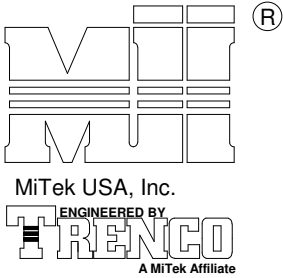


AUGUST 1, 2016

# 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

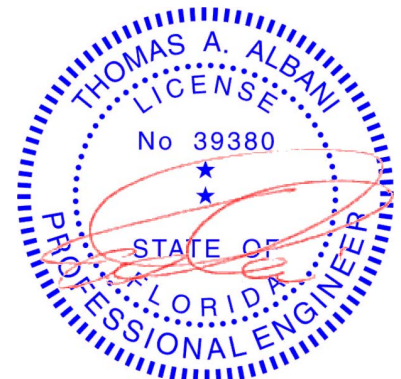
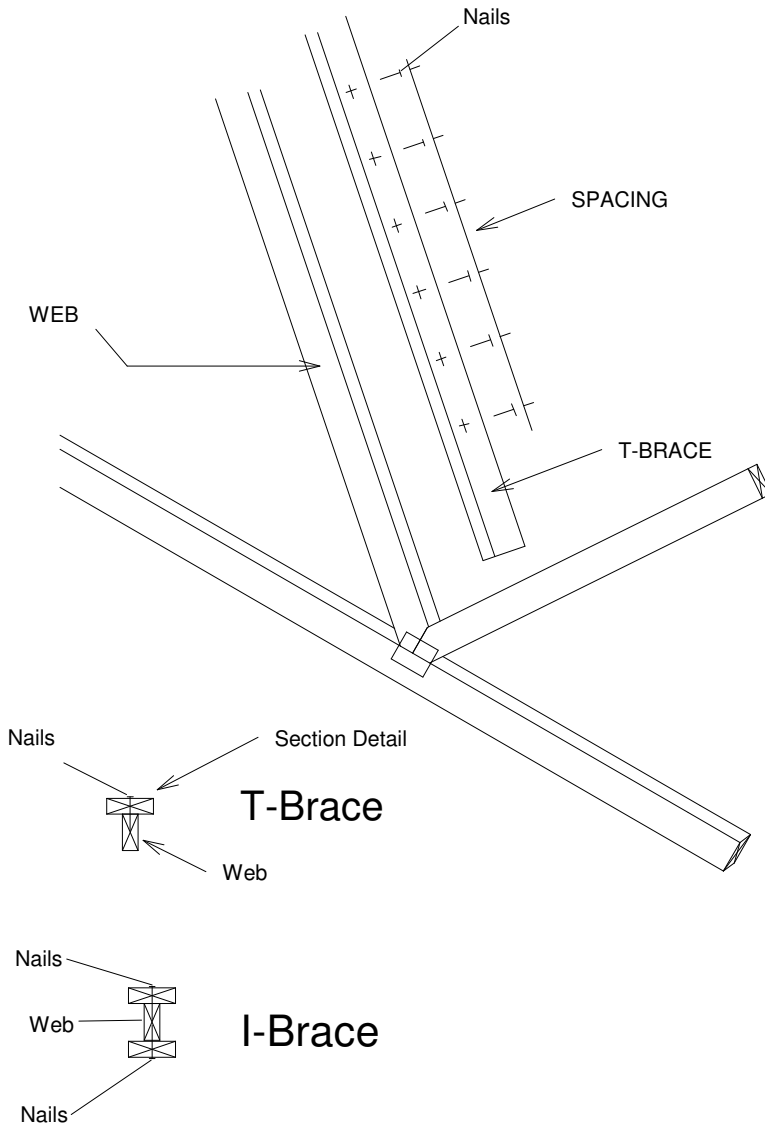
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

## Brace Size for Two-Ply Truss

### Specified Continuous Rows of Lateral Bracing

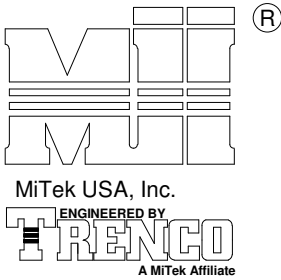
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

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



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

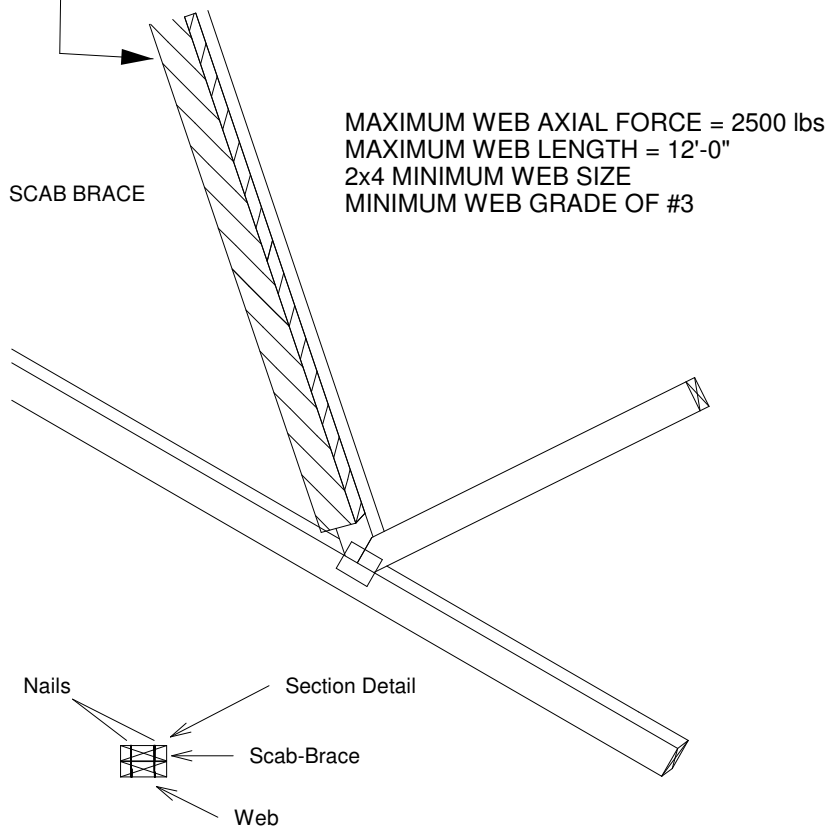
**February 12, 2018**



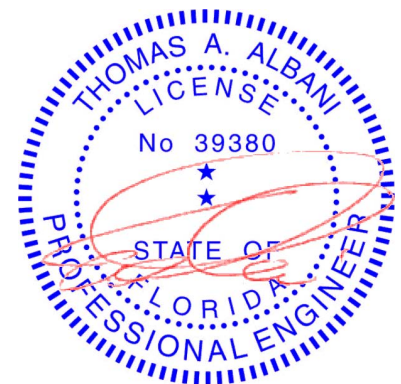
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.  
Scab must cover full length of web +/- 6".

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

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

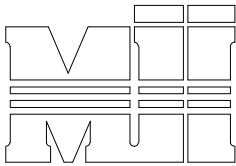


Scab-Brace must be same species grade (or better) as web member.



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

February 12, 2018

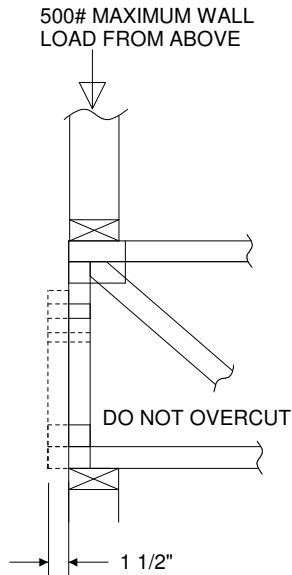
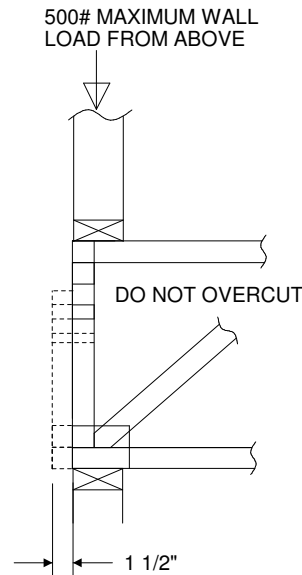
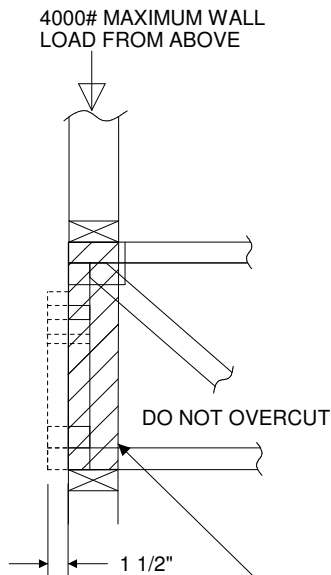
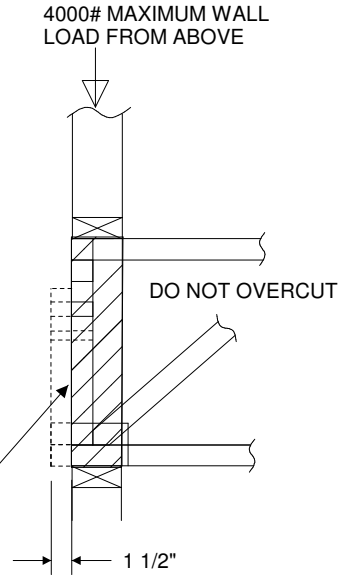
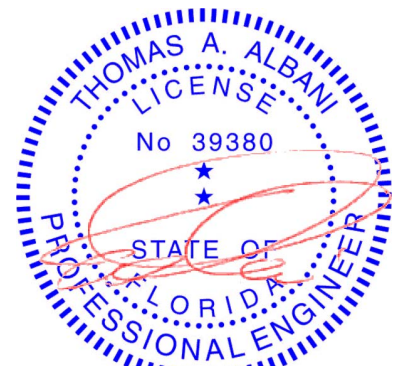


MiTek USA, Inc.

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**TRENCO**  
A MiTek Affiliate

®

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

REFER TO INDIVIDUAL  
TRUSS DESIGN FOR  
PLATE SIZES AND  
LUMBER GRADESTRUSSES BUILT  
WITH 4x2 MEMBERSREFER TO INDIVIDUAL  
TRUSS DESIGN FOR  
PLATE SIZES AND  
LUMBER GRADESTRUSSES BUILT  
WITH 4x2 MEMBERSATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY)  
TO BOTH SIDES OF THE TRUSS AS SHOWN WITH  
10d (0.131" X 3") NAILS SPACED 3" O.C.Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018

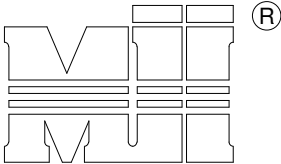
AUGUST 1, 2016

## Standard Gable End Detail

MII-GE130-D-SP

MiTek USA, Inc.

Page 1 of 2



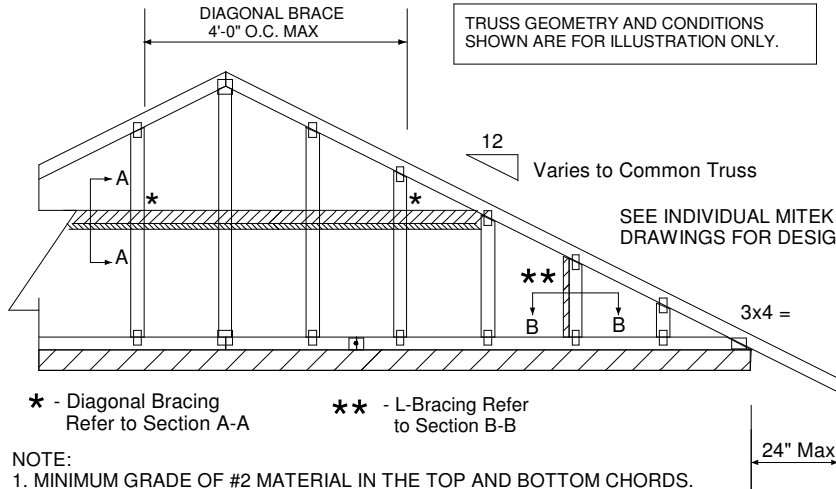
MiTek USA, Inc.

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 Typical 1/4 L-Brace Nailed To  
 2x Verticals w/10d Nails spaced 6" o.c.

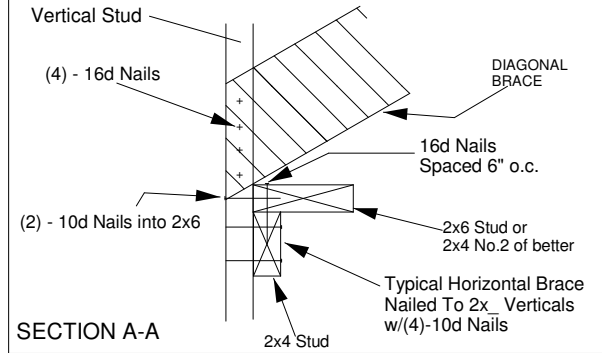
Vertical Stud

SECTION B-B

 TRUSS GEOMETRY AND CONDITIONS  
 SHOWN ARE FOR ILLUSTRATION ONLY.


NOTE:

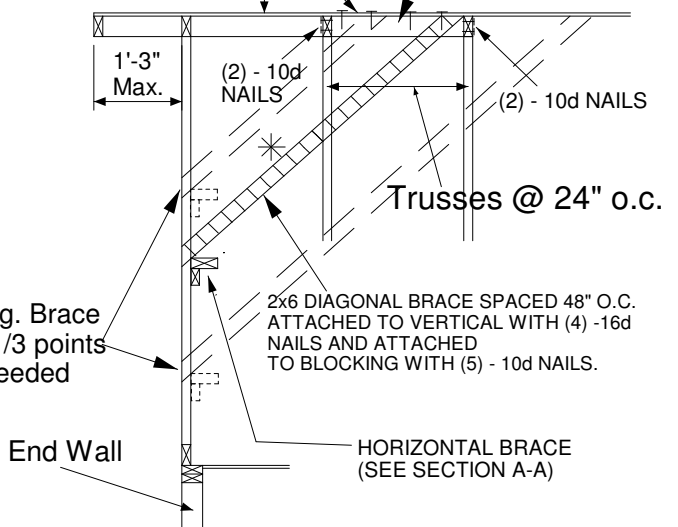
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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



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

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

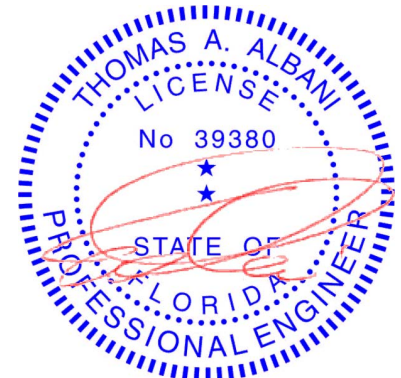
Roof Sheathing



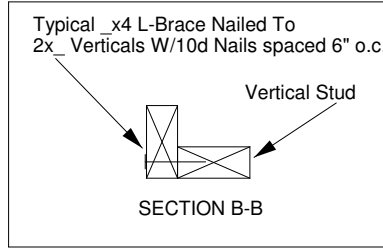
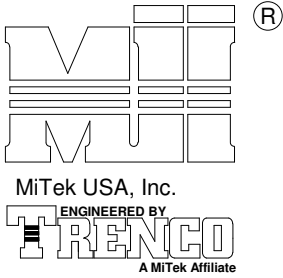
Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud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

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 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.

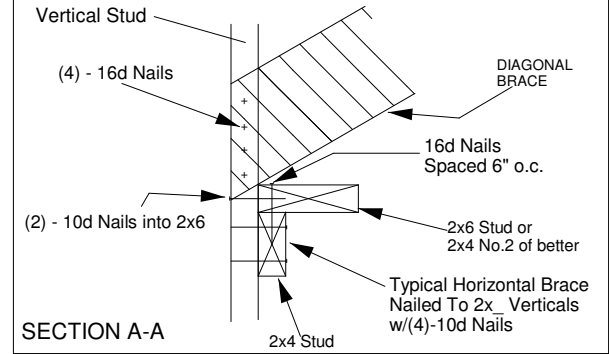
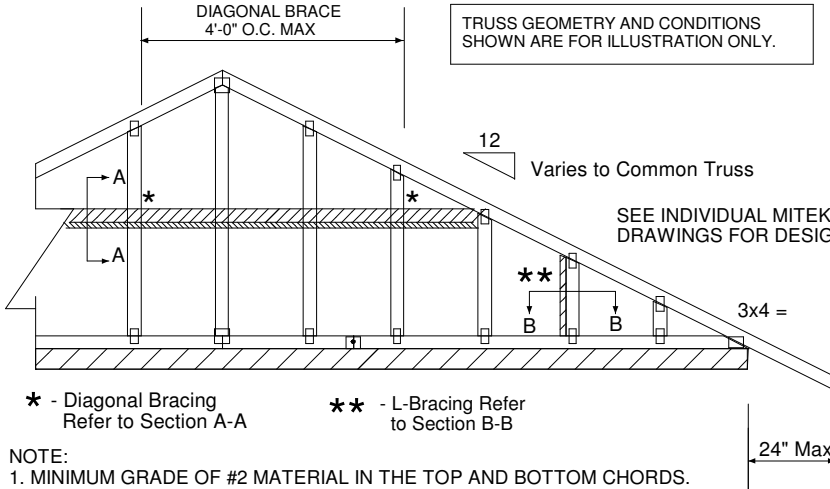
 MAX MEAN ROOF HEIGHT = 30 FEET  
 CATEGORY II BUILDING  
 EXPOSURE D  
 ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
 ASCE 7-10 160 MPH  
 DURATION OF LOAD INCREASE : 1.60

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

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

February 12, 2018

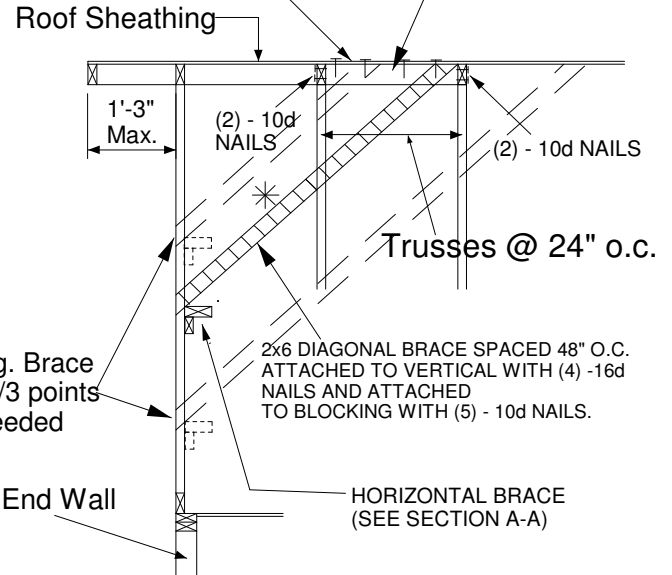


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



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

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



## NOTE:

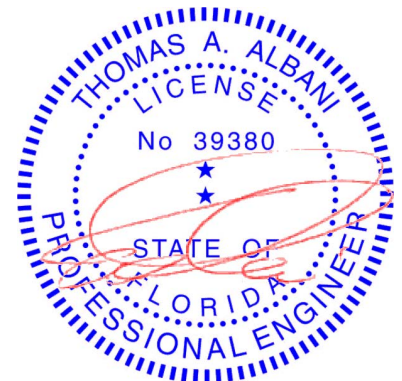
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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

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

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

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

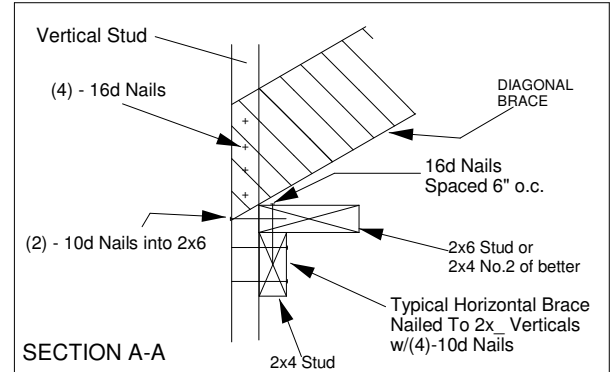
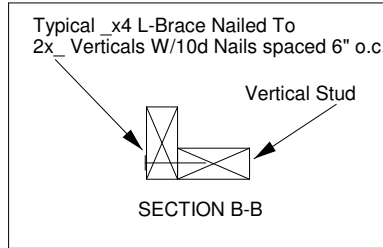
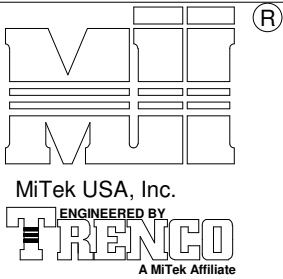
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



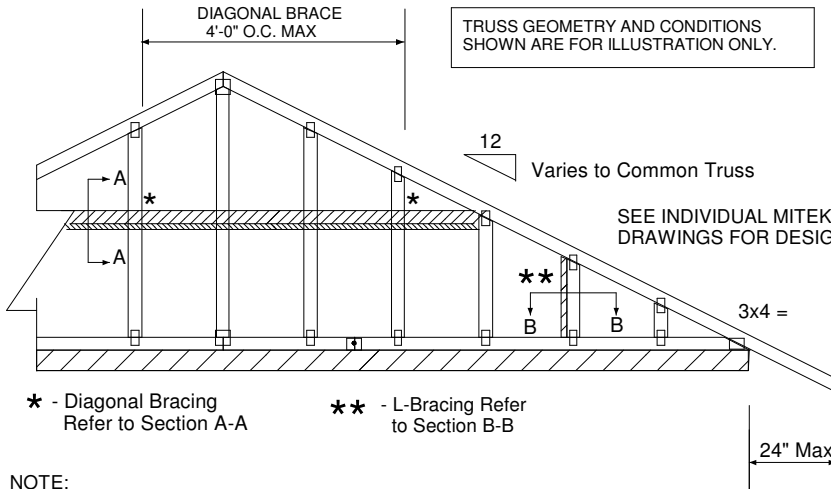
Thomas A. Albani PE No. 39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018





TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



SEE INDIVIDUAL MITTEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

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

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

Roof Sheathing

Diag. Brace at 1/3 points if needed

End Wall

HORIZONTAL BRACE (SEE SECTION A-A)

NOTE:

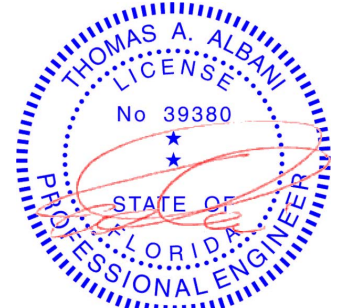
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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

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

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

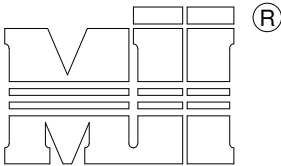
MAXIMUM WIND SPEED = 140 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

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



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

January 19, 2018



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**

A MiTek Affiliate

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

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

SEE INDIVIDUAL MITEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

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

## NOTE:

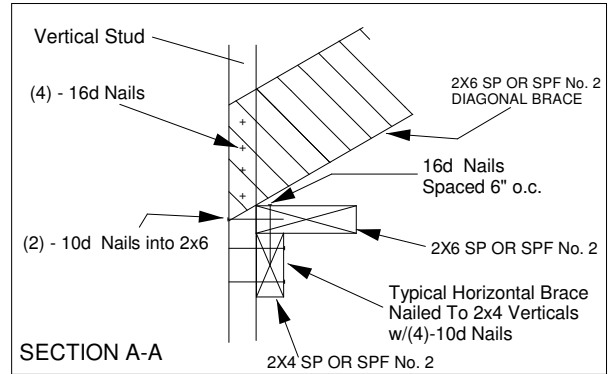
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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

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

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

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

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



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

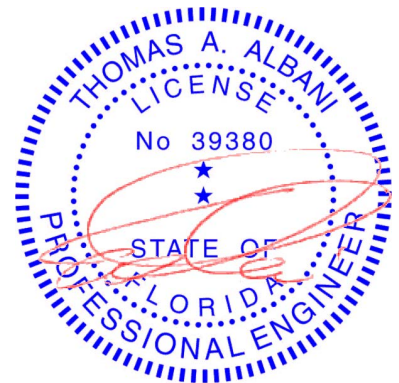
(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

Diag. Brace at 1/3 points if needed

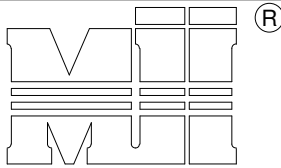
End Wall

HORIZONTAL BRACE (SEE SECTION A-A)



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Date:

February 12, 2018



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**A MiTek Affiliate  
DIAGONAL BRACE  
4'-0" O.C. MAXTypical 2x4 L-Brace Nailed To  
2x4 Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.12  
Varies to Common TrussSEE INDIVIDUAL MITEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

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

## NOTE:

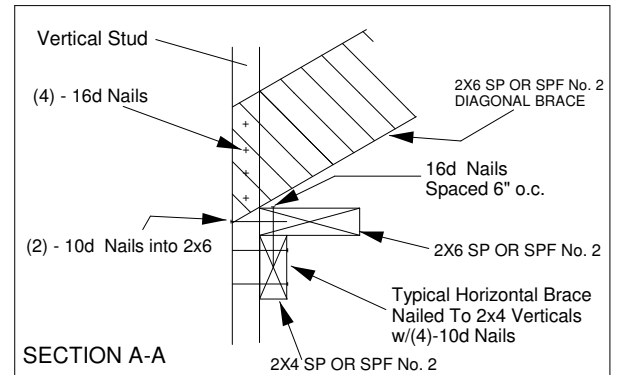
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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

