



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

RE: 1024-057 - Wheeler Repair

MiTek, Inc.  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

**Site Information:**

Customer Info: Oneal Companies Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Lake City 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: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 2 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.

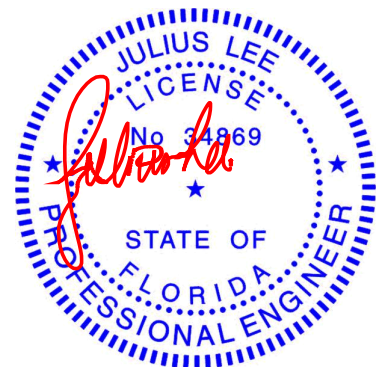
No.	Seal#	Truss Name	Date
1	T35339897	AGE	10/23/24
2	T35339898	J01	10/23/24



The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Mayo Truss Company, Inc..

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

**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.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

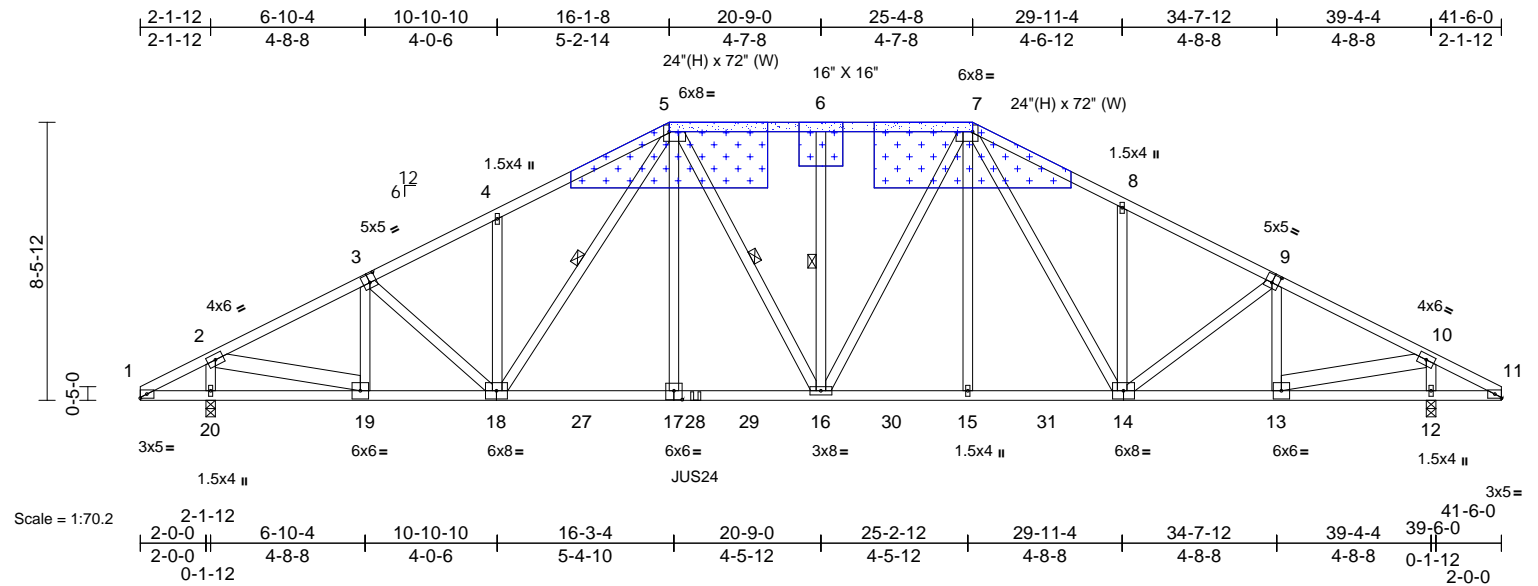
October 23, 2024

Job	Truss	Truss Type	Qty	Ply	Wheeler Repair	Units: 1.0	
1024-057	AGE	Hip Girder	1	1	Job Reference (optional)	Eng: D.R	T35339897

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Tue Oct 22 13:31:08  
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Page: 1



REPAIR: SECTION OF THE TOP CHORD IS DAMAGED FROM JNT 5 TO JNT 6  
PLATES DAMAGED AT JNT 5 AND JNT 6

INSTALL 2 X 4 SP NO.2  
CUT TO FIT TIGHT.



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1)  
TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE:  
2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C.  
NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE  
FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-8], [7:0-6-0,0-2-8], [9:0-2-8,0-3-0], [17:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	-0.16	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.97	Vert(CT)	-0.31	16-17	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.10	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 284 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 13-10,2-19:2x6 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-0-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 12=0-3-8, 20=0-3-8  
Max Horiz 20=149 (LC 7)  
Max Uplift 12=11 (LC 8), 20=58 (LC 8)  
Max Grav 12=2098 (LC 14), 20=2210 (LC 13)

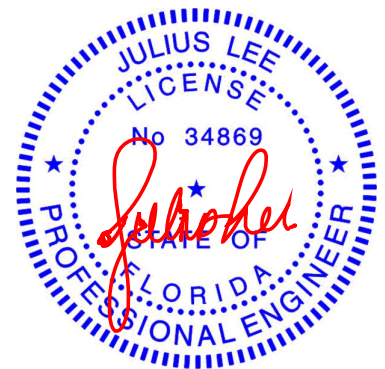
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 5-6=2427/127, 6-7=2427/127, 1-2=-38/62, 2-4=-2925/89, 4-5=-2974/157, 7-8=-2760/148, 8-10=-2729/83, 10-11=-34/70  
BOT CHORD 1-20=-8/36, 19-20=-143/166, 16-19=0/2509, 15-16=0/2202, 13-15=0/2256, 12-13=-17/31, 11-12=-17/31  
WEBS 5-17=0/746, 5-16=-126/176, 6-16=-309/58, 7-16=-31/612, 7-15=0/257, 2-20=-2050/93, 10-12=-1939/62, 7-14=-90/449, 8-14=-296/87, 9-14=-2/207, 9-13=-423/53, 10-13=0/2315, 2-19=-10/2451, 3-18=0/260, 3-19=-455/53, 4-18=-303/89, 5-18=-137/365

