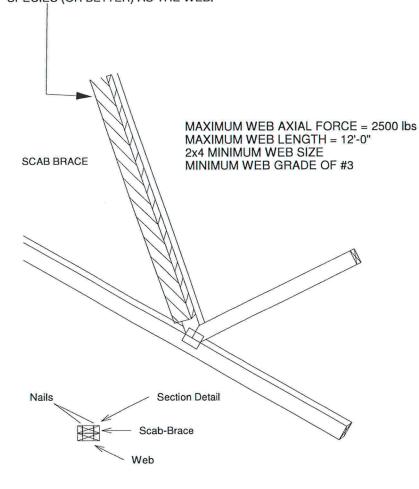


Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.

Scab must cover full length of web +/- 6".

\*\*\* THIS DETAIL IS NOT APLICABLE WHEN BRACING IS \*\*\*
REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

APPLY 2x\_\_\_ SCAB TO ONE FACE OF WEB WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. SCAB MUST BE THE SAME GRADE, SIZE AND SPECIES (OR BETTER) AS THE WEB.



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



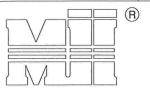
Thomas A. Albani PE No.39380 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

February 12, 2018

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

MII-REP05

MiTek USA, Inc. Page 1 of 1

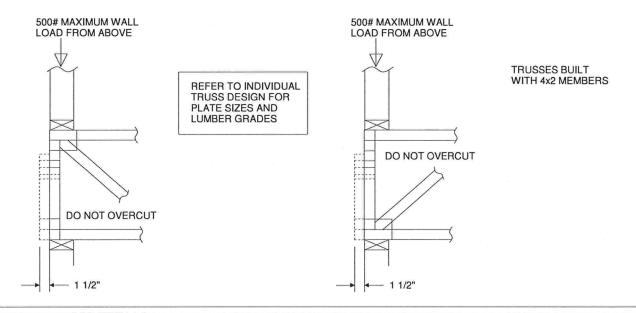


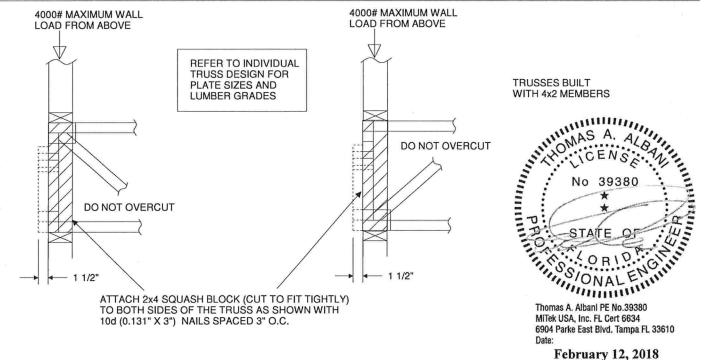
MiTek USA, Inc.

ENGINEERED BY ENGINEERIED ( 

- 1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION, THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
- 2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.

  3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
- 4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
  5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X\_ORIENTATION ONLY.
  6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.





## Standard Gable End Detail

# MII-GE130-D-SP

Page 1 of 2

2x6 Stud or 2x4 No.2 of better

Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails

(2) - 10d NAILS

Trusses @ 24" o.c.

2x6 DIAGONAL BRACE SPACED 48" O.C.

ATTACHED TO VERTICAL WITH (4) -16d

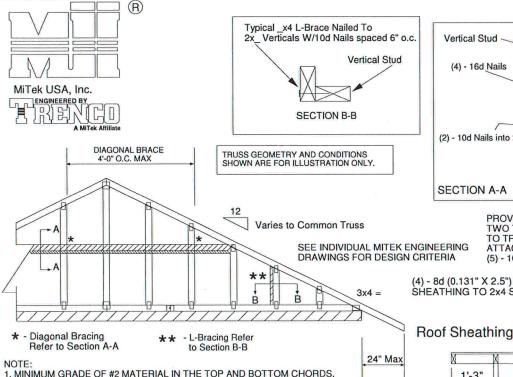
HORIZONTAL BRACE

(SEE SECTION A-A)

TO BLOCKING WITH (5) - 10d NAILS.

NAILS AND ATTACHED

MiTek USA, Inc.



