



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

RE: 2718981 - DETAILS

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

Site Information:

Customer Info: DETAILS Project Name: N/A Model: N/A
Lot/Block: N/A Subdivision: N/A
Address: N/A, N/A
City: N/A State: N/A

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

Name: License #:
Address: State:
City: State:

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

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

This package includes 20 individual, General Truss Details 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.

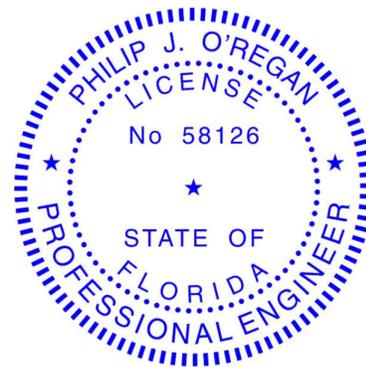
No.	Seal#	Detail Name	Date	No.	Seal#	Detail Name	Date
1	T23399806	MII-REP10	4/2/21	15	T23399820	MII-VALLEY HIGH WIND2	4/2/21
2	T23399807	MII-T-BRACE 2	4/2/21	16	T23399821	MII-VALLEY SP	4/2/21
3	T23399808	MII-SCAB-BRACE	4/2/21	17	T23399822	MII-VALLEY SP	4/2/21
4	T23399809	MII-REP05	4/2/21	18	T23399823	MII-GE146-001	4/2/21
5	T23399810	MII-GE130-D-SP	4/2/21	19	T23399824	MII-REP13B	4/2/21
6	T23399811	MII-GE130-SP	4/2/21	20	T23399825	MII-STRGBCK	4/2/21
7	T23399812	MII-GE140-001	4/2/21				
8	T23399813	MII-GE170-D-SP	4/2/21				
9	T23399814	MII-GE180-D-SP	4/2/21				
10	T23399815	MII-GE180-D-SP	4/2/21				
11	T23399816	MII-PIGGY-ALT-7-16	4/2/21				
12	T23399817	MII-REP01A1	4/2/21				
13	T23399818	MII-TOENAIL_SP	4/2/21				
14	T23399819	MII-VALLEY HIGH WIND1	4/2/21				



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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.

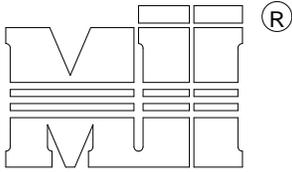
Truss Design Engineer's Name: ORegan, Philip
My license renewal date for the state of Florida is February 28, 2023.



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Date:

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.

April 2,2021



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MAIN TRUSS MANUFACTURED WITHOUT
FALSE BOTTOM CHORD.

MAIN TRUSS (SPACING = 24" O.C.)

REFER TO THE BOTTOM CHORD BRACING SECTION OF
THE INDIVIDUAL TRUSS DESIGN FOR MAXIMUM SPACING
OF CONTINUOUS LATERAL BRACING WHENEVER RIGID
CEILING MATERIAL IS NOT DIRECTLY ATTACHED TO THE
BOTTOM CHORD.

VERTICAL STUDS @ 48" O.C.. ATTACHED
WITH (3) - 10d (0.131" X 3") NAILS AT
EACH END OF VERTICAL (TYP.).

VERTICAL STUDS TO BE 2 x 4 STUD GRADE
(OR BETTER) SPF, HF, DF OR SP.
(BOARD SIZE SPECIFIED IS MINIMUM,
LARGER SIZE MAY BE USED)

2 x 4 NO. 2 (OR BETTER) SPF, HF,
DF OR SP FALSE BOTTOM CHORD
(BOARD SIZE SPECIFIED IS MINIMUM,
LARGER SIZE MAY BE USED)

FALSE BOTTOM

TRUSS SPAN

NOTES:

1. LOADING: TOP CHORD: (REFER TO THE MAIN TRUSS DESIGN FOR TOP CHORD LOADING).
BOTTOM CHORD: LL = 0 PSF, DL = 10 PSF.
2. REFER TO THE MAIN TRUSS DESIGN FOR LUMBER AND PLATING REQUIREMENTS.
3. MAXIMUM BOTTOM CHORD PITCH = 6/12.
4. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
5. FALSE BOTTOM CHORD ONLY DESIGNED TO CARRY VERTICAL LOAD. NO LATERAL (SHEAR) LOAD ALLOWED.
6. FILLER MAY EXTEND FOR FULL LENGTH OF TRUSS.

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

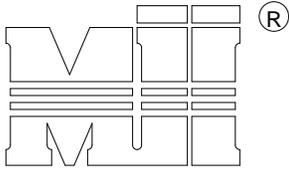
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



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

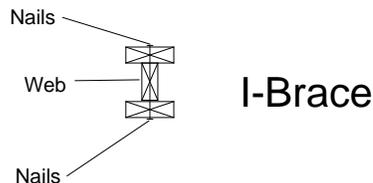
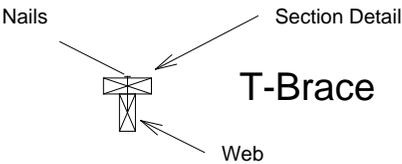
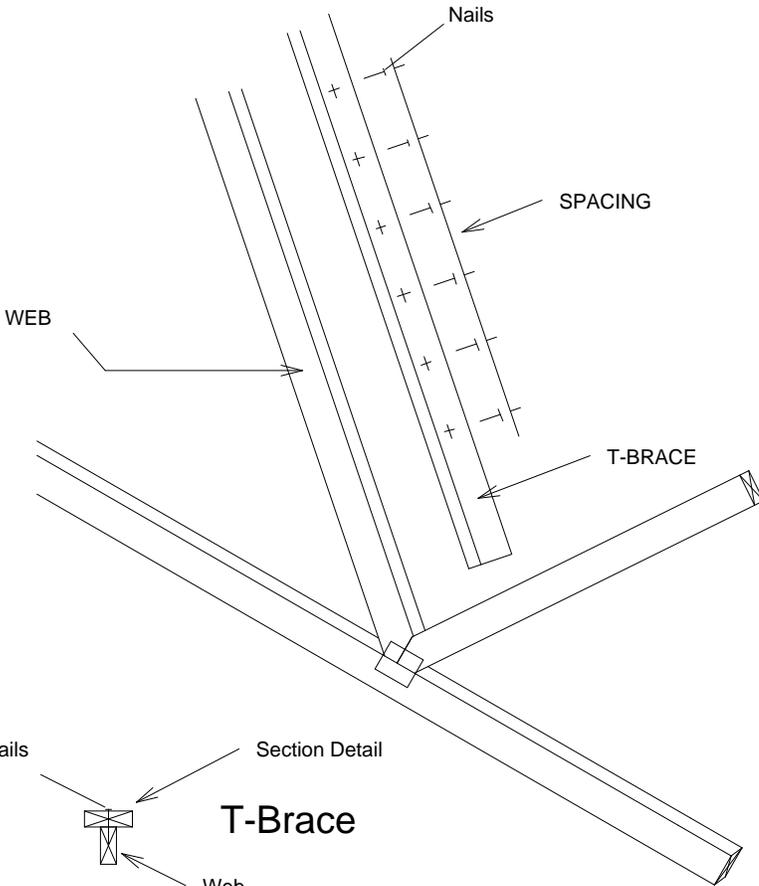
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

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)		

Web Size	Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
	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

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

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



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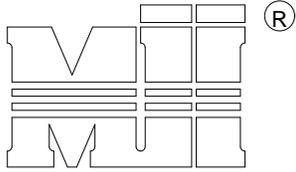
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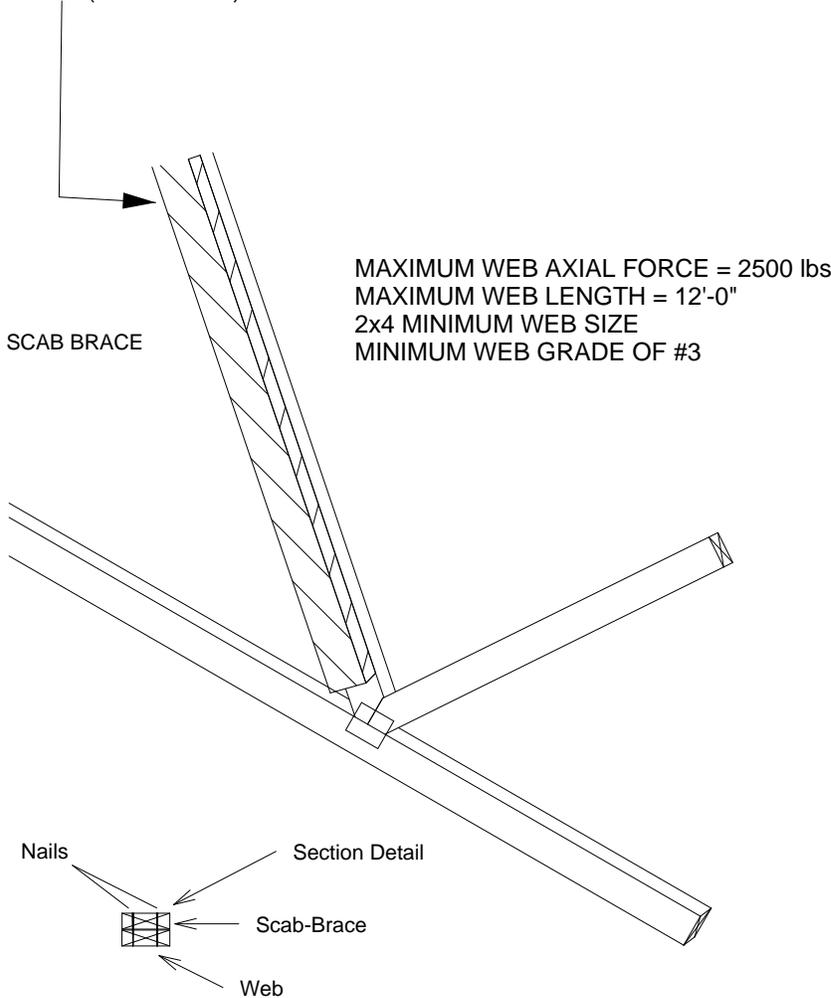


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Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** 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.

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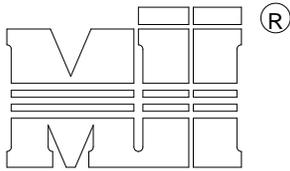
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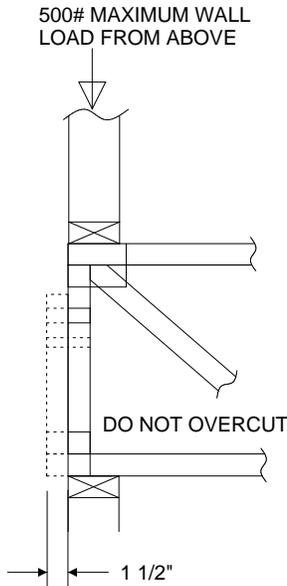


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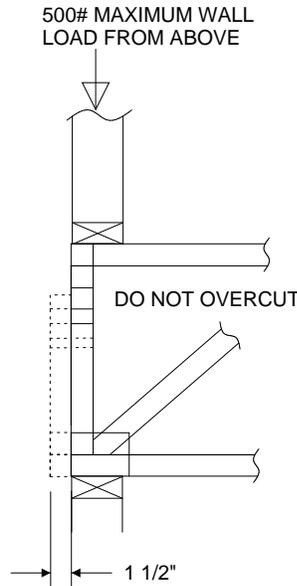


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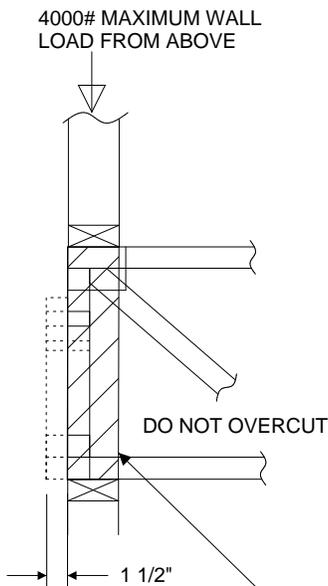
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS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



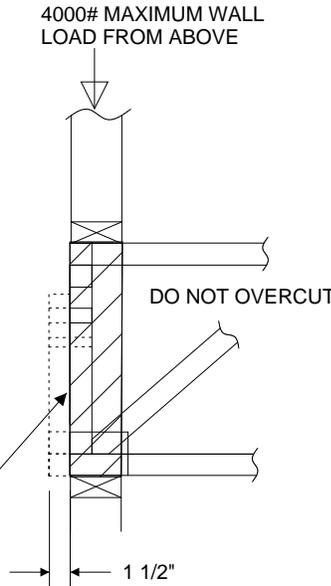
REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



TRUSSES BUILT WITH 4x2 MEMBERS



REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



TRUSSES BUILT WITH 4x2 MEMBERS

ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY) TO BOTH SIDES OF THE TRUSS AS SHOWN WITH 10d (0.131" X 3") NAILS SPACED 3" O.C.

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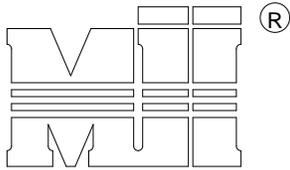
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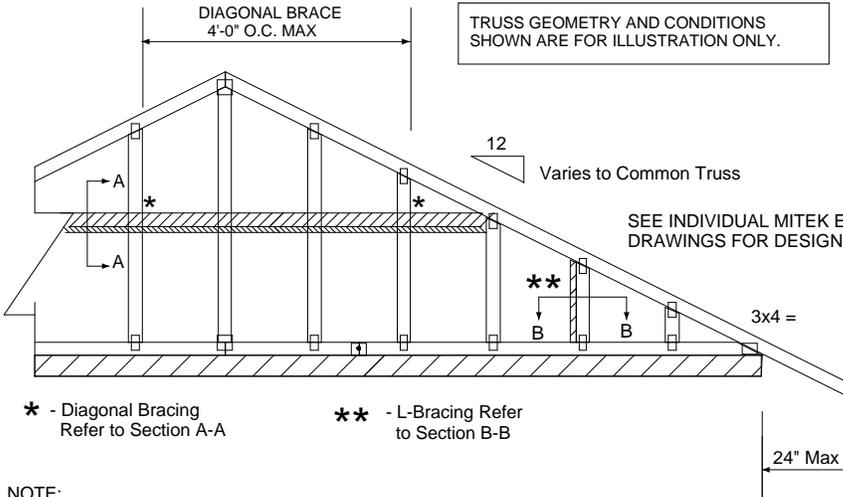
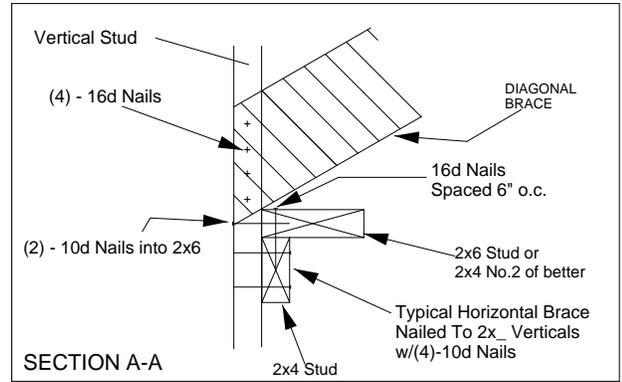
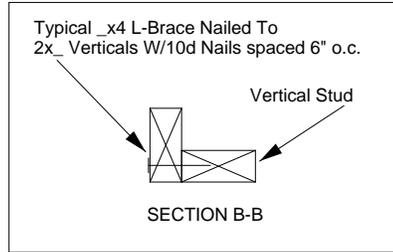
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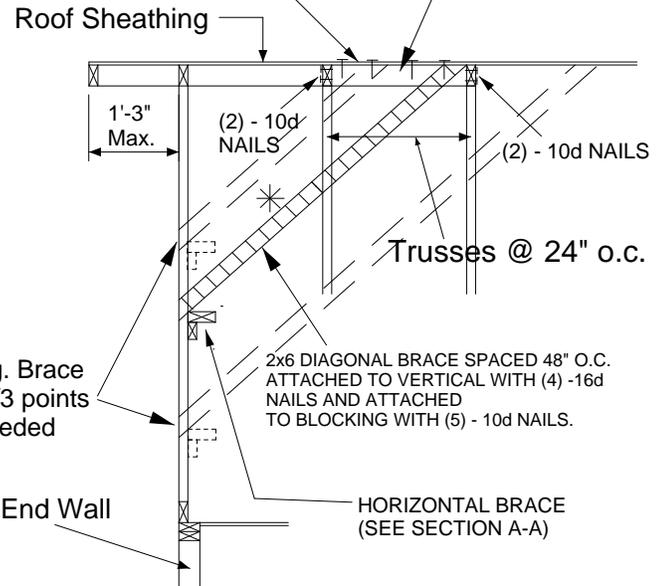


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PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

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



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

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

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

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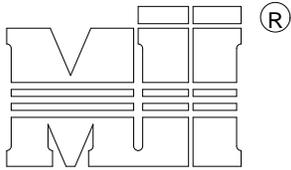
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE D
ASCE 7-98, ASCE 7-02, ASCE 7-05, 130 MPH
ASCE 7-10, ASCE 7-16, 160 MPH
DURATION OF LOAD INCREASE

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

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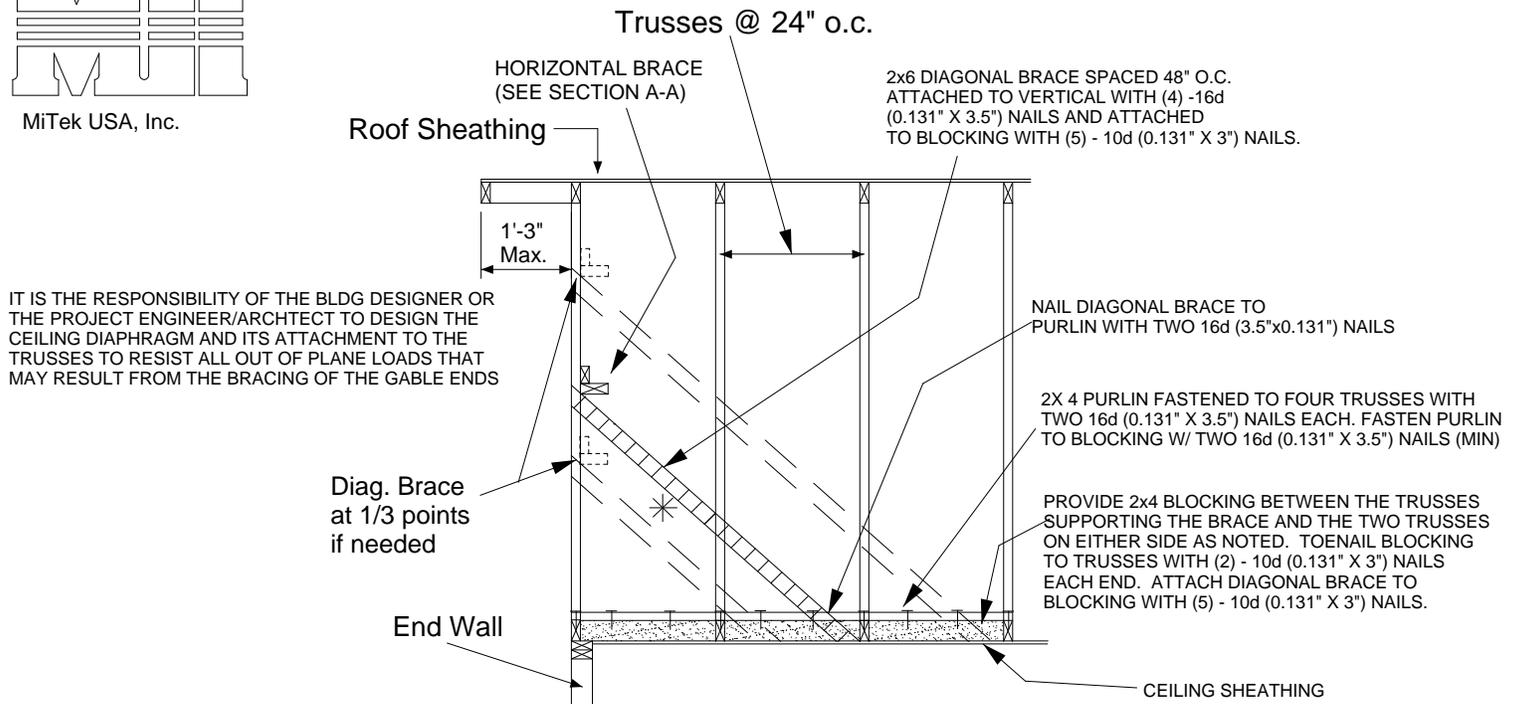


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

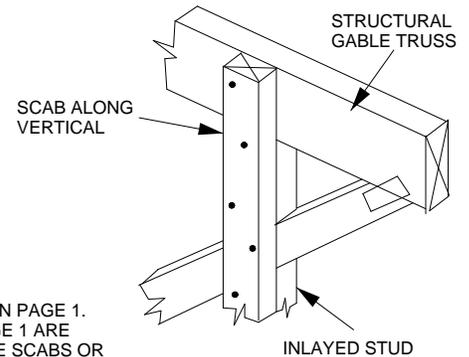
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

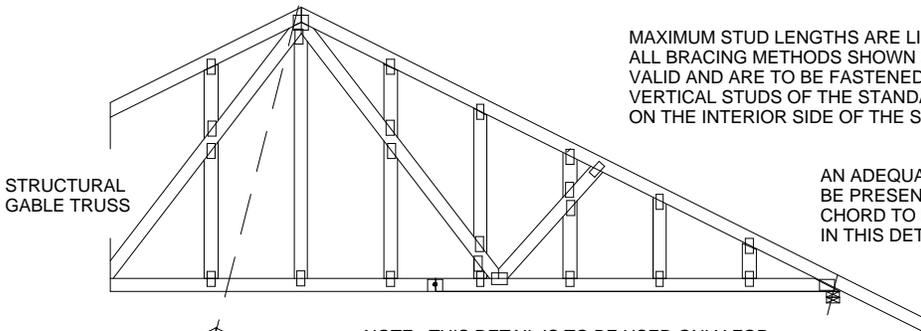
METHOD 2 : ATTACH 2X 4 SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

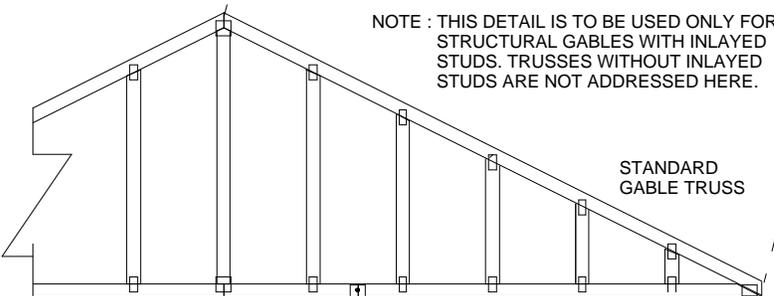
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.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



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



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



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

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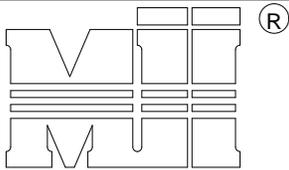
April 2,2021

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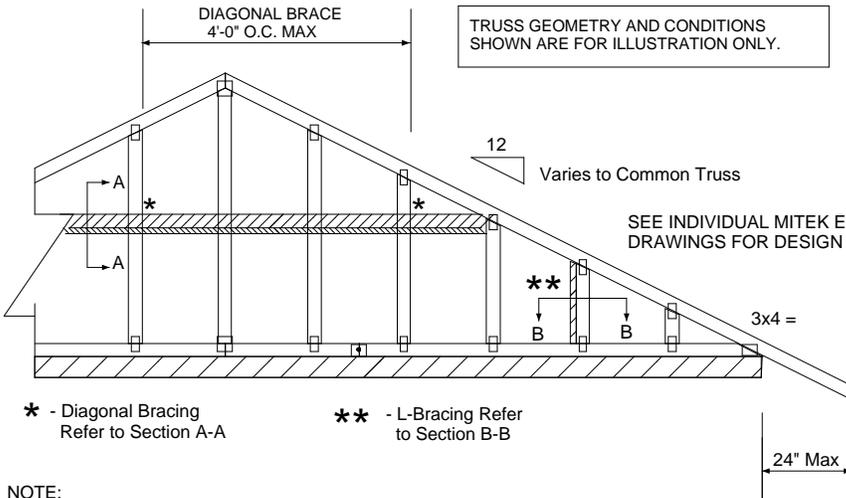
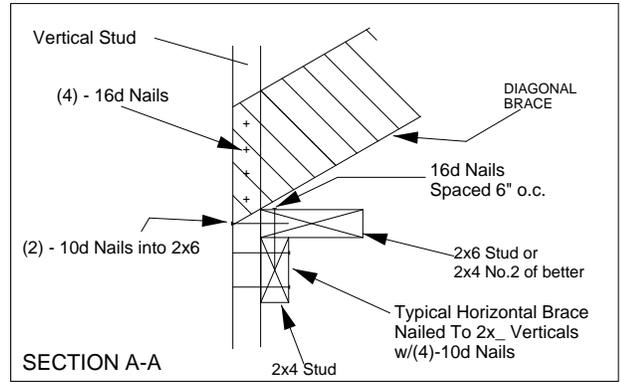
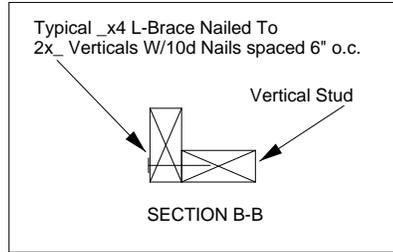
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANSIT/P11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Tampa, FL 36610



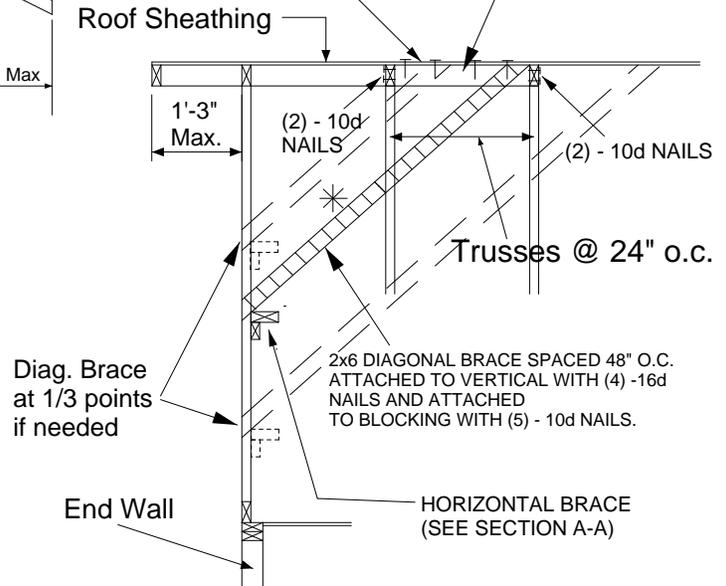
MiTek USA, Inc.



- 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



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.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

April 2, 2021

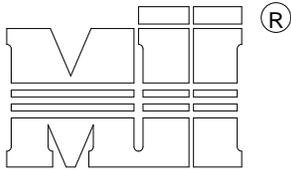
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05, 130 MPH
ASCE 7-10, ASCE 7-16, 160 MPH
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MVFRS. rev. 5/19/2020 BEFORE USE.

