



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:
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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Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

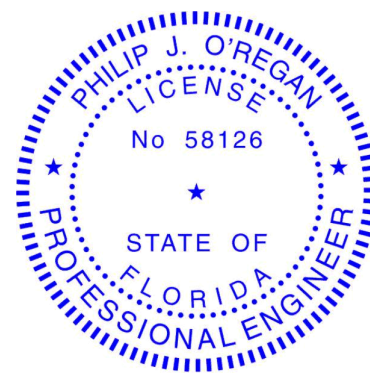
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The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: O'Regan, Philip

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



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

O'Regan, Philip

1 of 1



RE: \$JOBNAME - \$JOBDESC

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

Site Information:

Customer Info: \$SI_CUSTOMER Project Name: \$SI_JOBNAME Model: \$SI_MODEL
Lot/Block: \$SI_LOTNUM Subdivision: \$SI_SUBDIV
Address: \$SI_SITEADDR
City: \$SI_SITECITY State: \$SI_SITESTATE



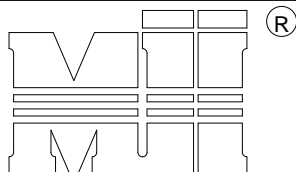
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Lawrence Pennell

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MiTek USA, Inc.

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 S

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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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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.

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

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

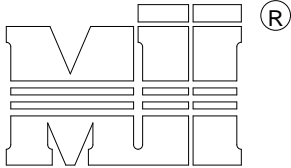


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Tampa, FL 33610

AUGUST 1, 2016

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

MII-T-BRACE 2
T23399807



MiTek USA, Inc.

MiTek USA, Inc. Page 1 of 1

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

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

Nailing Pattern

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

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

Brace Size for One-Ply Truss

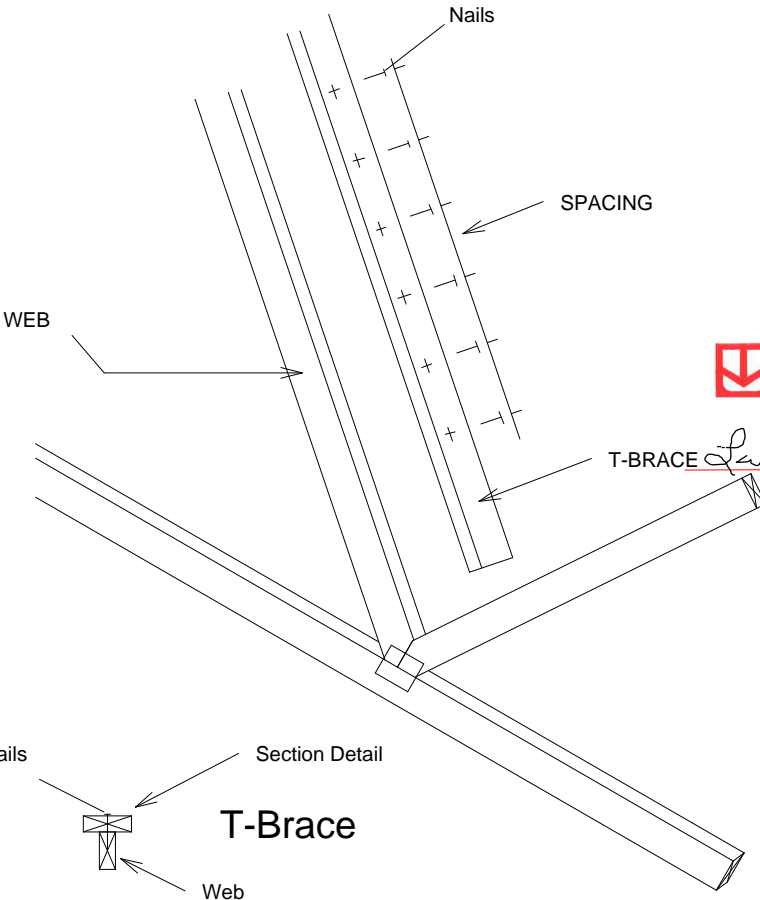
Specified Continuous Rows of Lateral Bracing

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

Brace Size for Two-Ply Truss

Specified Continuous Rows of Lateral Bracing

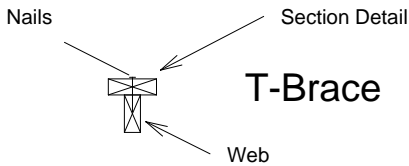
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace



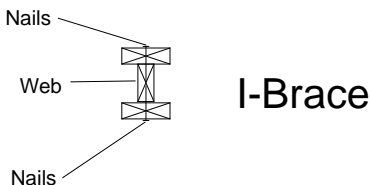
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T-Brace / I-Brace must be same species and grade (or better) as web member.

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T-Brace



I-Brace

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Date:

April 2,2021

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

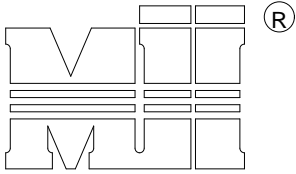


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AUGUST 1, 2016

SCAB-BRACE DETAIL

MII-SCAB-BRACE
T23399808



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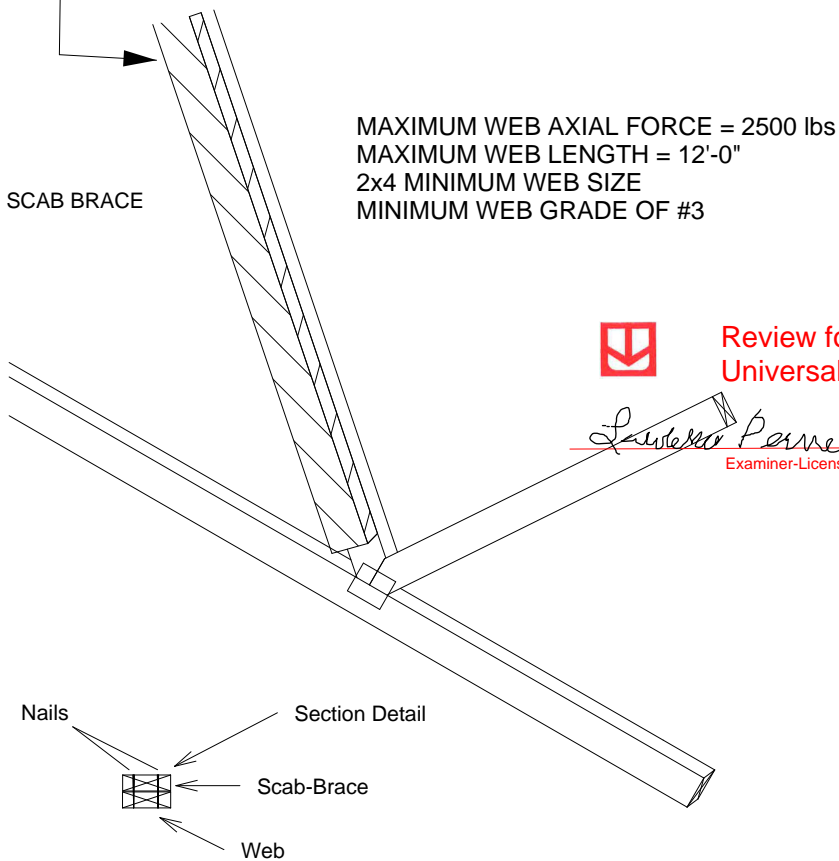
MiTek USA, Inc.

Page 1 of 1

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

*** THIS DETAIL IS NOT 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.

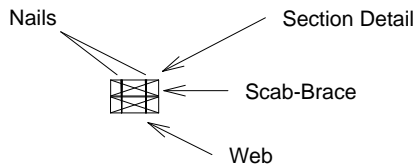


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Scab-Brace must be same species grade (or better) as web member.

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April 2, 2021

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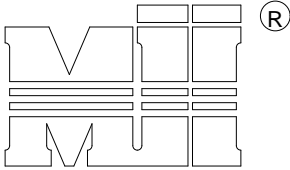
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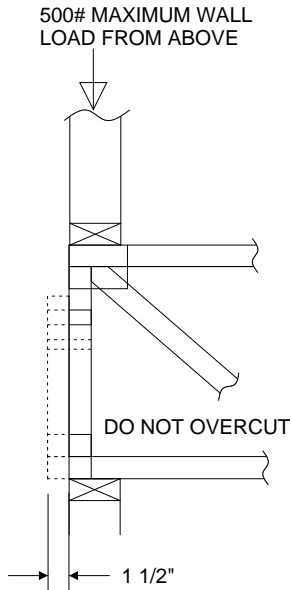


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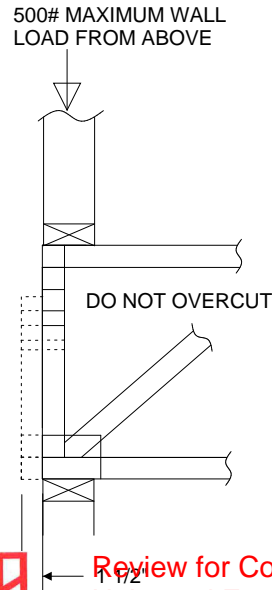


MiTek USA, Inc.

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.



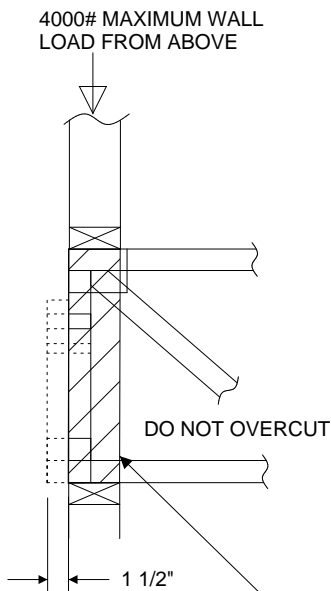
REFER TO INDIVIDUAL
TRUSS DESIGN FOR
PLATE SIZES AND
LUMBER GRADES



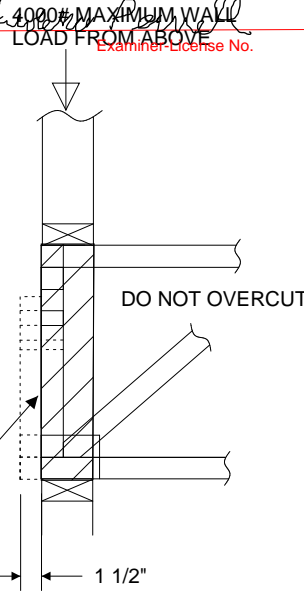
TRUSSES BUILT
WITH 4x2 MEMBERS



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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.

PX2707

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



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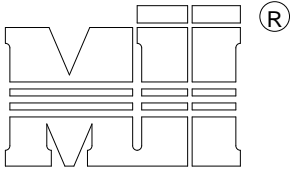
APRIL 12, 2019

Standard Gable End Detail

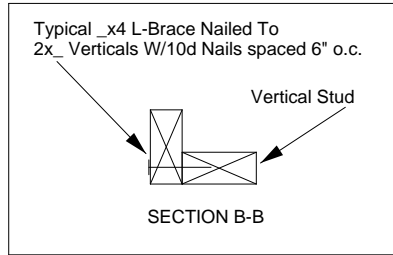
MII-GE130-D-SP
T23399810

MiTek USA, Inc.

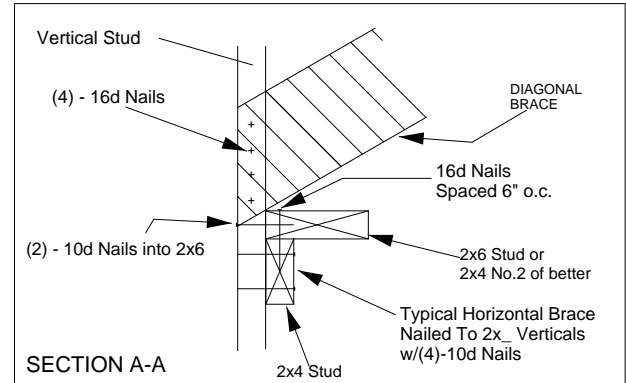
Page 1 of 2



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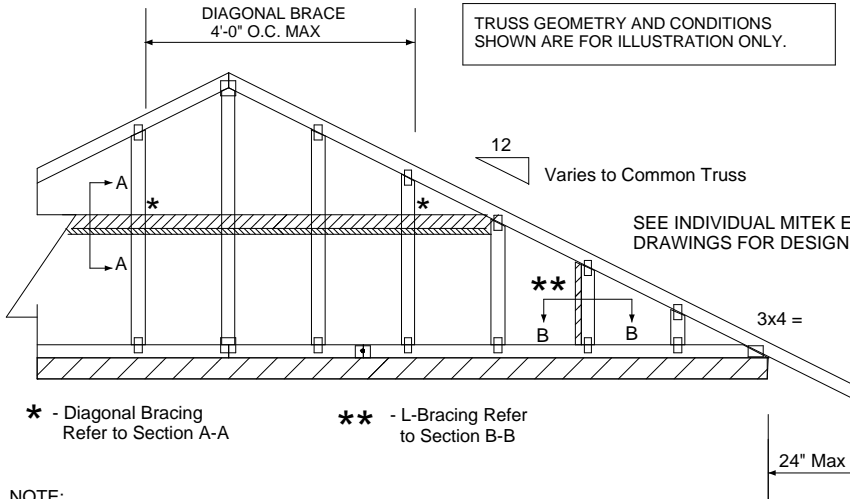
SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

SECTION A-A

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")



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Diag. Brace at 1/3 points if needed

End Wall

HORIZONTAL BRACE (SEE SECTION A-A)

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

Trusses @ 24" o.c.

(2) - 10d NAILS

(2) - 10d NAILS

1'-3" Max.

Roof Sheathing

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

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

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE D
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10, ASCE 7-16 160 MPH
DURATION OF LOAD INCREASE = 60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWFRS

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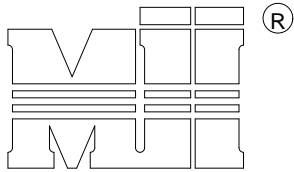
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Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 2, 2021

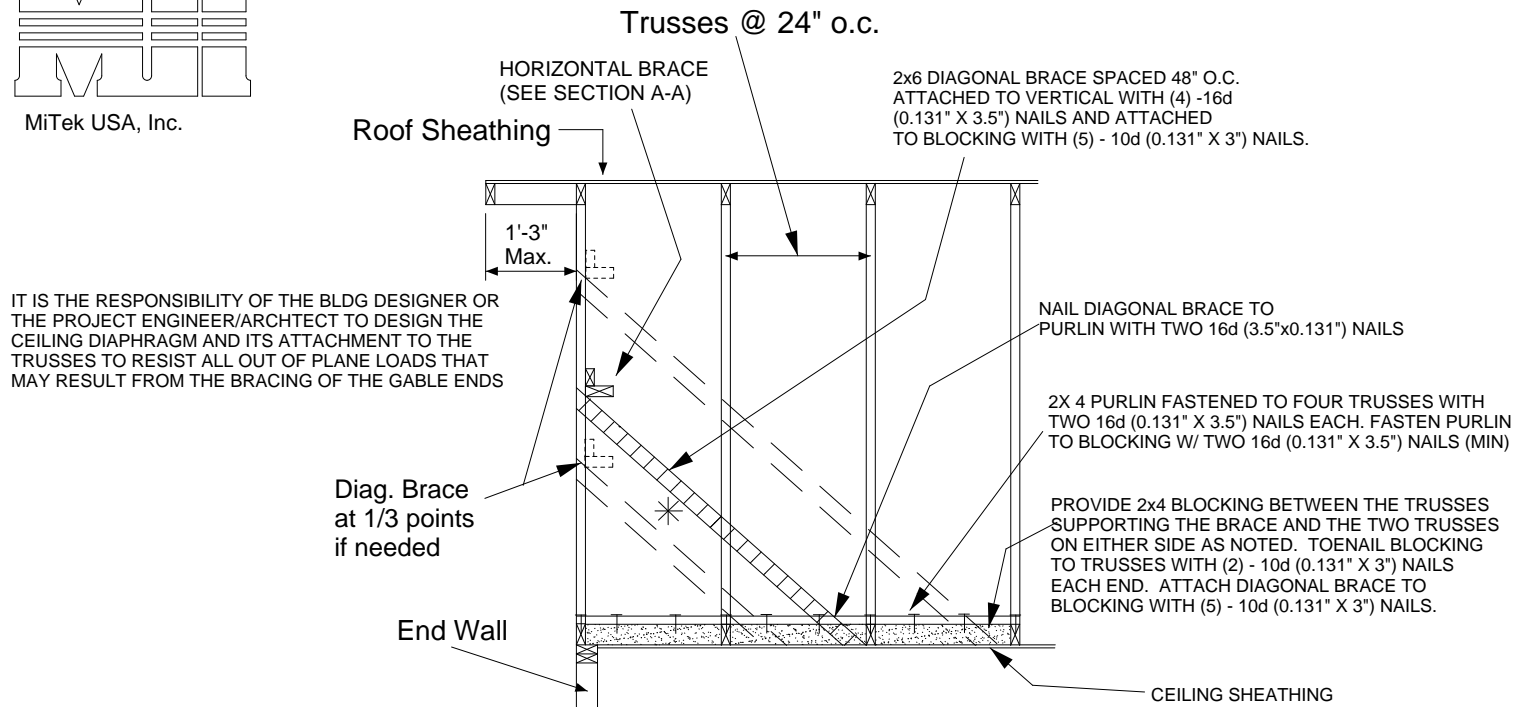


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Tampa, FL 36610



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:

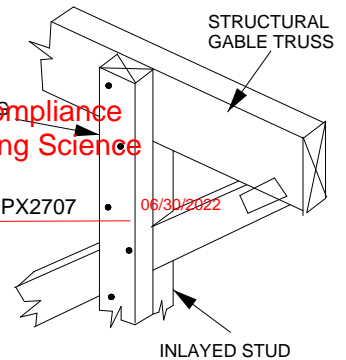
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.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

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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 INLAYS STUDS. TRUSSES WITHOUT INLAYS
STUDS ARE NOT ADDRESSED HERE.

STANDARD
GABLE TRUSS

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electronically signed and
sealed by O'Regan, Philip, PE
using a Digital Signature.
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document are not considered
signed and sealed and the
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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

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

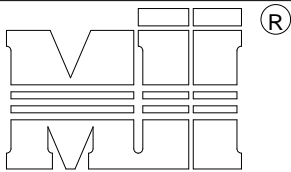
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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



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Tampa, FL 36610



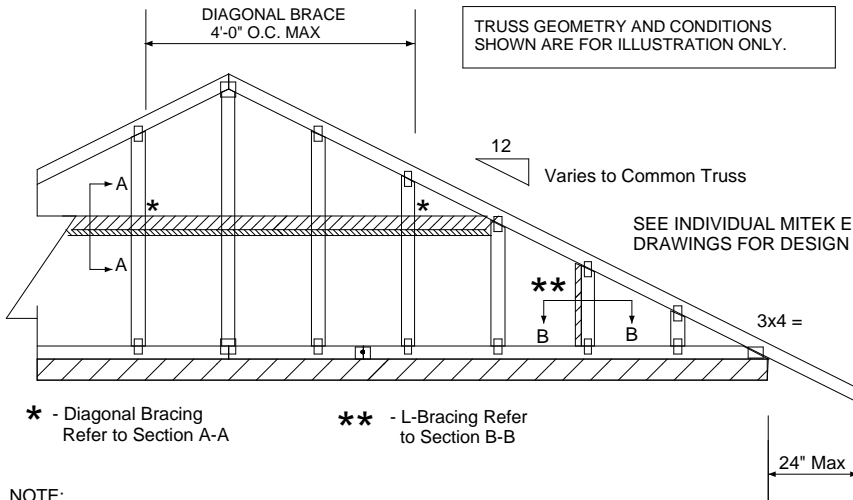
MiTek USA, Inc.

Typical 1x4 L-Brace Nailed To
2x Verticals w/10d Nails spaced 6" o.c.

Vertical Stud

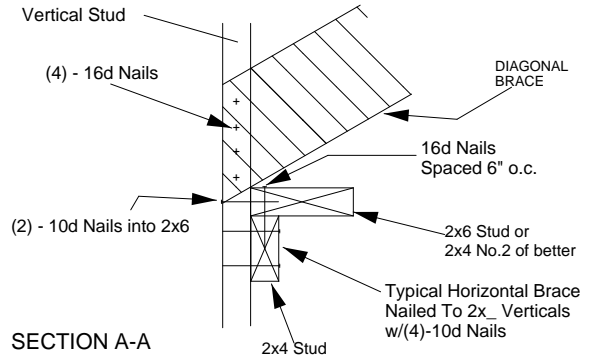
SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.



NOTE:

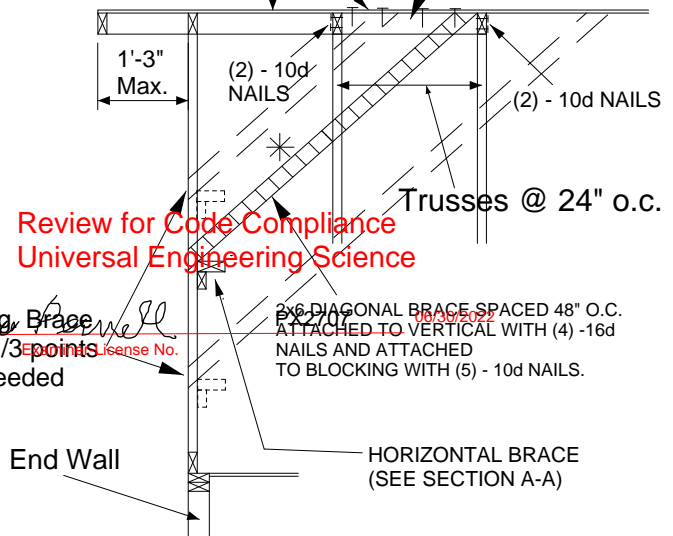
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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



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

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

Roof Sheathing



Review for Code Compliance
Universal Engineering Science

Diag. Brace
at 1/3 points
if needed

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

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

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10, 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 MWFRS.

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

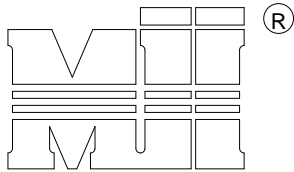
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Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 2, 2021

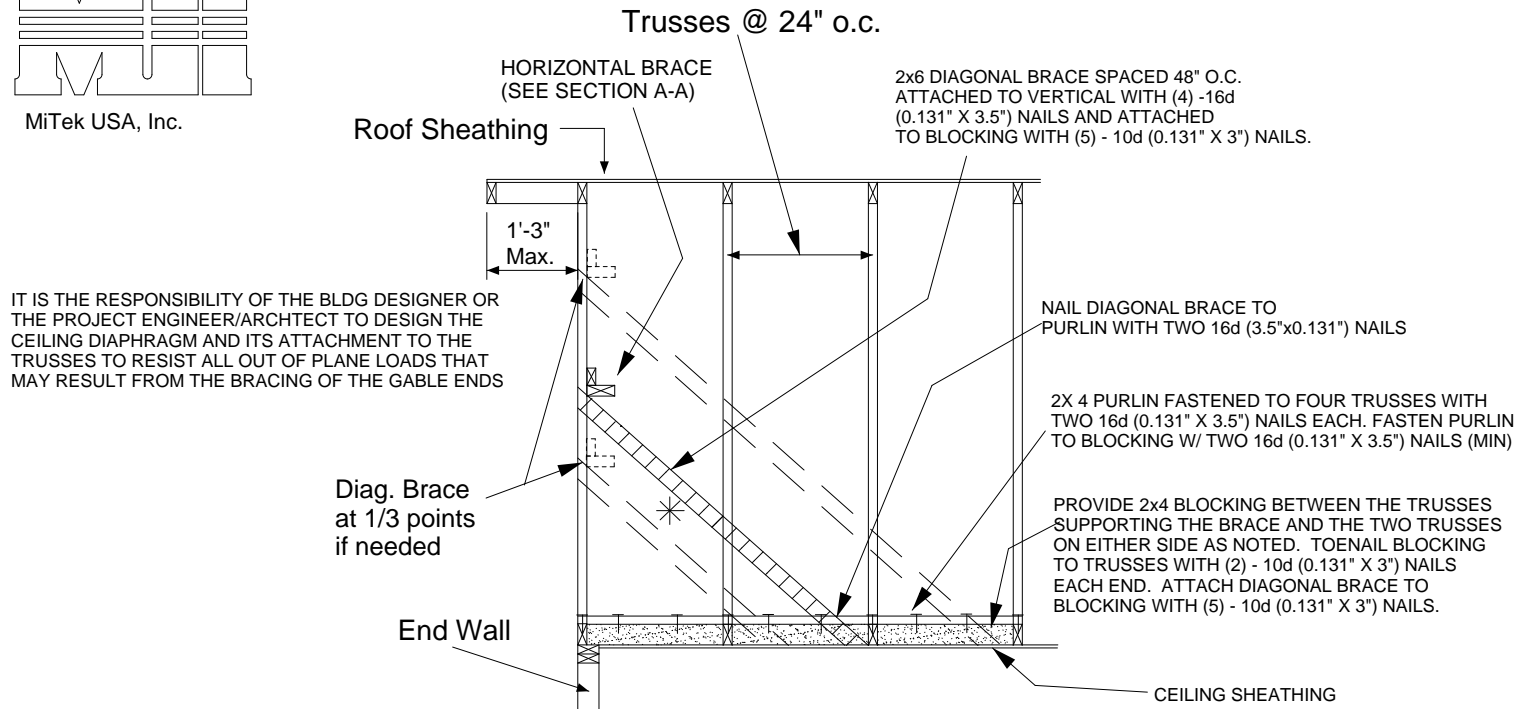


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Tampa, FL 33610



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 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:

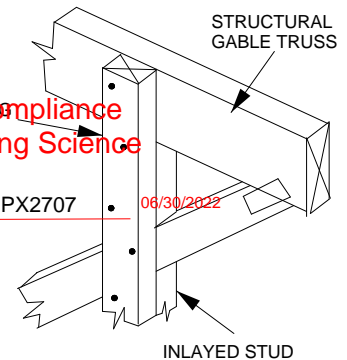
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.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

Review for Code Compliance
Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022



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 INLAYED STUDS. TRUSSES WITHOUT INLAYED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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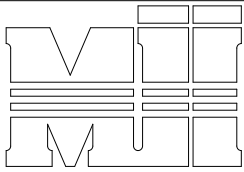
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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Tampa, FL 36610



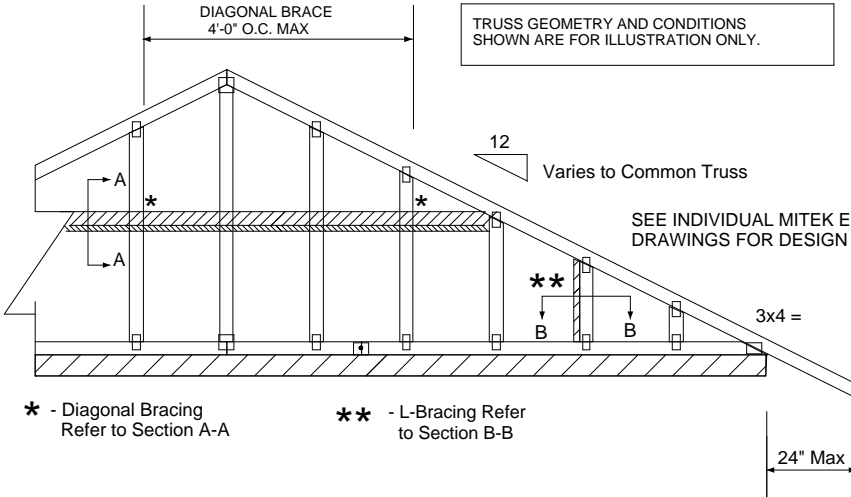
MiTek USA, Inc.

Typical 1x4 L-Brace Nailed To
2x Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

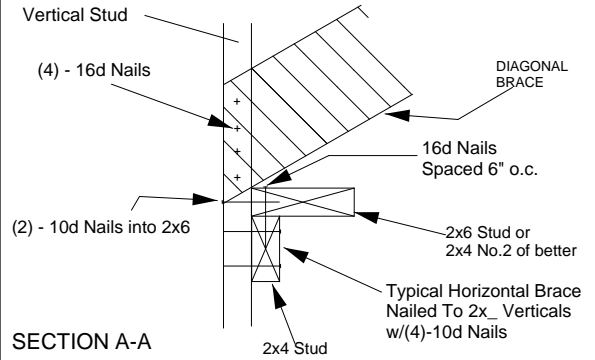
SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.



NOTE:

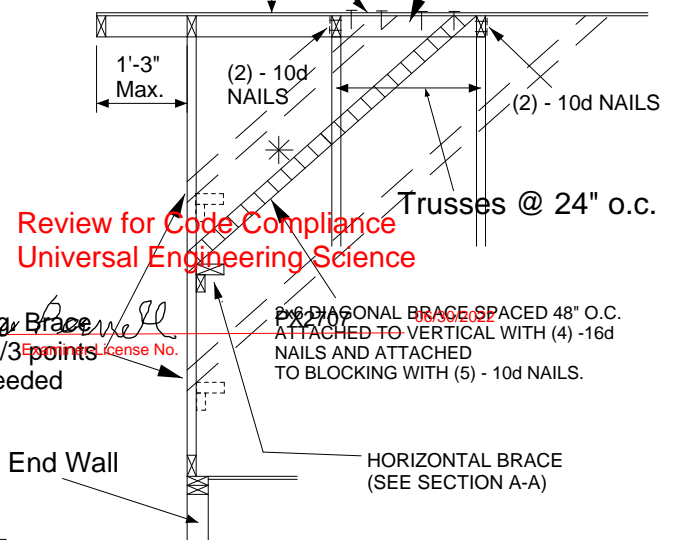
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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

Roof Sheathing



Review for Code Compliance
Universal Engineering Science

Diag. Brace
at 1/3 points
if needed

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.

MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05

DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWPRS 473 rev. 5/19/2020 BEFORE USE.

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

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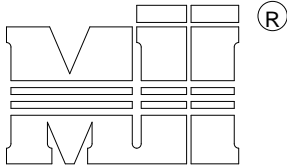
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April 2, 2021

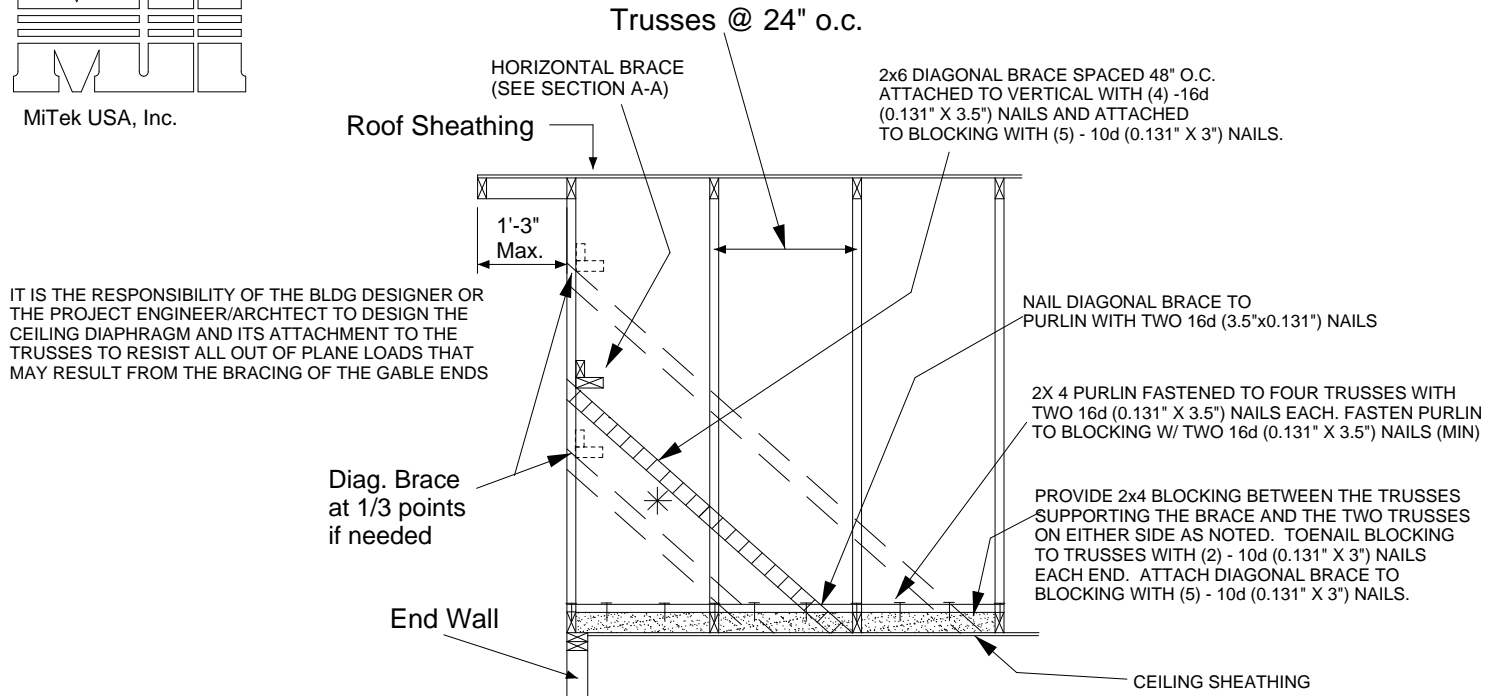


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MiTek USA, Inc.

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.

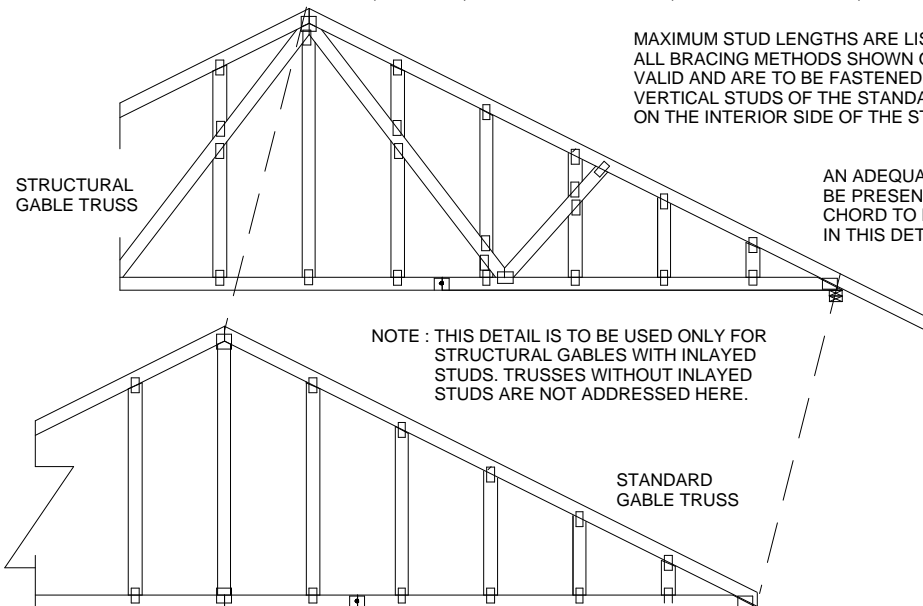
METHOD 2 : ATTACH 2X 4 SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

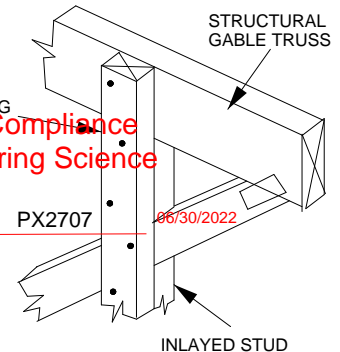
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.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

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.



Review for Code Compliance
Universal Engineering Science

Examiner-License No.

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



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Tampa, FL 36610

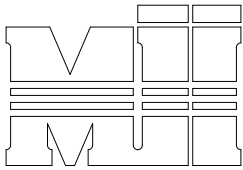
APRIL 12, 2019

Standard Gable End Detail

MII-GE170-D-SP
T23399813

MiTek USA, Inc.