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

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

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

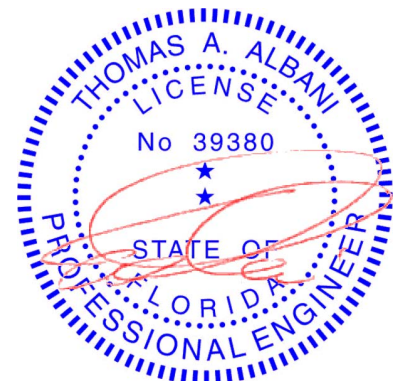
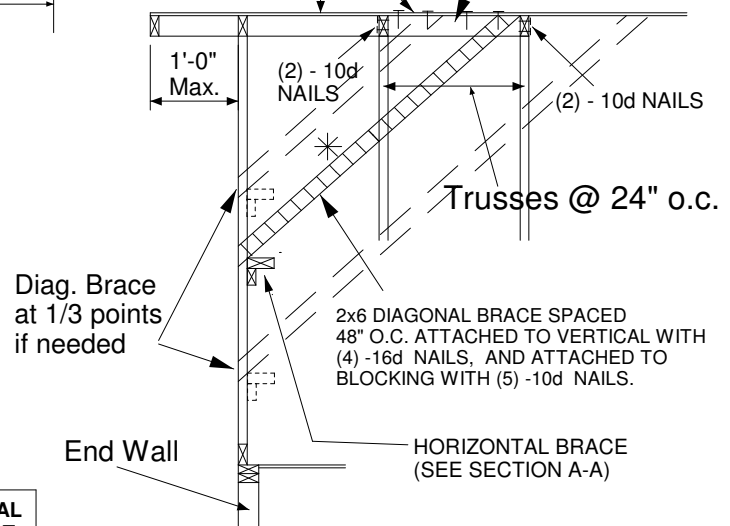
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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

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

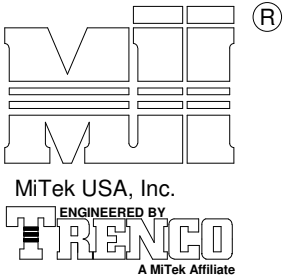
Roof Sheathing



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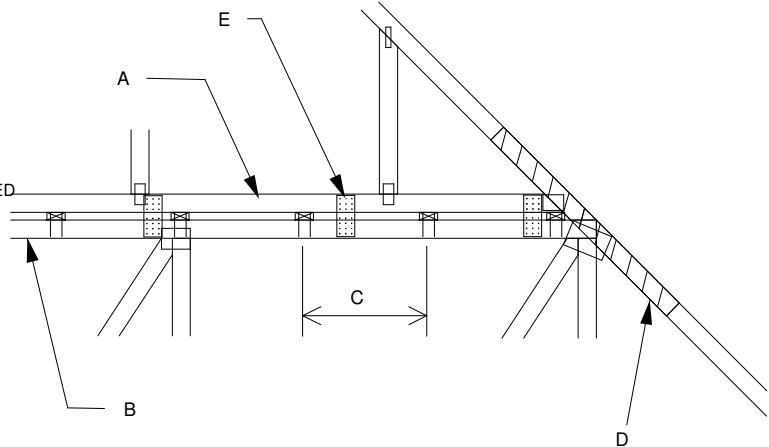




MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 MAX TRUSS SPACING = 24" O.C.  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 ASCE 7-10  
 DURATION OF LOAD INCREASE : 1.60

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

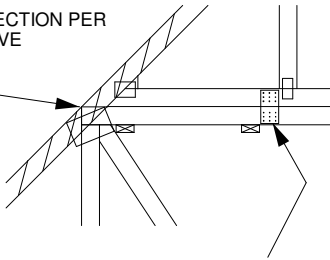
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.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



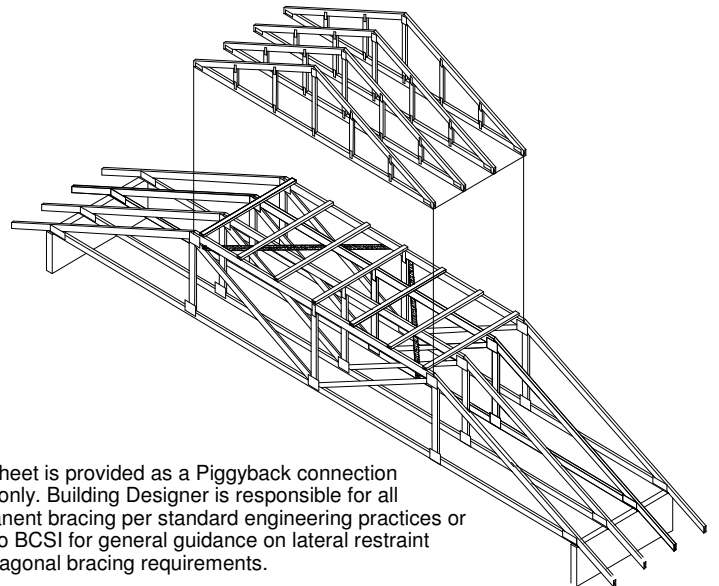
#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

SCAB CONNECTION PER  
NOTE D ABOVE

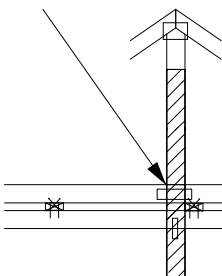


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



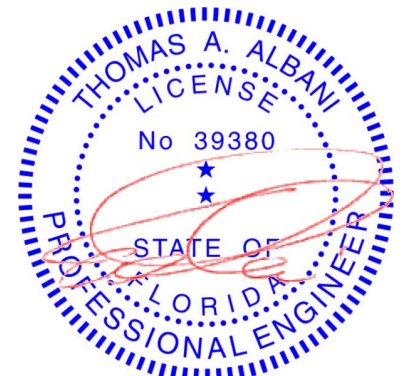
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO  
EXTEND THROUGH  
BOTTOM CHORD  
OF PIGGYBACK



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

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



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 Date:

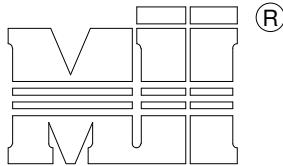
February 12, 2018

AUGUST 1, 2016

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT  
7-10

MiTek USA, Inc. Page 1 of 1



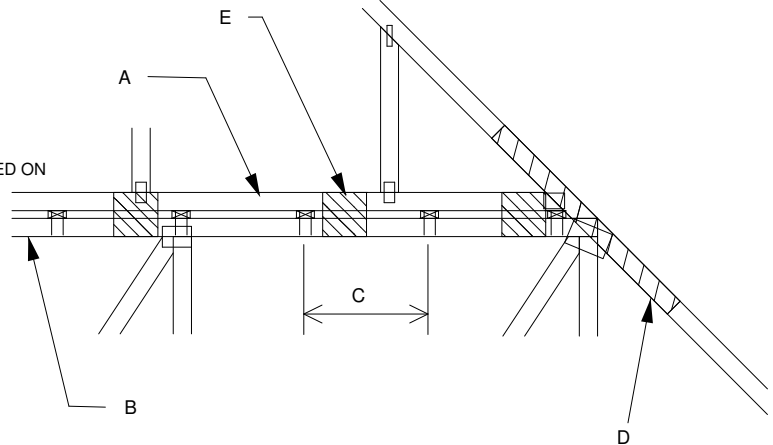
MiTek USA, Inc.



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

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

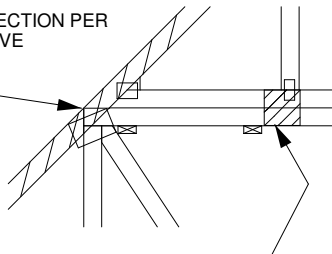
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.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



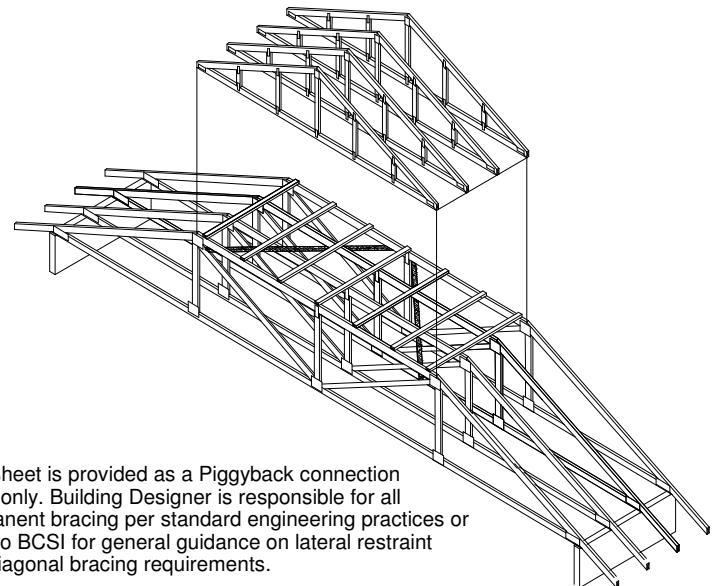
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

SCAB CONNECTION PER  
NOTE D ABOVE

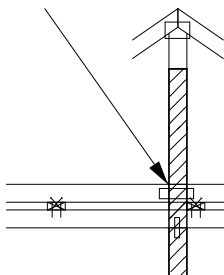


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



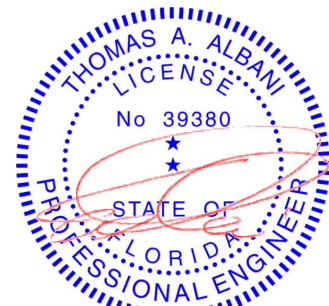
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO  
EXTEND THROUGH  
BOTTOM CHORD  
OF PIGGYBACK



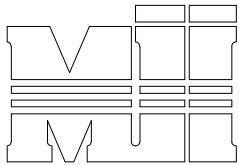
FOR LARGE CONCENTRATED LOADS APPLIED  
TO CAP TRUSS REQUIRING A VERTICAL WEB:

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



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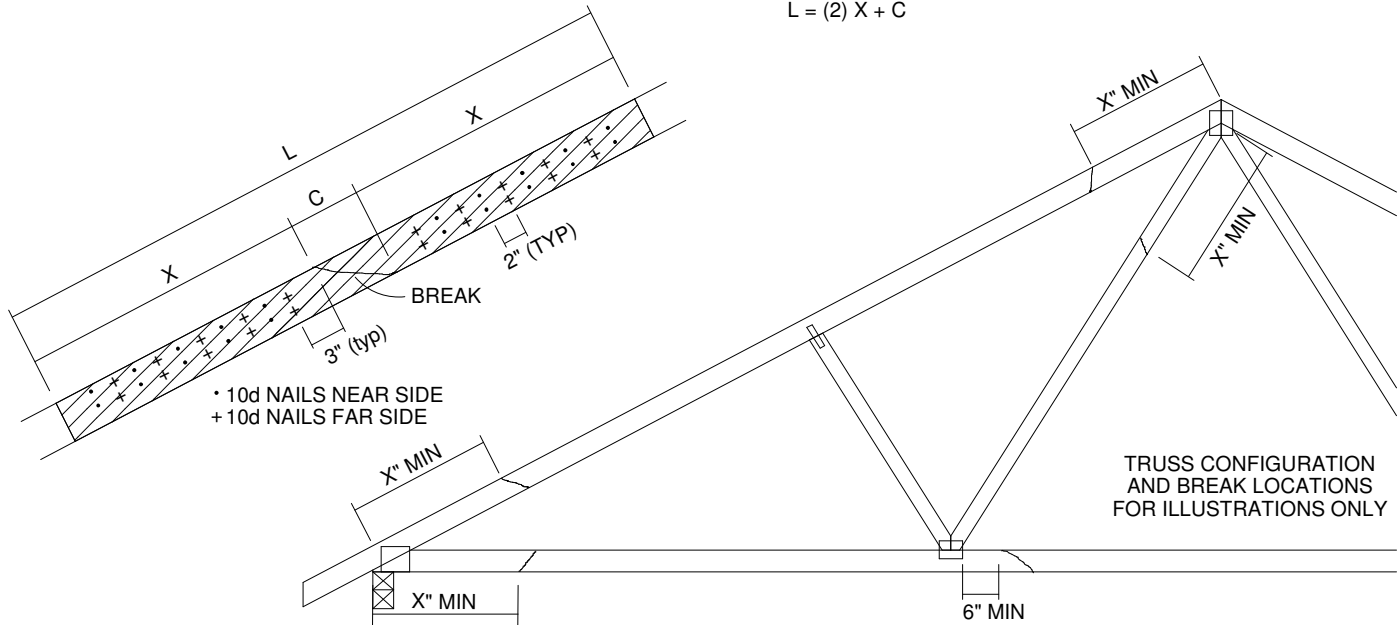
TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125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

\* DIVIDE EQUALLY FRONT AND BACK

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

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

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

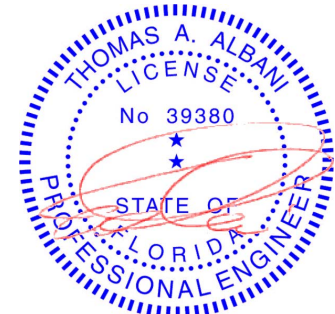


THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

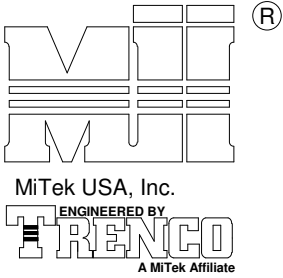
## NOTES:

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



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## NOTES:

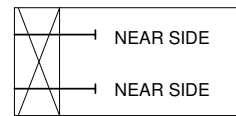
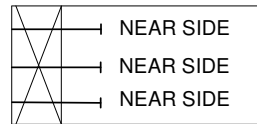
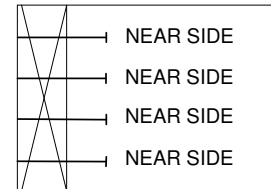
1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.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

THIS DETAIL APPLICABLE TO THE  
THREE END DETAILS SHOWN BELOW

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

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

VIEWS SHOWN ARE FOR  
ILLUSTRATION PURPOSES ONLY

SIDE VIEW  
(2x3)  
2 NAILSSIDE VIEW  
(2x4)  
3 NAILSSIDE VIEW  
(2x6)  
4 NAILS

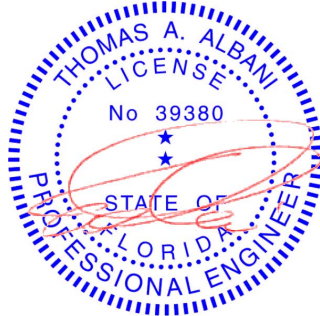
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.  
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

## EXAMPLE:

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

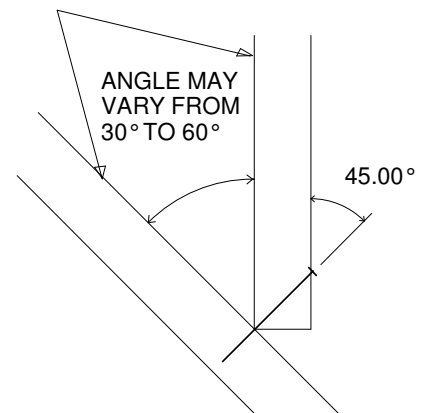
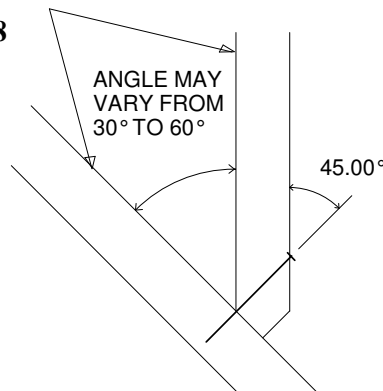
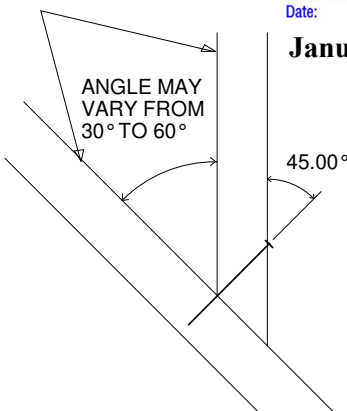
For load duration increase of 1.15:

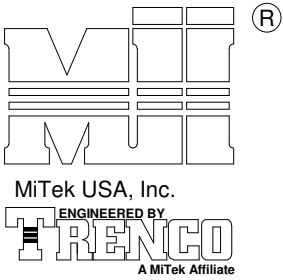
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity



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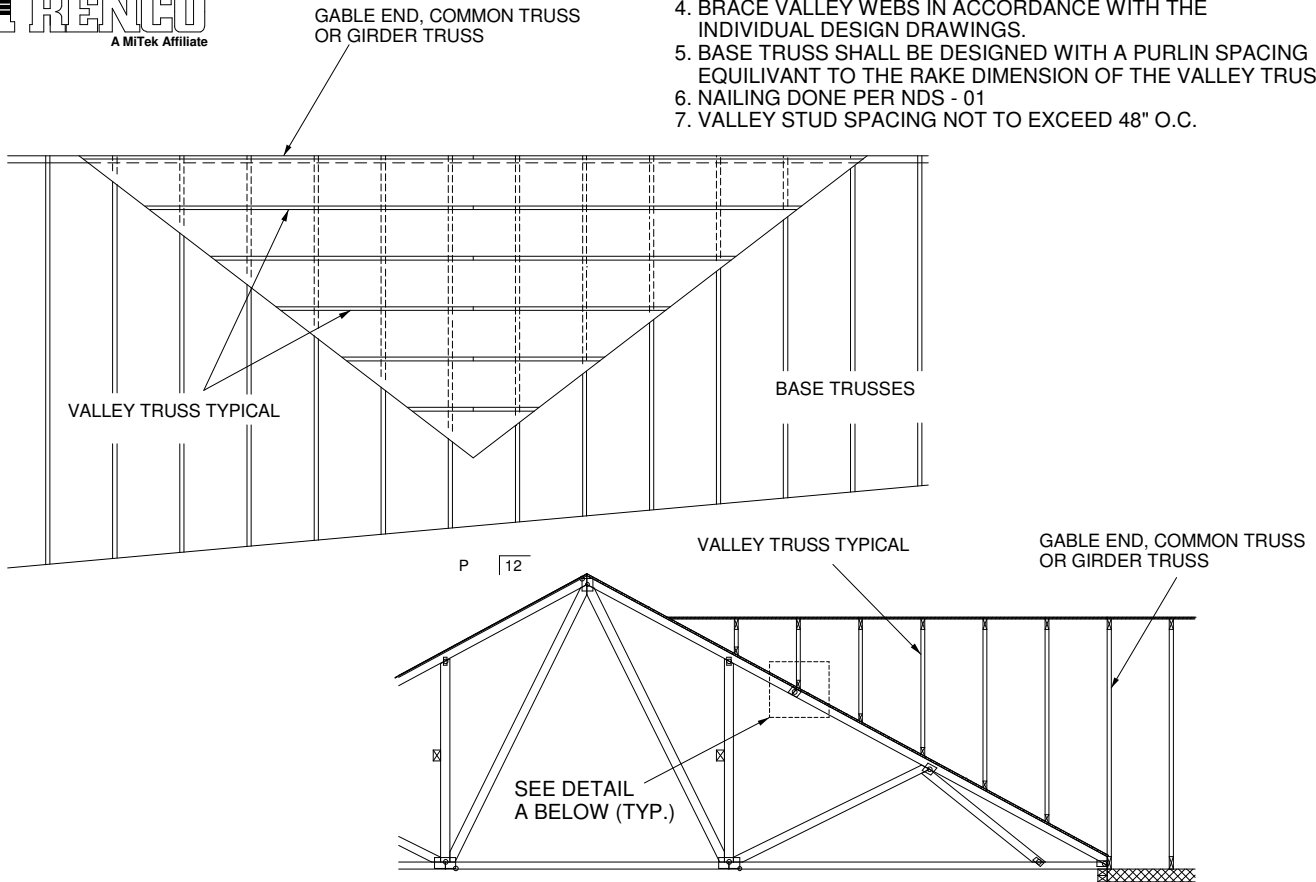
January 19, 2018



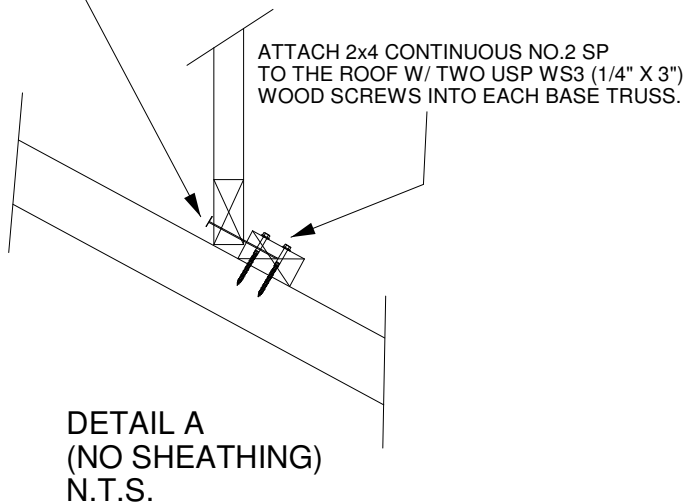


## GENERAL SPECIFICATIONS

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

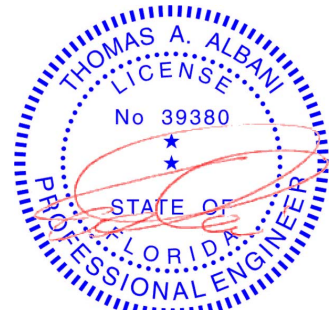


SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.



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

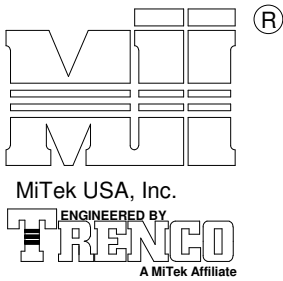
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C.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



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

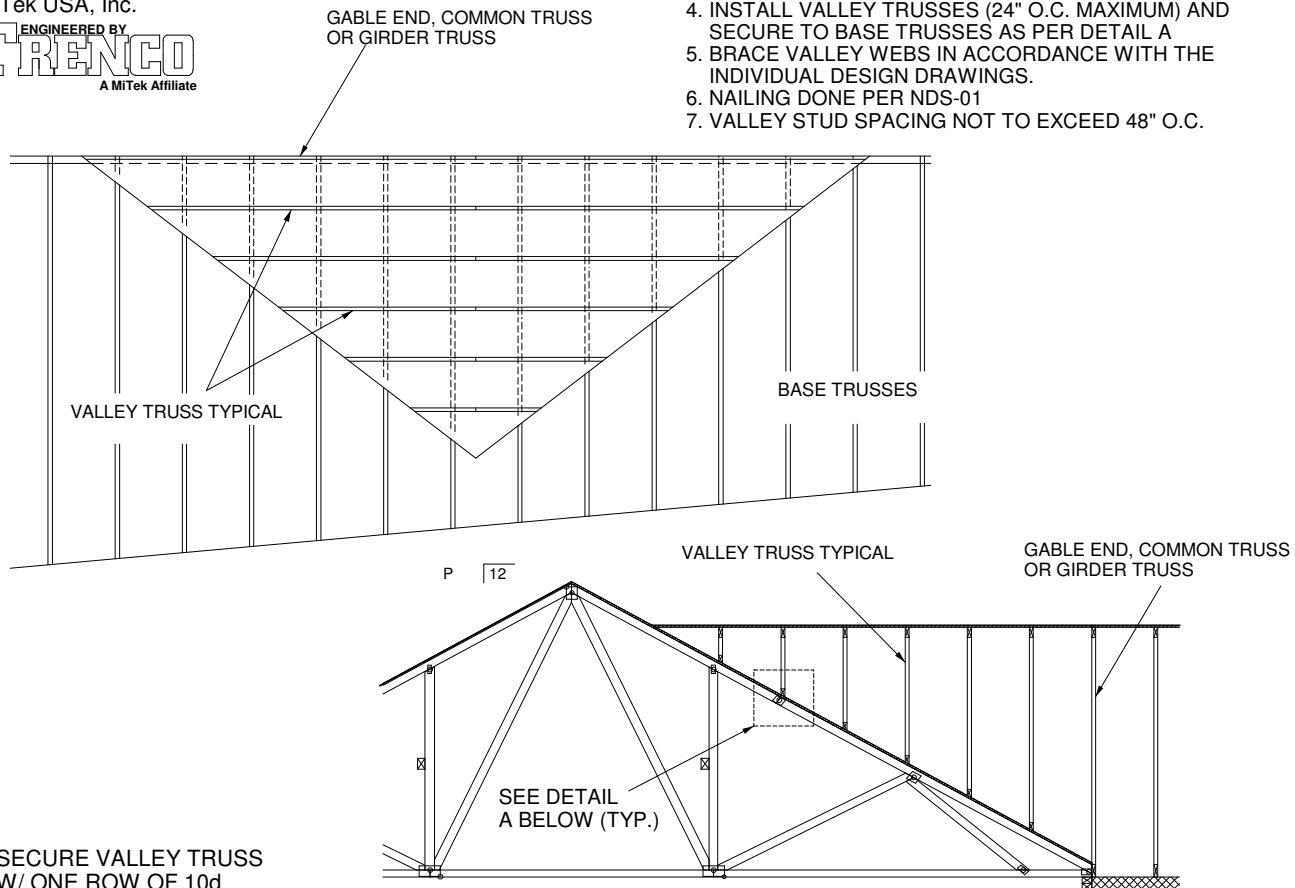
January 19, 2018



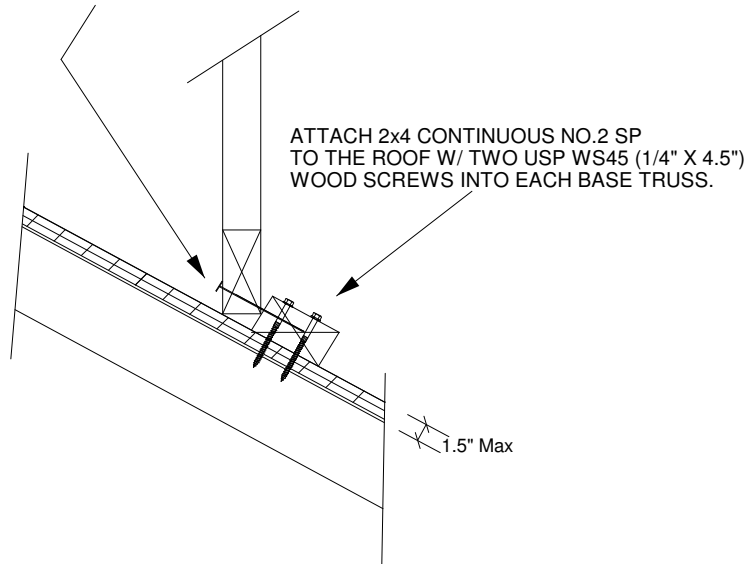


## GENERAL SPECIFICATIONS

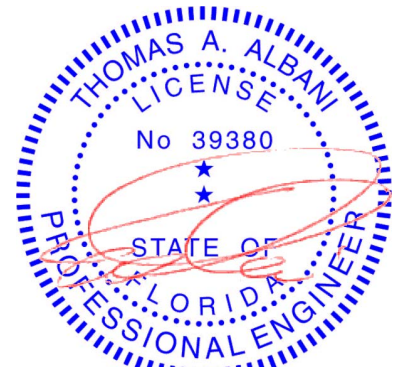
1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER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



