



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

RE: 0825-043 - Bedenbaugh

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

Site Information:

Customer Info: Plumb Level Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: Chiefland 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 8.8
Wind Code: ASCE 7-22 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

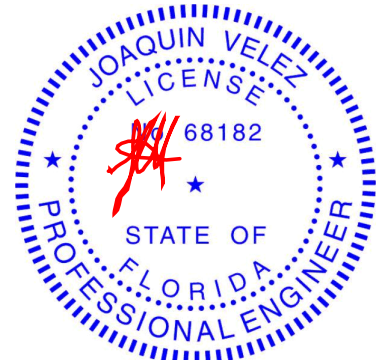
This package includes 7 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T38294637	A01	8/21/25
2	T38294638	A02	8/21/25
3	T38294639	A03	8/21/25
4	T38294640	B01	8/21/25
5	T38294641	B02	8/21/25
6	T38294642	J01	8/21/25
7	T38294643	J02	8/21/25

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: Velez, Joaquin
My license renewal date for the state of Florida is February 28, 2027.

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



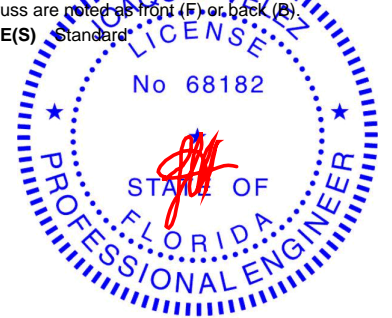
Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21, 2025

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:38 Page: 1
ID:ciRgtMbAAxX3gnKM?N2oeYylz3H-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4Jc?f



LUMBER		TOP CHORD	1-2=0/38, 2-4=--44/72, 4-5=--49/57, 5-6=--38/58, 6-7=--35/54, 7-8=--30/60, 8-10=--25/93, 10-11=--18/110, 11-12=--15/110, 12-14=--12/93, 14-15=--13/60, 15-16=--13/43, 16-17=--12/31, 17-18=--18/28, 18-20=--32/45, 20-21=0/38
TOP CHORD	2x4 SP No.2		
BOT CHORD	2x4 SP No.2		
OTHERS			
BRACING		BOT CHORD	2-36=27/51, 35-36=22/51, 34-35=22/51, 33-34=22/51, 32-33=22/51, 31-32=22/51, 29-31=22/51, 27-29=22/51, 26-27=22/51, 25-26=22/51, 24-25=22/51, 23-24=22/51, 22-23=22/51, 20-22=30/51
TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.		
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.		
REACTIONS		WEBS	11-29=114/0, 10-30=131/29, 9-31=118/30, 8-32=118/28, 7-33=119/30, 6-34=125/28, 5-35=101/34, 4-36=172/19, 12-28=131/29, 13-27=118/30, 14-26=118/28, 15-25=119/30, 16-24=124/28, 17-23=102/34, 18-22=170/18
(size)	2=36-0-0, 20=36-0-0, 22=36-0-0, 23=36-0-0, 24=36-0-0, 25=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0, 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0, 35=36-0-0, 36=36-0-0		
Max Horiz	2=80 (LC 6)		
Max Uplift	2=-63 (LC 8), 20=-60 (LC 8), 23=-17 (LC 8), 24=-12 (LC 25), 34=-12 (LC 25), 35=-17 (LC 8)		
Max Grav	2=290 (LC 19), 20=262 (LC 20), 22=251 (LC 20), 23=130 (LC 1), 24=150 (LC 20), 25=248 (LC 1), 26=372 (LC 20), 27=347 (LC 1), 28=365 (LC 20), 29=361 (LC 1), 30=365 (LC 19), 31=347 (LC 1), 32=372 (LC 19), 33=248 (LC 1), 34=151 (LC 19), 35=127 (LC 1), 36=257 (LC 19)		
FORCES			
(lb) - Maximum Compression/Maximum Tension			



Joaquin Velez PE No.68182
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21, 2025

Continued on page 2

 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbsccomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Bedenbaugh
0825-043	A01	Common Girder	1	1	T38294637
Job Reference (optional)					

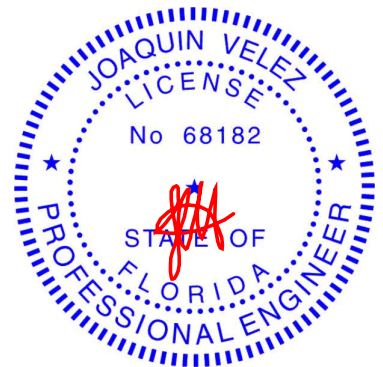
Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:38