DIAGONAL BRACE 16d Nails Spaced 6" o.c.

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

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

- 10d

NAILS

Vertical Stud

(4) - 16d Nails

(2) - 10d Nails into 2x6

SECTION A-A

1'-3"

Max.

Diag. Brace

at 1/3 points

End Wall

if needed

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.

2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY, CONSULT BLDG.

ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.

4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C. 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF

DIAPHRAM AT 4'-0" O.C.

6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)

7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.

THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES

DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR

TYPE TRUSSES.

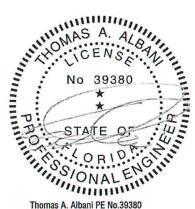
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE

| 06-01-13 BY SI<br>11. NAILS DESIGN<br>NAILS DESIGN | PIB/ALSC.<br>IATED 10d | ARE (0.13           | 1" X 3") ANI   |                | Eli Edille        |                                       |  |
|--|------------------------|---------------------|----------------|----------------|-------------------|---------------------------------------|--|
| Minimum<br>Stud Size                               | Stud<br>Spacing        | Without<br>Brace    | 1x4<br>L-Brace | 2x4<br>L-Brace | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |
| Species and Grade                                  |                        | Maximum Stud Length |                |                |                   |                                       |  |
| 2x4 SP No. 3 / Stud                                | 12" O.C.               | 3-9-13              | 4-1-1          | 5-9-6          | 7-1-3             | 11-5-7                                |  |
| 2x4 SP No. 3 / Stud                                | 16" O.C.               | 3-5-4               | 3-6-8          | 5-0-2          | 6-10-8            | 10-3-13                               |  |
| 2x4 SP No. 3 / Stud                                | 24" O.C.               | 2-9-11              | 2-10-11        | 4-1-1          | 5-7-6             | 8-5-1                                 |  |

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

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

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



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

## Standard Gable End Detail

## MII-GE130-SP

Page 1 of 2

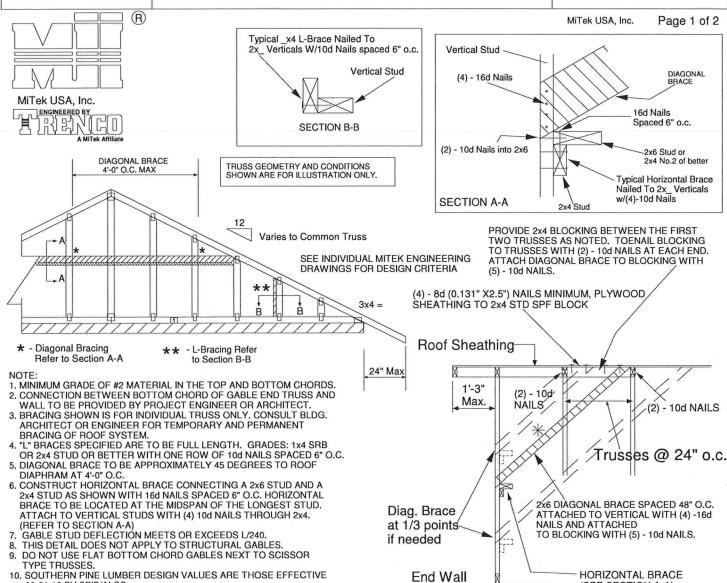
DIAGONAL BRACE

16d Nails Spaced 6" o.c.

2x6 Stud or

2x4 No.2 of better

(2) - 10d NAILS



10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.

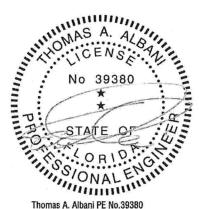
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

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

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

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

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



(SEE SECTION A-A)

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

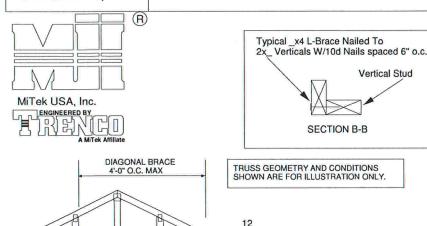


# Standard Gable End Detail

## MII-GE140-001

Page 1 of 2

MiTek USA, Inc.