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

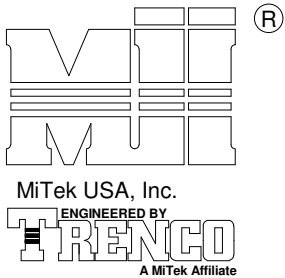


WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C.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



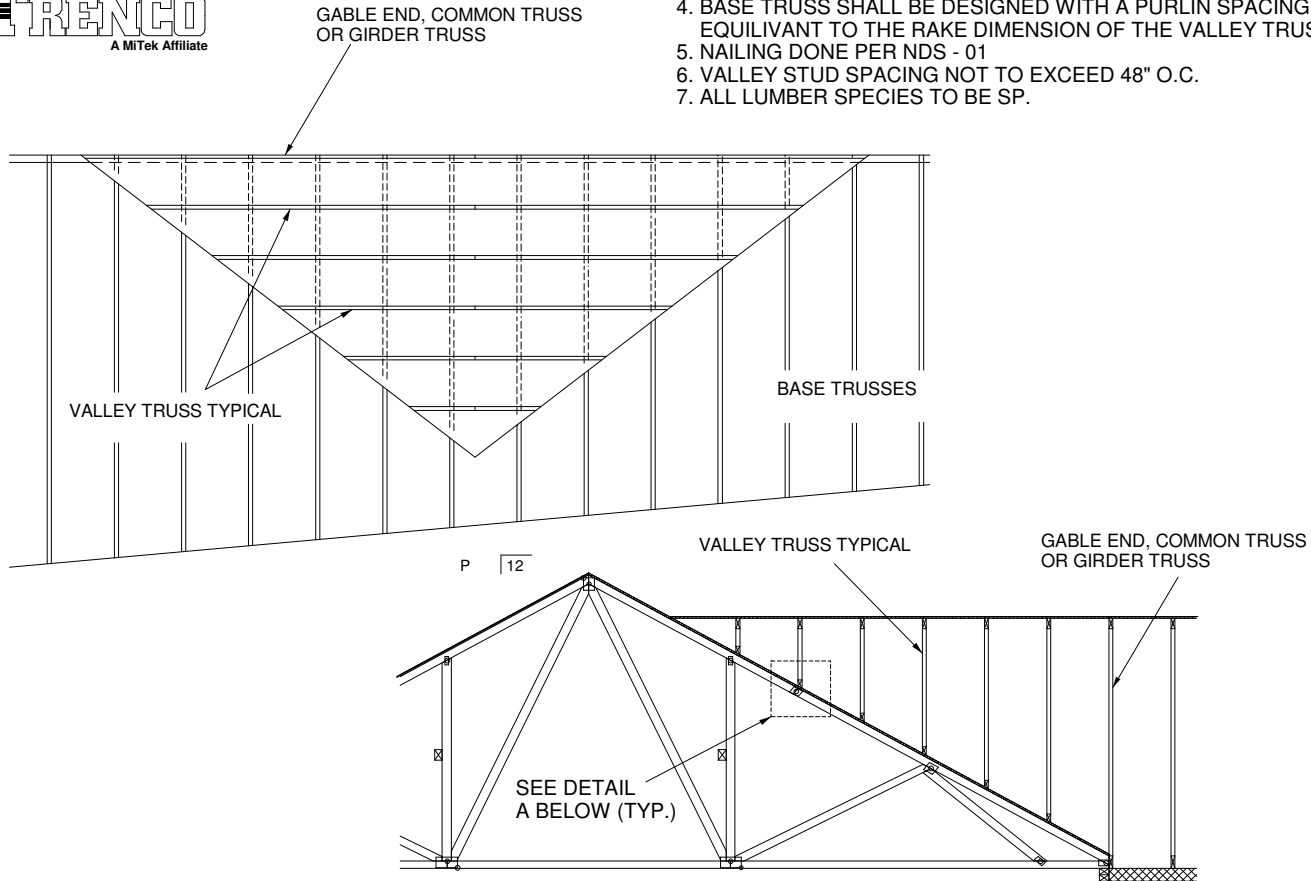
Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018

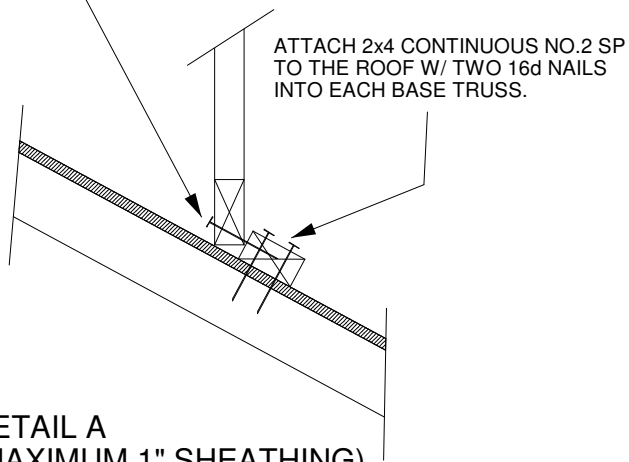


## GENERAL SPECIFICATIONS

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

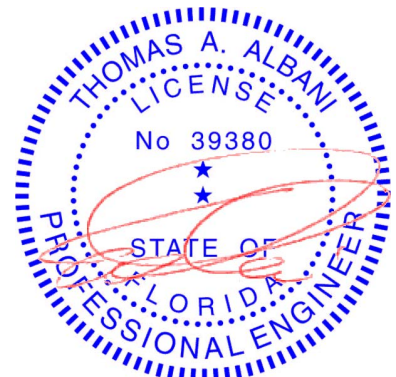


SECURE VALLEY TRUSS  
W/ ONE ROW OF 16d  
NAILS 6" O.C.



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

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



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Date:

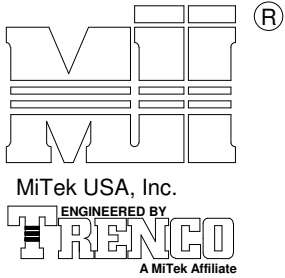
February 12, 2018

AUGUST 1, 2016

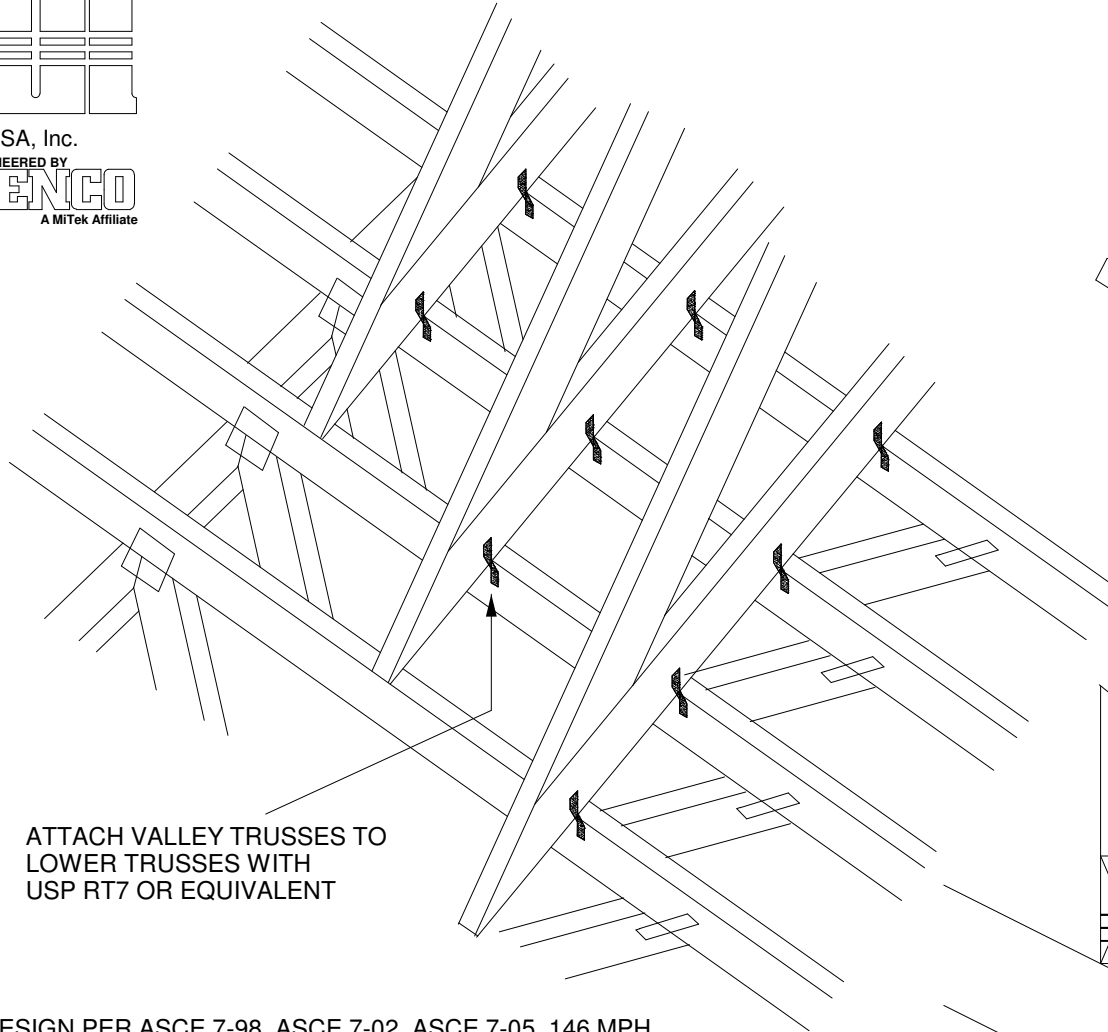
TRUSSED VALLEY SET DETAIL  
(HIGH WIND VELOCITY)

MII-VALLEY

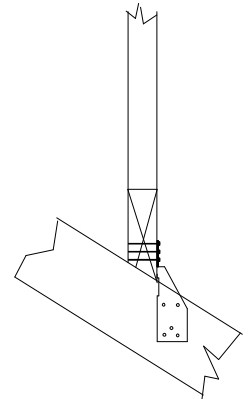
MiTek USA, Inc. Page 1 of 1



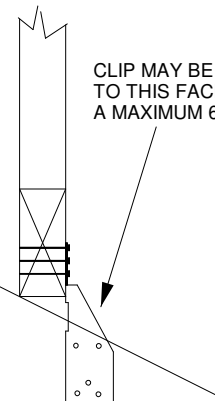
NOTE: VALLEY STUD SPACING NOT  
TO EXCEED 48" O.C. SPACING



ATTACH VALLEY TRUSSES TO  
LOWER TRUSSES WITH  
USP RT7 OR EQUIVALENT



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



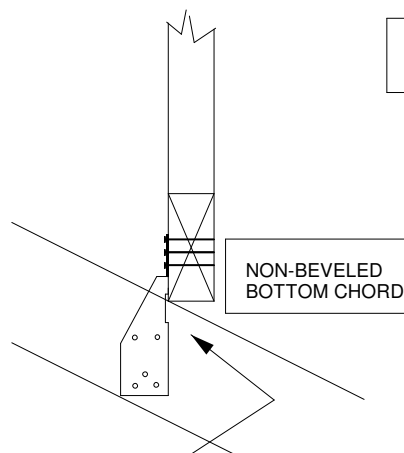
CLIP MAY BE APPLIED  
TO THIS FACE UP TO  
A MAXIMUM 6/12 PITCH

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

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

NOTES:

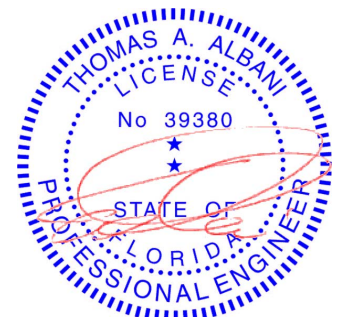
- SHEATHING APPLIED AFTER  
INSTALLATION OF VALLEY TRUSSES
- THIS DETAIL IS NOT APPLICABLE FOR  
SPF-S SPECIES LUMBER.



NON-BEVELED  
BOTTOM CHORD

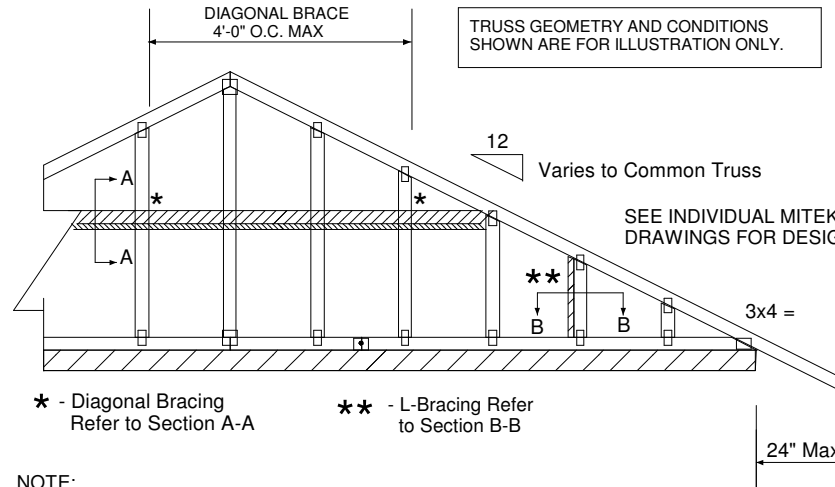
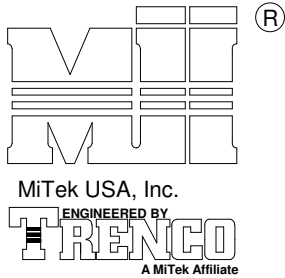
NON-BEVELED  
BOTTOM CHORD

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



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Date:

January 19, 2018



## NOTE:

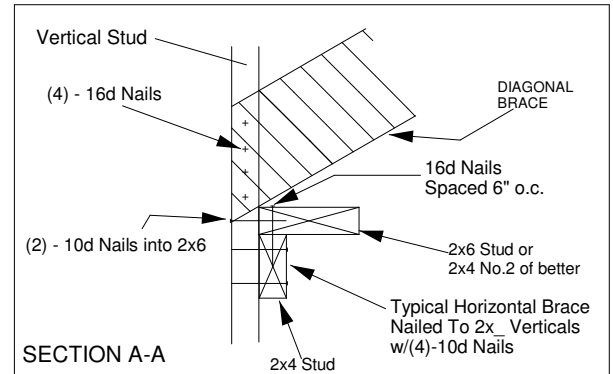
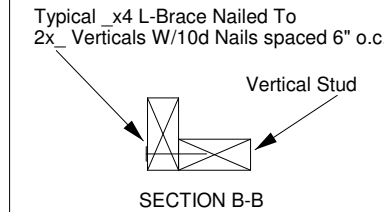
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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 Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

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

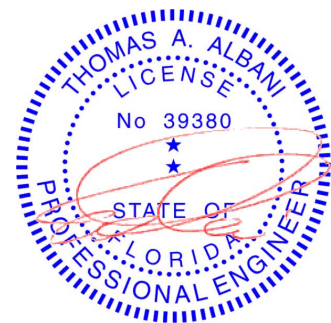
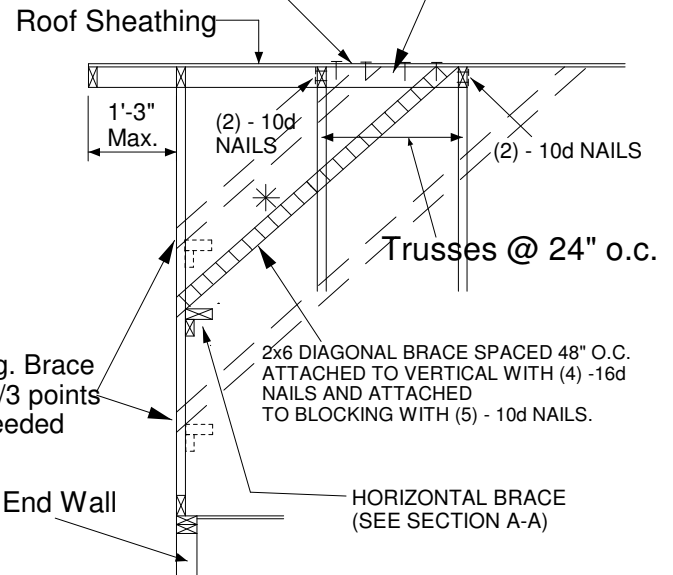
MAXIMUM WIND SPEED = 146 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

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



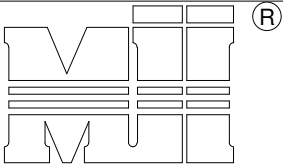
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

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



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

January 19, 2018



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**  
 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

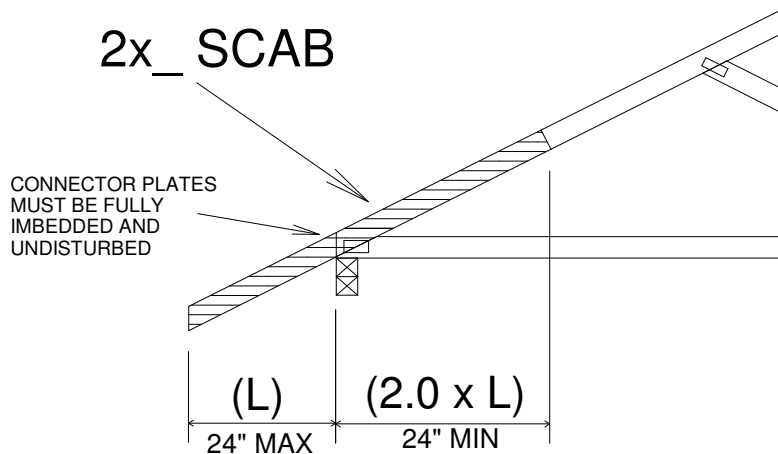
END BEARING CONDITION

MiTek USA, Inc.

Page 1 of 1

## NOTES:

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

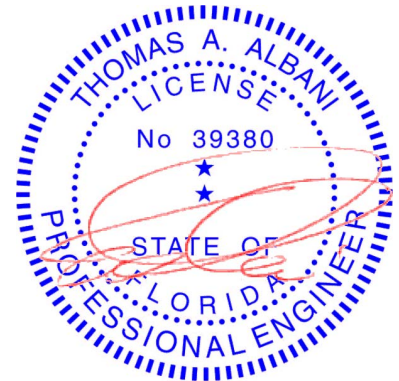


## IMPORTANT

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

Trusses not fitting these criteria should be examined individually.

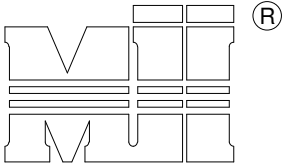
REFER TO INDIVIDUAL TRUSS DESIGN  
 FOR PLATE SIZES AND LUMBER GRADES



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

February 12, 2018





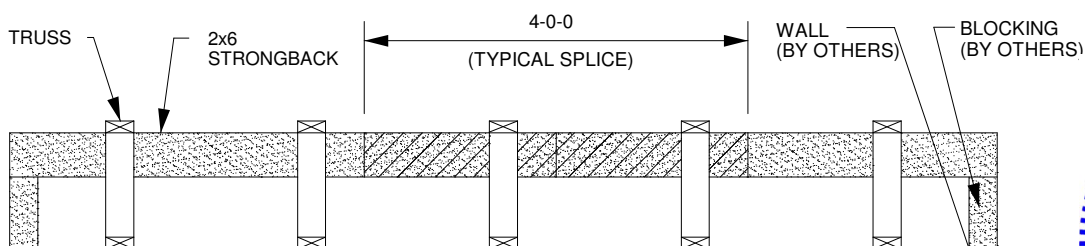
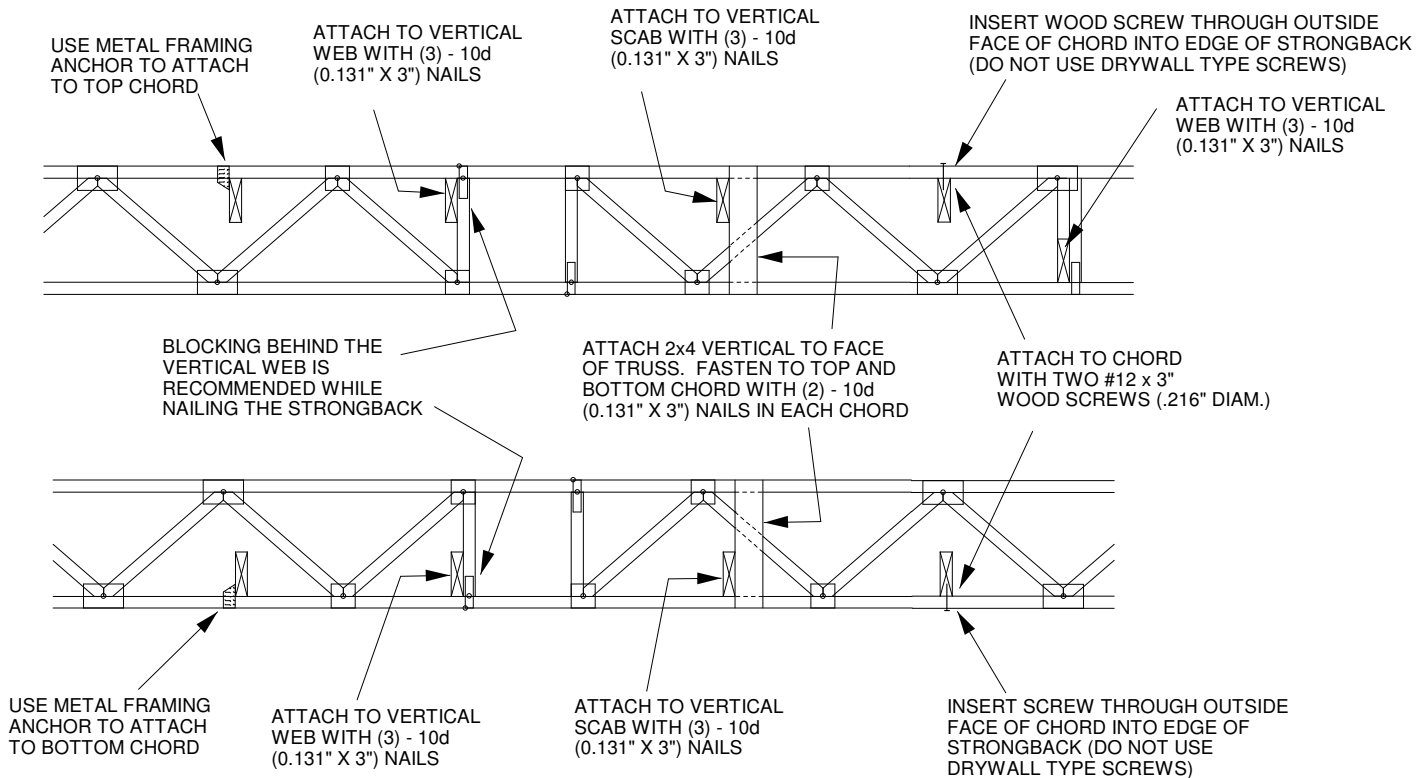
MiTek USA, Inc.

 ENGINEERED BY  
**TRENCO**  
 A MiTek Affiliate

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

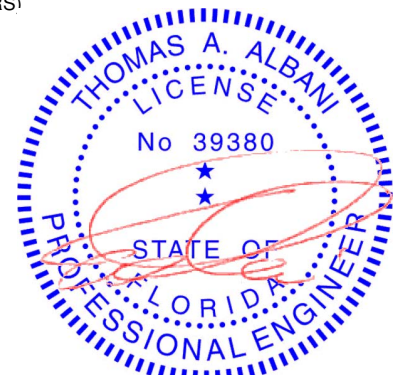
NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

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.



THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d (0.131" X 3") NAILS EQUALLY SPACED.