Page 1 of 2



MiTek USA, Inc.

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

Vertical Stud

SECTION B-B

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

3x4 =

24" Max

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

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

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

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

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D

ASCE 7-10, ASCE 7-16 170 MPH

DURATION OF LOAD INCREASE : 1.60

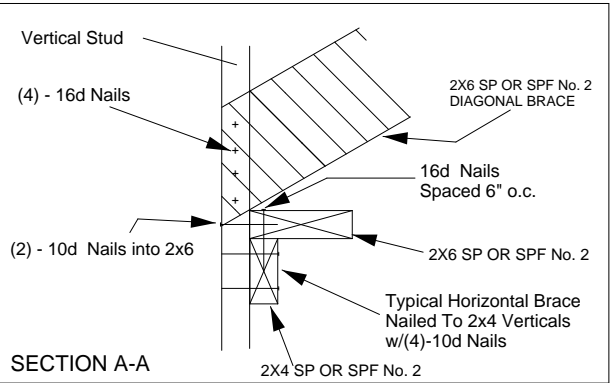
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

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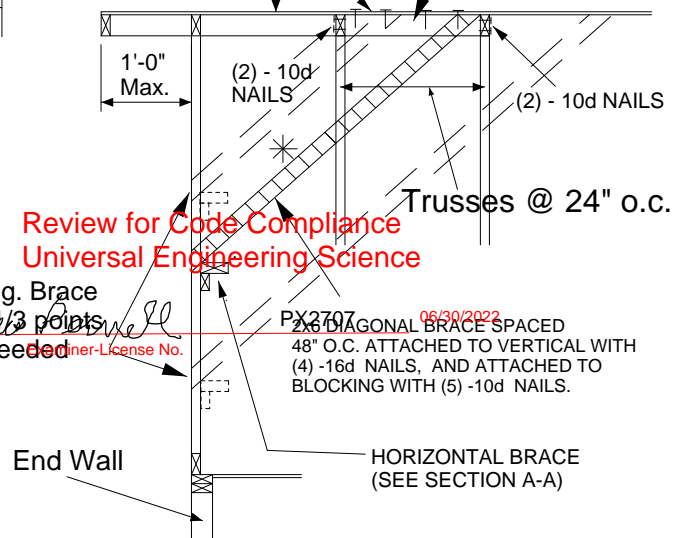
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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

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

Roof Sheathing



Review for Code Compliance
Universal Engineering Science

Diag. Brace
at 1/3 points
if needed

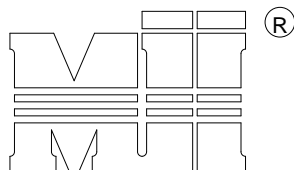
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Date:

April 2, 2021

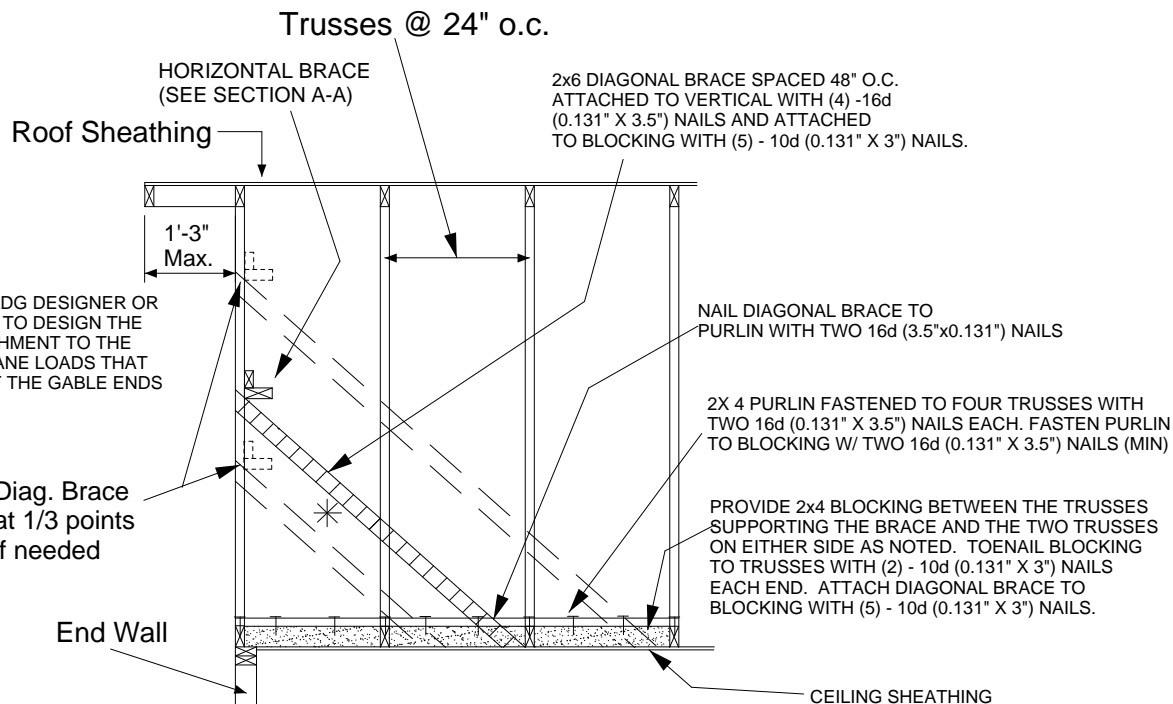


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHITECT 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)

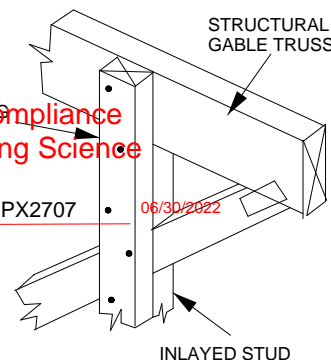


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Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022



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 INLAYED STUDS. TRUSSES WITHOUT INLAYED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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Date:

April 2, 2021

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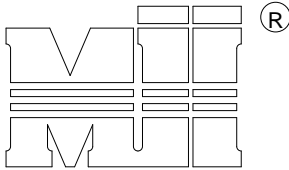
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



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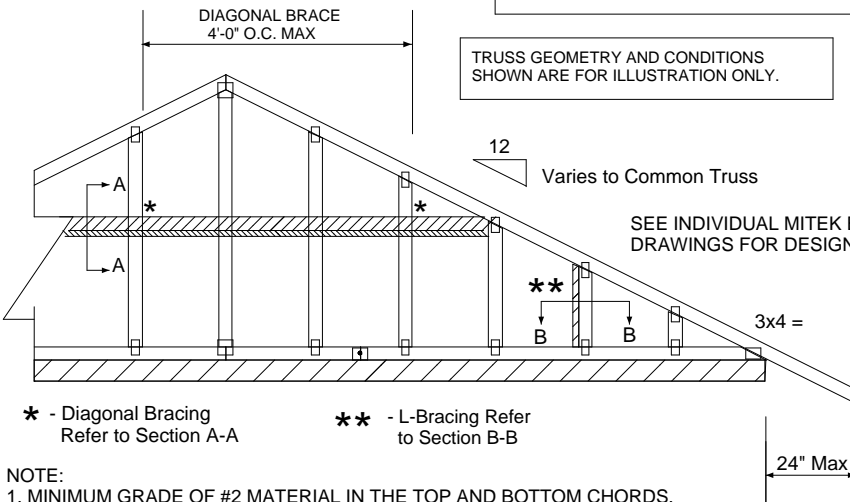


MiTek USA, Inc.

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

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

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
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9

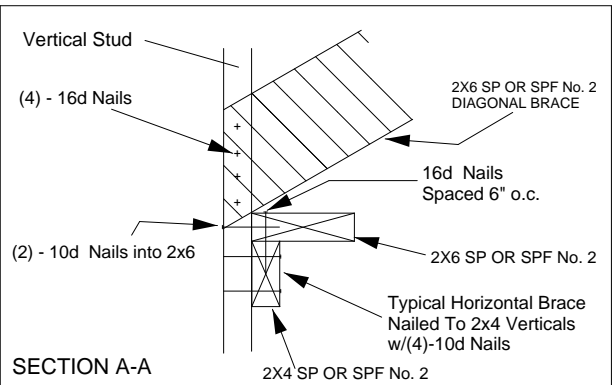
- * Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T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

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE DASCE 7-10, ASCE 7-16 180 MPH
DURATION OF LOAD INCREASE: 1.60STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

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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

Roof Sheathing

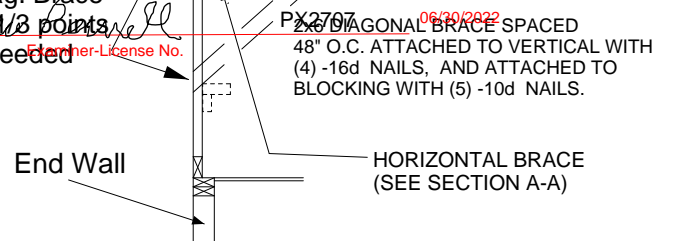
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Diag. Brace

at 1/3 points

if needed

End Wall



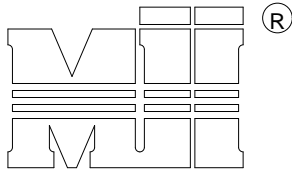
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April 2, 2021



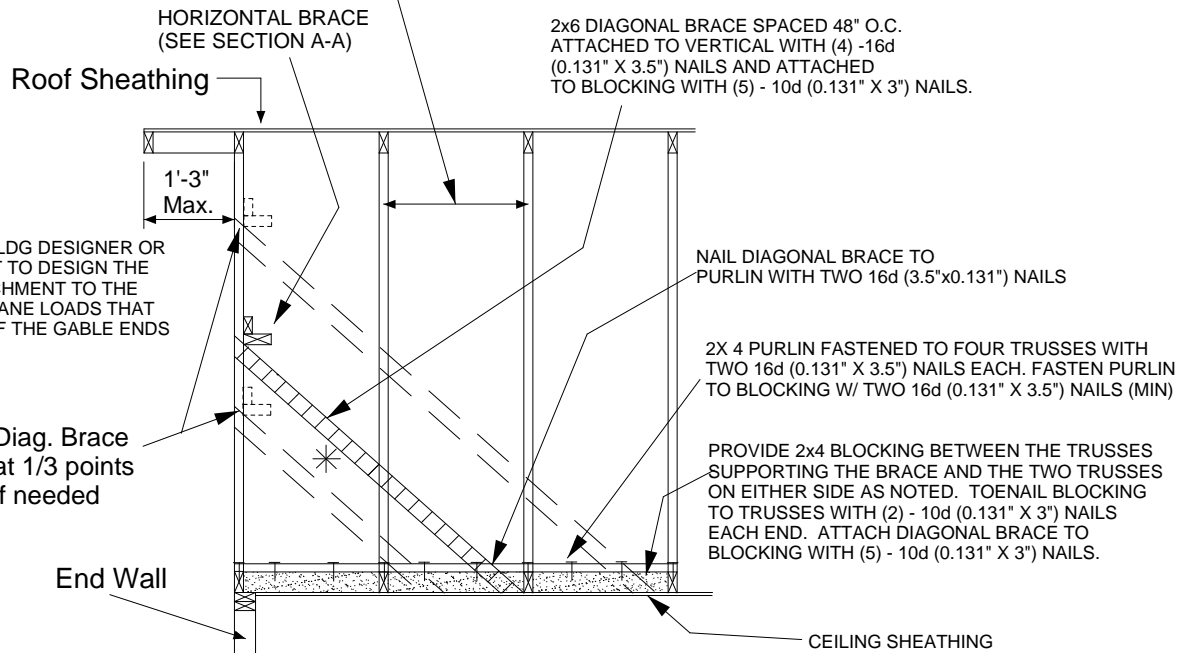
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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD

Trusses @ 24" o.c.



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

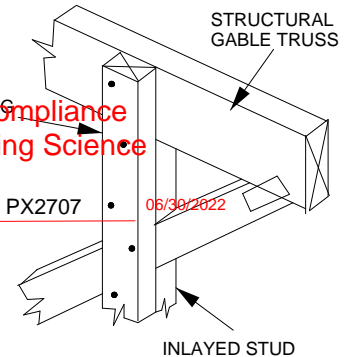
NAILING SCHEDULE:

- 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)

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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 INLAYS STUDS. TRUSSES WITHOUT INLAYS
STUDS ARE NOT ADDRESSED HERE.

STANDARD
GABLE TRUSS

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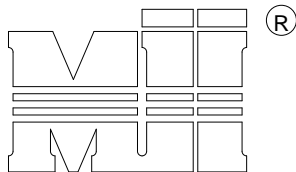
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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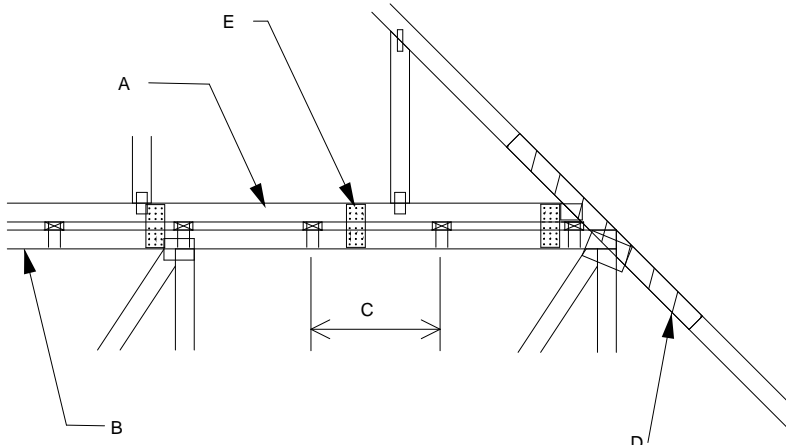


MiTek USA, Inc.

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

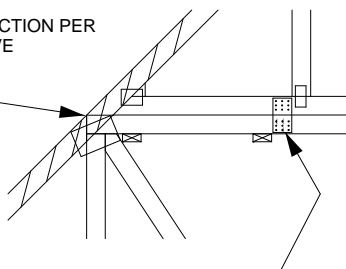
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. 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:

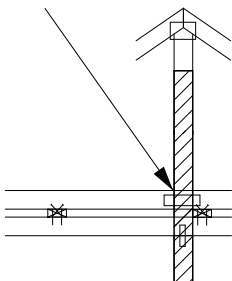
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

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.

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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Lawrence Parnell

Examiner-License No.

PX 2487

06/30/2022

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 6904 Parke East Blvd. Tampa FL 33610
 Date:

April 2, 2021

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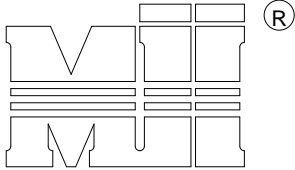
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Tampa, FL 33610

JANUARY 8, 2019

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT-7-16
T23399816

MiTek USA, Inc. Page 1 of 1

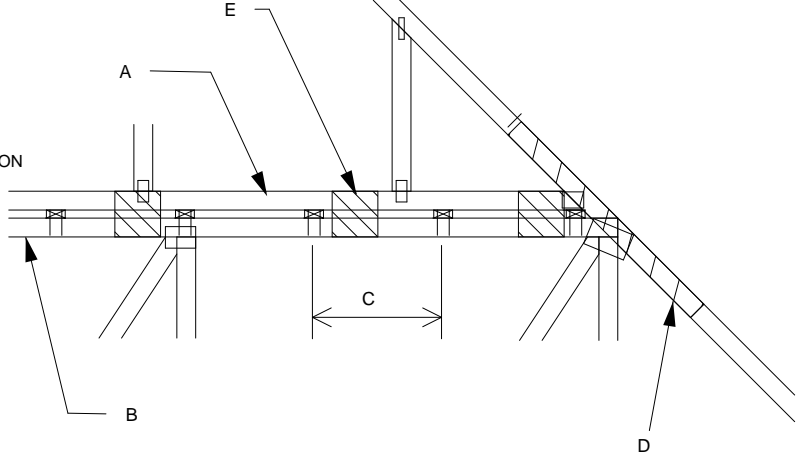


MiTek USA, Inc.

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

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

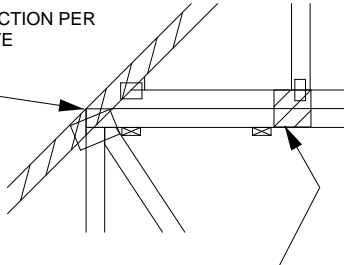
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X ____ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 116 MPH TO 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:

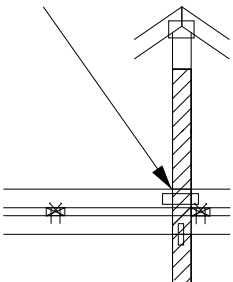
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER
NOTE D ABOVE



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

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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06/30/2022

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

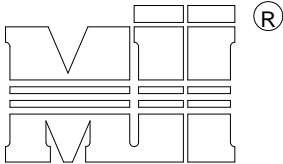


6904 Parke East Blvd.
Tampa, FL 36610

AUGUST 1, 2016

STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS
AND DAMAGED OR MISSING CHORD SPLICE PLATESMII-REP01A1
T23399817

MiTek USA, Inc. Page 1 of 1



MiTek USA, Inc.

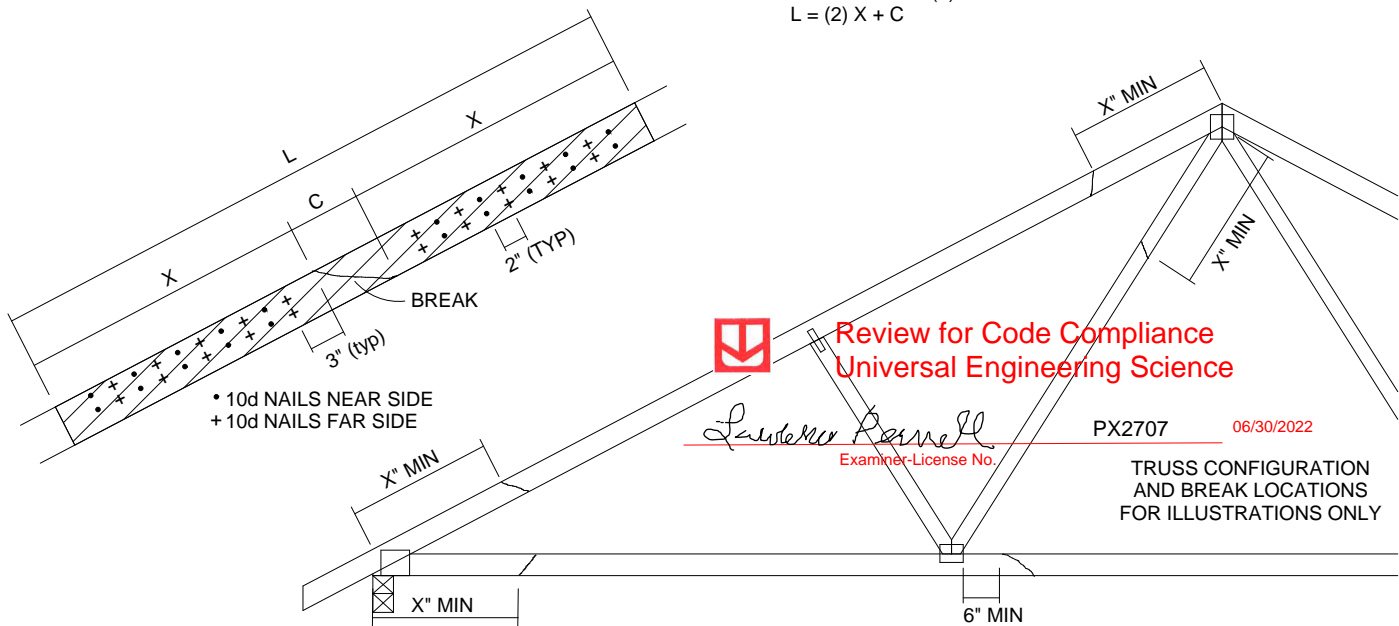
TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	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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Date:

April 2,2021

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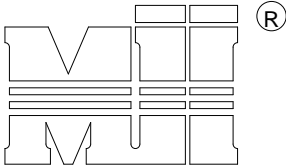
MAY 7, 2019

LATERAL TOE-NAIL DETAIL

MII-TOENAIL_SP
T23399818

MiTek USA, Inc.

Page 1 of 1



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 BELOWVIEWS 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

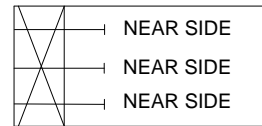
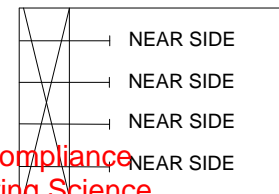
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

EXAMPLE:

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

For load duration increase of 1.15:

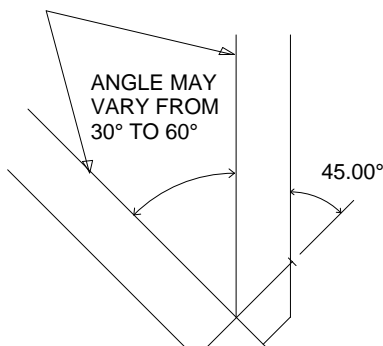
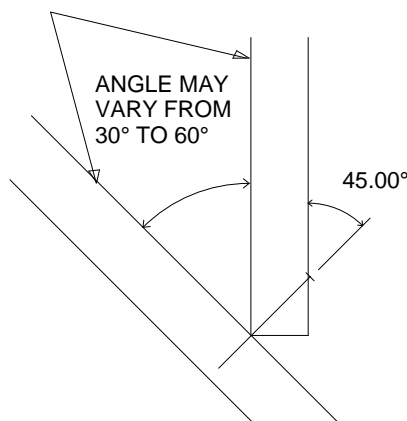
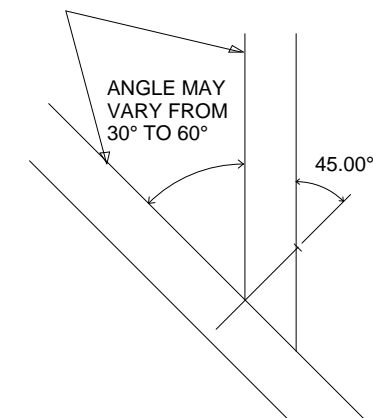
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

SIDE VIEW
(2x4)
3 NAILSSIDE VIEW
(2x6)
4 NAILSReview for Code Compliance
Universal Engineering Science

Lawrence Powell
Examiner-License No.

PX2707

06/30/2022



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

April 2, 2021

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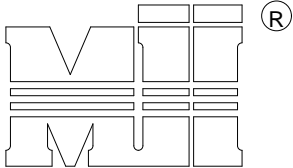
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



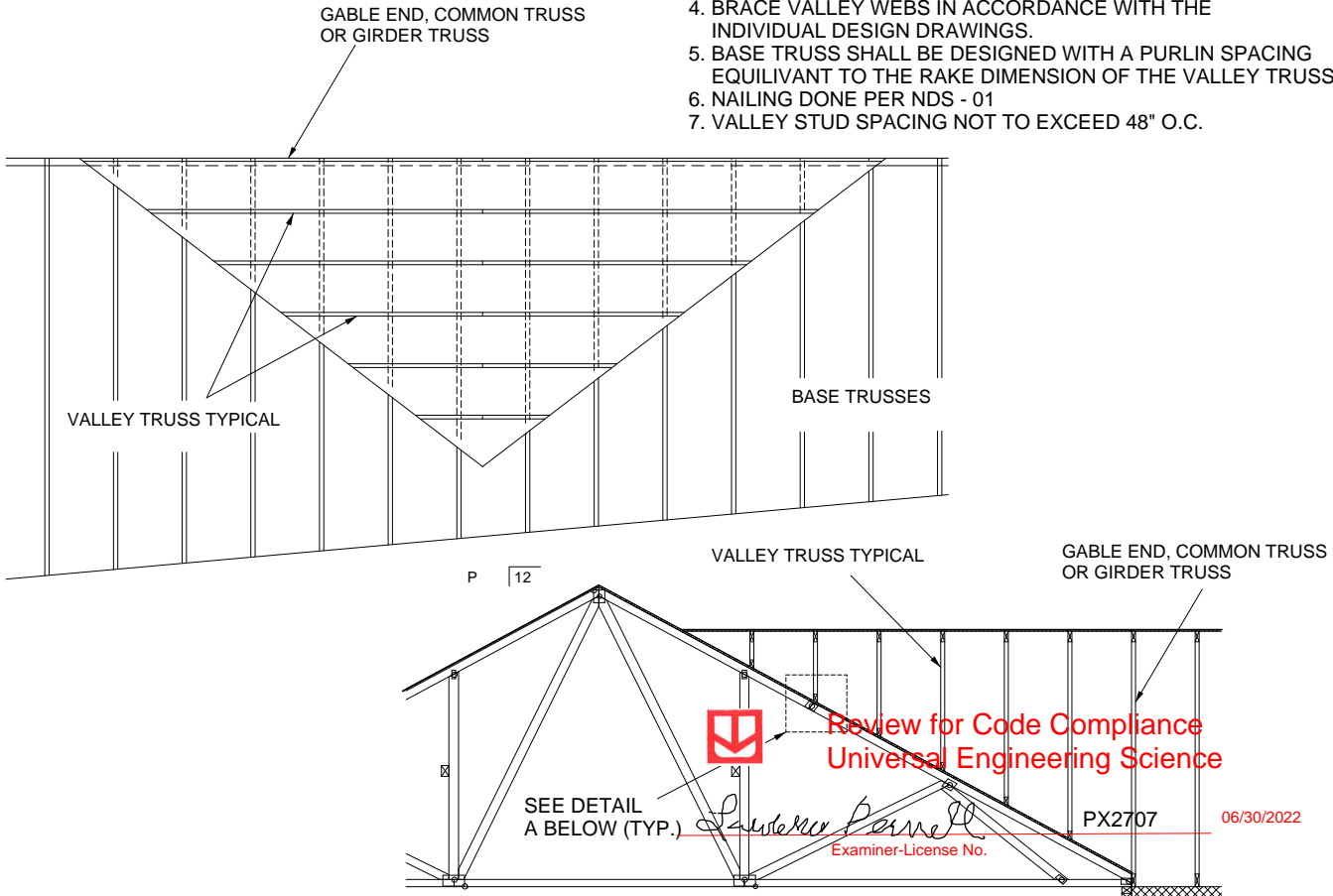
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Tampa, FL 33610



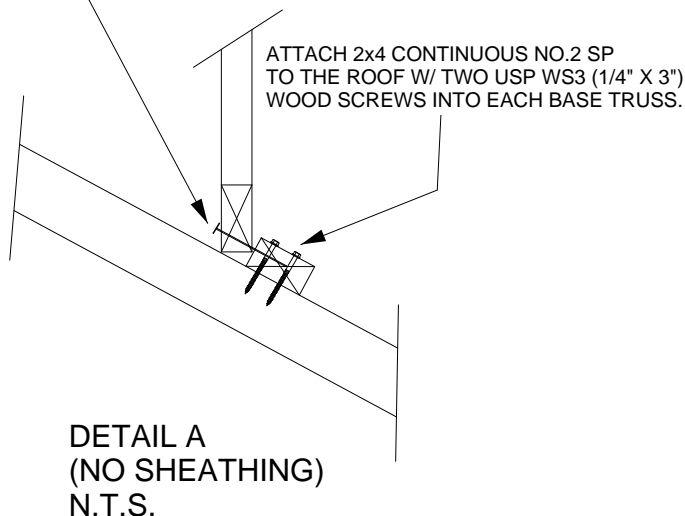
MiTek USA, Inc.

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.



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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April 2, 2021

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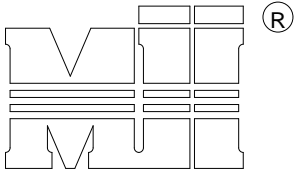
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



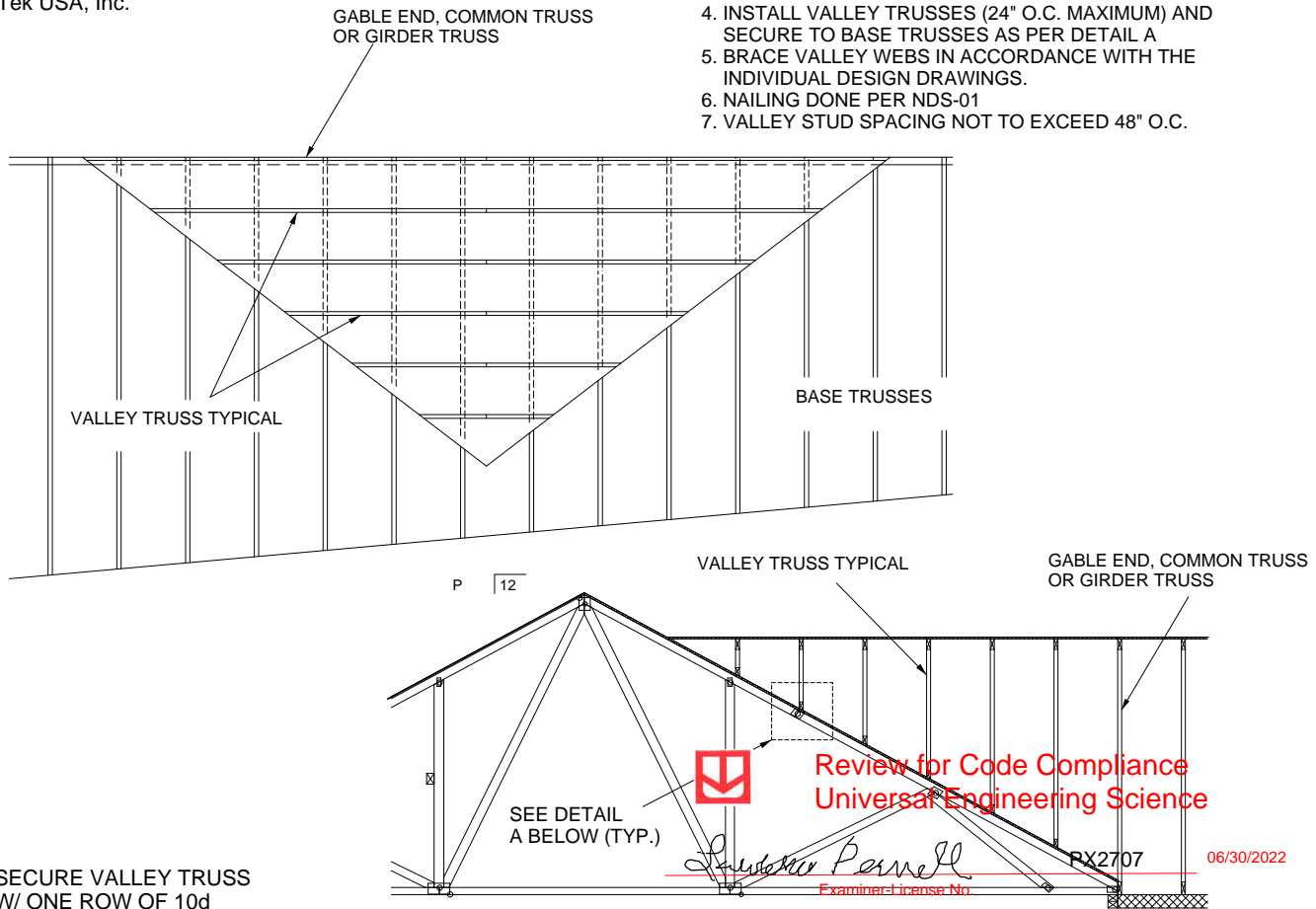
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Tampa, FL 36610



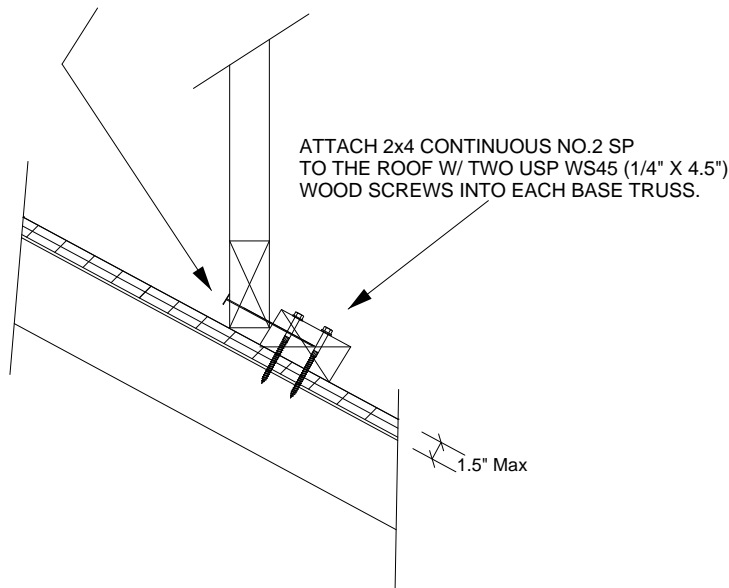
MiTek USA, Inc.

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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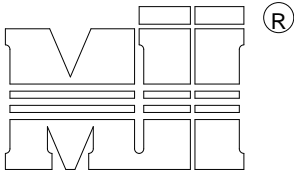
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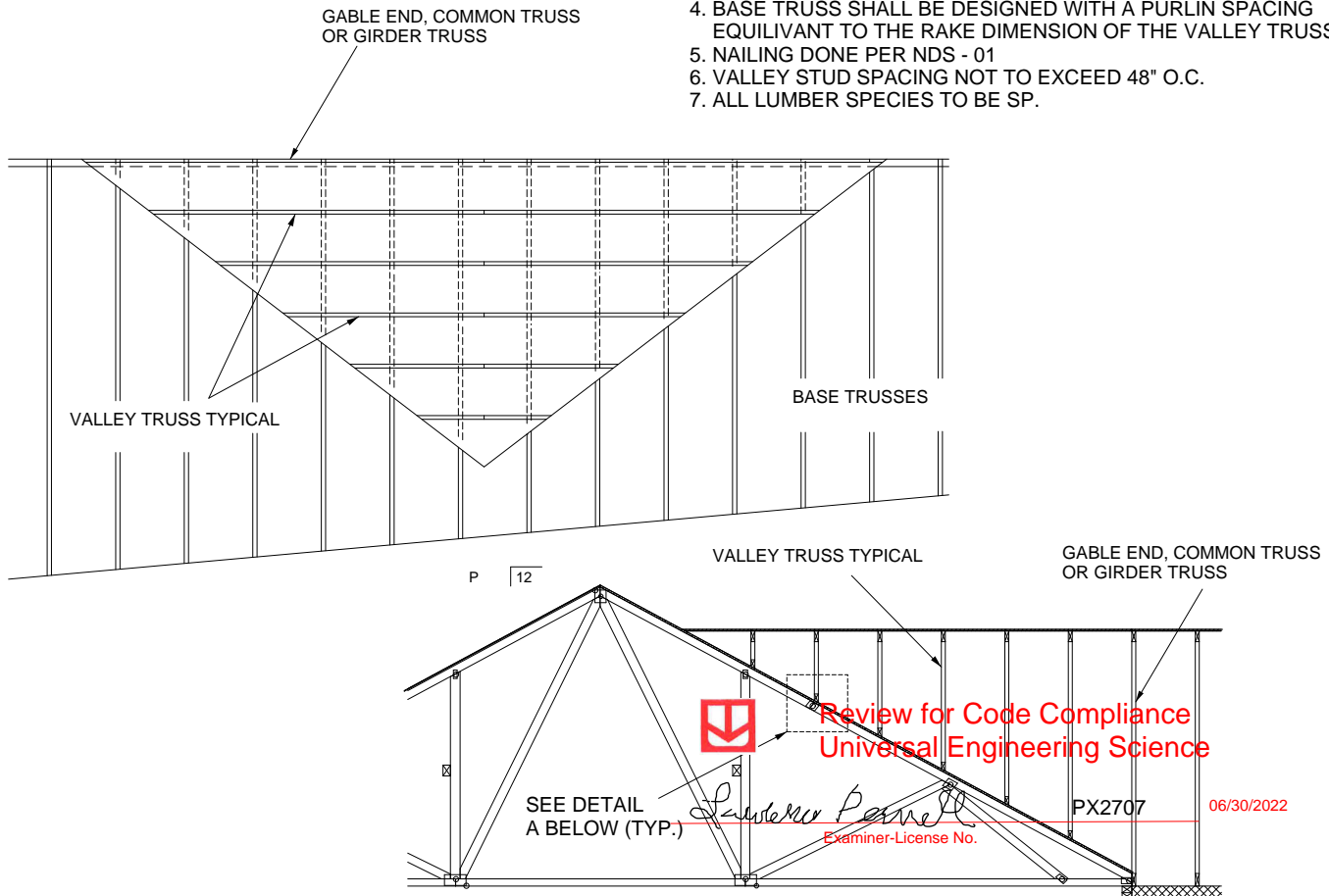
6904 Parke East Blvd.
Tampa, FL 36610



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 EQUIVALENT 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.