Page: 2

ID:ciRgtMbAAxX3gnKM?N2oeYylz3H-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25,
Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-11=-60, 11-43=-60, 20-43=-20, 20-21=-60,
37-40=-20
Concentrated Loads (lb)
Vert: 44=-194 (B), 45=-194 (B), 46=-194 (B),
47=-194 (B), 48=-194 (B), 49=-194 (B), 50=-194 (B),
51=-194 (B)



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
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August 21,2025

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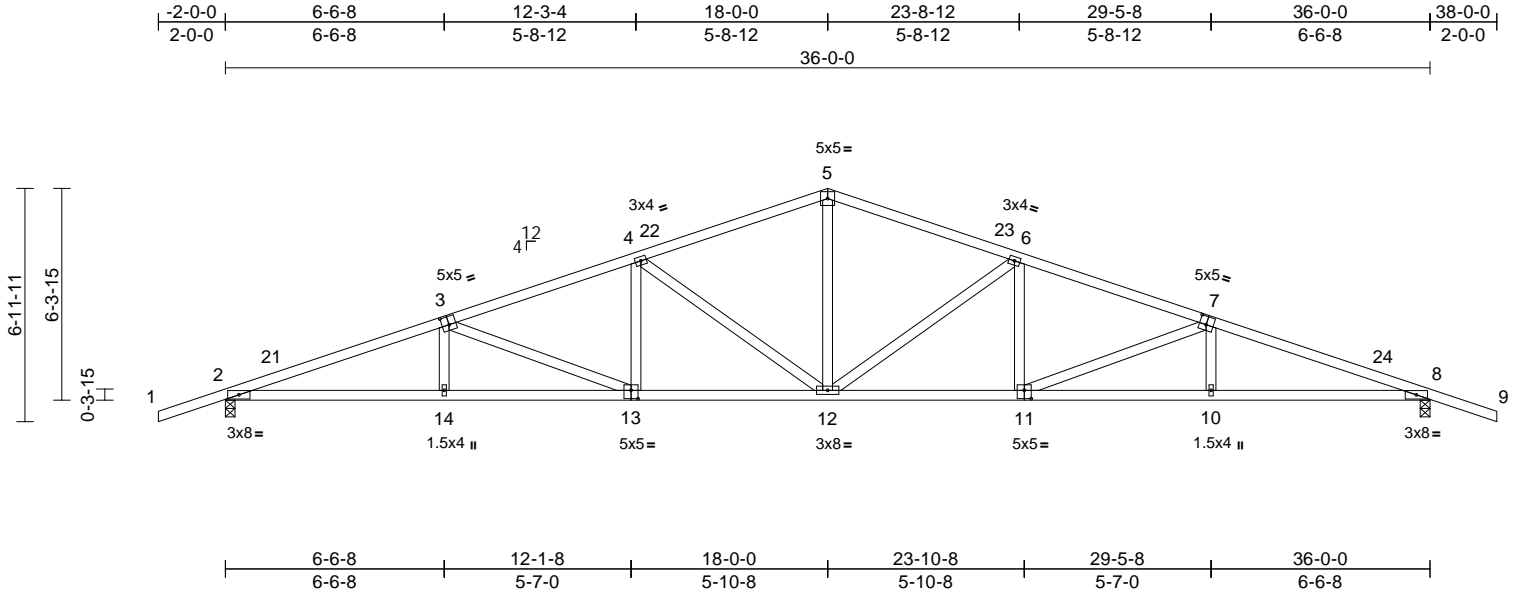
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Bedenbaugh	T38294638
0825-043	A02	Common	15	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:68.9

Plate Offsets (X, Y): [3:0-2-8,0-3-0], [7:0-2-8,0-3-0], [11:0-2-8,0-3-0], [13:0-2-8,0-3-0]

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	0.57	Vert(LL)	-0.28	12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.58	12-13	>746	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.18	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 179 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.