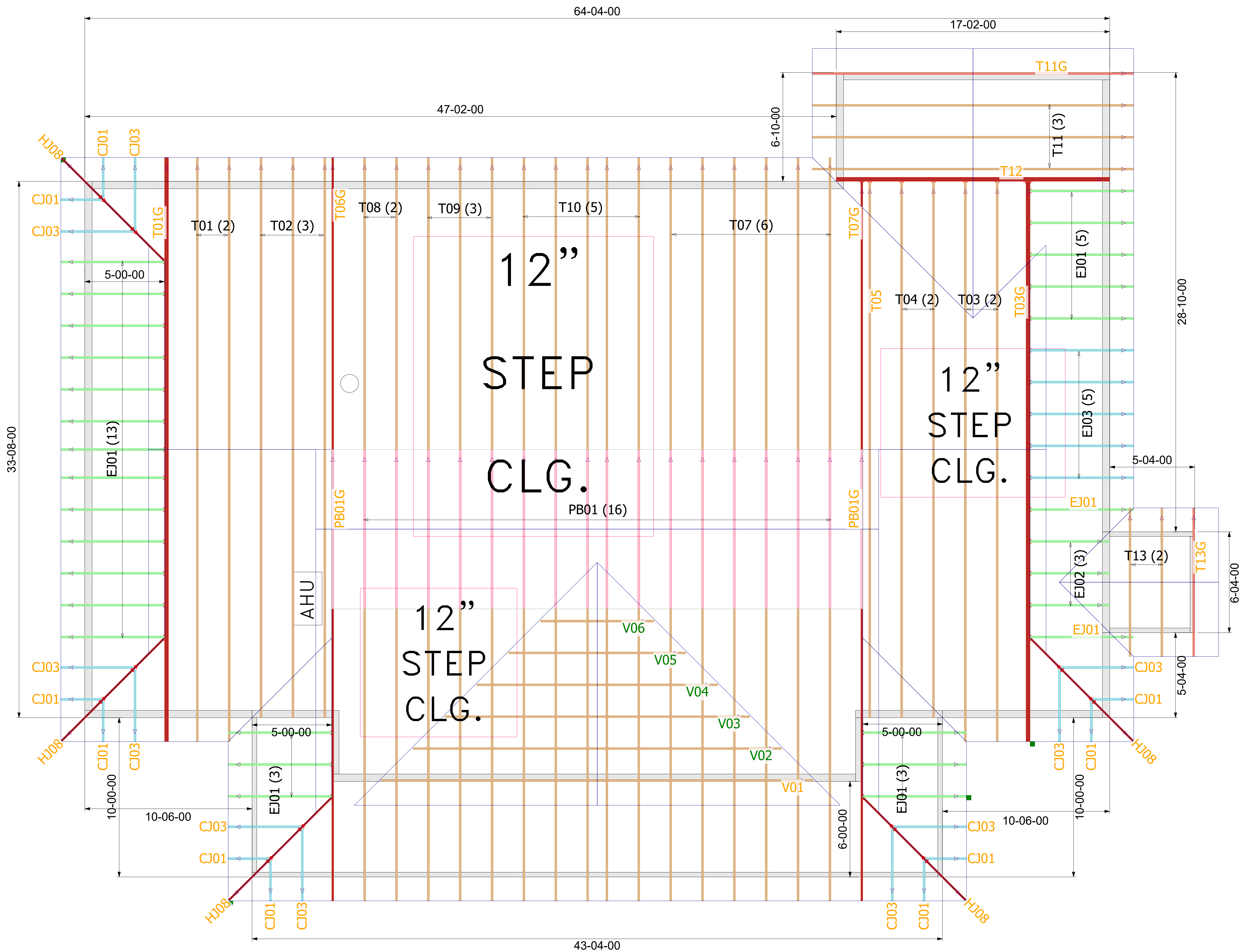
ALTERNATE METHOD OF SPLICING: OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED. (TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)



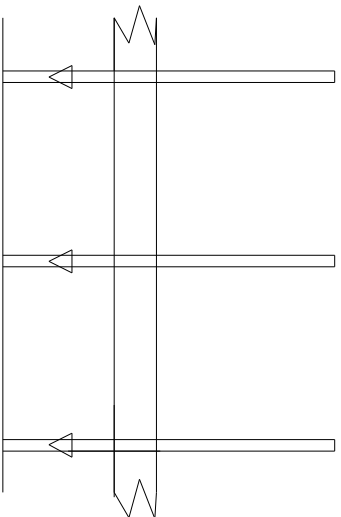
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 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

February 12, 2018

# 7/12 PITCH – 18” O/H



THE ARROW HEAD AT THE  
END OF THE TRUSS ON  
THE TRUSS PLACEMENT  
PLAN (LAYOUT)  
CORRESPONDS WITH THE  
LEFT SIDE OF THE  
INDIVIDUAL TRUSS  
DRAWING. USE THIS AS AN  
ORIENTATION GUIDE  
WHEN SETTING THE  
TRUSSES ON THE  
STRUCTURE.



#### General Notes:

- Per ANSI/TPI 1-2002 all " Truss to Wall" connections are the responsibility of the Building Designer, not the Truss Manufacturer.
- Use Manufacturer's specifications for all hanger connections unless noted otherwise.
- Trusses are to be 24" o.c. U.N.O.
- All hangers are to be Simpson or equivalent U.N.O.:- Use 10d x 1 1/2" Nails in hanger connections to single ply girder trusses.
- Trusses are not designed to support brick U.N.O.
- Dimensions are Feet-Inches- Sixteenths

#### Notes:

No back charges will be accepted by Builders FirstSource unless approved in writing first.  
850-835-4541

ACQ lumber is corrosive to truss plates. Any ACQ lumber that comes in contact with truss plates (i.e. scabbed on tails) must have an approved barrier applied first.

Refer to BCSI-B1 Summary Sheet-Guide for handling, Installing and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

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

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

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

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

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

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



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

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

Tallahassee  
PHONE: 850-576-5177

Builder: AMIRA BLDRS.

Legal Address: DeLoach Res.

Model: Custom

Date:	Drawn By:	Original Ref #:
5-29-21	KLH	2809544
Floor 1 Job#	Floor 2 Job#:	Roof Job #:
N/A	N/A	2809544



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

RE: 2809544 - AMIRA BLDRS. - DELOACH RES.

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

**Site Information:**

Customer Info: Amira Bldrs. Project Name: DeLoach Res. Model: Custom  
Lot/Block: N/A Subdivision: N/A  
Address: 1501 SW CR 778, N/A  
City: Columbia Cty State: FL

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

Name: License #:  
Address: State:  
City:

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

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

This package includes 32 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T24168218	CJ01	6/2/21	23	T24168240	T11G	6/2/21
2	T24168219	CJ03	6/2/21	24	T24168241	T12	6/2/21
3	T24168220	EJ01	6/2/21	25	T24168242	T13	6/2/21
4	T24168221	EJ02	6/2/21	26	T24168243	T13G	6/2/21
5	T24168222	EJ03	6/2/21	27	T24168244	V01	6/2/21
6	T24168223	HJ08	6/2/21	28	T24168245	V02	6/2/21
7	T24168224	PB01	6/2/21	29	T24168246	V03	6/2/21
8	T24168225	PB01G	6/2/21	30	T24168247	V04	6/2/21
9	T24168226	T01	6/2/21	31	T24168248	V05	6/2/21
10	T24168227	T01G	6/2/21	32	T24168249	V06	6/2/21
11	T24168228	T02	6/2/21				
12	T24168229	T03	6/2/21				
13	T24168230	T03G	6/2/21				
14	T24168231	T04	6/2/21				
15	T24168232	T05	6/2/21				
16	T24168233	T06G	6/2/21				
17	T24168234	T07	6/2/21				
18	T24168235	T07G	6/2/21				
19	T24168236	T08	6/2/21				
20	T24168237	T09	6/2/21				
21	T24168238	T10	6/2/21				
22	T24168239	T11	6/2/21				

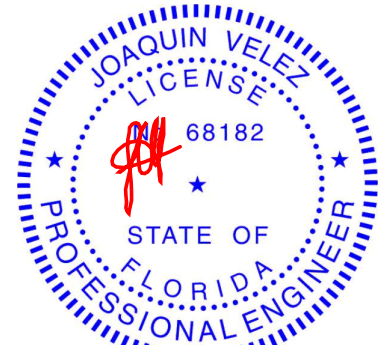


The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: Velez, Joaquin

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

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



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

June 2, 2021



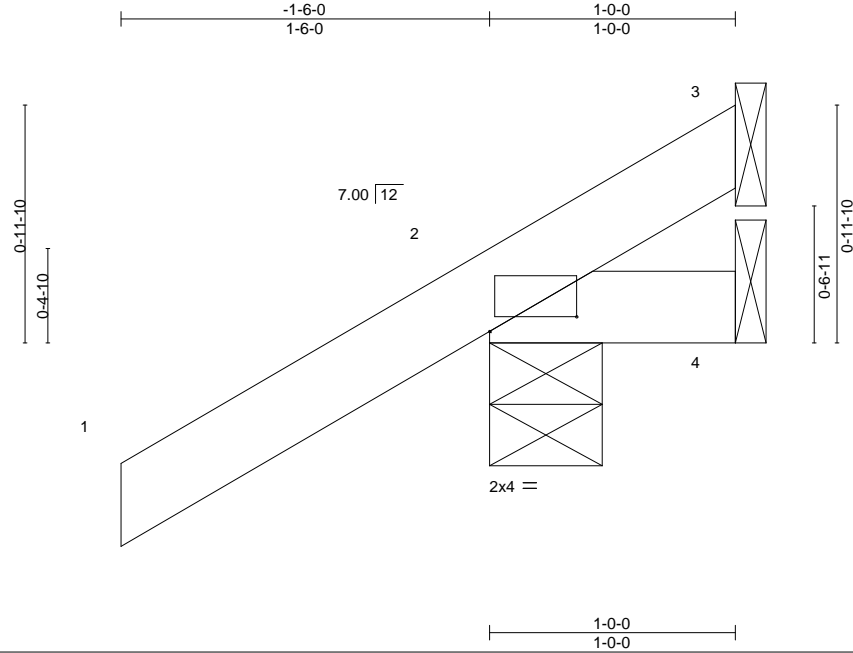
Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168218
2809544	CJ01	Jack-Open	10	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:34 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNezBhuh-Lm?nw89Gwf6XHRbit?1DdoPYRoldsFHnb21FvWzBfuR



Scale = 1:9.4

Plate Offsets (X,Y)-- [2:0-4-4,0-0-11]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.16	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.03	Vert(CT)	0.00	7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						Weight: 6 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

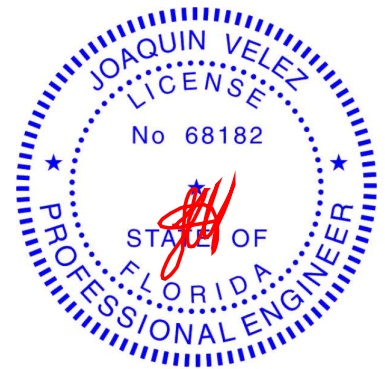
#### REACTIONS.

(size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
Max Horz 2=46(LC 12)  
Max Uplift 3=6(LC 1), 2=68(LC 12), 4=22(LC 19)  
Max Grav 3=7(LC 16), 2=179(LC 1), 4=20(LC 16)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 6 lb uplift at joint 3, 68 lb uplift at joint 2 and 22 lb uplift at joint 4.



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MiTek USA, Inc. FL Cert 6634  
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Date:

June 2,2021

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

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



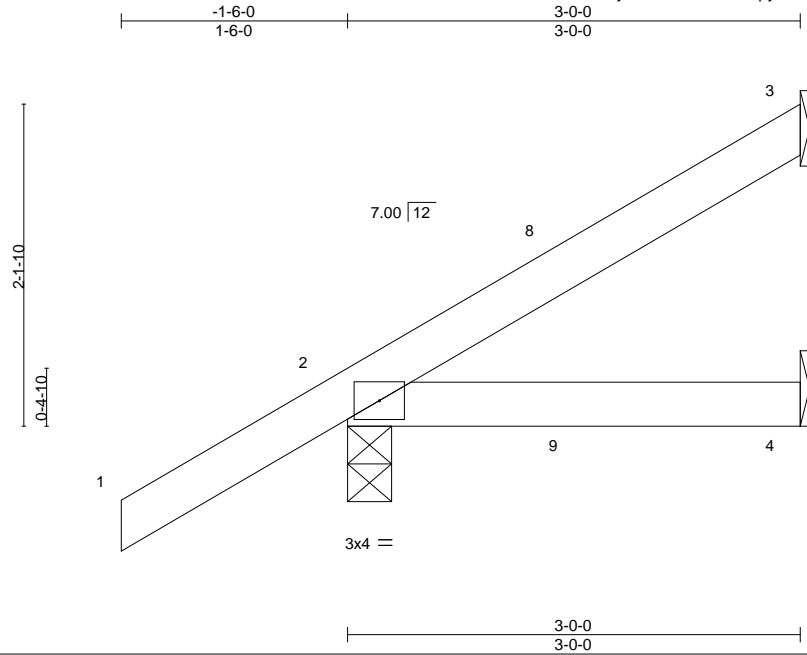
6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168219
2809544	CJ03	Jack-Open	10	1	Job Reference (optional)	

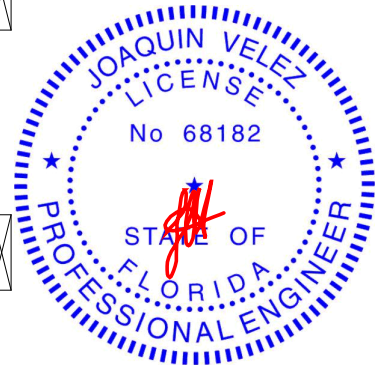
Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:35 2021 Page 1  
ID:amOAUkKav?6JdbyPKE2WNezBhuh-pyZ97UAuhzEOvaAuRiZSA?xjTCd?biXwpimpRzzBfuQ



Scale = 1:15.3



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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	0.01	4-7	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.09	Vert(CT)	-0.01	4-7	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP					Weight: 12 lb	FT = 20%
	Code FBC2020/TPI2014							

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=85(LC 12)  
Max Uplift 3=-39(LC 12), 2=-54(LC 12), 4=-16(LC 9)  
Max Grav 3=61(LC 19), 2=210(LC 1), 4=50(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 3, 54 lb uplift at joint 2 and 16 lb uplift at joint 4.

June 2,2021

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

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



6904 Parke East Blvd.  
Tampa, FL 36610

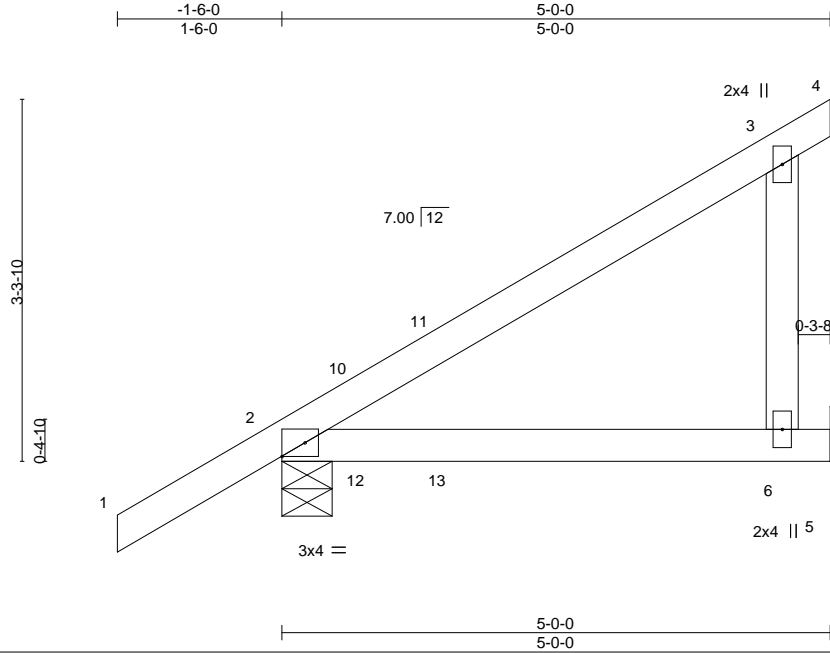


Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168220
2809544	EJ01	Jack-Closed	26	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:36 2021 Page 1  
ID:amOAUkKav?6JdbYPKE2WNzBhuh-H97XKqBWSHMFxkl5\_Q4hiDUtXcvZK9n42MWMzPzBfuP



Scale = 1:21.0

Plate Offsets (X,Y)--		[2:Edge,0-1-8]											
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.08	6-9	>759	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.32	Vert(CT)	0.07	6-9	>902	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP						Weight: 23 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

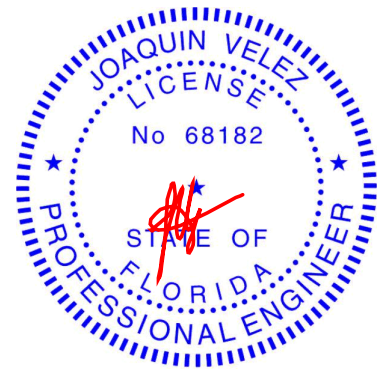
#### REACTIONS.

(size) 2=0-5-8, 5=Mechanical  
Max Horz 2=125(LC 12)  
Max Uplift 2=-57(LC 12), 5=-76(LC 9)  
Max Grav 2=276(LC 1), 5=174(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 5-0-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 2 and 76 lb uplift at joint 5.



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

June 2,2021

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

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



6904 Parke East Blvd.  
Tampa, FL 36610

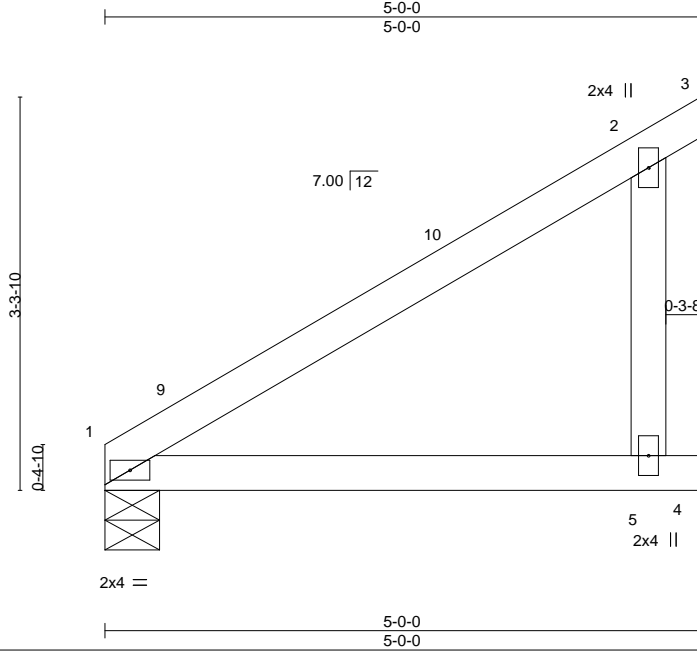
Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168221
2809544	EJ02	Jack-Closed	3	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:36 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNezBhuh-H97XKqBWSHMFxkl5\_Q4hiDUs2cw7K9n42MWMzPzBfuP



Scale = 1:19.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	Vert(LL)	0.04	5-8	>999	MT20	244/190
TCDL 7.0	1.25	BC 0.29	Vert(CT)	-0.07	5-8	>869		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	1	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 20 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

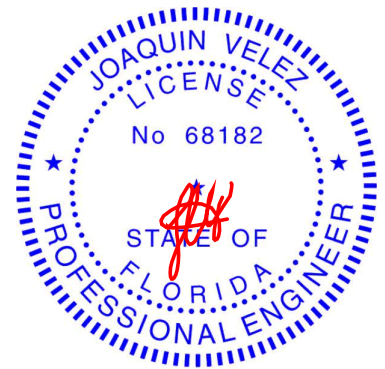
#### REACTIONS.

(size) 1=0-5-8, 4=Mechanical  
Max Horz 1=99(LC 12)  
Max Uplift 1=-19(LC 12), 4=-79(LC 12)  
Max Grav 1=183(LC 1), 4=191(LC 19)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 79 lb uplift at joint 4.



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

June 2,2021

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



6904 Parke East Blvd.  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168222
2809544	EJ03	Jack-Open	5	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:37 2021 Page 1

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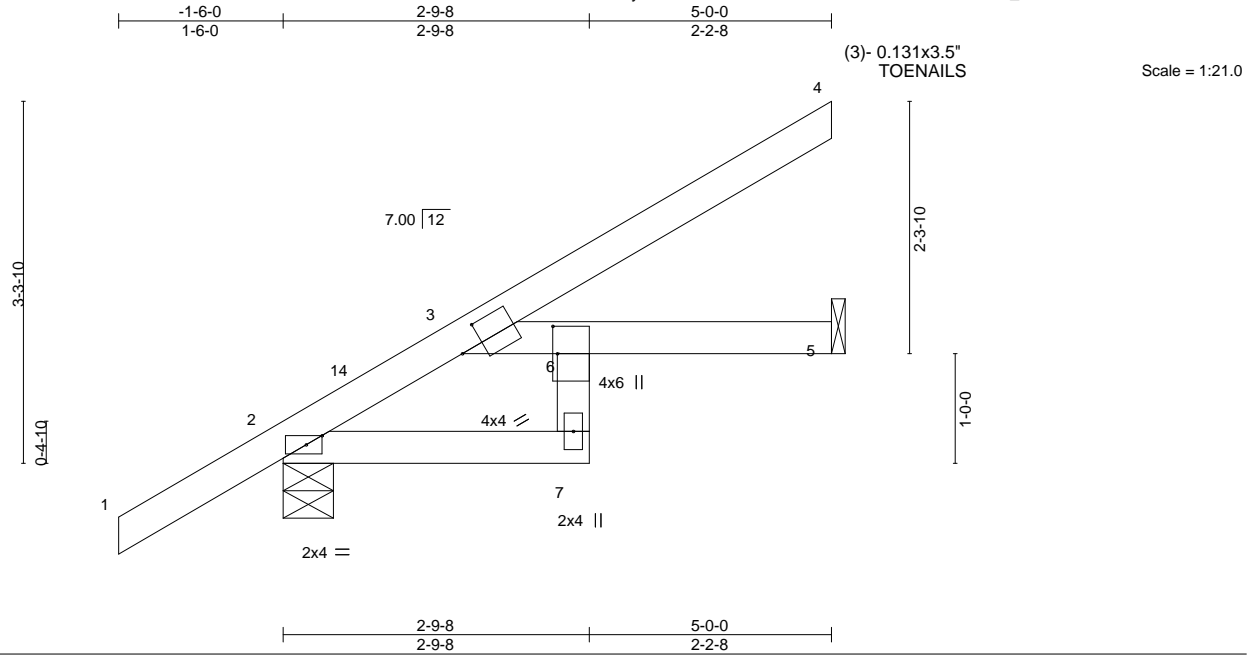


Plate Offsets (X,Y)-- [2:0-1-12,Edge], [3:0-2-8,0-2-4], [6:0-3-0,0-0-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.49	Vert(LL)	0.08	5-6	>789	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.80	Vert(CT)	-0.11	5-6	>556	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MR						Weight: 22 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

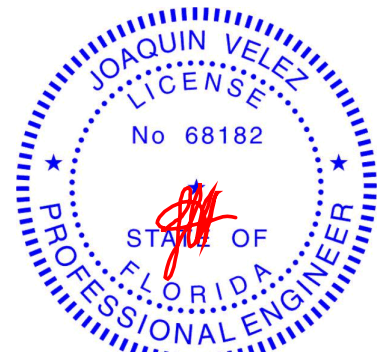
(size) 2=0-5-8, 5=Mechanical  
Max Horz 2=103(LC 12)  
Max Uplift 2=-36(LC 12), 5=-50(LC 12)  
Max Grav 2=287(LC 1), 5=183(LC 1)

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

TOP CHORD 3-9=-273/39

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-7-10, Interior(1) 1-7-10 to 5-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2 and 50 lb uplift at joint 5.



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

June 2,2021

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6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168223
2809544	HJ08	Diagonal Hip Girder	5	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:38 2021 Page 1  
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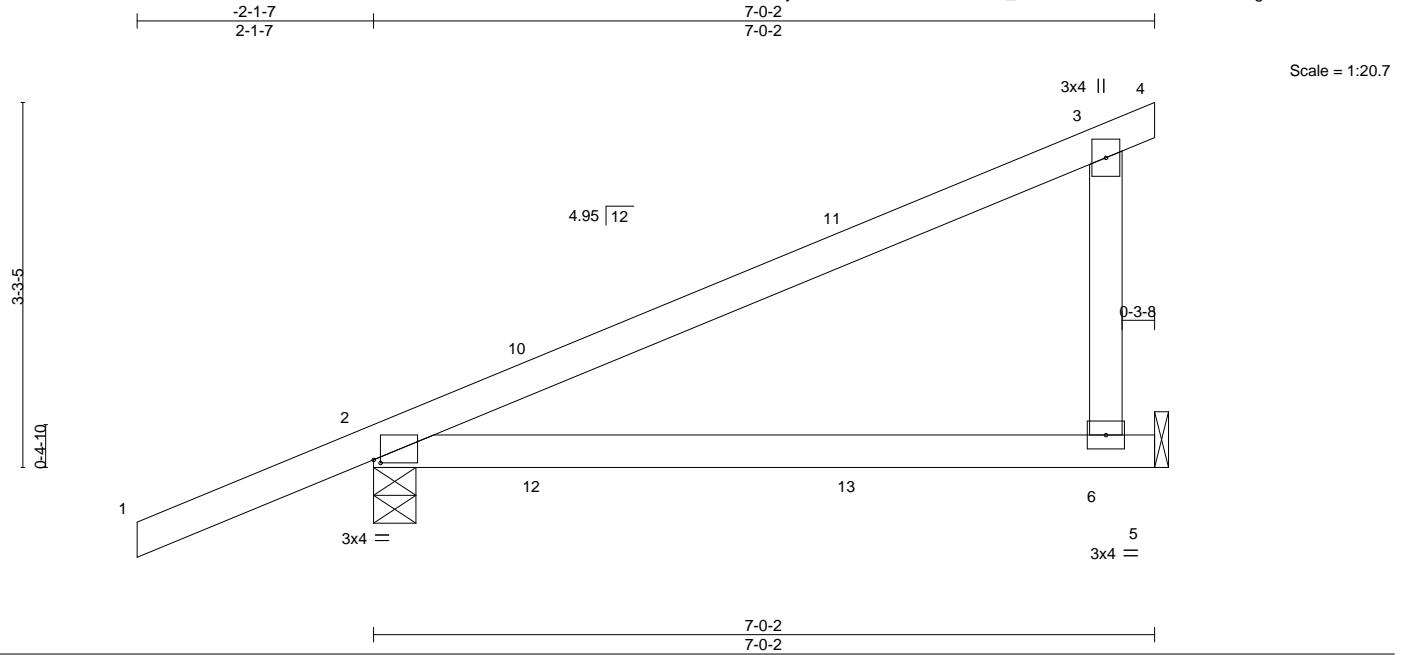


Plate Offsets (X,Y)--		[2:0-0-12,0-0-5]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	NO
BCDL 10.0		Code	FBC2020/TPI2014
		<b>CSI.</b>	
		TC 0.61	
		BC 0.39	
		WB 0.00	
		Matrix-MS	
		<b>DEFL.</b>	
		in (loc)	I/defl L/d
		Vert(LL) 0.09 6-9	>977 240
		Vert(CT) -0.13 6-9	>653 180
		Horz(CT) 0.00 2	n/a n/a
		<b>PLATES</b>	<b>GRIP</b>
		MT20	244/190
		Weight: 29 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-9, 5=Mechanical  
Max Horz 2=124(LC 8)  
Max Uplift 2=-200(LC 4), 5=-137(LC 5)  
Max Grav 2=391(LC 1), 5=246(LC 1)

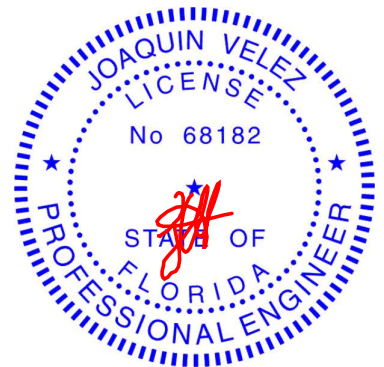
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 200 lb uplift at joint 2 and 137 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 73 lb up at 1-6-1, 59 lb down and 73 lb up at 1-6-1, and 74 lb down and 42 lb up at 4-4-0, and 74 lb down and 42 lb up at 4-4-0 on top chord, and 42 lb down and 50 lb up at 1-6-1, 42 lb down and 50 lb up at 1-6-1, and 19 lb down and 24 lb up at 4-4-0, and 19 lb down and 24 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 3-4=-54, 5-7=-20  
Concentrated Loads (lb)  
Vert: 13=-5(F=-3, B=-3)