Vertical Stud DIAGONAL (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails

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

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

**SECTION A-A** 

Roof Sheathing

24" Max

Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =B Diagonal Bracing - L-Bracing Refer Refer to Section A-A to Section B-B

#### NOTE:

- 2. (
- 3. [
- 5. [
- 6.
- 7.
- 8. 9.
- NAILS DESIGNATED 16d ARE (0.131" X 3.5")

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

| ■ Max.                                    | NAILS (2) - 10d NAILS  |
|---|--|
| Diag. Brace<br>at 1/3 points<br>if needed | Trusses @ 24" o.c.  2x6 DIAGONAL BRACE SPACED 48" O.C. ATTACHED TO VERTICAL WITH (4) -16d NAILS AND ATTACHED TO BLOCKING WITH (5) - 10d NAILS. |
| End Wall                                  | HORIZONTAL BRACE (SEE SECTION A-A)   |
| CONAL                                     | 1  |

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

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

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

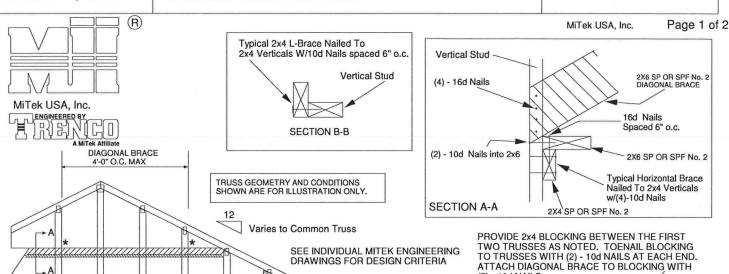
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



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

## Standard Gable End Detail

MII-GE170-D-SP



SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

24" Max

Diag. Brace

at 1/3 points

End Wall

if needed

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

10d

NAILS

Roof Sheathing

1'-0"

Max.

3x4 =

- Diagonal Bracing Refer to Section A-A

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

NOTE

- 1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
- 2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
- 3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
  "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3
- OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
- 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
- 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
- (REFER TO SECTION A-A)

  7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.

  8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.

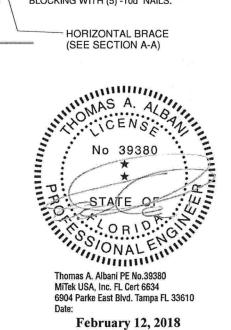
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
- 10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
- 11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

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

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

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

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



(2) - 10d NAILS

Trusses @ 24" o.c.

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

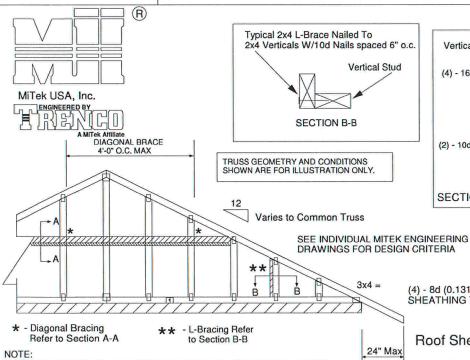
BLOCKING WITH (5) -10d NAILS.

# Standard Gable End Detail

MII-GE180-D-SP

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MiTek USA, Inc.



Vertical Stud 2X6 SP OR SPF No. 2 DIAGONAL BRACE (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2X6 SP OR SPF No. 2 Typical Horizontal Brace Nailed To 2x4 Verticals w/(4)-10d Nails SECTION A-A 2X4 SP OR SPF No. 2

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

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

- 10d

Roof Sheathing

1'-0" Max. NAILS

Diag. Brace

at 1/3 points

End Wall

if needed

Trusses @ 24" o.c.

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

(2) - 10d NAILS

HORIZONTAL BRACE (SEE SECTION A-A)

MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
 CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.

3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG.

ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT

BRACING OF ROOF SYSTEM.

4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3
OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.

5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF

DIAPHRAM AT 4'-0" O.C.

6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)

7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.

8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR

TYPE TRUSSES

10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.

11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

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

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

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

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

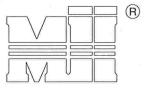


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## STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-7-10

MiTek USA, Inc. Page 1 of 1



MiTek USA, Inc.

ENGINEERED B 

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

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

**DURATION OF LOAD INCREASE: 1.60** 

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED. B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.

C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.

CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.

-2 X X 4"-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED. ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C.

SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:

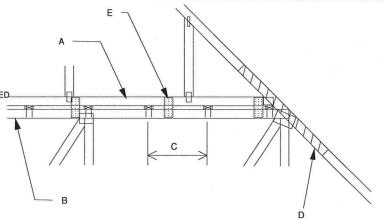
DIHECTIONS AND:

1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR

2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM
PIGGYBACK SPAN OF 12 ft.

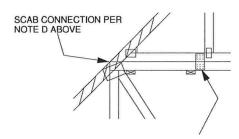
E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH

MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)

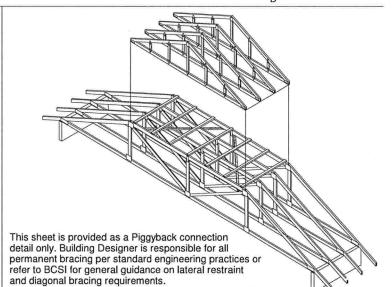


#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

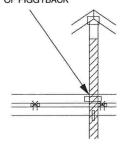
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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



VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



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

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- AS SHOWN IN DETAIL.

  ATTACH 2 x \_\_\_ x 4\*-0\* SCAB TO EACH FACE OF

  TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131\* X 3\*) NAILS

  SPACED 4\* O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH

  VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.)
- (MINIMUM 2X4)
  THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS,
  NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
  5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH
- THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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

## STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

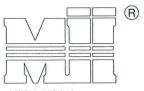
# MII-PIGGY-ALT 7-10

MiTek USA, Inc. Page 1 of 1

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

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

**DURATION OF LOAD INCREASE: 1.60** 



MiTek USA, Inc. ENGINEERED BY

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.

- PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
SHALL BE CONNECTED TO EACH PURLIN
WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.
UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.
CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- 2 X \_ X 4-0" SCAB, SIZE TO MATCH TOP CHORD OF
PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON
INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C.
SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING
IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH
DIRECTIONS AND:

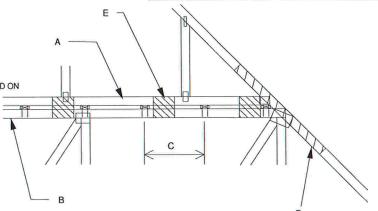
IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:

1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR

2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.

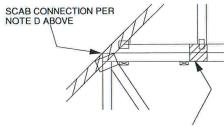
E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH

3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)

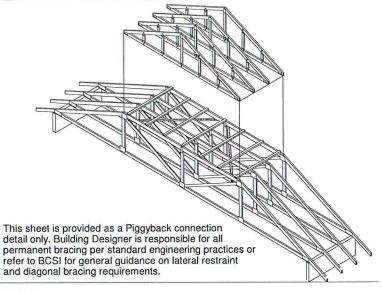


#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

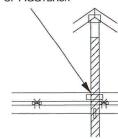
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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



**VERTICAL WEB TO** EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



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

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP

MUST MATCH IN SIZE, GRADE, AND MOST LINE OF AS SHOWN IN DETAIL.

ATTACH 2 x \_\_\_ x 4-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.)

VERTICAL WEBS OF PIGGYBACK AND BASE I RUSS.)
(MINIMUM 2X4)
THIS CONNECTION IS ONLY VALID FOR A MAXIMUM
CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW
BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS

GREATER THAN 4000 LBS.
FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS,
NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.

CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



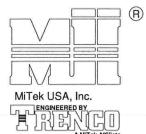
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## STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS AND DAMAGED OR MISSING CHORD SPLICE PLATES

## MII-REP01A1

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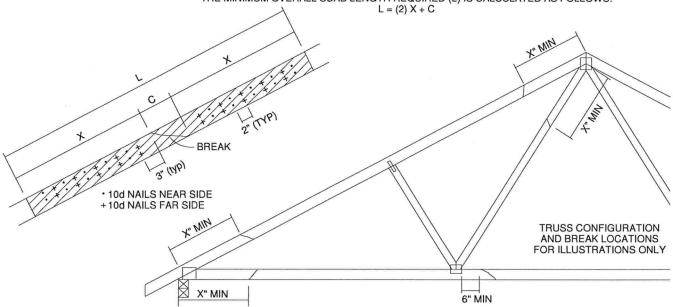


|                   | JMBER OF |             | MAXIMUM FORCE (lbs) 15% LOAD DURATION |      |      |      |      |      |      |      |
|-------------------|----------|-------------|---------------------------------------|------|------|------|------|------|------|------|
| NAILS EA<br>OF BF | REAK *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

## \* DIVIDE EQUALLY FRONT AND BACK

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

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



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

## DO NOT USE REPAIR FOR JOINT SPLICES

## NOTES:

- NOTES:

  1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES
  NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS
  SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED
  REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.