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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April 2, 2021

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

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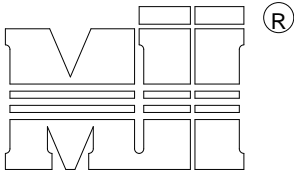
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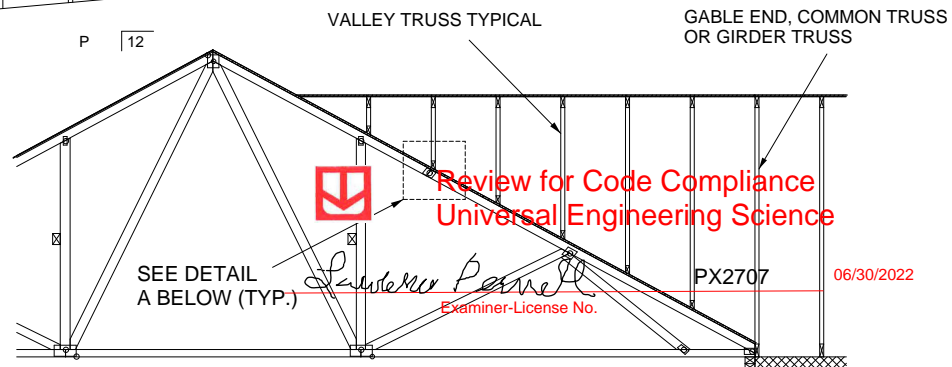
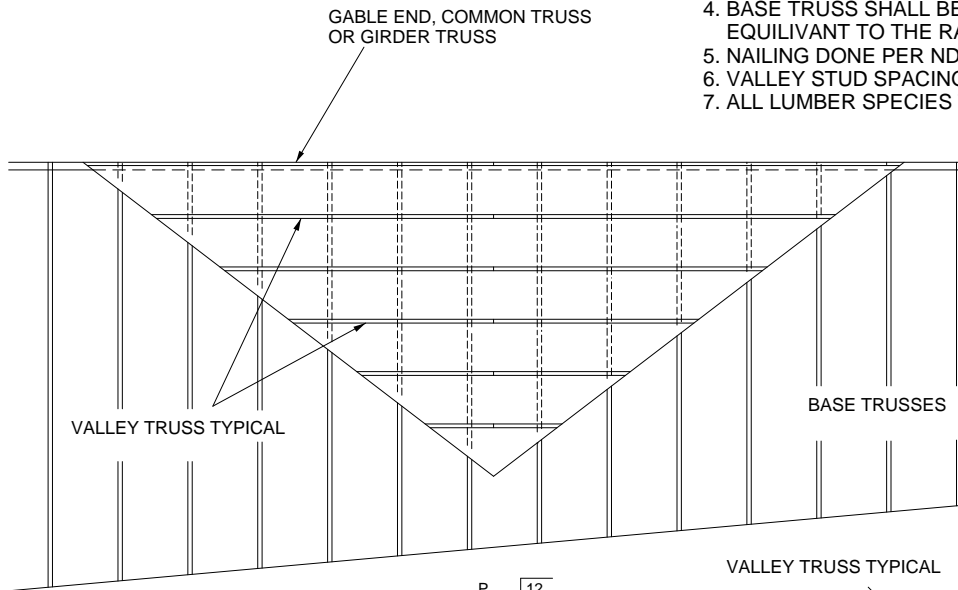
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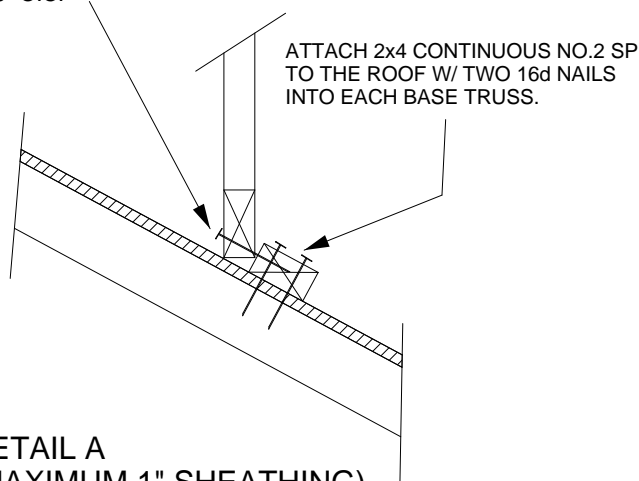
MiTek USA, Inc.

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 EQUIVALENT 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.



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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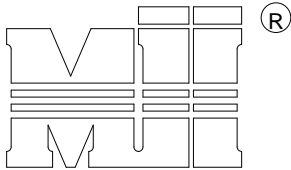
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MiTek USA, Inc.

Typical 2x4 L-Brace Nailed To
2x6 Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

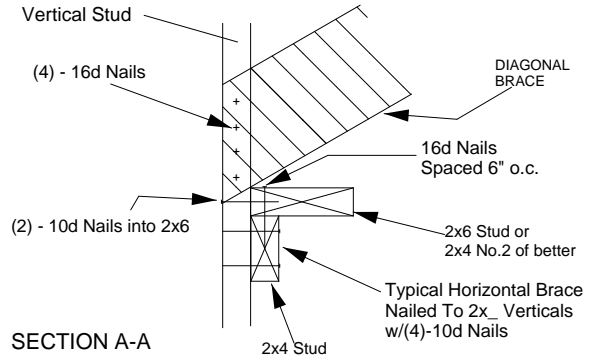
SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.DIAGONAL BRACE
4'-0" O.C. MAX12
Varies to Common TrussSEE INDIVIDUAL MITTEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-B

24" Max

NOTE:

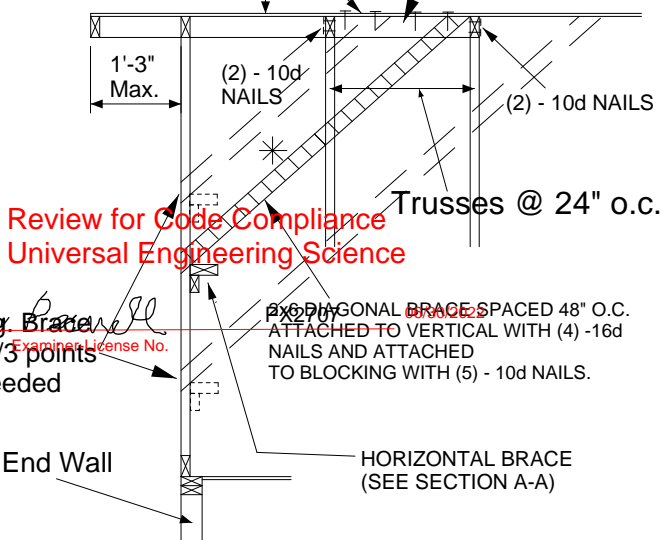
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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



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

Roof Sheathing



Review for Code Compliance
Universal Engineering Science

Diag. Bracing at 1/3 points if needed
Examiner License No.

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

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

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

ASCE 7-98, ASCE 7-02, ASCE 7-05

DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWFRS 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 the 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

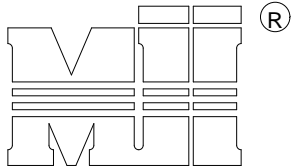
This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

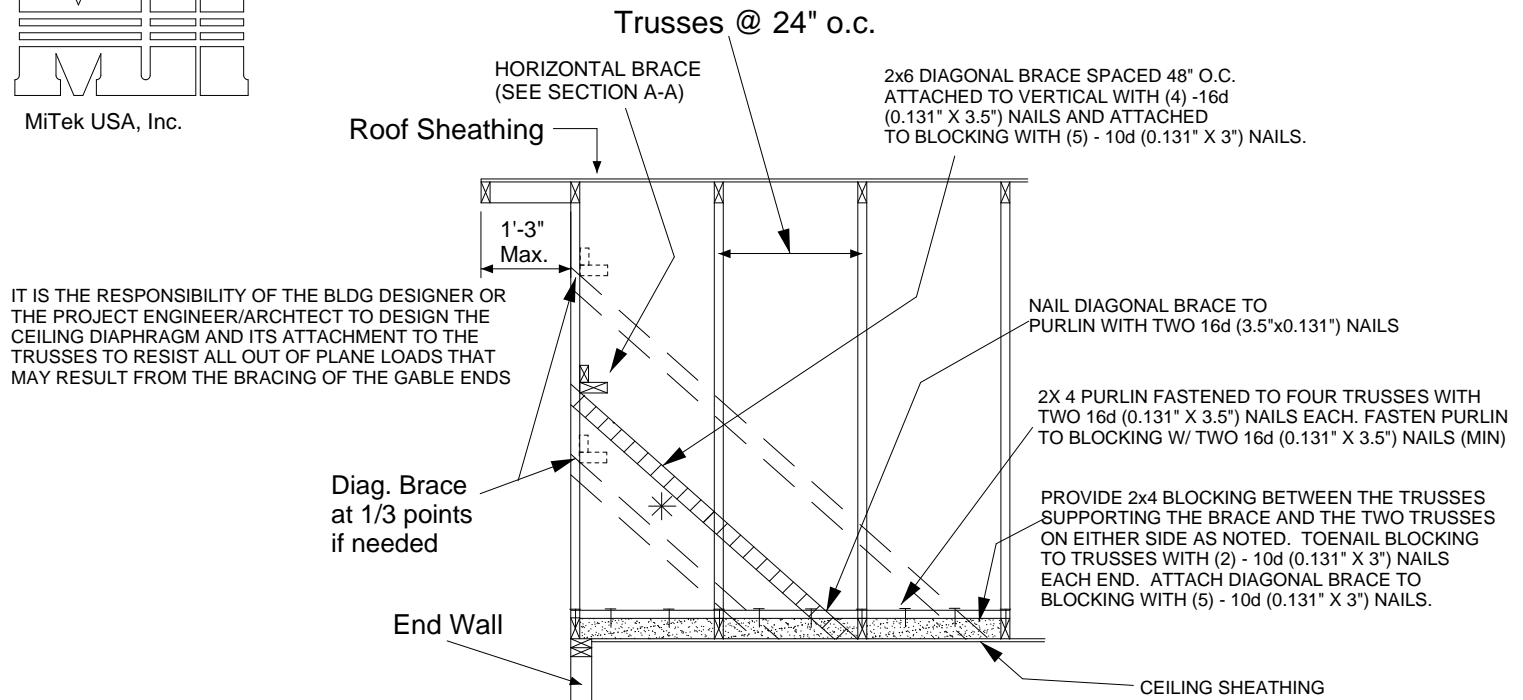
April 2, 2021



6904 Parke East Blvd.
Tampa, FL 36610



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)

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Universal Engineering ScienceSCAB ALONG
VERTICAL

PX2707

08/30/2022

STRUCTURAL
GABLE TRUSS

INLAYED STUD

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 INLAYED
STUDS. TRUSSES WITHOUT INLAYED
STUDS ARE NOT ADDRESSED HERE.

STANDARD
GABLE TRUSS

This item has been
electronically signed and
sealed by O'Regan, Philip, PE
using a Digital Signature.
Printed copies of this
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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

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

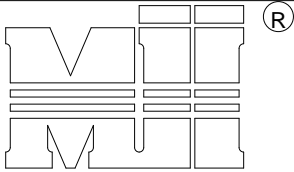
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



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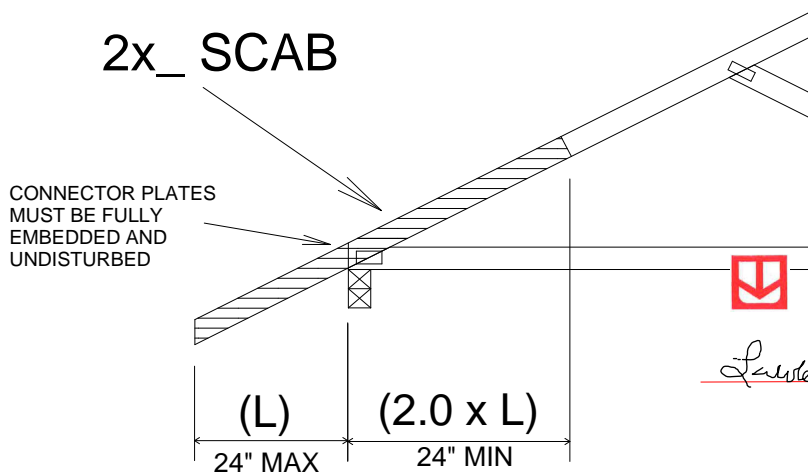
MiTek USA, Inc.

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.



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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

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

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6904 Parke East Blvd.
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PX2707

06/30/2022

Examiner-License No.

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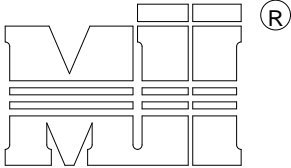
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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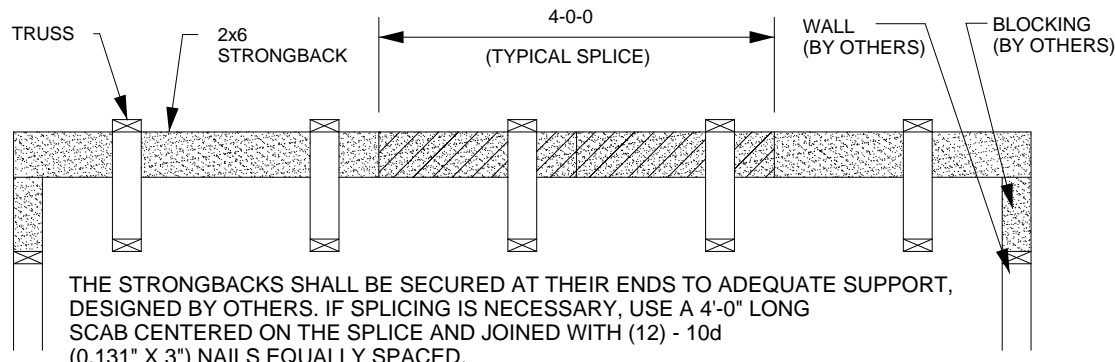
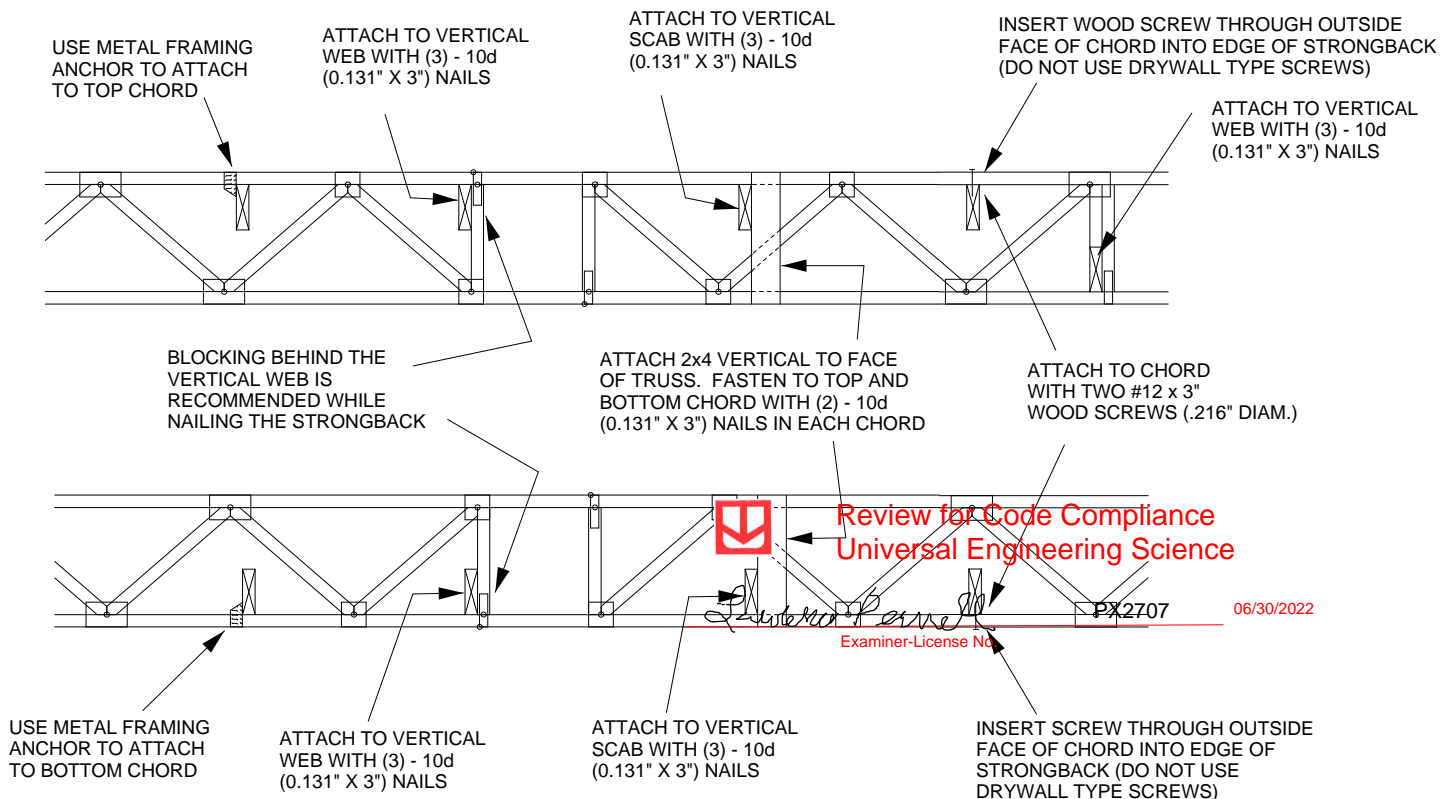


MiTek USA, Inc.

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.



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)

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

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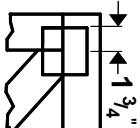
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



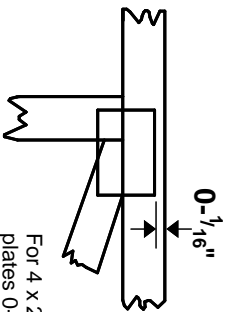
6904 Parke East Blvd.
Tampa, FL 33610

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

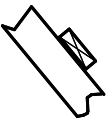
* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

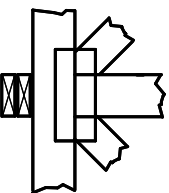
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



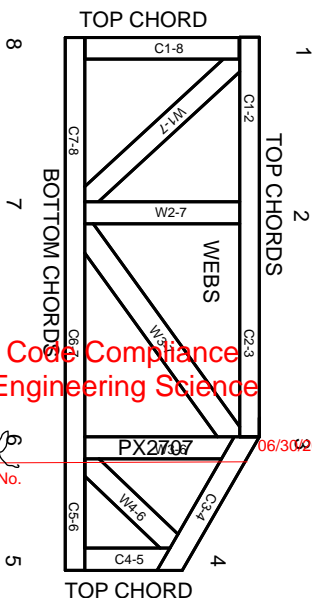
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



JOINTS ARE GENERALLY NUMBERED COUNTERCLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT NEAREST 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



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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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



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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Universal Engineering Science

Lawrence Parnell
Examiner-License No.

PX2707

06/30/2022

RE: 3213335 - SIMQUE - LOT 62 PRESERVE

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: Aaron Simque Homes Project Name: Custom Model: Bristol Modified
Lot/Block: 62 Subdivision: Preserve at Laurel Lakes
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: 55.0 psf

This package includes 58 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	T28119627	CJ01A	6/28/22	15	T28119641	T01	6/28/22
2	T28119628	CJ01T	6/28/22	16	T28119642	T01G	6/28/22
3	T28119629	CJ02A	6/28/22	17	T28119643	T02	6/28/22
4	T28119630	CJ02T	6/28/22	18	T28119644	T03	6/28/22
5	T28119631	CJ03A	6/28/22	19	T28119645	T03G	6/28/22
6	T28119632	CJ03T	6/28/22	20	T28119646	T04	6/28/22
7	T28119633	EJ01	6/28/22	21	T28119647	T04D	6/28/22
8	T28119634	EJ02	6/28/22	22	T28119648	T04G	6/28/22
9	T28119635	HJ01A	6/28/22	23	T28119649	T05	6/28/22
10	T28119636	HJ01T	6/28/22	24	T28119650	T05D	6/28/22
11	T28119637	PB01	6/28/22	25	T28119651	T06	6/28/22
12	T28119638	PB01G	6/28/22	26	T28119652	T07	6/28/22
13	T28119639	PB04	6/28/22	27	T28119653	T07G	6/28/22
14	T28119640	PB04G	6/28/22	28	T28119654	T08	6/28/22

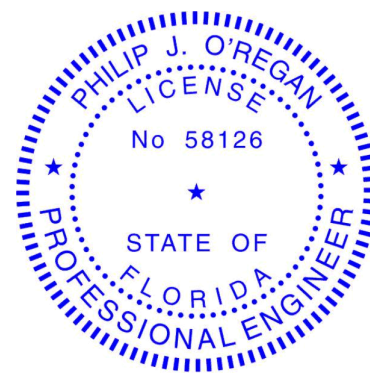
This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.

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, 2023.



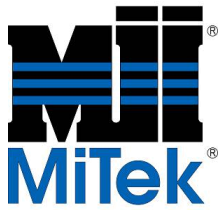
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

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.

June 28,2022

ORegan, Philip

1 of 2



RE: 3213335 - SIMQUE - LOT 62 PRESERVE

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

Site Information:

Customer Info: Aaron Simque Homes Project Name: Custom Model: Bristol Modified
Lot/Block: 62 Subdivision: Preserve at Laurel Lakes
Address: TBD, TBD
City: Columbia Cty State: FL

No.	Seal#	Truss Name	Date
29	T28119655	T09	6/28/22
30	T28119656	T10	6/28/22
31	T28119657	T11	6/28/22
32	T28119658	T12	6/28/22
33	T28119659	T12D	6/28/22
34	T28119660	T14	6/28/22
35	T28119661	T15	6/28/22
36	T28119662	T16	6/28/22
37	T28119663	T17	6/28/22
38	T28119664	T18	6/28/22
39	T28119665	T18G	6/28/22
40	T28119666	T19	6/28/22
41	T28119667	T20	6/28/22
42	T28119668	T21	6/28/22
43	T28119669	T22	6/28/22
44	T28119670	T23	6/28/22
45	T28119671	T24	6/28/22
46	T28119672	T25	6/28/22
47	T28119673	T26	6/28/22
48	T28119674	T27	6/28/22
49	T28119675	T28	6/28/22
50	T28119676	T29	6/28/22
51	T28119677	TG01	6/28/22
52	T28119678	TG02	6/28/22
53	T28119679	TG03	6/28/22
54	T28119680	TG04	6/28/22
55	T28119681	TG05	6/28/22
56	T28119682	TG06	6/28/22
57	T28119683	TG07	6/28/22
58	T28119684	TG08	6/28/22



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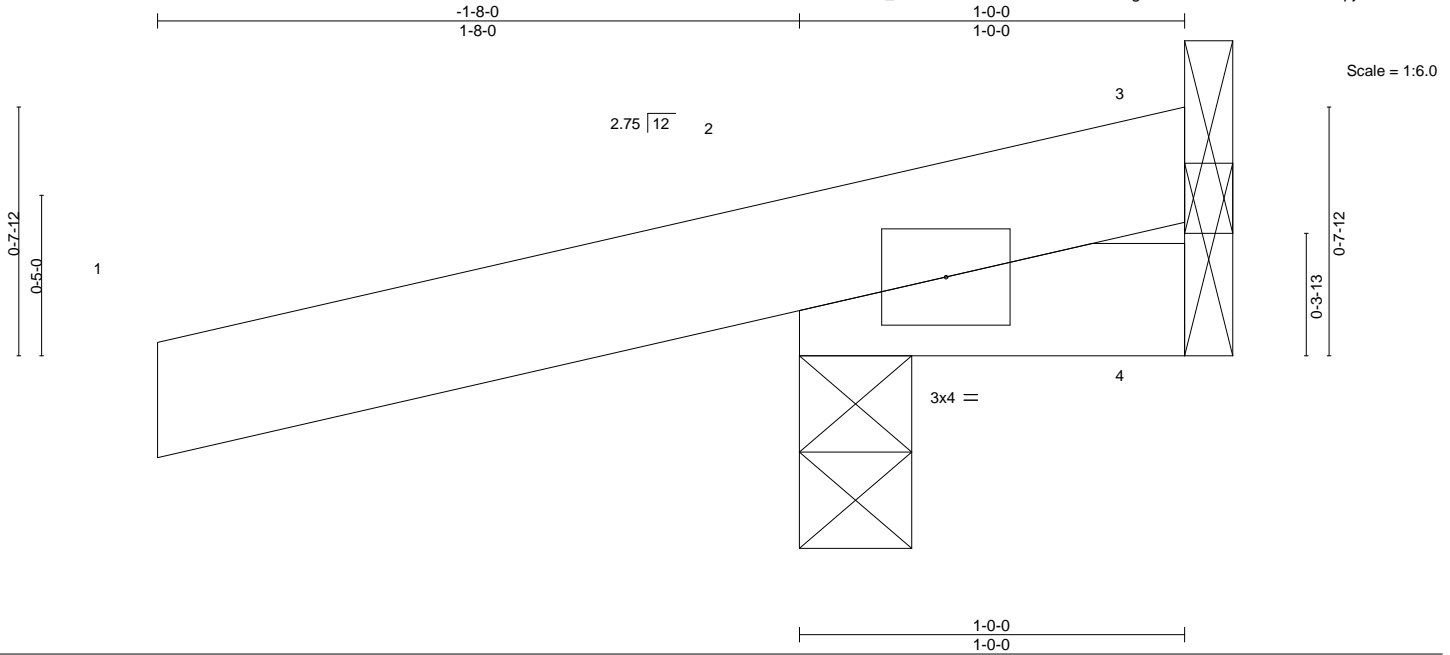
PX2707

06/30/2022

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119627
3213335	CJ01A	JACK-OPEN	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:03 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-zhIxfD36TmeYKg4kUVII9AWH40PEmbMQbfjtz22xk



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	Vert(LL)	0.00	5	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.02	Vert(CT)	0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=26(LC 8)
Max Uplift 3=-12(LC 1), 2=-137(LC 8), 4=-27(LC 1)
Max Grav 3=12(LC 8), 2=202(LC 1), 4=23(LC 8)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; 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 rectangular opening 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, 4 except (jt=lb) 2=137.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



6-0 tall by 2-0-0 wide
Review for Code Compliance
Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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

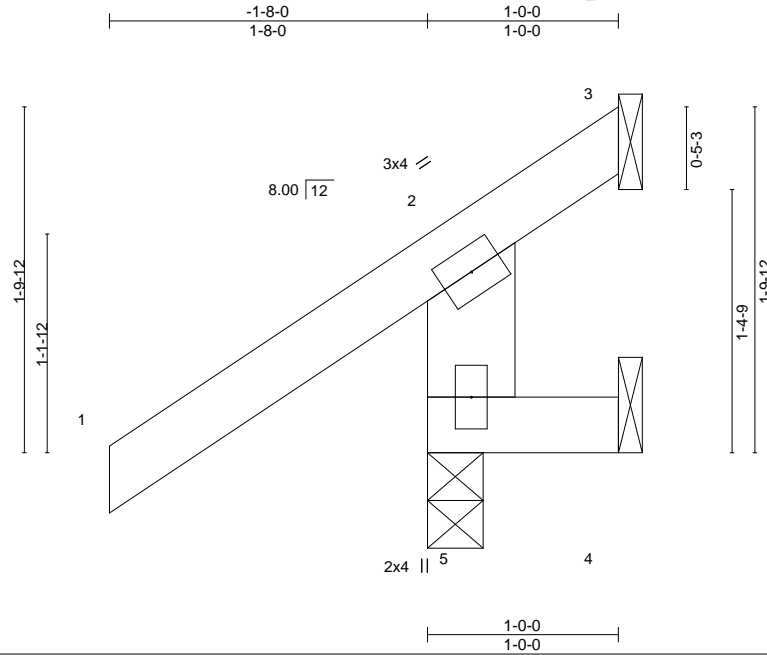


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119628
3213335	CJ01T	JACK-OPEN TRUSS	4	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:04 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtziZ29-SusJr?EhtnuVAUFHIB0XINjeRTLszDrWfFPNFJz22xj



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.32	Vert(LL) 0.00	5	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.07	Vert(CT) 0.00	5	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MR					Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=47(LC 9)
Max Uplift 5=62(LC 12), 3=-58(LC 1), 4=-41(LC 1)
Max Grav 5=258(LC 1), 3=11(LC 16), 4=6(LC 16)

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

NOTES- (7)

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live load.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangular opening 6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4, 6.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Signature of Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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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

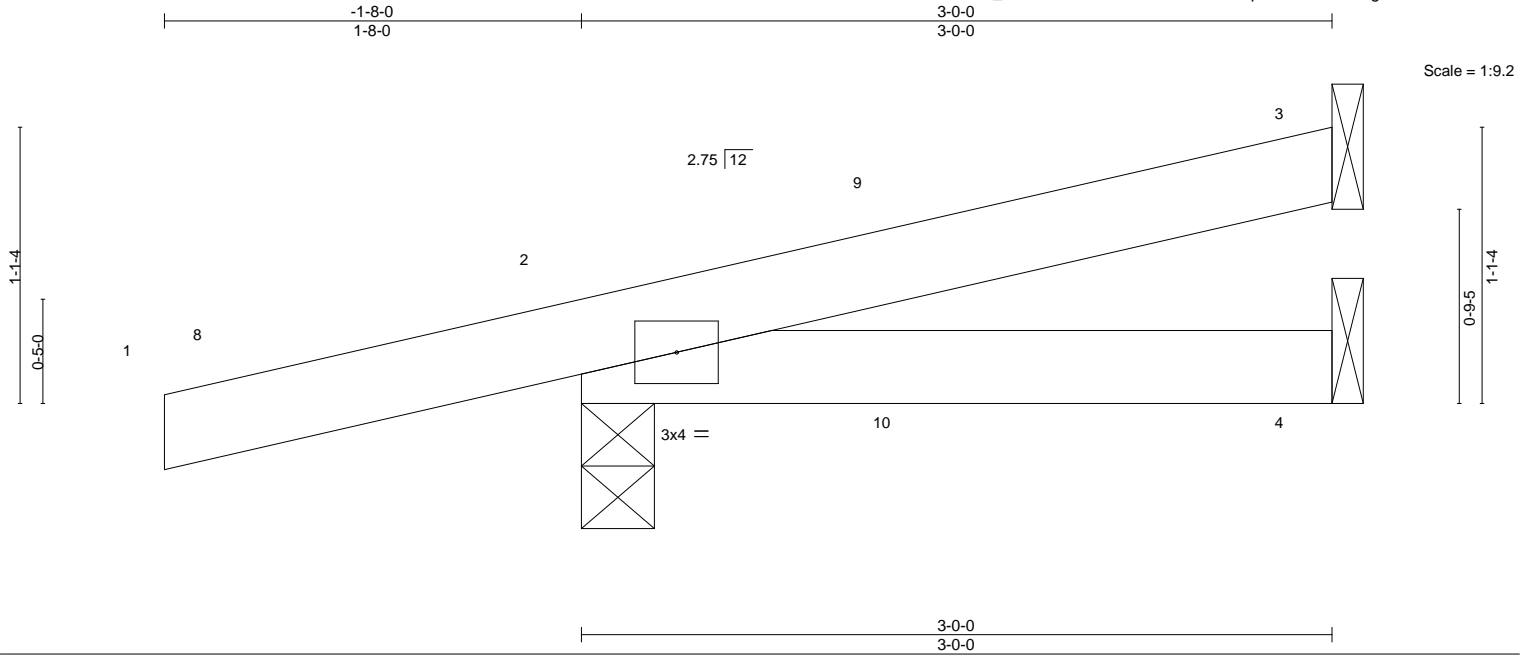


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119629
3213335	CJ02A	JACK-OPEN	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:05 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-w4Qh3LFJe50LoeqTrvXmraGrthYig4fuv8wnlz22xi



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	Vert(LL)	0.01	4-7	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.11	Vert(CT)	-0.01	4-7	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 12 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=42(LC 8)
Max Uplift 3=-28(LC 8), 2=-135(LC 8), 4=-15(LC 3)
Max Grav 3=56(LC 1), 2=224(LC 1), 4=47(LC 3)

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

NOTES- (7)

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 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
- 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 rectangular opening 6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=135.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

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06/30/2022

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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:

June 28,2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119630
3213335	CJ02T	JACK-OPEN TRUSS	4	1	Job Reference (optional)	

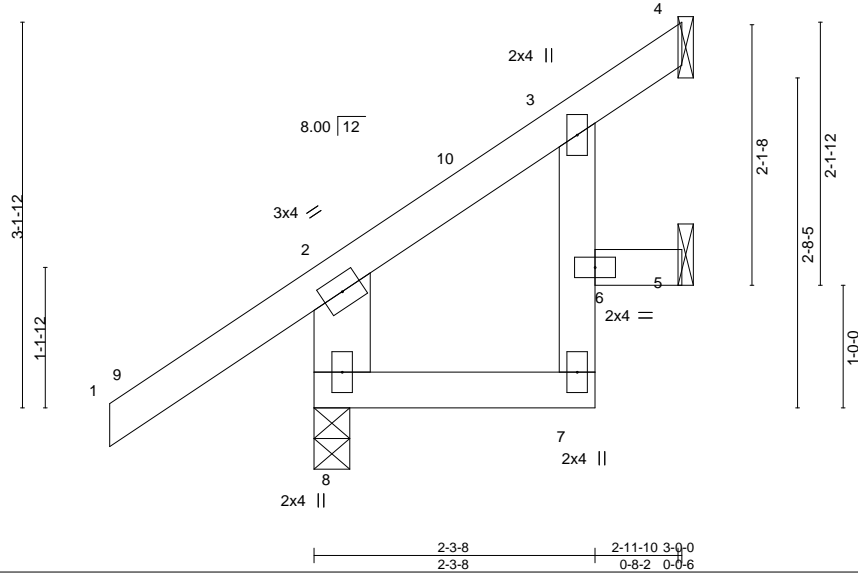
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:08 2022 Page 1

ID:Ad27wGd3Dlnto_ShAPXtziZ29-Kf5qhNHBx0Owf5Z2X15TSDuK35jWv0q6atNaO4z22xf

-1-8-0 1-8-0 2-3-8 2-3-8 2-11-10 3-0-0 0-8-2 0-0-6

Scale = 1:18.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.28	Vert(LL) -0.00	6	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.09	Vert(CT) -0.00	6	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MR					Weight: 18 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
3-7: 2x4 SP No.3
WEBS 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=90(LC 12)
Max Uplift 8=-37(LC 12), 4=-28(LC 12), 5=-33(LC 12)
Max Grav 8=238(LC 1), 4=49(LC 19), 5=39(LC 10)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 2-11-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 load.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangular cutout 6-0 tall by 2-0 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 upst at joints/24 in.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Universal Engineering Science

Philip J. O'Regan
For any License No.