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

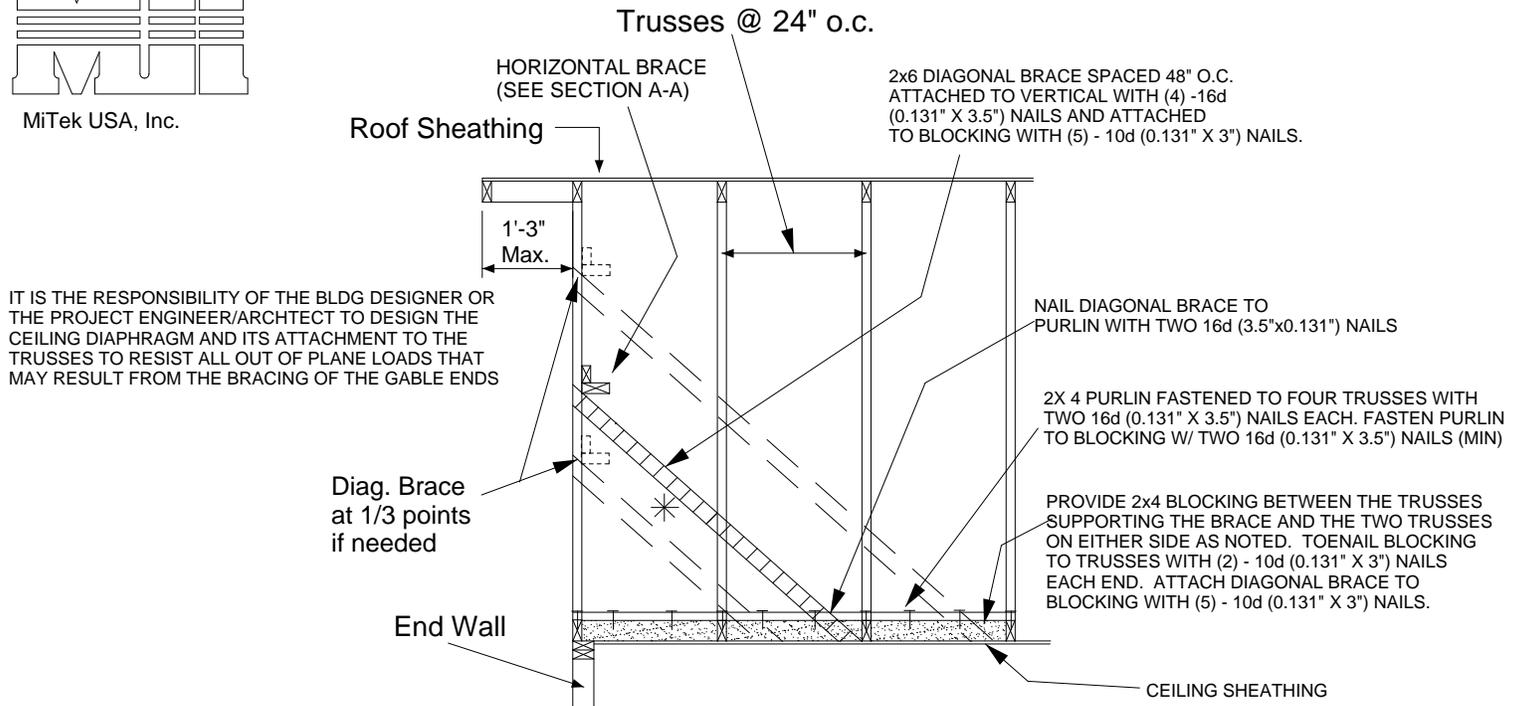


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



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

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

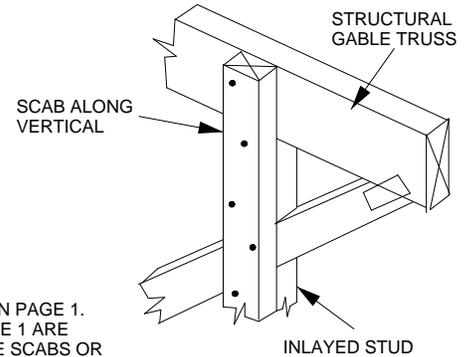
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

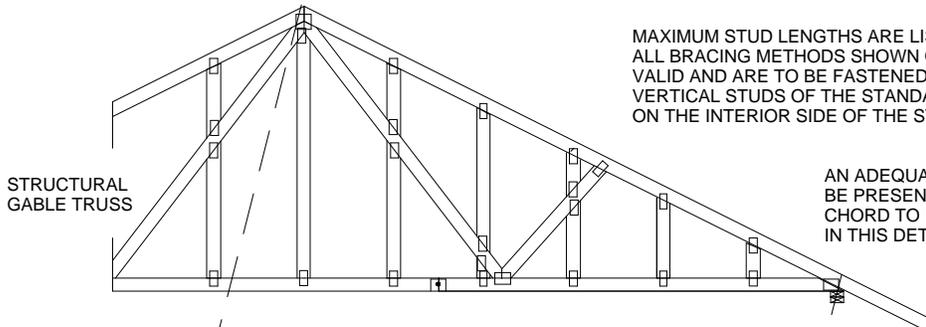
METHOD 2 : ATTACH 2X _ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

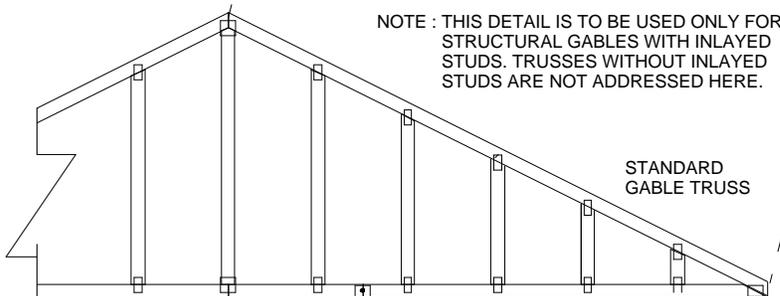
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.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



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



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



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

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April 2,2021

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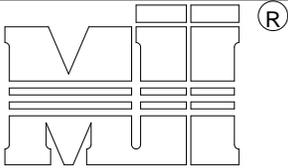
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

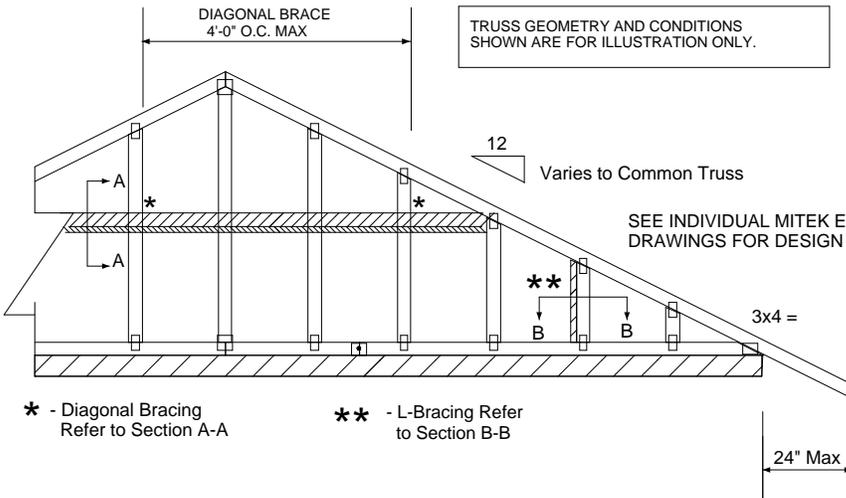
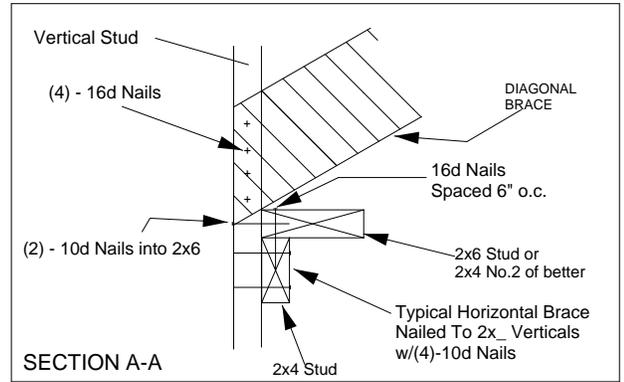
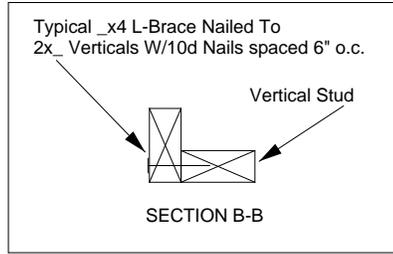
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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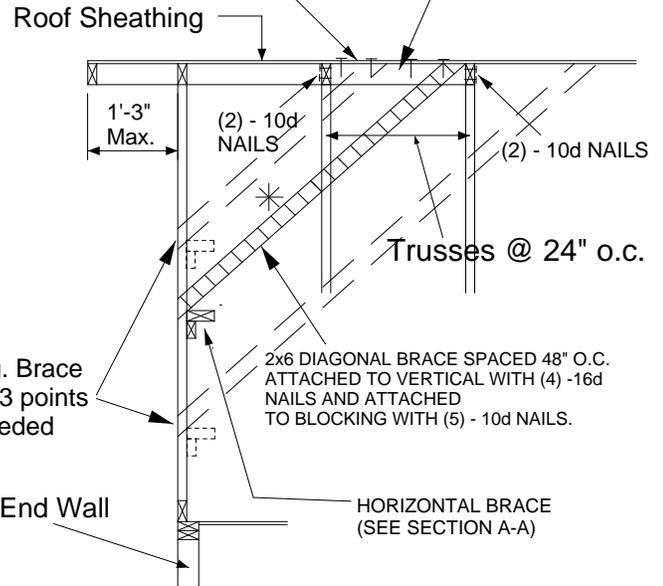


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

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

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



* - 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. 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
			Maximum Stud Length			
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.

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Date:

April 2,2021

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 READ CONNECTION OF BRACINGS IS BASED ON MWFRS 173 rev. 5/19/2020 BEFORE USE.

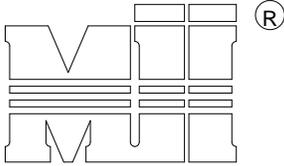
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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

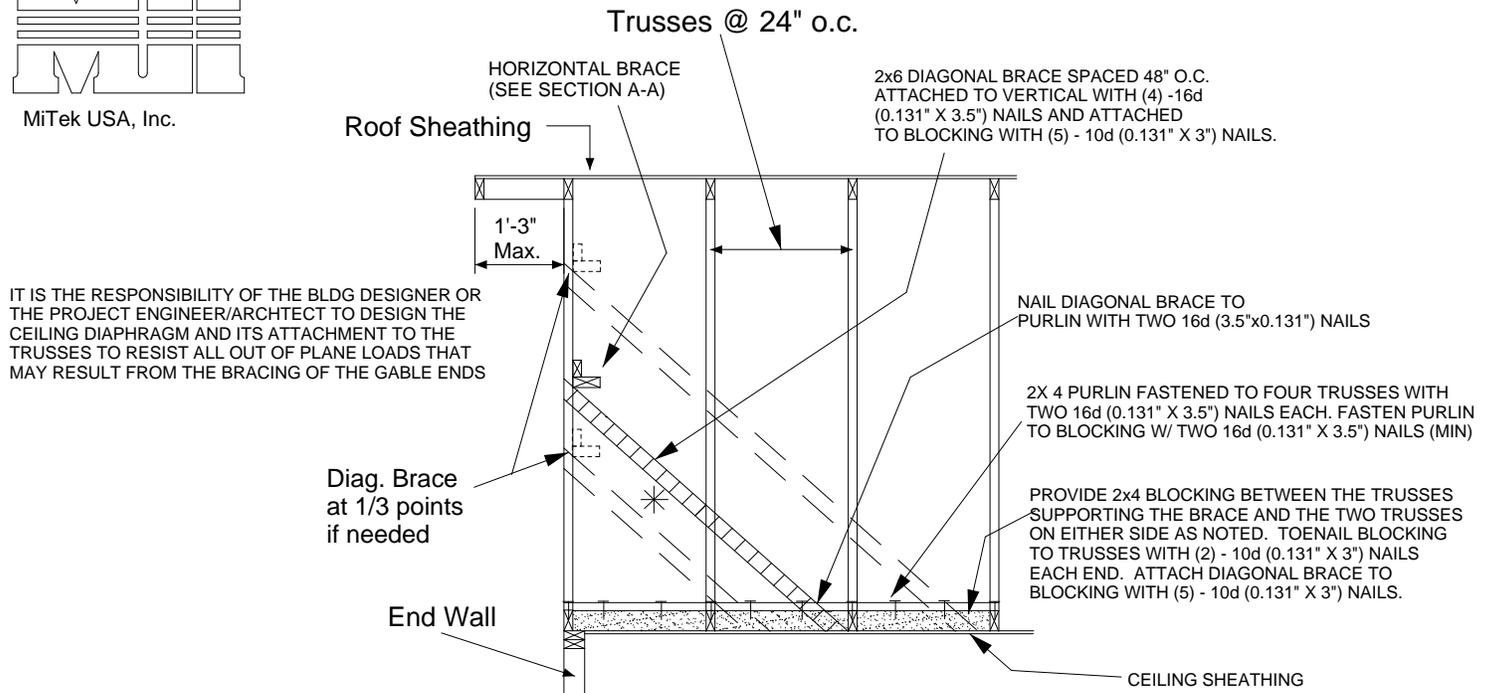


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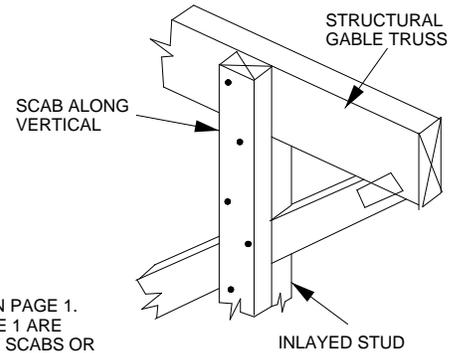
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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD

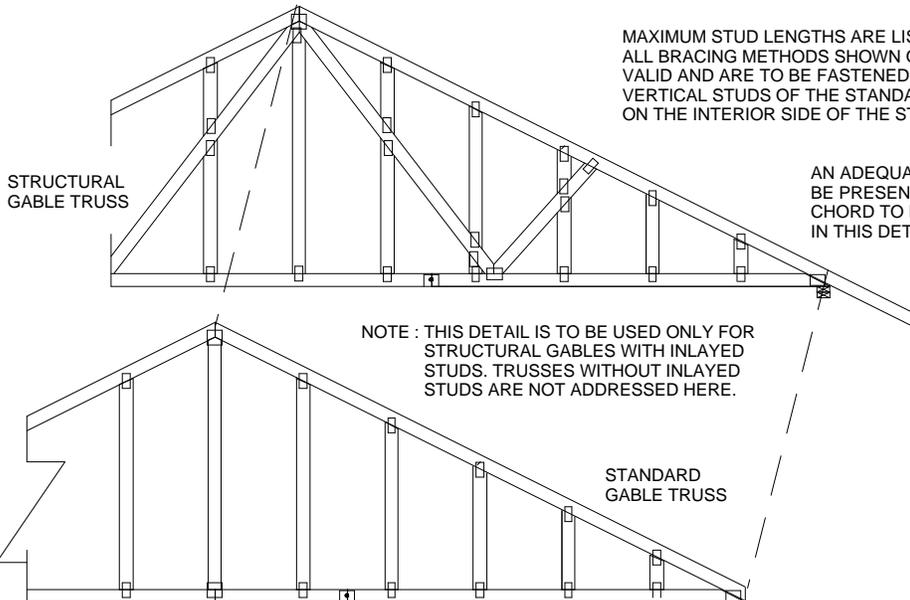


BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

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



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



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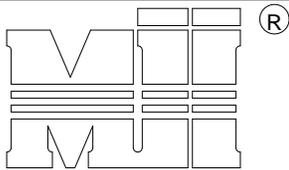
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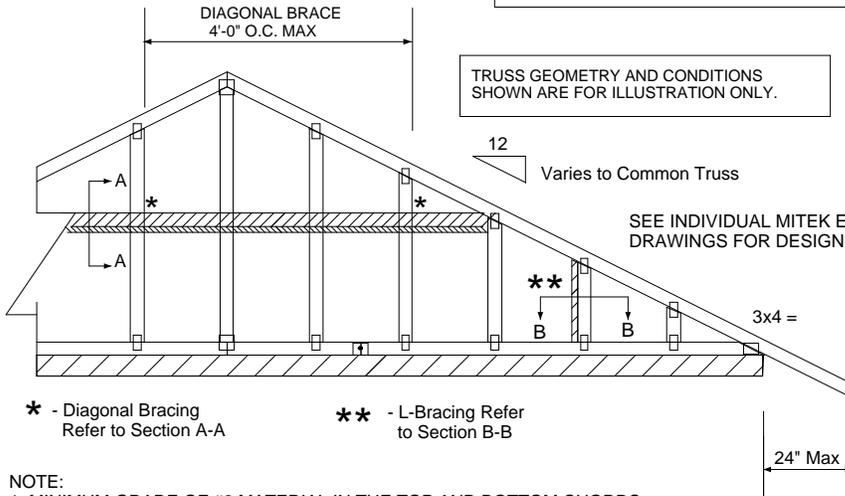
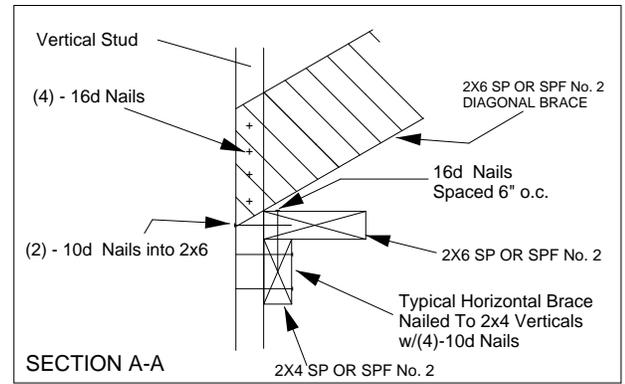
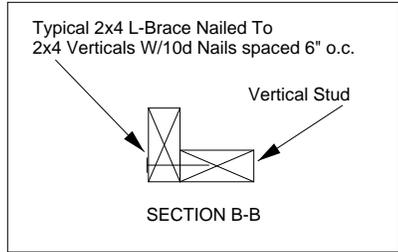
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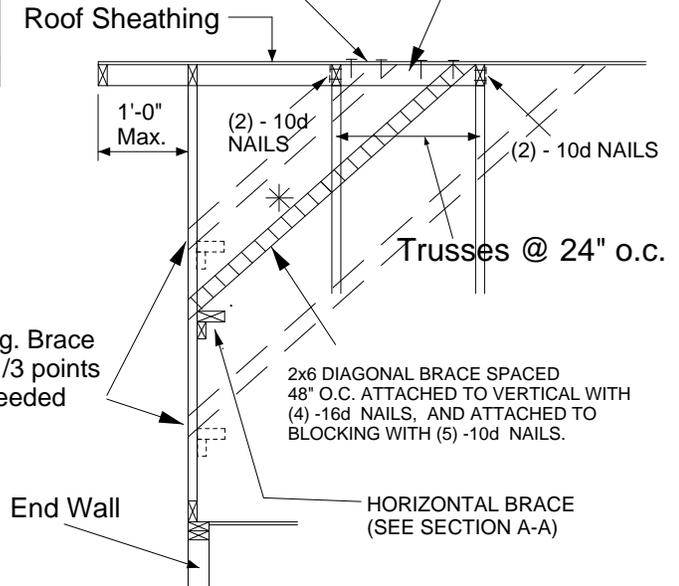


NOTE:

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")

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

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



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
					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.

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Date:

April 2,2021

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D

ASCE 7-10, ASCE 7-16 170 MPH

DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

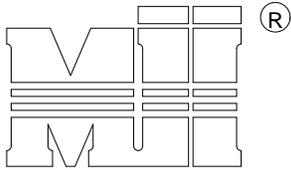
CONNECTION OF BRACING IS BASED ON MWFRS.

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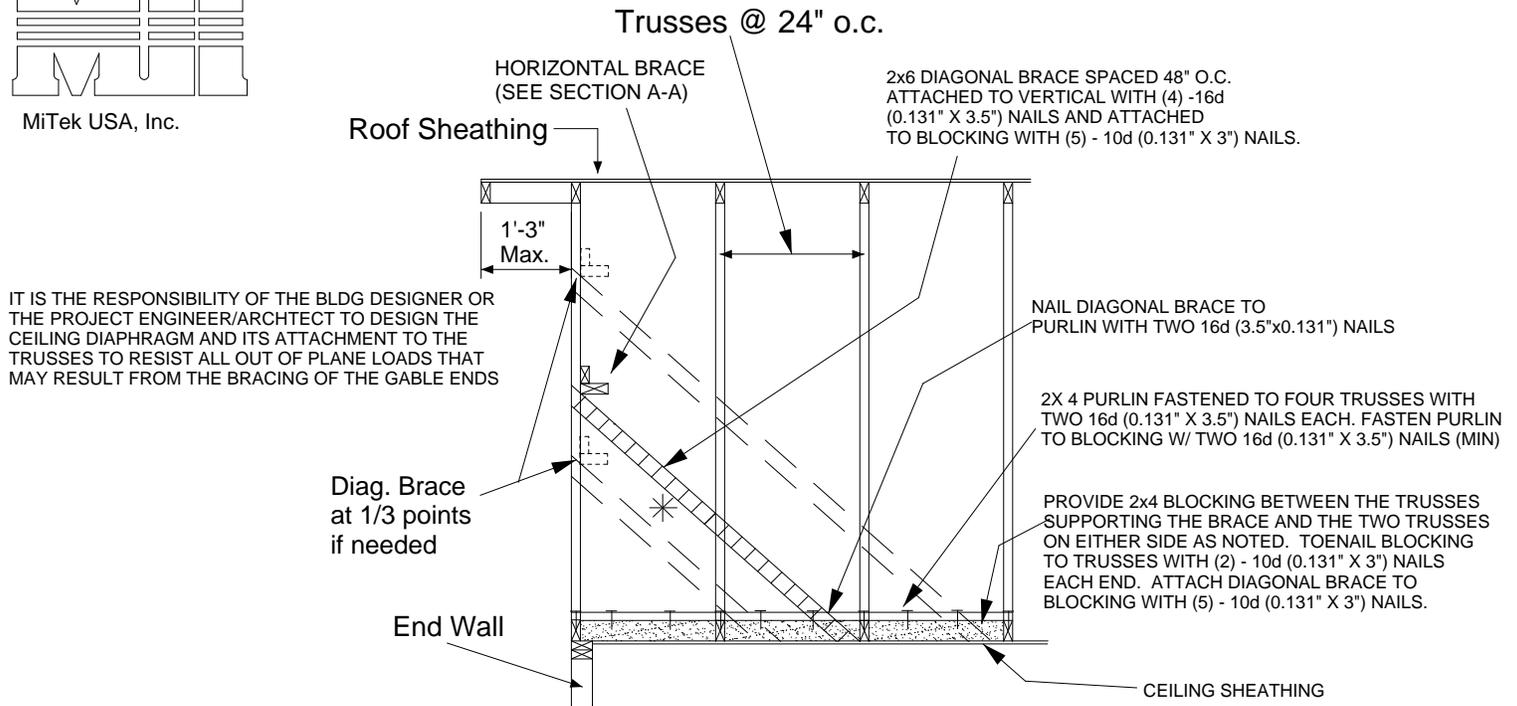


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

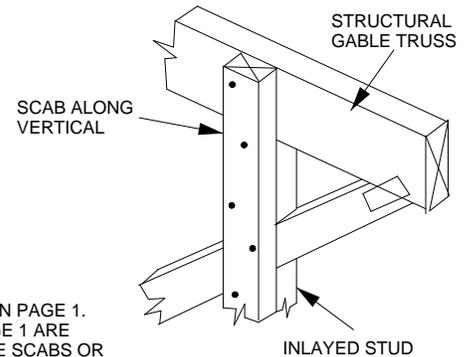
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

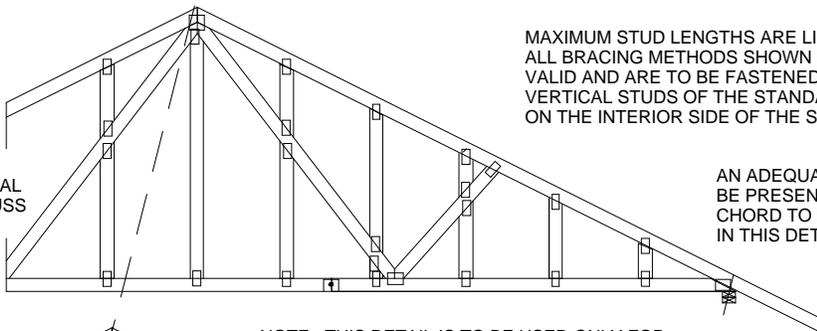
NAILING SCHEDULE:

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



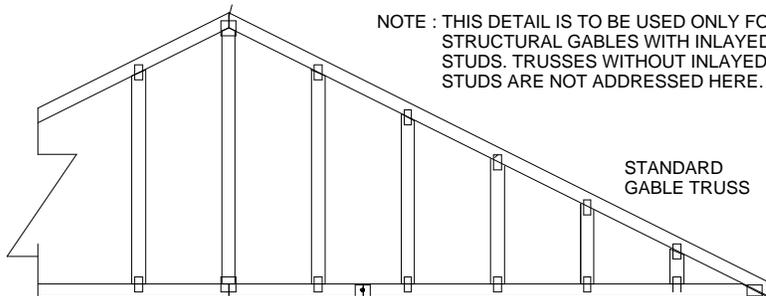
MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS



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

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



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

April 2,2021

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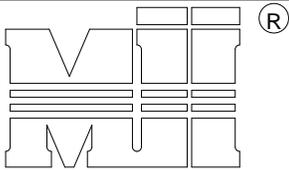
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

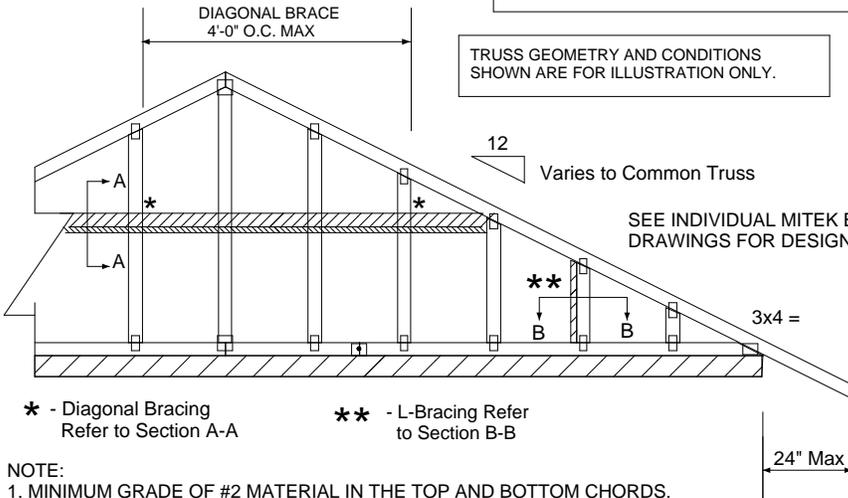
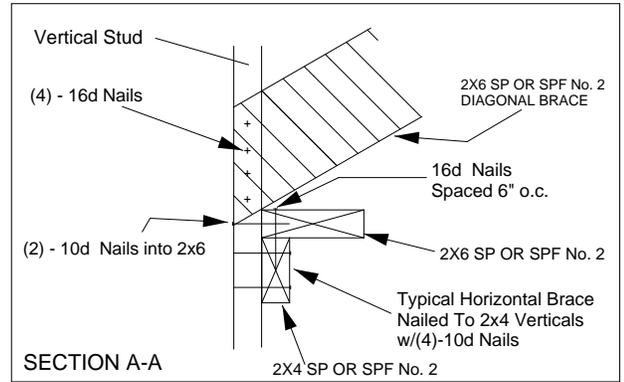
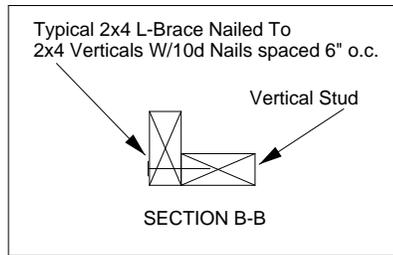
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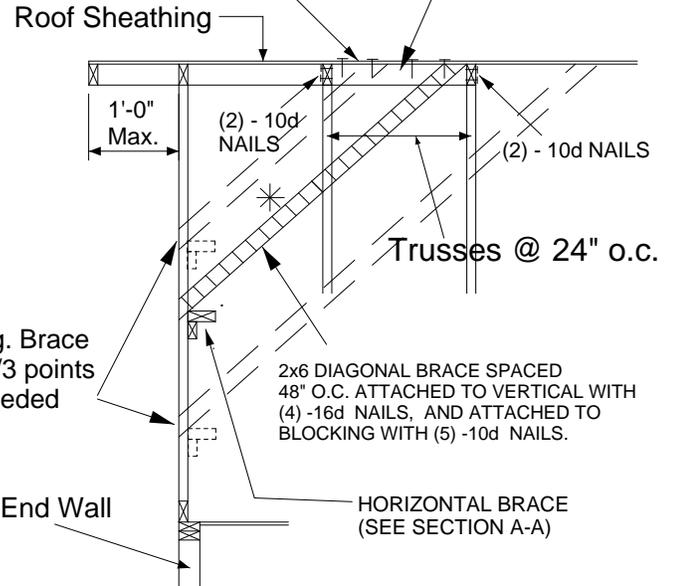


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PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(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, 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.

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MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D

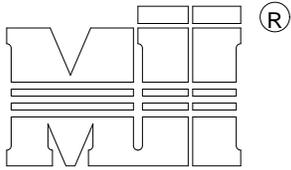
ASCE 7-10, ASCE 7-16 180 MPH
DURATION OF LOAD INCREASE : 1.60

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

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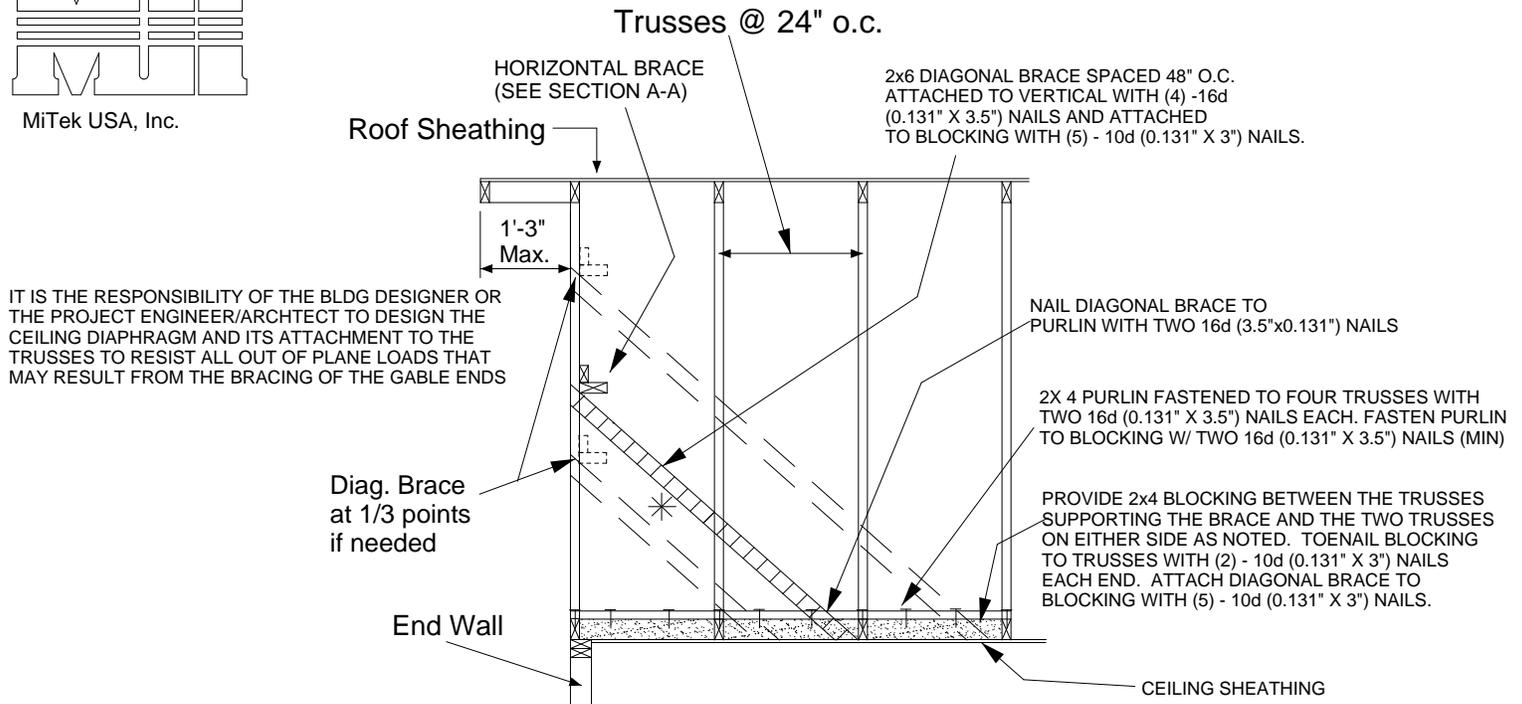


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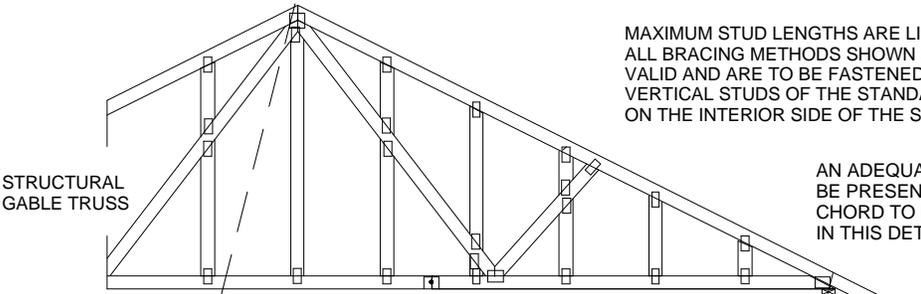
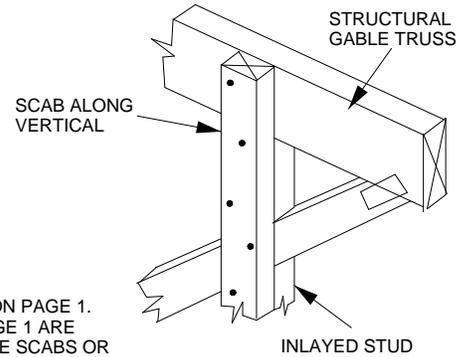
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

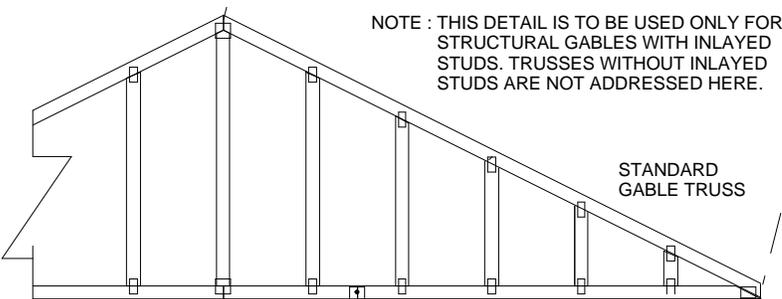
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NAILING SCHEDULE:
 - FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
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NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAYS STUDS. TRUSSES WITHOUT INLAYS STUDS ARE NOT ADDRESSED HERE.