REACTIONS

(size) 2=0-3-8, 8=0-3-8
Max Horiz 2=83 (LC 11)
Max Uplift 2=-47 (LC 12), 8=-47 (LC 12)
Max Grav 2=1560 (LC 1), 8=1560 (LC 1)

FORCES

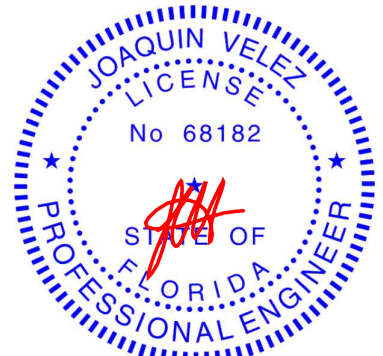
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-4=-3740/170, 4-5=-2333/176,
5-6=-2333/176, 6-8=-3740/170, 8-9=0/38
BOT CHORD 2-14=-57/3500, 12-14=-60/3494,
10-12=-81/3494, 8-10=-78/3500
WEBS 3-14=0/238, 3-13=-696/21, 4-13=0/426,
4-12=-856/82, 5-12=0/1108, 6-12=-856/82,
6-11=0/426, 7-11=-696/20, 7-10=0/238

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=36ft; eave=5ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 -2-0-0 to 1-7-3,
Zone1 1-7-3 to 18-0-0, Zone2 18-0-0 to 23-1-2, Zone1
23-1-2 to 38-0-0 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.
- 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.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 47 lb uplift at joint
2 and 47 lb uplift at joint 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



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21,2025

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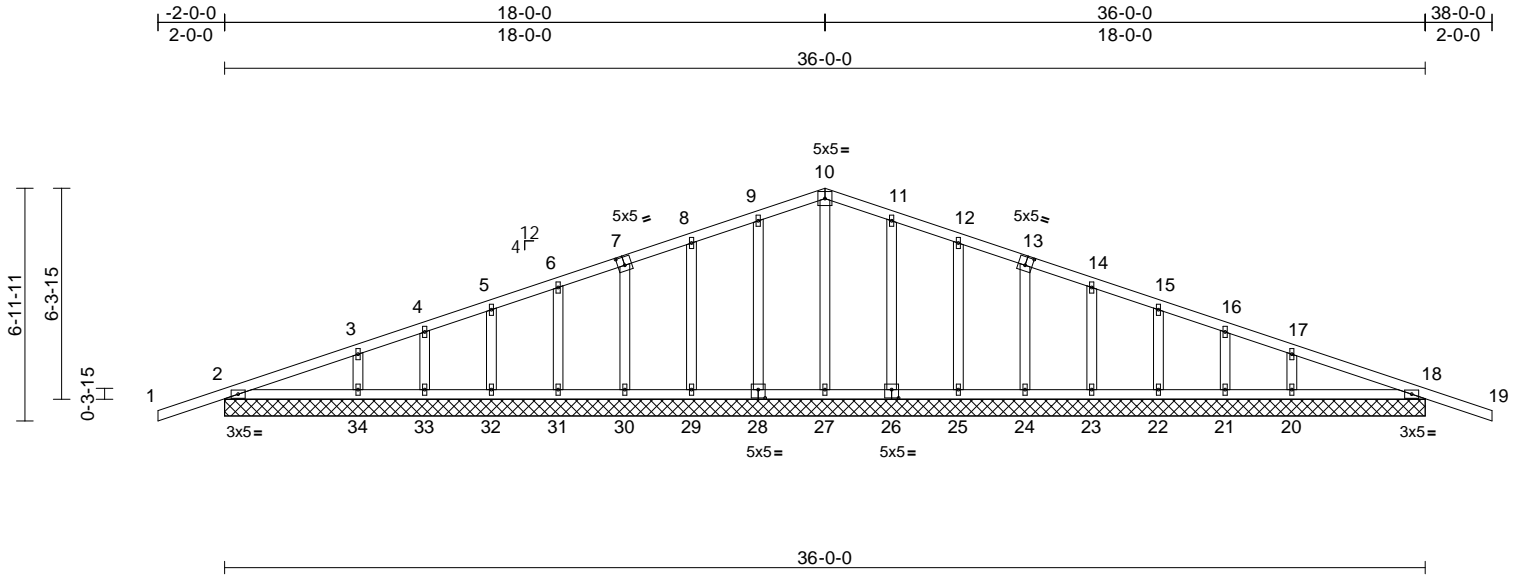
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Bedenbaugh	T38294639
0825-043	A03	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:40
ID:vJvIvZtDWJZfZTAzPPURccylz2v-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:69.1												
Plate Offsets (X, Y): [7:0-2-8,0-3-0], [13:0-2-8,0-3-0], [26:0-2-8,0-3-0], [28:0-2-8,0-3-0]												
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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	38	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 190 lb	FT = 20%