PX2707

06/30/2022

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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:

June 28,2022

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

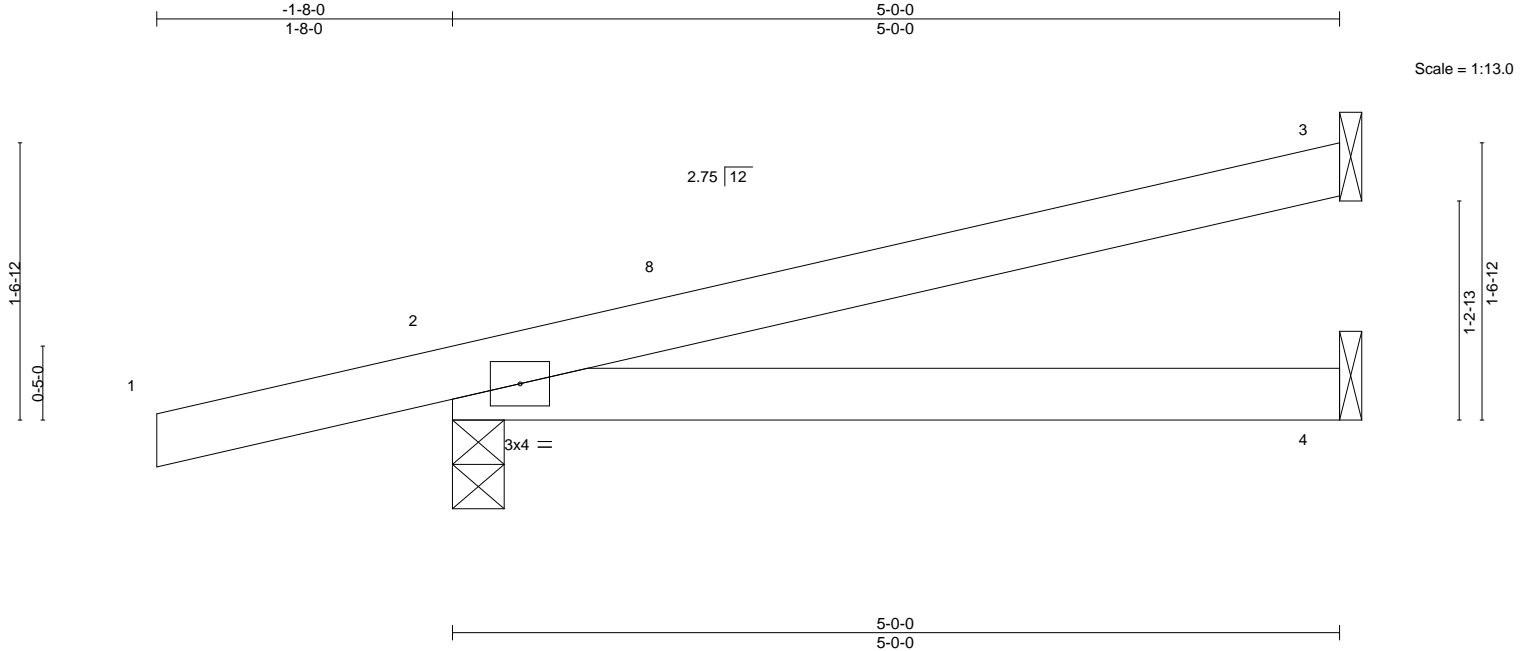


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119631
3213335	CJ03A	JACK-OPEN	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:09 2022 Page 1
ID:Ad27wGdB3DIInto_ShAPXtZLZ29-orfCujlqjWnGF8E4lci?QQV3U0keT4FpX68wWz22xe



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.26	Vert(LL)	0.03	4-7	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.22	Vert(CT)	-0.05	4-7	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 18 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 5-0-0 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=58(LC 8)
Max Uplift 3=53(LC 12), 2=122(LC 8)
Max Grav 3=110(LC 1), 2=288(LC 1), 4=86(LC 3)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 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 rectangular opening 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 except (jt=lb) 2=122.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

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06/30/2022

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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 28,2022

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



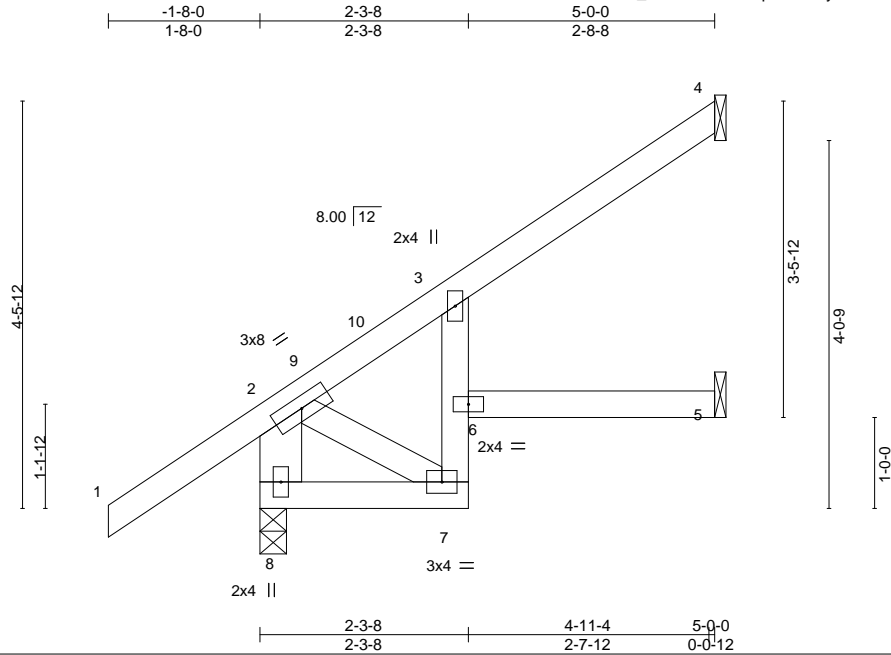
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119632
3213335	CJ03T	JACK-OPEN TRUSS	4	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:14 2022 Page 1

ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-9pT5xQMMyWs94N10CtT8KNVn_Jj9_ypqvbKz22xZ



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	Vert(LL)	0.11	7	>526	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.09	Vert(CT)	-0.11	7	>535		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT)	-0.06	4	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 27 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
3-7: 2x4 SP No.3
WEBS 2x6 SP No.2 *Except*
2-7: 2x4 SP No.3

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=137(LC 12)
Max Uplift 8=38(LC 12), 4=111(LC 12)
Max Grav 8=297(LC 1), 4=145(LC 19), 5=56(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=278/134

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 4-11-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip requirements specific to the use of this truss component.
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain 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 20-0 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) 8 except (jt=lb) 4=111.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707 06/30/2022

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119633
3213335	EJ01	JACK-PARTIAL	9	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:15 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPxtzIZ29-d?0T9mNaH9Hx_AbOR?j6EhgRzvx_2BZ8BTZS8Az22xY

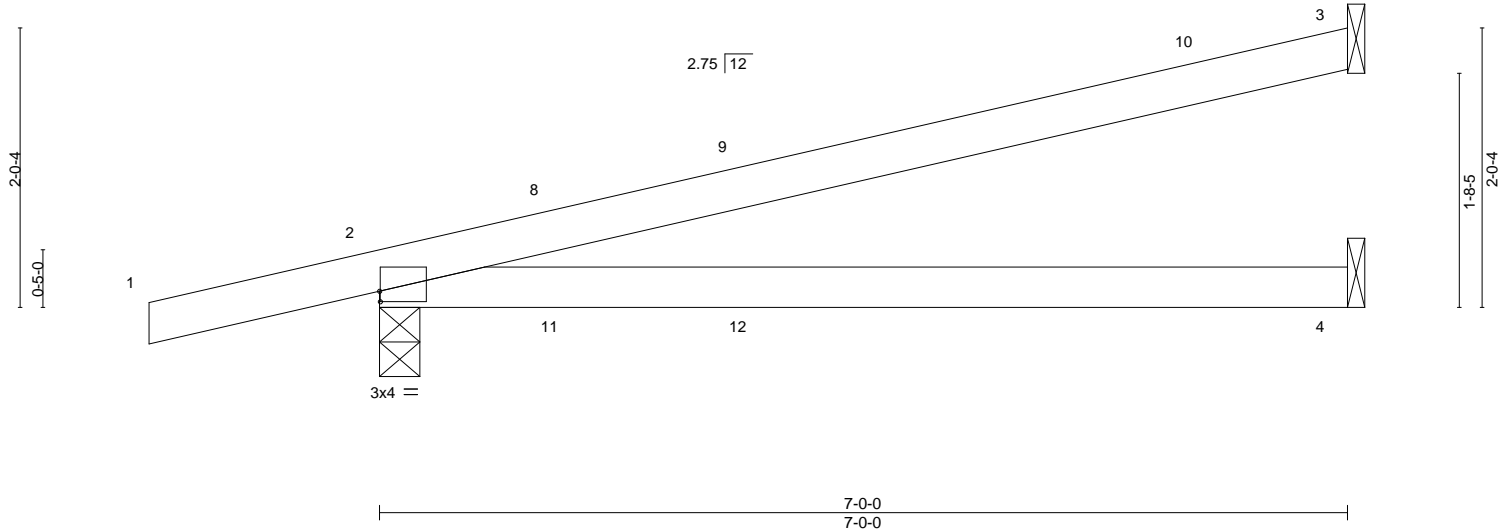


Plate Offsets (X,Y)--		[2:0-0-1,0-0-15]				
LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.25	TC 0.68	Vert(LL) 0.32 4-7 >261 240	MT20	244/190
TCDL 7.0		Lumber DOL 1.25	BC 0.74	Vert(CT) 0.27 4-7 >303 180		
BCLL 0.0 *		Rep Stress Incr YES	WB 0.00	Horz(CT) -0.02 3 n/a n/a		
BCDL 10.0		Code FBC2020/TPI2014	Matrix-MP		Weight: 24 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=74(LC 8)
Max Uplift 3=-86(LC 8), 2=-196(LC 8), 4=-44(LC 8)
Max Grav 3=162(LC 1), 2=357(LC 1), 4=123(LC 3)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 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 load.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangular opening 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, 4 except (jt=lb) 2=196.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Philip J. O'Regan
For any License No.

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06/30/2022

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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:

June 28,2022

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

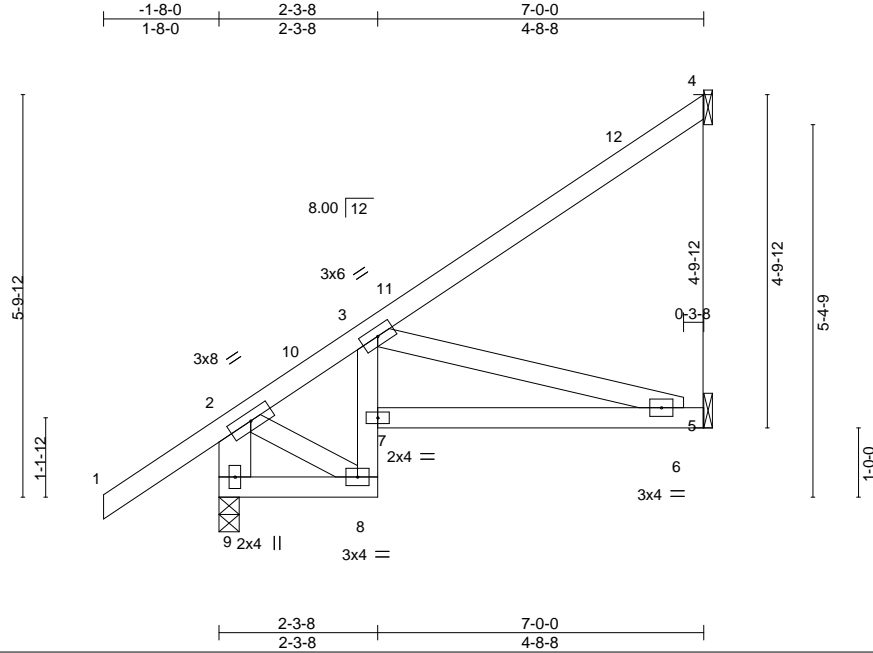


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119634
3213335	EJ02	JACK-PARTIAL TRUSS	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:17 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-ZO8EaSOprnXeEUlmYQlaK6ltajgAW3cQen2ZC3z22xW



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.29	Vert(LL) -0.04	6-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.57	Vert(CT) -0.08	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) -0.03	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 40 lb	FT = 20%

LUMBER-

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

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, Except: 6-0-0 oc bracing: 7-8.

REACTIONS.

(size) 9=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 9=178(LC 12)
Max Uplift 9=-45(LC 12), 4=-77(LC 12), 5=-50(LC 12)
Max Grav 9=365(LC 1), 4=122(LC 19), 5=145(LC 3)

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

TOP CHORD 2-9=-346/123
BOT CHORD 8-9=-253/132, 6-7=-341/335
WEBS 3-6=-347/353

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip, BCL=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 No. 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) 9, 4, 5.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Exp B; Review for Code Compliance
1-4 zone; end vertical
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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:

June 28,2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:19 2022 Page 1
 ID:Ad27wGdB3Dlnto_ShAPXtIZ29-VmG_?8Q5LOnMTov9gm2PxRvWKd_svj65XgHxz22xU
 -2-4-5 4-9-0 9-10-13
 2-4-5 4-9-0 5-1-13
 Scale = 1:22.4

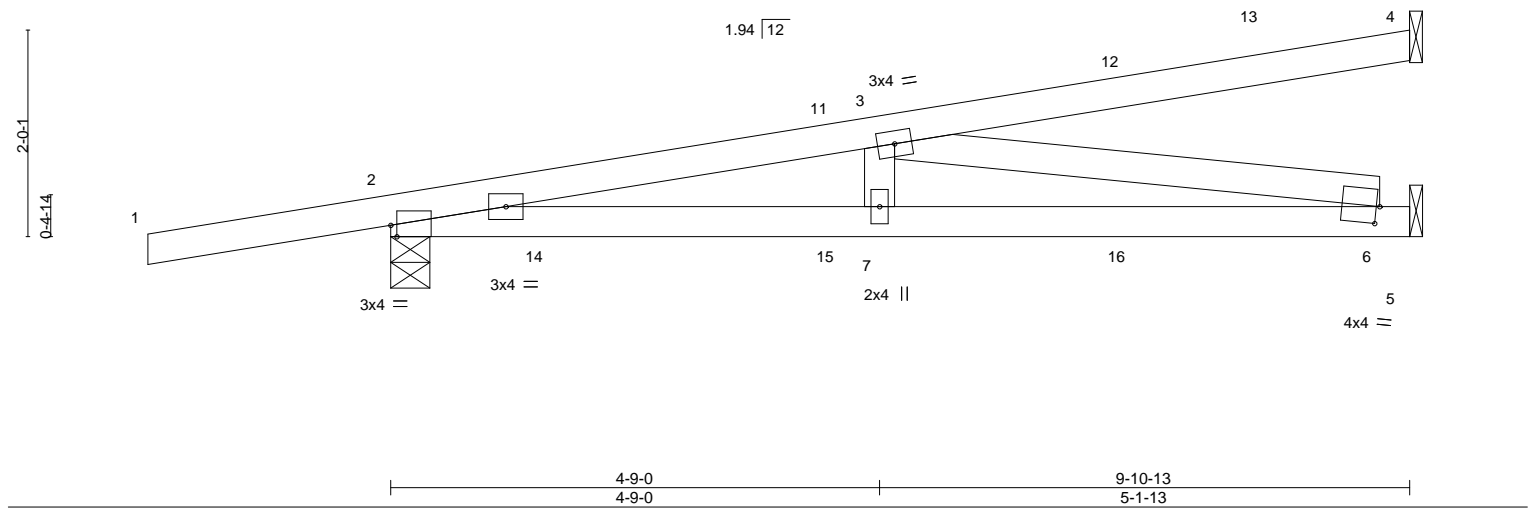


Plate Offsets (X,Y)-- [2:0-0-11,Edge], [6:0-0-6,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	0.08	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.15	6-7	>790	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 41 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-2-7 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 8-0-12 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=72(LC 4)
Max Uplift 4=-63(LC 4), 2=-266(LC 4), 5=-114(LC 4)
Max Grav 4=151(LC 1), 2=497(LC 1), 5=283(LC 1)

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

TOP CHORD	2-3=-1231/492
BOT CHORD	2-7=-521/1201, 6-7=-521/1201
WEBS	3-6=-1220/529

NOTES- (9)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BC DL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain requirements specified in 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" tall by 2'-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=266, 5=114.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 21 lb down and 34 lb up at 4-3-11, 21 lb down and 34 lb up at 4-3-11, and 41 lb down and 64 lb up at 7-1-10, and 41 lb down and 64 lb up at 7-1-10 on top chord, and 32 lb down and 40 lb up at 1-5-12, 32 lb down and 40 lb up at 1-5-12, 18 lb down and 23 lb up at 4-3-11, 18 lb down and 23 lb up at 4-3-11, and 39 lb down at 7-1-10, and 39 lb down at 7-1-10 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).
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TP1 as is referenced by the building code.

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

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where a rectangle 3-6-0 tall by 2-0-0 wide

Lawrence Powell PX2707 06/30/2022

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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:

June 28, 2022

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/TPI-1 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	SIMQUE - LOT 62 PRESERVE	T28119635
3213335	HJ01A	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:19 2022 Page 2
ID:Ad27wGdB3DlInto_ShAPXtziZ29-VmG_?8Q5LOnMTov9gm2PXr8VWKd_svj65XgHxz22xU

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 12=-68(F=-34, B=-34) 14=57(F=28, B=28) 15=-6(F=-3, B=-3) 16=-57(F=-29, B=-29)



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Lawrence Pennell

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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

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119636
3213335	HJ01T	DIAGONAL HIP GIRDER	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:21 2022 Page 2
ID:Ad27wGdB3DlInto_ShAPXtZlZ29-S9OkQpRLt?14i52YnGqWUyWVSK?ESqv0ZP0mLqz22xS

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 12=69(F=35, B=35) 14=-99(F=-49, B=-49) 16=64(F=32, B=32) 17=0(F=0, B=0)



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Lawrence Pennell

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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	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119637
3213335	PB01	GABLE	16	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:23 2022 Page 1
ID:Ad27wGdB3DlInto_ShAPxtzIZ29-OYVVqVTcPdHoyPCwvhs_ZN?xs7qEwoYJ1iVtQiz22xQ

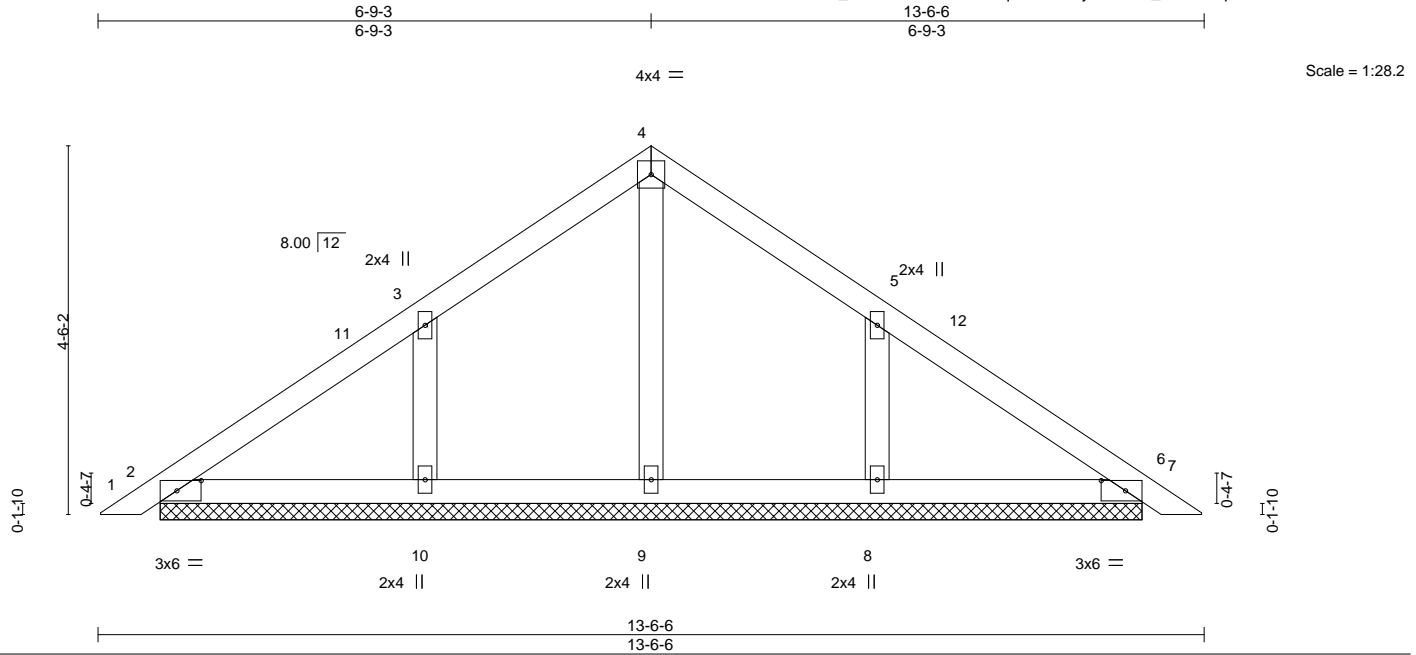


Plate Offsets (X,Y)-- [2:0-3-9,0-1-8], [6:0-3-9,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.11	Vert(LL)	0.00	7	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.08	Vert(CT)	0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						Weight: 53 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

- All bearings 12-0-2.
(lb) - Max Horz 2=-98(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 8=-135(LC 13), 10=-135(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 8=280(LC 20), 10=281(LC 19)

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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-3-5 to 3-3-5, Exterior(2N) 3-3-5 to 6-9-3, Corner(3R) 6-9-3 to 9-6-6, Exterior(2N) 9-6-6 to 13-3-1 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 truss) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 8=135, 10=135.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 28,2022

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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

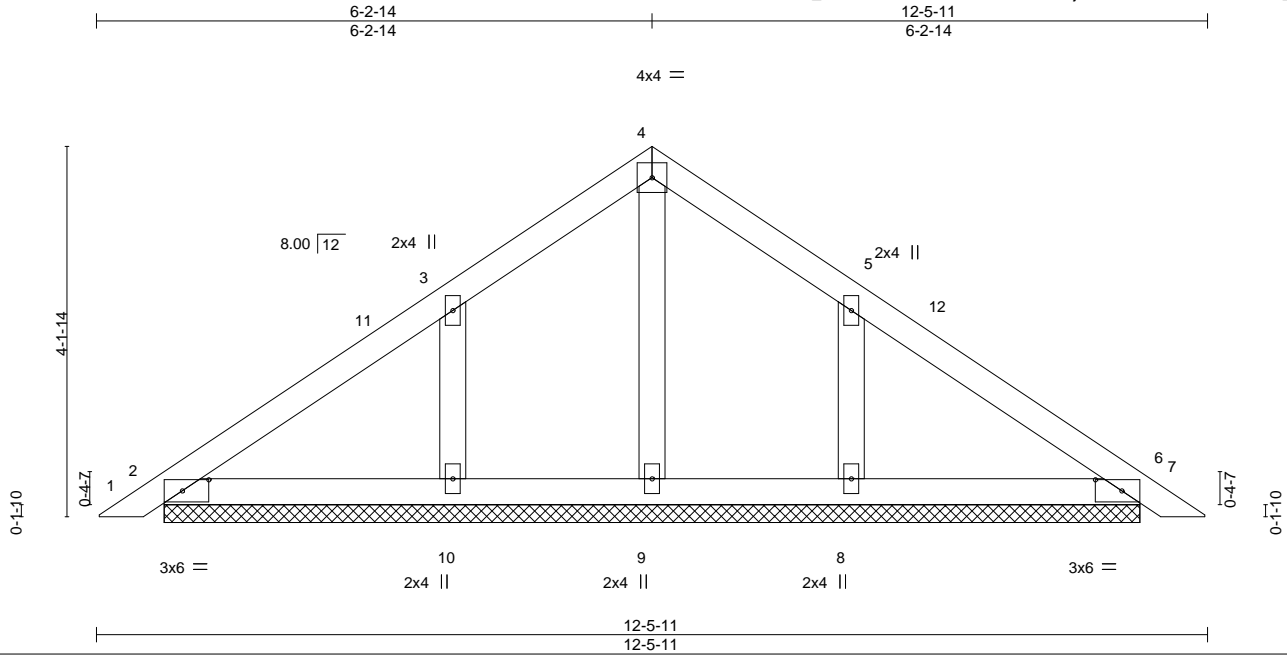


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119638
3213335	PB01G	GABLE	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:25 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtzlZ29-KwdFFBUswEXWBJMJ06uSeo5HTxWmOi2cUO_Ubz22xO



Scale = 1:25.9

Plate Offsets (X,Y)-- [2:0-3-9,0-1-8], [6:0-3-9,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.11	Vert(LL)	0.00	7	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.08	Vert(CT)	0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						Weight: 49 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

- All bearings 10-11-7.
(lb) - Max Horz 2=-90(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 8=-126(LC 13), 10=-127(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 8=267(LC 20), 10=267(LC 19)

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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-3-5 to 3-3-5, Exterior(2N) 3-3-5 to 6-2-13, Corner(3R) 6-2-13 to 9-2-14, Exterior(2N) 9-2-14 to 12-2-6 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 truss) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 8=126, 10=127.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Signature
Examiner-License No.

PX2707

06/30/2022

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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:

June 28, 2022

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

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

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

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



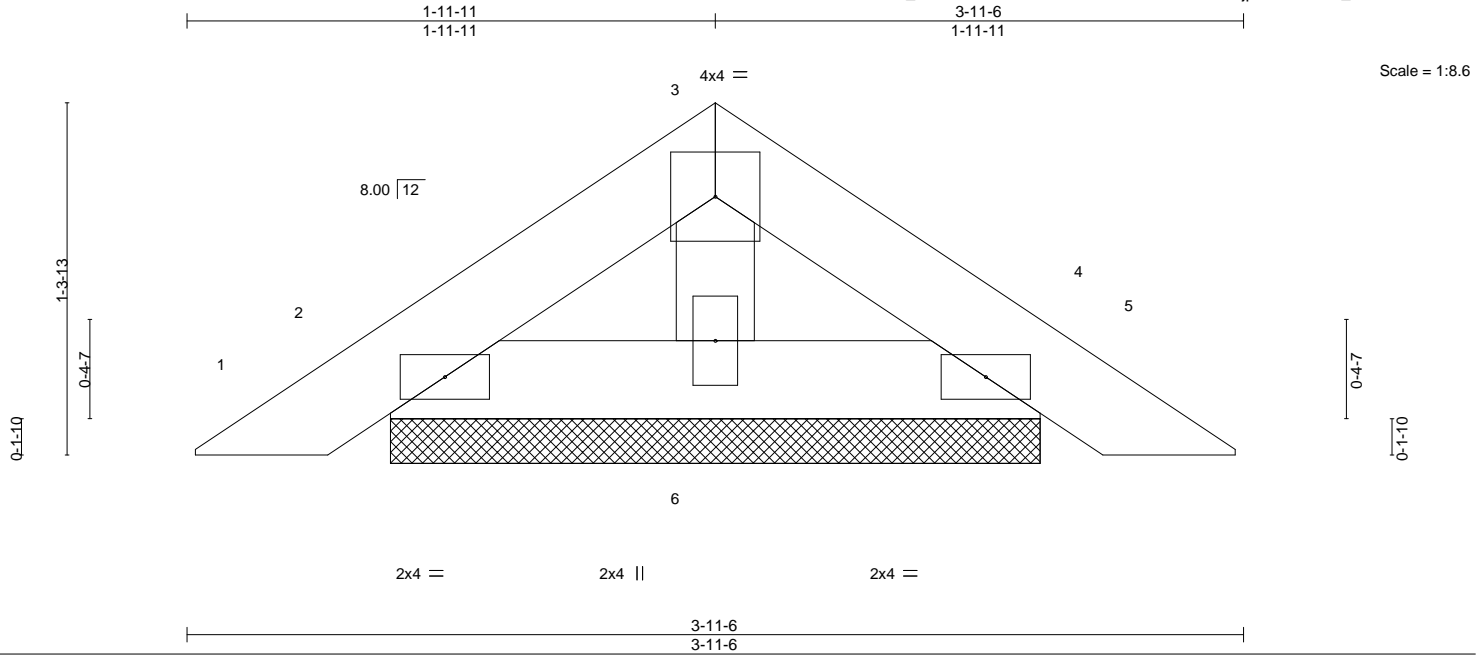
16023 Swingley Ridge Rd
Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119640
3213335	PB04G	PIGGYBACK TRUSS	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:28 2022 Page 1
ID:Ad27wGdB3DIInto_ShAPXtZlZ29-IVJOUcXkD9w52A5uiES9GQjp28YOb3f2A_De5wz22xL



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.02	Vert(LL)	0.00	4	n/r	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.02	Vert(CT)	0.00	4	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-P					Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=2-5-2, 4=2-5-2, 6=2-5-2
Max Horz 2=26(LC 11)
Max Uplift 2=-28(LC 12), 4=-32(LC 13), 6=-3(LC 12)
Max Grav 2=78(LC 1), 4=78(LC 1), 6=76(LC 1)

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

NOTES- (9)

- 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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joints 2-4-6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Signature
Philip J. O'Regan PE No. 58126

PX2707 06/30/2022

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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:

June 28, 2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119641
3213335	T01	COMMON TRUSS	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:30 2022 Page 1
ID:Ad27wGdB3DlInto_ShAPXtZlZ29-huQ8luY?ImAoHUEGpfUdLro3my9G3olLelilAoz22xJ

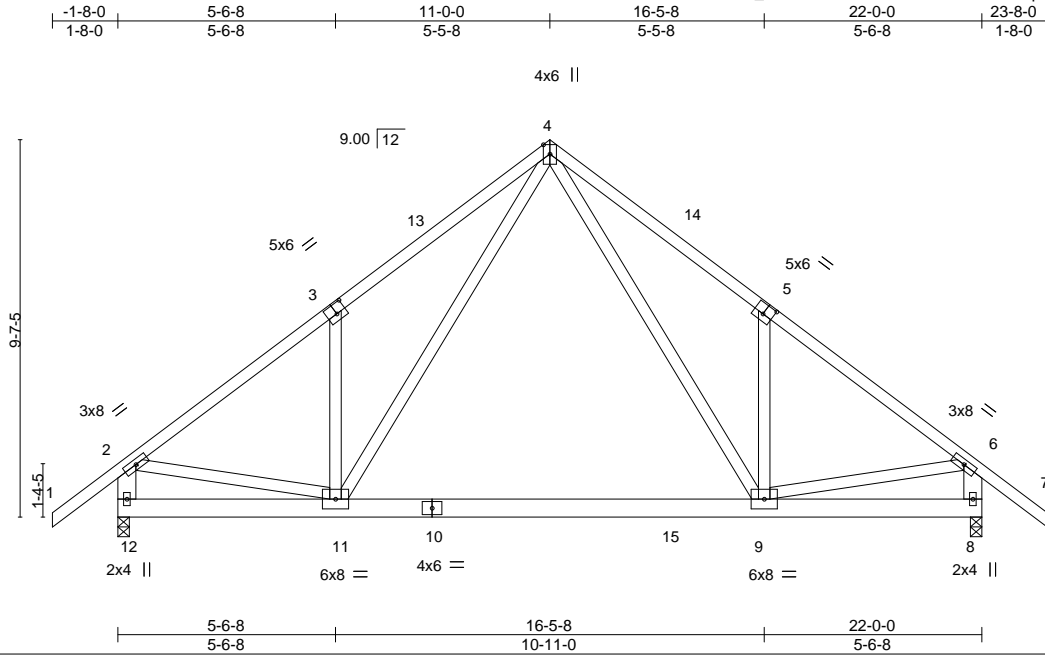


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [5:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.39	Vert(LL)	-0.19 9-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.37	Vert(CT)	-0.36 9-11	>715	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.74	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 163 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP M 26
WEBS 2x4 SP No.3 *Except*
2-12,6-8: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=252(LC 11)
Max Uplift 12=-290(LC 12), 8=-290(LC 13)
Max Grav 12=1374(LC 19), 8=1335(LC 20)

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

TOP CHORD 2-3=-1648/326, 3-4=-1695/502, 4-5=-1632/502, 5-6=-1651/326, 2-12=-1438/339, 6-8=-1388/339
BOT CHORD 9-11=-81/863
WEBS 4-9=-342/1011, 5-9=-321/266, 4-11=-342/1054, 3-11=-321/266, 2-11=-177/1258, 6-9=-177/1321

NOTES- (8)

- 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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 23-8-0 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=290, 8=290.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-54, 4-6=-54, 6-7=-54, 11-12=-20, 9-11=-80(F=-60), 8-9=-20



Review for Code Compliance
Universal Engineering Science

Signature of Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119642
3213335	T01G	GABLE	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:34 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-Ztfg8GbVp?gEm5Y22VZZWhzoNZal?mHxZwgyJaz22xXf

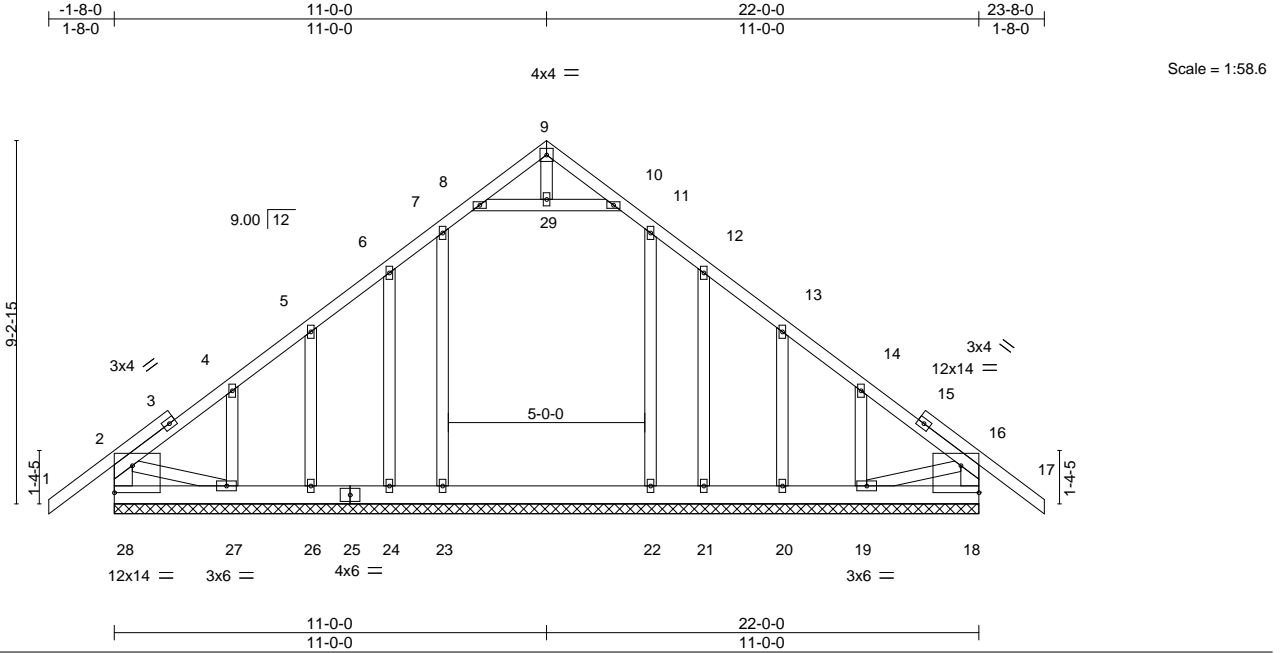


Plate Offsets (X,Y)-- [16:Edge,0-8-4], [28:Edge,0-8-4]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.22	Vert(LL)	-0.01	17	n/r	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.11	Vert(CT)	-0.02	17	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT)	0.00	18	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 177 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
2-28,16-18: 2x6 SP No.2
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 27-28,18-19.

REACTIONS.