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

June 2,2021

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



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Tampa, FL 36610

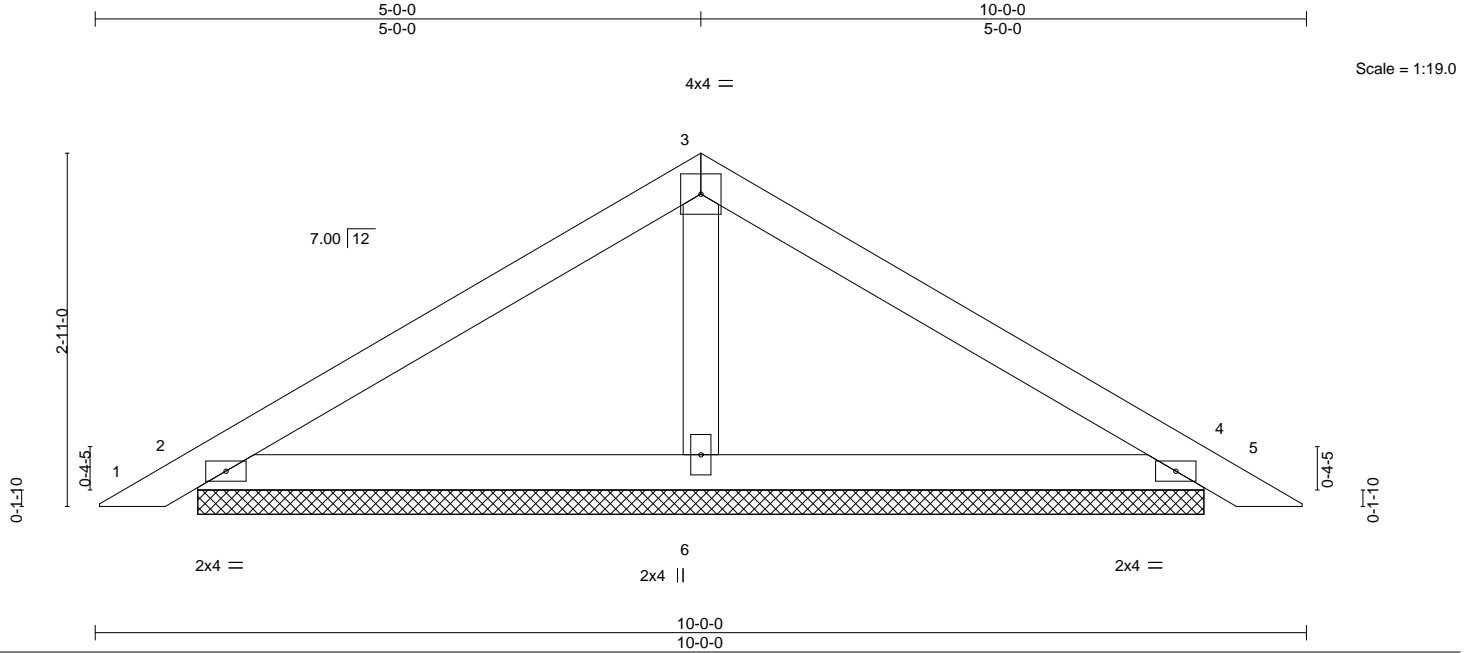
Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168224
2809544	PB01	Piggyback	16	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

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ID:amOAUkKav?6JdbyPKE2WNezBhuH-hkpgzsDPICkqOCUggYdOKr6PgpzjXWtWkK0akzBfuM



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.19	Vert(LL)	0.01	5	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.17	Vert(CT)	0.01	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S						Weight: 33 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

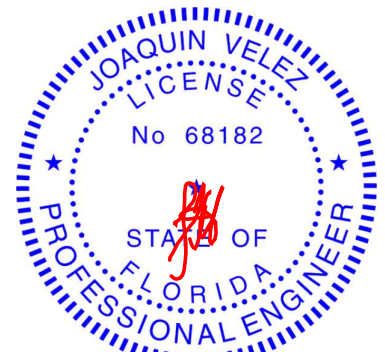
#### REACTIONS.

(size) 2=8-3-11, 4=8-3-11, 6=8-3-11  
Max Horz 2=-60(LC 10)  
Max Uplift 2=-52(LC 12), 4=-60(LC 13), 6=-44(LC 12)  
Max Grav 2=176(LC 1), 4=176(LC 1), 6=322(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 5-0-0, Exterior(2R) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 9-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 2, 60 lb uplift at joint 4 and 44 lb uplift at joint 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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MiTek USA, Inc. FL Cert 6634  
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Date:

June 2,2021

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



6904 Parke East Blvd.  
Tampa, FL 33610



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168225
2809544	PB01G	GABLE	2	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

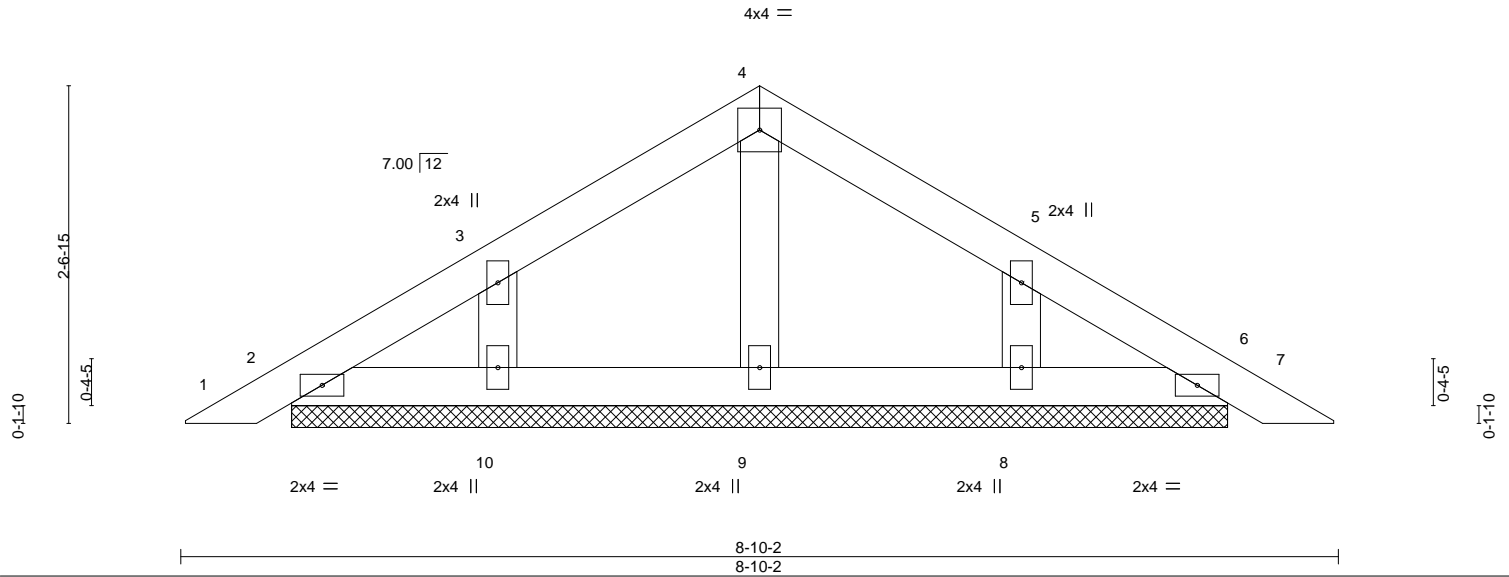
8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:40 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNezBhuh-9wM2ACE1WVsh0M2sDF8dt3fbpDL6GzGfzUa6AzBfuL

4-5-1  
4-5-1

8-10-2  
4-5-1

Scale = 1:17.6



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.04	Vert(LL)	-0.00	6	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.03	Vert(CT)	0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S						Weight: 31 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 7-1-13.

(lb) - Max Horz 2=53(LC 11)

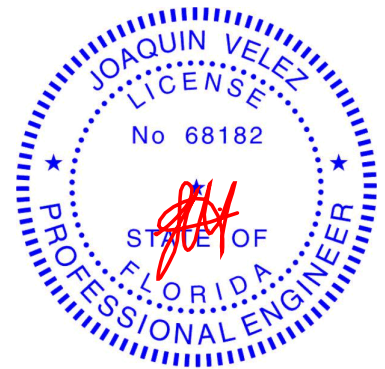
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8

Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 4-5-1, Exterior(2R) 4-5-1 to 7-5-1, Interior(1) 7-5-1 to 8-6-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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Date:

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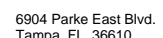
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:41 2021 Page 1  
 ID:amOAUkKav?6JdbypKE2WNezBhuh-d6wQOYfHhp\_XdVd2nzfsPGBh4dUH?JvpCdD7eczBfuK  
 -1-6-0 | 5-8-3 | 11-3-2 | 16-10-0 | 22-4-14 | 27-11-13 | 33-8-0 | 35-2-0 |  
 1-6-0 | 5-8-3 | 5-6-14 | 5-6-14 | 5-6-14 | 5-8-3 | 5-8-3 | 1-6-0 |



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168227
2809544	T01G	GABLE	1	2	Job Reference (optional)	

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

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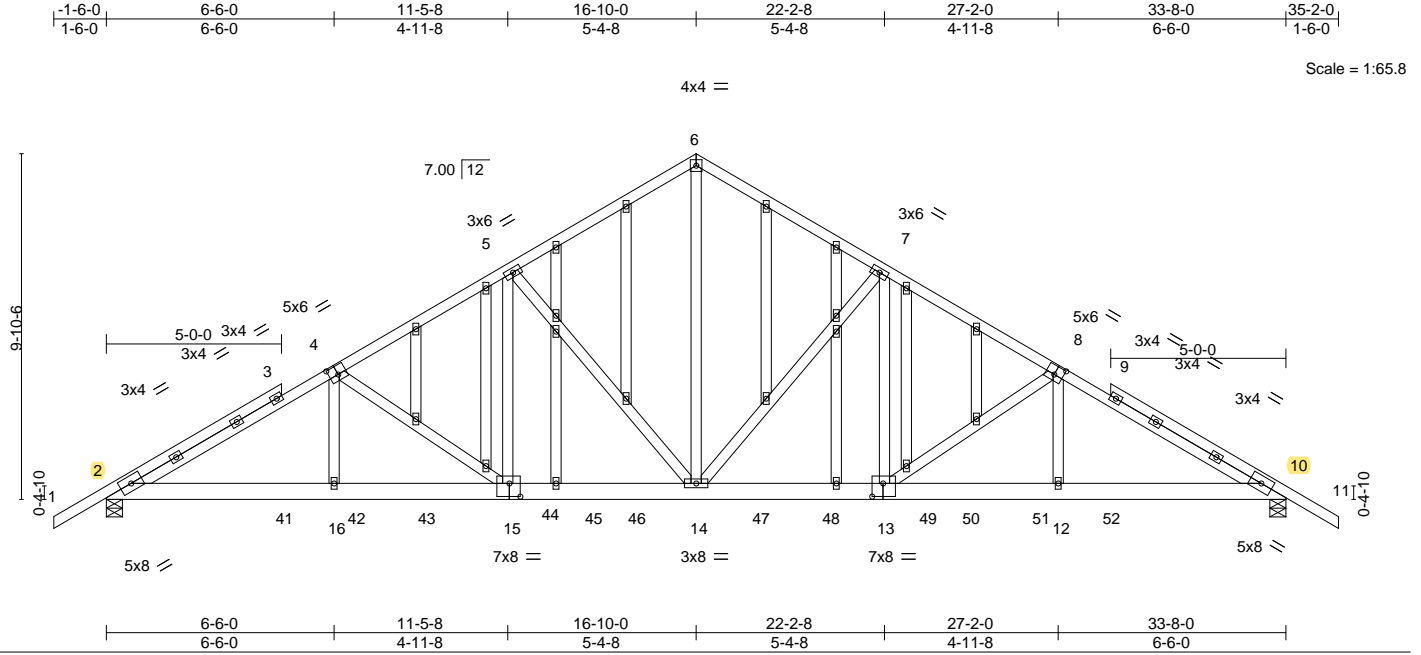


Plate Offsets (X,Y)-- [4:0-3-0,0-3-0], [8:0-3-0,0-3-0], [13:0-3-12,0-4-8], [15:0-3-12,0-4-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.48	Vert(LL) 0.11	14-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.50	Vert(CT) -0.18	14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.46	Horz(CT) 0.06	10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						
							Weight: 537 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

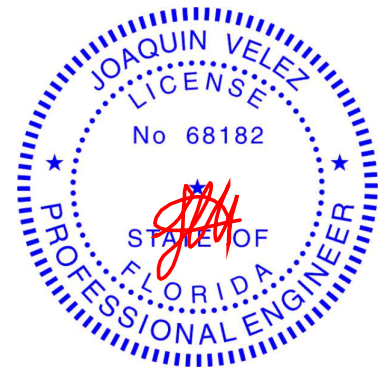
(size) 2=0-5-8, 10=0-5-8  
Max Horz 2=228(LC 7)  
Max Uplift 2=-965(LC 8), 10=-964(LC 9)  
Max Grav 2=2540(LC 1), 10=2539(LC 1)

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

TOP CHORD 2-4=-4550/1745, 4-5=-3621/1390, 5-6=-2748/1105, 6-7=-2748/1105, 7-8=-3623/1391, 8-10=-4553/1748  
BOT CHORD 2-16=-1589/3955, 15-16=-1585/3947, 14-15=-1156/3075, 13-14=-1056/3077, 12-13=-1434/3950, 10-12=-1437/3958  
WEBS 6-14=-996/2410, 7-14=-1190/583, 7-13=-459/1072, 8-13=-1074/530, 8-12=-301/687, 5-14=-1188/581, 5-15=-457/1069, 4-15=-1072/528, 4-16=-299/684

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=965, 10=964.



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

June 2,2021

Continued on page 2

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Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168227
2809544	T01G	GABLE	1	2	Job Reference (optional)	

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8.430 s May 12 2021 MiTek Industries, Inc.
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Page 2
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- NOTES-**
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 372 lb down and 261 lb up at 5-0-0, 154 lb down and 96 lb up at 7-0-12, 154 lb down and 96 lb up at 9-0-12, 154 lb down and 96 lb up at 11-0-12, 154 lb down and 96 lb up at 13-0-12, 154 lb down and 96 lb up at 15-0-12, 154 lb down and 96 lb up at 16-10-0, 154 lb down and 96 lb up at 18-7-4, 154 lb down and 96 lb up at 20-7-4, 154 lb down and 96 lb up at 22-7-4, 154 lb down and 96 lb up at 24-7-4, and 154 lb down and 96 lb up at 26-7-4, and 372 lb down and 261 lb up at 28-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) Studding applied to ply: 1(Front)

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-6=-54, 6-11=-54, 35-38=-20

Concentrated Loads (lb)

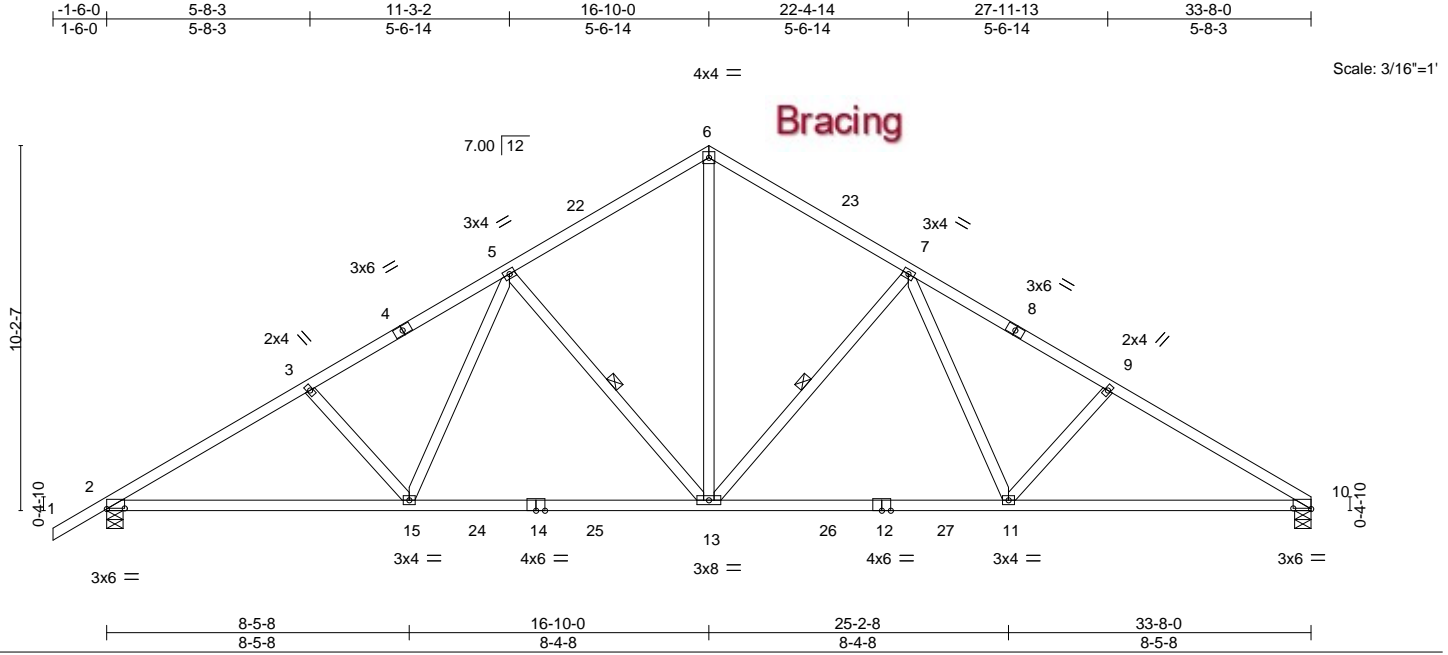
Vert: 14=-154(F) 41=-372(F) 42=-154(F) 43=-154(F) 44=-154(F) 45=-154(F) 46=-154(F) 47=-154(F) 48=-154(F) 49=-154(F) 50=-154(F) 51=-154(F) 52=-372(F)

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168228
2809544	T02	Common	3	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:46 2021 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	-0.21 13-15 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.35 13-15 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.09 10 n/a n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 183 lb		FT = 20%	

#### LUMBER-

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

#### REACTIONS.

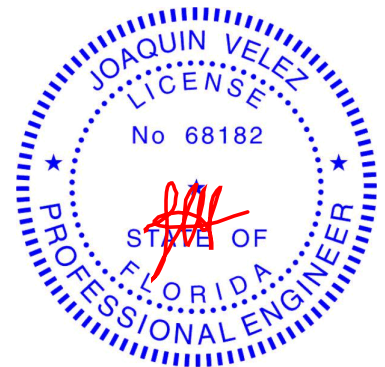
(size) 2=0-5-8, 10=0-5-8  
Max Horz 2=229(LC 11)  
Max Uplift 2=285(LC 12), 10=252(LC 13)  
Max Grav 2=1518(LC 19), 10=1441(LC 20)

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

TOP CHORD 2-3=-2363/422, 3-5=-2207/413, 5-6=-1515/348, 6-7=-1514/349, 7-9=-2218/420,  
9-10=-2376/430  
BOT CHORD 2-15=-443/2160, 13-15=-288/1736, 11-13=-184/1623, 10-11=-305/2012  
WEBS 6-13=-230/1215, 7-13=-664/263, 7-11=-103/612, 9-11=-299/185, 5-13=-659/260,  
5-15=-96/600, 3-15=-291/180

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-10-6, Interior(1) 1-10-6 to 16-10-0, Exterior(2R) 16-10-0 to 20-2-6, Interior(1) 20-2-6 to 33-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=285, 10=252.



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June 2,2021

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

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



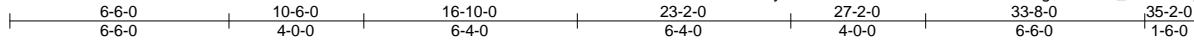
6904 Parke East Blvd.  
Tampa, FL 33610



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168229
2809544	T03	Roof Special	2	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:48 2021 Page 1  
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4x6 =

Scale = 1:68.3

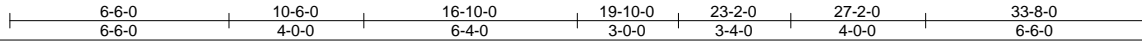
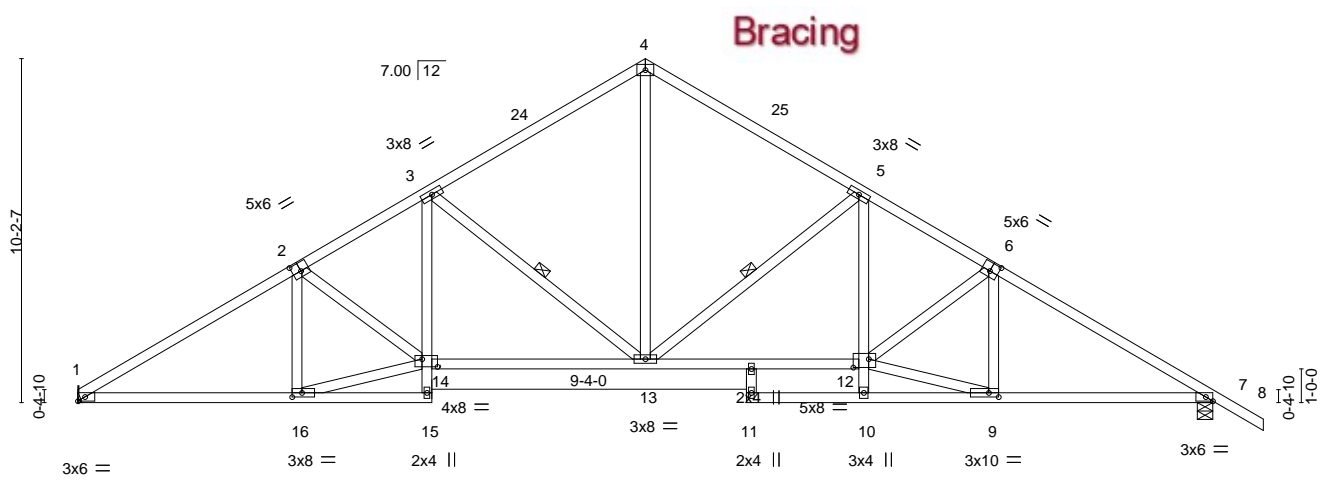


Plate Offsets (X,Y)-- [2:0-3-0,0-3-0], [6:0-3-0,0-3-0], [7:0-2-8,Edge], [9:0-3-8,0-1-8], [12:0-5-8,0-3-0], [14:0-5-8,0-2-12], [16:0-3-8,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.52	Vert(LL)	-0.22	11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.75	Vert(CT)	-0.49	11	>819	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.13	7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 206 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
3-15,5-10: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
9-1-3 oc bracing: 1-16  
6-0-0 oc bracing: 9-10.  
10-0-0 oc bracing: 10-12  
WEBS 1 Row at midpt 3-13, 5-13

#### REACTIONS.

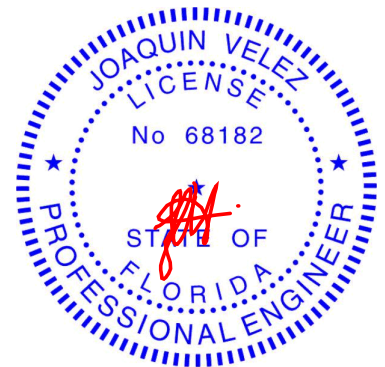
(size) 1=Mechanical, 7=0-5-8  
Max Horz 1=-229(LC 8)  
Max Uplift 1=-245(LC 12), 7=-272(LC 13)  
Max Grav 1=1269(LC 1), 7=1373(LC 1)

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

TOP CHORD 1-2=-2142/397, 2-3=-2159/440, 3-4=-1536/333, 4-5=-1536/335, 5-6=-2227/376,  
6-7=-2162/378  
BOT CHORD 1-16=-397/1781, 3-14=-115/527, 13-14=-347/1839, 12-13=-179/1898, 5-12=-65/678,  
7-9=-220/1797  
WEBS 2-16=-327/110, 14-16=-379/1775, 3-13=-777/301, 4-13=-196/1119, 5-13=-833/256,  
9-12=-178/1855, 6-9=-379/64

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-4-6, Interior(1) 3-4-6 to 16-10-0, Exterior(2R) 16-10-0 to 20-2-6, Interior(1) 20-2-6 to 35-2-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=245, 7=272.