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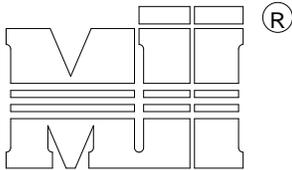
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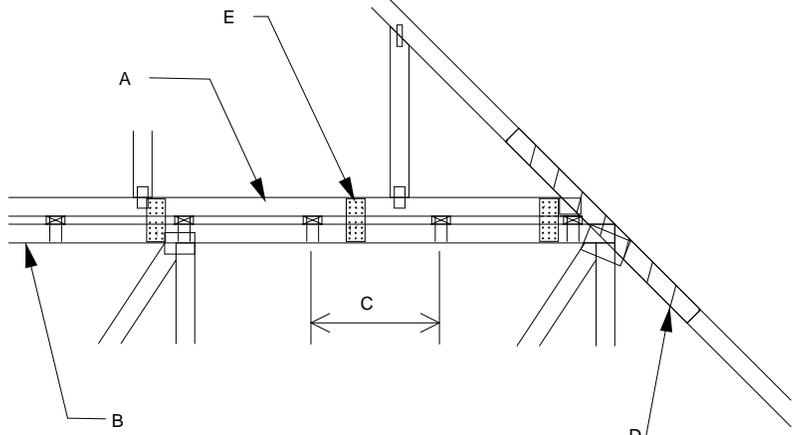


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MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24" O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ENCLOSED BUILDING
 LOADING = 5 PSF TCDL
 ASCE 7-10, ASCE 7-16
 DURATION OF LOAD INCREASE : 1.60

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

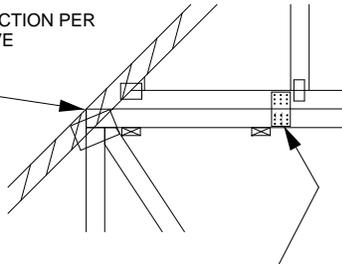
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X ___ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
 - 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 - 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 116 AND 180 MPH, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" NAIL EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



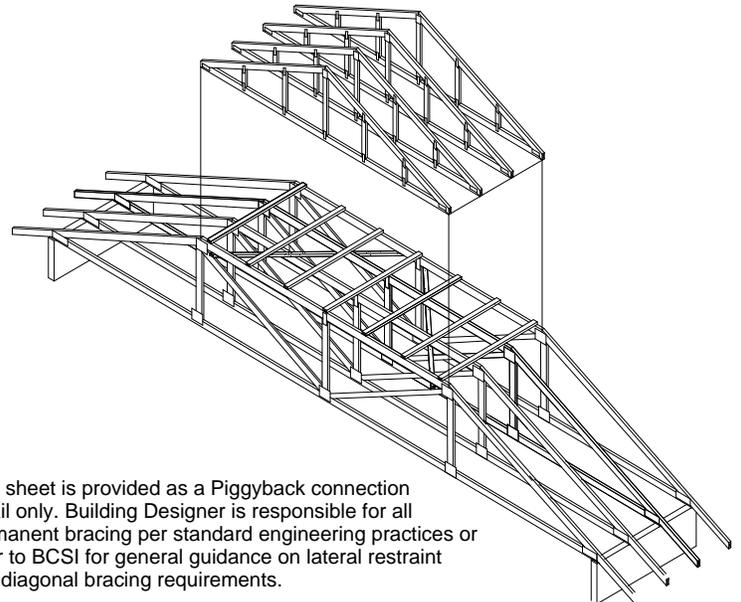
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

SCAB CONNECTION PER NOTE D ABOVE

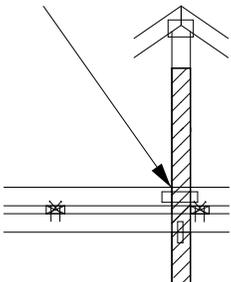


FOR ALL WIND SPEEDS, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" NAIL EDGE DISTANCE.



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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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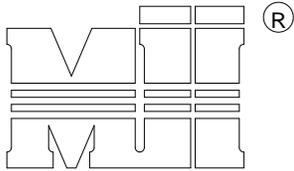
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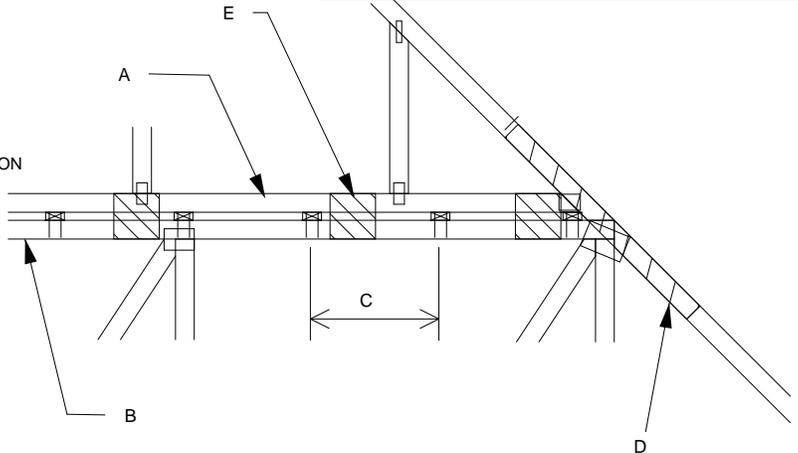


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MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24" O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ENCLOSED BUILDING
 LOADING = 5 PSF TC DL MINIMUM
 ASCE 7-10, ASCE 7-16
 DURATION OF LOAD INCREASE : 1.60

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

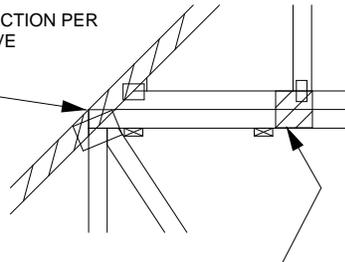
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- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X ___ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
 - 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 - 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 116 MPH - 180 MPH ADD 9' x 9' x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



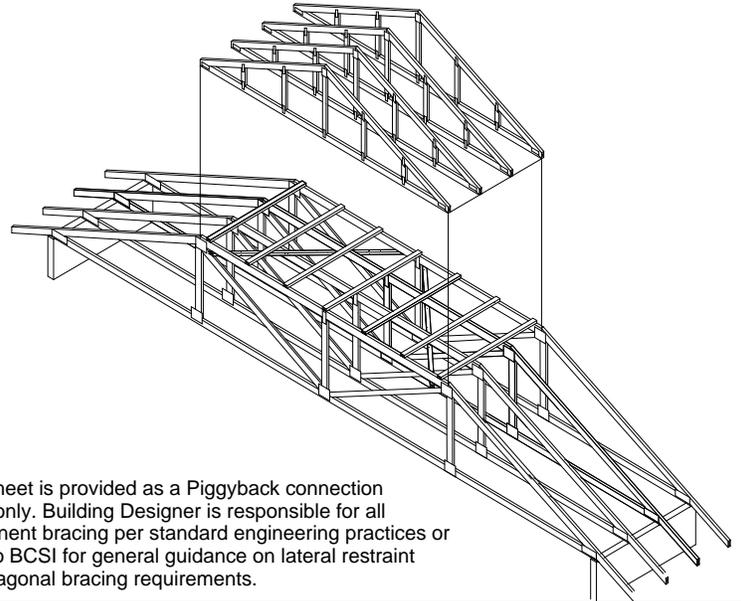
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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SCAB CONNECTION PER NOTE D ABOVE

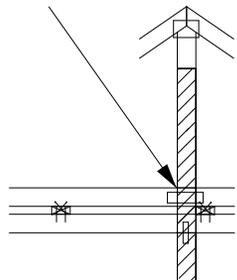


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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

April 2, 2021

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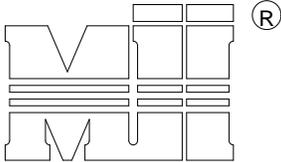
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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 Tampa, FL 33610



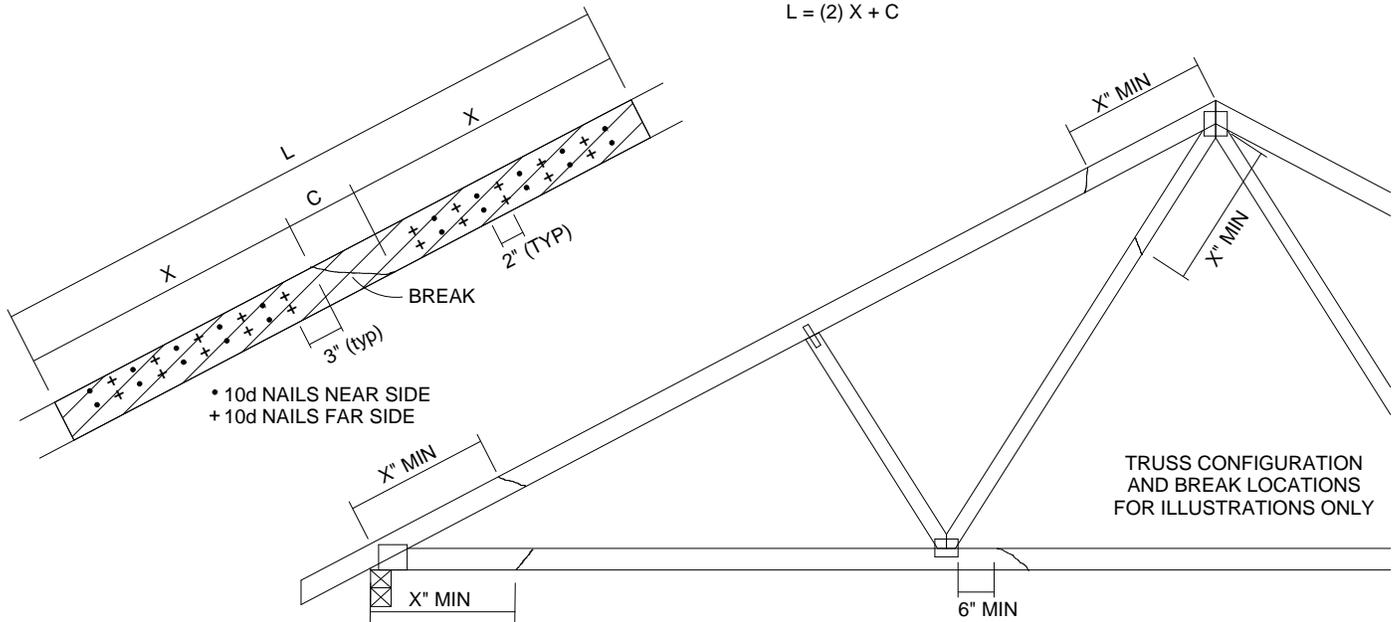
MiTek USA, Inc.

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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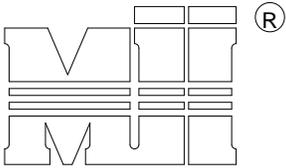
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Tampa, FL 36610



MiTek USA, Inc.

NOTES:

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

THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2018 (lb/nail)

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

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

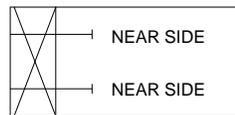
EXAMPLE:

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

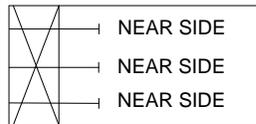
For load duration increase of 1.15:

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

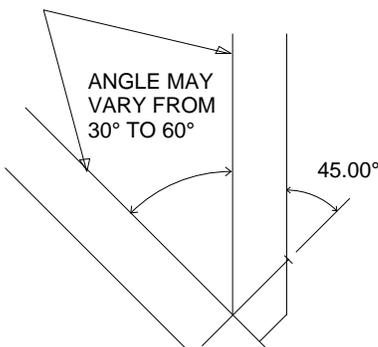
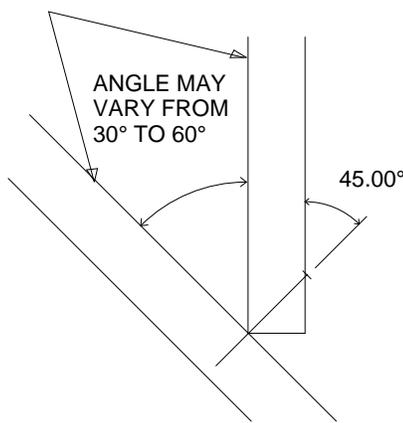
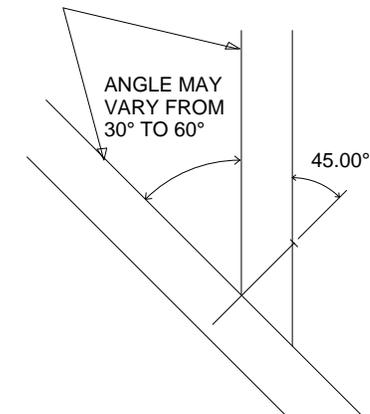
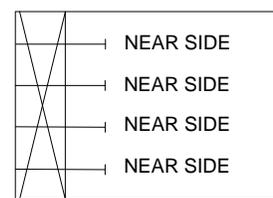
SIDE VIEW
(2x3)
2 NAILS



SIDE VIEW
(2x4)
3 NAILS



SIDE VIEW
(2x6)
4 NAILS



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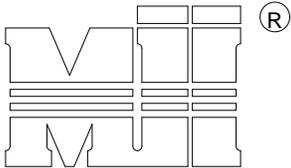
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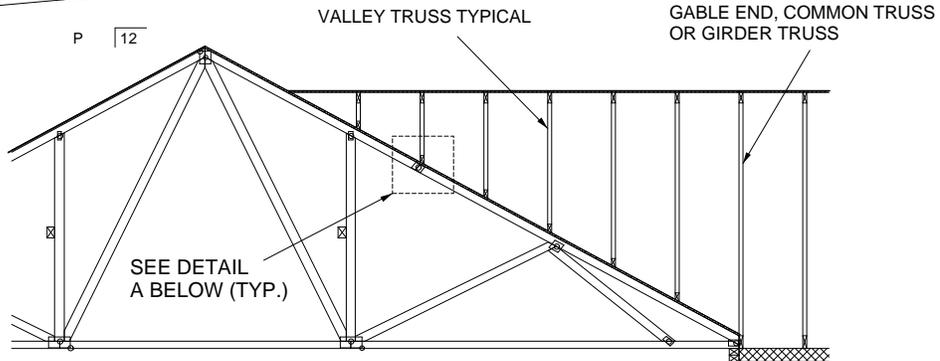
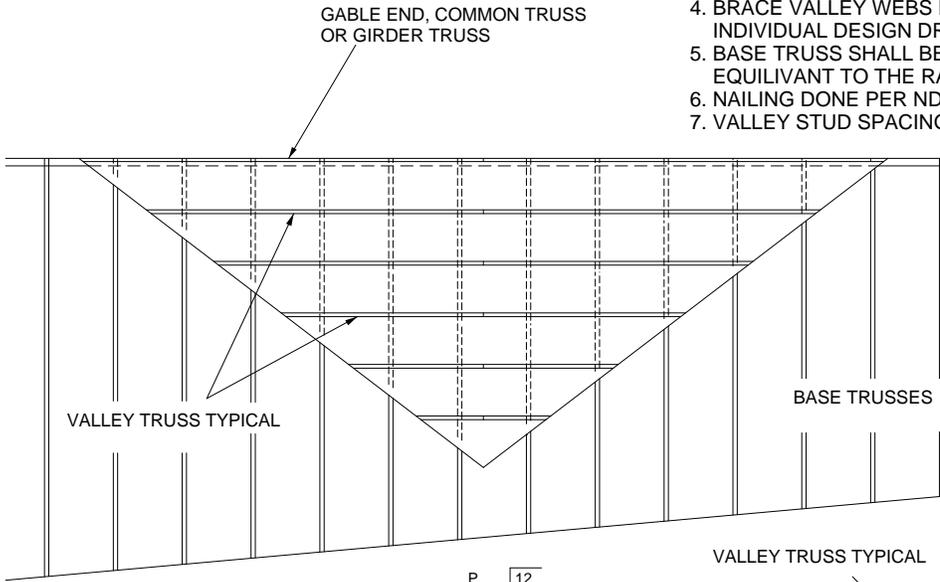
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Tampa, FL 36610



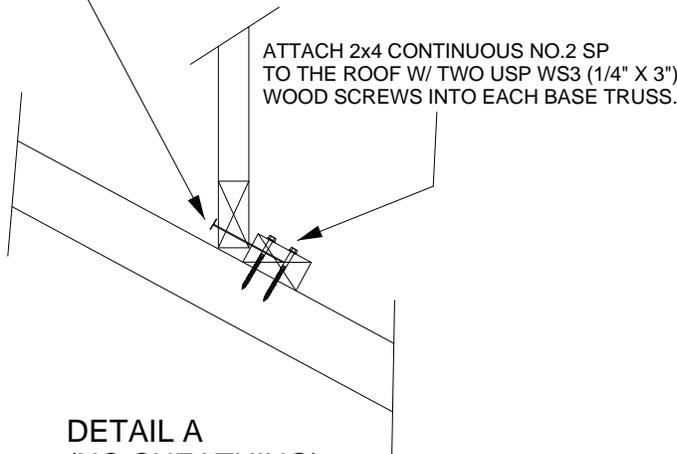
MiTek USA, Inc.

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

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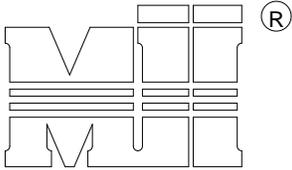
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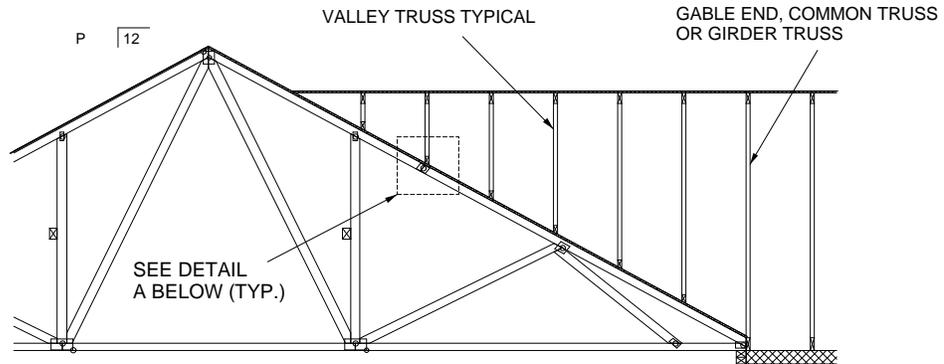
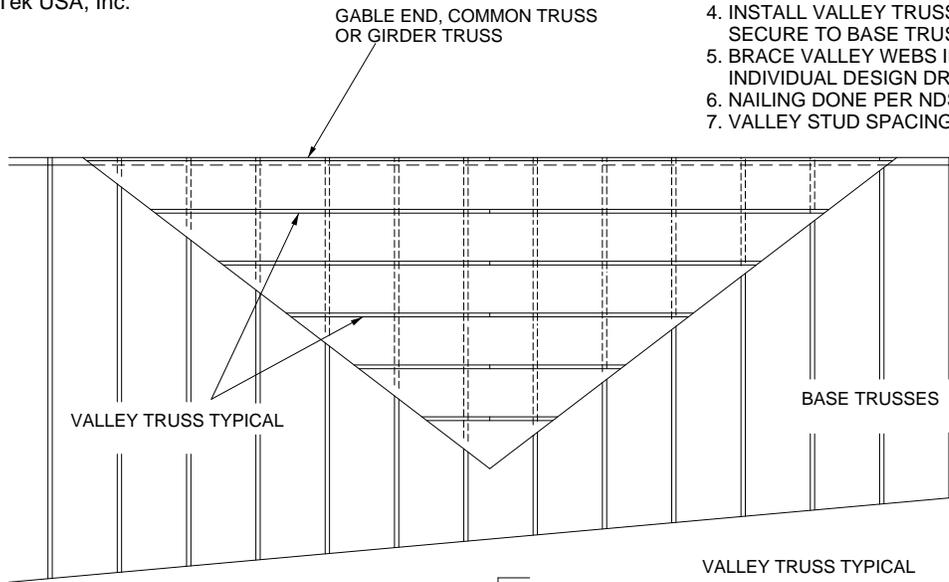
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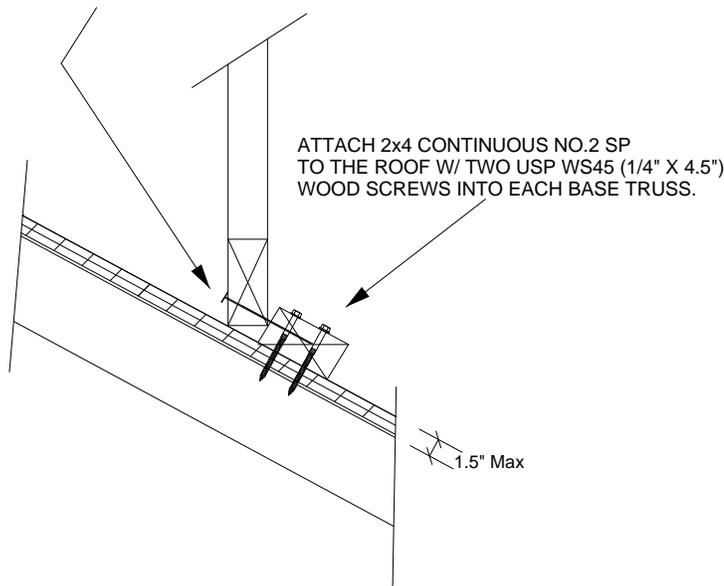
MiTek USA, Inc.

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

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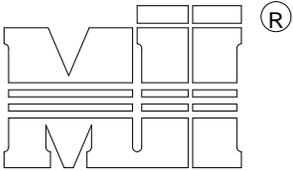
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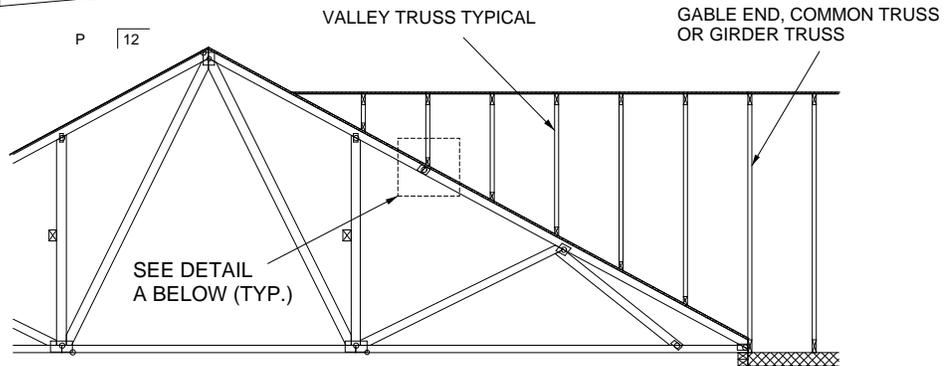
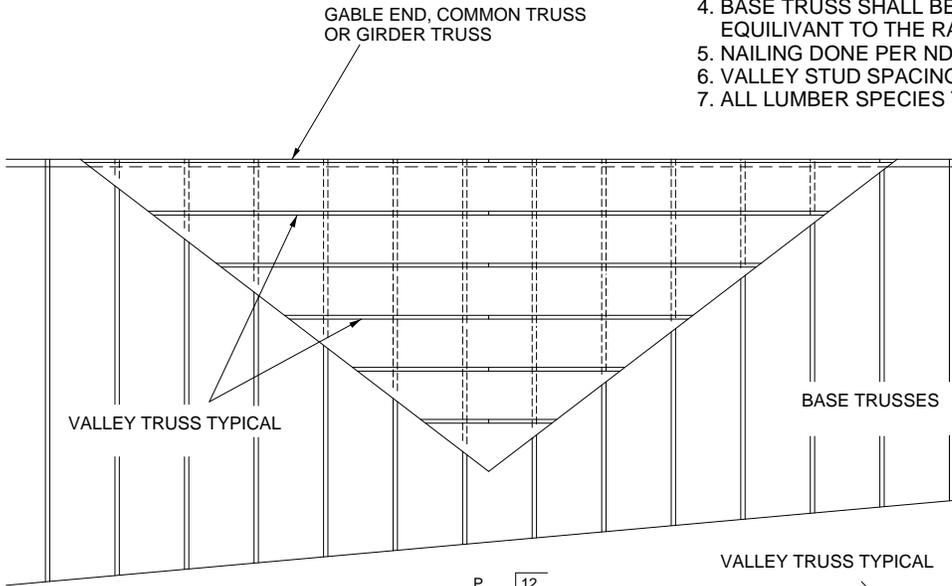
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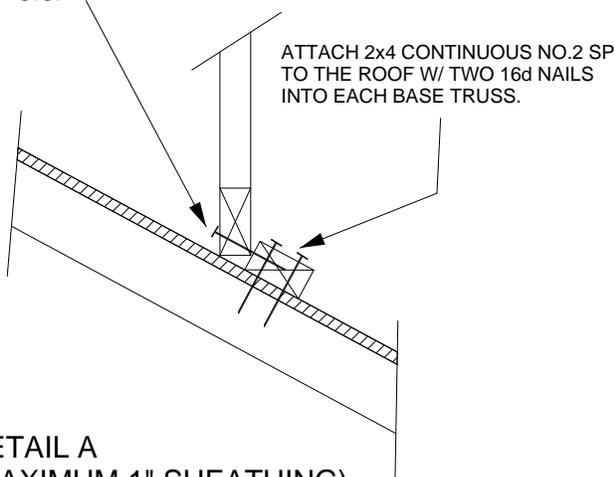
MiTek USA, Inc.

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, ASCE 7-16 150 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF
ON THE TRUSSES

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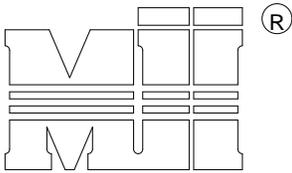
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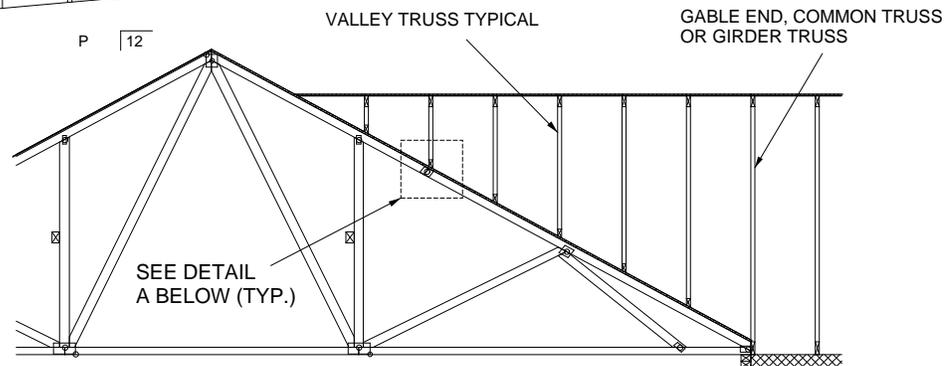
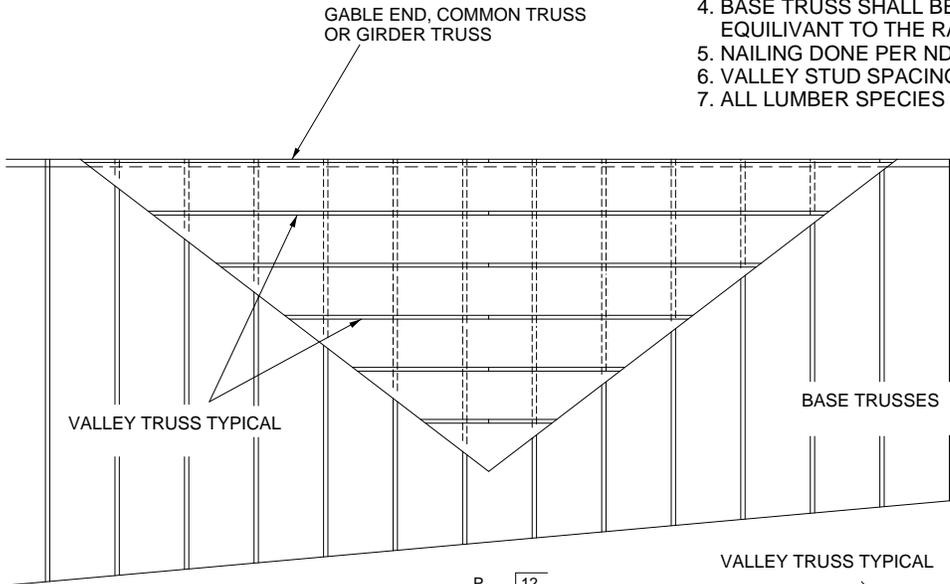
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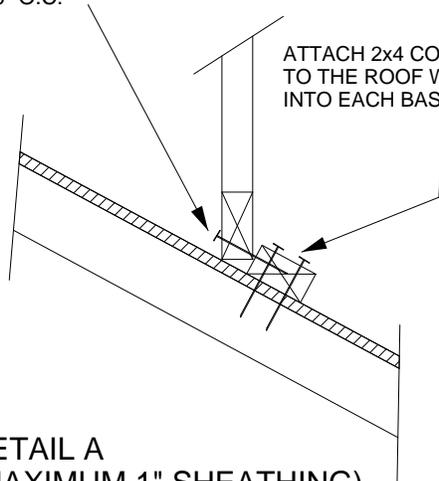
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GENERAL SPECIFICATIONS

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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.