All bearings 22-0-0.
(lb) - Max Horz 28=207(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 28, 18, 23, 24, 26, 21, 20 except 27=-135(LC 12), 19=-129(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 24, 26, 27, 21, 20, 19 except 28=319(LC 1), 18=319(LC 1), 23=386(LC 19), 22=370(LC 20)

FORCES.

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

TOP CHORD 2-28=-291/83, 16-18=-291/88

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=22ft; Exp B; L=11-0-0; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-8-0 to 1-4-0, Exterior(2N) 1-4-0 to 11-0-0, Corner(3R) 11-0-0 to 14-0-0, Exterior(2N) 14-0-0 to 23-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry No. 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 18, 23, 24, 26, 21, 20 except (jt=lb) 27=135, 19=129.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Universal Engineering Science

Signature: [Signature]
Date: 06/30/2022

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06/30/2022

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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:

June 28,2022

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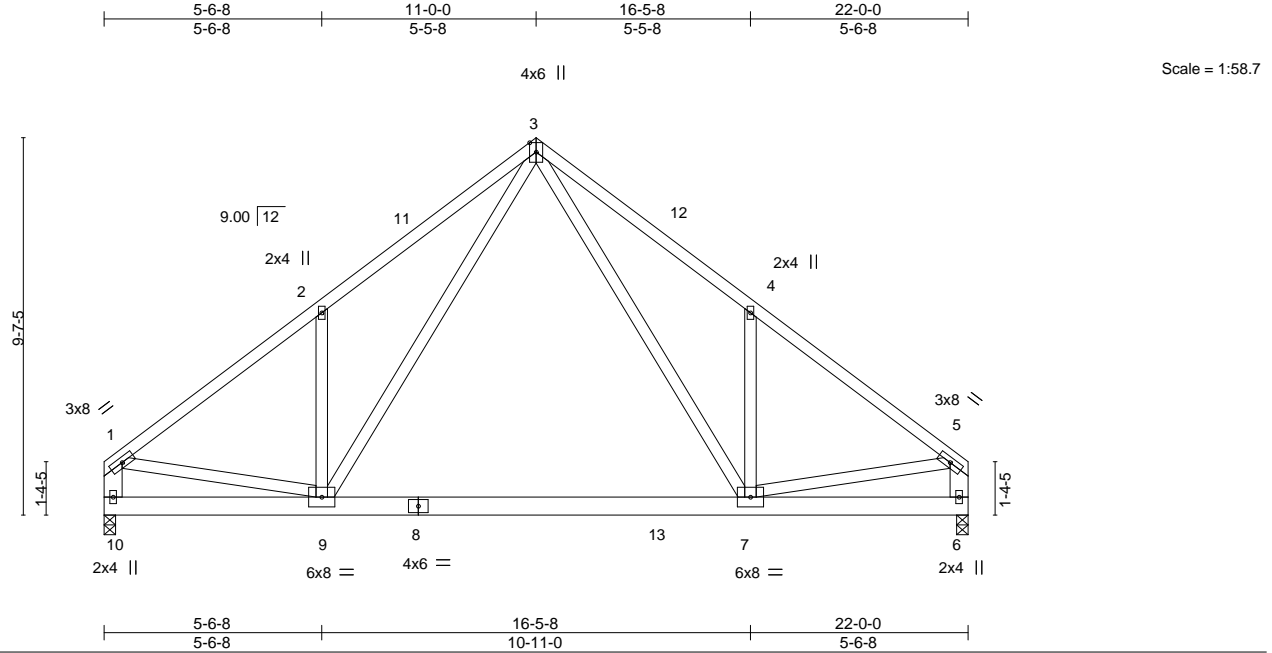


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119643
3213335	T02	COMMON TRUSS	5	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:35 2022 Page 1
ID:Ad27wGdB3DInto_ShAPXtZlZ29-1rE1McC7aJo5OF7EcC4o2vVx?zsRk3b4naPW0z22xE



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	Vert(LL)	-0.19	7-9	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.37	Vert(CT)	-0.36	7-9	>712		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.76	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS					Weight: 157 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP M 26
WEBS 2x4 SP No.3 *Except*
1-10,5-6: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 6=0-3-8
Max Horz 10=220(LC 9)
Max Uplift 10=-247(LC 12), 6=-247(LC 13)
Max Grav 10=1279(LC 19), 6=1255(LC 19)

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

TOP CHORD 1-2=-1662/326, 2-3=-1723/513, 3-4=-1660/512, 4-5=-1664/326, 1-10=-1342/277,
5-6=-1319/277
BOT CHORD 7-9=-103/855
WEBS 3-7=-353/1037, 4-7=-343/281, 3-9=-354/1080, 2-9=-343/282, 1-9=-190/1256,
5-7=-192/1317

NOTES- (8)

- 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=22ft; Exp B; L=11'-0"; Gcpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 21-9-4 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements 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) 10=247, 6=247.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-54, 9-10=-20, 7-9=-80(F=-60), 6-7=-20



Review for Code Compliance
Universal Engineering Science

Philip J. O'Regan
Tentative License No.

PX2707

06/30/2022

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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:

June 28,2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119644
3213335	T03	PIGGYBACK BASE TRUSS	6	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:38 2022 Page 1

ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-SQvA_dft0tEAgFjshPKdVgX7MiAovxYPWTYeASLz22xB

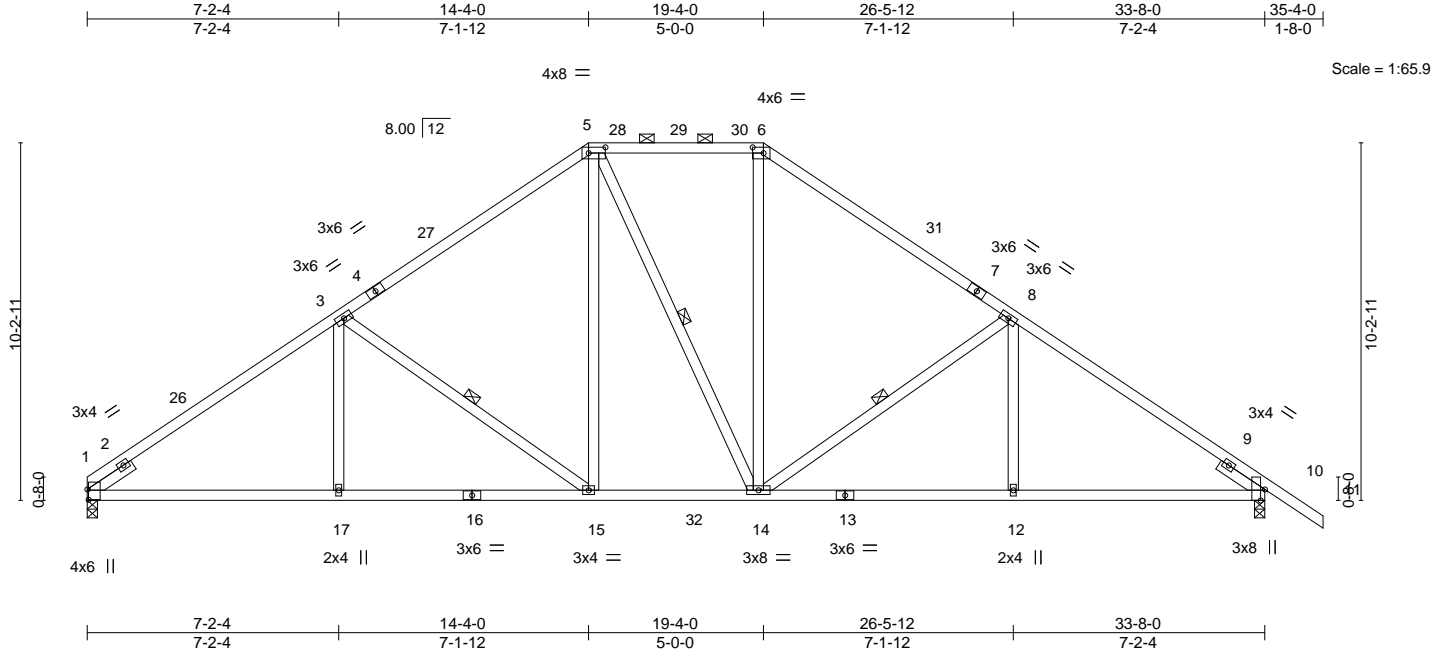


Plate Offsets (X,Y)-- [1:0-3-9,0-0-7], [5:0-5-12,0-2-0], [6:0-3-12,0-2-0], [10:0-3-13,Edge]

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 0.71	Vert(LL) -0.13 15-17 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.25	Vert(CT) -0.26 15-17 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.08 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 201 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

REACTIONS.

(size) 1=0-3-8, 10=0-3-8
Max Horz 1=-234(LC 8)
Max Uplift 1=-266(LC 12), 10=-304(LC 13)
Max Grav 1=1364(LC 19), 10=1448(LC 20)

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

TOP CHORD 1-3=-1936/387, 3-5=-1475/341, 5-6=-1151/344, 6-8=-1470/339, 8-10=-1922/381
BOT CHORD 1-17=-357/1693, 15-17=-357/1693, 14-15=-137/1207, 12-14=-186/1537, 10-12=-186/1537
WEBS 3-17=0/284, 3-15=-606/270, 5-15=-117/583, 6-14=-107/552, 8-14=-592/263, 8-12=0/281

NOTES- (9)

- 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=22ft; 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 18-6-15, Exterior(2R) 18-6-15 to 19-4-0, Exterior(2R) 19-4-0 to 23-6-15, Interior(1) 23-6-15 to 35-4-0 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=266, 10=304.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Signature of Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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:

June 28,2022

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

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Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119646
3213335	T04	ATTIC TRUSS	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:44 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtzIZ29-HaHREhjnS4xpzeJzebkvwoNMwbrDL4TPsU5Uf_z22x5

NOTES- (13)

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 4-42, 42-44, 44-45, 43-45, 9-43; Wall dead load (5.0psf) on member(s).3-37, 10-19
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 35-37, 33-35, 31-33, 30-31, 26-30, 24-26, 22-24, 20-22, 19-20
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 1, 386 lb uplift at joint 15 and 325 lb uplift at joint 13.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.
- 13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Lawrence Pennell

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

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

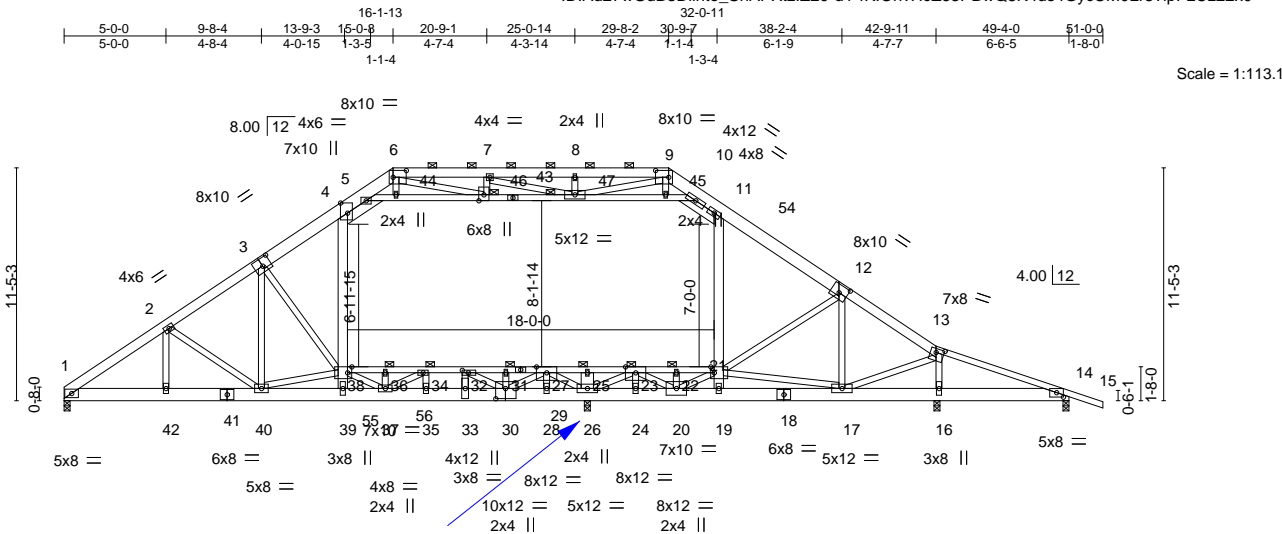


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119647
3213335	T04D	ATTIC TRUSS	1	3	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:49 2022 Page 1
ID:Ad27wGdBDlnto_ShAPxtzlZ29-dY4KIOnvHcZ63PBwQ8K4ds4GycUM0Lr8?lpFLCz22x0



SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

Plate Offsets (X,Y)--	[3:0-5-0,0-4-8], [4:0-5-15,Edge], [6:0-7-12,0-4-0], [9:0-7-12,0-4-0], [12:0-5-0,0-4-8], [13:0-4-12,0-2-4], [14:0-4-0,0-2-10], [21:0-2-0,Edge], [30:0-5-12,0-6-0], [32:0-3-8,0-1-8], [38:0-2-8,Edge], [46:0-3-8,0-3-0]
-----------------------	---

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.58	Vert(LL)	-0.24 37-39	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.00	BC 0.97	Vert(CT)	-0.35 37-39	>871	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.91	Horz(CT)	0.05 14	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Attic	0.13 21-38	1611	360	Weight: 1570 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-6,9-12: 2x8 SP 2400F 2.0E, 13-15: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD 2x8 SP 2400F 2.0E *Except* 29-38,21-29: 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 28-30,26-28,24-26,20-24.
WEBS 2x4 SP No.3 *Except* 4-39,11-19: 2x6 SP No.2, 13-17,26-27,23-26: 2x4 SP No.2 25-26: 2x8 SP 2400F 2.0E 20-21,37-38,27-30,34-37,30-32,20-23: 2x4 SP M 31	JOINTS 1 Brace at Jt(s): 25, 23, 22, 36, 34, 31, 46, 47

REACTIONS.	All bearings 0-3-8 except (jt=length) 16=0-4-5 (input: 0-3-8), 26=0-6-9 (input: 0-3-8).
(lb) - Max Horz	1=265(LC 4)
Max Uplift	All uplift 100 lb or less at joint(s) except 1=1340(LC 5), 16=2950(LC 4), 14=222(LC 5), 26=3852(LC 4)
Max Grav	All reactions 250 lb or less at joint(s) except 1=6223(LC 16), 16=10990(LC 17), 14=431(LC 1), 26=16723(LC 17)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=10386/2279, 2-3=10576/2400, 3-4=9175/2149, 4-5=6020/1478, 5-6=1456/412, 6-7=1523/459, 7-8=812/529, 8-9=812/529, 9-10=283/551, 10-11=6329/1558, 11-12=9446/2294, 12-13=10365/2577, 13-14=1019/265
BOT CHORD	1-42=1977/8729, 40-42=1977/8729, 39-40=3062/13338, 37-39=3000/13158, 35-37=3218/14267, 33-35=3218/14267, 30-33=3218/14267, 28-30=4033/1172, 26-28=4033/1172, 24-26=4945/1132, 20-24=4945/1132, 19-20=2179/7139, 17-19=2232/7533, 16-17=327/1581, 14-16=172/954, 36-38=8947/2018, 34-36=8947/2018, 32-34=6997/1553, 31-32=329/757, 27-31=325/747, 25-27=4227/18496, 23-25=4227/18496, 22-23=983/4302, 21-22=983/4302
WEBS	3-40=363/1772, 3-38=2903/642, 38-39=767/2472, 4-38=1348/5718, 19-21=617/2381, 11-21=374/1497, 12-21=1776/634, 13-17=2105/7917, 13-16=9730/2562, 5-44=5921/1388, 44-46=5849/1374, 46-47=6375/1287, 45-47=8694/2047, 10-45=8811/2071, 25-26=1902/397, 23-24=2374/511, 20-22=1247/251, 20-21=4615/1283, 36-37=1055/200, 37-38=927/3743, 34-35=1914/419, 32-33=771/3254, 30-31=1028/207, 27-28=2513/549, 12-17=1343/278, 6-44=87/477, 9-45=155/772, 6-46=569/425, 9-47=473/1361, 7-47=1301/314, 26-27=8671/1953, 27-30=2801/12317, 34-37=546/2284, 30-32=8875/2017, 38-40=4527/1059, 17-21=312/1462, 2-42=331/123, 2-40=206/472, 20-23=2402/9474, 23-26=7324/1958



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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:

June 28,2022

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119647
3213335	T04D	ATTIC TRUSS	1	3	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:49 2022 Page 2
ID:Ad27wGdB3DlInto_ShAPXtzlZ29-dY4KlOnvHcZ63PBwQ8K4ds4GycUM0Lr8?lpFLCz22x0

NOTES- (17)

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-8-0 oc, 2x4 - 1 row at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 10-11, 5-44, 44-46, 46-47, 45-47, 10-45; Wall dead load (5.0psf) on member(s).4-38, 11-21
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 36-38, 34-36, 32-34, 31-32, 27-31, 25-27, 23-25, 22-23, 21-22
- WARNING: Required bearing size at joint(s) 16, 26 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1340 lb uplift at joint 1, 2950 lb uplift at joint 16, 222 lb uplift at joint 14 and 3852 lb uplift at joint 26.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2029 lb down and 574 lb up at 32-11-4 on top chord, and 3072 lb down and 869 lb up at 13-10-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Attic room checked for L/360 deflection.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 1-4=-54, 4-5=-64, 5-6=-54, 6-9=-54, 9-10=-54, 10-11=-64, 13-15=-54, 48-55=-20, 16-55=-265(F=-245), 16-51=-20, 38-56=-40, 21-56=-285(F=-245), 5-10=-10

Drag: 4-38=-10, 11-21=-10

Concentrated Loads (lb)

Vert: 39=-1702(F) 54=-1124

Trapezoidal Loads (plf)

Vert: 11=-201(F=-147)-to-13=-319(F=-265)



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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

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119648
3213335	T04G	GABLE	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:25:58 2022 Page 2
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NOTES- (15)

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Ceiling dead load (5.0 psf) on member(s). 5-6, 11-12, 6-45, 45-47, 47-48, 46-48, 11-46; Wall dead load (5.0psf) on member(s).5-40, 12-22
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 38-40, 36-38, 34-36, 33-34, 29-33, 27-29, 25-27, 23-25, 22-23
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 17, 234 lb uplift at joint 1, 216 lb uplift at joint 43 and 291 lb uplift at joint 18.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.
- 15) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119649
3213335	T05	ATTIC TRUSS	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:02 2022 Page 1
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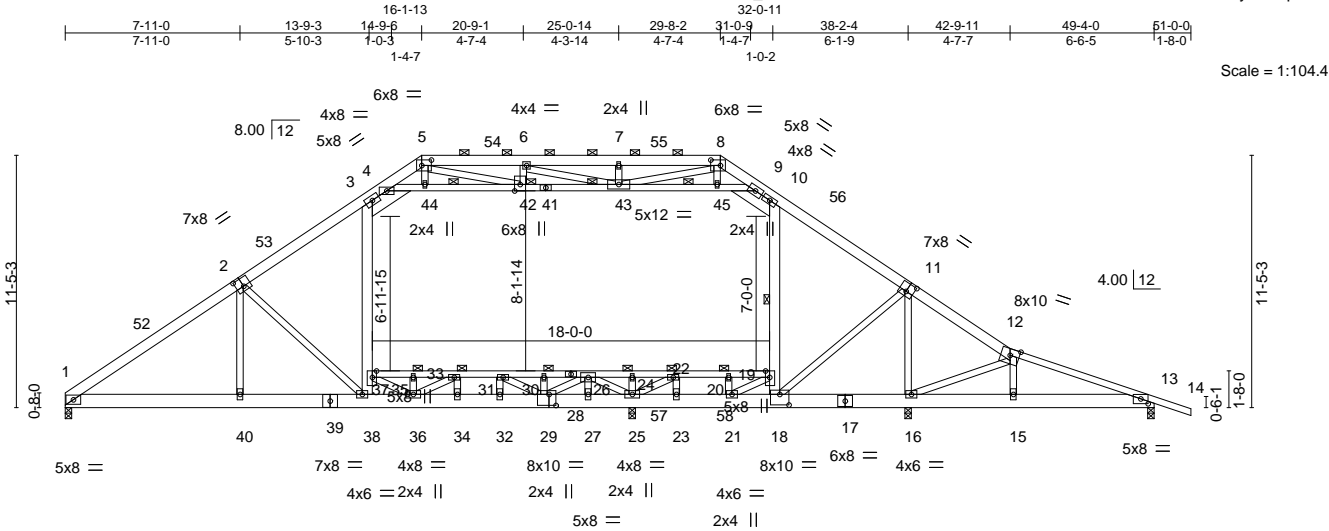


Plate Offsets (X,Y)--	[2:0-4-0,0-4-8], [5:0-5-4,0-3-0], [8:0-5-4,0-3-0], [11:0-4-0,0-4-8], [13:0-4-0,0-2-10], [18:0-5-0,0-5-12], [19:Edge,0-2-4], [29:0-3-12,0-6-0], [37:Edge,0-2-4], [42:0-3-8,0-3-0]
-----------------------	--

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.76	Vert(LL) -0.24	38	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.00	BC 0.90	Vert(CT) -0.49	38-40	>633	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.90	Horz(CT) 0.05	13	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Attic -0.15	19-37	1475	360	Weight: 484 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins, except
12-14: 2x4 SP No.2, 3-4,9-10: 2x8 SP 2400F 2.0E	2-0-0 oc purlins (5-8-4 max.): 5-8.
BOT CHORD 2x8 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
28-37,19-28: 2x4 SP No.2	WEBS 1 Row at midpt 10-19, 4-42, 9-43
WEBS 2x4 SP No.3 *Except*	JOINTS 1 Brace at Jt(s): 24, 22, 35, 33, 30, 42, 43, 20
3-38,10-18: 2x6 SP No.2	

REACTIONS. All bearings 0-3-8.

(lb) - Max Horz 1=-265(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) except 1=-136(LC 12), 16=-476(LC 8), 13=-329(LC 9)

Max Grav All reactions 250 lb or less at joint(s) except 1=1720(LC 20), 16=1016(LC 25), 25=2026(LC 18), 13=1287(LC 2)

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

TOP CHORD 1-2=-2777/321, 2-3=-2239/277, 3-4=-1677/341, 4-5=-917/276, 5-6=-1604/557, 6-7=-1516/606, 7-8=-1516/606, 8-9=-734/319, 9-10=-1716/354, 10-11=-2072/272, 11-12=-2368/232, 12-13=-3072/464

BOT CHORD 1-40=-186/2387, 38-40=-186/2384, 36-38=-30/2076, 34-36=0/2701, 32-34=0/2701, 29-32=0/2701, 27-29=-32/436, 25-27=-32/436, 23-25=-54/348, 21-23=-54/348, 18-21=0/1485, 16-18=-93/2005, 15-16=-346/2898, 13-15=-355/2897, 35-37=-1351/0, 33-35=-1351/0, 31-33=-1161/0, 30-31=-263/354, 26-30=-263/354, 24-26=-49/2392, 22-24=-49/2392, 20-22=-72/1563, 19-20=-72/1563

WEBS 2-40=-37/451, 2-38=-815/297, 3-37=0/747, 18-19=-108/1157, 10-19=-69/565, 11-18=-383/226, 11-16=-561/488, 12-16=-1113/591, 12-15=-336/184, 4-44=-1225/118, 42-44=-1214/120, 42-43=-880/368, 43-45=-1669/182, 9-45=-1684/181, 24-25=-277/19, 22-23=0/282, 19-21=-1502/62, 35-36=-264/0, 33-34=-402/75, 31-32=-39/403, 26-27=-414/15, 36-37=0/1185, 5-42=-378/930, 8-43=-358/1109, 25-26=-1198/0, 22-25=-992/180, 33-36=-217/578, 29-31=-1222/15, 26-29=0/1586, 20-21=-267/106

- NOTES-** (13)
- 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=22ft; 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 16-1-13, Exterior(2R) 16-1-13 to 19-1-13, Interior(1) 19-1-13 to 29-8-2, Exterior(2R) 29-8-2 to 32-8-2, Interior(1) 32-8-2 to 51-0-0 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.

Continued on page 2

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

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

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



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Universal Engineering Science

Lawrence Parnell
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PX2707 06/30/2022

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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:

June 28,2022



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119649
3213335	T05	ATTIC TRUSS	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:03 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-DEwdEAyh_vK7IYGcF4aMBpfdbFHolgRCDxC?pOz22wo

NOTES- (13)

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 4-44, 42-44, 42-43, 43-45, 9-45; Wall dead load (5.0psf) on member(s).3-37, 10-19
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 35-37, 33-35, 31-33, 30-31, 26-30, 24-26, 22-24, 20-22, 19-20
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 1, 476 lb uplift at joint 16 and 329 lb uplift at joint 13.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.
- 13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

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

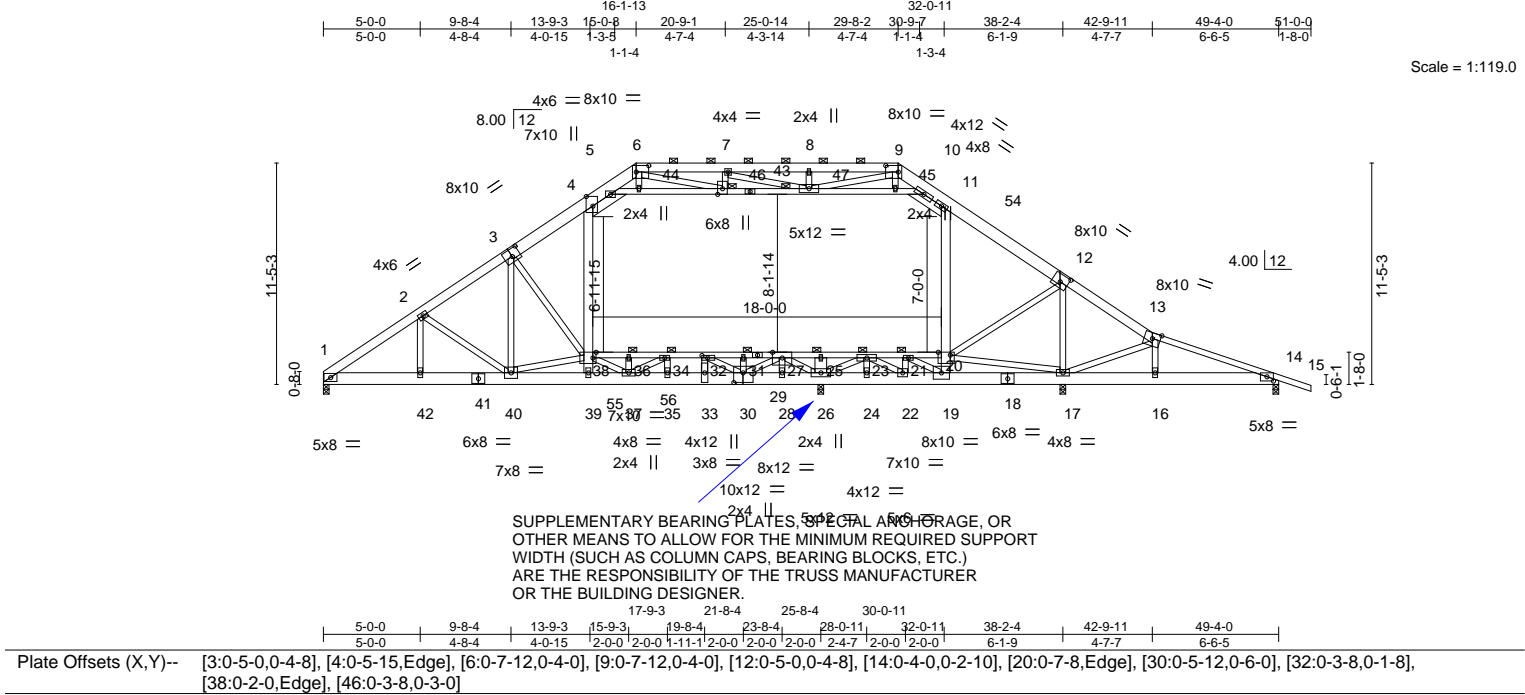


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119650
3213335	T05D	ATTIC TRUSS	1	3	Job Reference (optional)	

Builders FirstSource (Lake City, FL),
Lake City, FL - 32055,
8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:07 2022 Page 1

ID:Ad27wGdB3DlInto_ShAPXtziZ29-5?A73Y?C18qYEAZNUwellFqLctecEWWn8ZACy9z22wk



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.57	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.00	BC 0.91	Vert(LL) -0.30 37-39 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.83	Vert(CT) -0.44 37-39 >708 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.05 14 n/a n/a		
			Attic -0.16 20-38 1360 360	Weight: 1570 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-6,9-12: 2x8 SP 2400F 2.0E, 13-15: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD 2x8 SP 2400F 2.0E *Except* 29-38,20-29: 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 4-39,11-19: 2x6 SP No.2, 25-26: 2x8 SP 2400F 2.0E 19-21,37-38,27-30,34-37,30-32,22-23: 2x4 SP M 31	JOINTS 1 Brace at Jt(s): 25, 23, 21, 36, 34, 31, 46, 47


REACTIONS.	All bearings 0-3-8 except (jt=length) 17=0-4-2 (input: 0-3-8), 26=0-6-2 (input: 0-3-8).
(lb) - Max Horz 1=265(LC 4)	
Max Uplift All uplift 100 lb or less at joint(s) except 1=1269(LC 5), 17=3017(LC 4), 14=782(LC 5), 26=3490(LC 5)	
Max Grav All reactions 250 lb or less at joint(s) except 1=5961(LC 16), 17=10473(LC 17), 14=2482(LC 16), 26=15503(LC 16)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 1-2=-9926/2156, 2-3=-10135/2281, 3-4=-8212/1895, 4-5=-5219/1268, 5-6=-1782/503, 6-7=-1685/531, 7-8=-816/522, 8-9=-816/522, 9-10=-130/802, 10-11=-5627/1373, 11-12=-8279/1985, 12-13=-4536/1060, 13-14=-6734/1769	
BOT CHORD 1-42=-1874/8343, 40-42=-1874/8343, 39-40=-3540/15182, 37-39=-3521/15166, 35-37=-3639/15924, 33-35=-3639/15924, 30-33=-3639/15924, 28-30=-2906/717, 26-28=-2906/717, 24-26=-6581/1561, 22-24=-6581/1561, 19-22=-1076/355, 17-19=-351/1196, 16-17=-1586/6355, 14-16=-1598/6375, 36-38=-11775/2753, 34-36=-11775/2753, 32-34=-9556/2212, 31-32=-1509/352, 27-31=-1524/355, 25-27=-3894/17140, 23-25=-3894/17140, 21-23=-1782/7444, 20-21=-1382/5636	
WEBS 3-40=-568/2558, 3-38=-3716/853, 38-39=-679/2138, 4-38=-1260/5391, 19-20=-439/1578, 11-20=-150/642, 12-20=-761/2875, 13-17=-3125/972, 13-16=-188/377, 5-44=-4418/998, 44-46=-4364/988, 46-47=-5192/977, 45-47=-8150/1902, 10-45=-8261/1924, 25-26=-1857/385, 23-24=-2010/419, 21-22=-2716/581, 19-21=-475/2152, 36-37=-1023/190, 37-38=-933/3671, 34-35=-2066/461, 32-33=-848/3543, 30-31=-999/199, 27-28=-2332/500, 12-17=-6484/1795, 6-44=-55/356, 9-45=-145/733, 7-46=-12/290, 6-46=-884/222, 9-47=-572/1713, 7-47=-1583/387, 26-27=-9264/2114, 23-26=-4816/1155, 27-30=-2853/12512, 34-37=-633/2598, 30-32=-9498/2184, 38-40=-6820/1657, 17-20=-721/3031, 2-42=-343/126, 2-40=-218/509, 22-23=-1485/6500	



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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:

June 28,2022

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119650
3213335	T05D	ATTIC TRUSS	1	3	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:07 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-5?A73Y?C18qYEAZNUwLlqLctecEWWn8ZACy9z22wk

NOTES- (17)

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-8-0 oc, 2x4 - 1 row at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 10-11, 5-44, 44-46, 46-47, 45-47, 10-45; Wall dead load (5.0psf) on member(s).4-38, 11-20
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 36-38, 34-36, 32-34, 31-32, 27-31, 25-27, 23-25, 21-23, 20-21
- WARNING: Required bearing size at joint(s) 17, 26 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1269 lb uplift at joint 1, 3017 lb uplift at joint 17, 782 lb uplift at joint 14 and 3490 lb uplift at joint 26.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2029 lb down and 574 lb up at 32-11-4 on top chord, and 3072 lb down and 869 lb up at 13-10-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Attic room checked for L/360 deflection.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 1-4=-54, 4-5=-64, 5-6=-54, 6-9=-54, 9-10=-54, 10-11=-64, 13-15=-54, 48-55=-20, 16-55=-265(F=-245), 16-51=-20, 38-56=-40, 21-56=-285(F=-245),
20-21=-285(F=-245), 5-10=-10
Drag: 4-38=-10, 11-20=-10

Concentrated Loads (lb)

Vert: 39=-1702(F) 54=-1124

Trapezoidal Loads (plf)

Vert: 11=-201(F=-147)-to-13=-319(F=-265)



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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

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119651
3213335	T06	Attic Truss	1	3	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:13 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-w9XPKb4zd_ay51XqBlibw4HZHgVeDDgWUdXApz22we

NOTES- (17)

- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCdL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 4x6 MT20 unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Ceiling dead load (5.0 psf) on member(s). 5-6, 11-12, 6-46, 46-47, 47-48, 48-49, 11-49; Wall dead load (5.0psf) on member(s).5-40, 12-21
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 38-40, 36-38, 34-36, 32-34, 28-32, 26-28, 24-26, 22-24, 21-22
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 837 lb uplift at joint 1, 2480 lb uplift at joint 18, 452 lb uplift at joint 29 and 1033 lb uplift at joint 15.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3690 lb down and 1183 lb up at 13-8-3, 489 lb down at 15-8-10, and 489 lb down at 17-8-10, and 489 lb down at 19-8-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Attic room checked for L/360 deflection.
- 17) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 1-5=-54, 5-6=-64, 6-7=-54, 7-10=-54, 10-11=-54, 11-12=-64, 12-14=-54, 14-16=-54, 50-53=-20, 21-40=-40, 6-11=-10

Drag: 5-40=-10, 12-21=-10

Concentrated Loads (lb)

Vert: 41=-3690(B) 39=-119(B) 37=-119(B) 35=-119(B)



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Chesterfield, MO 63017

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Mitek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119652
3213335	T07	ATTIC TRUSS	5	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:16 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtzlZ29-LkCXyd6rwvzHpYl6WJJPDYioxVmgray6DSrBn8z22wb

NOTES- (13)

- 7) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 4-37, 37-38, 38-39, 39-40, 9-40; Wall dead load (5.0psf) on member(s).3-34, 10-14
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 32-34, 29-32, 27-29, 25-27, 23-25, 21-23, 17-21, 15-17, 14-15
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 1 and 76 lb uplift at joint 12.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.
- 13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119653
3213335	T07G	GABLE	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:19 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-lJugbf8kDqLrg0UhBRs6qBKMqixC2y5YvQ4rNTz22wY

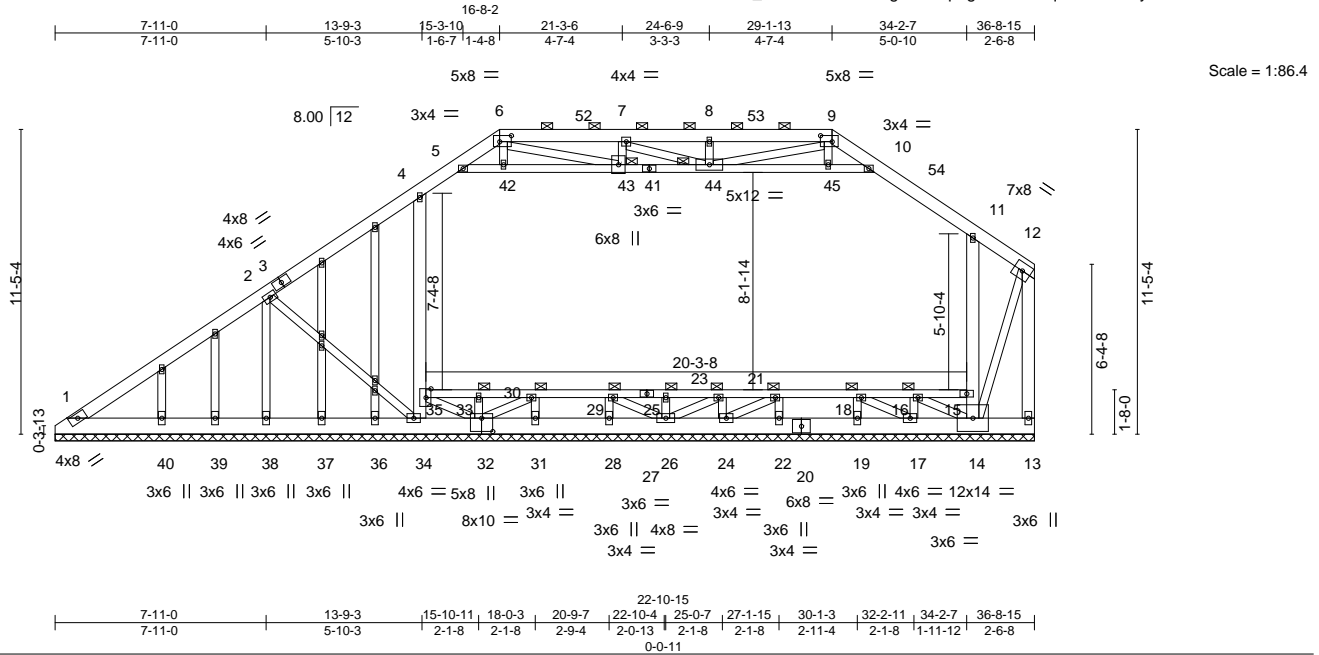


Plate Offsets (X,Y)-- [6:0-5-4,0-2-12], [9:0-5-4,0-2-12], [32:0-5-0,0-6-0], [35:0-4-0,0-2-4]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.71	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.00	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT)	0.01	13	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 417 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E *Except*
27-35,15-27: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
4-34,11-14,12-13: 2x6 SP No.2
OTHERS 2x4 SP No.3

REACTIONS.