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

June 2,2021

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

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



6904 Parke East Blvd.  
Tampa, FL 36610

6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168230
2809544	T03G	GABLE	1	2	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:52 2021 Page 2  
ID:amOAUkkav?6JdbyPKE2WNzBhuh-pE5bhINZhBN\_SCz9wnMRMa9YO2HK4DKQkrOCXTzBfu9

- NOTES-**
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=894, 13=899.
  - 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 158 lb down and 91 lb up at 0-7-4, 154 lb down and 96 lb up at 2-7-4, 154 lb down and 96 lb up at 4-7-4, 154 lb down and 96 lb up at 6-7-4, 154 lb down and 96 lb up at 8-7-4, 163 lb down and 70 lb up at 10-4-4, 163 lb down and 70 lb up at 12-7-4, 163 lb down and 70 lb up at 14-7-4, 163 lb down and 70 lb up at 16-7-4, 163 lb down and 70 lb up at 18-7-4, 154 lb down and 96 lb up at 20-7-4, 166 lb down and 99 lb up at 22-7-4, 166 lb down and 99 lb up at 24-7-4, and 166 lb down and 99 lb up at 26-7-4, and 372 lb down and 261 lb up at 28-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 14) Studding applied to ply: 1(Front)

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-7=-54, 7-14=-54, 22-43=-20, 18-21=-20, 17-46=-20
- Concentrated Loads (lb)
- Vert: 22=-163(B) 23=-154(B) 19=-163(B) 49=-158(B) 50=-154(B) 51=-154(B) 52=-154(B) 53=-163(B) 54=-163(B) 55=-163(B) 56=-154(B) 57=-166(B) 58=-166(B) 59=-166(B) 60=-372(B)

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168231
2809544	T04	Roof Special	2	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:53 2021 Page 1

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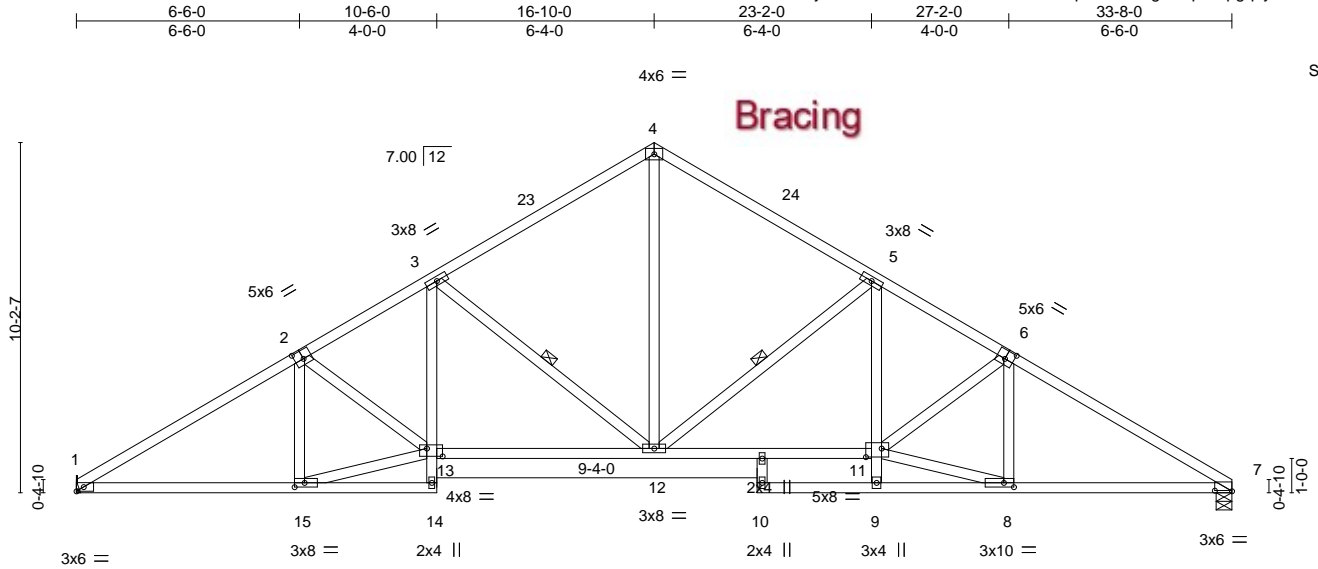


Plate Offsets (X,Y)--	[2:0-3-0,0-3-0], [6:0-3-0,0-3-0], [7:0-6-0,0-0-3], [8:0-3-8,0-1-8], [11:0-5-8,0-3-0], [13:0-5-8,0-2-12], [15:0-3-8,0-1-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.75	Vert(LL) -0.22 10 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.71	Vert(CT) -0.49 10 >818 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.12 7 n/a n/a		
	Code FBC2020/TPI2014			Weight: 203 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 3-14,5-9: 2x4 SP No.3  
 WEBS 2x4 SP No.3

**REACTIONS.** (size) 1=Mechanical, 7=0-5-8  
 Max Horz 1=216(LC 9)  
 Max Uplift 1=245(LC 12), 7=239(LC 13)  
 Max Grav 1=1271(LC 1), 7=1290(LC 1)

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

TOP CHORD 1-2=-2145/398, 2-3=-2163/443, 3-4=-1540/337, 4-5=-1540/339, 5-6=-2237/391,  
 6-7=-2180/388  
 BOT CHORD 1-15=-410/1784, 3-13=-117/526, 12-13=-363/1843, 11-12=-205/1906, 5-11=-73/681,  
 7-8=-255/1814  
 WEBS 2-15=-328/114, 13-15=-392/1778, 3-12=-776/303, 4-12=-198/1122, 5-12=-839/262,  
 8-11=-215/1876, 6-8=-374/70

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-4-6, Interior(1) 3-4-6 to 16-10-0, Exterior(2R) 16-10-0 to 20-2-6, Interior(1) 20-2-6 to 33-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=245, 7=239.



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

June 2,2021

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6904 Parke East Blvd.  
 Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168232
2809544	T05	Common	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:55 2021 Page 1

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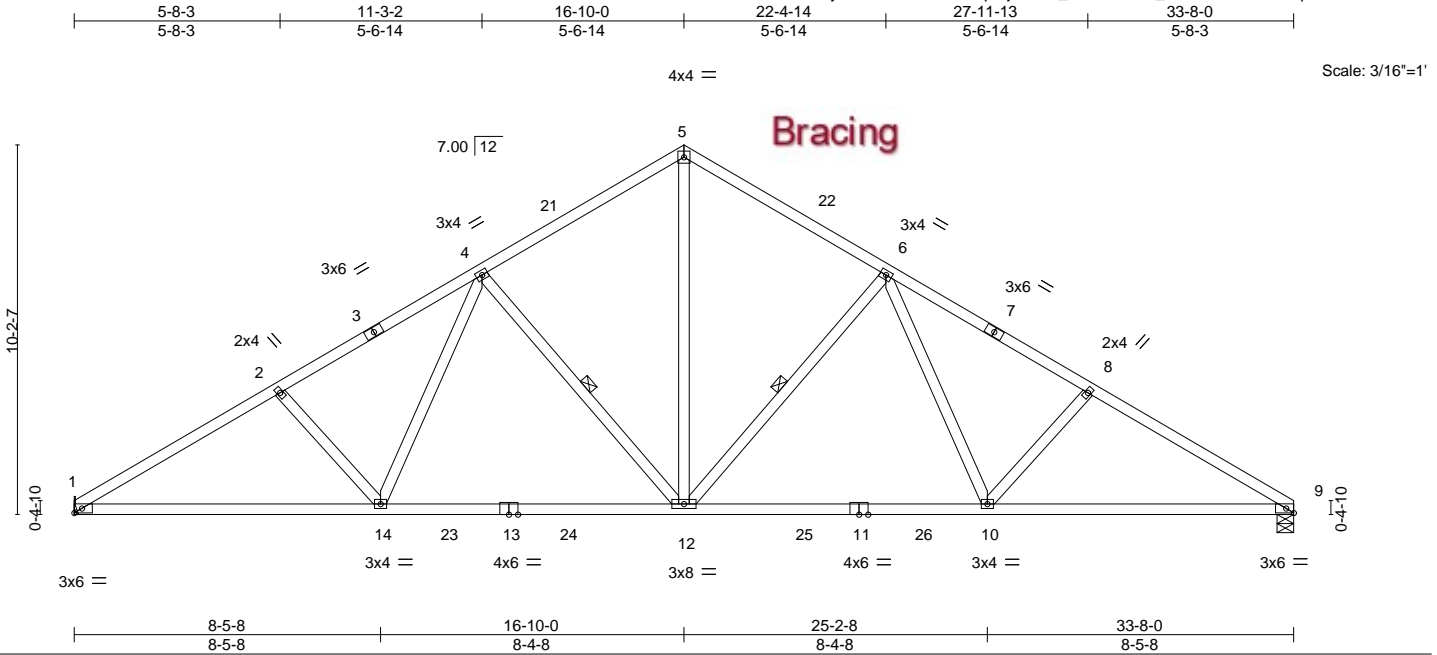


Plate Offsets (X,Y)-- [9:0-2-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.35	Vert(LL)	-0.21 12-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.88	Vert(CT)	-0.35 12-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 180 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

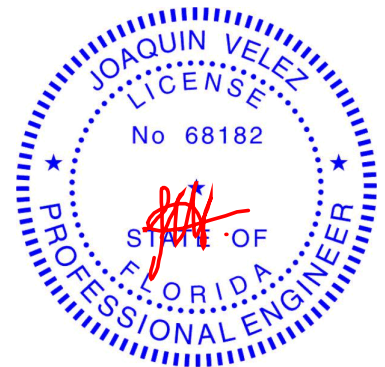
(size) 1=Mechanical, 9=0-5-8  
Max Horz 1=216(LC 9)  
Max Uplift 1=253(LC 12), 9=253(LC 13)  
Max Grav 1=1442(LC 19), 9=1442(LC 20)

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

TOP CHORD 1-2=-2378/430, 2-4=-2220/420, 4-5=-1517/350, 5-6=-1517/350, 6-8=-2220/420, 8-9=-2378/430  
BOT CHORD 1-14=-452/2176, 12-14=-291/1742, 10-12=-186/1625, 9-10=-306/2014  
WEBS 5-12=-231/1216, 6-12=-664/263, 6-10=-103/612, 8-10=-299/185, 4-12=-664/263, 4-14=-102/612, 2-14=-299/185

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-4-6, Interior(1) 3-4-6 to 16-10-0, Exterior(2R) 16-10-0 to 20-2-6, Interior(1) 20-2-6 to 33-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=253, 9=253.



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

June 2,2021

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



6904 Parke East Blvd.  
Tampa, FL 33610



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168233
2809544	T06G	GABLE	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:57 2021 Page 1

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Scale = 1:80.0

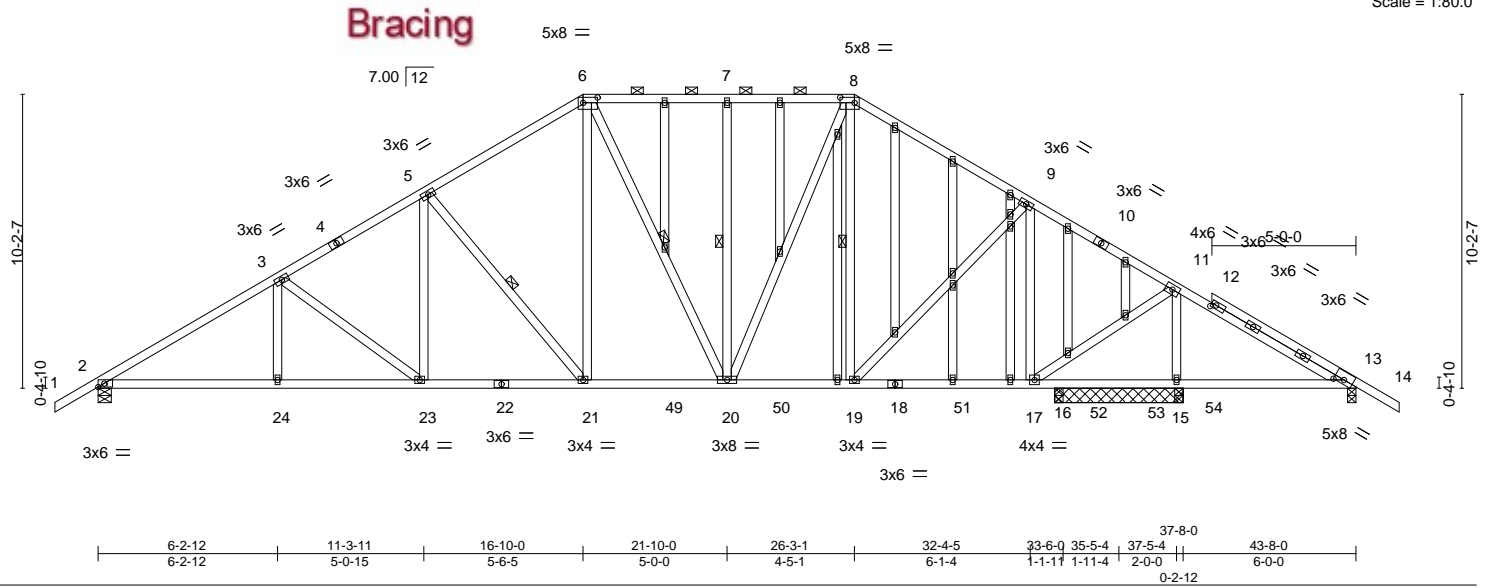


Plate Offsets (X,Y)-- [6:0-6-0,0-2-4], [8:0-6-0,0-2-4], [12:0-2-0,0-1-8], [13:0-4-1,0-1-12]

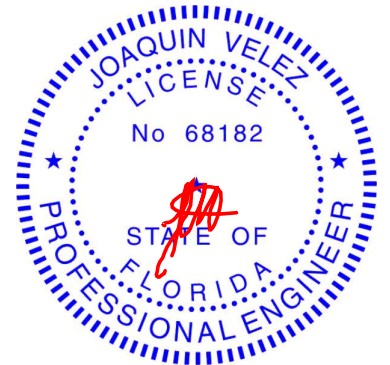
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.49	Vert(LL)	-0.14 21-23	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.73	Vert(CT)	-0.23 21-23	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.68	Horz(CT)	0.08 16	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 367 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except 2-0-0 oc purlins (5-0-12 max.): 6-8.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-21, 6-20, 7-20, 8-19
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 2=0-5-8.  
 (lb) - Max Horz 2=-236(LC 25)  
 Max Uplift All uplift 100 lb or less at joint(s) except 2=-327(LC 27), 13=-116(LC 6), 16=-128(LC 8), 15=-602(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 13 except 2=1555(LC 15), 16=459(LC 2), 15=2273(LC 2), 15=2111(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2463/488, 3-5=-2066/450, 5-6=-1612/396, 6-7=-1267/339, 7-8=-1267/339, 8-9=-1278/319, 9-11=-838/235, 11-13=-103/642  
 BOT CHORD 2-24=-480/2229, 23-24=-480/2229, 21-23=-338/1832, 20-21=-191/1376, 19-20=-101/1037, 17-19=-25/656, 16-17=-482/132, 15-16=-482/132, 13-15=-482/132  
 WEBS 3-23=-492/176, 5-23=-68/503, 5-21=-722/245, 6-21=-155/791, 6-20=-284/109, 7-20=-282/146, 8-20=-178/622, 9-19=-141/580, 9-17=-873/193, 11-17=-188/1365, 11-15=-1688/341

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 327 lb uplift at joint 2, 116 lb uplift at joint 13, 128 lb uplift at joint 16 and 602 lb uplift at joint 15.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 154 lb down and 96 lb up at 34-7-4, and 154 lb down and 96 lb up at 36-7-4, and 372 lb down and 261 lb up at 38-7-4 on bottom chord. The design/selection of connection device(s) is the responsibility of others.



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

June 2,2021

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

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



6904 Parke East Blvd.  
 Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168233
2809544	T06G	GABLE	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:57 2021 Page 2  
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**NOTES-**  
13) 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: 1-6=-54, 6-8=-54, 8-14=-54, 43-46=-20  
Concentrated Loads (lb)  
Vert: 52=-154(F) 53=-154(F) 54=-372(F)

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168234
2809544	T07	Piggyback Base	6	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

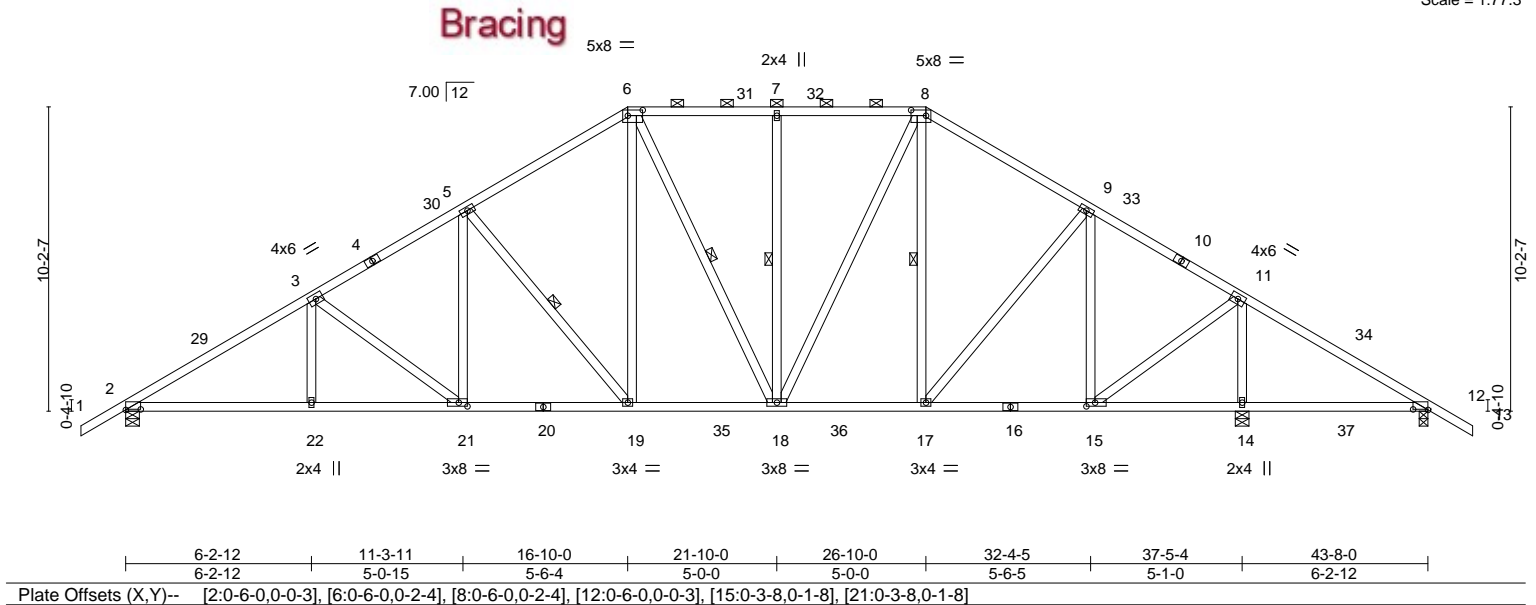
Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:44:58 2021 Page 1

ID:amOAUkkav?6JdybPKE2WNezBhuh-eOSSyMSKH177A7QJH1TrbrOaxTKGUzkJ6nrXlIzBfu3

1-6-0	6-2-12	11-3-11	16-10-0	21-10-0	26-10-0	32-4-5	37-5-4	43-8-0	45-2-0
1-6-0	6-2-12	5-0-15	5-6-4	5-0-0	5-0-0	5-6-5	5-1-0	6-2-12	1-6-0

Scale = 1:77.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.44	Vert(LL) -0.14	19-21	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.67	Vert(CT) -0.24	19-21	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.61	Horz(CT) 0.08	14	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 290 lb	FT = 20%

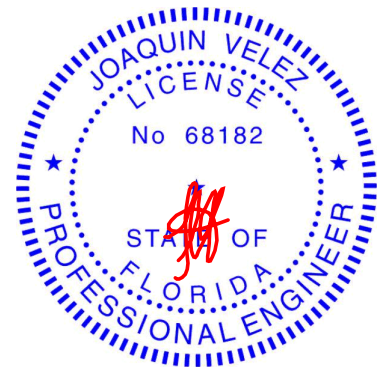
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-5 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (4-10-12 max.): 6-8.
WEBS 2x4 SP No.3	Rigid ceiling directly applied or 6-0-0 oc bracing.
	1 Row at midpt 5-19, 6-18, 8-17, 7-18

**REACTIONS.** (size) 2=0-5-8, 14=0-5-8, 12=0-3-8  
Max Horz 2=-236(LC 10)  
Max Uplift 2=-331(LC 12), 14=-341(LC 13), 12=-101(LC 25)  
Max Grav 2=1588(LC 19), 14=2150(LC 2), 12=145(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2548/496, 3-5=-2153/458, 5-6=-1698/405, 6-7=-1368/349, 7-8=-1368/349,  
8-9=-1353/333, 9-11=-1034/264, 11-12=-90/565  
BOT CHORD 2-22=-486/2284, 21-22=-486/2284, 19-21=-344/1888, 18-19=-199/1431, 17-18=-103/1109,  
15-17=-49/840, 14-15=-411/116, 12-14=-411/116  
WEBS 3-21=-490/176, 5-21=-68/504, 5-19=-723/245, 6-19=-155/785, 8-18=-176/631,  
9-17=-133/469, 9-15=-708/149, 11-15=-192/1537, 11-14=-1908/355, 7-18=-301/153

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-10-6, Interior(1) 2-10-6 to 16-10-0, Exterior(2R) 16-10-0 to 23-0-2, Interior(1) 23-0-2 to 26-10-0, Exterior(2R) 26-10-0 to 33-0-2, Interior(1) 33-0-2 to 45-2-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 331 lb uplift at joint 2, 341 lb uplift at joint 14 and 101 lb uplift at joint 12.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

June 2,2021

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

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

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

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2809544	Truss T07G	Truss Type GABLE	Qty 1	Ply 1	AMIRA BLDRS. - DELOACH RES. T24168235
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Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:01 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNzBhuh-2y8\_aNUCayVi1a9uyA0YDU049hLehIPloI3BMSzBfu0

Job Reference (optional)

6-2-12	11-3-11	16-10-0	21-10-0	26-3-1	32-4-5	37-5-4	43-8-0	45-2-0
6-2-12	5-0-15	5-6-5	5-0-0	4-5-1	6-1-4	5-0-15	6-2-12	1-6-0

## Bracing

5x8 =

5x8 =

Scale = 1:77.4

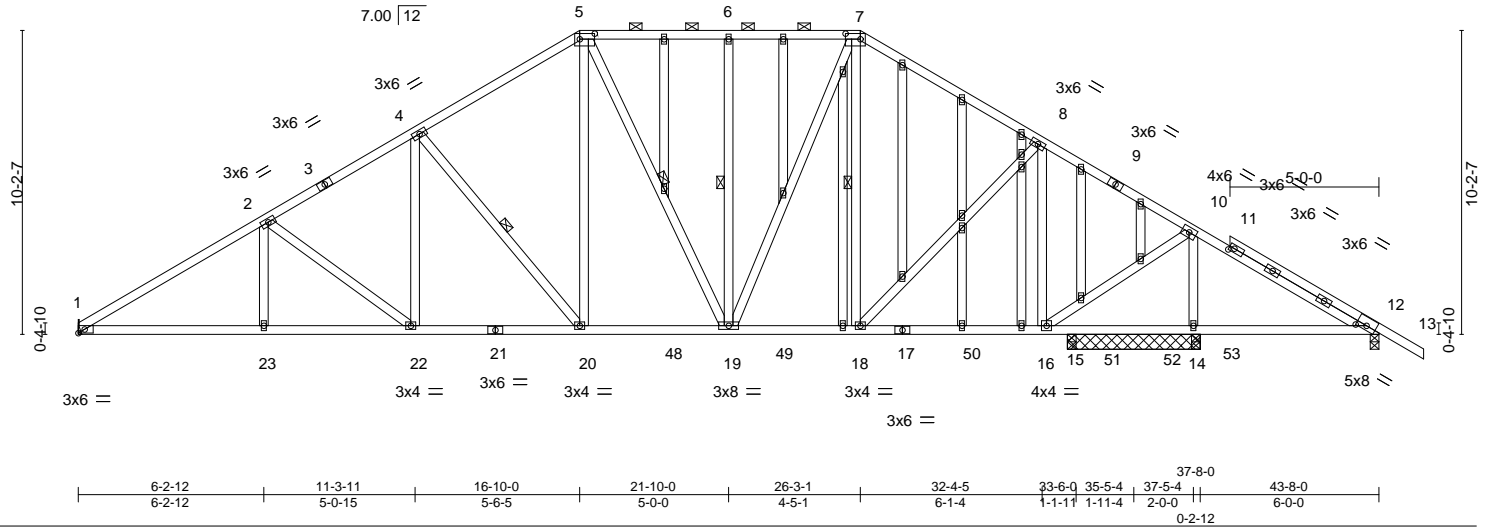


Plate Offsets (X,Y)-- [5:0-6-0,0-2-4], [7:0-6-0,0-2-4], [11:0-2-0,0-1-8], [12:0-4-1,0-1-12]

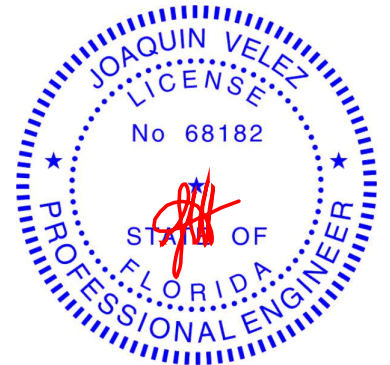
LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.51	Vert(LL) -0.14	20-22	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.76	Vert(CT) -0.24	20-22	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.68	Horz(CT) 0.08	15	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						
							Weight: 365 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-4 oc purlins, except 2-0-0 oc purlins (5-0-10 max.): 5-7.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-20, 5-19, 6-19, 7-18
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 1=Mechanical.  
 (lb) - Max Horz 1=230(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=295(LC 27), 12=116(LC 6), 15=128(LC 8), 14=603(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 12 except 1=1479(LC 15), 15=459(LC 2), 14=2274(LC 2), 14=2112(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=2478/498, 2-4=2073/454, 4-5=1615/398, 5-6=1269/341, 6-7=1269/341, 7-8=1280/319, 8-10=838/235, 10-12=103/642  
 BOT CHORD 1-23=489/2246, 22-23=489/2246, 20-22=341/1837, 19-20=191/1379, 18-19=101/1039, 16-18=26/657, 15-16=482/132, 14-15=482/132, 12-14=482/132  
 WEBS 2-22=507/184, 4-22=72/509, 4-20=725/247, 5-20=157/794, 5-19=286/110, 6-19=281/145, 7-19=178/624, 8-18=141/580, 8-16=874/194, 10-16=189/1366, 10-14=1689/341

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 295 lb uplift at joint 1, 116 lb uplift at joint 12, 128 lb uplift at joint 15 and 603 lb uplift at joint 14.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

June 2,2021

Continued on page 2

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

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6904 Parke East Blvd.  
 Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168235
2809544	T07G	GABLE	1	1	Job Reference (optional)	

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8.430 s May 12 2021 MiTek Industries, Inc.
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Page 2
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- NOTES-**
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 154 lb down and 96 lb up at 34-7-4, and 154 lb down and 96 lb up at 36-7-4, and 372 lb down and 261 lb up at 38-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 14) 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: 1-5=-54, 5-7=-54, 7-13=-54, 42-45=-20

Concentrated Loads (lb)

Vert: 51=-154(B) 52=-154(B) 53=-372(B)



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168236
2809544	T08	Piggyback Base	2	1	Job Reference (optional)	

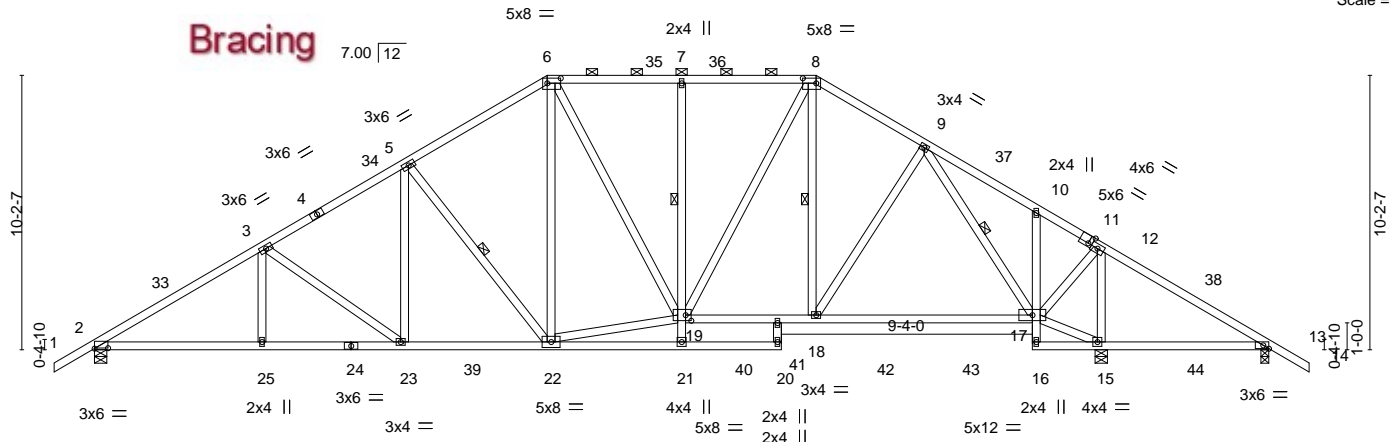
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:02 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNezBhuh-W9hMojVqKGdZek4WtYnmhZf4fgQm0v1PpkuzBfu?