ATTACH 2x4 CONTINUOUS NO.2 SP
TO THE ROOF W/ TWO 16d NAILS
INTO EACH BASE TRUSS.

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

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH
WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF
ON THE TRUSSES

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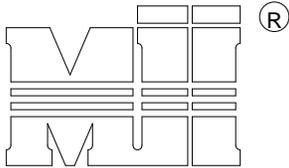
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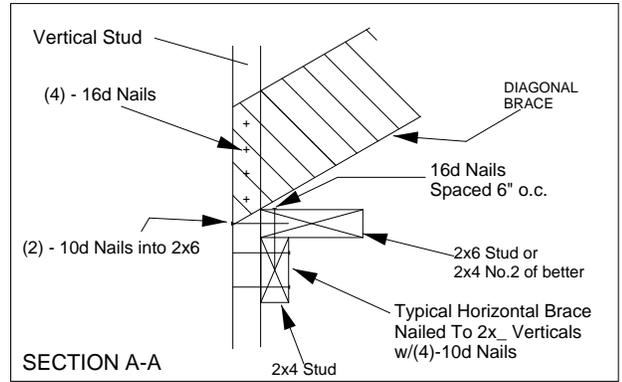
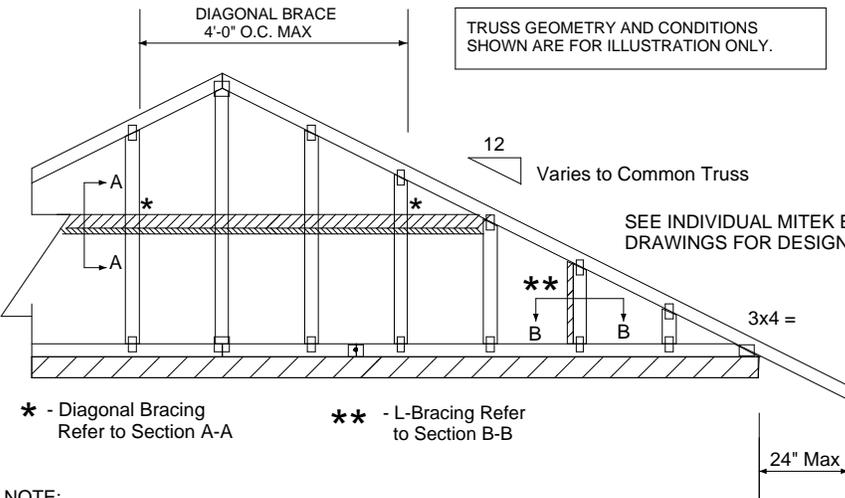
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Tampa, FL 33610

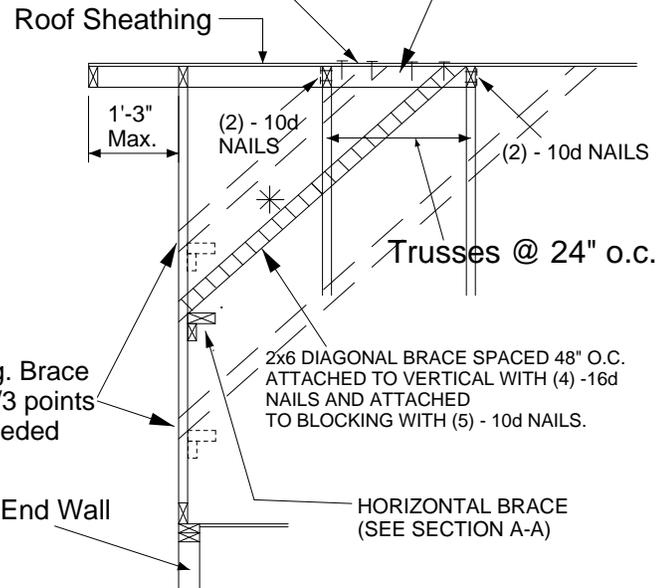


MiTek USA, Inc.



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



- 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.

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

April 2, 2021

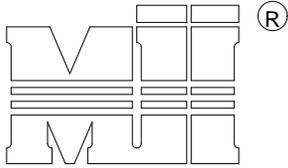
MAXIMUM WIND SPEED = 146 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE = 1.60 READ CONNECTION OF BRACINGS IS BASED ON MWFRS 173 rev. 5/19/2020 BEFORE USE.

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

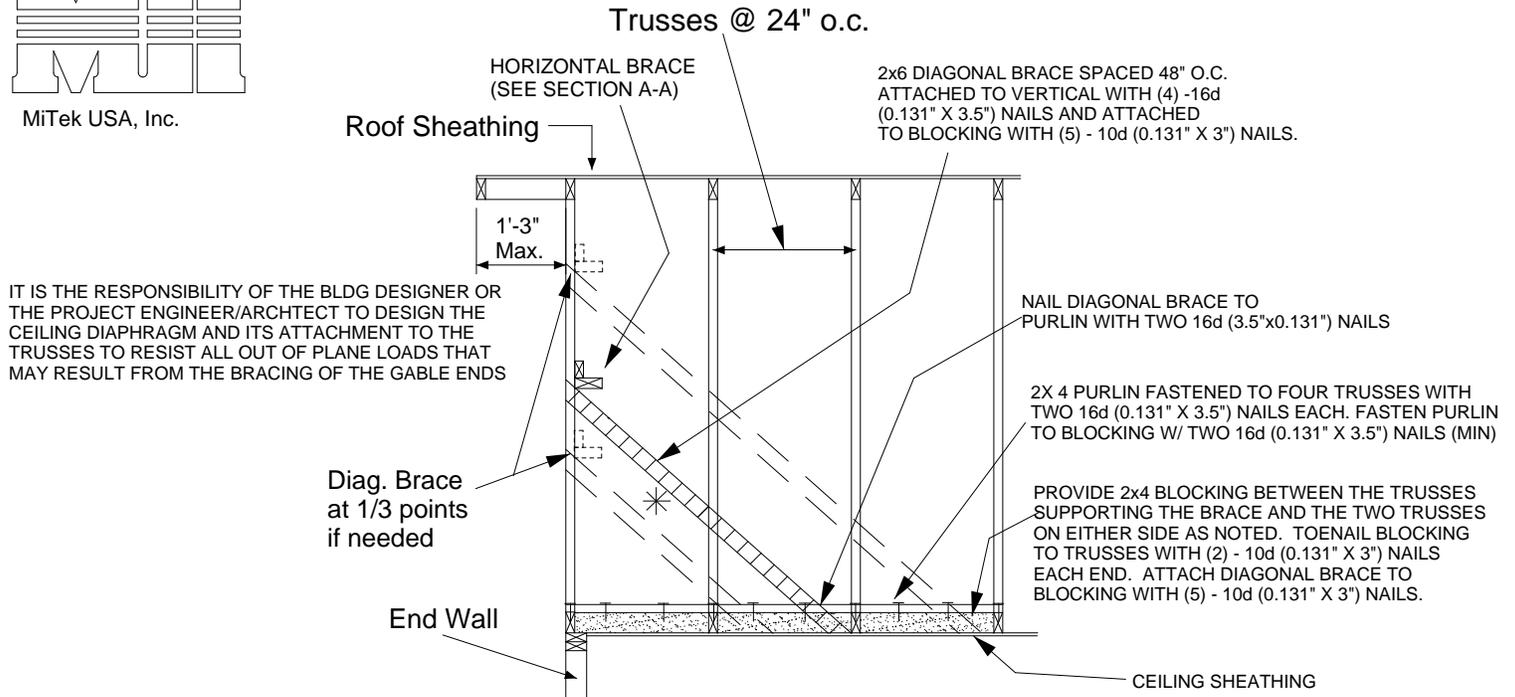


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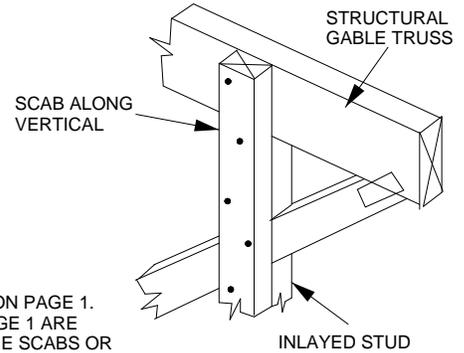
MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD

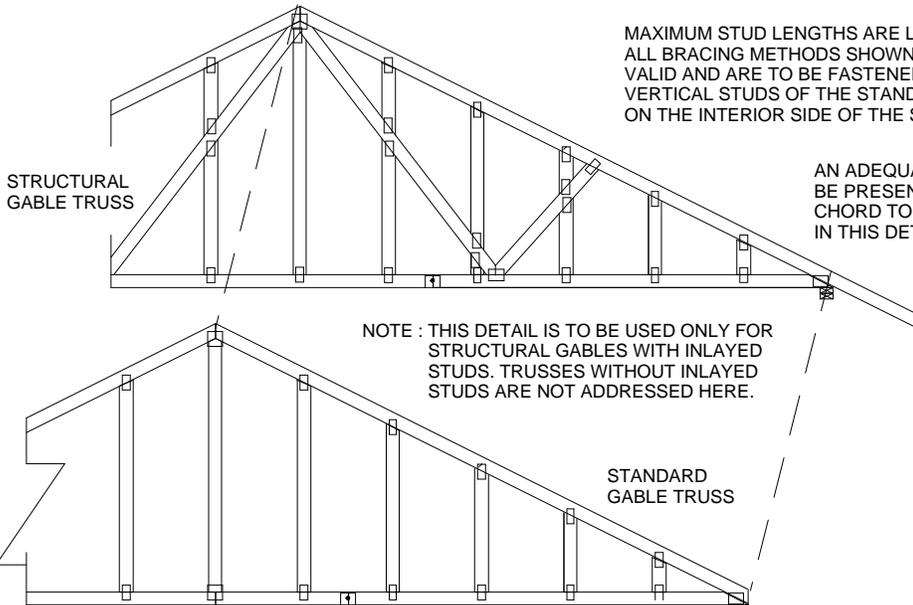


BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

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



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



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

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

April 2,2021

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

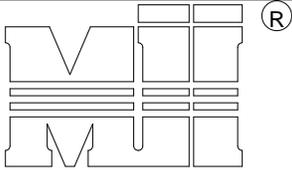
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



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Tampa, FL 36610



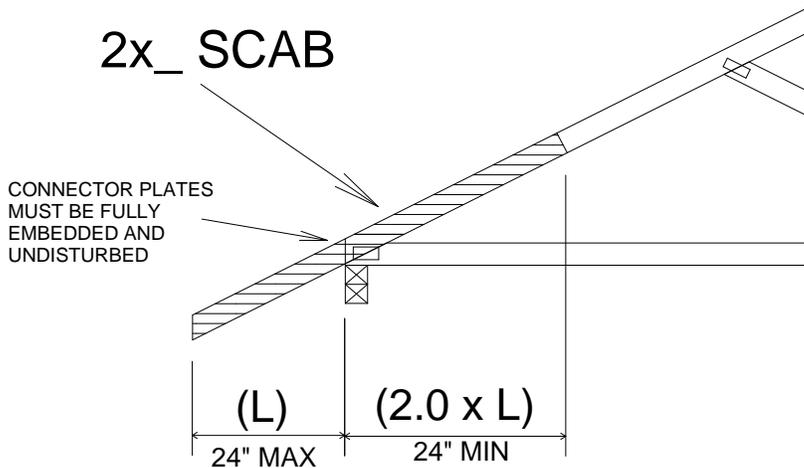
MiTek USA, Inc.

TRUSS CRITERIA:

- LOADING: 40-10-0-10
- DURATION FACTOR: 1.15
- SPACING: 24" O.C.
- TOP CHORD: 2x4 OR 2x6
- PITCH: 4/12 - 12/12
- HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL
- END BEARING CONDITION

NOTES:

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



IMPORTANT

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

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES

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April 2,2021

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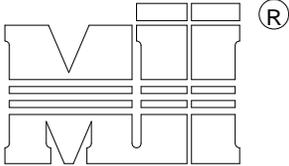
April 2,2021

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

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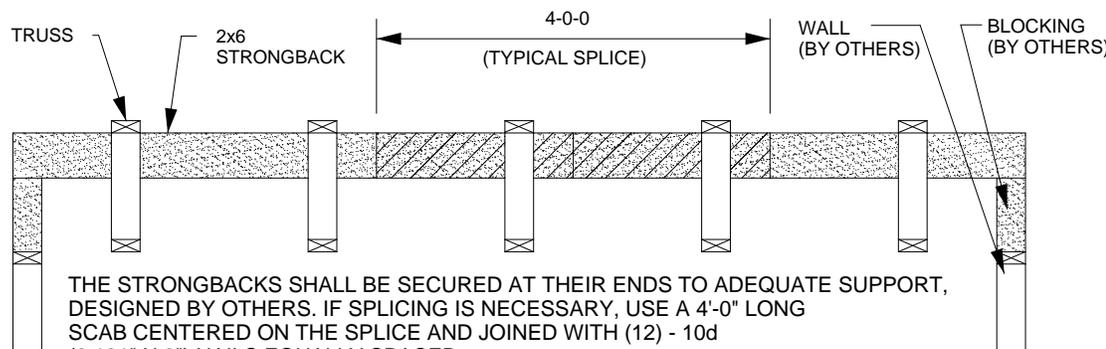
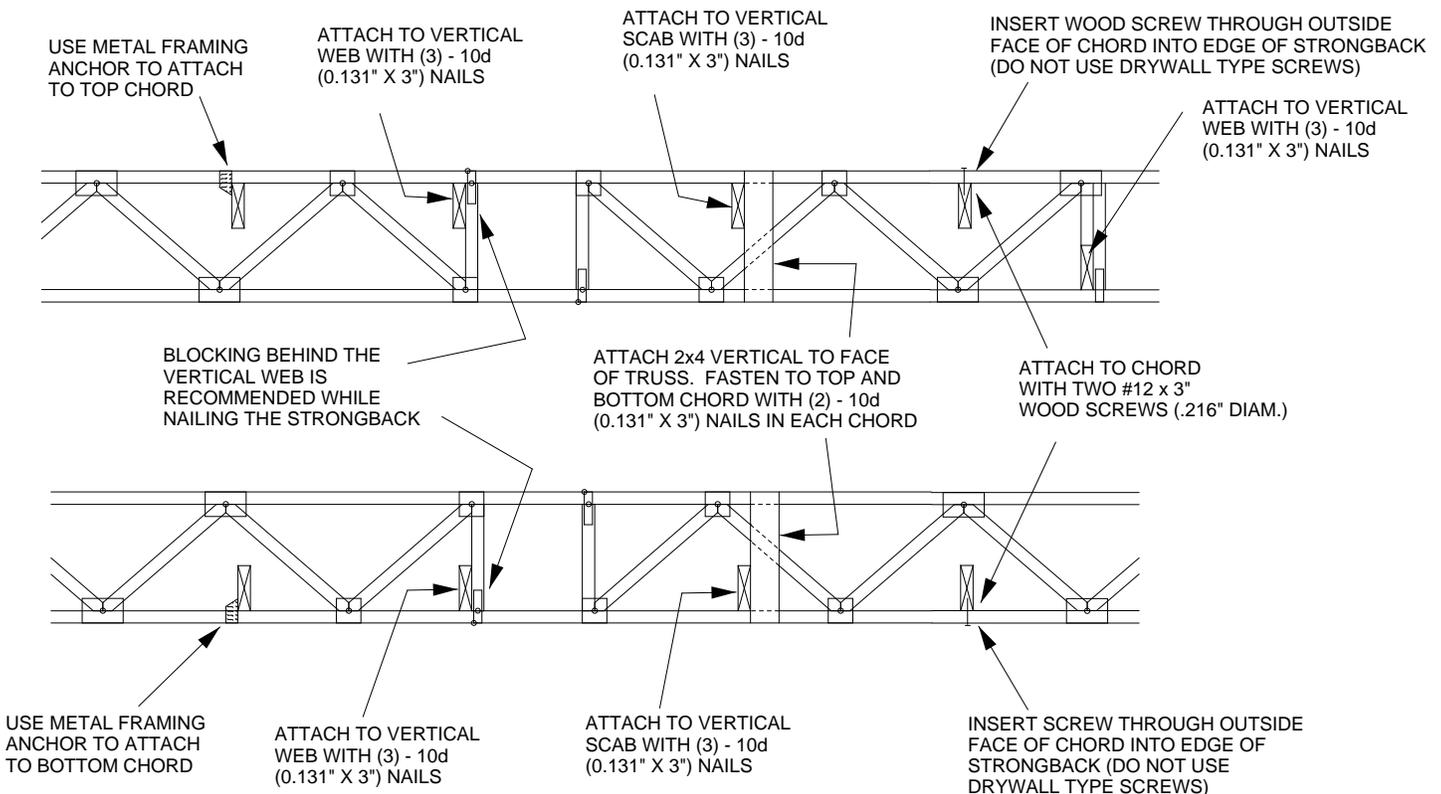


MiTek USA, Inc.

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

April 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

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

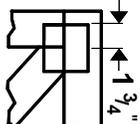
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



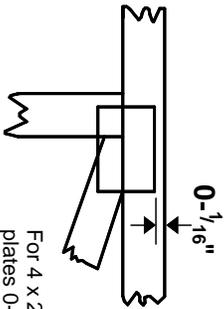
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Tampa, FL 36610

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.



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

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

PLATE SIZE

4 X 4

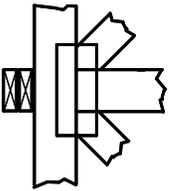
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



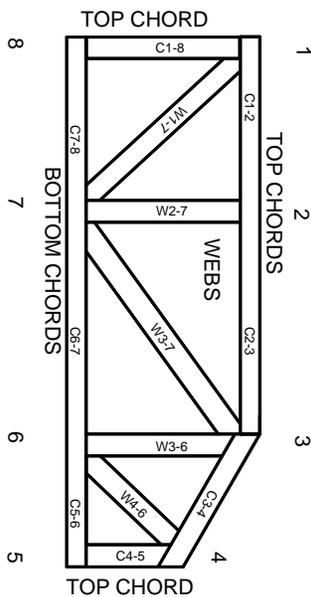
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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General Safety Notes

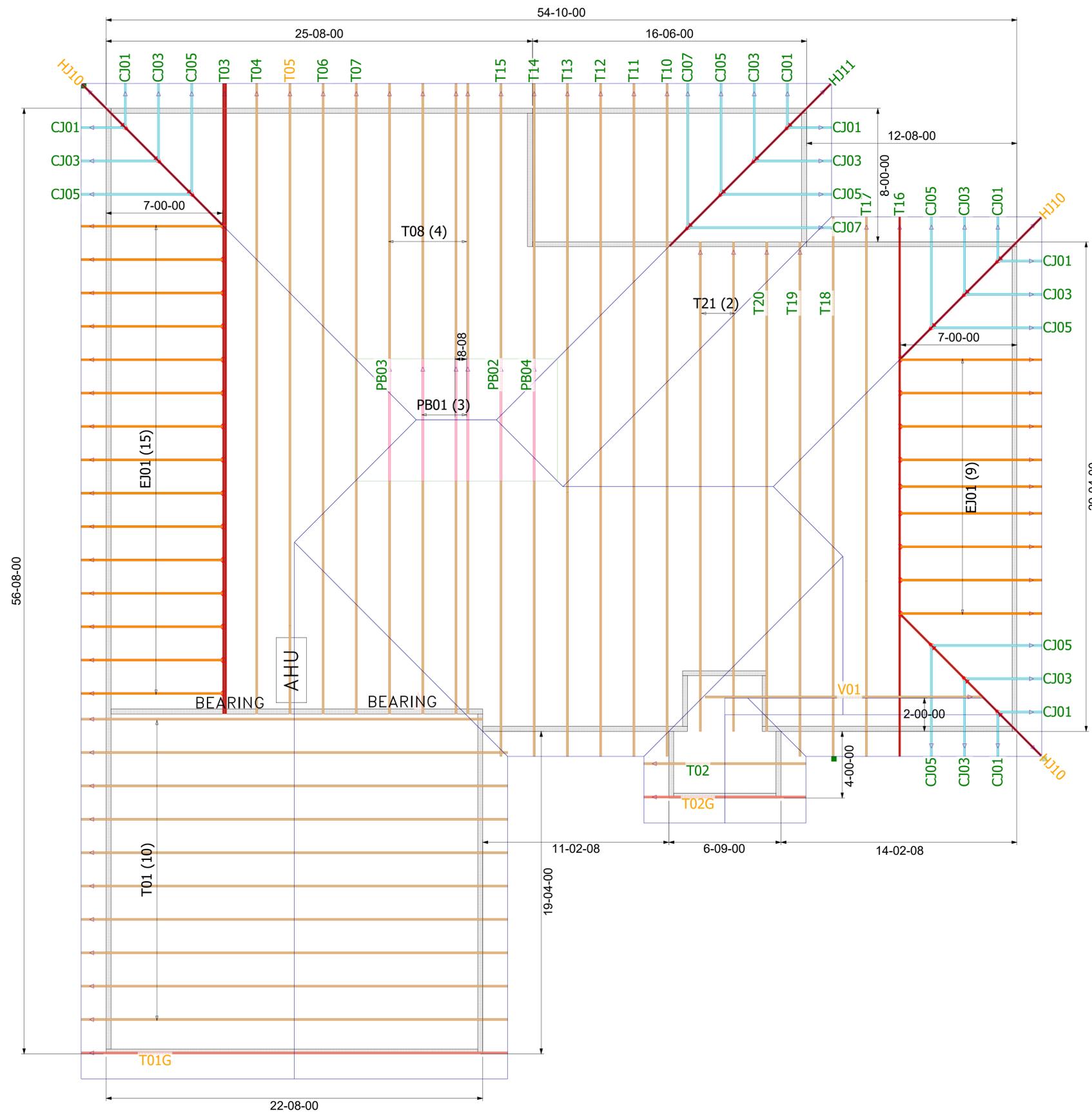
Failure to Follow Could Cause Property Damage or Personal Injury

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

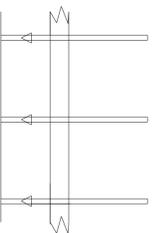


MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020

8/12 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: **EXCEPTIONS REALTY**

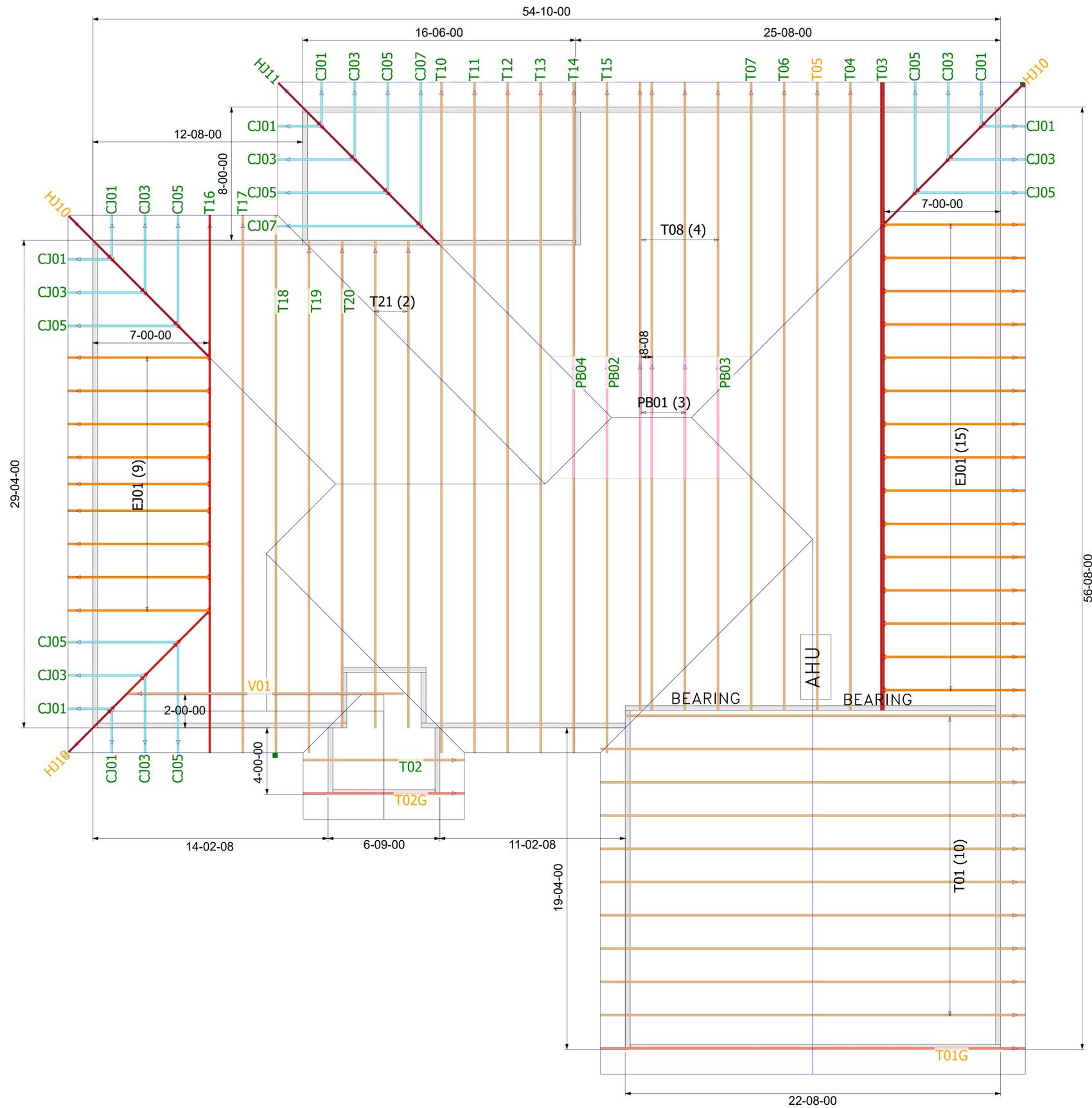
Legal Address: **Lot 15 Kimberly Oaks**

Model: **1776**

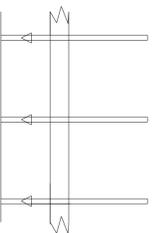
Date: 3-21-23	Drawn By: KLH	Original Ref #: 3458575
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Floor 1 Job#: N/A	Floor 2 Job#: N/A	Roof Job #: 3458575
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8/12 PITCH - 18" O/H



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. scabbled on tails) must have an approved barrier applied first.
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- 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.
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- 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.



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PHONE: 386-755-6894
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FAX: 904-772-1973

Tallahassee
PHONE: 850-576-5177

Builder: **EXCEPTIONS REALTY**

Legal Address: **Lot 15 Kimberly Oaks**

Model: **1776**

Date: 3-21-23	Drawn By: KLH	Original Ref #: 3458575
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Floor 1 Job#: N/A	Floor 2 Job#: N/A	Roof Job #: 3458575
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Lumber design values are in accordance with ANSI/TPI 1 section 6.3
These truss designs rely on lumber values established by others.

RE: 3458575 - EXCEPTIONS - 1776

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: EXCEPTIONS REALITY Project Name: Spec Hse Model: 1776
Lot/Block: 15 Subdivision: Kimberly Oaks
Address: TBD, TBD
City: Columbia Cty State: FL

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

Name: License #:
Address:
City: State:

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

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 34 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.

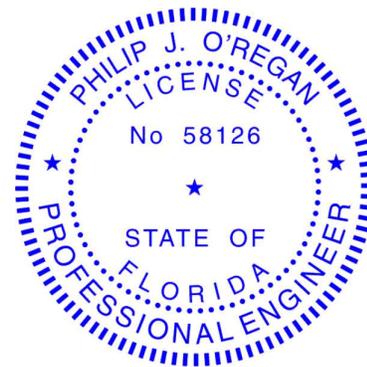
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T30107038	CJ01	3/22/23	15	T30107052	T02G	3/22/23
2	T30107039	CJ03	3/22/23	16	T30107053	T03	3/22/23
3	T30107040	CJ05	3/22/23	17	T30107054	T04	3/22/23
4	T30107041	CJ07	3/22/23	18	T30107055	T05	3/22/23
5	T30107042	EJ01	3/22/23	19	T30107056	T06	3/22/23
6	T30107043	HJ10	3/22/23	20	T30107057	T07	3/22/23
7	T30107044	HJ11	3/22/23	21	T30107058	T08	3/22/23
8	T30107045	PB01	3/22/23	22	T30107059	T10	3/22/23
9	T30107046	PB02	3/22/23	23	T30107060	T11	3/22/23
10	T30107047	PB03	3/22/23	24	T30107061	T12	3/22/23
11	T30107048	PB04	3/22/23	25	T30107062	T13	3/22/23
12	T30107049	T01	3/22/23	26	T30107063	T14	3/22/23
13	T30107050	T01G	3/22/23	27	T30107064	T15	3/22/23
14	T30107051	T02	3/22/23	28	T30107065	T16	3/22/23



This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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-Lake City, FL.

Truss Design Engineer's Name: ORegan, Philip
My license renewal date for the state of Florida is February 28, 2025.



Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

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.