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional); cantilever left and right exposed ;  
end vertical left and right exposed; Lumber DOL=1.60

plate grip DOL=1.60 design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

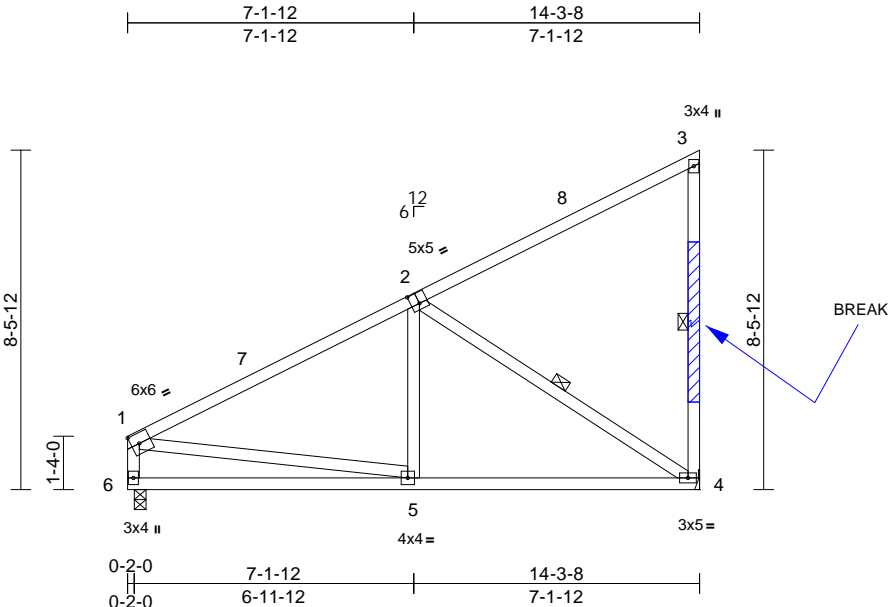


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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

October 23,2024

**MiTek®**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Wheeler Repair	Units: 1.0 Eng: D.R	T35339898
1024-057	J01	Jack-Closed	1	1	Job Reference (optional)		



APPLY 2 X 4 X 4" SP NO.2 SCAB TO ONE FACE OF TRUSS CENTERED ON DAMAGE/SPLICE OR AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	-0.06	4-5	>999	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.11	4-5	>999	180	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	4	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 87 lb FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-4, 2-4

**REACTIONS** (size) 4= Mechanical, 6=0-3-8  
Max Horiz 6=241 (LC 9)  
Max Uplift 4=-24 (LC 9)  
Max Grav 4=560 (LC 1), 6=560 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-6=-495/91, 1-3=-654/124, 3-4=-166/109  
BOT CHORD 5-6=-376/406, 4-5=-186/520  
WEBS 1-5=0/351, 2-5=0/277, 2-4=-594/128

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 4.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 0-1-12 to 3-1-12,  
Zone1 3-1-12 to 14-1-12 zone; cantilever left and right  
exposed ; 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
- 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  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.

5) Bearings are assumed to be: Joint 6 SP No.2.

6) Refer to girder(s) for truss to truss connections.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

October 23,2024

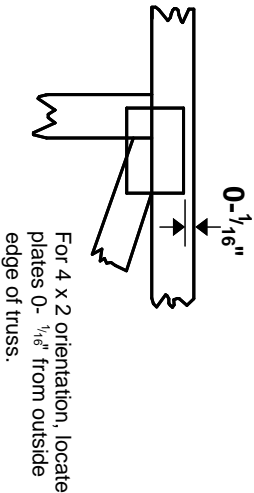
7) Warning: Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

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## Symbols

### PLATE LOCATION AND ORIENTATION



\* Plate location details available in MITek 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.

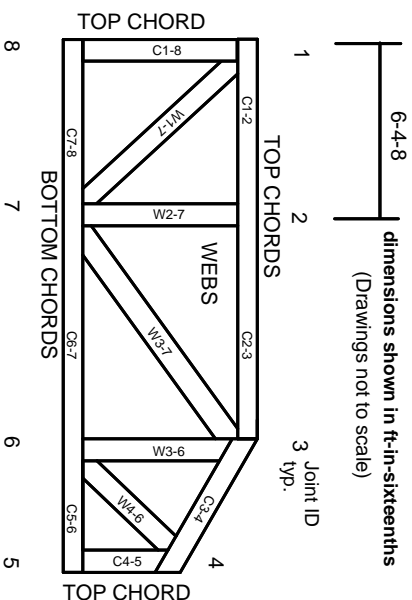
### BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter 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-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

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®

MITek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

## 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.

RE: 1024-057 - Wheeler New

MiTek, Inc.  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

**Site Information:**

Customer Info: Oneal Companies Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Lake City 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: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

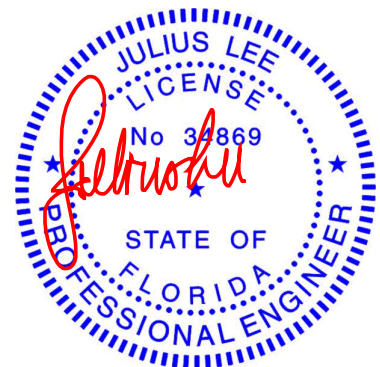
This package includes 8 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T35450274	A	11/4/24
2	T35450275	A1	11/4/24
3	T35450276	A1B	11/4/24
4	T35450277	A2	11/4/24
5	T35450278	A3	11/4/24
6	T35450279	A4	11/4/24
7	T35450280	A5	11/4/24
8	T35450281	AB	11/4/24

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc.  
under my direct supervision based on the parameters  
provided by Mayo Truss Company, Inc..