All bearings 36-8-15.
(lb) - Max Horz 1=286(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 40, 39 except 38=158(LC 12),
34=156(LC 12), 14=895(LC 1), 13=332(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 26, 24, 32, 40, 39, 37, 36, 28,
22, 17, 19, 31 except 1=484(LC 1), 38=587(LC 1), 34=472(LC 24), 14=401(LC 9),
13=1836(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=673/188, 2-4=781/252, 4-5=820/232, 5-6=946/276, 6-7=1672/515,
7-8=1722/511, 8-9=1722/511, 9-10=1074/286, 10-11=880/216, 11-12=580/120,
12-13=1777/329
BOT CHORD 1-40=139/471, 39-40=139/471, 38-39=139/471, 37-38=139/471, 36-37=139/471,
34-36=139/471, 32-34=104/566, 31-32=76/427, 28-31=76/427, 26-28=76/427,
24-26=78/433, 22-24=67/391, 19-22=67/391, 17-19=67/391, 14-17=77/432
WEBS 2-38=533/171, 34-35=498/80, 4-35=508/161, 14-15=697/116, 11-15=679/176,
5-42=164/310, 42-43=161/316, 43-44=423/1160, 44-45=114/402, 10-45=117/397,
12-14=297/1656, 6-43=324/942, 9-44=310/828

NOTES-

- (15) 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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-3 to 3-5-3, Interior(1) 3-5-3 to 16-8-2, Exterior(2R) 16-8-2 to 19-8-2, Interior(1) 19-8-2 to 29-1-13, Exterior(2R) 29-1-13 to 32-1-13, Interior(1) 32-1-13 to 36-6-3 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- Continued on page 2



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PX2707 06/30/2022

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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:

June 28,2022

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119653
3213335	T07G	GABLE	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:19 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtzlZ29-IJugbf8kDqLrg0UhBRs6qBKMqixC2y5YvQ4rNTz22wY

NOTES- (15)

- 10) * 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.
- 11) Ceiling dead load (5.0 psf) on member(s). 4-5, 10-11, 5-42, 42-43, 43-44, 44-45, 10-45; Wall dead load (5.0psf) on member(s).4-35, 11-15
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 40, 39 except (jt=lb) 38=158, 34=156, 14=895, 13=332.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.
- 15) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Lawrence Pennell

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119654
3213335	T08	Attic Truss	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:22 2022 Page 1
ID:Ad27wGd3DlInto_ShAPXtziZ29-9uaoDgBcVljQXTDGsaQpSpYqPwp3FHU?bOIV_oz22wV

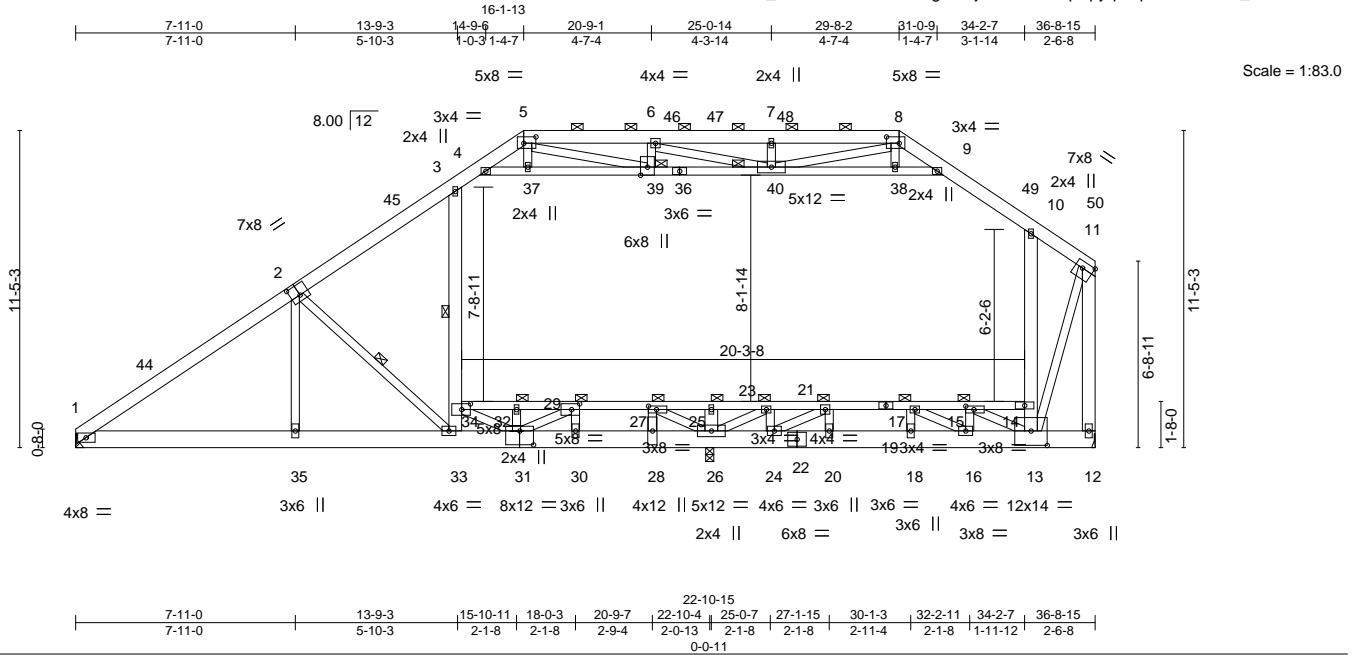


Plate Offsets (X,Y)-- [2:0-4-0,0-4-8], [5:0-5-4,0-2-12], [8:0-5-8,0-2-12], [11:Edge,0-2-12], [13:0-7-0,0-6-4], [15:0-3-8,0-1-8], [27:0-3-8,0-1-8], [29:0-3-8,0-2-8], [31:0-6-0,0-6-0], [34:0-3-12,0-2-8], [39:0-3-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.92	Vert(LL) -0.31 33-35	>898	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.00	BC 0.72	Vert(CT) -0.63 33-35	>438	180			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.87	Horz(CT) 0.01 26	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Attic 0.18 14-34	1399	360		Weight: 399 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E *Except*
19-34: 2x4 SP M 31, 14-19: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-33,10-13,11-12,25-26: 2x6 SP No.2
31-34,21-24,13-15,16-17,29-31: 2x4 SP No.2

REACTIONS.

(size) 1=Mechanical, 12=Mechanical, 26=0-3-8
Max Horz 1=290(LC 12)
Max Uplift 1=117(LC 12), 12=76(LC 13)
Max Grav 1=1112(LC 1), 12=1241(LC 27), 26=2579(LC 20)

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

TOP CHORD 1-2=-1707/150, 2-3=-973/139, 3-4=-836/182, 4-5=-1100/303, 5-6=-1878/590,
6-7=-1854/632, 7-8=-1854/632, 8-9=-1040/376, 9-10=-935/189, 10-11=-576/14,
11-12=-1907/39
BOT CHORD 1-35=-301/1354, 33-35=-300/1350, 31-33=-145/1161, 30-31=-950/302, 28-30=-950/302,
26-28=-950/302, 24-26=-2861/629, 20-24=-1677/670, 18-20=-1677/670, 16-18=-1677/670,
13-16=-1147/495, 32-34=-1116/79, 29-32=-1092/82, 27-29=-335/1504, 25-27=-529/4248,
23-25=-529/4248, 21-23=-662/3440, 17-21=-703/2230, 15-17=-528/1701, 14-15=-78/446,
2-35=-96/633, 2-33=-958/347, 33-34=-555/100, 3-34=-313/209, 13-14=-866/193,
10-14=-845/268, 4-37=-267/430, 37-39=-264/435, 39-40=-576/1293, 38-40=-343/332,
9-38=-350/326, 11-13=-74/1816, 5-39=-409/992, 8-40=-352/1102, 25-26=-262/0,
23-24=0/338, 26-27=-3163/223, 23-26=-1045/0, 27-28=-139/1174, 31-32=-315/0,
31-34=0/653, 20-21=-20/585, 21-24=-1840/0, 15-16=-832/214, 13-15=-514/1434,
17-18=-466/48, 16-17=-202/610, 29-30=-1646/193, 29-31=-488/3033

NOTES- (13)

- 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=22ft; 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 16-1-13, Exterior(2R) 16-1-13 to 20-4-11, Interior(1) 20-4-11 to 29-8-2, Exterior(2R) 29-8-2 to 33-11-1, Interior(1) 33-11-1 to 36-6-3 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.

Continued on page 2



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Philip J. O'Regan
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06/30/2022

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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:

June 28,2022

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119654
3213335	T08	Attic Truss	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:22 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPXtziZ29-9uaoDgBcVljQXTDGsaQpSpyqPwp3FHU?bOIV_oz22wV

NOTES- (13)

- 7) Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 4-37, 37-39, 39-40, 38-40, 9-38; Wall dead load (5.0psf) on member(s).3-34, 10-14
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 32-34, 29-32, 27-29, 25-27, 23-25, 21-23, 17-21, 15-17, 14-15
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 1=117.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.
- 13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119655
3213335	T09	ATTIC TRUSS	1	3	Job Reference (optional)	

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,
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8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:27 2022 Page 1
ID:Ad27wGdB3DIInto_ShAPXtZlZ29-WsNhGOEIKHLjdE5Df7?_9tfnVxT5wZHklg0Gg?z22wQ

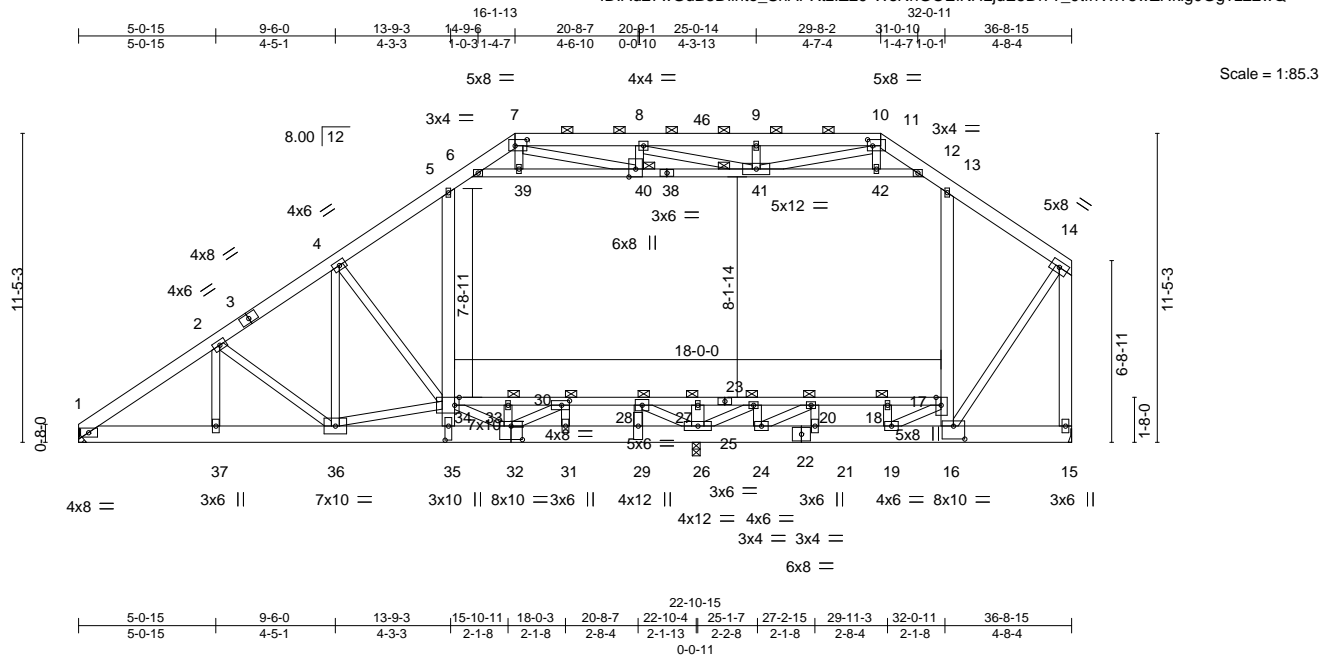


Plate Offsets (X,Y)-- [7:0-5-4,0-2-12], [11:0-2-4,0-2-12], [16:0-5-0,0-5-12], [17:Edge,0-2-4], [30:0-3-8,0-2-0], [32:0-5-0,0-6-0], [34:0-2-0,Edge], [35:0-6-4,0-1-8], [40:0-3-8,0-3-0]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.21	35	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.40	35	>695	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.03	26	n/a	n/a			
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS		Attic	0.12	17-34	1812	360	Weight: 1244 lb	FT = 20%	

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x8 SP 2400F 2.0E *Except*
	25-34,17-25: 2x4 SP No.2
WEBS	2x4 SP No.3 *Except*
	5-35,13-16,14-15,26-27: 2x6 SP No.2
	17-19,32-34,26-28,23-26,20-24,30-32: 2x4 SP No.2

REACTIONS. (size) 1=Mechanical, 15=Mechanical, 26=0-3-8
 Max Horz 1=290(LC 28)
 Max Uplift 1=-721(LC 8), 15=-1094(LC 9), 26=-658(LC 8)
 Max Grav 1=3076(LC 1), 15=3893(LC 21), 26=5010(LC 22)

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

TOP CHORD 1-2=4990/1168, 2-4=5050/1234, 4-5=2686/777, 5-6=1942/569, 6-7=1170/324,
7-8=1734/595, 8-9=1434/707, 9-10=1434/707, 10-11=508/501, 11-12=636/445,
12-13=2025/603, 13-14=2334/659, 14-15=4086/1111

BOT CHORD 1-37=1182/4074, 36-37=1182/4074, 35-36=3354/12528, 32-35=3350/12627,
31-32=629/3517, 29-31=629/3517, 26-29=629/3517, 24-26=3524/919,
21-24=1129/453, 19-21=1129/453, 16-19=448/1589, 33-34=8751/1958,
30-33=8726/1961, 28-30=1670/148, 27-28=1361/6135, 23-27=1361/6135,
20-23=1399/5370, 18-20=933/3044, 17-18=933/3044

WEBS 1-37=258/151, 2-36=286/352, 4-36=888/3305, 4-34=3303/992, 34-35=928/2226,
5-34=506/1225, 16-17=782/1838, 13-17=500/662, 6-39=1108/573, 39-40=1098/575,
40-41=1405/1054, 41-42=1817/605, 12-42=1818/605, 14-16=847/3386, 23-24=39/292
20-21=288/1089, 17-19=2970/947, 28-29=802/3711, 32-33=312/0, 32-34=3058/1055,
7-40=485/726, 8-41=341/186, 10-41=398/1263, 26-28=8915/1724, 23-26=912/0,
20-24=2789/537, 30-31=4132/973, 30-32=2118/8246, 34-36=8825/2300, 18-19=295/0

NOTES- (17)

- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCdL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

6) Provide adequate drainage to prevent water ponding

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-11.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 40, 41, 27, 23, 20, 28, 33, 30, 18



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Universal Engineering Science

575, Lawrence Perrell Examiner-License No.

PX2707

06/30/2022

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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:

June 28, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119655
3213335	T09	ATTIC TRUSS	1	3	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:27 2022 Page 2
ID:Ad27wGdB3Dlnto_ShAPxtzIZ29-WsNhGOEIKHLjdE5Df7?_9tfnVxT5wZHkg0Gg?z22wQ

NOTES- (17)

- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Ceiling dead load (5.0 psf) on member(s). 5-6, 12-13, 6-39, 39-40, 40-41, 41-42, 12-42; Wall dead load (5.0psf) on member(s).5-34, 13-17
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 33-34, 30-33, 28-30, 27-28, 23-27, 20-23, 18-20, 17-18
- 12) Refer to girder(s) for truss connections.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=721, 15=1094, 26=658.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3725 lb down and 1195 lb up at 13-10-15, 489 lb down at 15-8-10, and 489 lb down at 17-8-10, and 3287 lb down and 1193 lb up at 32-1-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Attic room checked for L/360 deflection.
- 17) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 1-5=-54, 5-6=-64, 6-7=-54, 7-11=-54, 11-12=-54, 12-13=-64, 13-14=-54, 15-43=-20, 17-34=-40, 6-12=-10

Drag: 5-34=-10, 13-17=-10

Concentrated Loads (lb)

Vert: 35=-3725(F) 16=-3287(F) 32=-119(F) 31=-119(F)



Review for Code Compliance
Universal Engineering Science

Lawrence Pennell

PX2707

06/30/2022

Examiner-License No.

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	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119656
3213335	T10	Monopitch Truss	7	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:28 2022 Page 1
ID:Ad27wGdB3DlInto_ShAPXtZlZ29_2x3TkFN5bTaFOgQDqXD4CyLKxif9ctzKlpCRz22wP

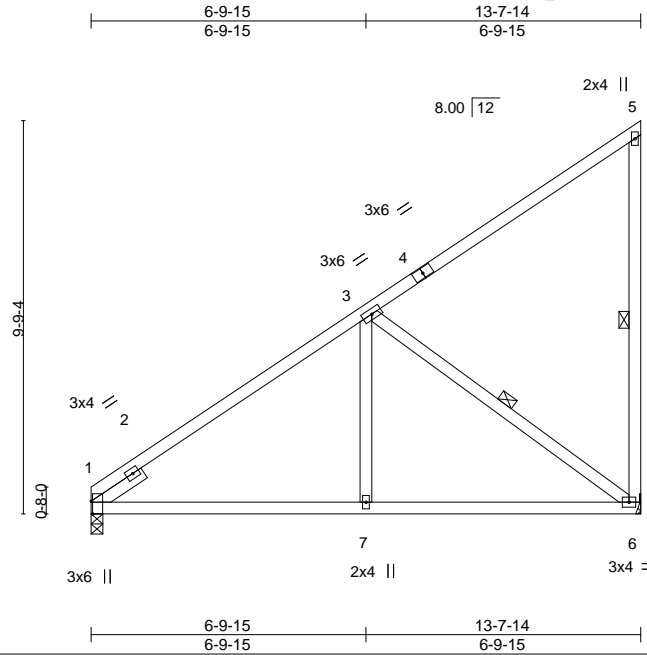


Plate Offsets (X,Y)-- [1:0-3-13,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.50	Vert(LL)	0.06	7-10	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.45	Vert(CT)	-0.10	6-7	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	-0.02	1	n/a	n/a	
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						
								Weight: 80 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-6-0

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.
WEBS 1 Row at midpt 5-6, 3-6

REACTIONS.

(size) 1=0-3-8, 6=Mechanical
Max Horz 1=319(LC 12)
Max Uplift 1=27(LC 12), 6=256(LC 12)
Max Grav 1=500(LC 1), 6=528(LC 19)

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

TOP CHORD 1-3=-567/0
BOT CHORD 1-7=-225/445, 6-7=-225/445
WEBS 3-7=0/307, 3-6=-543/275

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; 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 13-7-14; 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) 1 except (jt=lb) 6=256.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Exp B; Review for Code Compliance
-2 zone; C-C for Universal Engineering Science

Signature
By: 2-0-0 License No.

PX2707

06/30/2022

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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:

June 28,2022

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

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

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

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



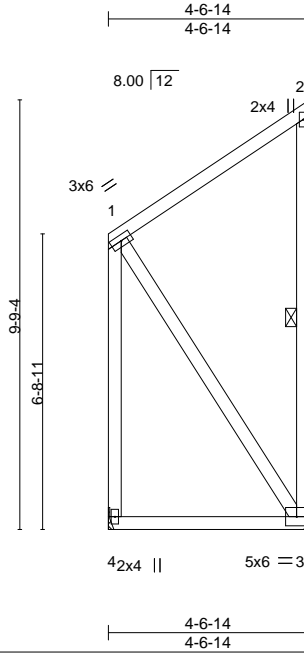
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119657
3213335	T11	MONOPITCH TRUSS	4	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:28 2022 Page 1

ID:Ad27wGdB3DIInto_ShAPXtZlZ29_2x3TkFN5bTaFOgQDqXD4C?JK_CfAntzKlpCRz22wP



Scale = 1:52.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.31	Vert(LL)	-0.02	3-4	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.22	Vert(CT)	-0.04	3-4	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 49 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-3

REACTIONS.

(size) 4=Mechanical, 3=Mechanical
Max Horz 4=101(LC 12)
Max Uplift 3=232(LC 12)
Max Grav 4=196(LC 21), 3=208(LC 19)

FORCES.

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

WEBS 1-3=159/291

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-5-2 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 load.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangular cutout 6-0 tall by 2-0 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 upst at joints (except LC 21) 3=232.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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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



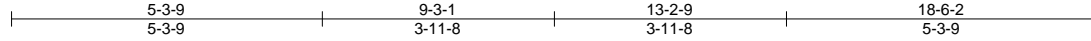
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119658
3213335	T12	QUEENPOST	4	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:29 2022 Page 1

ID:Ad27wGdB3Dlnto_ShAPXtziZ29-SEVSh3G?subRsYFcmY2SEIk89kD9OcC1C_VNkuz22wO



5x6 =

Scale = 1:39.3

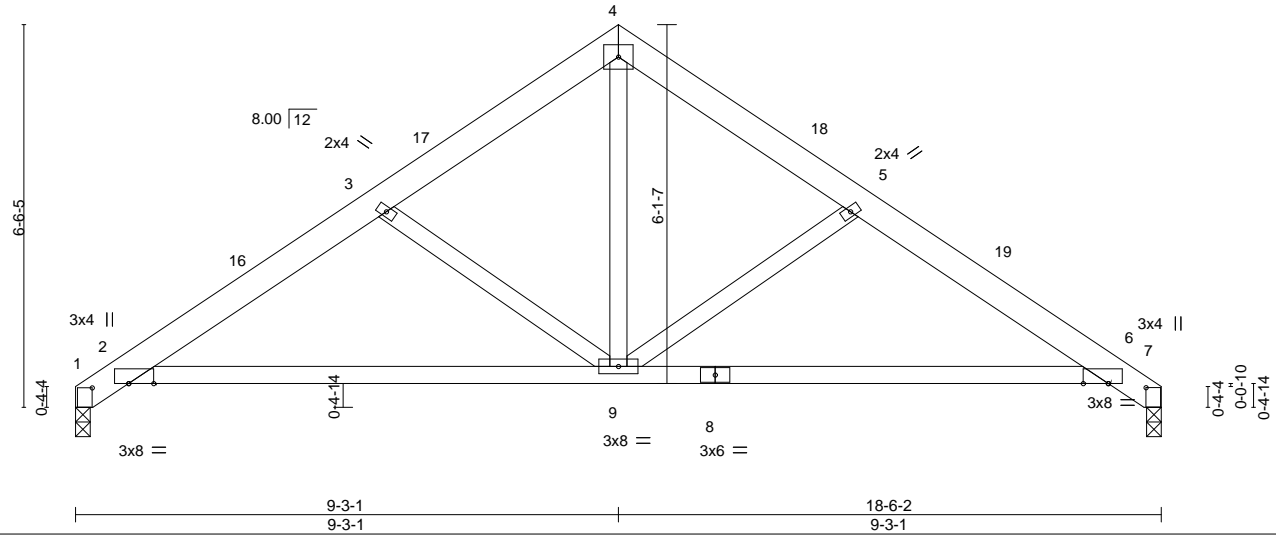


Plate Offsets (X,Y)-- [2:0-5-2,0-0-0], [2:0-0-14,0-7-7], [6:0-5-2,0-0-0], [6:0-0-13,0-7-11]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.44	Vert(LL)	-0.09 9-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.69	Vert(CT)	-0.19 9-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.07 7	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 100 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 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) 1=0-3-0, 7=0-3-0
Max Horz 1=-138(LC 8)
Max Uplift 1=-137(LC 12), 7=-140(LC 13)
Max Grav 1=689(LC 1), 7=679(LC 1)

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

TOP CHORD 1-2=-408/139, 2-3=-1019/242, 3-4=-772/208, 4-5=-772/208, 5-6=-1018/243,
6-7=-373/85
BOT CHORD 2-9=-223/879, 6-9=-148/874
WEBS 3-9=-393/203, 4-9=-134/618, 5-9=-381/196

NOTES- (8)

- 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=22ft; Exp B; Encl. GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-8 to 3-1-8, Interior(1) 3-1-8 to 12-3-1, Exterior(2) 12-3-1 to 18-4-10 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.
- Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=137, 7=140.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Universal Engineering Science

Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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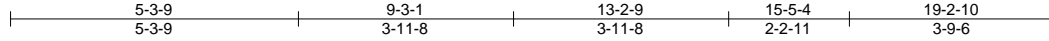


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119659
3213335	T12D	Roof Special	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:31 2022 Page 1
ID:Ad27wGdB3DIInt0_ShAPXtZlZ29-OdcC6llGOWs96sP?uz4wKjqUcYvesSdJfl_Tpmz22wM



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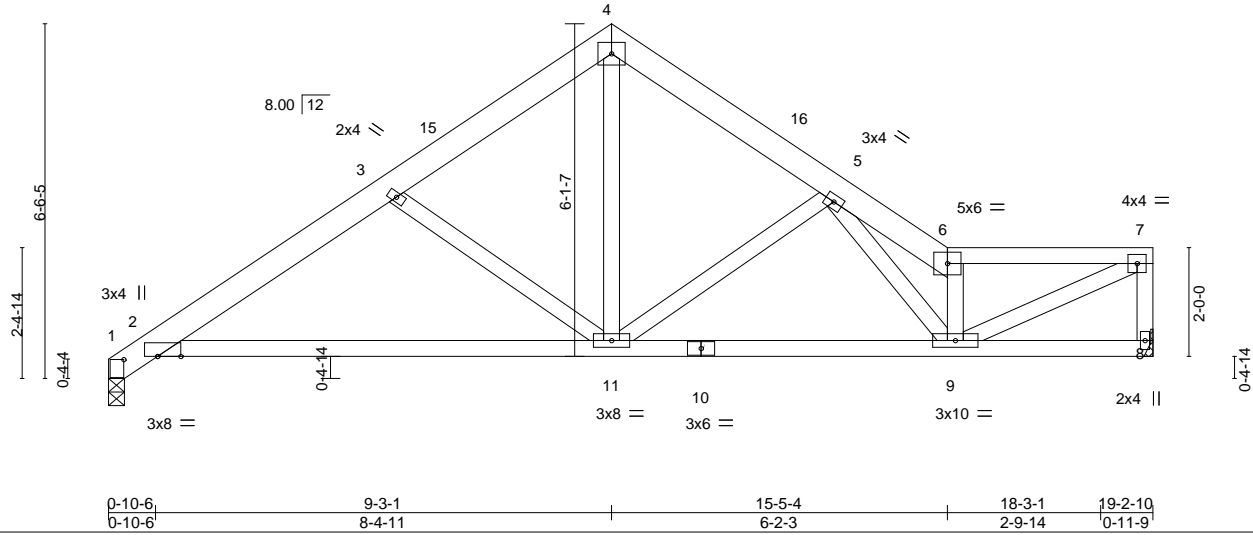


Plate Offsets (X,Y)-- [2:0-5-2,Edge], [2:0-0-11,0-7-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.44	Vert(LL)	-0.10 11-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.62	Vert(CT)	-0.22 11-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.05 8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 114 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2 *Except*
6-7: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 8=Mechanical
Max Horz 1=135(LC 12)
Max Uplift 1=138(LC 12), 8=154(LC 13)
Max Grav 1=713(LC 1), 8=701(LC 1)

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

TOP CHORD 1-2=-398/78, 2-3=-1060/239, 3-4=-814/206, 4-5=-797/204, 5-6=-1472/313,
6-7=-1171/232
BOT CHORD 2-11=-272/911, 9-11=-202/955
WEBS 3-11=-390/205, 4-11=-128/627, 5-11=-423/189, 7-8=-669/159, 6-9=-886/226,
7-9=-258/1304, 5-9=-97/490

NOTES- (10)

- 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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-3-1, Exterior(2R) 9-3-1 to 12-3-1, Interior(1) 12-3-1 to 19-0-14 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.
- 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 8=154.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Signature of Philip J. O'Regan
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119660
3213335	T14	HIP TRUSS	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:32 2022 Page 1

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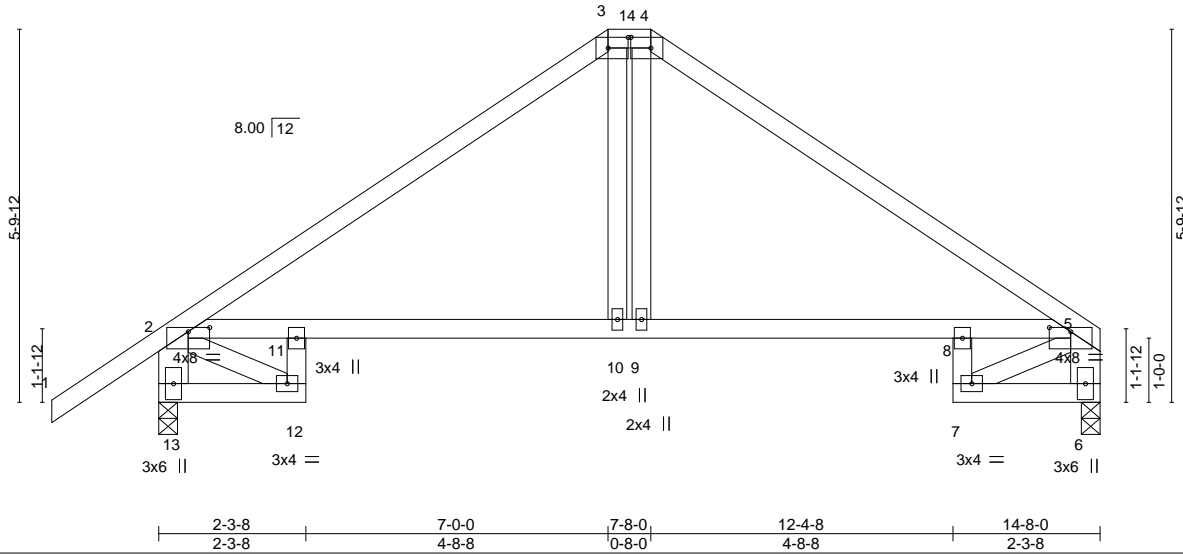


Plate Offsets (X,Y)-- [2:0-4-0,0-0-13], [3:0-3-12,0-2-0], [4:0-3-12,0-2-0], [5:0-4-0,0-0-13]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.67	Vert(LL) 0.09	10-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.39	Vert(CT) -0.15	8-9	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.22	Horz(CT) 0.11	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 80 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except*
 11-12,7-8: 2x4 SP No.3, 2-5: 2x4 SP M 31
 WEBS 2x4 SP No.3 *Except*
 2-13,5-6: 2x6 SP No.2

BRACING-

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

REACTIONS.