  2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLING REPAIR
- AND HELD IN PLACE DURING APPLICATION OF REPAIR.

  THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
- UNUSUAL SPLITTING OF THE WOOD. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x\_ORIENTATION ONLY. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.



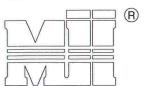
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## LATERAL TOE-NAIL DETAIL

MII-TOENAIL SP

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NOTES:

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

## THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

> SIDE VIEW (2x3) 2 NAILS

> > NEAR SIDE **NEAR SIDE**

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

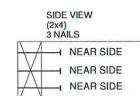
VALUES SHOWN ARE CAPACITY PER TOE-NAIL APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

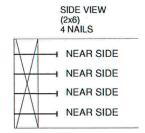
#### **EXAMPLE:**

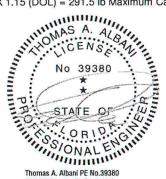
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1.15:

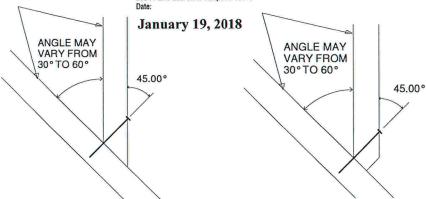
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

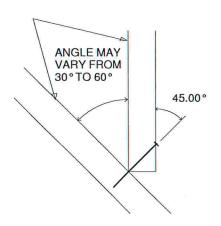






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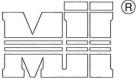


# TRUSSED VALLEY SET DETAIL

## MII-VALLEY HIGH WIND1

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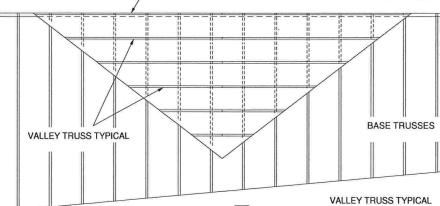
MiTek USA, Inc.

ITEK USA,

GABLE END, COMMON TRUSS OR GIRDER TRUSS

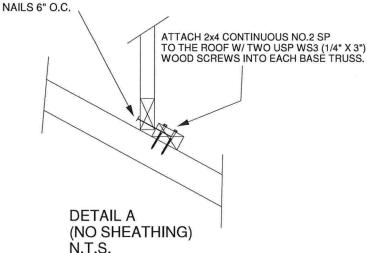
## GENERAL SPECIFICATIONS

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



GABLE END, COMMON TRUSS 12 OR GIRDER TRUSS SEE DETAIL A BELOW (TYP.)

SECURE VALLEY TRUSS W/ ONE ROW OF 10d



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

ON THE TRUSSES

No 39380

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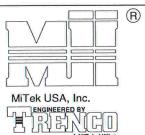
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# TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND2

MiTek USA, Inc.

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GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3") 2. WOOD SCREW = 4.5" WS45 USP OR EQUILIVANT

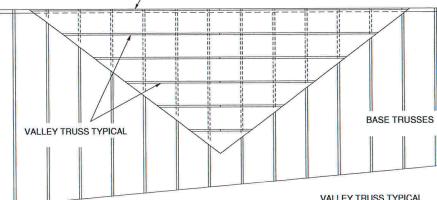
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.

4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A

5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE

INDIVIDUAL DESIGN DRAWINGS. 6. NAILING DONE PER NDS-01

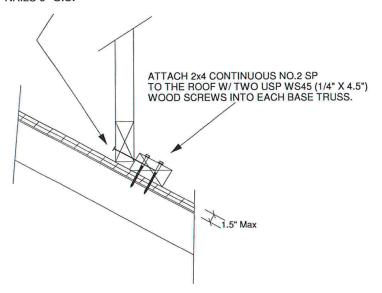
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



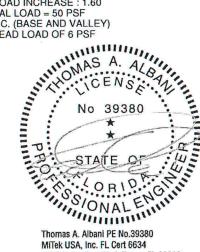
GABLE END, COMMON TRUSS OR GIRDER TRUSS

GABLE END, COMMON TRUSS VALLEY TRUSS TYPICAL OR GIRDER TRUSS SEE DETAIL A BELOW (TYP.)