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

**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.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4, 2024

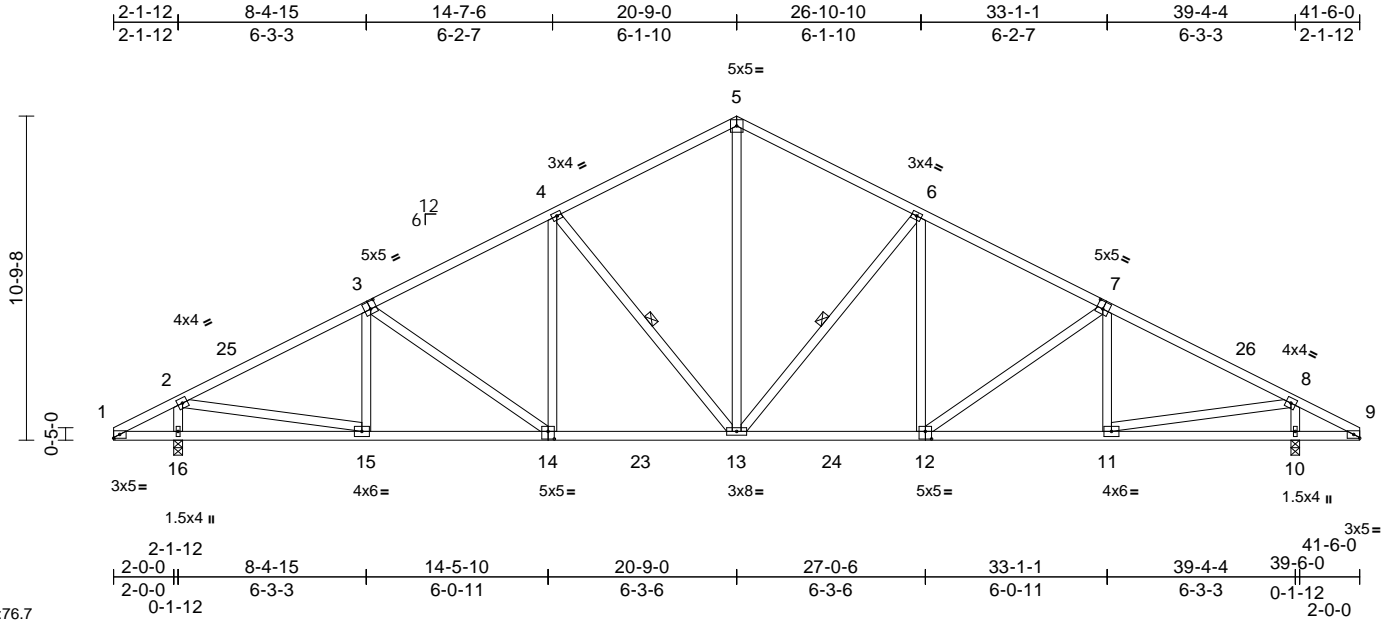
Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450274
1024-057	A	Common	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:42

Page: 1

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Scale = 1:76.7

Plate Offsets (X, Y): [3:0-2-8,0-3-0], [7:0-2-8,0-3-0], [12:0-2-8,0-3-0], [14:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	-0.15	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.63	Vert(CT)	-0.28	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 249 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-13, 6-13

#### REACTIONS

(size) 10=0-3-8, 16=0-3-8  
Max Horiz 16=191 (LC 11)  
Max Uplift 16=36 (LC 12)  
Max Grav 10=1854 (LC 18), 16=1854 (LC 17)

#### FORCES

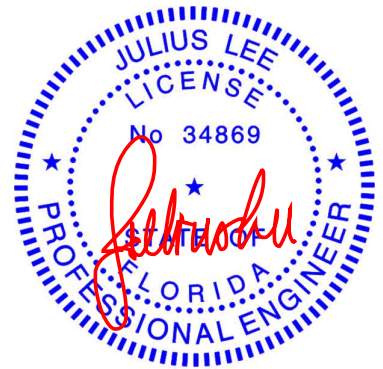
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-124/7, 2-4=-2356/147, 4-5=-1741/192, 5-6=-1741/192, 6-8=-2356/147, 8-9=-124/9  
BOT CHORD 1-16=-1/106, 15-16=-155/253, 13-15=0/2170, 11-13=0/2026, 10-11=0/106, 9-10=-1/106  
WEBS 2-16=-1662/242, 8-10=-1661/242, 5-13=-43/1185, 4-13=-689/100, 3-15=-213/92, 2-15=-74/1960, 3-14=-211/43, 4-14=0/377, 6-13=-690/100, 6-12=0/377, 7-12=-211/49, 7-11=-213/92, 8-11=-74/1957

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13, Zone1 4-1-13 to 20-9-0, Zone2 20-9-0 to 26-10-10, Zone1 26-10-10 to 41-6-0 zone; cantilever left and right exposed; 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
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 16.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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**MiTek®**

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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450275
1024-057	A1	Hip	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:43

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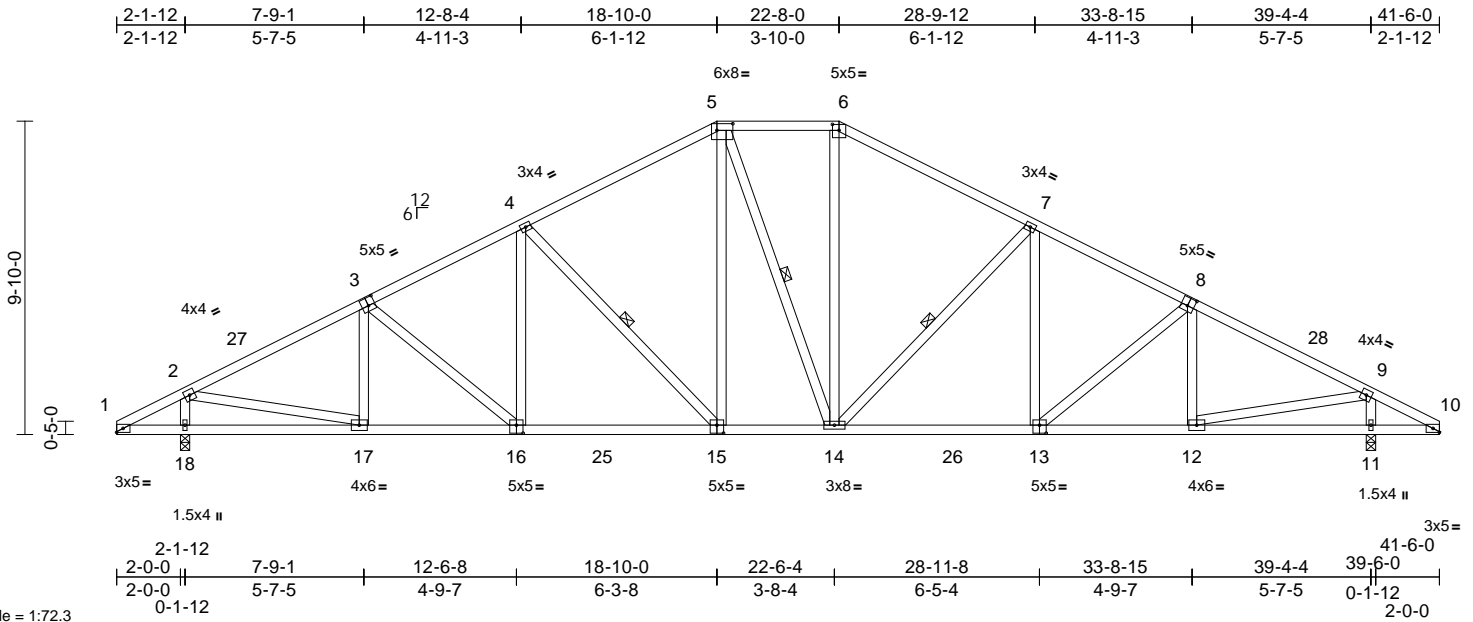


Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-8], [6:0-2-8,0-2-4], [8:0-2-8,0-3-0], [13:0-2-8,0-3-0], [15:0-2-8,0-3-0], [16:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	-0.15	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.62	Vert(CT)	-0.29	15-16	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 264 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-14, 4-15, 7-14

#### REACTIONS

(size) 11=0-3-8, 18=0-3-8  
Max Horiz 18=173 (LC 11)  
Max Uplift 18=36 (LC 12)  
Max Grav 11=1851 (LC 18), 18=1851 (LC 17)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 5-6=-1606/172, 1-2=-92/20, 2-4=-2296/122, 4-5=-1856/161, 6-7=-1848/161, 7-9=-2296/122, 9-10=-92/20  
BOT CHORD 1-18=-2/78, 17-18=-146/222, 14-17=0/2109, 12-14=0/1979, 11-12=0/78, 10-11=-2/78  
WEBS 5-15=0/599, 5-14=-171/181, 6-14=0/574, 2-18=-1665/174, 2-17=-53/1945, 3-17=-275/74, 3-16=-66/56, 4-16=0/279, 4-15=-586/74, 9-11=-1664/174, 9-12=-53/1942, 7-14=-588/73, 7-13=0/281, 8-13=-66/56, 8-12=-275/73

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13, Zone1 4-1-13 to 18-10-0, Zone3 18-10-0 to 22-8-0, Zone2 22-8-0 to 28-9-12, Zone1 28-9-12 to 41-6-0 zone; cantilever left and right exposed; 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.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 18.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**MiTek®**

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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450276
1024-057	A1B	Hip	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:43

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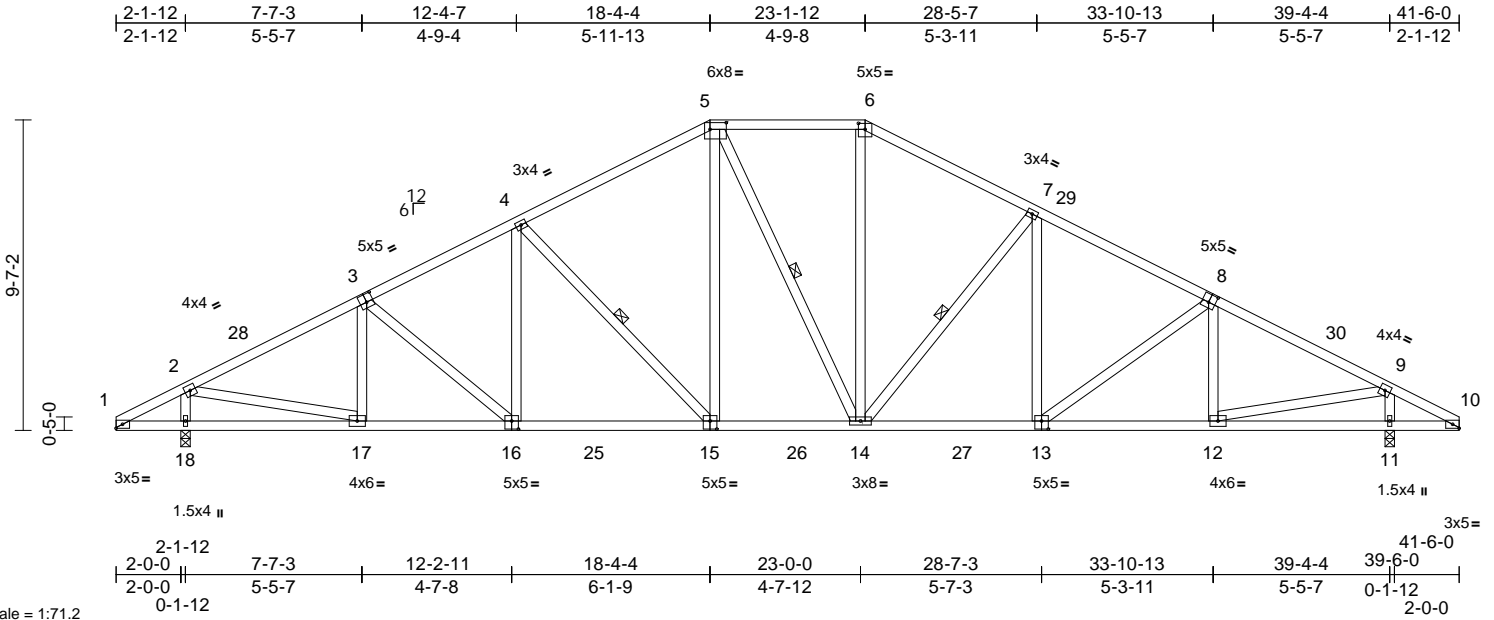


Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-8], [6:0-2-8,0-2-4], [8:0-2-8,0-3-0], [13:0-2-8,0-3-0], [15:0-2-8,0-3-0], [16:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	-0.15	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.27	15-16	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 262 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-14, 4-15, 7-14

#### REACTIONS

(size) 11=0-3-8, 18=0-3-8  
Max Horiz 18=169 (LC 10)  
Max Uplift 18=36 (LC 12)  
Max Grav 11=1867 (LC 18), 18=1871 (LC 17)