March 22,2023



RE: 3458575 - EXCEPTIONS - 1776

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: EXCEPTIONS REALITY Project Name: Spec Hse Model: 1776
Lot/Block: 15 Subdivision: Kimberly Oaks
Address: TBD, TBD
City: Columbia Cty State: FL

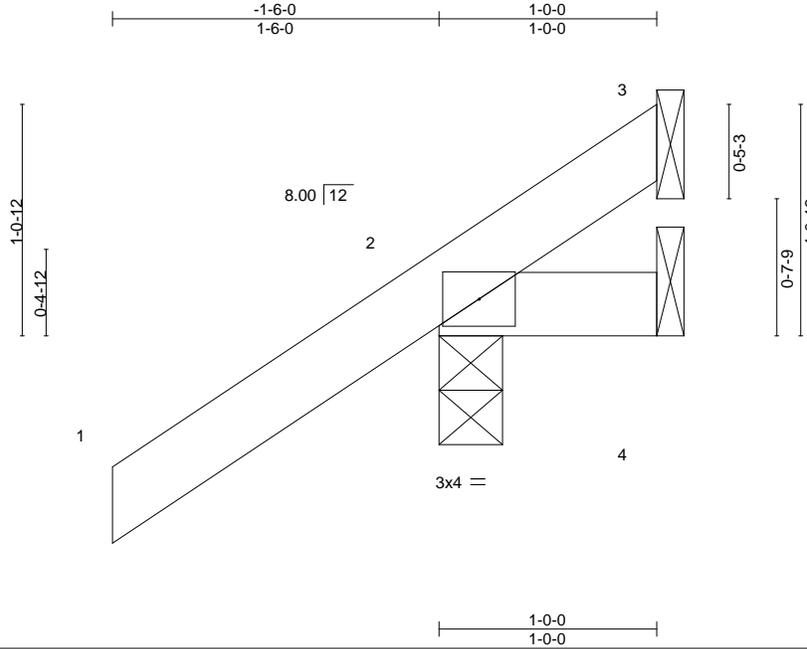
No.	Seal#	Truss Name	Date
29	T30107066	T17	3/22/23
30	T30107067	T18	3/22/23
31	T30107068	T19	3/22/23
32	T30107069	T20	3/22/23
33	T30107070	T21	3/22/23
34	T30107071	V01	3/22/23

Job 3458575	Truss CJ01	Truss Type Jack-Open	Qty 8	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107038
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Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:34 2023 Page 1
ID:xnU8Nd1YV2cO2ih4SDBDyXzRDSf-qYwiFm6dLNO1B_EJlaNja9yP5?BmiBjrExIoMzYk43



Scale = 1:10.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.19	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.04	Vert(CT)	0.00	7	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP						Weight: 6 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 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=52(LC 12)
Max Uplift 3=5(LC 1), 2=-69(LC 12), 4=-23(LC 19)
Max Grav 3=7(LC 16), 2=179(LC 1), 4=21(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 100 lb uplift at joint(s) 3, 2, 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 22,2023

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

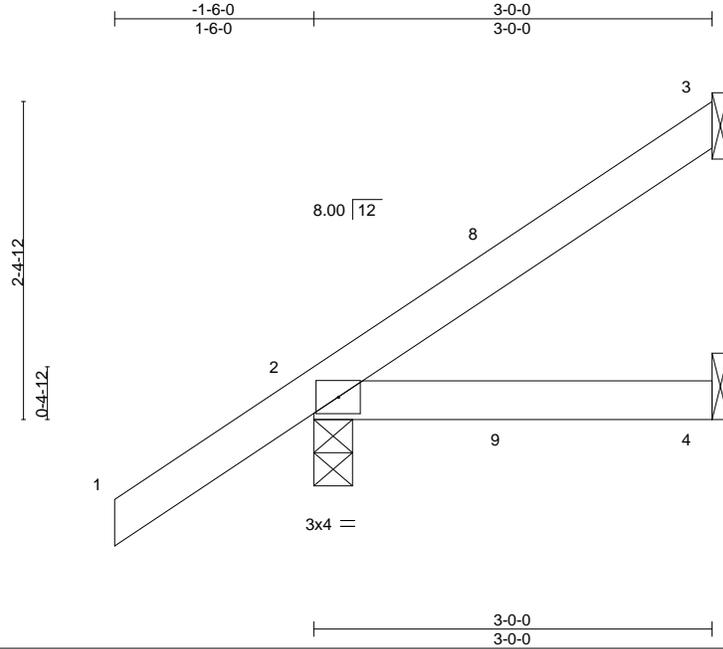
Job 3458575	Truss CJ03	Truss Type Jack-Open	Qty 8	Ply 1	EXCEPTIONS - 1776	T30107039
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Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:35 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-IkU5S66FneVFeLZQtT6cGni6YVKWV9Rs4ugrKozYk42



Scale = 1:17.3

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.10	Vert(LL) 0.01 4-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Vert(CT) -0.01 4-7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) -0.00 3 n/a n/a		
	Code FBC2020/TPI2014			Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=97(LC 12)
Max Uplift 3=-44(LC 12), 2=-49(LC 12), 4=-16(LC 9)
Max Grav 3=62(LC 19), 2=210(LC 1), 4=51(LC 3)

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

NOTES-

- 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 100 lb uplift at joint(s) 3, 2, 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 22, 2023

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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

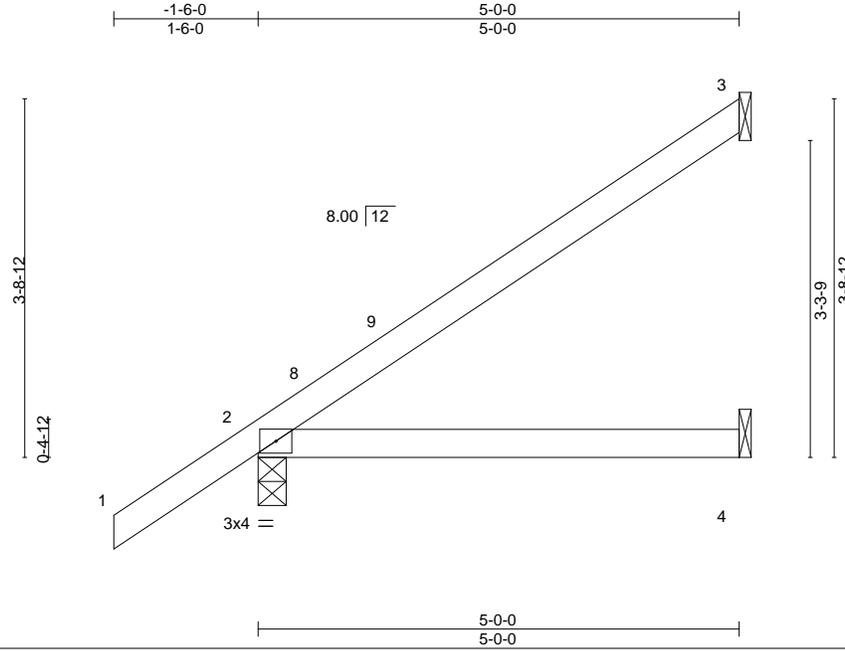


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 3458575	Truss CJ05	Truss Type Jack-Open	Qty 8	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107040
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:37 2023 Page 1

ID:xnU8Nd1YV2cO2ih4SDBDyxzRDSf-F7crt08VJGmzufjo_t84LCnQ8J_mz3x9XC9yPhzYk40



Scale: 1/2"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.24	Vert(LL) 0.03 4-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Vert(CT) -0.06 4-7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 3 n/a n/a		
	Code FBC2020/TPI2014			Weight: 19 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	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=143(LC 12)
 Max Uplift 3=-81(LC 12), 2=-49(LC 12), 4=-1(LC 12)
 Max Grav 3=120(LC 19), 2=276(LC 1), 4=89(LC 3)

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

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

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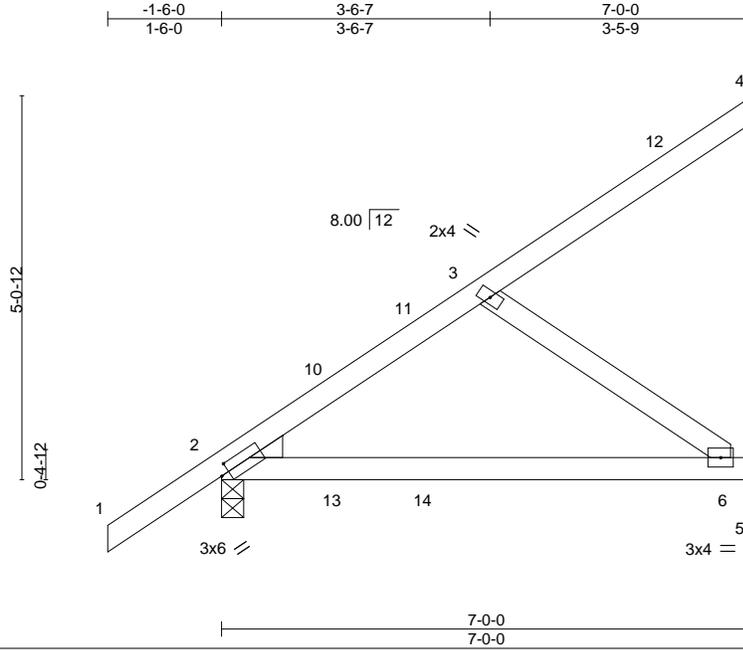
Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>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</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job 3458575	Truss CJ07	Truss Type Jack-Open	Qty 2	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107041
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:38 2023 Page 1
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Scale = 1:30.2

Plate Offsets (X,Y)--	[2:0-1-5,0-1-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.35	Vert(LL) 0.17 6-9 >479 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.48	Vert(CT) -0.16 6-9 >529 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) -0.00 2 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 32 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 9-8-5 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=182(LC 12)
 Max Uplift 4=-48(LC 12), 2=-55(LC 12), 5=-79(LC 9)
 Max Grav 4=80(LC 19), 2=346(LC 1), 5=176(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 3-6=-218/282

NOTES-

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

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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

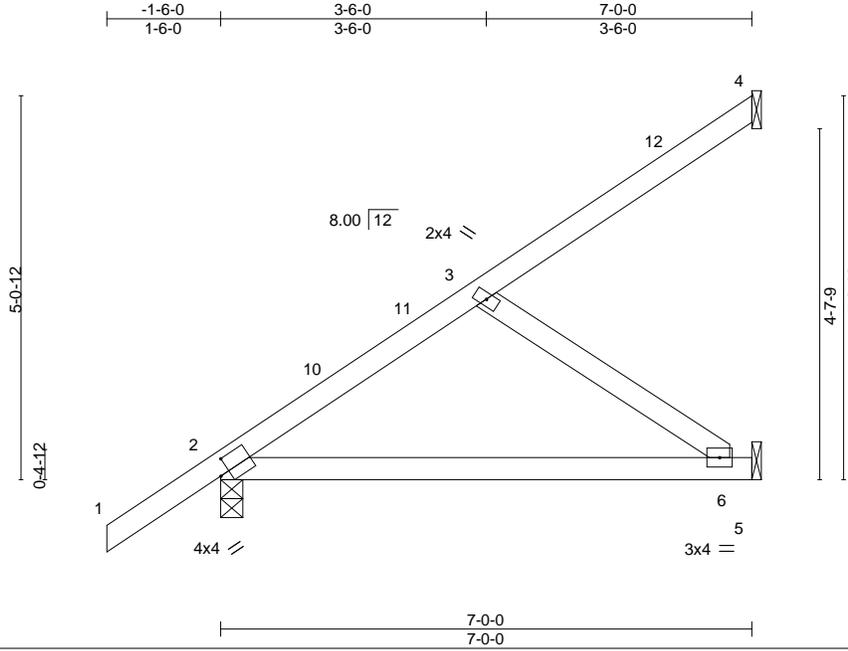
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss EJ01	Truss Type Jack-Partial	Qty 24	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107042
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:39 2023 Page 1
ID:xnU8Nd1YV2cO2ih4SDBDyxzRDSf-BVjblTAIn0h7ysB6IAYQdsIb6cBRyDS?We3TZzYk4_



Scale = 1:30.2

Plate Offsets (X,Y)--	[2:0-1-9,0-2-5]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.35	Vert(LL)	-0.08 6-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.44	Vert(CT)	-0.16 6-9	>531	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 32 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=182(LC 12)
 Max Uplift 4=-49(LC 12), 2=-55(LC 12), 5=-57(LC 12)
 Max Grav 4=78(LC 19), 2=346(LC 1), 5=183(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) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

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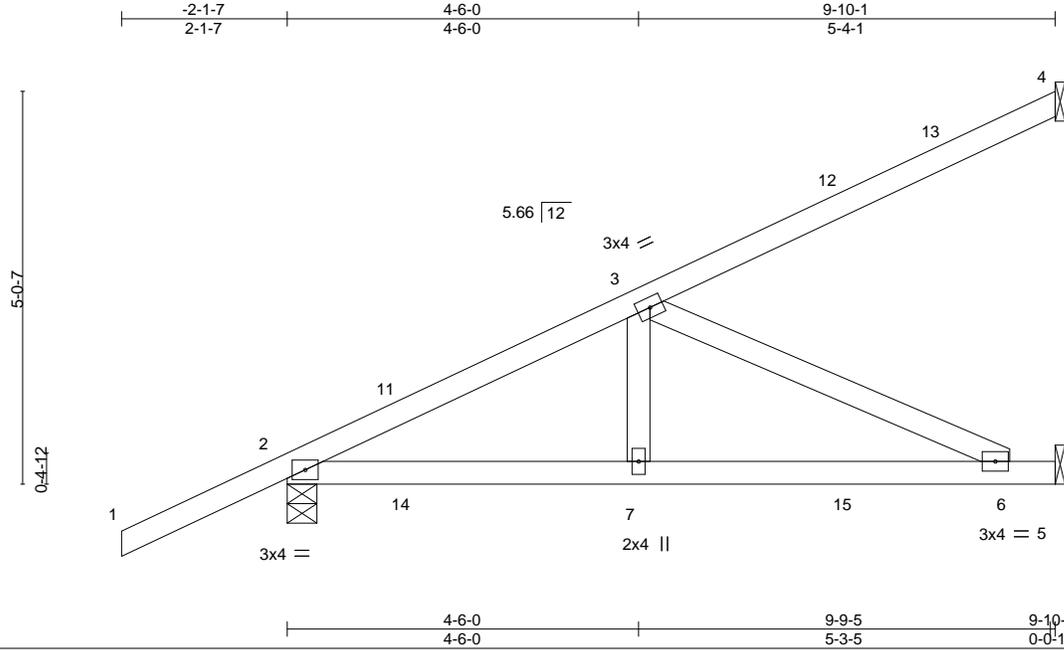
Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22,2023

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>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</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job 3458575	Truss HJ10	Truss Type Diagonal Hip Girder	Qty 3	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107043
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:41 2023 Page 1
ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf7urMj9B0NUGPMG0aDjD0W2y1LwEEvocISq79XSzYk3y



Scale = 1:29.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.59	Vert(LL) 0.07	6-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.66	Vert(CT) -0.14	6-7	>836	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.34	Horz(CT) 0.01	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 45 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-9-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=182(LC 8)
Max Uplift 4=-94(LC 8), 2=-228(LC 8), 5=-137(LC 8)
Max Grav 4=150(LC 1), 2=526(LC 1), 5=298(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-652/277
BOT CHORD 2-7=-348/556, 6-7=-348/556
WEBS 3-7=-58/302, 3-6=-613/383

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=228, 5=137.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 60 lb down and 73 lb up at 1-6-1, 60 lb down and 73 lb up at 1-6-1, 76 lb down and 46 lb up at 4-4-0, 76 lb down and 46 lb up at 4-4-0, and 109 lb down and 92 lb up at 7-1-15, and 109 lb down and 92 lb up at 7-1-15 on top chord, and 21 lb down and 50 lb up at 1-6-1, 21 lb down and 50 lb up at 1-6-1, 18 lb down and 24 lb up at 4-4-0, 18 lb down and 24 lb up at 4-4-0, and 47 lb down and 16 lb up at 7-1-15, and 47 lb down and 16 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 5-8=-20
Concentrated Loads (lb)
Vert: 7=-4(F=-2, B=-2) 12=-73(F=-36, B=-36) 15=-59(F=-29, B=-29)

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 22, 2023

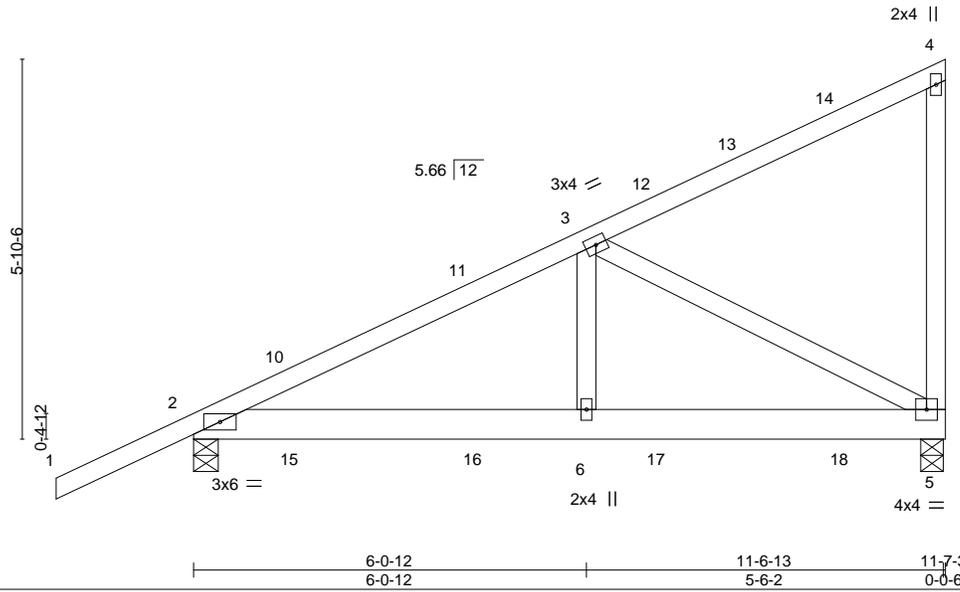
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	EXCEPTIONS - 1776	T30107044
3458575	HJ11	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:43 2023 Page 1
 ID:xnU8Nd1YV2cO2ih4SDBDyxzRDSf-3Gz68rDGv6W7caAyL8FUbt1QkkzcNfq1w7cGcKzYk3w



Scale = 1:35.4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.47	Vert(LL) 0.03 5-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.55	Vert(CT) -0.05 5-6 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.01 5 n/a n/a	Weight: 70 lb	FT = 20%
	Code FBC2020/TPI2014				

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 5=0-4-3
 Max Horz =2=201(LC 8)
 Max Uplift 2=-286(LC 8), 5=-416(LC 5)
 Max Grav 2=639(LC 1), 5=756(LC 1)

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

TOP CHORD 2-3=-838/386
 BOT CHORD 2-6=-422/711, 5-6=-422/711
 WEBS 3-6=-126/418, 3-5=-785/465

NOTES-

- 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=286, 5=416.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 60 lb down and 73 lb up at 1-6-1, 60 lb down and 73 lb up at 1-6-1, 76 lb down and 46 lb up at 4-4-0, 76 lb down and 46 lb up at 4-4-0, 109 lb down and 92 lb up at 7-1-15, 109 lb down and 92 lb up at 7-1-15, and 66 lb down and 57 lb up at 9-11-14, and 66 lb down and 57 lb up at 9-11-14 on top chord, and 44 lb down and 50 lb up at 1-6-1, 44 lb down and 50 lb up at 1-6-1, 19 lb down and 24 lb up at 4-4-0, 19 lb down and 24 lb up at 4-4-0, 70 lb down and 16 lb up at 7-1-15, 70 lb down and 16 lb up at 7-1-15, and 148 lb down and 107 lb up at 9-11-14, and 148 lb down and 107 lb up at 9-11-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-4=-54, 5-7=-20
 Concentrated Loads (lb)
 Vert: 12=-73(F=-36, B=-36) 14=-2(F=-1, B=-1) 16=-4(F=-2, B=-2) 17=-59(F=-29, B=-29) 18=-295(F=-148, B=-148)

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Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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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



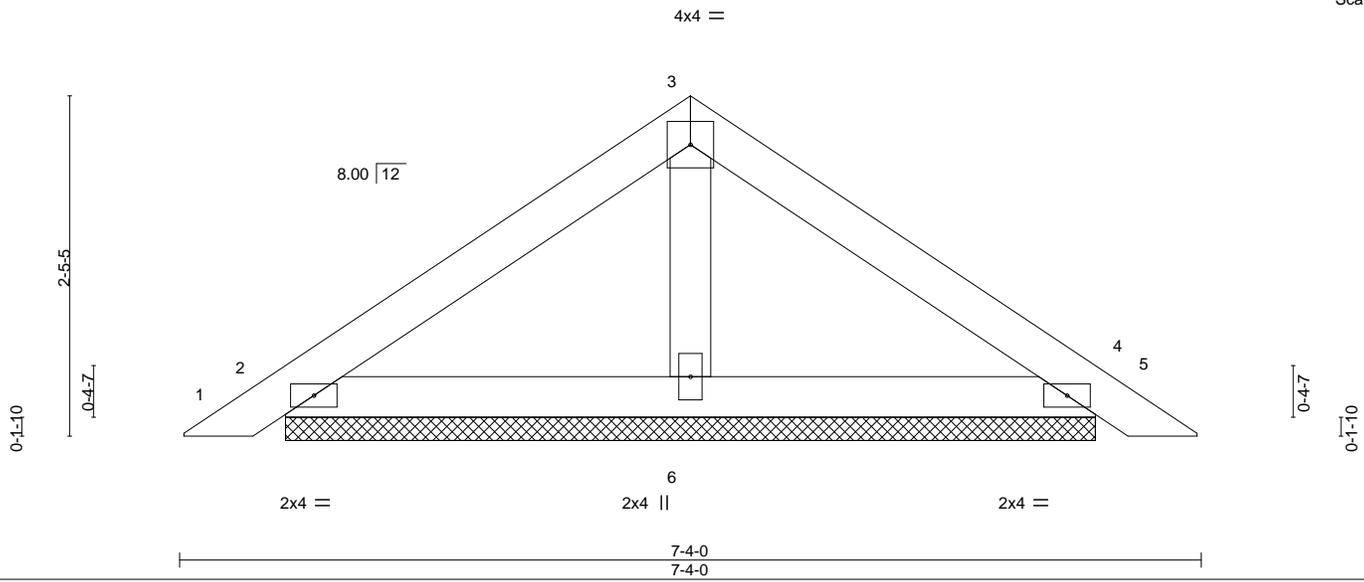
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss PB01	Truss Type Piggyback	Qty 3	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107045
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:45 2023 Page 1
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Scale = 1:16.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	0.00	5	n/r	120	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.09	Vert(CT)	0.01	5	n/r	120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 24 lb	FT = 20%
	Code FBC2020/TPI2014								

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. (size) 2=5-9-12, 4=5-9-12, 6=5-9-12
 Max Horz 2=50(LC 11)
 Max Uplift 2=46(LC 12), 4=52(LC 13), 6=14(LC 12)
 Max Grav 2=143(LC 1), 4=143(LC 1), 6=196(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Interior(1) 3-3-5 to 3-8-0, Exterior(2R) 3-8-0 to 6-6-14, Interior(1) 6-6-14 to 7-0-11 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) 2, 4, 6.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Philip J. O'Regan PE No.58126
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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

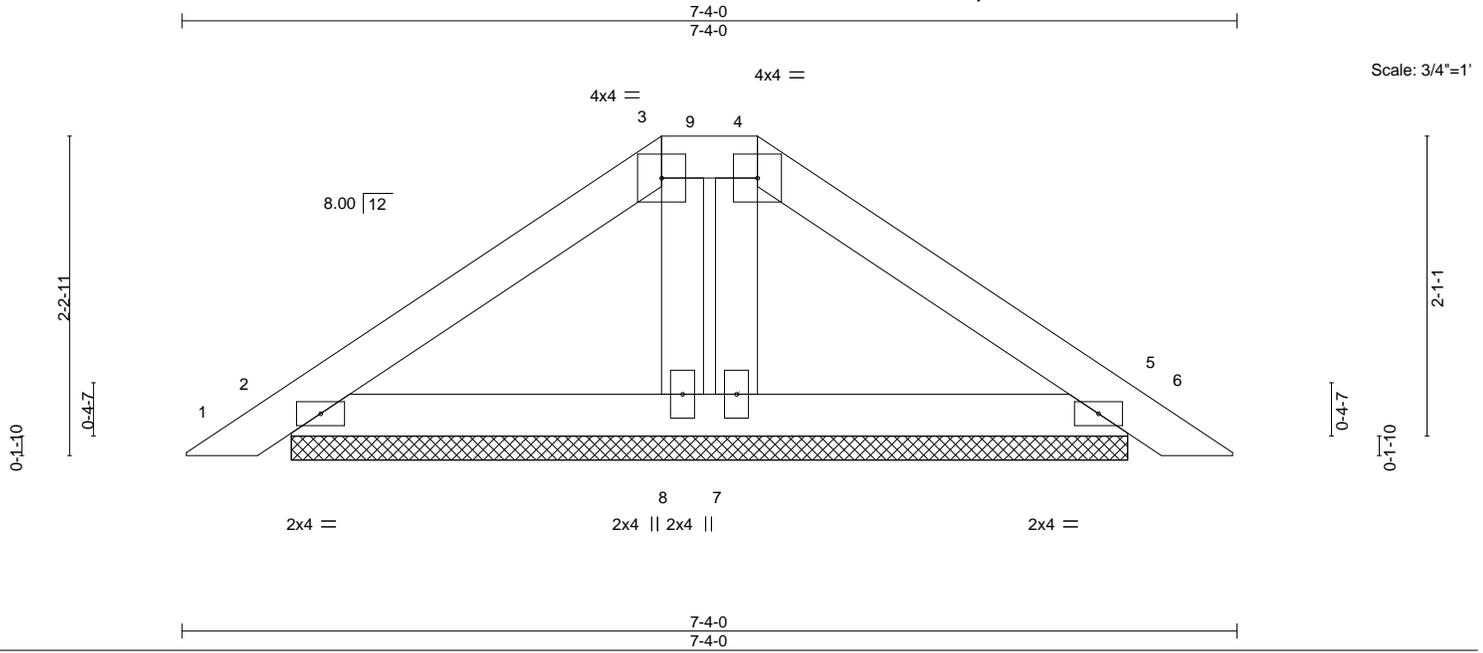
March 22, 2023

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Job 3458575	Truss PB02	Truss Type Piggyback	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107046
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:46 2023 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 0.09	Vert(LL)	0.00	6	n/r	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.06	Vert(CT)	0.00	6	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 26 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 5-9-12.
(lb) - Max Horz 2=45(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 5, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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

NOTES-

- 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.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 8, 7.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
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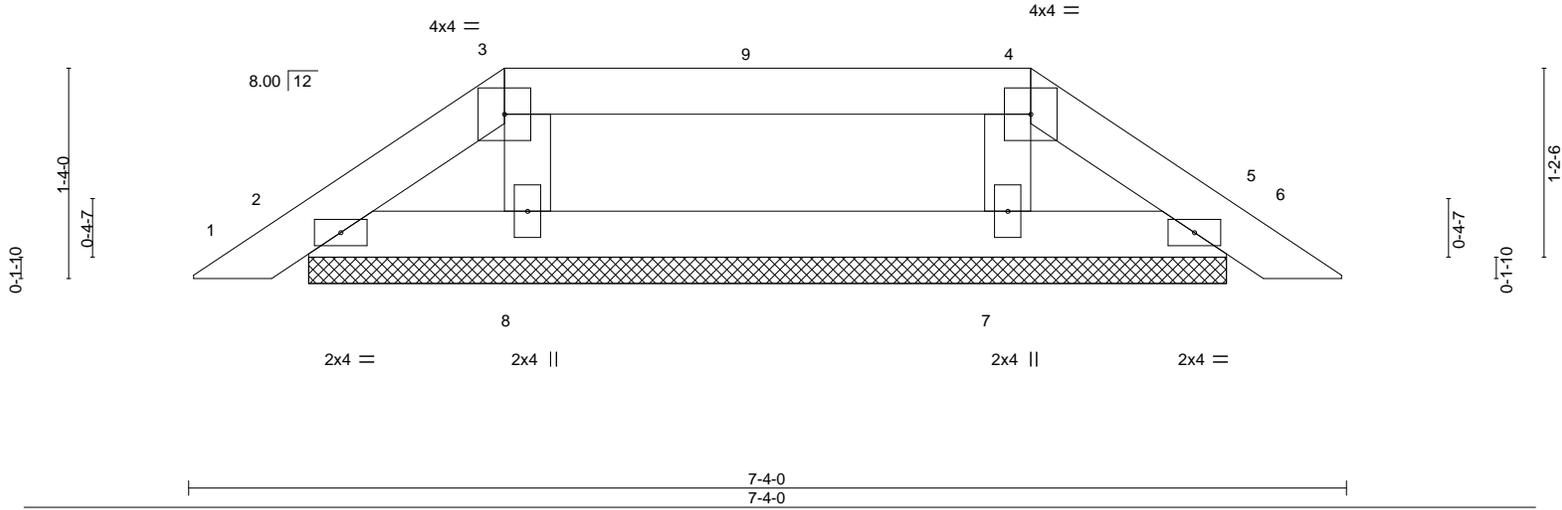
Job 3458575	Truss PB03	Truss Type Piggyback	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107047
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:48 2023 Page 1
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7-4-0
7-4-0

Scale = 1:14.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	Vert(LL)	0.00	5	n/r	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.05	Vert(CT)	0.00	5	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.02	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 22 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 5-9-12.
(lb) - Max Horz 2=-26(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 5, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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

NOTES-

- 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.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 8, 7.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 22,2023

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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

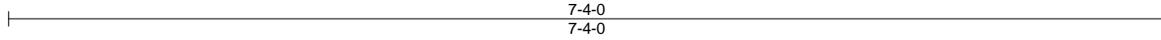


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 3458575	Truss PB04	Truss Type Piggyback	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107048
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:50 2023 Page 1
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Scale = 1:14.5

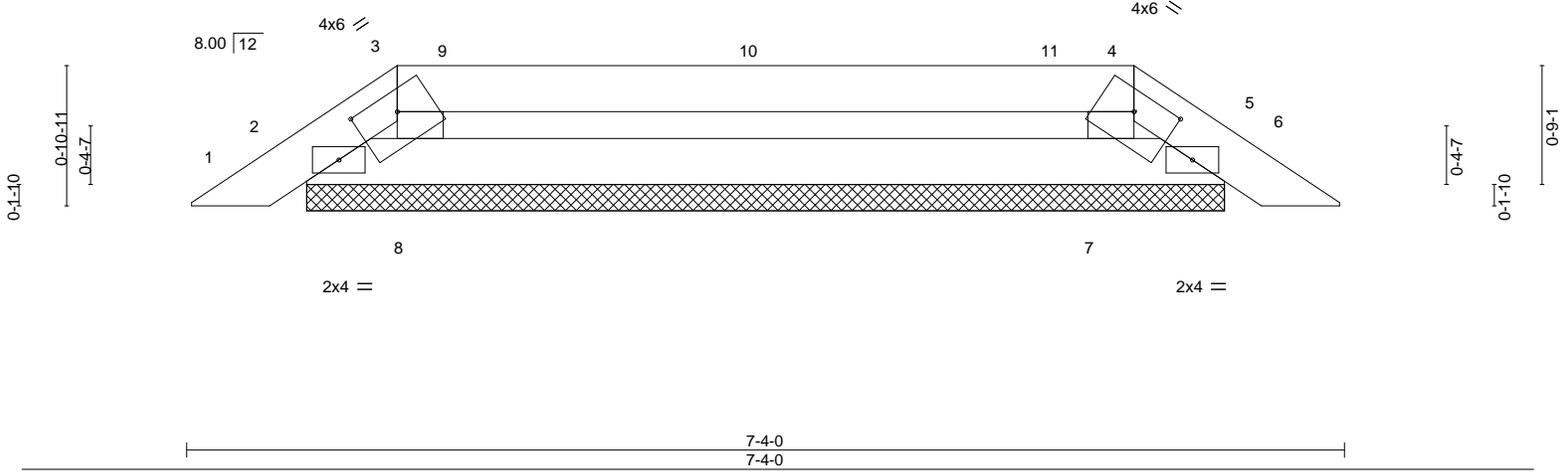


Plate Offsets (X,Y)--	[3:0-3-4,0-1-8], [4:0-3-4,0-1-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.35	Vert(LL) -0.00 5 n/r 120	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.12	Vert(CT) -0.00 5 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-P		Weight: 21 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 5-9-12.
(lb) - Max Horz 2=16(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 5, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-5 to 1-4-0, Exterior(2R) 1-4-0 to 5-6-15 to 6-0-0, Exterior(2E) 6-0-0 to 7-0-11 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.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 8, 7.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 22,2023