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



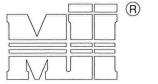
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH WIND DESIGN PER ASCE 7-10 160 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12 CATEGORY II BUILDING **EXPOSURE C** WIND DURATION OF LOAD INCREASE: 1.60 MAX TOP CHORD TOTAL LOAD = 50 PSF MAX SPACING = 24" O.C. (BASE AND VALLEY)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



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ENGINEERED B)

N.T.S.

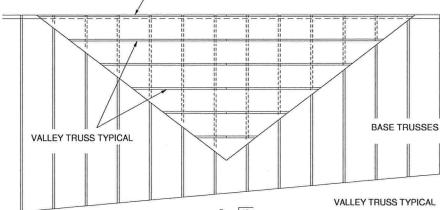
GABLE END, COMMON TRUSS OR GIRDER TRUSS

#### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 16d (0.131" X 3.5")
- 2. INSTALL VALLÈY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
- SECURE PER DETAIL A

  3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE
  INDIVIDUAL DESIGN DRAWINGS.

  4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING
  EQUILIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
- 5. NAILING DONE PER NDS 01
- 6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
- 7. ALL LUMBER SPECIES TO BE SP.



GABLE END, COMMON TRUSS OR GIRDER TRUSS 12 SEE DETAIL A BELOW (TYP.)

SECURE VALLEY TRUSS W/ONE ROW OF 16d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO 16d NAILS INTO EACH BASE TRUSS. **DETAIL A** (MAXIMUM 1" SHEATHING)

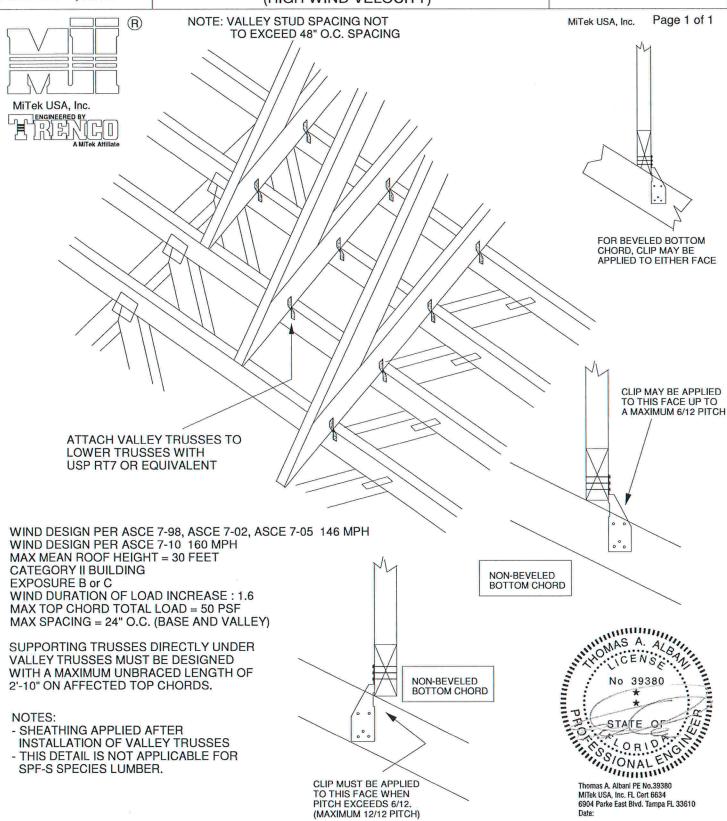
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH WIND DESIGN PER ASCE 7-10 150 MPH MAX MEAN ROOF HEIGHT = 30 FEET MAX MEAN HOOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE: 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX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



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

# TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)

**MII-VALLEY** 



## Standard Gable End Detail

## MII-GE146-001

(5) - 10d NAILS.