#### FORCES

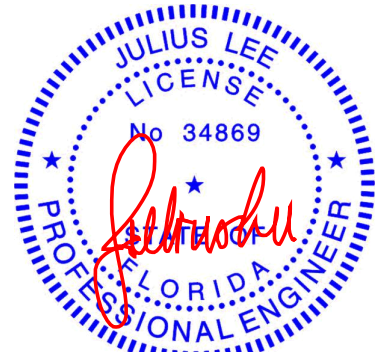
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 5-6=-1667/172, 1-2=-92/26, 2-4=-2314/125,  
4-5=-1931/162, 6-7=-1909/165,  
7-9=-2317/127, 9-10=-92/35  
BOT CHORD 1-18=-3/78, 17-18=-146/212, 14-17=0/2124,  
12-14=0/2002, 11-12=0/79, 10-11=-3/79  
WEBS 5-15=0/622, 5-14=-170/163, 6-14=0/598,  
2-18=-1688/173, 2-17=-56/1975,  
3-16=-53/76, 3-17=-289/73, 4-16=0/247,  
4-15=-542/71, 9-11=-1688/169,  
7-14=-554/71, 7-13=0/271, 8-13=-87/50,  
8-12=-281/80, 9-12=-58/1990

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13,  
Zone1 4-1-13 to 18-4-4, Zone3 18-4-4 to 23-1-12, Zone2  
23-1-12 to 29-0-3, Zone1 29-0-3 to 41-6-0 zone;  
cantilever left and right exposed ; 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.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 18.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4, 2024

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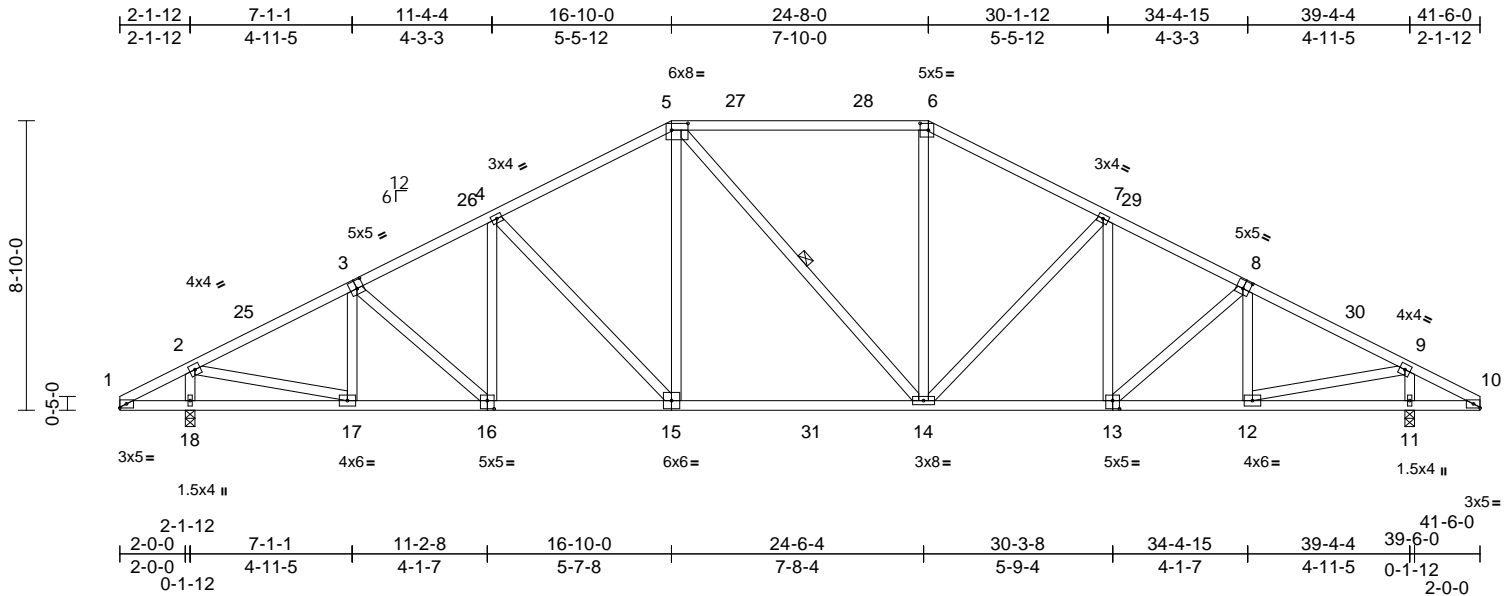
Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450277
1024-057	A2	Hip	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Scale = 1:70.3

Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-8], [6:0-3-0,0-2-8], [8:0-2-8,0-3-0], [13:0-2-8,0-3-0], [16:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.75	Vert(LL)	-0.20	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.73	Vert(CT)	-0.36	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 253 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-14

#### REACTIONS

(size) 11=0-3-8, 18=0-3-8  
Max Horiz 18=155 (LC 11)  
Max Uplift 18=36 (LC 12)  
Max Grav 11=1840 (LC 18), 18=1847 (LC 17)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-91/48, 2-4=-2277/124, 4-5=-2020/155, 5-6=-1756/167, 6-7=-2000/155, 7-9=-2267/123, 9-10=-91/48  
BOT CHORD 1-18=-4/80, 17-18=-143/182, 14-17=0/2075, 12-14=0/1950, 11-12=0/80, 10-11=-4/80  
WEBS 5-15=0/577, 5-14=-157/162, 6-14=0/526, 2-18=-1679/165, 2-17=-60/1949, 3-16=-13/111, 3-17=-333/73, 4-16=0/144, 4-15=-374/65, 9-11=-1671/165, 9-12=-60/1938, 7-14=-382/64, 7-13=0/147, 8-13=-12/110, 8-12=-334/72

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13, Zone1 4-1-13 to 16-10-0, Zone2 16-10-0 to 22-8-7, Zone1 22-8-7 to 24-8-0, Zone2 24-8-0 to 30-6-7, Zone1 30-6-7 to 41-6-0 zone; cantilever left and right exposed; 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.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 18.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4, 2024