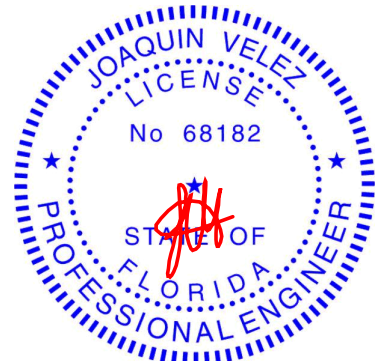
LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS (size)	
2=36-0-0, 18=36-0-0, 20=36-0-0, 21=36-0-0, 22=36-0-0, 23=36-0-0, 24=36-0-0, 25=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0, 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0	
Max Horiz	2=83 (LC 11)
Max Uplift	2=61 (LC 12), 18=61 (LC 12), 21=17 (LC 12), 22=2 (LC 12), 23=5 (LC 12), 24=5 (LC 12), 25=7 (LC 12), 26=3 (LC 12), 28=3 (LC 12), 29=7 (LC 12), 30=5 (LC 12), 31=5 (LC 12), 32=2 (LC 12), 33=17 (LC 12)
Max Grav	2=294 (LC 1), 18=294 (LC 1), 20=262 (LC 24), 21=119 (LC 1), 22=171 (LC 24), 23=155 (LC 1), 24=160 (LC 24), 25=161 (LC 1), 26=166 (LC 24), 27=148 (LC 1), 28=166 (LC 23), 29=161 (LC 1), 30=160 (LC 23), 31=155 (LC 1), 32=171 (LC 23), 33=119 (LC 1), 34=262 (LC 23)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/38, 2-3=115/63, 3-4=64/48, 4-5=54/57, 5-6=51/93, 6-8=57/162, 8-9=68/198, 9-10=80/232, 10-11=80/232, 11-12=69/198, 12-14=57/162, 14-15=35/93, 15-16=28/58, 16-17=36/24, 17-18=112/62, 18-19=0/38

BOT CHORD	
2-34=66/137, 33-34=31/108, 32-33=31/108, 31-32=31/108, 30-31=31/108, 29-30=31/109, 27-29=31/109, 25-27=31/109, 24-25=31/109, 23-24=31/108, 22-23=31/108, 21-22=31/108, 20-21=31/108, 18-20=66/140	
WEBS	
10-27=108/0, 9-28=126/83, 8-29=121/91, 7-30=120/87, 6-31=116/85, 5-32=126/90, 4-33=95/81, 3-34=185/120, 11-26=126/83, 12-25=121/91, 13-24=120/87, 14-23=116/85, 15-22=126/90, 16-21=95/81, 17-20=185/120	

- 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=36ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 1.5x4 (||) MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2, 61 lb uplift at joint 18, 3 lb uplift at joint 28, 7 lb uplift at joint 29, 5 lb uplift at joint 30, 5 lb uplift at joint 31, 2 lb uplift at joint 32, 17 lb uplift at joint 33, 3 lb uplift at joint 26, 7 lb uplift at joint 25, 5 lb uplift at joint 24, 5 lb uplift at joint 23, 2 lb uplift at joint 22, 17 lb uplift at joint 21, 61 lb uplift at joint 2 and 61 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