Roof Sheathing

1'-3"

Max

Diag. Brace

at 1/3 points

End Wall

if needed

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

(2) - 10d

(2) - 10d NAILS

Trusses @ 24" o.c.

2x6 DIAGONAL BRACE SPACED 48" O.C.

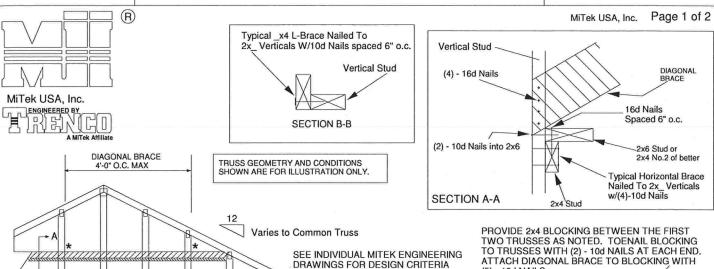
ATTACHED TO VERTICAL WITH (4) -16d NAILS AND ATTACHED

HORIZONTAL BRACE

(SEE SECTION A-A)

TO BLOCKING WITH (5) - 10d NAILS.

NAILS



SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =- Diagonal Bracing - L-Bracing Refer Refer to Section A-A to Section B-B 24" Max

NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG.

ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.

4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES:

2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C. 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4"-0" O.C.

6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)

7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.

8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.

9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR

TYPE TRUSSES

10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

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

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

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

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



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**OCTOBER 5, 2016** 

## REPLACE BROKEN OVERHANG

MII-REP13B

MiTek USA, Inc.

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R

MiTek USA, Inc. ENGINEERED BY A MiTek Affiliate TRUSS CRITERIA:

LOADING: 40-10-0-10 **DURATION FACTOR: 1.15** SPACING: 24" O.C. TOP CHORD: 2x4 OR 2x6

PITCH: 4/12 - 12/12 HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL

**END BEARING CONDITION** 

NOTES:

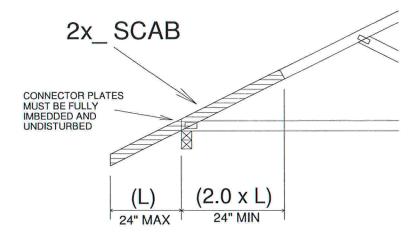
1. ATTACH 2x\_ SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF

TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.

THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.

WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED.

TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.



## **IMPORTANT**

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

Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



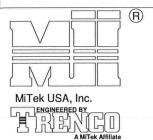
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## LATERAL BRACING RECOMMENDATIONS

MII-STRGBCK

MiTek USA, Inc.

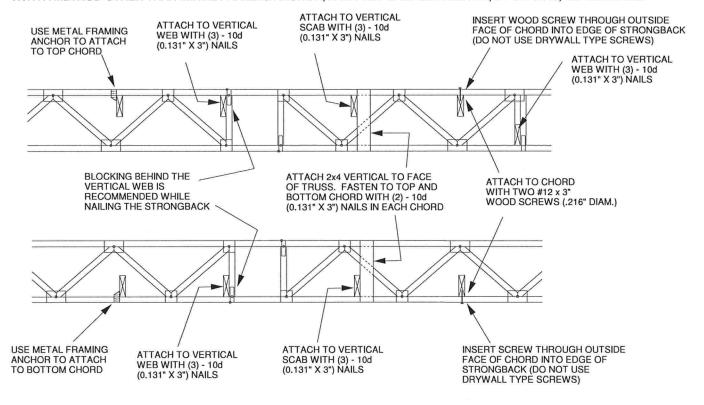
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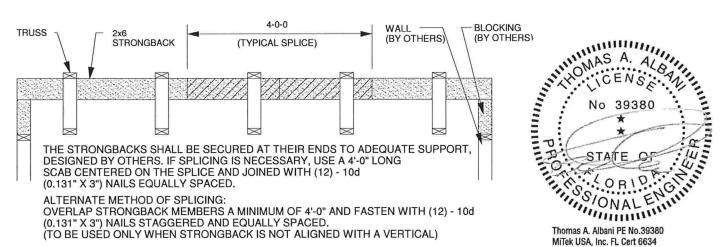


TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

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

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





February 12, 2018

6904 Parke East Blvd. Tampa FL 33610

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