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 3458575	Truss T01	Truss Type Common	Qty 10	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107049
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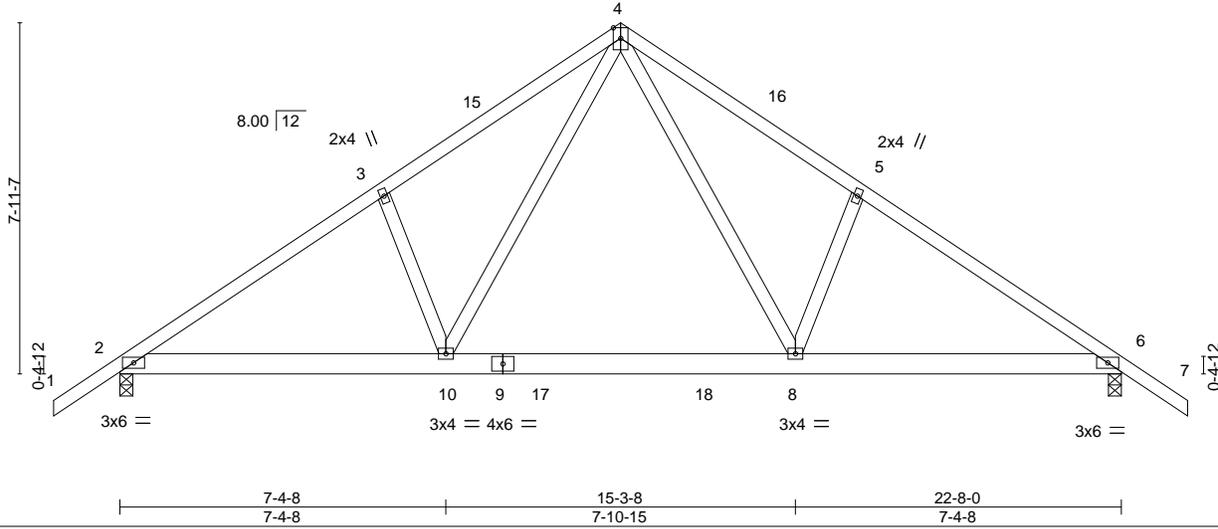
Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:51 2023 Page 1

ID:xnU8Nd1YV2cO2ih4SDBDyxzRDSf-qpS8paJH0ZW_ZonVpqOMw9MoXyLFJIDINYhutzyk3o



4x6 //

Scale = 1:51.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.61	Vert(LL) -0.12 8-10 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.36	Vert(CT) -0.22 8-10 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.03 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 135 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-9 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=188(LC 11)
 Max Uplift 2=-263(LC 12), 6=-263(LC 13)
 Max Grav 2=1271(LC 19), 6=1271(LC 20)

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

TOP CHORD 2-3=-1826/359, 3-4=-1763/433, 4-5=-1763/433, 5-6=-1826/359
 BOT CHORD 2-10=-315/1587, 8-10=-121/1028, 6-8=-214/1475
 WEBS 4-8=-263/989, 5-8=-289/209, 4-10=-263/989, 3-10=-289/209

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 11-4-0, Exterior(2R) 11-4-0 to 14-4-0, Interior(1) 14-4-0 to 24-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=263, 6=263.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-4=-54, 4-7=-54, 2-10=-20, 8-10=-80(F=-60), 6-8=-20

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Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T01G	Truss Type Common Supported Gable	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107050
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:54 2023 Page 1

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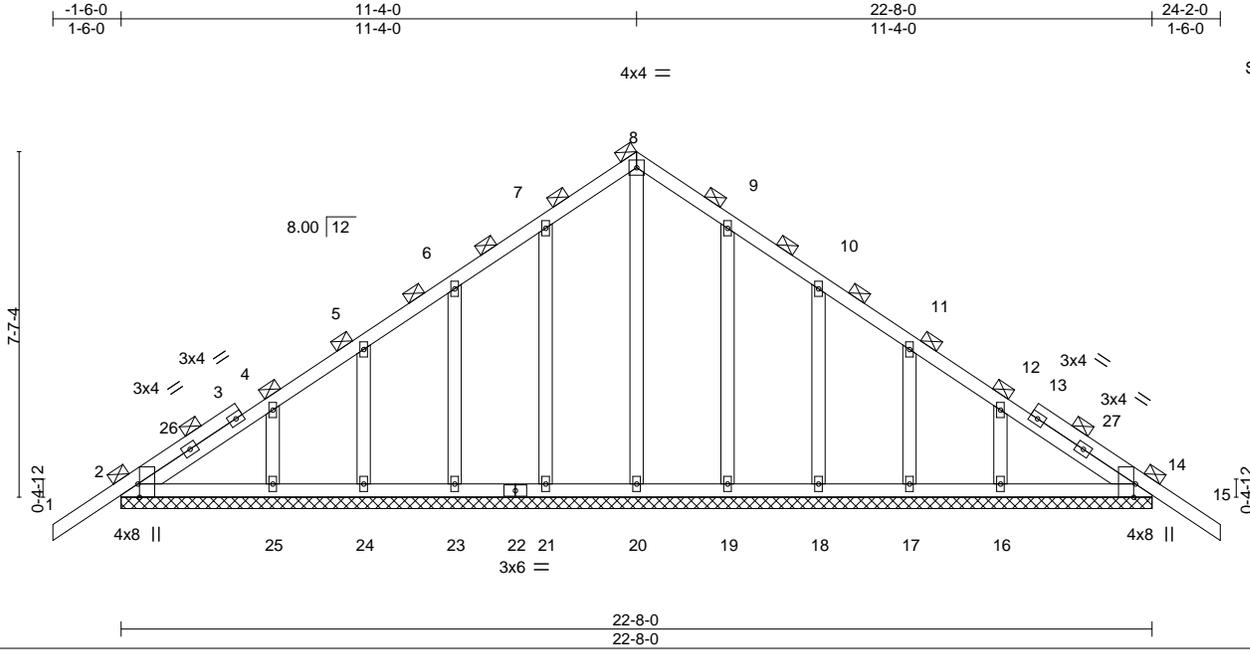


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [14:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL) -0.00	15	n/r	120	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.07	Vert(CT) -0.01	15	n/r	120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.13	Horz(CT) 0.01	14	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 142 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.).
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 22-8-0.
 (lb) - Max Horz 2=-181(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 21, 23, 24, 25, 19, 18, 17, 16
 Max Grav All reactions 250 lb or less at joint(s) 2, 14, 20, 21, 23, 24, 25, 19, 18, 17, 16

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 11-4-0, Corner(3R) 11-4-0 to 14-4-0, Exterior(2N) 14-4-0 to 24-2-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 21, 23, 24, 25, 19, 18, 17, 16.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22,2023

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Job 3458575	Truss T02	Truss Type Common	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107051
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

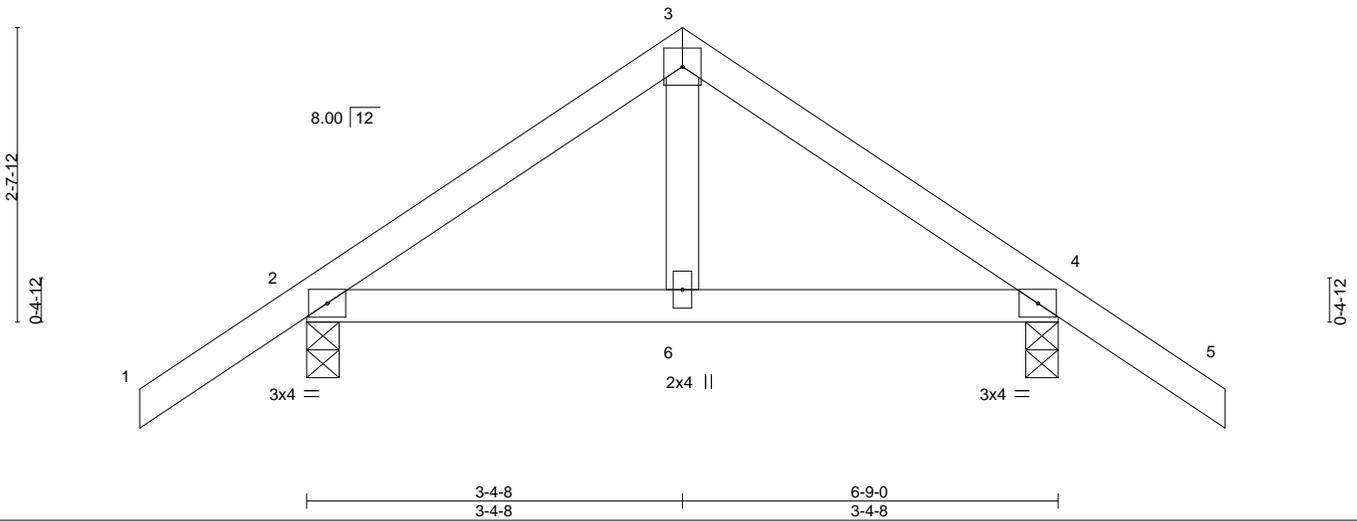
8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:56 2023 Page 1

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4x4 =

Scale = 1:20.6



LOADING (psf)	SPACING-	CSI.	DEFL.				PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc)	I/defl	L/d	MT20	244/190	
TCDL 7.0	Plate Grip DOL 1.25	BC 0.12	Vert(LL) 0.01	6-12	>999			
BCLL 0.0 *	Lumber DOL 1.25	WB 0.06	Vert(CT) -0.01	6-12	>999			
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00	4	n/a			
	Code FBC2020/TPI2014					Weight: 31 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=72(LC 11)
 Max Uplift 2=-84(LC 12), 4=-84(LC 13)
 Max Grav 2=331(LC 1), 4=331(LC 1)

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

TOP CHORD 2-3=-253/319, 3-4=-253/320

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 3-4-8, Exterior(2R) 3-4-8 to 6-4-10, Interior(1) 6-4-10 to 8-3-0 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.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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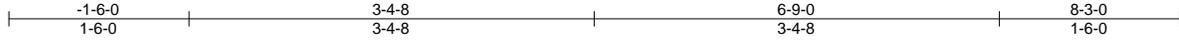
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T02G	Truss Type KINGPOST	Qty 1	Ply 1	EXCEPTIONS - 1776	T30107052
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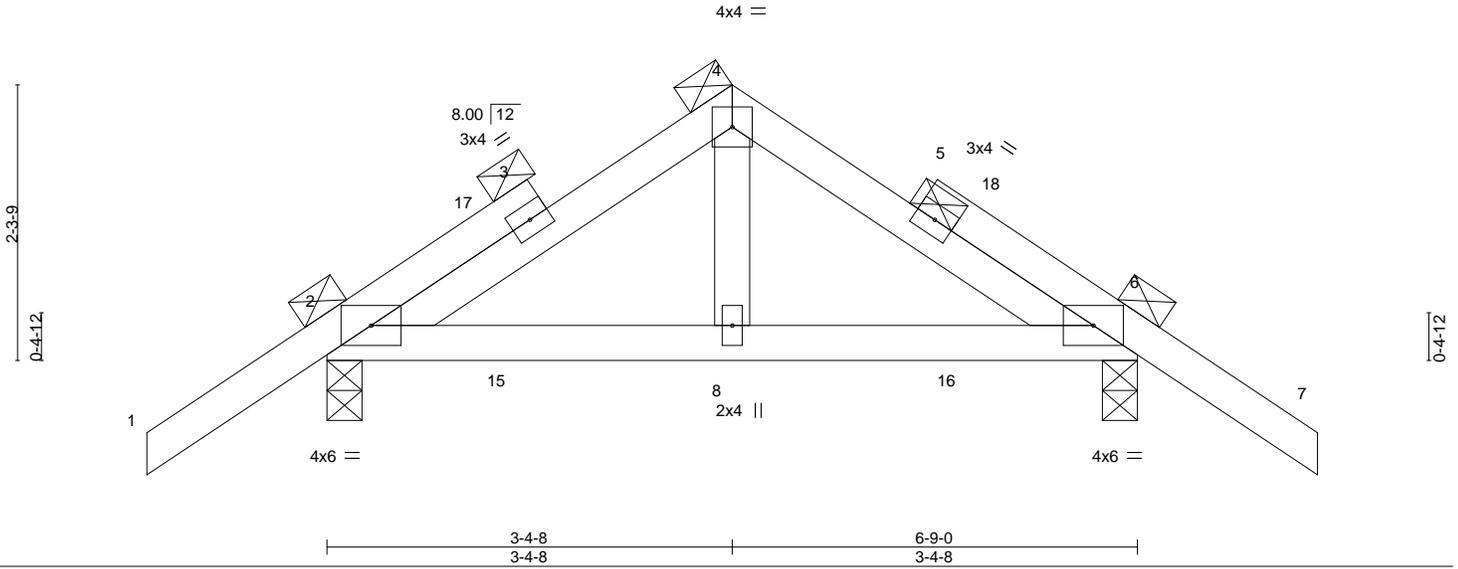
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:10:57 2023 Page 1

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Scale = 1:19.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.10	Vert(LL) 0.01 8-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Vert(CT) -0.01 8-11 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) -0.00 2 n/a n/a	Weight: 35 lb	FT = 20%
	Code FBC2020/TPI2014				

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.).
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=-64(LC 10)
 Max Uplift 2=-87(LC 12), 6=-87(LC 13)
 Max Grav 2=328(LC 1), 6=328(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-229/350, 4-6=-229/351

- 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 3-4-8, Corner(3R) 3-4-8 to 6-7-4, Exterior(2N) 6-7-4 to 8-3-0 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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Job 3458575	Truss T03	Truss Type Half Hip Girder	Qty 1	Ply 2	EXCEPTIONS - 1776 Job Reference (optional)	T30107053
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:04 2023 Page 1

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Scale: 3/16"=1'

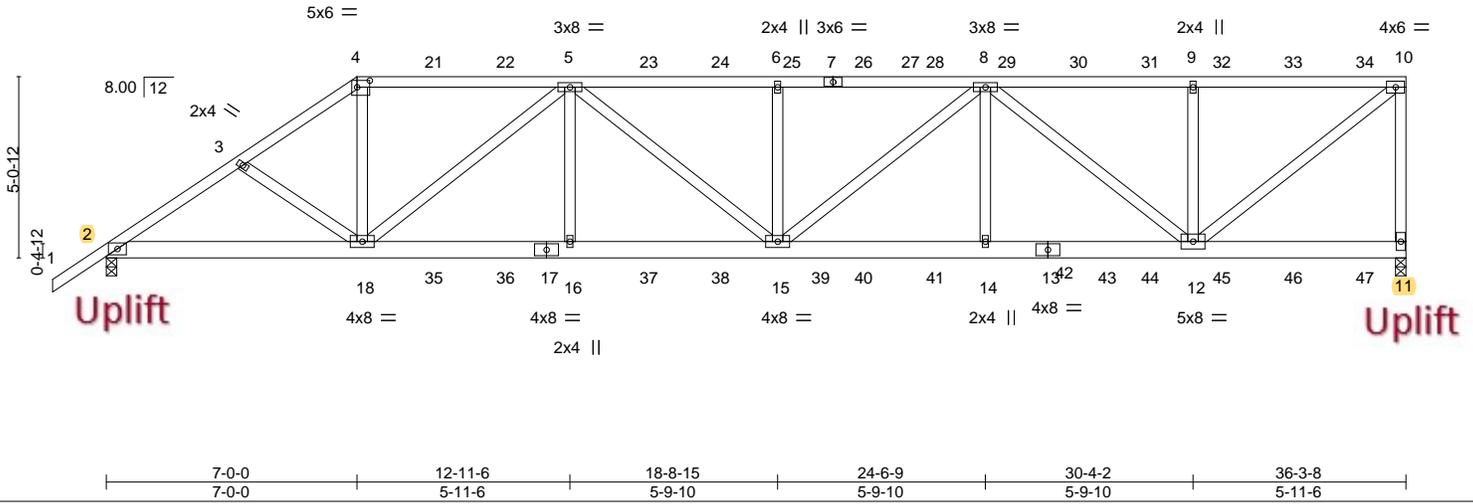


Plate Offsets (X,Y)-- [4:0-4-4,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.30	Vert(LL) 0.19 15-16 >999 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.55	Vert(CT) -0.32 15-16 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.76	Horz(CT) 0.08 11 n/a n/a		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS		Weight: 480 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 11=0-3-8, 2=0-3-8
 Max Horz 2=191(LC 8)
 Max Uplift 11=-1137(LC 5), 2=-1016(LC 8)
 Max Grav 11=2909(LC 1), 2=2725(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-4504/1721, 3-4=-4353/1698, 4-5=-3654/1469, 5-6=-5697/2228, 6-8=-5697/2228, 8-9=-3125/1222, 9-10=-3125/1222, 10-11=-2665/1070
 BOT CHORD 2-18=-1532/3699, 16-18=-2075/5287, 15-16=-2075/5287, 14-15=-1952/4989, 12-14=-1952/4989
 WEBS 4-18=-784/2124, 5-18=-2139/870, 5-16=-166/635, 5-15=-229/562, 6-15=-357/210, 8-15=-405/910, 8-14=-152/615, 8-12=-2397/940, 9-12=-393/233, 10-12=-1553/3978

- 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
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 11=1137, 2=1016.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	EXCEPTIONS - 1776	T30107053
3458575	T03	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:04 2023 Page 2
ID:xnU8Nd1YV2cO2ih4SDBDyxzRDSf-yJk2Y0TRyZ98doH?327QxvP25B6Ho6o7lvCrczYk3b

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 52 lb up at 7-0-0, 67 lb down and 50 lb up at 9-0-12, 67 lb down and 50 lb up at 11-0-12, 67 lb down and 50 lb up at 13-0-12, 67 lb down and 50 lb up at 15-0-12, 67 lb down and 50 lb up at 17-0-12, 67 lb down and 50 lb up at 19-0-12, 67 lb down and 46 lb up at 21-0-12, 67 lb down and 50 lb up at 23-0-12, 67 lb down and 50 lb up at 25-0-12, 67 lb down and 50 lb up at 27-0-12, 67 lb down and 50 lb up at 29-0-12, 67 lb down and 50 lb up at 31-0-12, and 67 lb down and 50 lb up at 33-0-12, and 67 lb down and 50 lb up at 35-0-12 on top chord, and 424 lb down and 243 lb up at 7-0-0, 155 lb down and 77 lb up at 9-0-12, 155 lb down and 77 lb up at 11-0-12, 155 lb down and 77 lb up at 13-0-12, 155 lb down and 77 lb up at 15-0-12, 155 lb down and 77 lb up at 17-0-12, 155 lb down and 77 lb up at 19-0-12, 155 lb down and 77 lb up at 21-0-12, 155 lb down and 77 lb up at 23-0-12, 155 lb down and 77 lb up at 25-0-12, 155 lb down and 77 lb up at 27-0-12, 155 lb down and 77 lb up at 29-0-12, 155 lb down and 77 lb up at 31-0-12, and 155 lb down and 77 lb up at 33-0-12, and 155 lb down and 77 lb up at 35-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 4=-19(F) 18=-424(F) 5=-19(F) 16=-155(F) 21=-19(F) 22=-19(F) 23=-19(F) 24=-19(F) 25=-19(F) 26=-19(F) 28=-19(F) 29=-19(F) 30=-19(F) 31=-19(F) 32=-19(F) 33=-19(F) 34=-19(F) 35=-155(F) 36=-155(F) 37=-155(F) 38=-155(F) 39=-155(F) 40=-155(F) 41=-155(F) 42=-155(F) 43=-155(F) 44=-155(F) 45=-155(F) 46=-155(F) 47=-155(F)

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

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Chesterfield, MO 63017

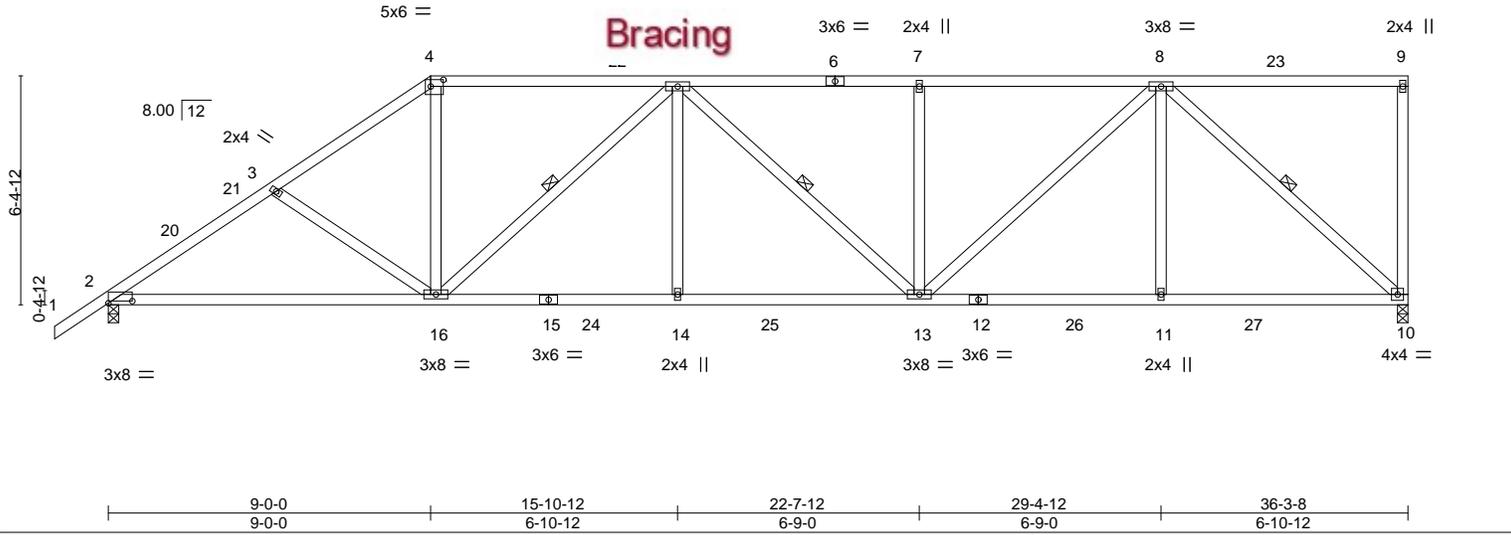
Job 3458575	Truss T04	Truss Type Half Hip	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107054
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:06 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyXzRDSF-uispziUhUAPss6QNBt9u0KULV?jmGz5QCdh_wVzYk3Z



Scale: 3/16"=1'



Job 3458575	Truss T05	Truss Type Half Hip	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107055
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:08 2023 Page 1
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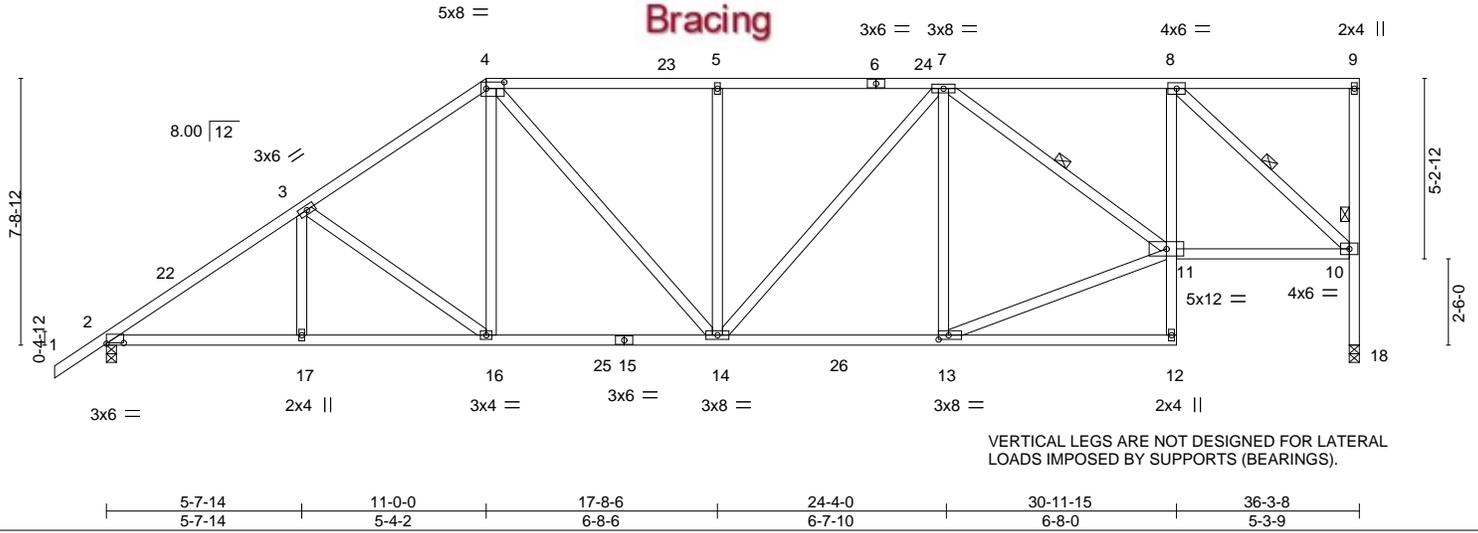


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [4:0-6-4,0-2-4], [13:0-3-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.47	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.65	Vert(LL) -0.15 14-16 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.66	Vert(CT) -0.26 14-16 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.16 18 n/a n/a		
				Weight: 242 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 8-12: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 7-9-8 oc bracing.
WEBS 2x4 SP No.3 *Except* 9-18: 2x4 SP No.2	WEBS 1 Row at midpt 9-18, 7-11, 8-10

REACTIONS. (size) 2=0-3-8, 18=0-3-8
 Max Horz 2=283(LC 12)
 Max Uplift 2=-336(LC 12), 18=-352(LC 9)
 Max Grav 2=1543(LC 2), 18=1472(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2312/471, 3-4=-1943/441, 4-5=-1855/437, 5-7=-1855/437, 7-8=-1393/339, 10-18=-1472/352
 BOT CHORD 2-17=-570/1873, 16-17=-570/1873, 14-16=-414/1565, 13-14=-380/1645, 8-11=-158/1007, 10-11=-337/1399
 WEBS 3-16=-474/193, 4-16=-74/526, 4-14=-203/504, 5-14=-387/190, 7-14=-164/320, 7-13=-416/188, 11-13=-405/1734, 7-11=-314/109, 8-10=-1886/457

- 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., GCp=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-1-9, Interior(1) 2-1-9 to 11-0-0, Exterior(2R) 11-0-0 to 16-1-9, Interior(1) 16-1-9 to 36-1-12 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.
 - 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.
 - Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=336, 18=352.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

<p>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</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job 3458575	Truss T06	Truss Type Hip	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107056
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:10 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-nT5Jo4YCYPWHLj8QJEqBAf?pc8PCpo07qfC3GzYk3V



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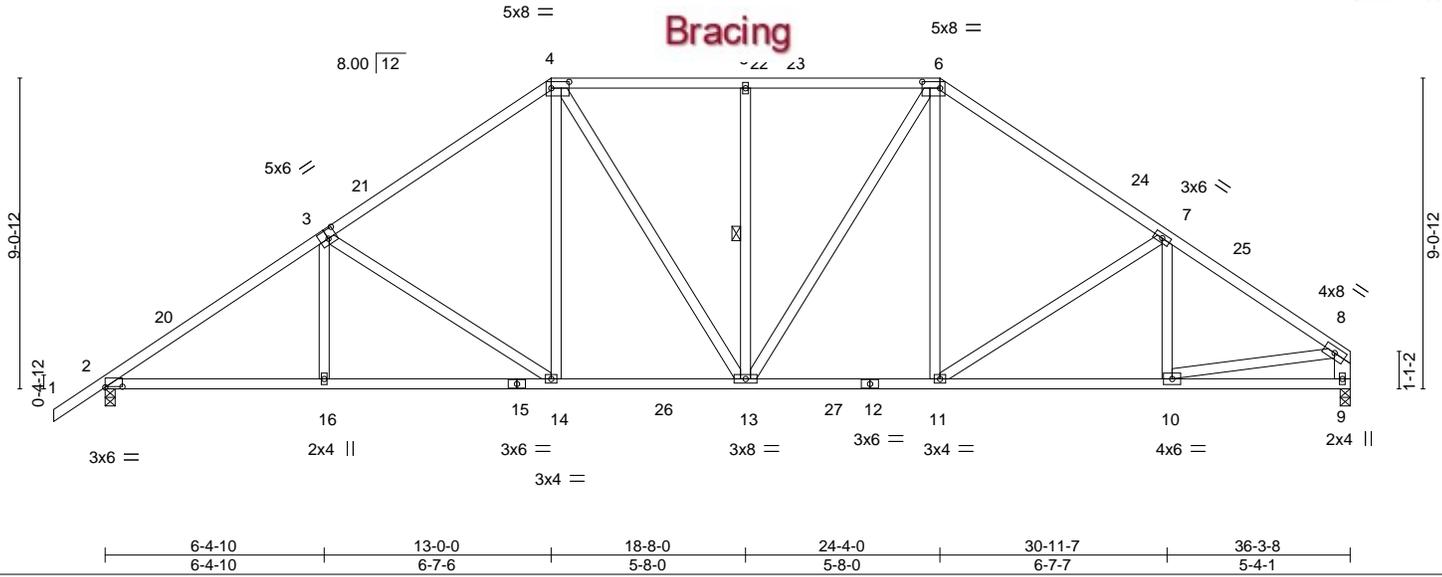


Plate Offsets (X,Y)-- [2:0-6-0,0-0-4], [3:0-3-0,0-3-0], [4:0-6-4,0-2-4], [6:0-6-4,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.63	Vert(LL) -0.12 13-14 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.72	Vert(CT) -0.22 14-16 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.08 9 n/a n/a		
				Weight: 230 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-3 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 8-11-11 oc bracing.
 WEBS 1 Row at midpt 5-13

REACTIONS.