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21,2025

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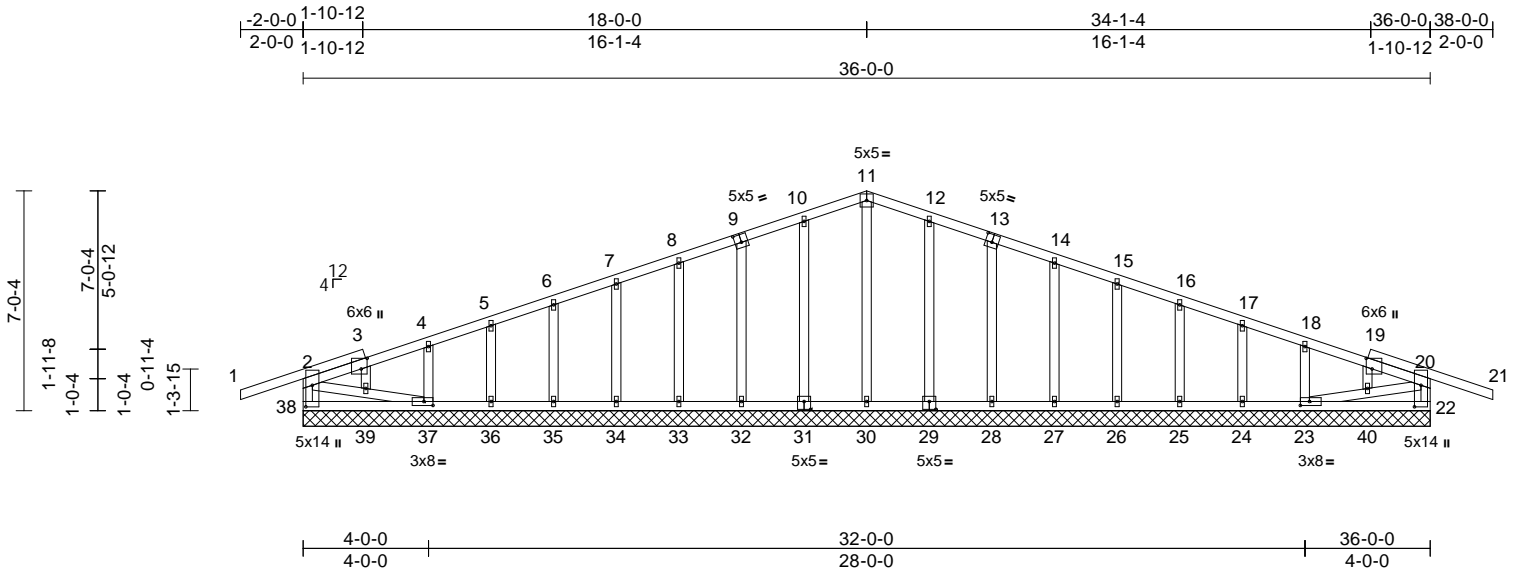
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Bedenbaugh	T38294640
0825-043	B01	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:40
ID:8hl0yayYQy_RRoMMYs7cXaylz45-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f

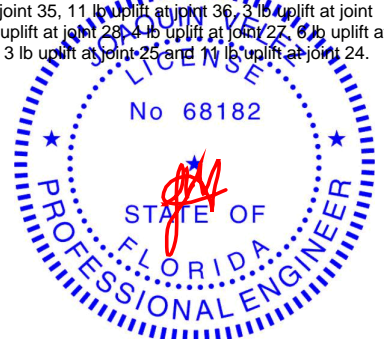
Page: 1



Scale = 1:73.6												
Plate Offsets (X, Y): [3:0-4-1,0-2-4], [9:0-2-8,0-3-0], [13:0-2-8,0-3-0], [19:0-4-1,0-2-4], [22:0-8-4,0-2-8], [23:0-3-8,0-1-8], [29:0-2-8,0-3-0], [31:0-2-8,0-3-0], [37:0-3-8,0-1-8], [38:0-8-4,0-2-8]												
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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	22	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 226 lb	FT = 20%

LUMBER		TOP CHORD		2-38=273/187, 20-22=273/179, 1-2=0/33, 2-3=86/41, 3-4=64/50, 4-5=65/44, 5-6=59/59, 6-7=55/95, 7-8=51/130, 8-10=67/200, 10-11=78/234, 11-12=78/234, 12-14=67/200, 14-15=49/130, 15-16=41/95, 16-17=31/59, 17-18=37/27, 18-19=34/16, 19-20=57/8, 20-21=0/33		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.	
TOP CHORD		2x4 SP No.2		35-36=28/116, 34-35=28/116, 33-34=28/116, 32-33=28/116, 30-32=28/117, 28-30=28/117, 27-28=28/116, 26-27=28/116, 25-26=28/116, 24-25=28/116, 23-24=28/116, 22-23=0/37		5) All plates are 1.5x4 () MT20 unless otherwise indicated.	
BOT CHORD		2x4 SP No.2		11-30=107/0, 10-31=129/85, 9-32=119/89, 8-33=118/85, 7-34=120/87, 6-35=123/90, 5-36=109/80, 4-37=154/117, 3-39=13/8, 12-29=129/85, 13-28=119/89, 14-27=118/85, 15-26=120/87, 16-25=123/90, 17-24=109/80, 18-23=154/117, 19-40=13/8, 2-39=66/95, 37-39=67/97, 23-40=47/84, 20-40=45/82		6) Gable requires continuous bottom chord bearing.	
WEBS		2x4 SP No.2				7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).	
OTHERS		2x4 SP No.2				8) Gable studs spaced at 2-0-0 oc.	
BRACING		Structural wood sheathing directly applied, except end verticals.				9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
REACTIONS		Rigid ceiling directly applied.				10) * 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.	
(size)		22=36-0-0, 23=36-0-0, 24=36-0-0, 25=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0, 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0, 35=36-0-0, 36=36-0-0, 37=36-0-0, 38=36-0-0				11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 38, 53 lb uplift at joint 22, 3 lb uplift at joint 31, 6 lb uplift at joint 32, 4 lb uplift at joint 33, 6 lb uplift at joint 34, 3 lb uplift at joint 35, 11 lb uplift at joint 36, 3 lb uplift at joint 29, 6 lb uplift at joint 28, 4 lb uplift at joint 27, 6 lb uplift at joint 26, 3 lb uplift at joint 25 and 11 lb uplift at joint 24.	
Max Horiz		38=105 (LC 11)					
Max Uplift		22=53 (LC 12), 24=11 (LC 12), 25=3 (LC 12), 26=6 (LC 12), 27=4 (LC 12), 28=6 (LC 12), 29=3 (LC 12), 31=3 (LC 12), 32=6 (LC 12), 33=4 (LC 12), 34=6 (LC 12), 35=3 (LC 12), 36=11 (LC 12), 38=53 (LC 12)					
Max Grav		22=310 (LC 1), 23=231 (LC 24), 24=136 (LC 1), 25=166 (LC 24), 26=159 (LC 1), 27=158 (LC 24), 28=159 (LC 1), 29=169 (LC 24), 30=146 (LC 1), 31=169 (LC 23), 32=159 (LC 1), 33=158 (LC 23), 34=159 (LC 1), 35=166 (LC 23), 36=136 (LC 1), 37=231 (LC 23), 38=310 (LC 1)					
FORCES		(lb) - Maximum Compression/Maximum Tension					