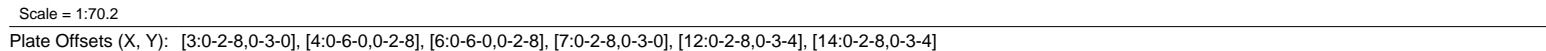
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:43 Page: 1  
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<b>LUMBER</b>		3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
TOP CHORD	2x4 SP No.2	4) Provide adequate drainage to prevent water ponding.
BOT CHORD	2x4 SP No.2	5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
WEBS	2x4 SP No.2	6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
<b>BRACING</b>		7) All bearings are assumed to be SP No.2 .
TOP CHORD	Structural wood sheathing directly applied.	8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 16.
BOT CHORD	Rigid ceiling directly applied.	9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
WEBS	1 Row at midpt 3-14, 7-12	<b>LOAD CASE(S)</b> Standard
<b>REACTIONS</b>	(size) 10=0-3-8, 16=0-3-8	
	Max Horiz 16=-137 (LC 10)	
	Max Uplift 16=-36 (LC 12)	
	Max Grav 10=1855 (LC 18), 16=1855 (LC 17)	
<b>FORCES</b>		
(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=-91/58, 2-4=-2329/134, 4-5=-2056/157, 5-6=-2056/157, 6-8=-2329/134, 8-9=-91/58	
BOT CHORD	1-16=-5/82, 15-16=-127/154, 13-15=-10/2123, 11-13=-6/2021, 10-11=-5/82, 9-10=-5/82	
WEBS	4-14=0/382, 4-13=-19/418, 5-13=-374/85, 6-13=-19/418, 6-12=0/382, 2-16=-1690/160, 2-15=-78/2047, 3-15=-267/100, 3-14=-213/59, 7-11=-267/100, 7-12=-213/59, 8-11=-78/2045, 8-10=-1689/160	

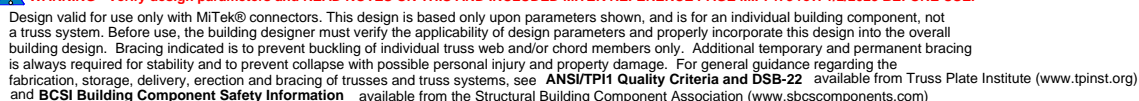
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCFL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13,  
Zone1 4-1-13 to 14-10-0, Zone2 14-10-0 to 20-9-0,  
Zone1 20-9-0 to 26-8-0, Zone2 26-8-0 to 32-6-7, Zone1  
32-6-7 to 41-6-0 zone; cantilever left and right exposed ;  
end vertical left and right exposed; C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate drip DOL=1.60

- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00" tall by 2'-00"-00" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 16.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



November 4, 2024



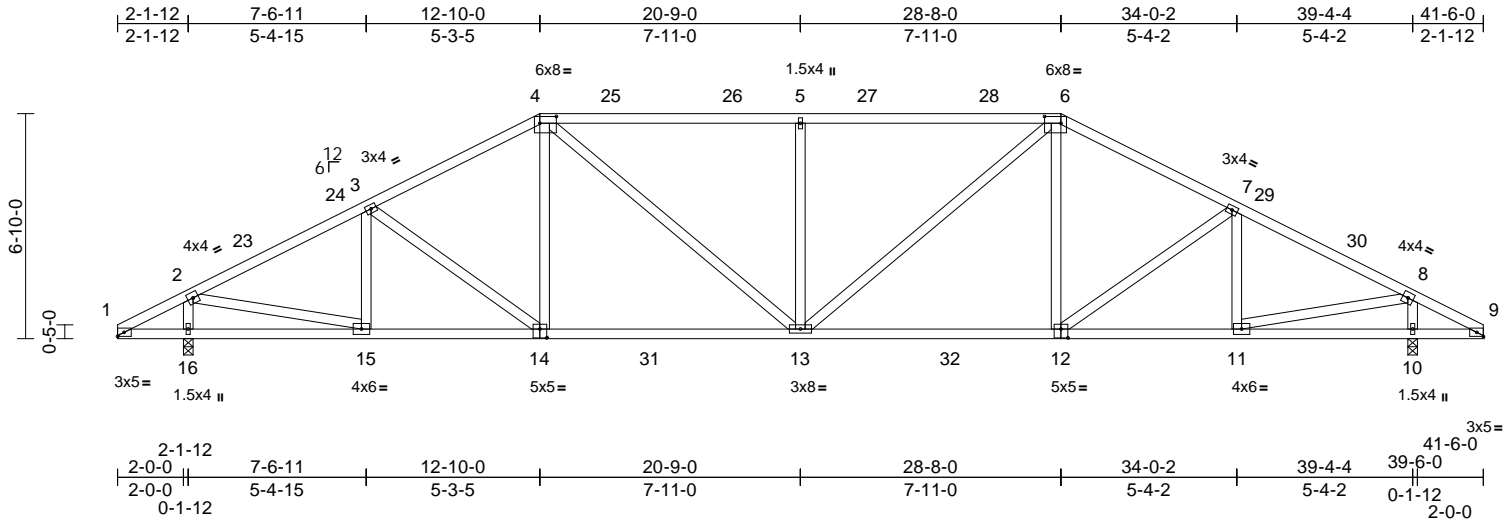
**MiTek®**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-IIS.com

Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450279
1024-057	A4	Hip	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:43  
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Page: 1



Scale = 1:70									
Plate Offsets (X, Y): [4:0-6-0,0-2-8], [6:0-6-0,0-2-8], [12:0-2-8,0-3-4], [14:0-2-8,0-3-4]									
<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.63	Vert(LL)	-0.20 13-14	>999	240
TCDL	10.0	Lumber DOL	1.25	BC	0.80	Vert(CT)	-0.37 13-14	>999	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.08 10	n/a	n/a
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS					
								Weight: 233 lb	FT = 20%