1-6-0	6-2-12	11-6-6	16-10-0	21-11-12	26-10-0	30-10-4	34-10-8	37-5-4	43-8-0	45-2-0
1-6-0	6-2-12	5-3-10	5-3-10	5-1-12	4-10-4	4-0-4	4-0-4	2-6-12	6-2-12	1-6-0

Scale = 1:85.7



	6-2-12	11-6-6	16-10-0	21-11-12	25-6-8	26-10-0	34-10-8	37-5-4	43-8-0	
	6-2-12	5-3-10	5-3-10	5-1-12	3-6-12	1-3-8	8-0-8	2-6-12	6-2-12	
Plate Offsets (X,Y)--	[2:0-6-0,0-0-3], [6:0-6-0,0-2-4], [8:0-6-0,0-2-4], [11:0-1-12,Edge], [13:0-2-8,Edge], [19:0-2-8,0-2-8]									

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.51	Vert(LL)	-0.34	20	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.83	Vert(CT)	-0.58	20	>781	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.10	15	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 306 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except  
 7-21,10-16: 2x4 SP No.3  
 WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-15 oc purlins, except  
 2-0-0 oc purlins (4-6-8 max.): 6-8.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
 1 Row at midpt 7-19  
 10-0-0 oc bracing: 19-21  
 WEBS 1 Row at midpt 5-22, 8-18, 9-17

#### REACTIONS.

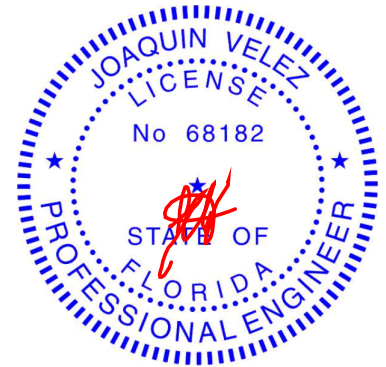
(size) 2=0-5-8, 13=0-3-8, 15=0-5-8  
 Max Horz 2=-236(LC 10)  
 Max Uplift 2=-320(LC 12), 13=-268(LC 25), 15=-358(LC 13)  
 Max Grav 2=1588(LC 19), 13=40(LC 12), 15=2461(LC 2)

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

TOP CHORD 2-3=-2546/475, 3-5=-2134/433, 5-6=-1694/387, 6-7=-1561/334, 7-8=-1563/333,  
 8-9=-1485/303, 9-10=-390/199, 10-12=-365/137, 12-13=-126/925  
 BOT CHORD 2-25=-468/2287, 23-25=-468/2287, 22-23=-319/1872, 19-21=0/302, 7-19=-308/155,  
 18-19=-97/1238, 17-18=-42/996, 13-15=-731/148  
 WEBS 3-23=-507/182, 5-23=-69/510, 5-22=-724/244, 6-22=-135/419, 19-22=-157/1566,  
 6-19=-119/411, 8-19=-174/711, 9-18=-106/516, 9-17=-1357/185, 15-17=-659/177,  
 12-17=-128/1465, 12-15=-1935/296

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-10-6, Interior(1) 2-10-6 to 16-10-0, Exterior(2R) 16-10-0 to 23-0-2, Interior(1) 23-0-2 to 26-10-0, Exterior(2R) 26-10-0 to 33-0-2, Interior(1) 33-0-2 to 45-2-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 320 lb uplift at joint 2, 268 lb uplift at joint 13 and 358 lb uplift at joint 15.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

June 2,2021

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6904 Parke East Blvd.  
 Tampa, FL 36610



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168238
2809544	T10	Piggyback Base	5	1	Job Reference (optional)	

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

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ID:amOAUkKav?6JdbyPKE2WNezBhuh-Pwxttd5YLOV8\_7L2sljcwXkwXi\_CMYMUy0ny0gzBftx

1-6-0	2-0-0	3-5-8	6-2-12	11-3-11	16-10-0	22-3-8	26-10-0	32-4-5	37-5-4	43-8-0	45-2-0
1-6-0	2-0-0	1-5-8	2-9-4	5-0-15	5-6-5	5-5-8	4-6-8	5-6-5	5-0-15	6-2-12	1-6-0

Scale = 1:78.5

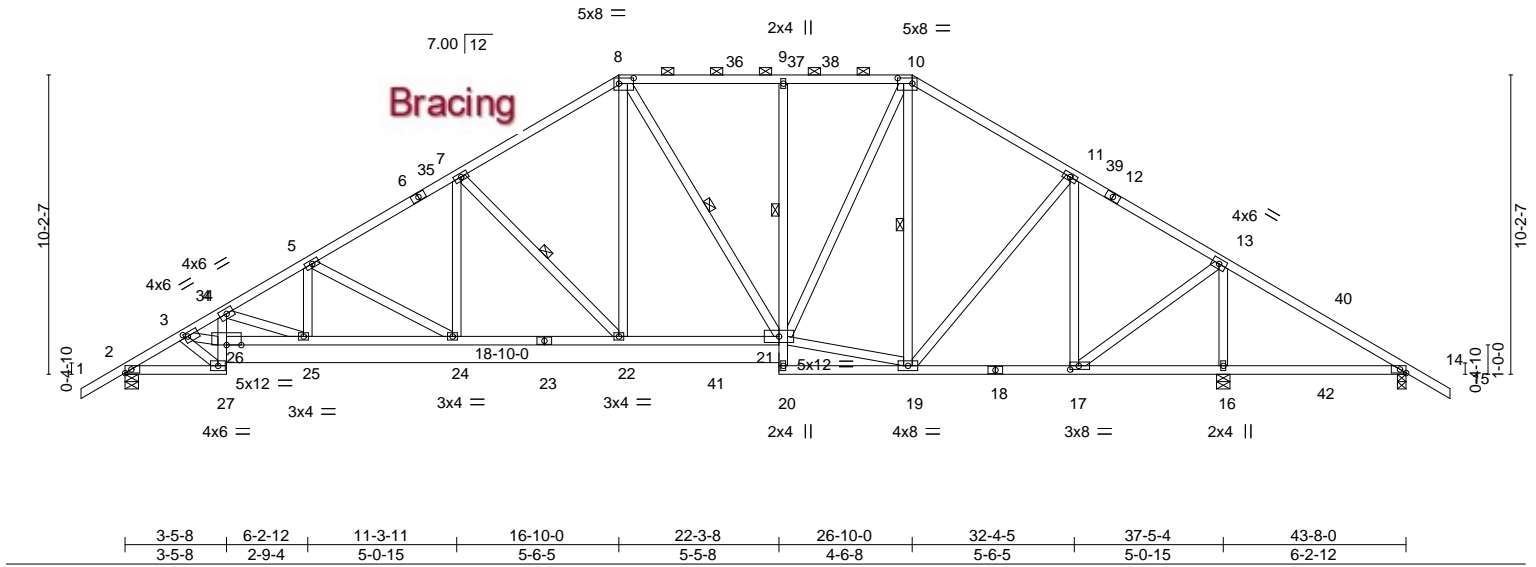


Plate Offsets (X,Y)--		[3:0-1-8,0-1-8], [8:0-6-0,0-2-4], [10:0-6-0,0-2-4], [14:0-2-8,Edge], [17:0-3-8,0-1-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	-0.20 24-25	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.99	Vert(CT)	-0.34 24-25	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.17 16	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 298 lb	FT = 20%

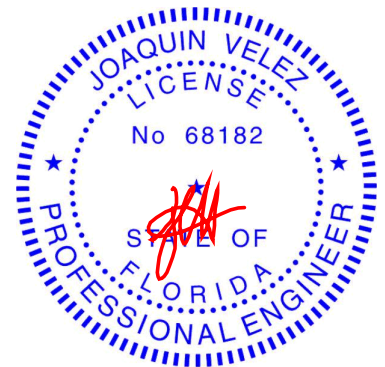
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-5-9 oc purlins, except 2-0-0 oc purlins (4-9-7 max.): 8-10.
BOT CHORD	2x4 SP No.2 *Except	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
WEBS	2x4 SP No.3 *Except	WEBS	1 Row at midpt 9-21
	3-26: 2x4 SP No.2		1 Row at midpt 7-22, 8-21, 10-19

**REACTIONS.** (size) 2=0-5-8, 16=0-5-8, 14=0-3-8  
Max Horz 2=-236(LC 10)  
Max Uplift 2=-322(LC 12), 16=-353(LC 13), 14=-300(LC 25)  
Max Grav 2=1513(LC 19), 16=2347(LC 2), 14=75(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-2447/487, 3-4=-4478/960, 4-5=-3212/680, 5-7=-2346/505, 7-8=-1743/410, 8-9=-1355/335, 9-10=-1350/333, 10-11=-1191/328, 11-13=-807/255, 13-14=-193/983  
**BOT CHORD** 2-27=-509/2197, 26-27=-335/1503, 4-26=-215/1034, 25-26=-970/4289, 24-25=-629/2921, 22-24=-389/2070, 21-22=-211/1470, 9-21=-305/155, 17-19=-35/643, 16-17=-760/205, 14-16=-760/205  
**WEBS** 3-27=-2270/537, 3-26=-825/3608, 4-25=-1446/360, 5-25=-106/688, 5-24=-964/272, 7-24=-94/636, 7-22=-868/282, 8-22=-164/865, 8-21=-318/117, 19-21=-79/976, 10-21=-214/889, 10-19=-452/163, 11-19=-150/558, 11-17=-820/182, 13-17=-248/1714, 13-16=-2100/367

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-10-6, Interior(1) 2-10-6 to 16-10-0, Exterior(2R) 16-10-0 to 23-0-2, Interior(1) 23-0-2 to 26-10-0, Exterior(2R) 26-10-0 to 33-0-2, Interior(1) 33-0-2 to 45-2-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 322 lb uplift at joint 2, 353 lb uplift at joint 16 and 300 lb uplift at joint 14.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

June 2,2021

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

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168239
2809544	T11	Common	3	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:07 2021 Page 1  
ID:amOAUkKav?6JdbypKE2WNzBhuh-t6VFrRzZ9oGrlVd2JQ7yTIG9I5Pk58deAgXVY6zBftw

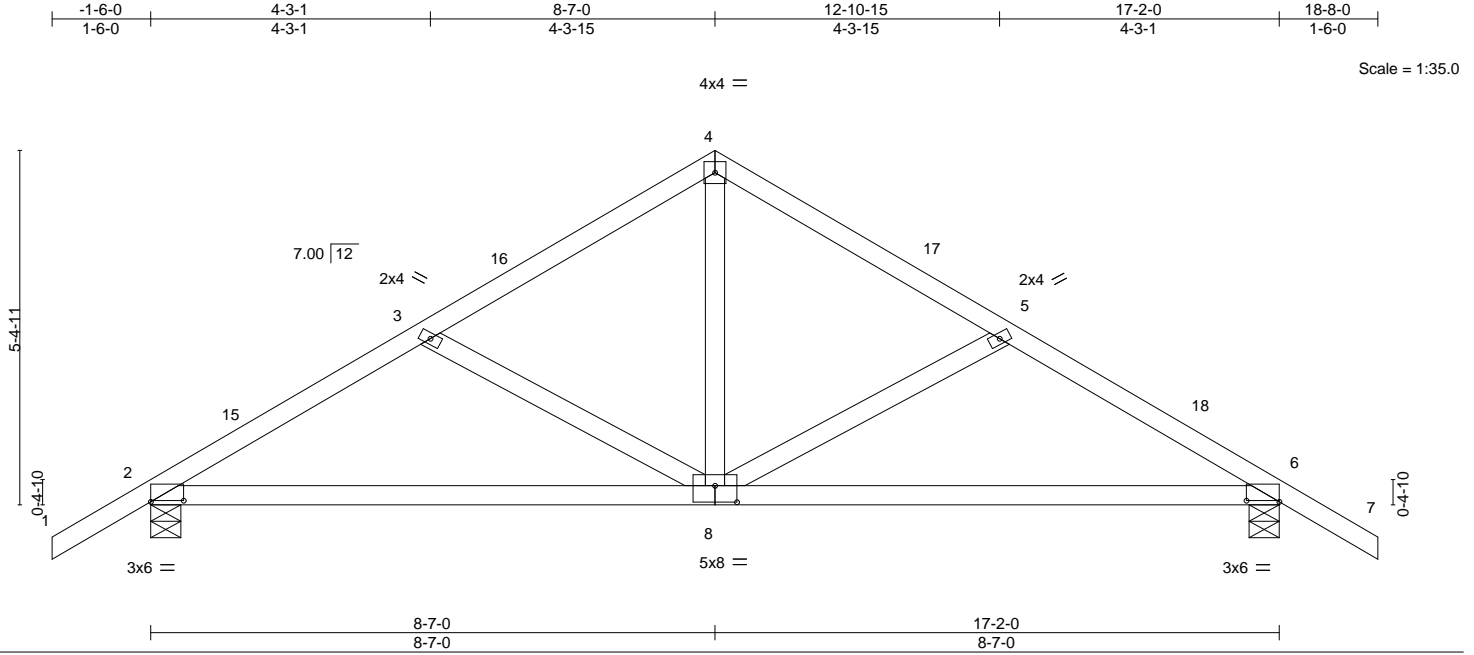


Plate Offsets (X,Y)-- [2:0-6-0,0-0-3], [6:0-6-0,0-0-3], [8:0-4-0,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.31	Vert(LL)	-0.09	8-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.65	Vert(CT)	-0.18	8-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 82 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

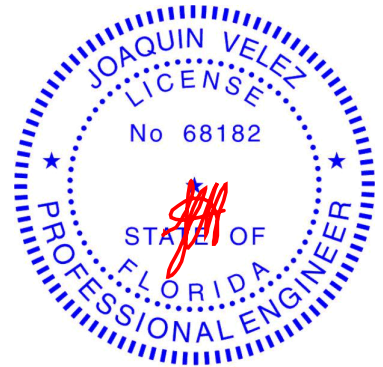
(size) 2=0-5-8, 6=0-5-8  
Max Horz 2=130(LC 11)  
Max Uplift 2=162(LC 12), 6=162(LC 13)  
Max Grav 2=716(LC 1), 6=716(LC 1)

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

TOP CHORD 2-3=-940/204, 3-4=-714/162, 4-5=-714/162, 5-6=-940/204  
BOT CHORD 2-8=-187/792, 6-8=-114/791  
WEBS 4-8=-59/477, 5-8=-282/166, 3-8=-282/165

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 8-7-0, Exterior(2R) 8-7-0 to 11-7-0, Interior(1) 11-7-0 to 18-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 2 and 162 lb uplift at joint 6.



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

June 2,2021

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



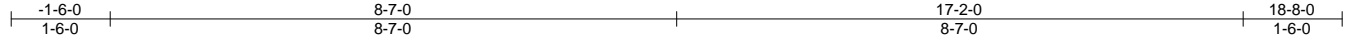
6904 Parke East Blvd.  
Tampa, FL 36610



Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168240
2809544	T11G	Common Supported Gable	1	1	Job Reference (optional)	

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

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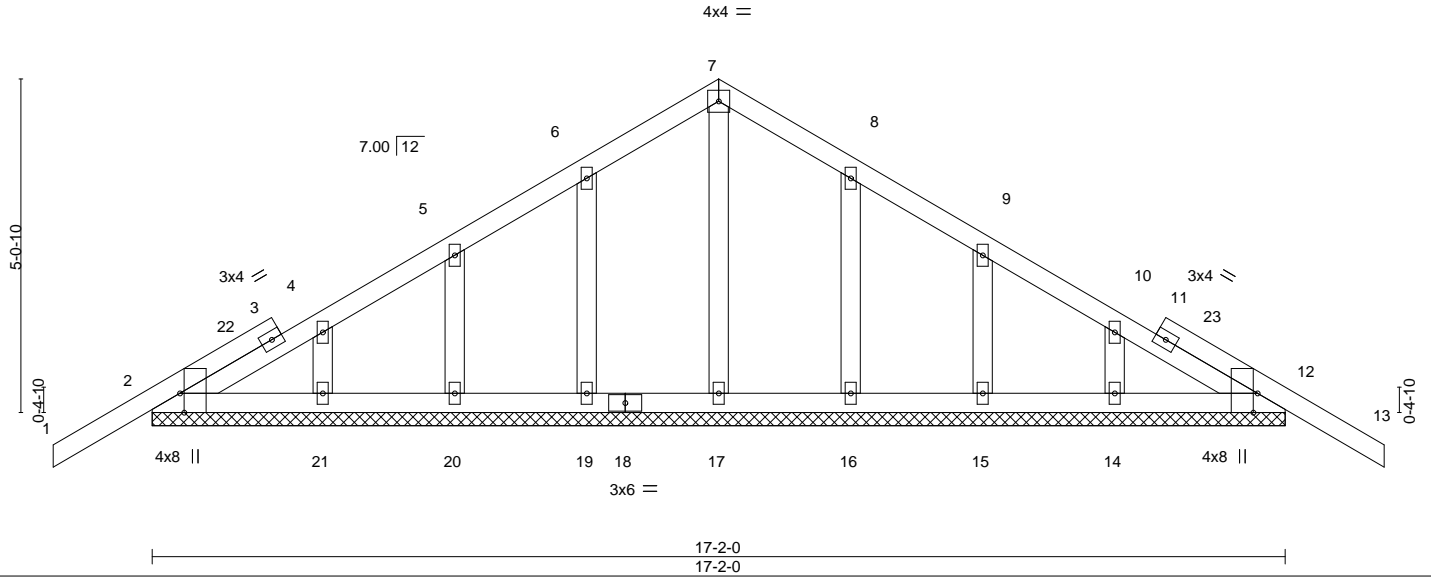


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [12:0-3-8,Edge]		17-2-0		17-2-0	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc) l/defl L/d
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.01 13 n/r 120
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	-0.01 13 n/r 120
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00 12 n/a n/a
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S			
						<b>PLATES</b>	<b>GRIP</b>
						MT20	244/190
						Weight: 92 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

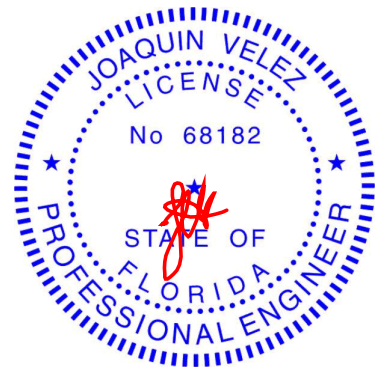
#### REACTIONS.

- All bearings 17-2-0.  
(lb) - Max Horz 2=122(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 17, 19, 20, 21, 16, 15, 14

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 8-7-0, Corner(3R) 8-7-0 to 11-7-0, Exterior(2N) 11-7-0 to 18-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 16, 15, 14.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



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

June 2,2021

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



6904 Parke East Blvd.  
Tampa, FL 36610



6904 Parke East Blvd  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168241
2809544	T12	Common Girder	1	2	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),
Jacksonville, FL - 32244,
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MiTek Industries, Inc.
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Page 2
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LOAD CASE(S)
Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

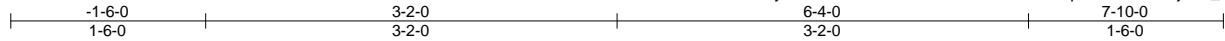
Vert: 13=-2585(B) 14=-1249(B) 15=-1249(B) 16=-1251(B) 17=-1251(B) 18=-1226(B) 19=-1285(B)

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168242
2809544	T13	Common	2	1	Job Reference (optional)	

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

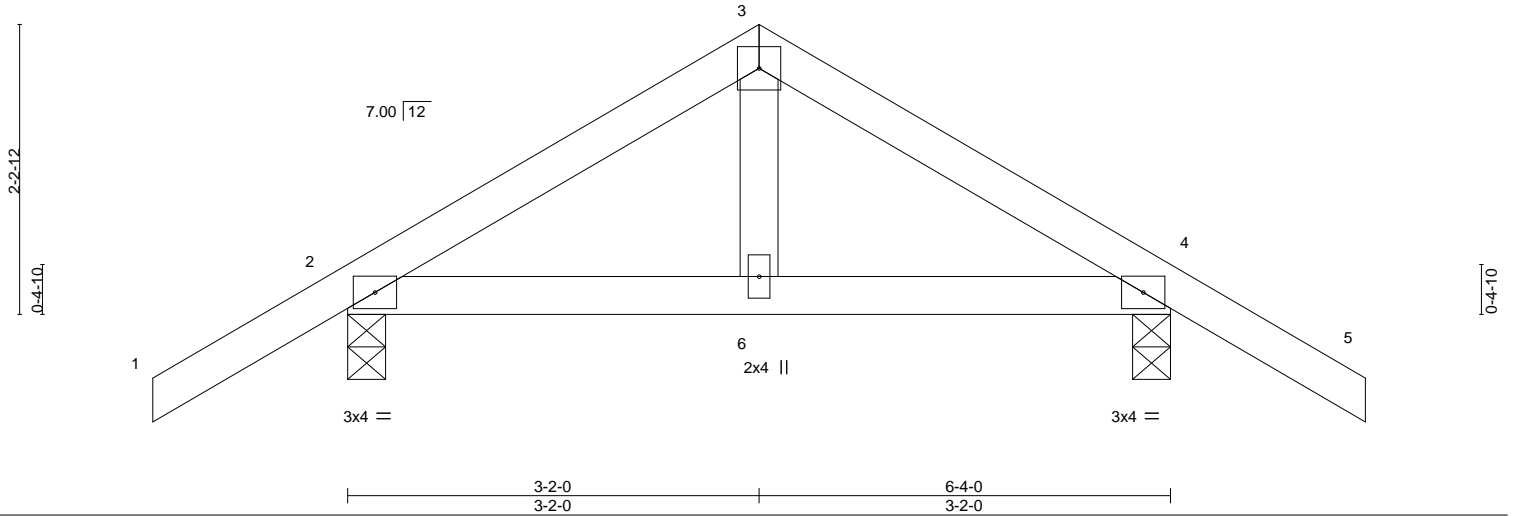
8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:11 2021 Page 1

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Scale = 1:17.7

4x4 =



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.15	Vert(LL) 0.01	6-12	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.10	Vert(CT) -0.01	6-12	>999	180			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00	4	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP						Weight: 28 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=-60(LC 10)  
Max Uplift 2=-82(LC 12), 4=-82(LC 13)  
Max Grav 2=315(LC 1), 4=315(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-243/328, 3-4=-243/328

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 3-2-0, Exterior(2R) 3-2-0 to 5-10-15, Interior(1) 5-10-15 to 7-10-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



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

June 2,2021

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

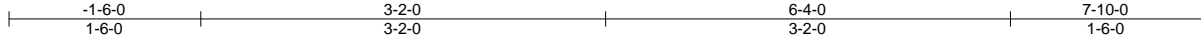


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Tampa, FL 36610

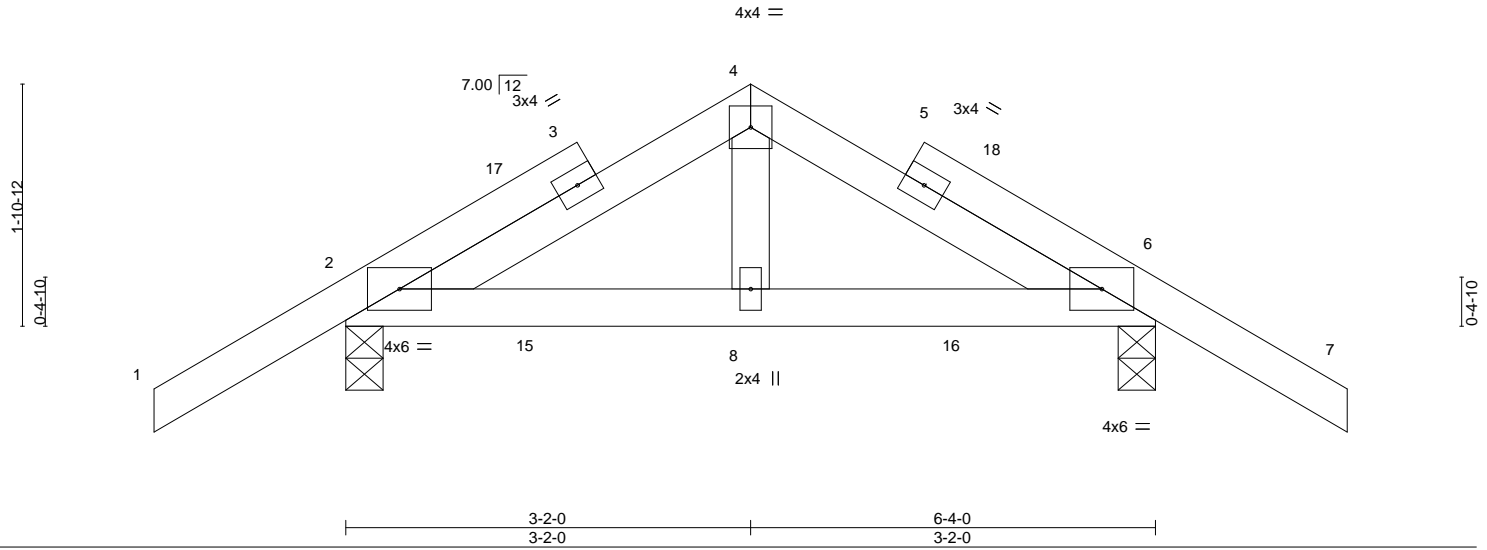
Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168243
2809544	T13G	KINGPOST	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:12 2021 Page 1  
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Scale = 1:18.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.23	Vert(LL) 0.01	8-14	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.08	Vert(CT) 0.01	8-14	>999	180			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00	6	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP						Weight: 33 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=53(LC 11)  
Max Uplift 2=-85(LC 12), 6=-85(LC 13)  
Max Grav 2=312(LC 1), 6=312(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-215/359, 4-6=-215/360

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) 1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 3-2-0, Corner(3R) 3-2-0 to 6-2-4, Exterior(2N) 6-2-4 to 7-10-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.