- 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=36ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 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) 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.



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21,2025

Job	Truss	Truss Type	Qty	Ply	Bedenbaugh
0825-043	B01	Common Supported Gable	1	1	T38294640
					Job Reference (optional)

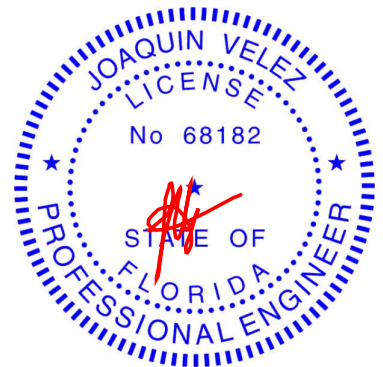
Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:40
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Page: 2

- 12) 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



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21, 2025

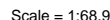
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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.sbccomponents.com)

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Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:40 Page: 1
ID:bXDGKsxsC8PMmTxD1pcv7tvlz5P-RfC?PsB70Hq3NSqPanL8w3uITXbGKWrCDoi7J4zJC?f



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	0.67	Vert(LL)	-0.33	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.56	15-16	>768	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Attic	-0.24	15-16	>519	360	Weight: 252 lb	FT = 20%

- 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.
- 6) Ceiling dead load (10.0 psf) on member(s). 5-6, 8-9, 6-18, 8-18
- 7) Bottom chord live load (20.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 15-16
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 2 and 90 lb uplift at joint 12.
- 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.
- 10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDF=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=36ft; eave=5ft; Cat. II; Exp B; Partially
Enclosed; MWFRS (directional) and C-C Zone3 -2-0-0 to
1-7-3, Zone1 1-7-3 to 18-0-0, Zone2 18-0-0 to 23-1-12,
Zone1 23-1-12 to 38-0-0 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