(size) 13=0-3-8, 6=0-3-8
 Max Horz 13=121(LC 5)
 Max Uplift 13=-440(LC 8), 6=-395(LC 9)
 Max Grav 13=1018(LC 1), 6=898(LC 1)

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

TOP CHORD 2-3=-1348/660, 3-4=-1045/604, 4-5=-1346/679, 2-13=-1013/459, 5-6=-899/414
 BOT CHORD 2-11=-437/951, 10-11=-508/1066, 9-10=-513/1079, 8-9=-503/1061, 5-8=-485/976
 WEBS 3-10=-320/571, 4-9=-336/563

NOTES- (10)

- 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=22ft; Exp B; 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) 13=440, 6=395.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 91 lb down and 87 lb up at 7-0-0, and 91 lb down and 87 lb up at 7-8-0 on top chord, and 349 lb down and 267 lb up at 7-0-0, and 349 lb down and 267 lb up at 7-7-4 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 manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-2=-54, 2-3=-54, 3-4=-54, 4-5=-54, 12-13=-20, 8-11=-20, 6-7=-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:

June 28,2022

Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119660
3213335	T14	HIP TRUSS	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:33 2022 Page 2
ID:Ad27wGdB3DIInto_ShAPXtZIZ29-L?kyXRJWw76sLAZN?O6OP8vmULeiKQUc7bTatz22wK

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-60(F) 4=-60(F) 10=-323(F) 9=-323(F)



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

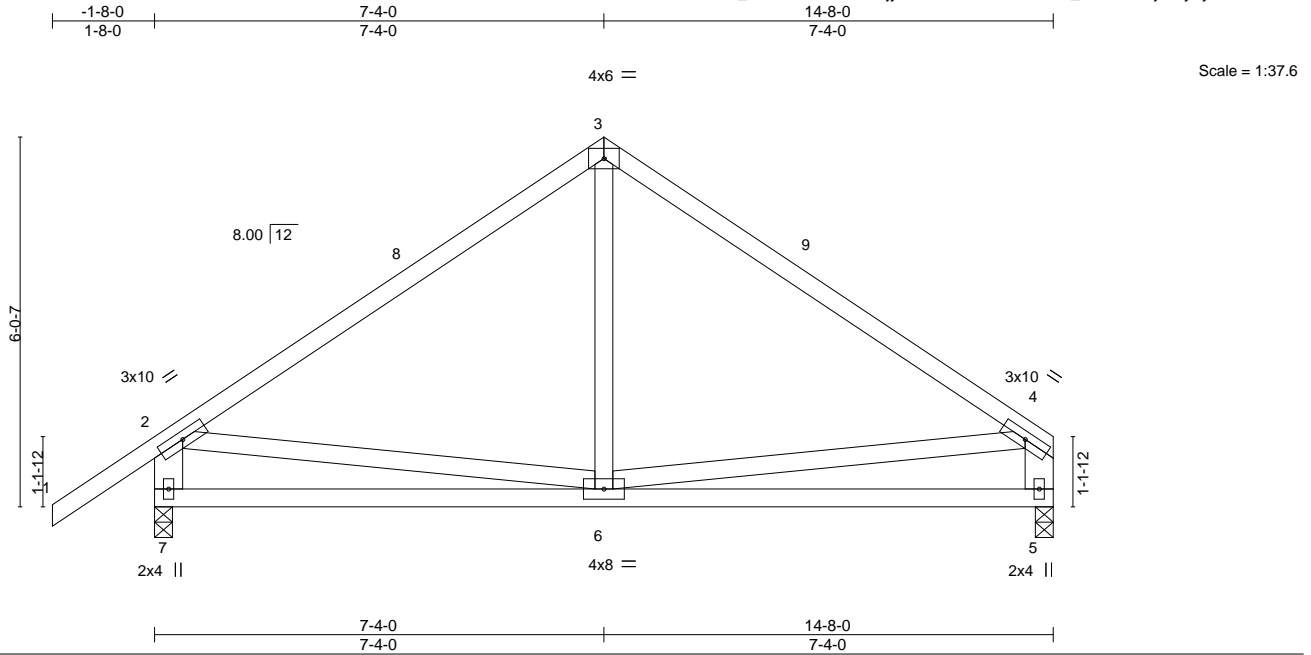


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119662
3213335	T16	COMMON TRUSS	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:35 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPxtzIZ29-H0sJy7LmRkMabTim7o9sUZ_749KRoMjvavyhyXz22wl



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	Vert(LL)	-0.05	6-7	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.44	Vert(CT)	-0.10	6-7	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 84 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
2-7,4-5: 2x6 SP No.2

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 5=0-3-8
Max Horz 7=126(LC 9)
Max Uplift 7=-148(LC 12), 5=-104(LC 13)
Max Grav 7=635(LC 1), 5=519(LC 1)

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

TOP CHORD 2-3=-549/151, 3-4=-540/148, 2-7=-572/231, 4-5=-456/148
BOT CHORD 6-7=-248/333
WEBS 3-6=0/278

NOTES- (7)

- 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=22ft; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 10-4-0, Exterior(2R) 7-4-0 to 10-4-0, Interior(1) 10-4-0 to 14-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 per GCPI 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) 7=148, 5=104.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 28,2022

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

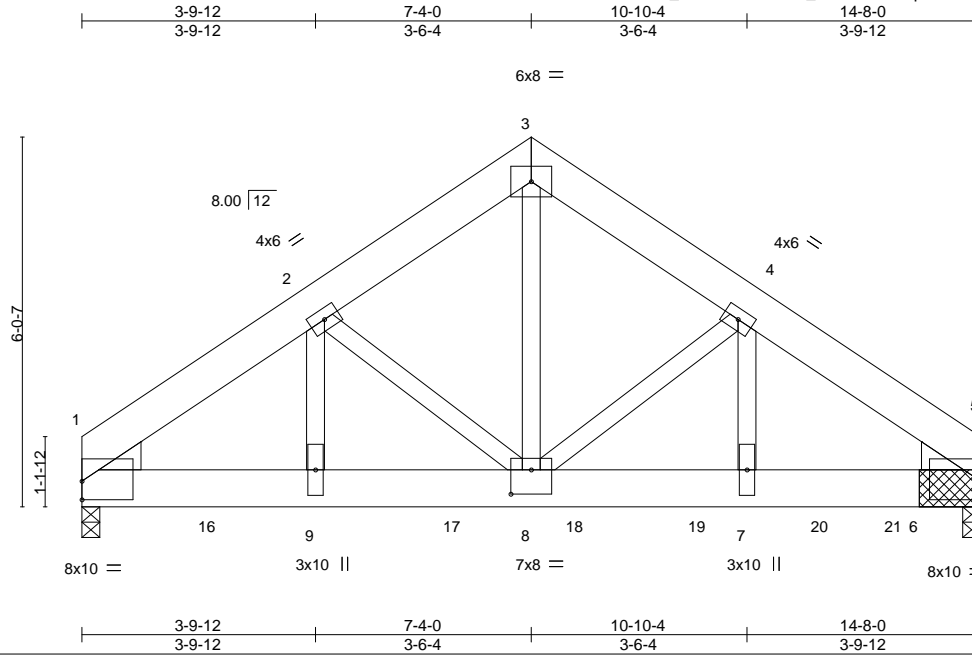


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119663
3213335	T17	COMMON GIRDER	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:37 2022 Page 1
ID:Ad27wGdB3DIInto_ShAPXtZlZ29-Dn_TM0M0zMclqns8EDBLZ_4bGz1mG65C2DR00Qz22wG



Scale = 1:37.6

Plate Offsets (X,Y)-- [1:0-0-0,0-3-10], [5:0-0-0,0-3-10], [8:0-4-0,0-4-12]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.11	Vert(LL) -0.03	7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.32	Vert(CT) -0.06	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.75	Horz(CT) 0.02	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 275 lb	FT = 20%

LUMBER-

TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3
WEDGE
Left: 2x6 SP No.2 , Right: 2x6 SP No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=(0-3-8 + bearing block) (req. 0-3-13)
Max Horz 1=111(LC 5)
Max Uplift 1=567(LC 8), 5=1123(LC 9)
Max Grav 1=4250(LC 1), 5=6443(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5344/714, 2-3=-4205/626, 3-4=-4210/627, 4-5=-6240/941
BOT CHORD 1-9=-596/4211, 8-9=-596/4211, 7-8=-732/5000, 5-7=-732/5000
WEBS 3-8=-554/3954, 4-8=-1858/443, 4-7=-428/2602, 2-8=-817/178, 2-9=-150/1501

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 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 CASES section. No ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 2x8 SP 2400F 2.0E bearing block 12" long at jt. 5 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SP No.2.
- 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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=567, 5=1123.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1092 lb down and 138 lb up at 2-0-12, 1092 lb down and 138 lb up at 4-0-12, 1092 lb down and 138 lb up at 6-0-12, 1092 lb down and 138 lb up at 8-0-12, 1092 lb down and 138 lb up at 10-0-12, and 1092 lb down and 137 lb up at 12-0-12, and 3056 lb down and 741 lb up at 13-3-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any other application is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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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:

June 28,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119663
3213335	T17	COMMON GIRDER	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:37 2022 Page 2
ID:Ad27wGdB3DlInto_ShAPXtZlZ29-Dn_TM0M0zMclqns8EDBLZ_4bGz1mG65C2DRo0Qz22wG

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-54, 3-5=-54, 10-13=-20

Concentrated Loads (lb)

Vert: 9=-1092(B) 16=-1092(B) 17=-1092(B) 18=-1092(B) 19=-1092(B) 20=-1092(B) 21=-3056(B)



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119664
3213335	T18	Common	4	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:38 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPxtzIZ29-hzXra8Nfkf9SxRLoxia6BcljMPN?j7LGtALYsz22wF



4x4 =

Scale = 1:29.3

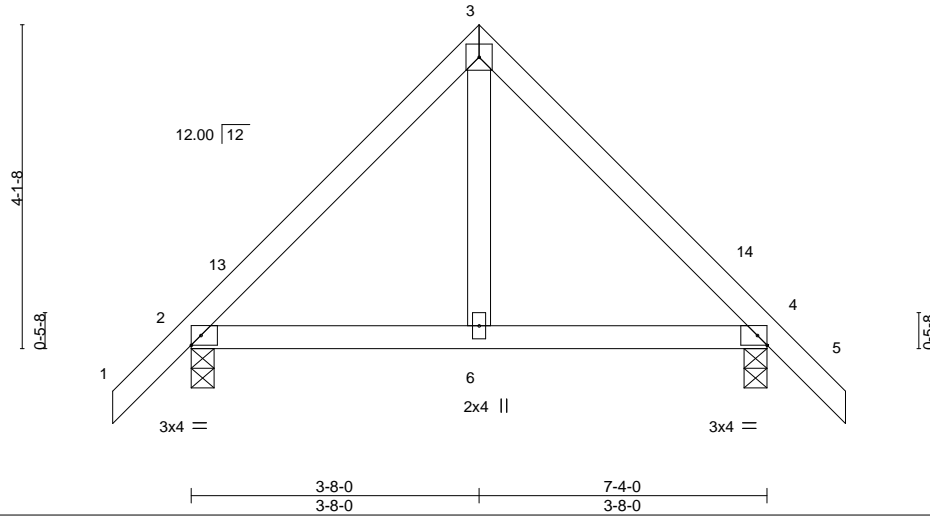


Plate Offsets (X,Y)-- [4:0-1-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.19	Vert(LL)	0.01	6-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.17	Vert(CT)	-0.01	6-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 36 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=106(LC 11)
Max Uplift 2=-72(LC 12), 4=-72(LC 13)
Max Grav 2=325(LC 1), 4=325(LC 1)

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

TOP CHORD 2-3=-270/159, 3-4=-270/159

NOTES- (7)

- 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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 3-8-0, Exterior(2R) 3-8-0 to 6-8-0, Interior(1) 6-8-0 to 8-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lur=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 rectangular base by 2'-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 manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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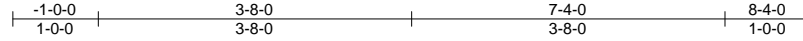


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119665
3213335	T18G	GABLE	1	1	Job Reference (optional)	

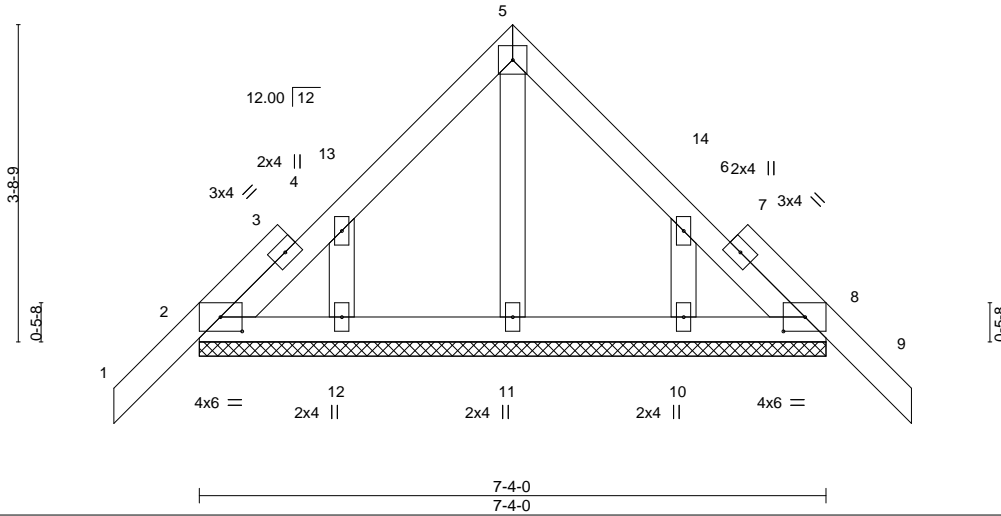
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:39 2022 Page 1
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4x4 =

Scale = 1:27.0



LOADING (psf)		SPACING-		CSL		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.00 9 n/r 120	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	-0.00 9 n/r 120				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00 8 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S							
								Weight: 42 lb FT = 20%			

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-4-0.
(lb) - Max Horz 2=-96(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 12, 10

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=22ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 3-8-0, Corner(3R) 3-8-0 to 6-8-0, Exterior(2N) 6-8-0 to 8-4-0 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 truss) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 12, 10.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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June 28,2022

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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

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:40 2022 Page 1
ID:Ad27wGdB3DIinto_ShAPXtlZ29-eMfc?qpVgH_thEbjwMk2Bch3iA_5TTKekBfSdlz22wD



LUMBER-		BRACING-
TOP CHORD	2x4 SP No.2	TOP CHORD
BOT CHORD	2x6 SP No.2	BOT CHORD
WEBS	2x4 SP No.3	
		Structural wood sheathing directly applied or 4-9-0 oc purlins.
		Rigid ceiling directly applied or 10-0-0 oc bracing.

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

TOP CHORD	1-2=-1412/356, 2-3=-1412/356
BOT CHORD	1-4=-208/974, 3-4=-208/974
WEBS	2-4=-405/1729

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=22ft; GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live load.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a roof deck will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb up and 1=289, 3=289.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb up and 174 lb down at 3-8-0, and 681 lb down and 174 lb up at 5-3-4 on bottom chord. The suitability and use 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) or side (S).
- 9) This manufactured product is designed as an individual building component. The suitability and use of this product is the responsibility of the user.

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-54, 5-8=-20
Concentrated Loads (lb)
Vert: 4=-681(B) 11=-681(B) 12=-681(B)

Exp B; Incl. **Review for Code Compliance**
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other live loads.
 were a rectangular frame by 2-22 in. wide
 Examiner-License No. PX2707 06/30/2022

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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:

June 28.2022


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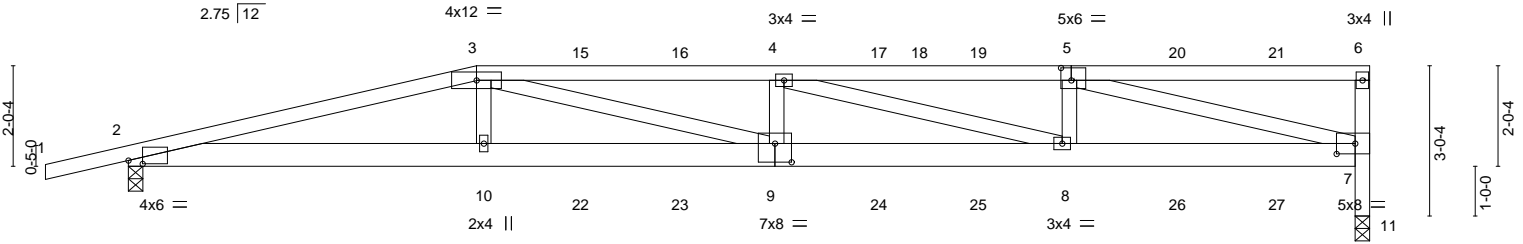
Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119668
3213335	T21	HALF HIP GIRDER	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:44 2022 Page 1
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Scale = 1:46.3



VERTICAL LEGS ARE NOT DESIGNED FOR LATERAL LOADS IMPOSED BY SUPPORTS (BEARINGS).

Plate Offsets (X,Y)--	[2:0-3-7,0-0-13], [5:0-2-8,0-3-0], [7:0-4-8,0-2-8], [9:0-4-0,0-4-8]
-----------------------	---

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 0.82	Vert(LL) 0.37 9-10 >813 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.94	Vert(CT) -0.51 9-10 >580 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.14 11 n/a n/a		
	Code FBC2020/TPI2014			Weight: 266 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
3-5: 2x4 SP M 31
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
6-11: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-11-2 oc bracing.

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
Max Horz 2=75(LC 4)
Max Uplift 2=960(LC 4), 11=1022(LC 4)
Max Grav 2=1854(LC 1), 11=1948(LC 1)

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

TOP CHORD 2-3=-6544/3307, 3-4=-7753/4030, 4-5=-5609/2937, 5-6=-263/138, 7-11=-1948/1022, 6-7=-264/139
BOT CHORD 2-10=-3240/6345, 9-10=-3262/6390, 8-9=-4031/7755, 7-8=-2927/5591
WEBS 3-10=-244/632, 3-9=-843/1570, 5-8=-439/908, 5-7=-5534/2897, 4-8=-2228/1136

NOTES- (12)

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S).
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; 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
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=960, 11=1022.



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Signature
Section-Plate No.

PX2707

06/30/2022

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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:

June 28,2022

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119668
3213335	T21	HALF HIP GIRDER	1	2	Job Reference (optional)	

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

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NOTES- (12)

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 230 lb down and 160 lb up at 7-0-0, 108 lb down and 92 lb up at 9-1-1, 108 lb down and 92 lb up at 11-1-1, 108 lb down and 92 lb up at 13-1-1, 108 lb down and 91 lb up at 15-1-1, 108 lb down and 92 lb up at 17-1-1, 108 lb down and 92 lb up at 19-1-1, and 108 lb down and 92 lb up at 21-1-1, and 108 lb down and 92 lb up at 23-1-1 on top chord, and 318 lb down and 212 lb up at 7-0-0, 83 lb down and 64 lb up at 9-1-1, 83 lb down and 64 lb up at 11-1-1, 83 lb down and 64 lb up at 13-1-1, 83 lb down and 64 lb up at 15-1-1, 83 lb down and 64 lb up at 17-1-1, 83 lb down and 64 lb up at 19-1-1, and 83 lb down and 64 lb up at 21-1-1, and 83 lb down and 64 lb up at 23-1-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-54, 3-6=-54, 7-12=-20

Concentrated Loads (lb)

Vert: 3=-183(F) 10=-318(F) 9=-64(F) 5=-108(F) 8=-64(F) 4=-108(F) 15=-108(F) 16=-108(F) 17=-108(F) 19=-108(F) 20=-108(F) 21=-108(F) 22=-64(F) 23=-64(F) 24=-64(F) 25=-64(F) 26=-64(F) 27=-64(F)



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Lawrence Pennell

PX2707

06/30/2022

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16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119669
3213335	T22	HALF HIP	1	1	Job Reference (optional)	

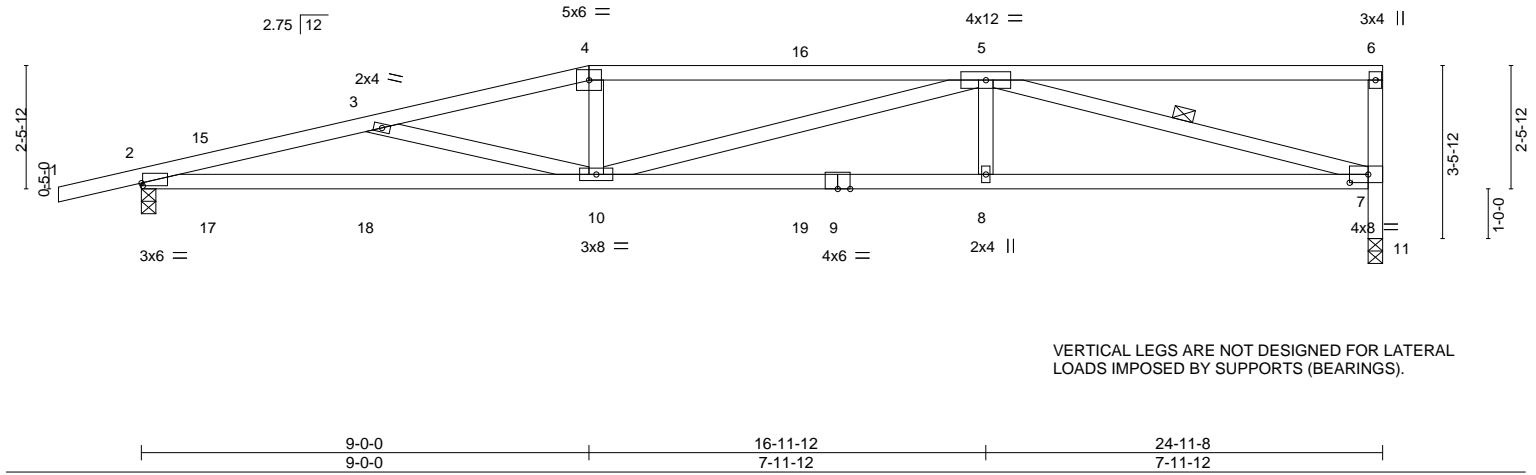
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8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:45 2022 Page 1

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Scale = 1:46.3



VERTICAL LEGS ARE NOT DESIGNED FOR LATERAL LOADS IMPOSED BY SUPPORTS (BEARINGS).

Plate Offsets (X,Y)-- [2:0-0-5,0-0-11], [7:0-4-8,0-2-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.65	Vert(LL)	0.45 8-10 >663	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.46 8-10 >645	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.14 11 n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS					
								Weight: 117 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
4-6: 2x4 SP M 31
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
6-11: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.
WEBS 1 Row at midpt 5-7

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
Max Horz 2=91(LC 8)
Max Uplift 2=-532(LC 8), 11=-470(LC 8)
Max Grav 2=1011(LC 1), 11=915(LC 1)

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

TOP CHORD 2-3=-2893/3072, 3-4=-2545/2817, 4-5=-2481/2796, 7-11=-915/970
BOT CHORD 2-10=-3052/2789, 8-10=-2588/2416, 7-8=-2588/2416
WEBS 3-10=-333/296, 4-10=-452/334, 5-7=-2410/2578, 5-10=-262/150, 5-8=-416/322

NOTES- (9)

- 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=22ft; Exp B; L=10; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 24-9-12 zone; porch left and right exposed; C-C for members and forces. MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=532, 11=470.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Signature
Printed name and title

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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:

June 28,2022

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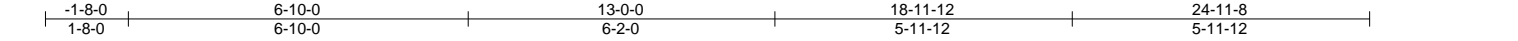


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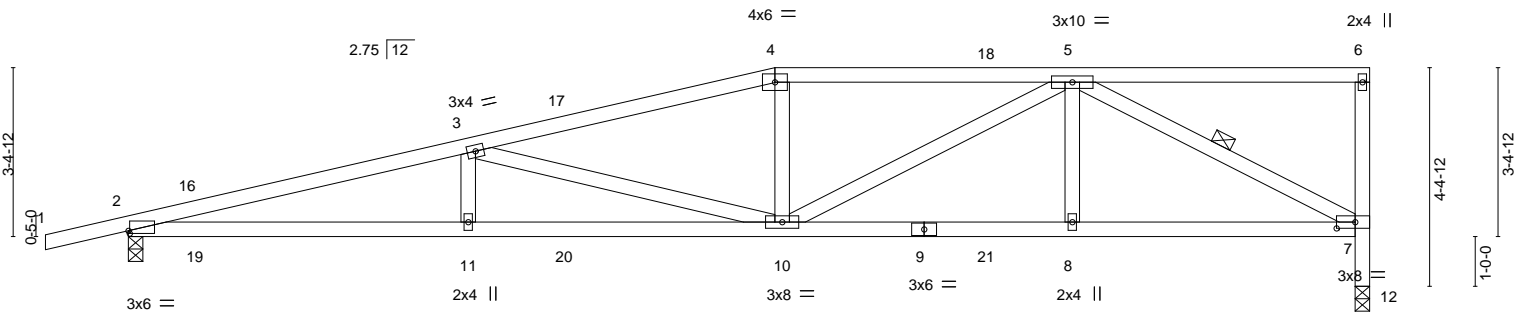
Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119671
3213335	T24	HALF HIP	1	1	Job Reference (optional)	

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VERTICAL LEGS ARE NOT DESIGNED FOR LATERAL LOADS IMPOSED BY SUPPORTS (BEARINGS).

6-10-0	13-0-0	18-11-12	24-11-8
6-10-0	6-2-0	5-11-12	5-11-12

LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.63	Vert(LL)	0.37 10-11	>807	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.73	Vert(CT)	-0.37 10-11	>802	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.75	Horz(CT)	0.11 12	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 121 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
6-12: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 3-0-3 oc bracing.
WEBS 1 Row at midpt 5-7

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=123(LC 8)
Max Uplift 2=529(LC 8), 12=474(LC 8)
Max Grav 2=1011(LC 1), 12=915(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=2855/3065, 3-4=1943/2098, 4-5=1862/2082, 7-12=915/985
BOT CHORD 2-11=3061/2747, 10-11=3061/2747, 8-10=1512/1387, 7-8=1512/1387
WEBS 3-11=316/242, 3-10=922/1027, 4-10=296/229, 5-7=1534/1673, 5-8=317/241, 5-10=674/538

NOTES- (9)

- 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=22ft; Exp B; L=10; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-15, Interior(1) 17-2-15 to 24-9-12 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=529, 12=474.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Philip J. O'Regan
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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:

June 28,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119672
3213335	T25	MONO HIP	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:48 2022 Page 1
ID:Ad27wGd3DlInto_ShAPxtzlZ29-Pu8dgZVwNk?keTCGO1uwW11MwOjuL9yqaRbtvHz22w5

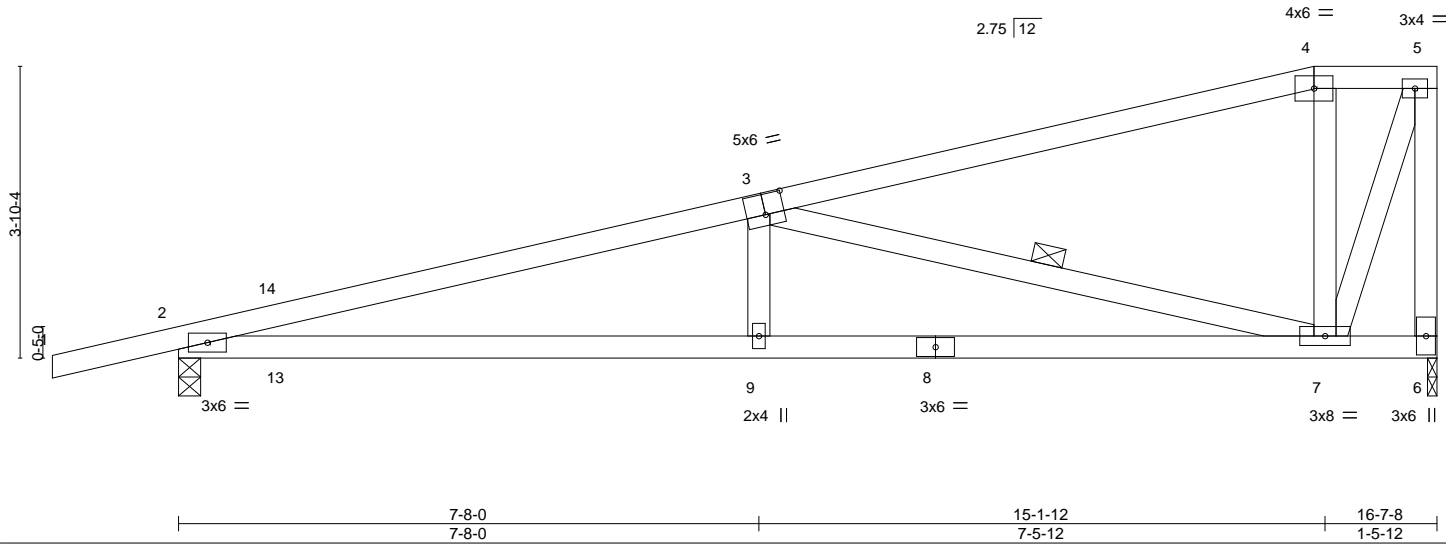
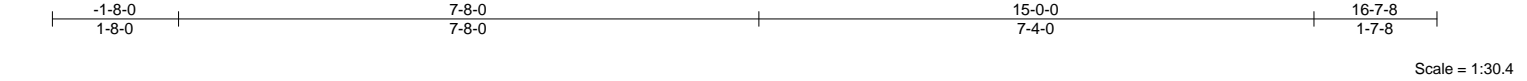


Plate Offsets (X,Y)-- [3:0-3-0,0-3-4]

LOADING (psf)	SPACING-		CSL		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.53		Vert(LL)	0.20 9-12	>968	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.61		Vert(CT)	-0.19 9-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42		Horz(CT)	0.04 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 81 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 2=0-3-8, 6=0-1-8
Max Horz 2=140(LC 8)
Max Uplift 2=-366(LC 8), 6=-322(LC 8)
Max Grav 2=704(LC 1), 6=605(LC 1)

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

TOP CHORD 2-3=-1568/1547, 3-4=-320/280, 4-5=-255/289, 5-6=-645/760
BOT CHORD 2-9=-1591/1493, 7-9=-1579/1488
WEBS 3-9=-395/311, 3-7=-1262/1328, 5-7=-822/723

NOTES- (9)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCCL=3.0psf; h=22ft; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 1-12 zone, porch left exposed; C-C 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 at joint(s) 6.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=366, 6=322.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Exp B; 12
Review for Code Compliance
Universal Engineering Science

Signature
Examiner-License No.

PX2707

06/30/2022

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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:

June 28,2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119673
3213335	T26	MONOPITCH	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:49 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtziZ29-t4i0uvWY827bGdnSxIP92WZaOo444dJzo5LQRjz22w4

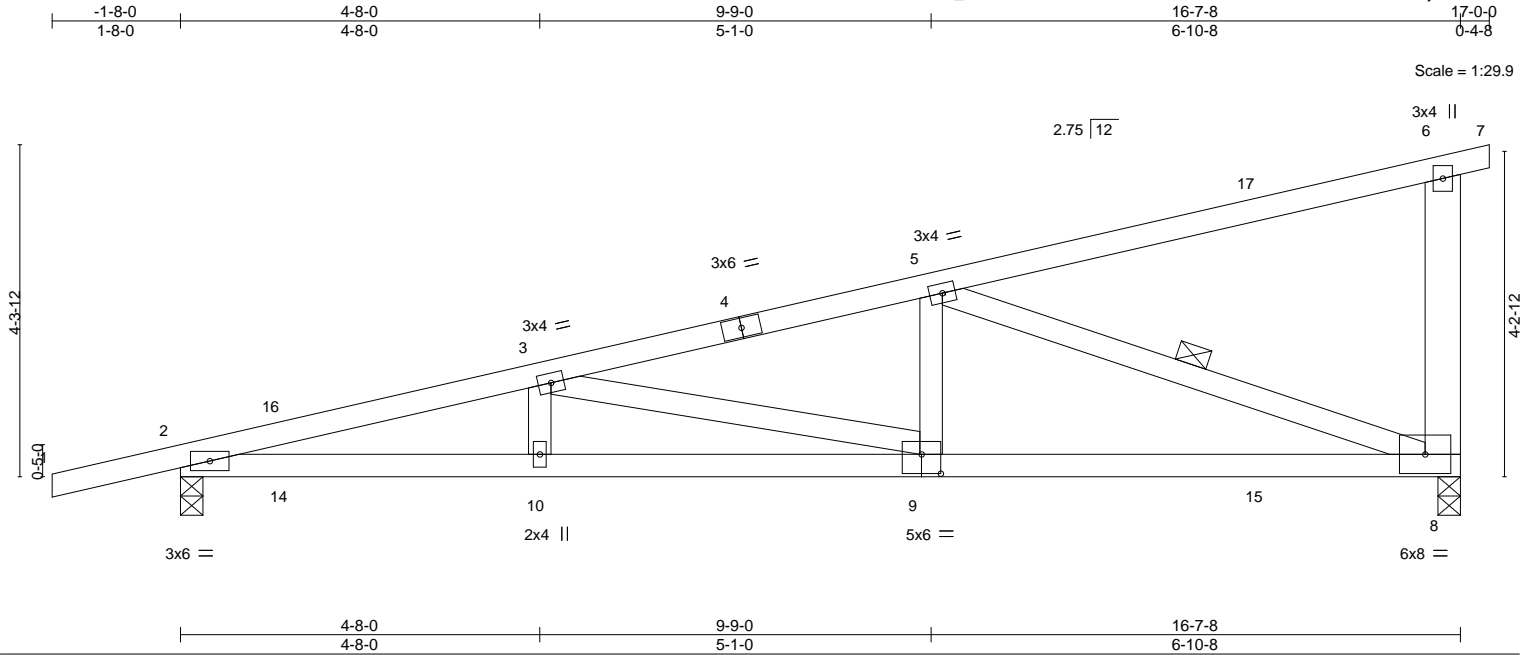


Plate Offsets (X,Y)-- [9:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.35	Vert(LL) 0.16	8-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.54	Vert(CT) -0.16	9-10	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.35	Horz(CT) 0.04	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 83 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-2-7 oc bracing.
WEBS 1 Row at midpt 5-8

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=155(LC 8)
Max Uplift 8=337(LC 8), 2=360(LC 8)
Max Grav 8=635(LC 1), 2=701(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1725/1722, 3-5=-1169/1151
BOT CHORD 2-10=-1789/1655, 9-10=-1789/1655, 8-9=-1176/1102
WEBS 5-8=-1109/1189, 5-9=-484/368, 3-9=-555/604

NOTES- (6)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 1-8-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.25
- 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 No. 1 will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=337, 2=360.
- 6) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Exp B; Red Review for Code Compliance
Universal Engineering Science

Signature
By: 2-0-0 License No.