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
<b>REACTIONS</b>	
(size)	10=0-3-8, 16=0-3-8
Max Horiz	16=118 (LC 10)
Max Uplift	16=36 (LC 12)
Max Grav	10=1858 (LC 18), 16=1858 (LC 17)
<b>FORCES</b>	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-93/31, 2-3=-2296/82, 3-4=-2276/122, 4-5=-2414/145, 5-6=-2414/145, 6-7=-2277/122, 7-8=-2292/81, 8-9=-93/35
BOT CHORD	1-16=-2/81, 15-16=-96/155, 13-15=-6/2069, 11-13=-2/1977, 10-11=0/82, 9-10=-2/82
WEBS	4-14=0/320, 4-13=-21/666, 5-13=-537/124, 6-13=-21/666, 6-12=0/320, 2-16=-1671/171, 3-14=-75/131, 3-15=-295/78, 2-15=-73/1975, 8-10=-1673/170, 7-12=-73/135, 7-11=-300/79, 8-11=-74/1976

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 16.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13, Zone1 4-1-13 to 12-10-0, Zone2 12-10-0 to 18-8-7, Zone1 18-8-7 to 28-8-0, Zone2 28-8-0 to 34-6-7, Zone1 34-6-7 to 41-6-0 zone; cantilever left and right exposed ; 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



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4,2024

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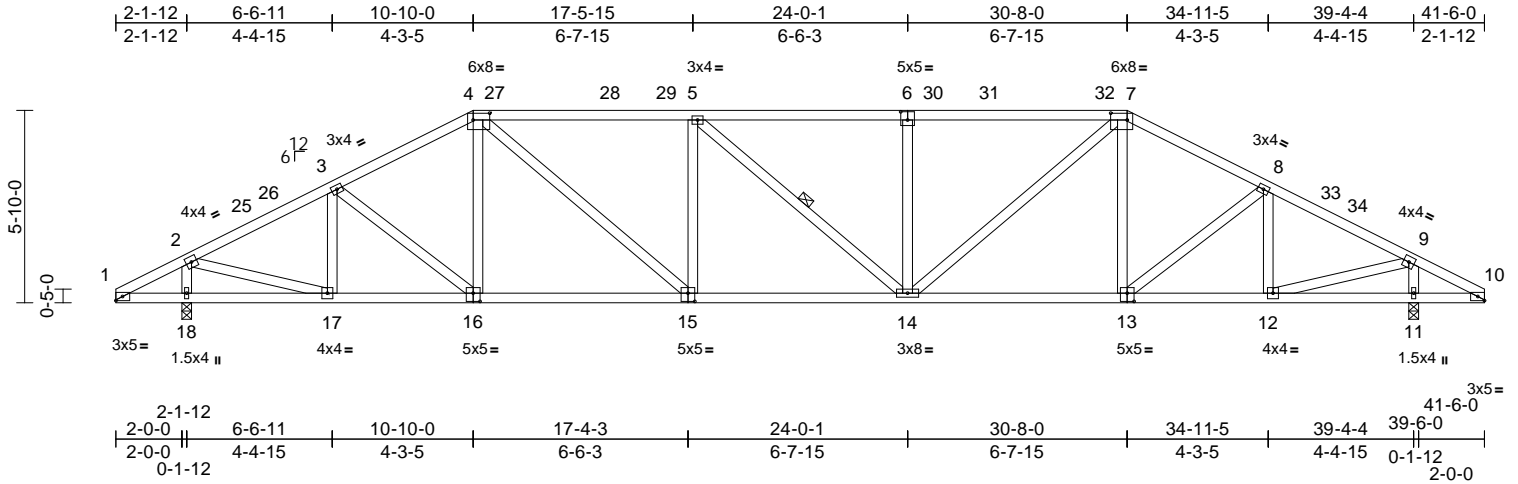
Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450280
1024-057	A5	Hip	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:44

Page: 1

ID:VMHojMUgNGs4bt9QbaxGEyQsNt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCD0i7J4zJC?f



Scale = 1:69.9

Plate Offsets (X, Y): [4:0-6-0,0-2-8], [6:0-2-8,0-3-0], [7:0-6-0,0-2-8], [13:0-2-8,0-3-0], [15:0-2-8,0-3-0], [16:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.46	Vert(LL)	-0.15	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.63	Vert(CT)	-0.31	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 235 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-14

#### REACTIONS

(size) 11=0-3-8, 18=0-3-8  
Max Horiz 18=100 (LC 10)  
Max Uplift 18=36 (LC 12)  
Max Grav 11=1660 (LC 1), 18=1660 (LC 1)

#### FORCES

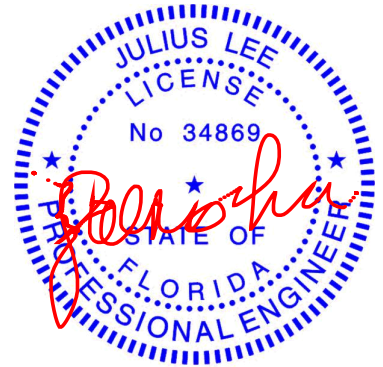
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-91/65, 2-3=-1935/69, 3-4=-2053/107, 4-5=-2428/131, 5-7=-2441/132, 7-8=-2054/106, 8-9=-1934/69, 9-10=-91/65  
BOT CHORD 1-18=-14/83, 17-18=-95/111, 14-17=-1/2439, 12-14=0/1788, 11-12=-14/83, 10-11=-14/83  
WEBS 4-16=-35/157, 7-13=-33/161, 5-15=-454/97, 4-15=-25/907, 5-14=-55/59, 6-14=-415/103, 7-14=-26/915, 2-18=-1546/155, 3-16=-4/248, 3-17=-393/69, 2-17=-68/1746, 9-11=-1545/155, 8-13=-3/249, 8-12=-394/69, 9-12=-68/1746

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13, Zone1 4-1-13 to 10-10-0, Zone2 10-10-0 to 16-8-7, Zone1 16-8-7 to 30-8-0, Zone2 30-8-0 to 36-6-7, Zone1 36-6-7 to 41-6-0 zone; cantilever left and right exposed; 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.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 18.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