August 21, 2025



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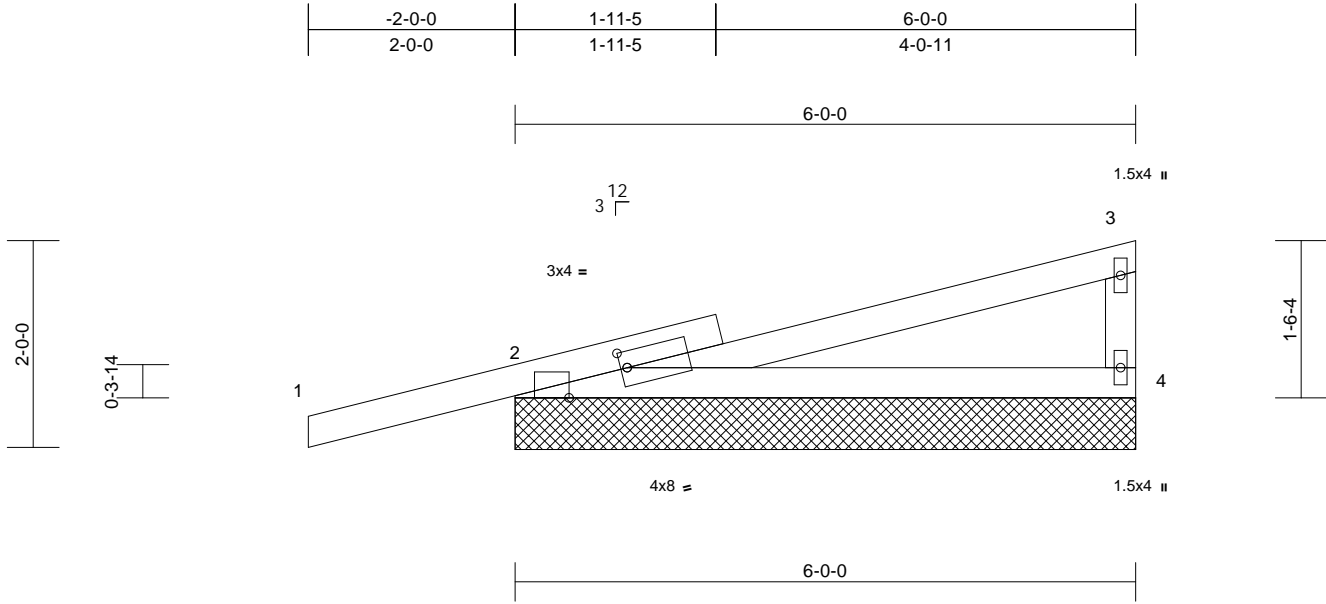
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Job	Truss	Truss Type	Qty	Ply	Bedenbaugh	T38294642
0825-043	J01	Jack-Open Supported Gable	2	1	Job Reference (optional)	

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

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ID:pRmOa?y2Zfm1k8T46baljNylz1W-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:22.3

Plate Offsets (X, Y): [2:0-0-12,0-1-14], [2:0-6-12,Edge]

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	0.42	Vert(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							
										Weight: 24 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.

REACTIONS (size) 2=6-0-0, 4=6-0-0
Max Horiz 2=51 (LC 9)
Max Uplift 2=-98 (LC 8)
Max Grav 2=485 (LC 1), 4=240 (LC 1)

FORCES

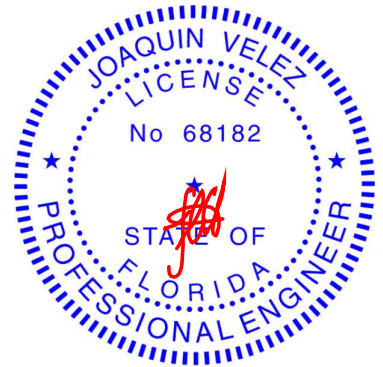
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-66/39, 3-4=-156/205
BOT CHORD 2-4=-54/37

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=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 2 and 98 lb uplift at joint 2.
- 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



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21,2025

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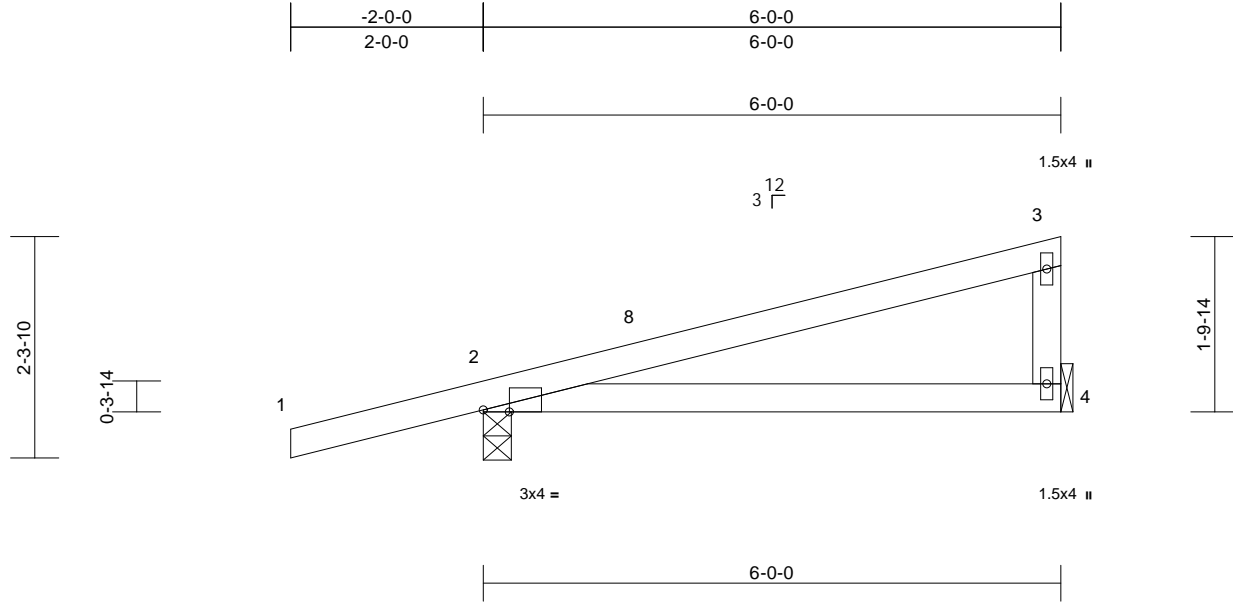
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Bedenbaugh	T38294643
0825-043	J02	Jack-Closed	8	1	Job Reference (optional)	