(size) 2=0-3-8, 9=0-3-8
 Max Horz 2=204(LC 9)
 Max Uplift 2=-315(LC 12), 9=-273(LC 13)
 Max Grav 2=1536(LC 2), 9=1470(LC 2)

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

TOP CHORD 2-3=-2286/432, 3-4=-1809/387, 4-5=-1558/357, 5-6=-1558/357, 6-7=-1733/367,
 7-8=-1920/365, 8-9=-1389/284
 BOT CHORD 2-16=-423/1889, 14-16=-424/1886, 13-14=-225/1437, 11-13=-132/1373, 10-11=-247/1555
 WEBS 3-16=0/272, 3-14=-596/238, 4-14=-90/577, 4-13=-169/323, 5-13=-342/174,
 6-13=-173/418, 6-11=-62/436, 7-11=-326/184, 8-10=-216/1462

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 2-1-9, Interior(1) 2-1-9 to 13-0-0, Exterior(2R) 13-0-0 to 18-1-9, Interior(1) 18-1-9 to 24-4-0, Exterior(2R) 24-4-0 to 29-5-9, Interior(1) 29-5-9 to 36-0-12 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=315, 9=273.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T07	Truss Type Hip	Qty 1	Ply 1	EXCEPTIONS - 1776	T30107057
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:12 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-jrD4DmZS40A? a1uXXkGIGbklsQoKgmDJa88179zYk3T



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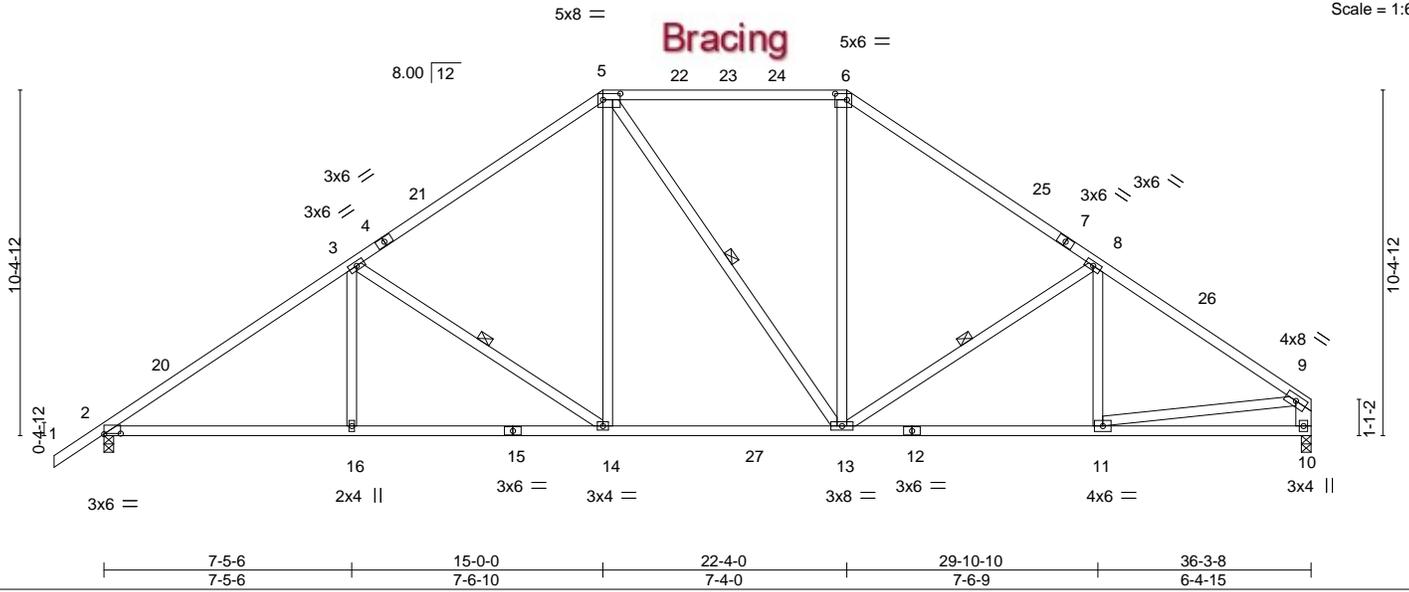


Plate Offsets (X,Y)-- [2:0-6-0,0-0-4], [5:0-6-4,0-2-4], [6:0-4-4,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.76	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.73	Vert(LL) -0.15 13-14 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.54	Vert(CT) -0.24 13-14 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.08 10 n/a n/a		
				Weight: 218 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except*
 9-10: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 8-10-14 oc bracing.
 WEBS 1 Row at midpt 3-14, 5-13, 8-13

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
 Max Horz 2=233(LC 9)
 Max Uplift 2=-310(LC 12), 10=-268(LC 13)
 Max Grav 2=1537(LC 19), 10=1454(LC 2)

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

TOP CHORD 2-3=-2228/417, 3-5=-1672/362, 5-6=-1273/355, 6-8=-1621/349, 8-9=-1927/363, 9-10=-1356/282
 BOT CHORD 2-16=-418/1902, 14-16=-418/1902, 13-14=-186/1327, 11-13=-231/1551
 WEBS 3-16=0/319, 3-14=-699/279, 5-14=-106/683, 6-13=-85/571, 8-13=-454/230, 9-11=-183/1409

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 2-1-9, Interior(1) 2-1-9 to 15-0-0, Exterior(2R) 15-0-0 to 20-1-9, Interior(1) 20-1-9 to 22-4-0, Exterior(2R) 22-4-0 to 27-5-9, Interior(1) 27-5-9 to 36-0-12 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=310, 10=268.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T08	Truss Type Piggyback Base	Qty 4	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107058
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:14 2023 Page 1

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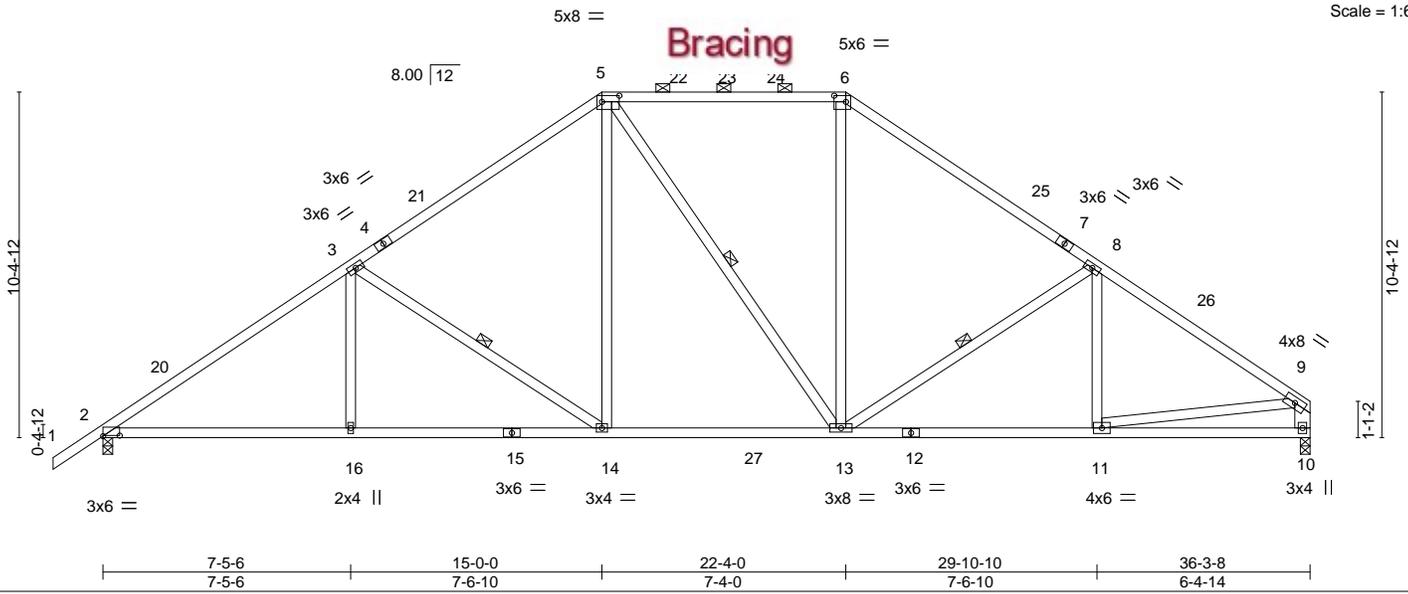


Plate Offsets (X,Y)-- [2:0-6-0,0-0-4], [5:0-6-4,0-2-4], [6:0-4-4,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.85	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.73	Vert(LL) -0.15 13-14 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.54	Vert(CT) -0.24 13-14 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.08 10 n/a n/a		
				Weight: 218 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-12 max.): 5-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 8-10-14 oc bracing.
WEBS 2x4 SP No.3 *Except* 9-10: 2x6 SP No.2	WEBS 1 Row at midpt 3-14, 5-13, 8-13

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=233(LC 9)
 Max Uplift 2=-310(LC 12), 10=-268(LC 13)
 Max Grav 2=1537(LC 19), 10=1454(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2229/417, 3-5=-1672/362, 5-6=-1273/355, 6-8=-1621/349, 8-9=-1927/363, 9-10=-1356/282
 BOT CHORD 2-16=-418/1902, 14-16=-418/1902, 13-14=-186/1327, 11-13=-231/1551
 WEBS 3-16=0/319, 3-14=-699/279, 5-14=-106/683, 6-13=-85/571, 8-13=-454/230, 9-11=-183/1409

- 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 2-1-9, Interior(1) 2-1-9 to 15-0-0, Exterior(2R) 15-0-0 to 20-1-9, Interior(1) 20-1-9 to 22-4-0, Exterior(2R) 22-4-0 to 27-5-9, Interior(1) 27-5-9 to 36-0-12 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.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=310, 10=268.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

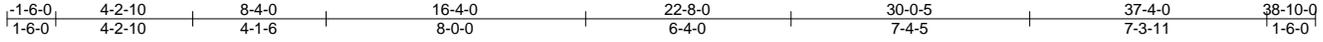
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job 3458575	Truss T10	Truss Type Roof Special	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107059
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:16 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-bdSb37cz7FgR3eBImaLEQRuzn1BdcWMuVm6WGwzYk3P



Scale = 1:70.7

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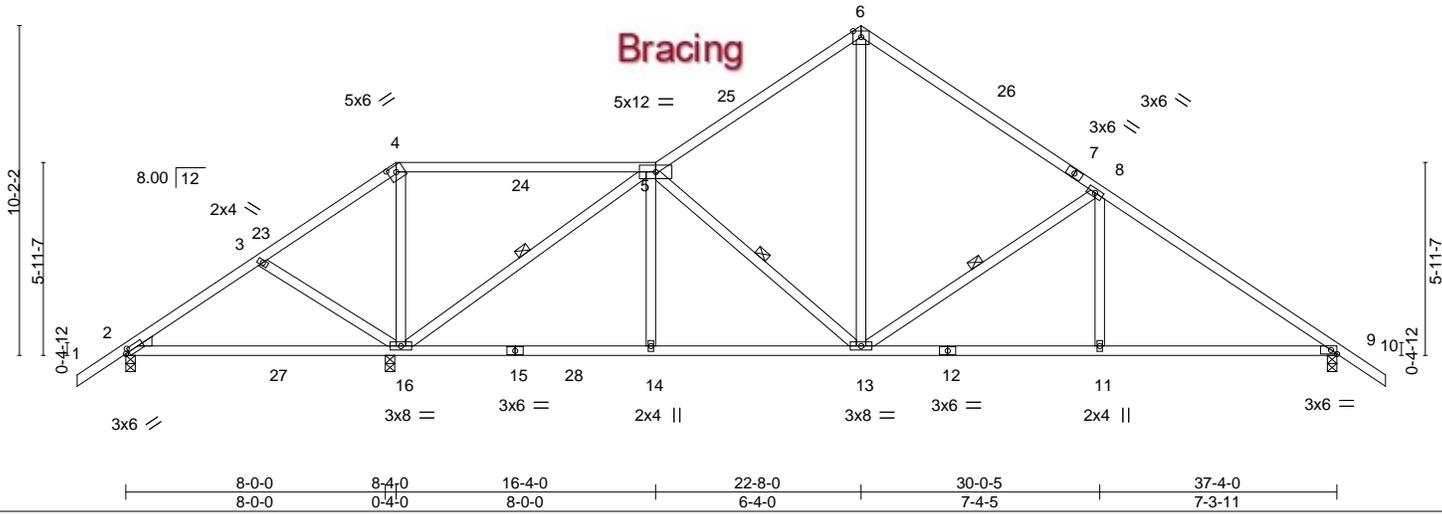


Plate Offsets (X,Y)-- [2:0-1-5,0-1-8], [4:0-3-0,0-2-3], [9:0-2-3,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.83	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.65	Vert(LL) 0.20 16-19 >504 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.78	Vert(CT) -0.18 16-19 >575 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.04 9 n/a n/a		
				Weight: 210 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-3-1 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 2-16.
 WEBS 1 Row at midpt 5-16, 5-13, 8-13

REACTIONS. (size) 2=0-3-8, 16=0-3-8, 9=0-3-8
 Max Horz 2=-237(LC 10)
 Max Uplift 2=-93(LC 24), 16=-439(LC 12), 9=-238(LC 13)
 Max Grav 2=115(LC 23), 16=2025(LC 2), 9=1165(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-108/558, 3-4=-151/767, 4-5=-72/600, 5-6=-962/274, 6-8=-948/259, 8-9=-1539/291
 BOT CHORD 2-16=-509/204, 14-16=-100/790, 13-14=-102/783, 11-13=-127/1197, 9-11=-127/1197
 WEBS 3-16=-260/211, 4-16=-676/237, 5-16=-1661/289, 5-14=0/315, 6-13=-145/672,
 8-13=-688/273, 8-11=0/314

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 8-4-0, Exterior(2R) 8-4-0 to 12-0-13, Interior(1) 12-0-13 to 22-8-0, Exterior(2R) 22-8-0 to 26-4-13, Interior(1) 26-4-13 to 38-10-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 16=439, 9=238.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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 Date:

March 22, 2023

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Job 3458575	Truss T11	Truss Type Roof Special	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107060
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:19 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-0C8jh9frQA20w6wtRiux23WXfEDZptnLBkLAtFzYk3M



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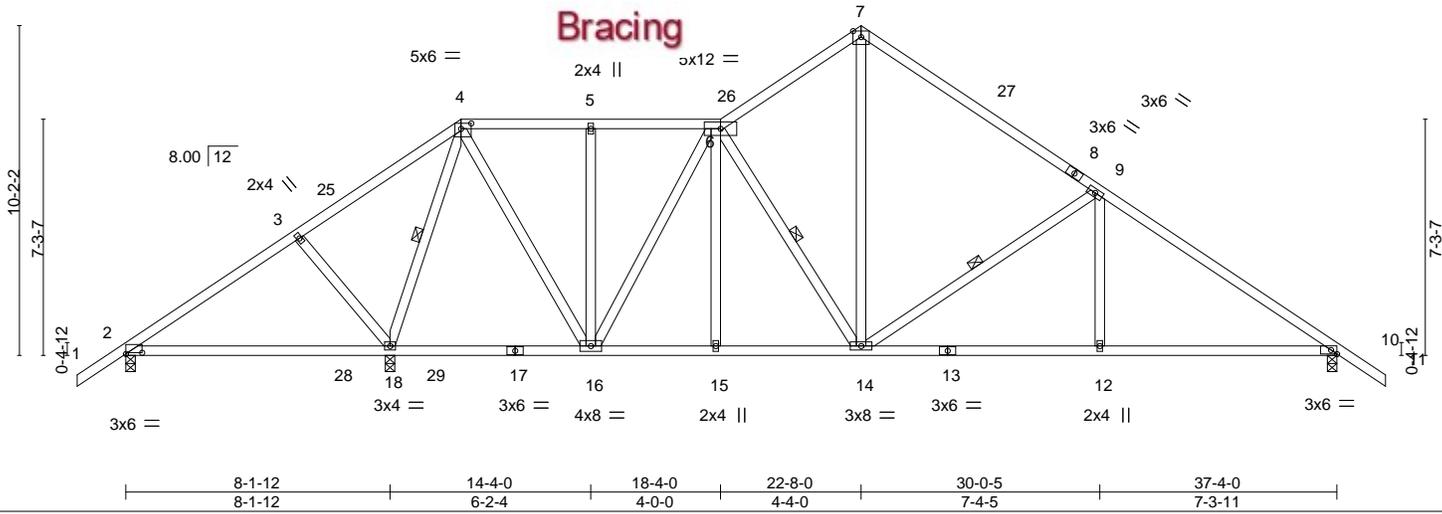


Plate Offsets (X,Y)-- [2:0-6-0,0-0-8], [4:0-3-12,0-2-0], [10:0-2-3,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.63	Vert(LL) 0.18 18-21 >547 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.80	Vert(CT) -0.18 18-21 >540 180		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS	Horz(CT) 0.03 10 n/a n/a		
				Weight: 231 lb	FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-1-10 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 4-18, 6-14, 9-14

REACTIONS. (size) 2=0-3-8, 18=0-3-8, 10=0-3-8
 Max Horz 2=-237(LC 10)
 Max Uplift 2=-62(LC 9), 18=-414(LC 12), 10=-244(LC 13)
 Max Grav 2=196(LC 23), 18=1867(LC 2), 10=1213(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-95/416, 3-4=-90/567, 4-5=-588/202, 5-6=-588/202, 6-7=-1003/292, 7-9=-1031/276, 9-10=-1623/302
 BOT CHORD 2-18=-371/194, 15-16=-103/891, 14-15=-104/889, 12-14=-143/1267, 10-12=-143/1267
 WEBS 3-18=-298/203, 4-18=-1429/315, 4-16=-171/1089, 6-16=-673/133, 6-14=-297/151, 7-14=-174/776, 9-14=-689/274, 9-12=0/316

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 10-4-0, Exterior(2R) 10-4-0 to 14-4-0, Interior(1) 14-4-0 to 22-8-0, Exterior(2R) 22-8-0 to 26-4-13, Interior(1) 26-4-13 to 38-10-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 18=414, 10=244.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T12	Truss Type Roof Special	Qty 1	Ply 1	EXCEPTIONS - 1776	T30107061
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:21 2023 Page 1

ID:xUNd1YV2cO2ih4SDBDyxzRDSf-yaGU6qg6ynljAP4GZ7wP7Ucpa2ukHqtdf2qHx7zYk3K



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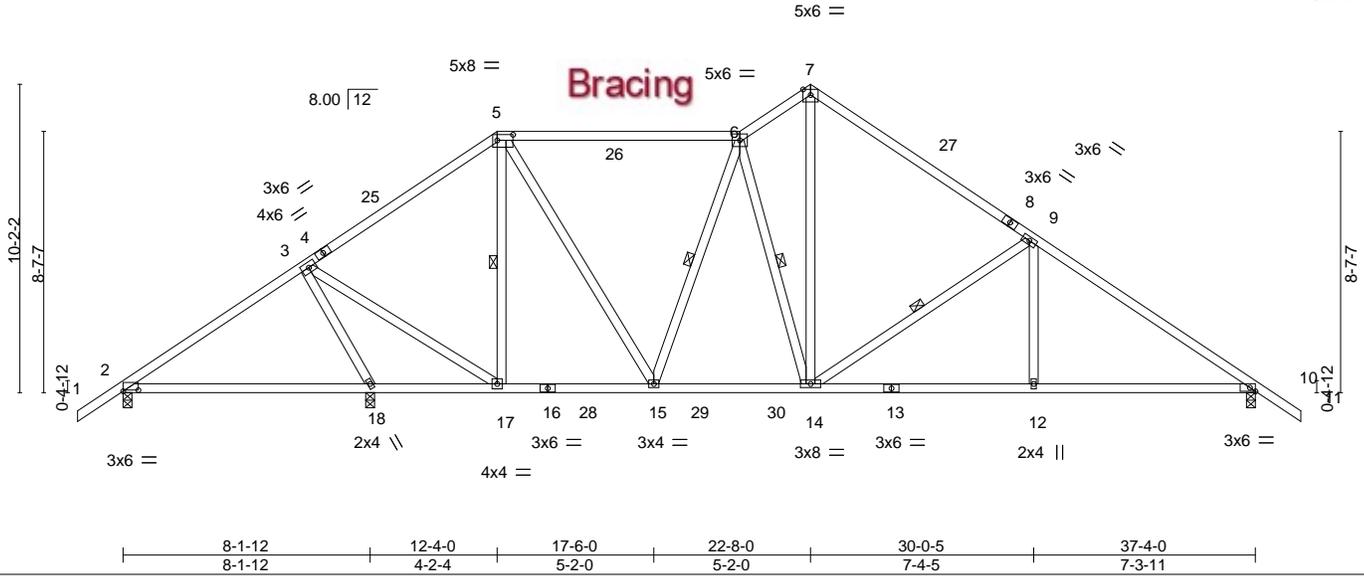


Plate Offsets (X,Y)--	[2:0-6-0,0-0-8], [5:0-6-4,0-2-4], [10:0-2-3,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.89	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.65	Vert(LL) 0.18 18-21 >545 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.64	Vert(CT) -0.21 18-21 >477 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.04 10 n/a n/a		
				Weight: 228 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	6-0-0 oc bracing: 17-18.
	WEBS 1 Row at midpt 5-17, 6-15, 6-14, 9-14

REACTIONS. (size) 2=0-3-8, 18=0-3-8, 10=0-3-8
 Max Horz 2=237(LC 11)
 Max Uplift 2=-75(LC 12), 18=-344(LC 12), 10=-255(LC 13)
 Max Grav 2=401(LC 23), 18=1554(LC 2), 10=1302(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-258/126, 3-5=-730/205, 5-6=-901/266, 6-7=-1138/333, 7-9=-1191/291, 9-10=-1781/321
 BOT CHORD 17-18=-698/234, 15-17=-60/577, 14-15=-104/1014, 12-14=-162/1397, 10-12=-162/1397
 WEBS 3-18=-1479/430, 3-17=-222/1326, 5-17=-577/145, 5-15=-111/736, 6-15=-438/127, 6-14=-492/221, 7-14=-233/998, 9-14=-684/272, 9-12=0/316

- 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 2-2-13, Interior(1) 2-2-13 to 12-4-0, Exterior(2R) 12-4-0 to 16-0-13, Interior(1) 16-0-13 to 22-8-0, Exterior(2R) 22-8-0 to 26-4-13, Interior(1) 26-4-13 to 38-10-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 18=344, 10=255.

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Philip J. O'Regan PE No.58126
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 Date:

March 22, 2023

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Job 3458575	Truss T13	Truss Type Hip	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107062
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:23 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-uzNEXWiMUOYRPjEgYztDvhBPrXoh3w6MJO00zYk3I



Scale = 1:67.8

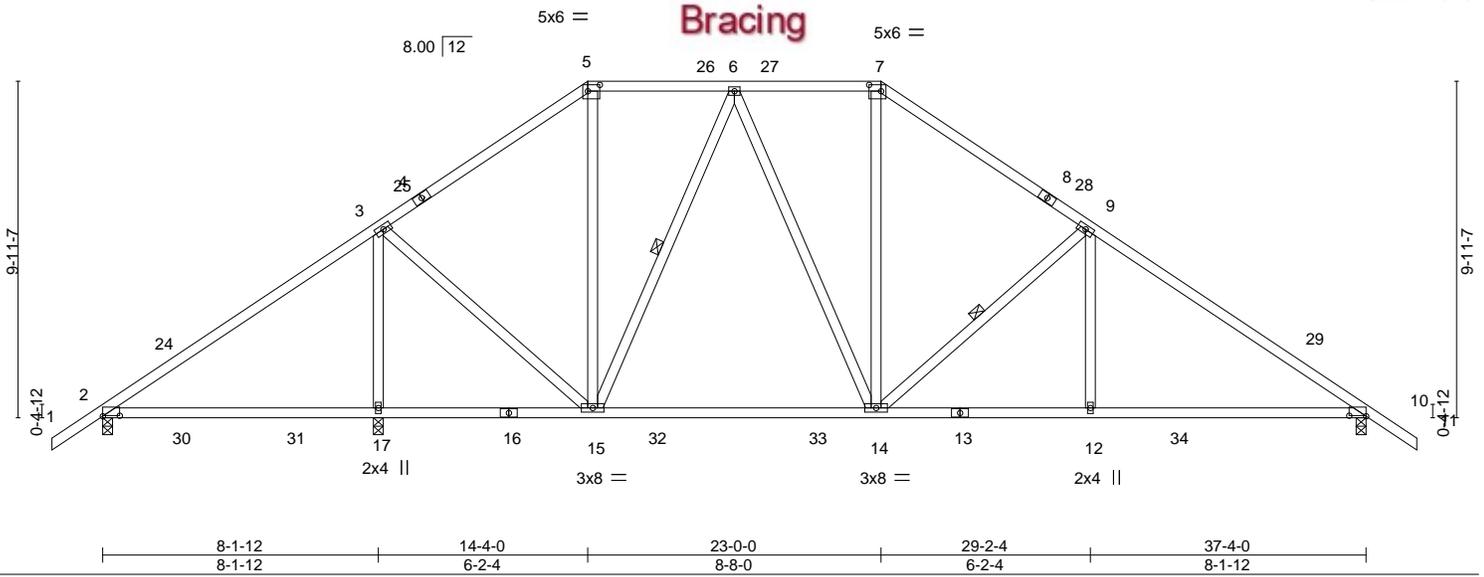


Plate Offsets (X,Y)-- [2:0-6-0,0-0-4], [5:0-4-4,0-2-4], [7:0-4-4,0-2-4], [10:0-6-0,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.68	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.80	Vert(LL) 0.20 17-20 >488 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Vert(CT) -0.38 14-15 >922 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.03 10 n/a n/a		
				Weight: 223 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 6-15, 9-14

REACTIONS.

(size) 2=0-3-8, 17=0-3-8, 10=0-3-8
 Max Horz 2=-233(LC 10)
 Max Uplift 2=-93(LC 12), 17=-287(LC 12), 10=-283(LC 13)
 Max Grav 2=368(LC 23), 17=1651(LC 2), 10=1284(LC 20)

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

TOP CHORD 3-5=-814/246, 5-6=-599/228, 6-7=-913/322, 7-9=-1186/331, 9-10=-1683/361
 BOT CHORD 14-15=-105/801, 12-14=-163/1344, 10-12=-163/1344
 WEBS 3-17=-1331/303, 3-15=-58/824, 6-15=-541/161, 6-14=-75/370, 7-14=-74/417,
 9-14=-683/267, 9-12=0/331

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 14-4-0, Exterior(2R) 14-4-0 to 19-7-6, Interior(1) 19-7-6 to 23-0-0, Exterior(2R) 23-0-0 to 28-3-6, Interior(1) 28-3-6 to 38-10-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 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 100 lb uplift at joint(s) 2 except (jt=lb) 17=287, 10=283.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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

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

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



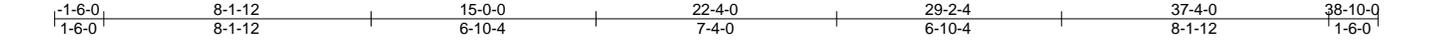
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T14	Truss Type Piggyback Base	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107063
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:24 2023 Page 1

ID:xnU8Md1YV2cO2ih4SDBDyxzRDSf-N9xcksi_Fig1torEFU6I7EKzFtAU8g4L02xYSzYk3H



Scale = 1:69.9

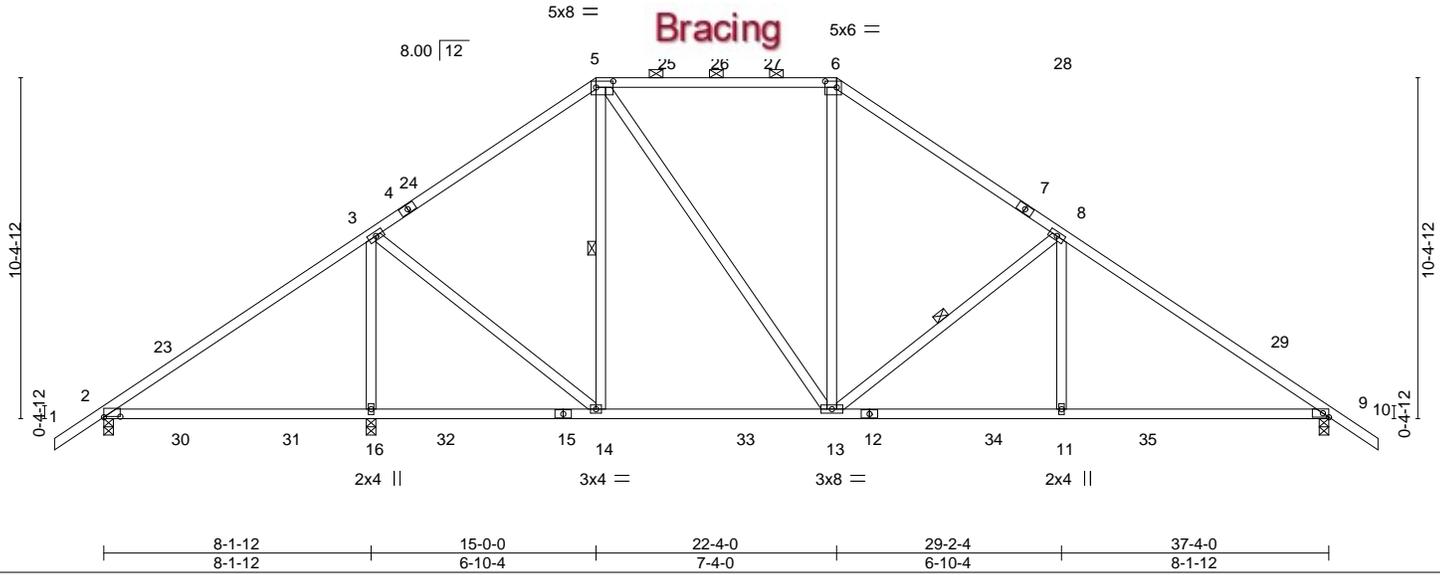


Plate Offsets (X,Y)-- [2:0-6-0,0-0-4], [5:0-6-4,0-2-4], [6:0-4-4,0-2-4], [9:0-2-3,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.79	Vert(LL) 0.20 16-19 >483 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.76	Vert(CT) -0.30 11-22 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 214 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except 2-0-0 oc purlins (4-0-8 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 5-14, 8-13

REACTIONS.