November 4, 2024

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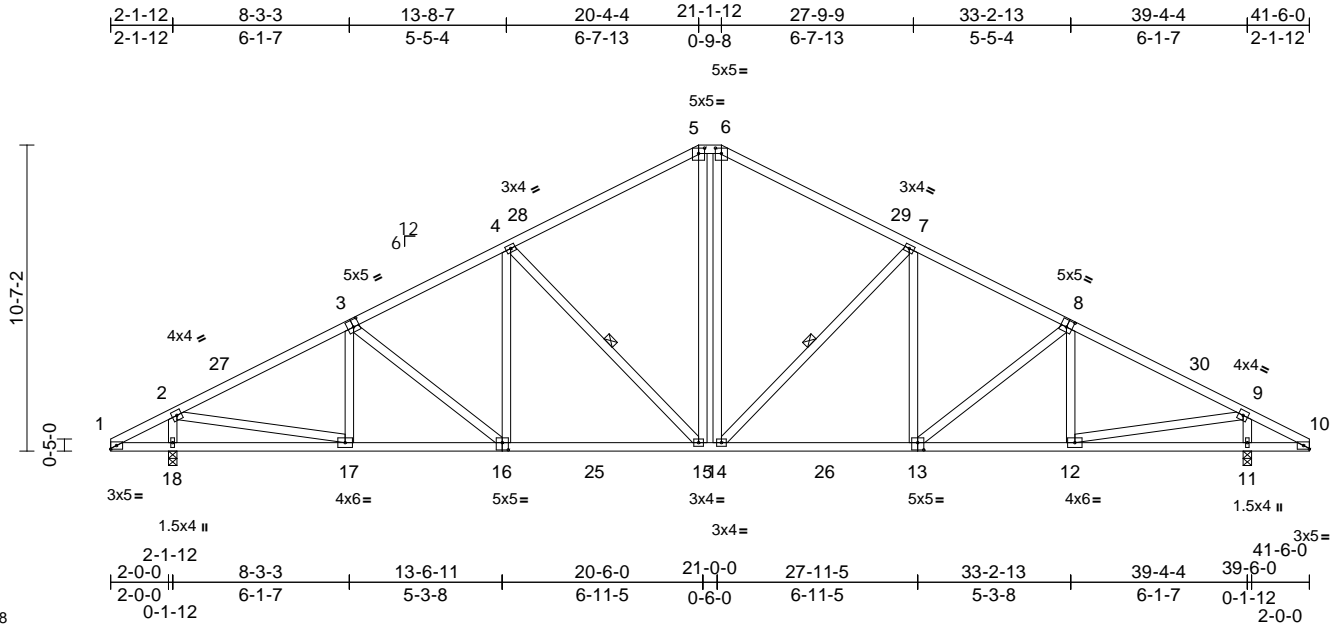
Job	Truss	Truss Type	Qty	Ply	Wheeler New	T35450281
1024-057	AB	Hip	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Sep 25 2024 Print: 8.730 S Sep 25 2024 MiTek Industries, Inc. Mon Nov 04 07:49:44

Page: 1

ID:S2tWICExdujK8cCTYRJoShyQrwV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?i



Scale = 1:79.8	Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-2-8,0-2-4], [6:0-2-8,0-2-4], [8:0-2-8,0-3-0], [13:0-2-8,0-3-0], [16:0-2-8,0-3-0]
----------------	------------------------------------------------------------------------------------------------------------------------------

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.37	Vert(LL)	-0.17	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.68	Vert(CT)	-0.31	15-16	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 260 lb	FT = 20%

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-14, 4-15
<b>REACTIONS</b>	
(size)	11=0-3-8, 18=0-3-8
Max Horiz	18=187 (LC 11)
Max Uplift	18=36 (LC 12)
Max Grav	11=1857 (LC 18), 18=1857 (LC 17)
<b>FORCES</b>	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	5-6=-1512/164, 1-2=-93/7, 2-4=-2340/113, 4-5=-1770/156, 6-7=-1770/156, 7-9=-2340/113, 9-10=-95/9
BOT CHORD	1-18=-1/102, 17-18=-151/253, 15-17=0/2153, 14-15=0/1576, 12-14=0/2012, 11-12=0/105, 10-11=-1/105
WEBS	5-15=-25/616, 6-14=-25/616, 2-18=-1660/176, 9-11=-1659/176, 9-12=-42/1939, 7-14=-682/81, 7-13=0/348, 8-13=-140/44, 8-12=-232/76, 2-17=-42/1942, 3-17=-232/76, 3-16=-140/38, 4-16=0/348, 4-15=-682/81

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-1-13, Zone1 4-1-13 to 20-4-4, Zone3 20-4-4 to 21-1-12, Zone2 21-1-12 to 27-0-3, Zone1 27-0-3 to 41-6-0 zone; cantilever left and right exposed ; 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
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 18.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard



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November 4,2024

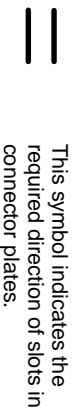
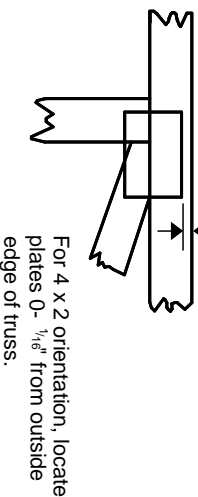
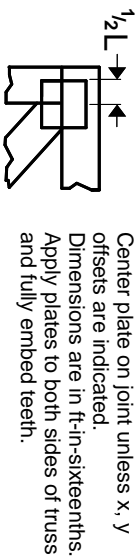
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## Symbols

### PLATE LOCATION AND ORIENTATION



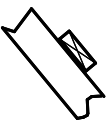
\* Plate location details available in MITek software or upon request.

### PLATE SIZE

**4 X 4**

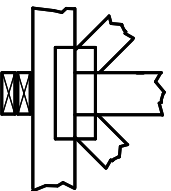
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### 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

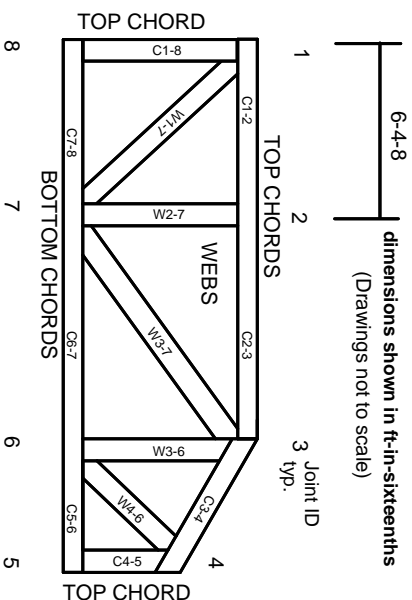


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

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®

MITek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

## 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.