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

Run: 8.83 S Aug 14 2025 Print: 8.830 S Aug 14 2025 MiTek Industries, Inc. Wed Aug 20 14:21:41
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Page: 1



Scale = 1:23.9

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

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)	0.05	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	-0.10	4-7	>738	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 23 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.

REACTIONS (size)

2=0-3-8, 4= Mechanical
Max Horiz 2=48 (LC 11)
Max Uplift 2=-57 (LC 12)
Max Grav 2=375 (LC 1), 4=214 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

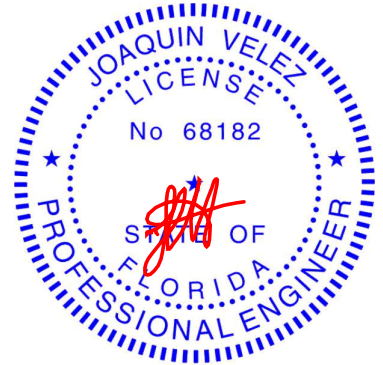
TOP CHORD 1-2=0/29, 2-3=-137/43, 3-4=-145/122
BOT CHORD 2-4=-22/129

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=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -2-0-0 to 1-1-0, Zone1 1-1-0 to 5-10-4 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.
- 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.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 2.
- 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



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 21, 2025

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

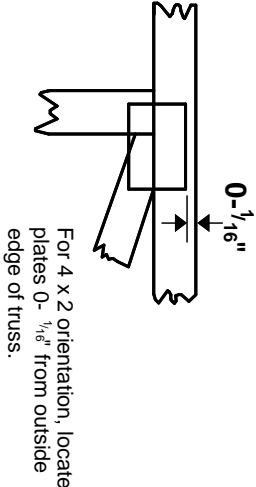
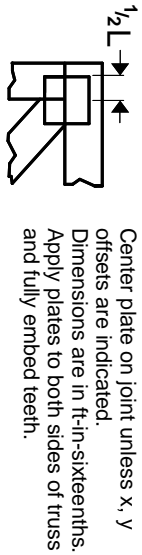
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Symbols

PLATE LOCATION AND ORIENTATION



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

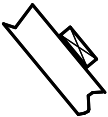
This symbol indicates the required direction of slots in connector plates.

PLATE SIZE

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

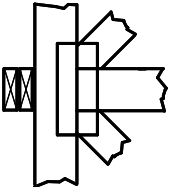
4 X 4

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.

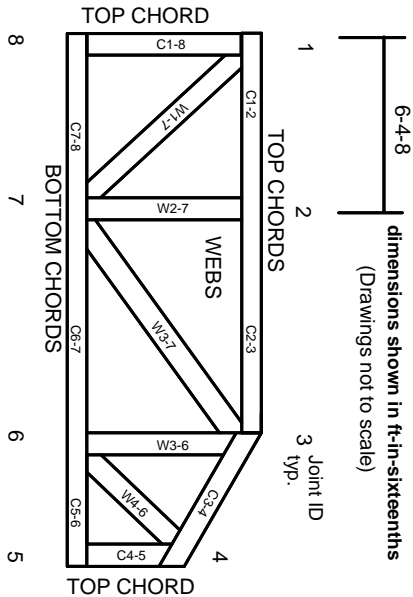
BEARING



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 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.