PX2707

06/30/2022

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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:

June 28,2022

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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

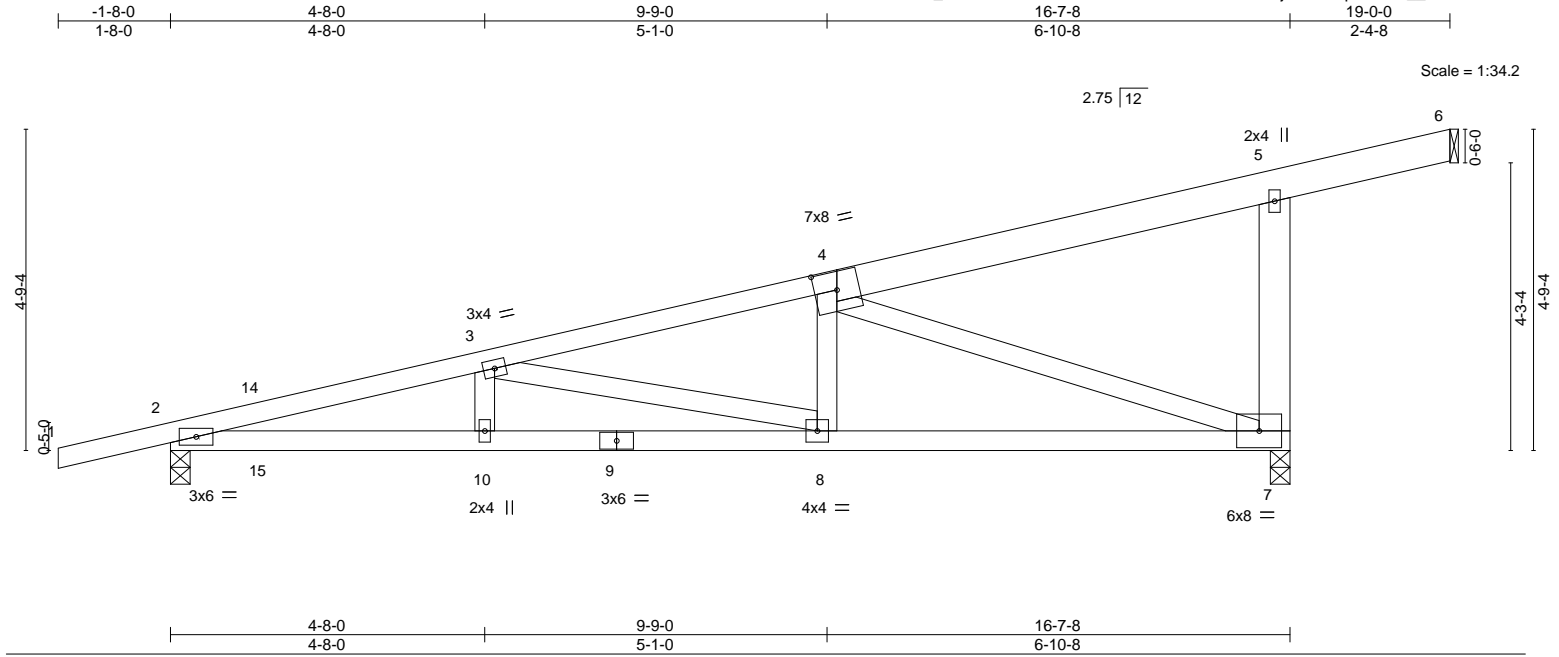


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119674
3213335	T27	MONOPITCH	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:50 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-LHGO5FWAvLFSunMeVSwObj6lOCPPpw06114_Az22w3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	0.14 7-8 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.15 8-10 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.03 7 n/a n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 94 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2 *Except* 1-4: 2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-6-1 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 4-3-2 oc bracing.
WEBS	2x4 SP No.3 *Except* 5-7: 2x6 SP No.2		

REACTIONS. (size) 6=Mechanical, 7=0-3-8, 2=0-3-8
Max Horz 2=168(LC 8)
Max Uplift 6=32(LC 1), 7=419(LC 8), 2=349(LC 8)
Max Grav 6=16(LC 8), 7=787(LC 1), 2=686(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=1678/1674, 3-4=1074/1056, 5-7=360/210
BOT CHORD 2-10=1751/1611, 8-10=1751/1611, 7-8=1084/1003
WEBS 4-7=1058/1131, 4-8=490/372, 3-8=607/654

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 1-4-0; 1-4 zone purlins 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) 6 except (jt=lb) 7=419, 2=349.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Examiner-License No. 06/30/2022

PX2707 06/30/2022

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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:

June 28,2022

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

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

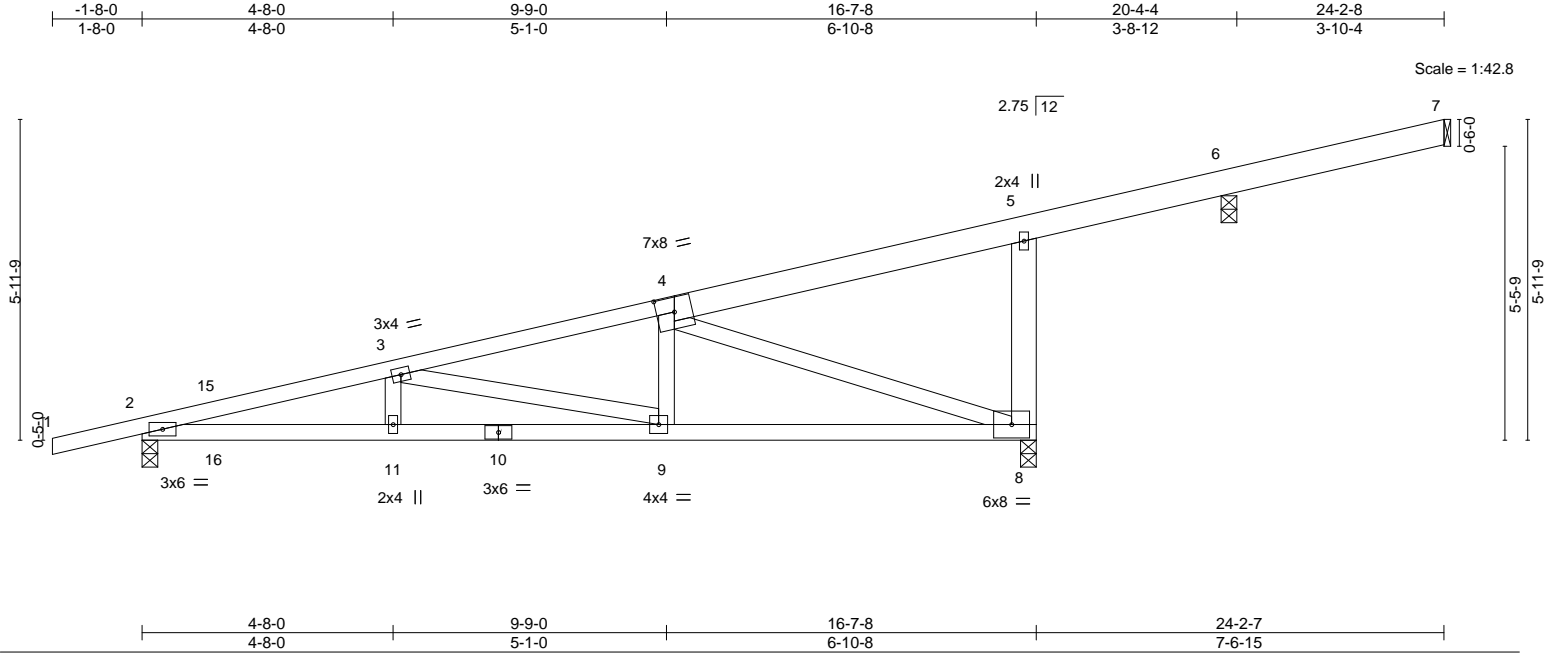


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119676
3213335	T29	MONOPITCH	10	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:52 2022 Page 1
ID:Ad27wGdB3DlInto_ShAPXtziZ29-HfO8WxYRRzVA74W1dtysg8B5y05tHqVPU3Z522z22w1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	0.14 8-9 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.15 9-11 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.04 8 n/a n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 107 lb FT = 20%			

LUMBER-
TOP CHORD 2x6 SP No.2 *Except*
1-4: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
5-8: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-3-1 oc bracing.

REACTIONS. All bearings 0-3-8 except (jt=length) 7=Mechanical.
(lb) - Max Horz 2=211(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 2=340(LC 8), 8=419(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 7, 6 except 2=686(LC 1), 8=785(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=1680/1641, 3-4=1076/1021, 5-8=358/196
BOT CHORD 2-11=1759/1613, 9-11=1759/1613, 8-9=1090/1005
WEBS 4-8=1059/1135, 4-9=490/372, 3-9=607/656

NOTES- (8)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-8-0 to 1-4-0, Interior(1) 1-4-0 to 2-1-12 zone; all other 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) 7, 6 except (jt=lb) 2=340, 8=419.
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Examiner-License No. 06/30/2022

PX2707 06/30/2022

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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:

June 28,2022

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119677
3213335	TG01	FLAT TRUSS	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:55 2022 Page 2
ID:Ad27wGdB3DIInto_ShAPXtZlZ29-iE3H8yaJkuti_YEcl?WZInpXzDC1UBisB1olfNz22w_

NOTES- (11)

- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1222 lb down and 96 lb up at 2-0-12, 1222 lb down and 96 lb up at 4-0-12, 1222 lb down and 96 lb up at 6-0-12, 1222 lb down and 96 lb up at 8-0-12, 1222 lb down and 96 lb up at 10-0-12, 1221 lb down and 96 lb up at 12-0-12, 3873 lb down and 1114 lb up at 13-3-3, 184 lb down at 15-2-5, 184 lb down at 17-2-5, and 184 lb down at 19-2-5, and 189 lb down at 21-2-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-9=-54, 10-19=-20

Concentrated Loads (lb)

Vert: 13=-3873(F) 11=-138(F) 20=-1087(F) 21=-1087(F) 22=-1087(F) 23=-1087(F) 24=-1087(F) 25=-1086(F) 26=-138(F) 27=-138(F) 28=-143(F)



Review for Code Compliance
Universal Engineering Science

Lawrence Pennell

PX2707

06/30/2022

Examiner-License No.

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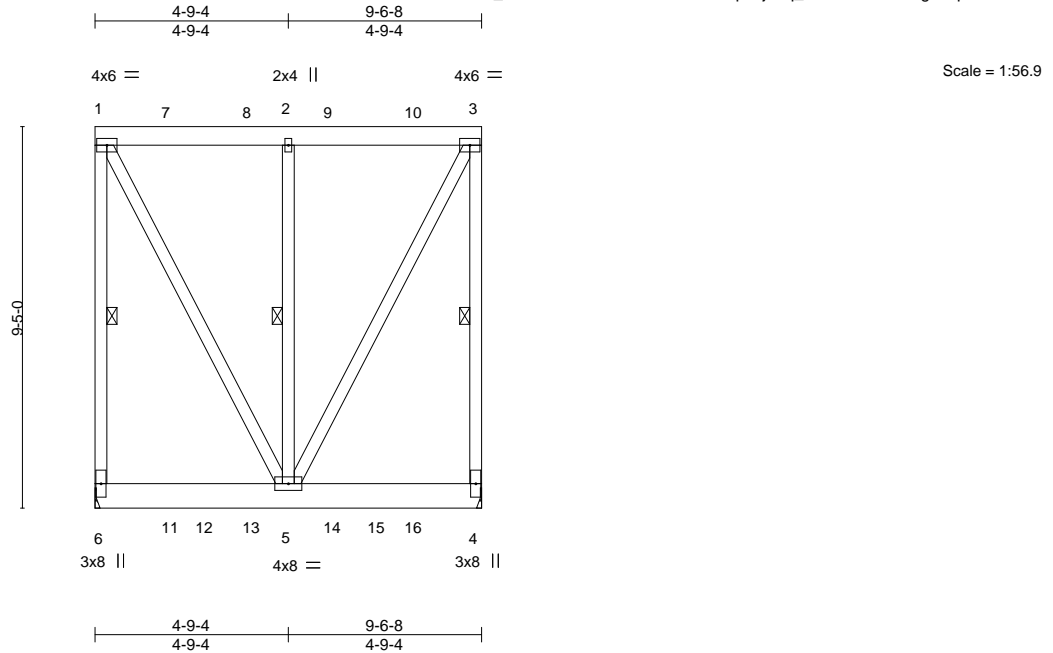


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119678
3213335	TG02	FLAT TRUSS	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:56 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtZlZ29-ARdfMlBxVB?bciposj1oq_MhNdamDkx?PgXlApz22vz



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.69	Vert(LL)	-0.03	5	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.09	Vert(CT)	-0.05	5	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.55	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS					Weight: 234 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

TOP CHORD 2x6 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3

REACTIONS.

(size) 6=Mechanical, 4=Mechanical
Max Uplift 6=1163(LC 4), 4=1175(LC 4)
Max Grav 6=3710(LC 1), 4=3745(LC 1)

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

TOP CHORD 1-6=3222/971, 1-2=1196/379, 2-3=1196/379, 3-4=3242/975
WEBS 1-5=810/2554, 2-5=3417/836, 3-5=810/2553

NOTES- (11)

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 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 CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Exp B; L=100ft; 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1163, 4=1175.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 635 lb down and 137 lb up at 1-9-11, 635 lb down and 130 lb up at 3-9-11, and 635 lb down and 130 lb up at 5-9-11, and 635 lb down and 137 lb up at 7-9-11 on top chord, and 480 lb down and 276 lb up at 1-9-11, 480 lb down and 276 lb up at 3-9-11, and 480 lb down and 276 lb up at 5-9-11, and 480 lb down and 276 lb up at 7-9-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard



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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:

June 28,2022

Continued on page 2

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119678
3213335	TG02	FLAT TRUSS	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:56 2022 Page 2
ID:Ad27wGdB3DlInto_ShAPXtZlZ29-ARdfMlBxVB?bciposj1oq_MhNdamDkx?PgXlApz22vz

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-304, 4-6=-20

Concentrated Loads (lb)

Vert: 7=-635 8=-635 9=-635 10=-635 11=-480(B) 13=-480(B) 14=-480(B) 16=-480(B)



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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

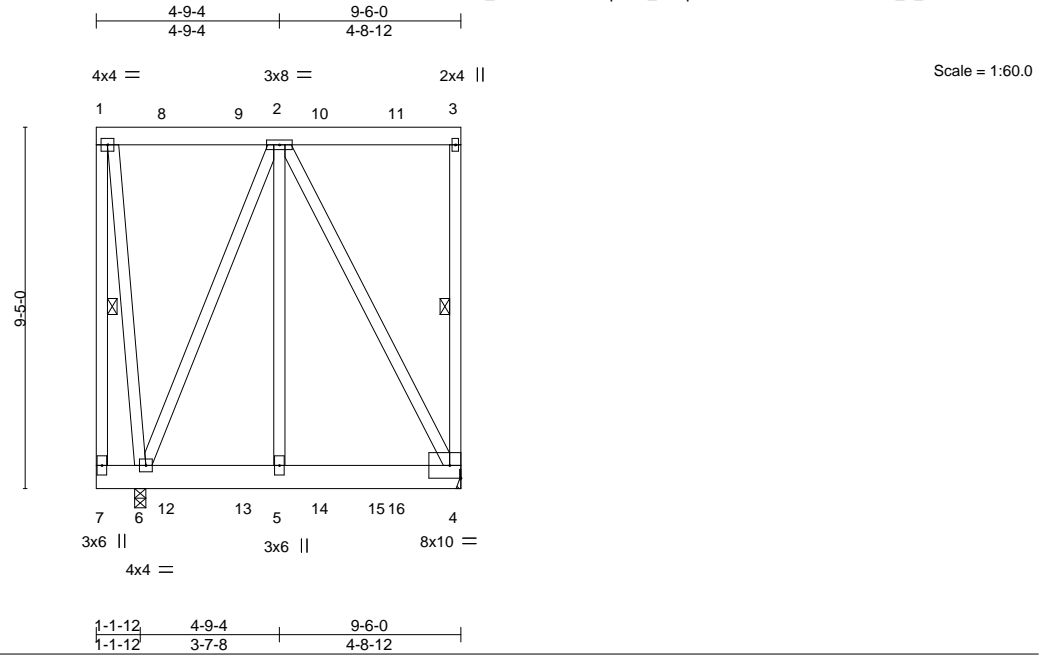


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119679
3213335	TG03	FLAT TRUSS	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:58 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtlZ29-6plPm_cB1pFJr?zBz83GwPR?eQFohY_It_0PFiz22vx



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 0.12	Vert(LL) -0.02 4-5 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.90	Vert(CT) -0.03 4-5 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.00 4 n/a n/a		
	Code FBC2020/TPI2014			Weight: 257 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3

REACTIONS.

(size) 6=0-3-8, 4=Mechanical
Max Uplift 6=1335(LC 4), 4=1173(LC 4)
Max Grav 6=3648(LC 1), 4=3307(LC 1)

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

TOP CHORD 1-7=-566/240, 3-4=-913/246
BOT CHORD 5-6=-321/902, 4-5=-321/902
WEBS 1-6=-356/75, 2-6=-2484/849, 2-5=-541/735, 2-4=-1939/691

NOTES- (11)

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 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 CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1335, 4=1173.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 625 lb down and 140 lb up at 1-9-3, 625 lb down and 133 lb up at 3-9-3, and 625 lb down and 133 lb up at 5-9-3, and 625 lb down and 140 lb up at 7-9-3 on top chord, and 172 lb down and 252 lb up at 1-9-3, 172 lb down and 252 lb up at 3-9-3, and 172 lb down and 252 lb up at 5-9-3, and 172 lb down and 252 lb up at 7-9-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date: June 28, 2022

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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119679
3213335	TG03	FLAT TRUSS	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:58 2022 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-304(F=-250), 5-7=-20, 4-5=-220(B=-200)

Concentrated Loads (lb)

Vert: 8=-625 9=-625 10=-625 11=-625 12=-138(F) 13=-138(F) 14=-138(F) 16=-138(F)



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

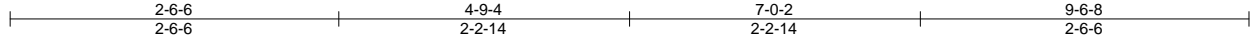


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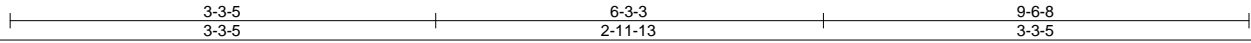
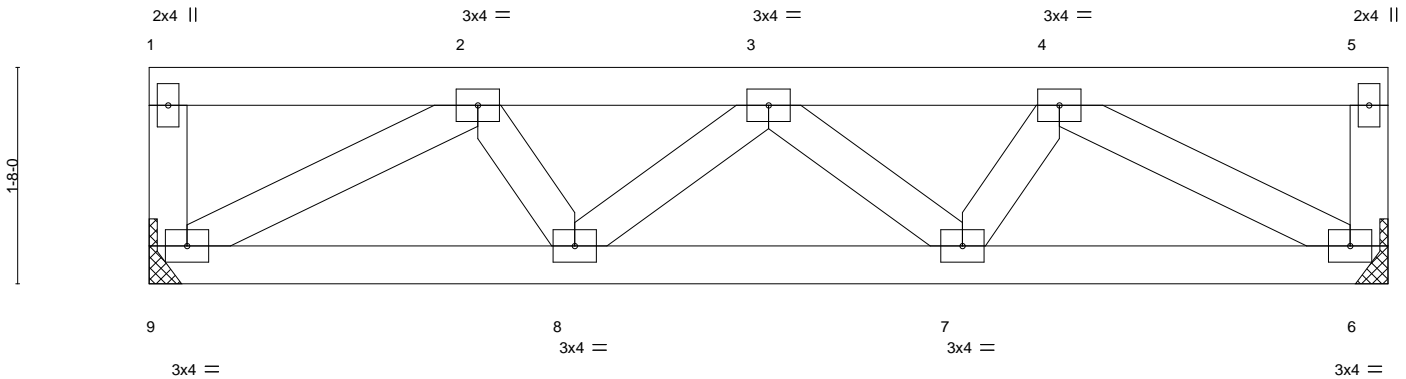
Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119680
3213335	TG04	FLOOR	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:26:59 2022 Page 1
ID:Ad27wGdB3DlInto_ShAPXtZlZ29-a0Jo_Kdqo6NAT9YNXraVSd_LiqYgQAER5emyn8z22vw



Scale = 1:17.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.11	Vert(LL)	-0.02	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.27	Vert(CT)	-0.03	7-8	>999	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.01	6	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 48 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=Mechanical, 6=Mechanical
Max Grav 9=509(LC 1), 6=509(LC 1)

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

TOP CHORD 2-3=-746/0, 3-4=-746/0
BOT CHORD 8-9=0/673, 7-8=0/864, 6-7=0/673
WEBS 2-9=-746/0, 4-6=-746/0

NOTES- (3)

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 3) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 28,2022

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119681
3213335	TG05	FLOOR	3	1	Job Reference (optional)	

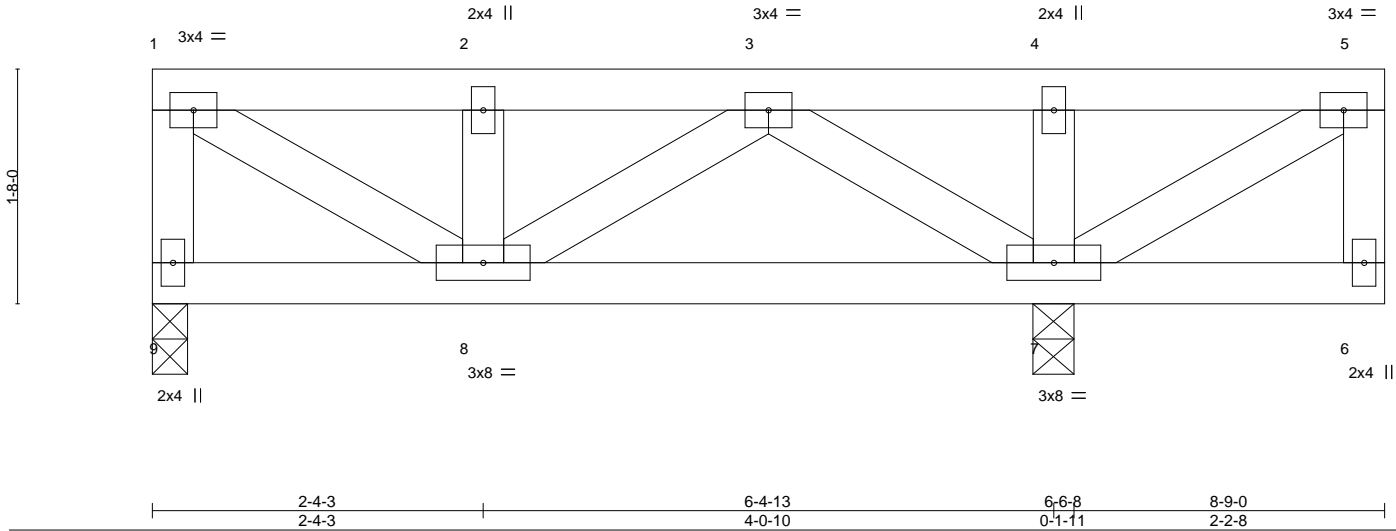
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:27:00 2022 Page 1
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2-4-3	4-4-8	6-4-13	8-9-0
2-4-3	2-0-5	2-0-5	2-4-3

TRUSS IS NOT DESIGNED TO SUPPORT CONCENTRATED LOADS AT ITS CANTILEVERED END(S).

Scale = 1:16.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	2-0-0	TC	0.17	Vert(LL)	-0.01	MT20	244/190		
TCDL	10.0	Lumber DOL	1.00	BC	0.13	Vert(CT)	-0.01				
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00				
BCDL	5.0	Code FBC2020/TPI2014		Matrix-MS							

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=0-3-0, 7=0-3-8
Max Grav 9=332(LC 3), 7=629(LC 1)

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

TOP CHORD 1-9=-316/0, 1-2=-360/0, 2-3=-360/0
BOT CHORD 7-8=-44/318
WEBS 1-8=0/399, 3-7=-434/0

NOTES- (3)

- Unbalanced floor live loads have been considered for this design.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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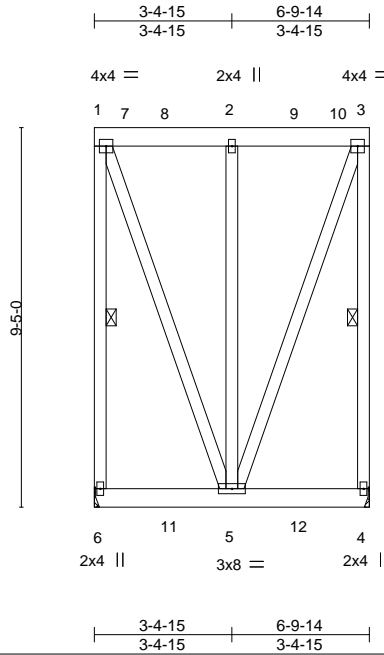
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119682
3213335	TG06	Flat Girder	1	2	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:27:01 2022 Page 1

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Scale = 1:57.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	Vert(LL)	-0.01	5	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.20	Vert(CT)	-0.03	5	>999		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.54	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 193 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 6=Mechanical, 4=Mechanical
Max Uplift 6=-629(LC 4), 4=-629(LC 4)
Max Grav 6=1950(LC 1), 4=1950(LC 1)

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

TOP CHORD 1-6=-1703/532, 1-2=-496/162, 2-3=-496/162, 3-4=-1703/532
WEBS 1-5=-474/1449, 2-5=-1647/336, 3-5=-474/1449

NOTES- (11)

- 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, 2x6 - 2 rows staggered 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 CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=22ft; Exp B; L=100ft; 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=629, 4=629.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 659 lb down and 127 lb up at 1-9-11, and 659 lb down and 127 lb up at 3-4-15, and 659 lb down and 127 lb up at 5-0-3 on top chord, and 480 lb down and 276 lb up at 1-9-11, and 480 lb down and 276 lb up at 3-4-15, and 480 lb down and 276 lb up at 5-0-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119682
3213335	TG06	Flat Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:27:01 2022 Page 2
ID:Ad27wGdB3DIInto_ShAPXtZlZ29-WOQYP0f4KkduiTimeGczX23eUeFFu?OkZyF3r1z22vu

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-3=-54, 4-6=-20
Concentrated Loads (lb)
Vert: 5=-480(B) 2=-659 8=-659 9=-659 11=-480(B) 12=-480(B)



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PX2707 06/30/2022

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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

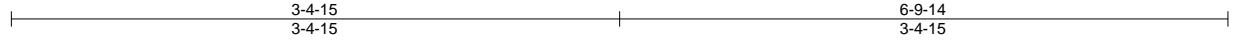


16023 Swingley Ridge Rd
Chesterfield, MO 63017

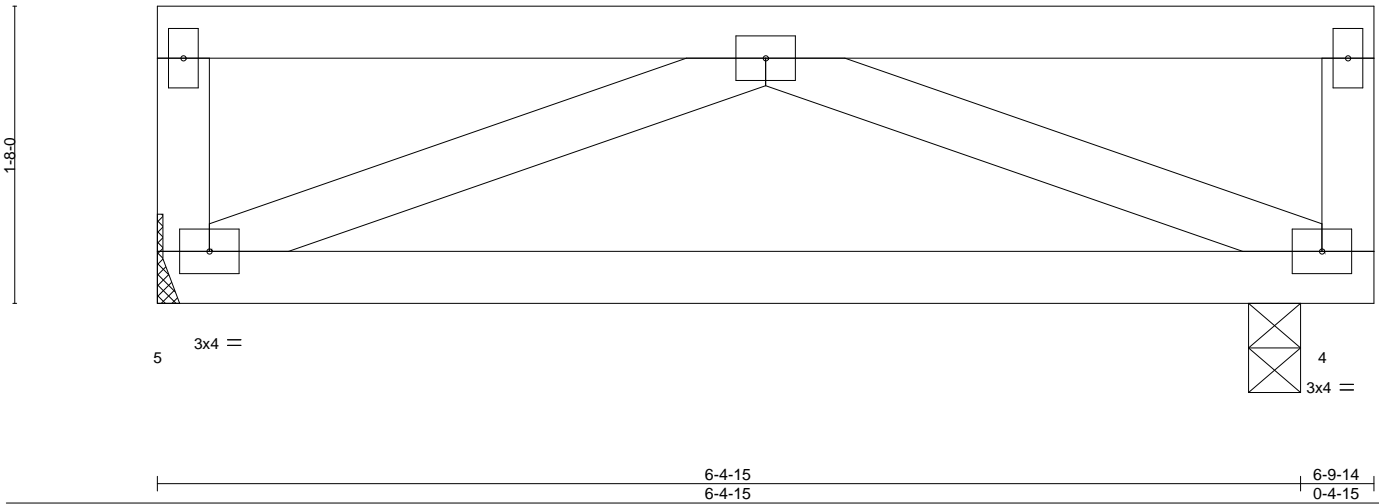
Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119683
3213335	TG07	FLOOR	2	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:27:02 2022 Page 1
ID:Ad27wGdB3Dlnto_ShAPXtzlZ29-_b_wcMgi41mKdHyCz8C4FcpJ2a1dYUuoc_cOTz22vt



Scale = 1:12.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.28	Vert(LL)	0.00	5	****	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.29	Vert(CT)	-0.05	4-5	>999		
BCLL 0.0	Lumber DOL 1.00	WB 0.16	Horz(CT)	0.01	4	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-MP						
	Code FBC2020/TPI2014						Weight: 33 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 4=0-3-8
Max Grav 5=359(LC 1), 4=359(LC 1)

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

BOT CHORD 4-5=0/472
WEBS 2-5=-513/0, 2-4=-513/0

NOTES- (3)

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 3) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Review for Code Compliance
Universal Engineering Science

Lawrence Pennell
Examiner-License No.

PX2707 06/30/2022

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:

June 28,2022

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

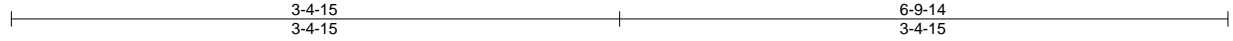


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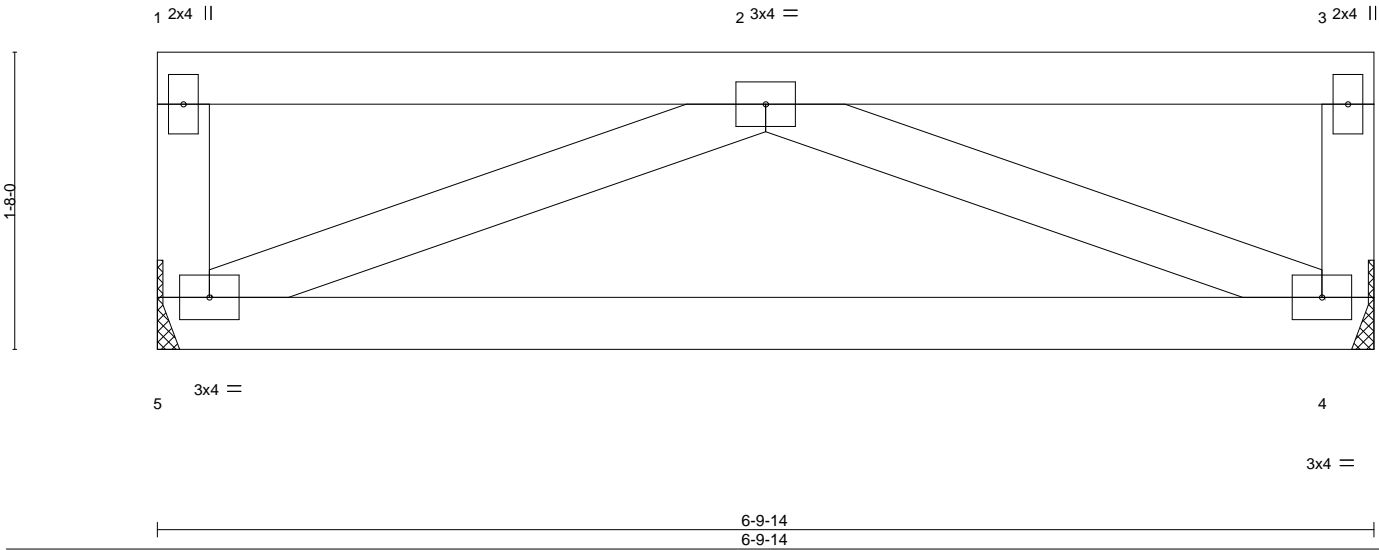
Job	Truss	Truss Type	Qty	Ply	SIMQUE - LOT 62 PRESERVE	T28119684
3213335	TG08	FLOOR	12	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 27 14:27:03 2022 Page 1
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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
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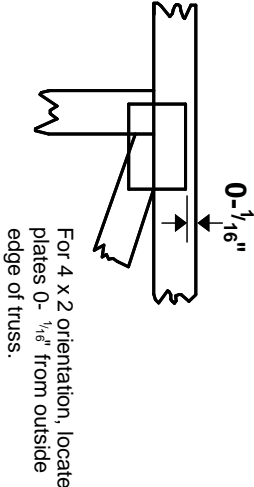
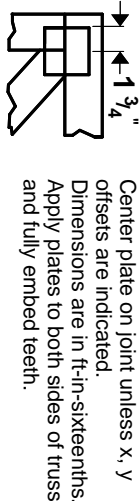
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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 SIZE

4 X 4

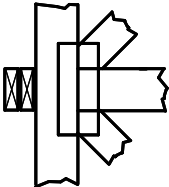
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

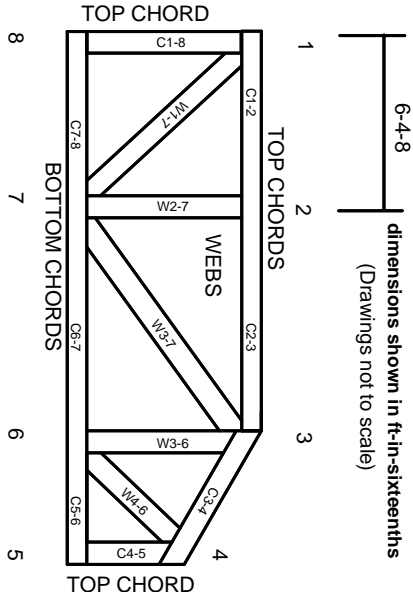
BEARING



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

Numbering System



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

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

PRODUCT CODE APPROVALS

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

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

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

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

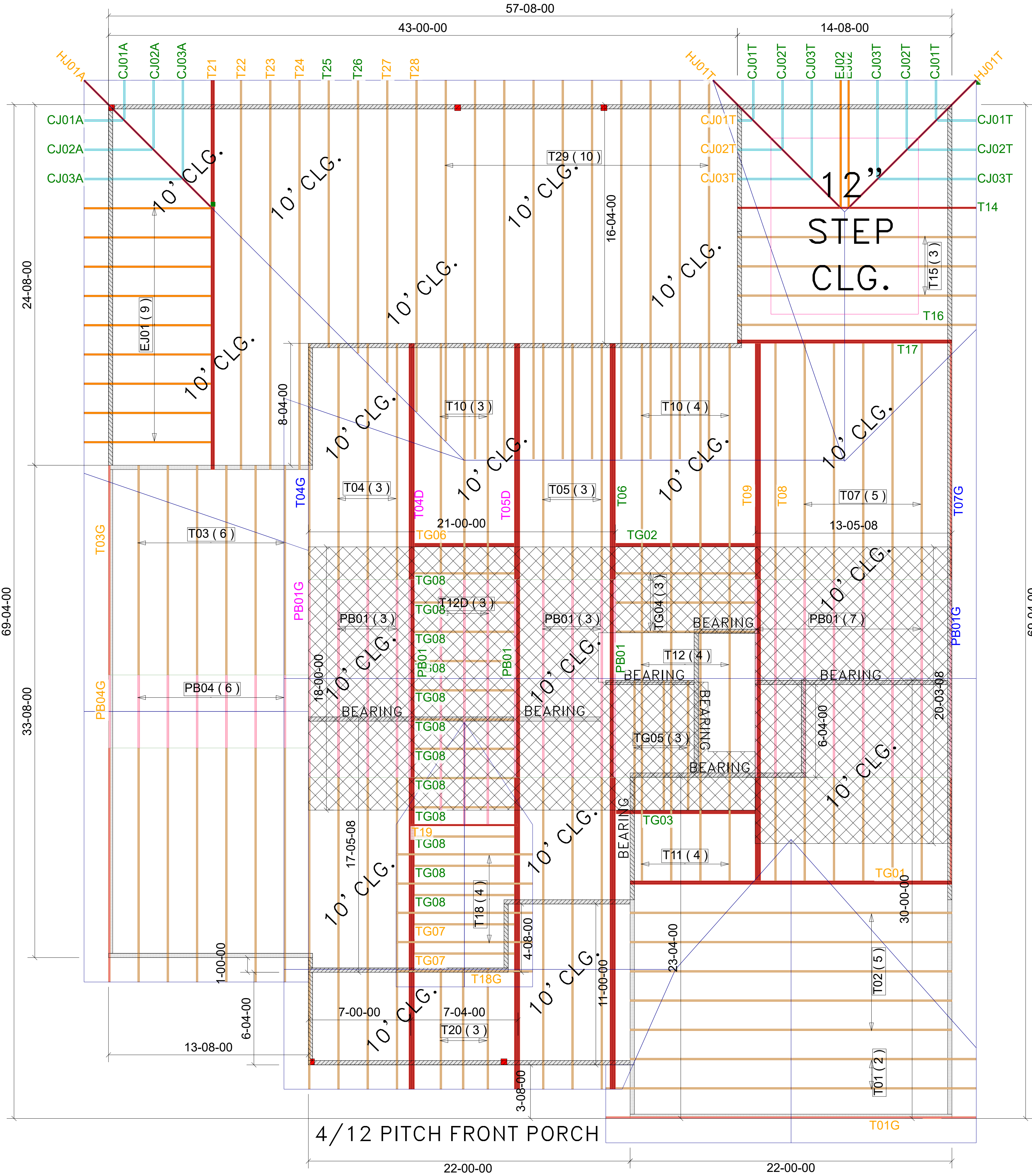
General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
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.

8/12 PITCH – 20” O/H

2.75/12 PITCH
REAR PORCH



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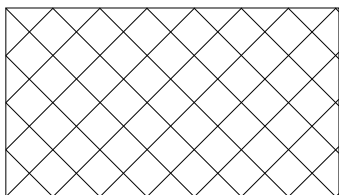
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PX2707

06/30/2022

SOME CEILINGS FRAMED
DOWN BY BLDR.

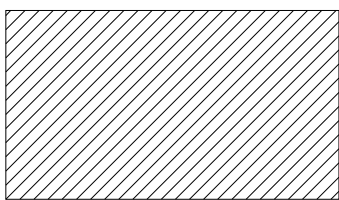
Hatch Legend



ATTIC

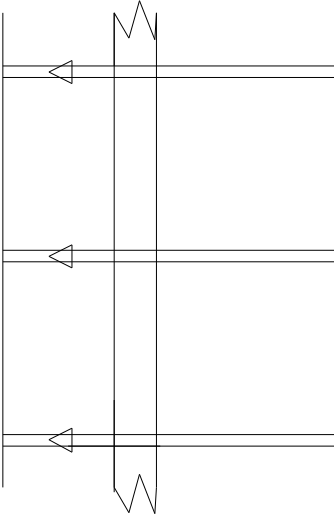


9' 1-1/8"



10' 1-1/8"

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:
AARON SIMQUE HOMES

Legal Address:
Lot 62 Preserve at LL

Model:
Bristol Modified Rear Porch

Date:	Drawn By:	Original Ref #:
6-16-22	KLH	3213335
Floor 1 Job#	Floor 2 Job#:	Roof Job #:
N/A	N/A	3213335