(size) 2=0-3-8, 16=0-3-8, 9=0-3-8
 Max Horz 2=-243(LC 10)
 Max Uplift 2=-94(LC 12), 16=-284(LC 12), 9=-285(LC 13)
 Max Grav 2=392(LC 23), 16=1667(LC 2), 9=1315(LC 20)

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

TOP CHORD 3-5=-867/266, 5-6=-888/325, 6-8=-1159/325, 8-9=-1748/364
 BOT CHORD 13-14=-101/672, 11-13=-167/1386, 9-11=-167/1386
 WEBS 3-16=-1308/306, 3-14=-31/794, 5-14=-286/69, 5-13=-135/488, 6-13=-40/337, 8-13=-753/276, 8-11=0/405

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 15-0-0, Exterior(2R) 15-0-0 to 20-3-6, Interior(1) 20-3-6 to 22-4-0, Exterior(2R) 22-4-0 to 27-7-6, Interior(1) 27-7-6 to 38-10-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 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 100 lb uplift at joint(s) 2 except (jt=lb) 16=284, 9=285.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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



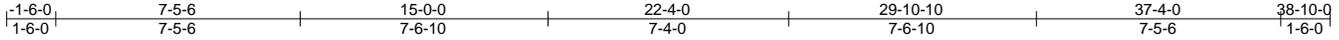
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T15	Truss Type Piggyback Base	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107064
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:26 2023 Page 1

ID: xnU8Nd1YV2cO2ih4SDBDyxzRDSf-JY3N9YkEnJx0GByDMgWaqYJfM3aQy9MNoKX2dLzYk3F



Scale = 1:69.9

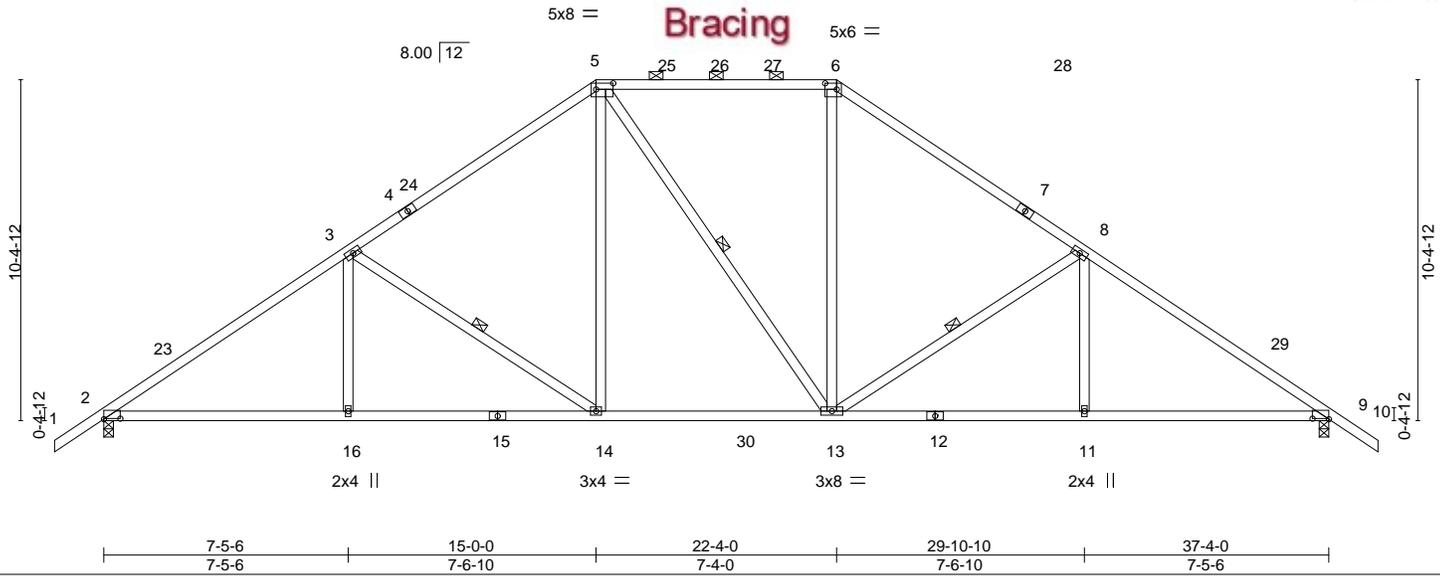


Plate Offsets (X,Y)-- [2:0-6-0,0-0-4], [5:0-6-4,0-2-4], [6:0-4-4,0-2-4], [9:0-6-0,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.89	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.74	Vert(LL) -0.17 13-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.30	Vert(CT) -0.28 13-14 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.10 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 213 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 9-1-12 oc bracing.
 WEBS 1 Row at midpt 3-14, 5-13, 8-13

REACTIONS.

(size) 2=0-3-8, 9=0-3-8
 Max Horz 2=-243(LC 10)
 Max Uplift 2=-316(LC 12), 9=-316(LC 13)
 Max Grav 2=1584(LC 19), 9=1579(LC 20)

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

TOP CHORD 2-3=-2317/428, 3-5=-1762/373, 5-6=-1381/374, 6-8=-1753/373, 8-9=-2309/428
 BOT CHORD 2-16=-396/1987, 14-16=-396/1987, 13-14=-164/1414, 11-13=-232/1860, 9-11=-232/1860
 WEBS 3-16=0/318, 3-14=-698/279, 5-14=-106/685, 6-13=-95/643, 8-13=-698/280, 8-11=0/317

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 15-0-0, Exterior(2R) 15-0-0 to 20-3-6, Interior(1) 20-3-6 to 22-4-0, Exterior(2R) 22-4-0 to 27-7-6, Interior(1) 27-7-6 to 38-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 100 lb uplift at joint(s) except (jt=lb) 2=316, 9=316.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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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

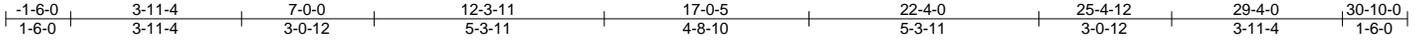


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T16	Truss Type Hip Girder	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107065
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:29 2023 Page 1

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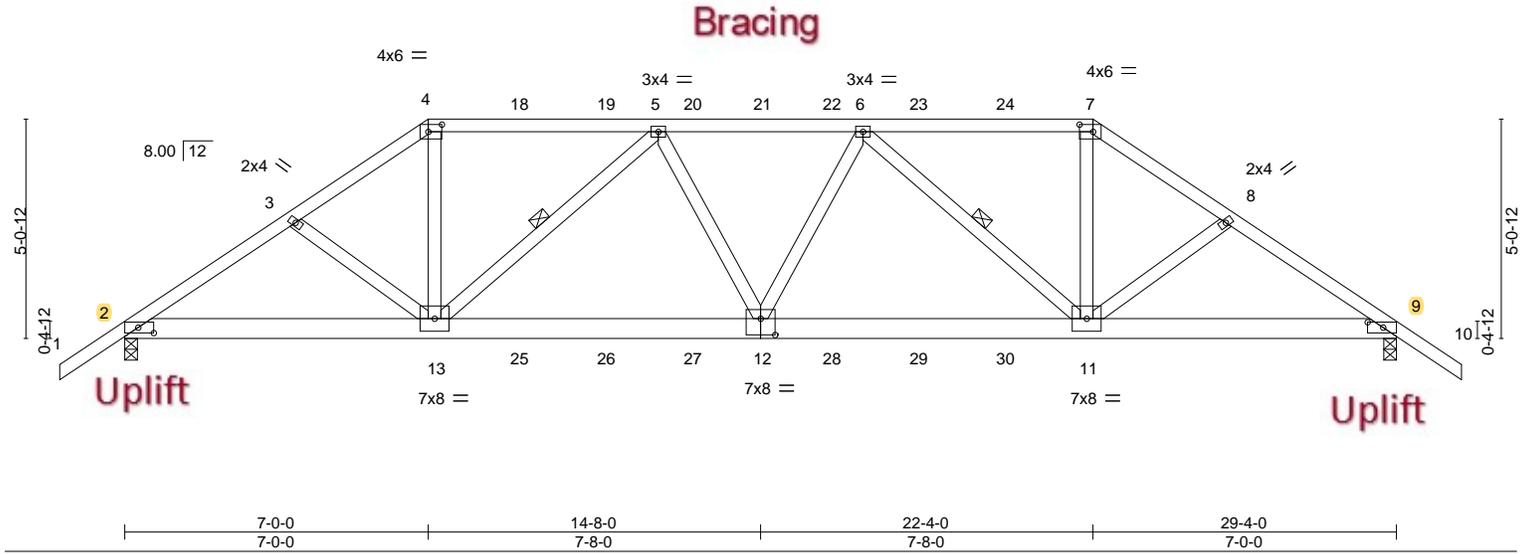


Plate Offsets (X,Y)--	[2:0-4-5,0-1-8], [4:0-3-12,0-2-0], [7:0-3-12,0-2-0], [9:0-4-5,0-1-8], [12:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.37	Vert(LL) 0.19 11-12 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.63	Vert(CT) -0.32 11-12 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.07 9 n/a n/a		
				Weight: 181 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins.
BOT CHORD 2x6 SP M 26	BOT CHORD Rigid ceiling directly applied or 8-2-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-13, 6-11

REACTIONS. (size) 2=0-3-8, 9=0-3-8
 Max Horz 2=-125(LC 25)
Max Uplift 2=-840(LC 8), 9=-865(LC 9)
 Max Grav 2=2236(LC 1), 9=2274(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-3640/1408, 3-4=-3490/1388, 4-5=-2921/1204, 5-6=-4009/1594, 6-7=-2977/1239,
 7-8=-3558/1432, 8-9=-3708/1453
 BOT CHORD 2-13=-1165/2979, 12-13=-1479/3783, 11-12=-1475/3801, 9-11=-1117/3036
 WEBS 4-13=-624/1666, 5-13=-1208/544, 5-12=-194/532, 6-12=-158/507, 6-11=-1147/491,
 7-11=-592/1631

- 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; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=840, 9=865.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 52 lb up at 7-0-0, 67 lb down and 50 lb up at 9-0-12, 67 lb down and 50 lb up at 11-0-12, 67 lb down and 50 lb up at 13-0-12, 67 lb down and 42 lb up at 14-8-0, 67 lb down and 50 lb up at 16-3-4, 67 lb down and 50 lb up at 18-3-4, and 67 lb down and 50 lb up at 20-3-4, and 174 lb down and 157 lb up at 22-4-0 on top chord, and 424 lb down and 243 lb up at 7-0-0, 155 lb down and 77 lb up at 9-0-12, 155 lb down and 77 lb up at 11-0-12, 155 lb down and 77 lb up at 13-0-12, 155 lb down and 77 lb up at 14-8-0, 155 lb down and 77 lb up at 16-3-4, 155 lb down and 77 lb up at 18-3-4, and 155 lb down and 77 lb up at 20-3-4, and 424 lb down and 243 lb up at 22-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

Continued on page 2

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	EXCEPTIONS - 1776	T30107065
3458575	T16	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:29 2023 Page 2
ID:xnU8Nd1YV2cO2ih4SDBDyxzRDSf-j7lVoam73EJb7eho1o4HSAxE0Ghw9RvpVImiEgzYk3C

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-7=-54, 7-10=-54, 2-9=-20

Concentrated Loads (lb)

Vert: 4=-19(B) 7=-93(B) 12=-155(B) 13=-424(B) 11=-424(B) 18=-19(B) 19=-19(B) 20=-19(B) 21=-19(B) 22=-19(B) 23=-19(B) 24=-19(B) 25=-155(B) 26=-155(B) 27=-155(B) 28=-155(B) 29=-155(B) 30=-155(B)

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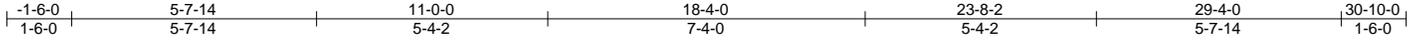


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 3458575	Truss T18	Truss Type Hip	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107067
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:32 2023 Page 1

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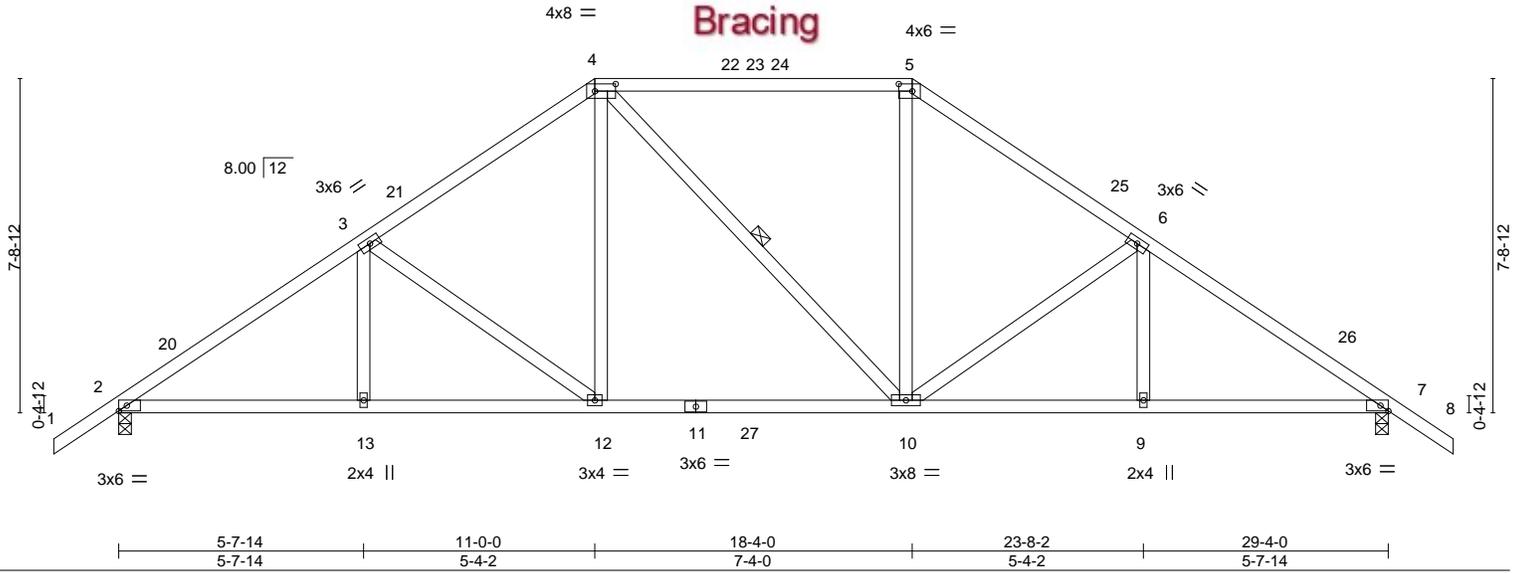


Plate Offsets (X,Y)-- [4:0-5-12,0-2-0], [5:0-3-12,0-2-0], [7:0-2-3,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.59	Vert(LL) -0.13 10-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.40	Vert(CT) -0.22 10-12 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 7 n/a n/a		
	Code FBC2020/TPI2014			Weight: 165 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-10

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
 Max Horz 2=-184(LC 10)
 Max Uplift 2=-257(LC 12), 7=-257(LC 13)
 Max Grav 2=1253(LC 2), 7=1247(LC 2)

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

TOP CHORD 2-3=-1800/334, 3-4=-1432/302, 4-5=-1133/297, 5-6=-1419/302, 6-7=-1789/335
 BOT CHORD 2-13=-298/1517, 12-13=-298/1517, 10-12=-140/1143, 9-10=-174/1440, 7-9=-174/1440
 WEBS 3-12=-472/195, 4-12=-71/544, 5-10=-60/500, 6-10=-474/195

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 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 18-4-0, Exterior(2R) 18-4-0 to 22-6-15, Interior(1) 22-6-15 to 30-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=257, 7=257.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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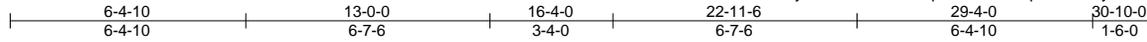


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T19	Truss Type Hip	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107068
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:34 2023 Page 1

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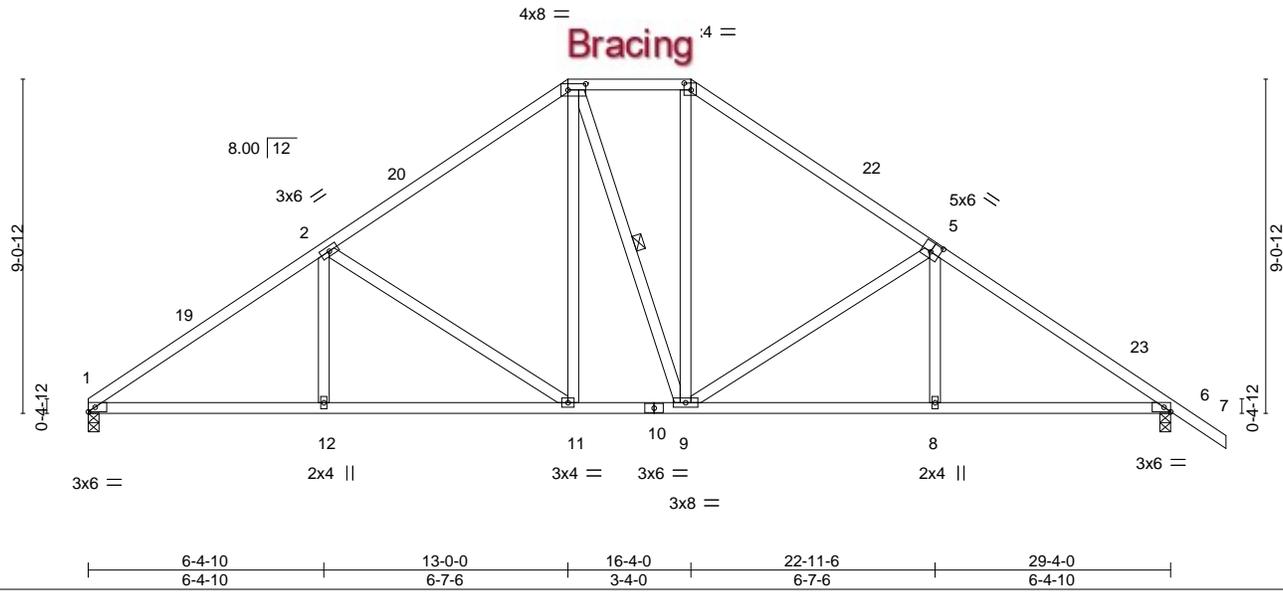


Plate Offsets (X,Y)-- [3:0-5-12,0-2-0], [4:0-2-4,0-2-4], [5:0-3-0,0-3-0], [6:0-2-3,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.52	Vert(LL) -0.07 11-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.64	Vert(CT) -0.16 11-12 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 172 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-12 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-9

REACTIONS.

(size) 1=0-3-8, 6=0-3-8
 Max Horz 1=-206(LC 10)
 Max Uplift 1=-219(LC 12), 6=-252(LC 13)
 Max Grav 1=1083(LC 1), 6=1168(LC 1)

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

TOP CHORD 1-2=-1662/331, 2-3=-1197/277, 3-4=-907/284, 4-5=-1196/279, 5-6=-1650/322
 BOT CHORD 1-12=-310/1321, 11-12=-310/1321, 9-11=-102/907, 8-9=-157/1306, 6-8=-157/1307
 WEBS 2-12=0/286, 2-11=-527/249, 3-11=-101/378, 4-9=-100/380, 5-9=-512/241, 5-8=0/282

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 3-0-0, Interior(1) 3-0-0 to 13-0-0, Exterior(2E) 13-0-0 to 16-4-0, Exterior(2R) 16-4-0 to 20-6-15, Interior(1) 20-6-15 to 30-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=219, 6=252.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 3458575	Truss T20	Truss Type Common	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107069
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:35 2023 Page 1
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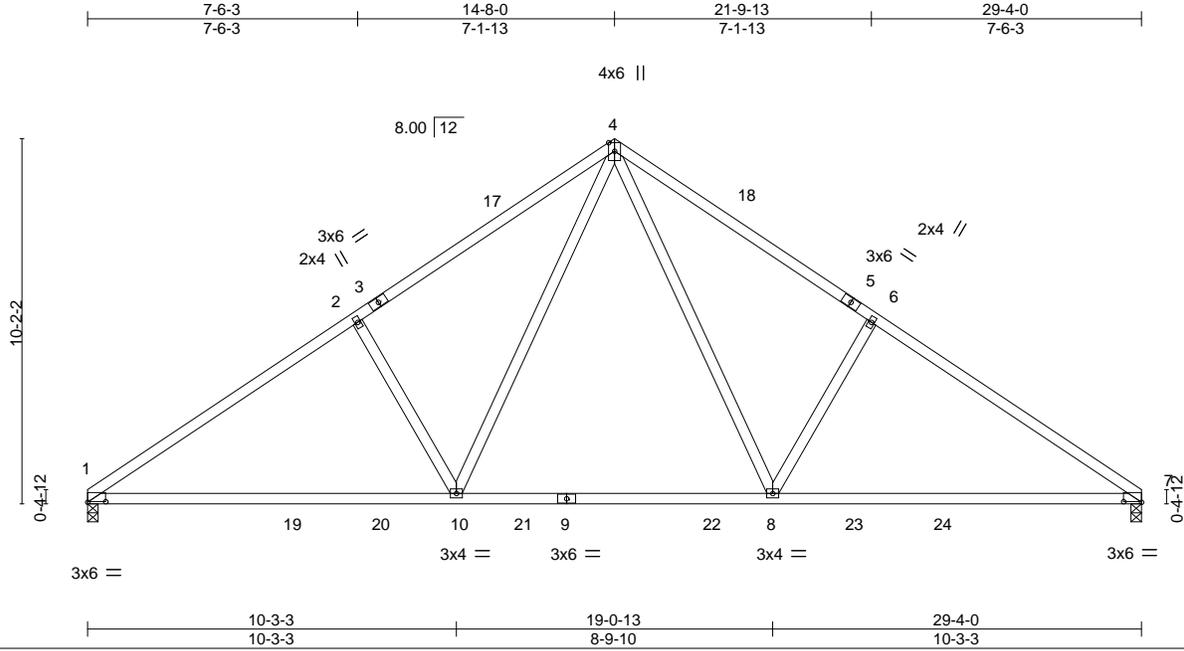


Plate Offsets (X,Y)-- [1:0-6-0,0-0-3], [7:0-6-0,0-0-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.81	Vert(LL) -0.28 10-13 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.49	Vert(CT) -0.54 10-13 >648 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 7 n/a n/a		
	Code FBC2020/TPI2014			Weight: 144 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-5 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 1=0-3-8, 7=0-3-8
 Max Horz 1=215(LC 9)
 Max Uplift 1=-214(LC 12), 7=-214(LC 13)
 Max Grav 1=1283(LC 19), 7=1283(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1780/319, 2-4=-1658/372, 4-6=-1658/372, 6-7=-1780/319
 BOT CHORD 1-10=-314/1588, 8-10=-88/1028, 7-8=-186/1431
 WEBS 4-8=-218/869, 6-8=-422/280, 4-10=-218/869, 2-10=-422/280

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=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 14-8-0, Exterior(2R) 14-8-0 to 17-8-0, Interior(1) 17-8-0 to 29-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=214, 7=214.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>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</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job 3458575	Truss T21	Truss Type Common	Qty 2	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107070
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:37 2023 Page 1
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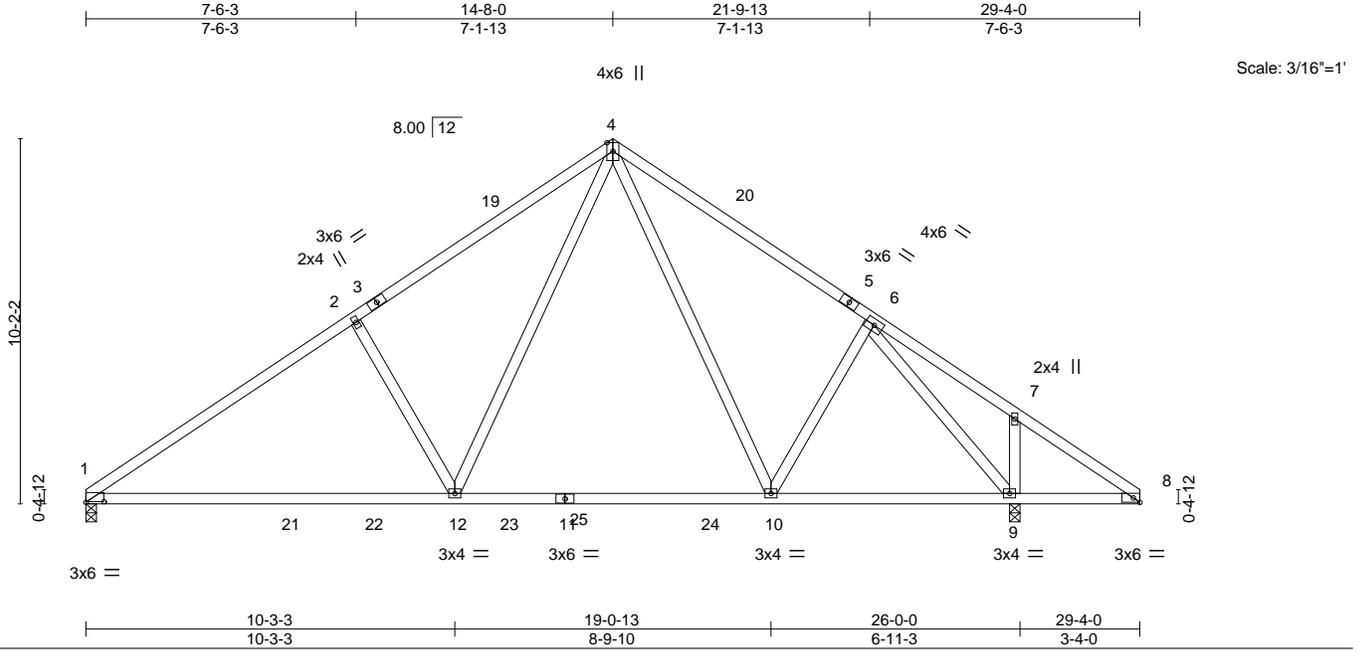


Plate Offsets (X,Y)-- [1:0-6-0,0-0-3], [8:0-2-3,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.64	Vert(LL) -0.25	12-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.83	Vert(CT) -0.49	12-15	>631	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.99	Horz(CT) 0.03	9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 156 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	6-0-0 oc bracing: 8-9.

REACTIONS. (size) 1=0-3-8, 9=0-3-8
 Max Horz 1=215(LC 9)
 Max Uplift 1=194(LC 12), 9=243(LC 13)
 Max Grav 1=1113(LC 19), 9=1378(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1485/279, 2-4=-1362/334, 4-6=-1026/264, 6-7=-95/255
 BOT CHORD 1-12=-283/1342, 10-12=-58/772, 9-10=-78/694
 WEBS 2-12=-420/280, 4-12=-216/896, 4-10=-112/250, 6-10=-54/262, 6-9=-1315/286

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=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 14-8-0, Exterior(2R) 14-8-0 to 17-8-0, Interior(1) 17-8-0 to 29-4-0 zone; cantilever 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=194, 9=243.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 22, 2023

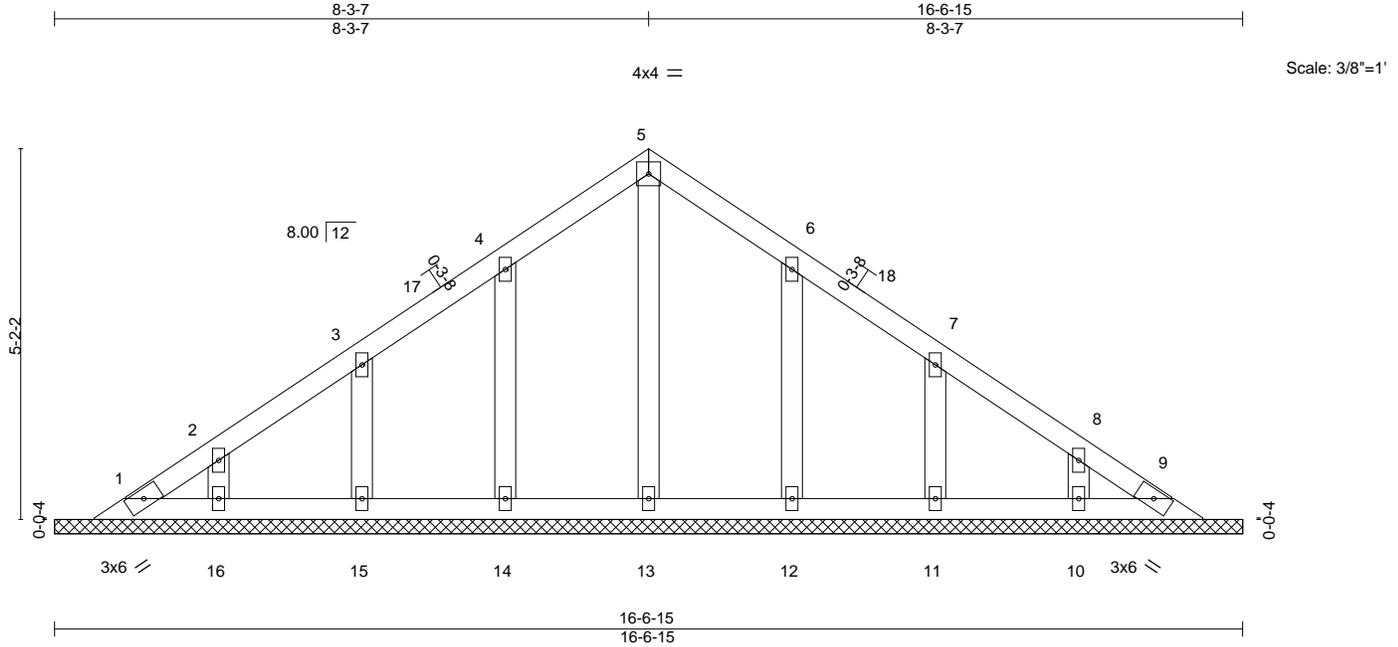
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job 3458575	Truss V01	Truss Type GABLE	Qty 1	Ply 1	EXCEPTIONS - 1776 Job Reference (optional)	T30107071
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Tue Mar 21 11:11:39 2023 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 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.04	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 73 lb	FT = 20%
	Code FBC2020/TPI2014							

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

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

REACTIONS. All bearings 16-6-15.
(lb) - Max Horz 1=107(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 14, 15, 16, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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.

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) 1-0-1 to 4-3-7, Interior(1) 4-3-7 to 8-3-7, Exterior(2R) 8-3-7 to 11-3-7, Interior(1) 11-3-7 to 15-6-14 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 14, 15, 16, 12, 11, 10.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 22, 2023

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

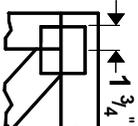
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



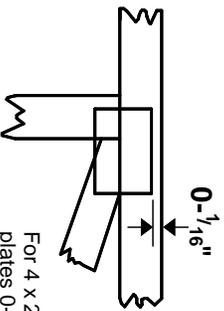
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.



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

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

PLATE SIZE

4 X 4

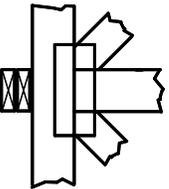
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



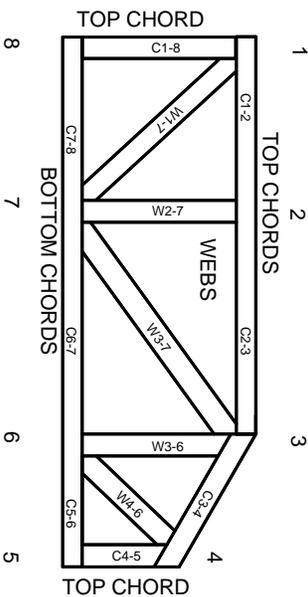
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



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