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

June 2,2021

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

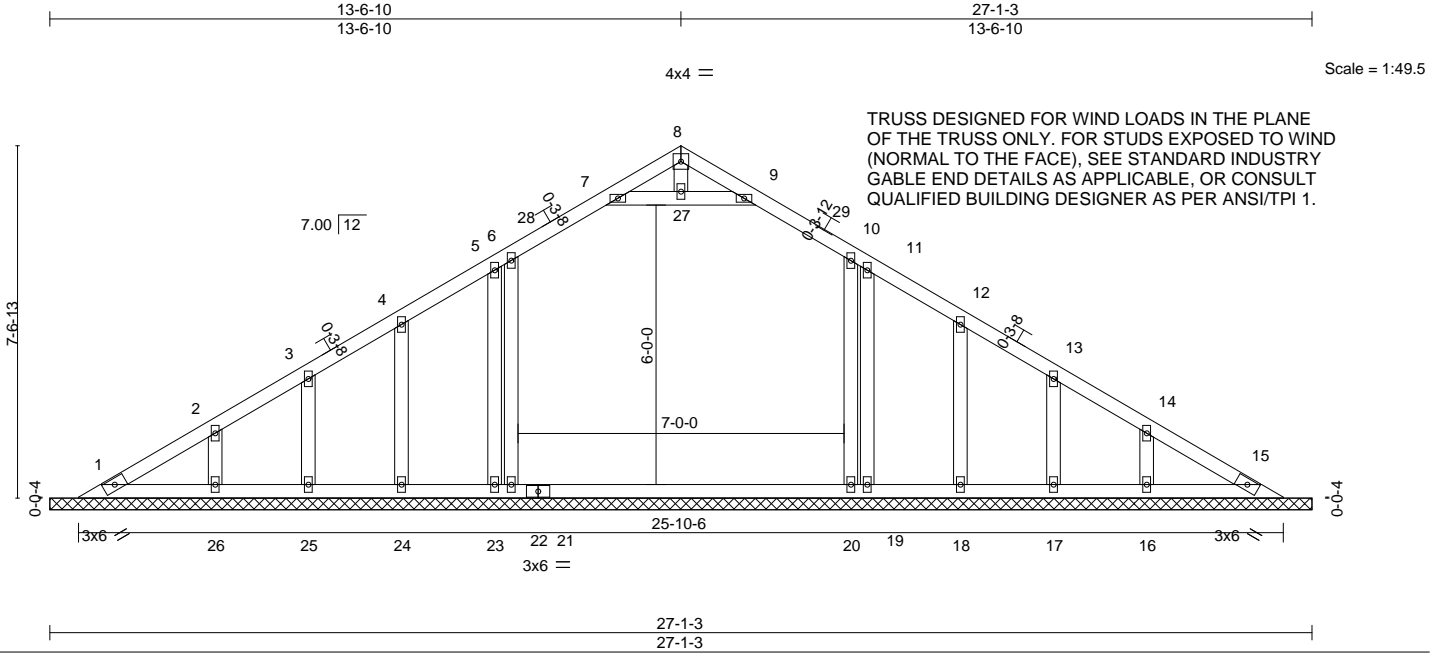


6904 Parke East Blvd.  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168244
2809544	V01	GABLE	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:13 2021 Page 1  
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.48	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.08	Horz(CT)	0.01	15	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 137 lb	FT = 20%
	Code FBC2020/TPI2014							

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
15-21: 2x4 SP M 31  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

#### BRACING-

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

#### REACTIONS.

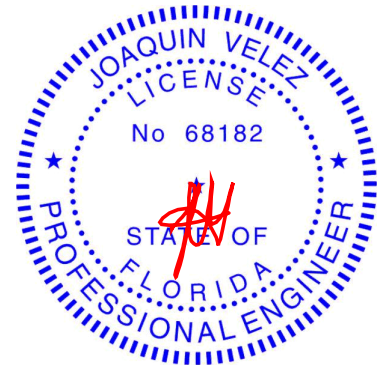
All bearings 27-1-3.  
(lb) - Max Horz 1=160(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 24, 25, 26, 18, 17, 16 except 23=646(LC 18),  
19=759(LC 18)  
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 24, 25, 26, 18, 17, 16 except 22=942(LC 18),  
20=1062(LC 18)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-269/56, 2-3=-265/50, 3-4=-253/67, 6-7=-267/121, 9-10=-267/120, 12-13=-253/57,  
13-14=-255/35, 14-15=-258/41

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-1-7 to 4-1-7, Interior(1) 4-1-7 to 13-6-10, Exterior(2R) 13-6-10 to 16-6-10, Interior(1) 16-6-10 to 25-11-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 24, 25, 26, 18, 17, 16 except (jt=lb) 23=646, 19=759.



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

June 2,2021

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



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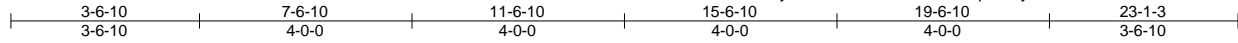


Job 2809544	Truss V02	Truss Type Valley	Qty 1	Ply 1	AMIRA BLDRS. - DELOACH RES. Job Reference (optional)	T24168245
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Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

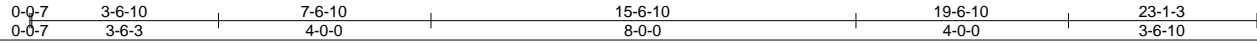
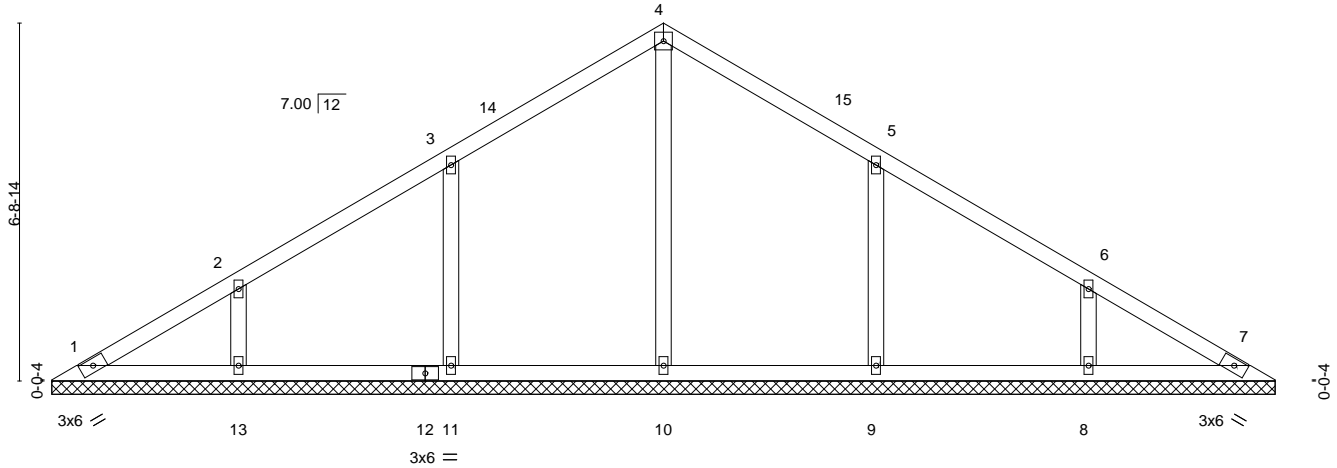
8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:14 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNezBhuh-ATQvJqeMWy8s5afODOlbFD3NEwwoEJ8gnGjNICzBftp



4x4 =

Scale = 1:43.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S					Weight: 97 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 23-0-5.

(lb) - Max Horz 1=141(LC 9)

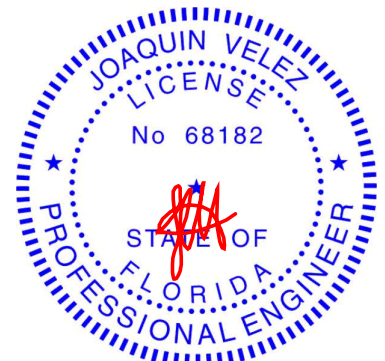
Max Uplift All uplift 100 lb or less at joint(s) 1 except 11=140(LC 12), 13=120(LC 12), 9=139(LC 13), 8=120(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=362(LC 19), 11=415(LC 19), 13=347(LC 19), 9=415(LC 20), 8=347(LC 20)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-10, Interior(1) 3-6-10 to 11-6-10, Exterior(2R) 11-6-10 to 14-6-10, Interior(1) 14-6-10 to 22-6-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 11=140, 13=120, 9=139, 8=120.



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

June 2,2021

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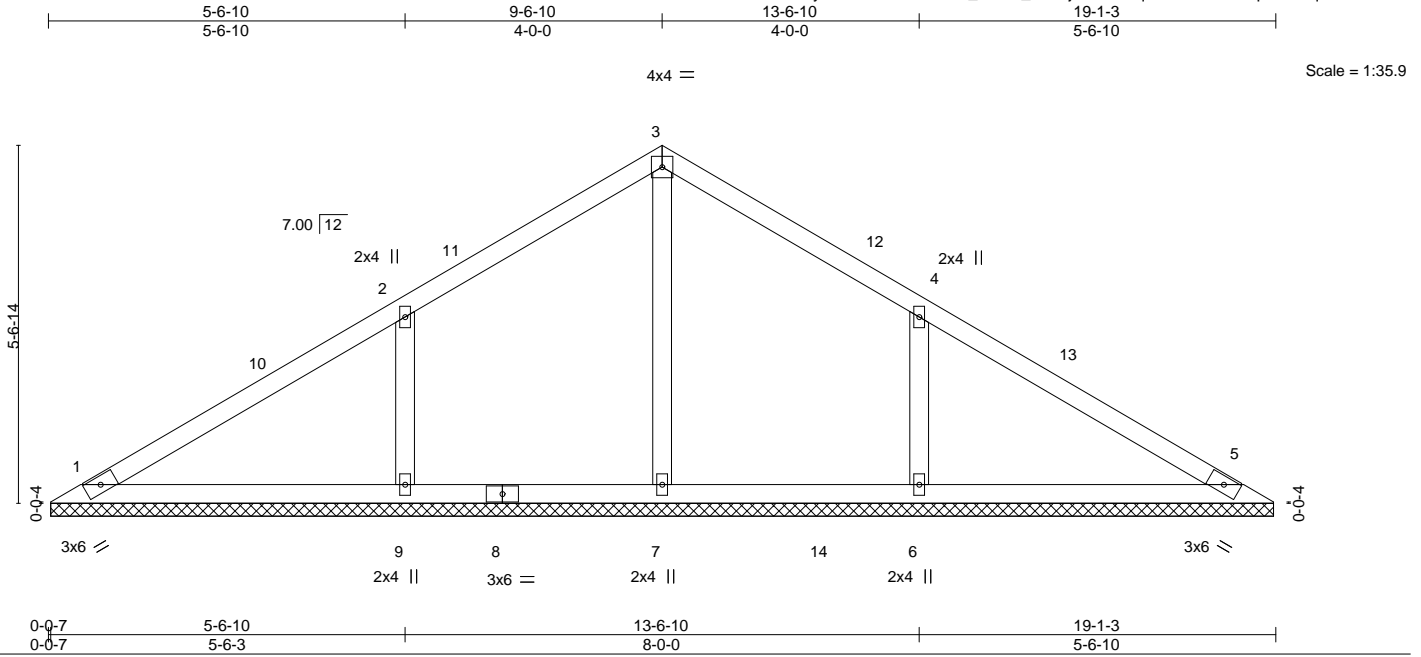
6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168246
2809544	V03	Valley	1	1	Job Reference (optional)	

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

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ID:amOAUkkav?6JdbyPKE2WNezBhuh-ef\_HWaf\_HGGjikEan6HqnRbWIKFcznGp0wTwqezBfto



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S						Weight: 75 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

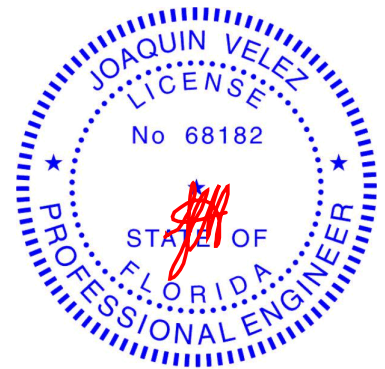
#### REACTIONS.

All bearings 19-0-5.  
(lb) - Max Horz 1=-116(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-178(LC 12), 6=-178(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=297(LC 19), 9=512(LC 19), 6=512(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-9=-308/201, 4-6=-308/200

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 9-6-10, Exterior(2R) 9-6-10 to 12-6-10, Interior(1) 12-6-10 to 18-6-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=178, 6=178.



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

June 2,2021

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



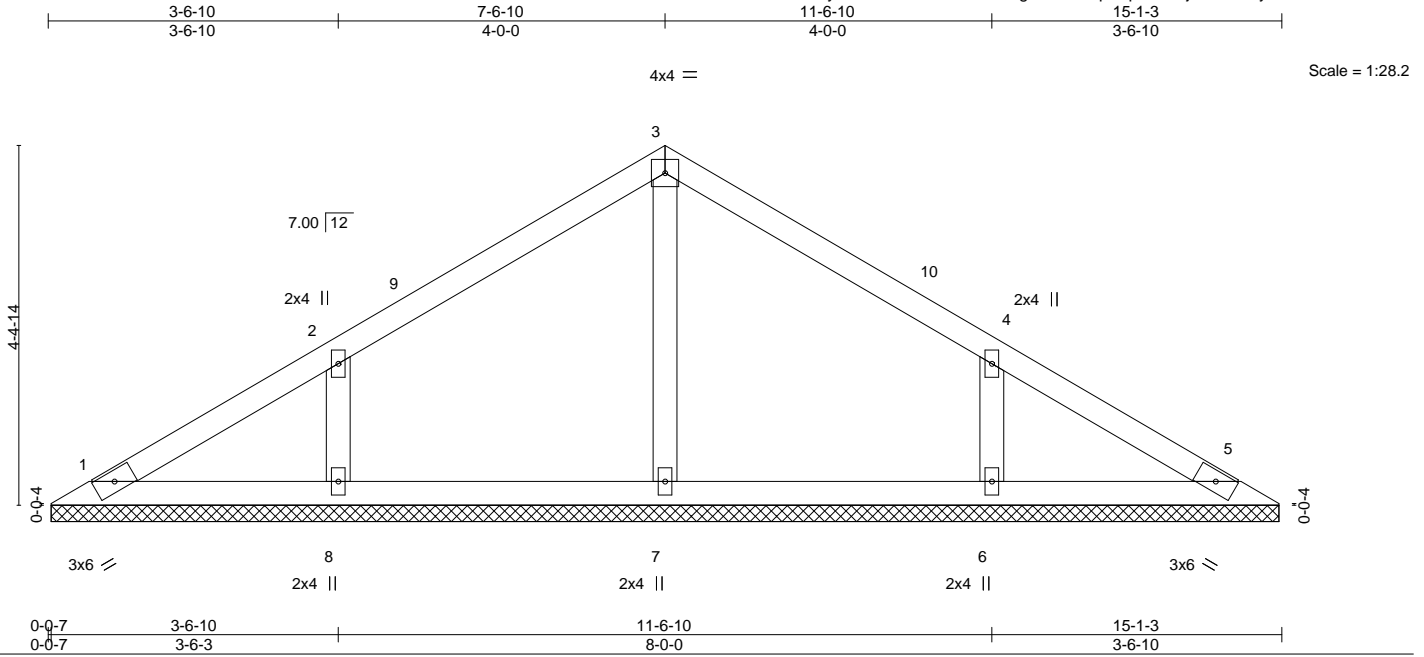
6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168247
2809544	V04	Valley	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:16 2021 Page 1

ID:amOAUkKav?6JdbyPKE2WNzBhuh-6rYfkVgc1ZOaKupnKpo3Ke8jwkcDiFmyFaCUN4zBftn



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 57 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 15-0-5.

(lb) - Max Horz 1=90(LC 8)

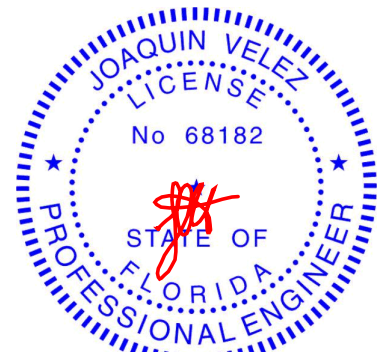
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=136(LC 12), 6=136(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=315(LC 19), 6=315(LC 20)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-10, Interior(1) 3-6-10 to 7-6-10, Exterior(2R) 7-6-10 to 10-6-10, Interior(1) 10-6-10 to 14-6-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=136, 6=136.



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June 2,2021

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

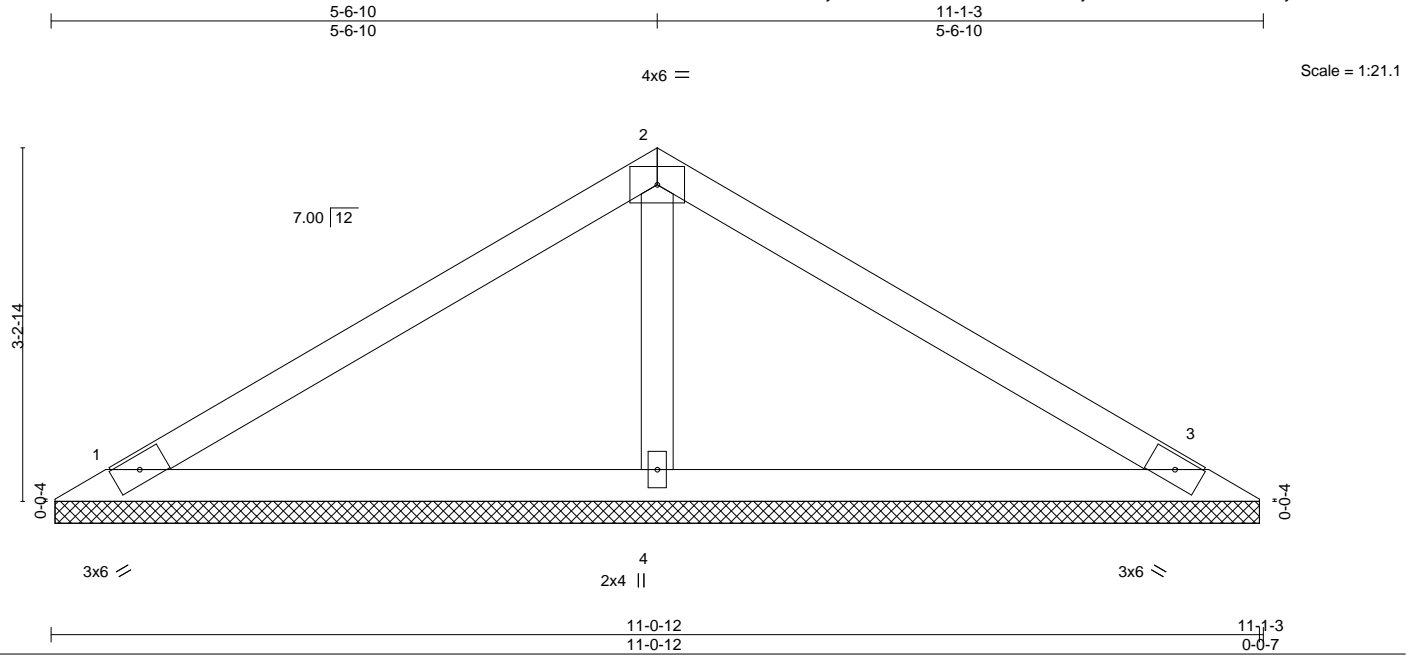


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Job	Truss	Truss Type	Qty	Ply	AMIRA BLDRS. - DELOACH RES.	T24168248
2809544	V05	Valley	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:17 2021 Page 1  
ID:amOAUkKav?6JdbyPKE2WNezBhuh-a151xrhEotWRy2NzuXJltsK7wORi16TEy1vXzBftm



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 38 lb	FT = 20%
	Code FBC2020/TPI2014							

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=11-0-5, 3=11-0-5, 4=11-0-5  
Max Horz 1=-64(LC 8)  
Max Uplift 1=-48(LC 12), 3=-56(LC 13), 4=-55(LC 12)  
Max Grav 1=175(LC 1), 3=175(LC 1), 4=392(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-6-10, Exterior(2R) 5-6-10 to 8-6-10, Interior(1) 8-6-10 to 10-6-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



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June 2,2021

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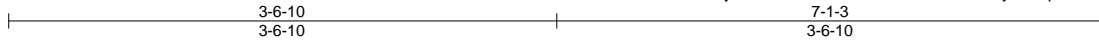


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Tampa, FL 36610

Job 2809544	Truss V06	Truss Type Valley	Qty 1	Ply 1	AMIRA BLDRS. - DELOACH RES. Job Reference (optional)	T24168249
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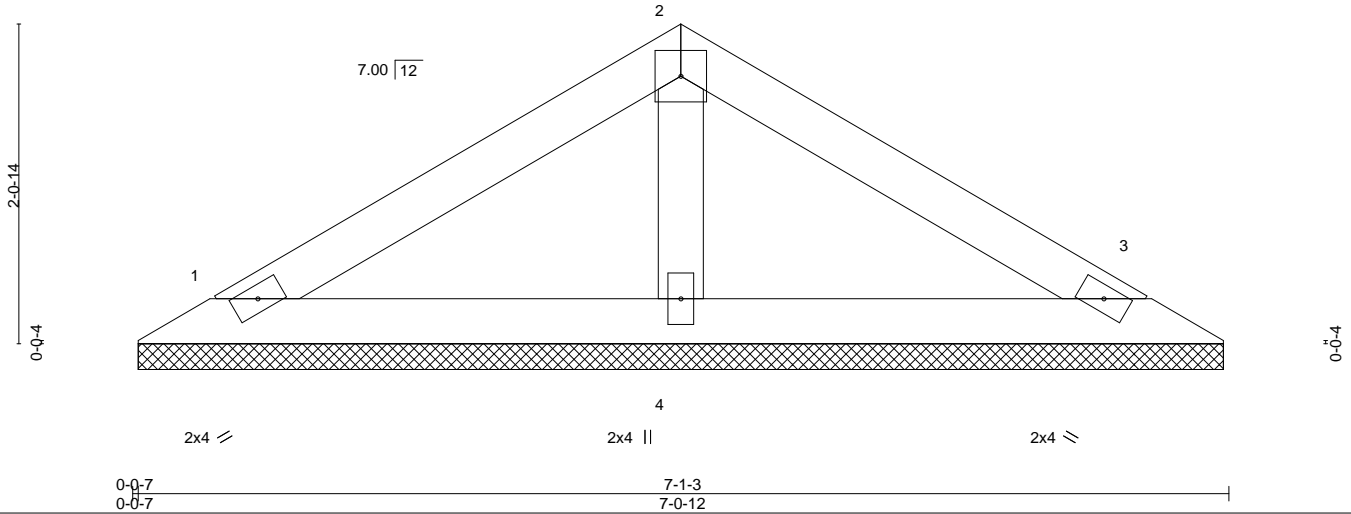
Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:45:18 2021 Page 1  
ID:amOAUkKav?6JdbyPKE2WNezBhuh-2EfQ9BhtZAeHZBy9SEqXP3D4EXI3A9kFiuhaRzzBftl



4x4 =

Scale = 1:14.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 23 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=7-0-5, 3=7-0-5, 4=7-0-5  
Max Horz 1=39(LC 11)  
Max Uplift 1=-29(LC 12), 3=-34(LC 13), 4=-33(LC 12)  
Max Grav 1=105(LC 1), 3=105(LC 1), 4=235(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



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6904 Parke East Blvd.  
Tampa, FL 33610



# Symbols

## PLATE LOCATION AND ORIENTATION



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

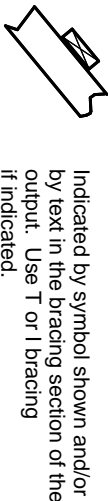
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

## PLATE SIZE

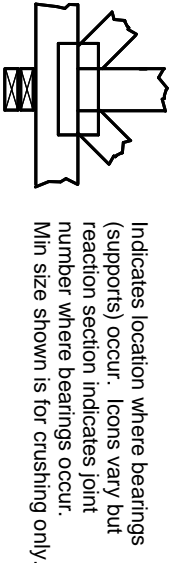
4 X 4

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

## LATERAL BRACING LOCATION



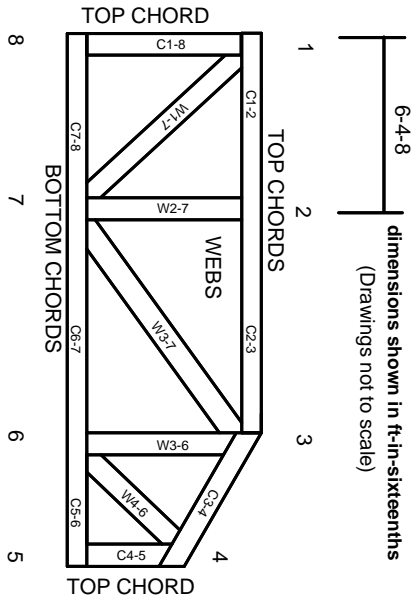
## BEARING



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

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

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

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

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

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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