



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

RE: 1223-055 -

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer Info: JOSHUA WEHINGER Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: COLUMBIA CO. 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 18 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.

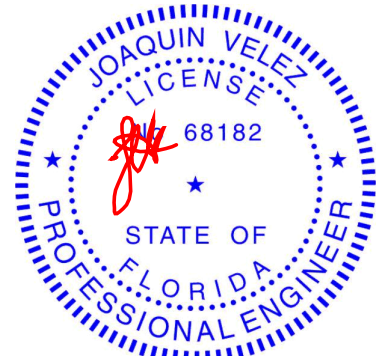
No.	Seal#	Truss Name	Date
1	T34126667	A01	6/11/24
2	T34126668	A02	6/11/24
3	T34126669	A2A	6/11/24
4	T34126670	A03	6/11/24
5	T34126671	A3A	6/11/24
6	T34126672	A04	6/11/24
7	T34126673	A05	6/11/24
8	T34126674	B01	6/11/24
9	T34126675	F01	6/11/24
10	T34126676	F02	6/11/24
11	T34126677	F03	6/11/24
12	T34126678	F04	6/11/24
13	T34126679	M01	6/11/24
14	T34126680	PB01	6/11/24
15	T34126681	PB1A	6/11/24
16	T34126682	PB1B	6/11/24
17	T34126683	PB1C	6/11/24
18	T34126684	PB02	6/11/24

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: Velez, Joaquin

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.



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

June 11,2024

Velez, Joaquin

1 of 1

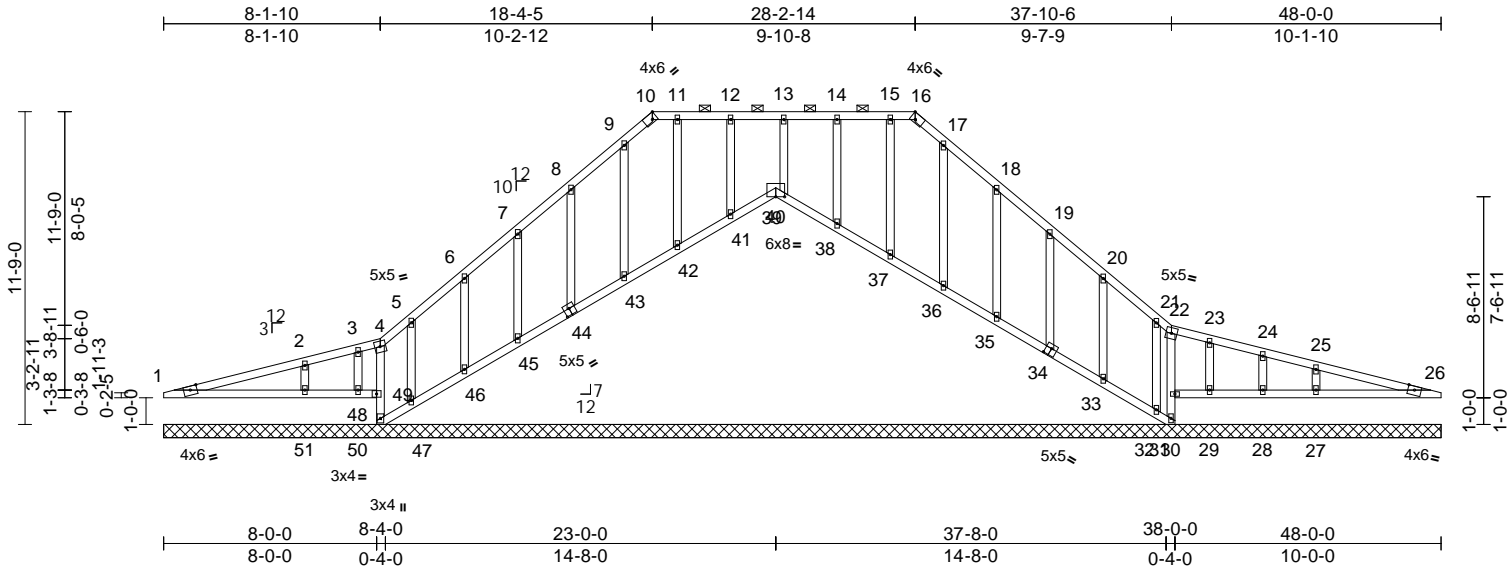
Job	Truss	Truss Type	Qty	Ply	
1223-055	A01	Piggyback Base Supported Gable	1	1	T34126667
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:51

Page: 1

ID:apV0puh3AaQXv5S4OPY1Uby4UUd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7JzJC?f



Scale = 1:86.6

Plate Offsets (X, Y): [10:0-2-4,Edge], [16:Edge,0-2-11], [34:0-2-8,0-3-0], [40:0-4-0,Edge], [44:0-2-8,0-3-0]

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	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.03	26	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 272 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (10-0-0 max.): 10-16.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 1=48-0-0, 26=48-0-0, 27=48-0-0, 28=48-0-0, 29=48-0-0, 30=48-0-0, 31=48-0-0, 32=48-0-0, 33=48-0-0, 34=48-0-0, 35=48-0-0, 36=48-0-0, 37=48-0-0, 38=48-0-0, 39=48-0-0, 40=48-0-0, 41=48-0-0, 42=48-0-0, 43=48-0-0, 44=48-0-0, 45=48-0-0, 46=48-0-0, 47=48-0-0, 48=48-0-0, 49=48-0-0, 50=48-0-0, 51=48-0-0
Max Horiz 1=-196 (LC 10)
Max Uplift 1=-3 (LC 8), 27=-6 (LC 12), 28=-2 (LC 12), 29=-1 (LC 12), 30=-16 (LC 12), 31=-25 (LC 12), 32=-23 (LC 12), 33=-35 (LC 12), 34=-28 (LC 12), 35=-54 (LC 12), 38=-23 (LC 12), 40=-24 (LC 11), 41=-24 (LC 12), 44=-54 (LC 12), 45=-29 (LC 12), 46=-33 (LC 12), 47=-46 (LC 12), 48=-1 (LC 12), 49=-60 (LC 8), 50=-54 (LC 1), 51=-7 (LC 12)

FORCES

TOP CHORD

BOT CHORD

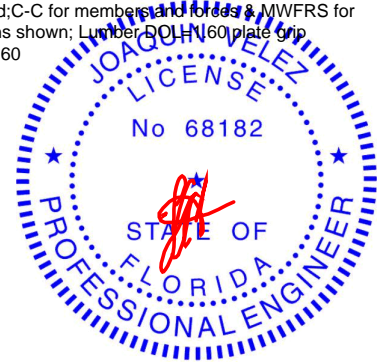
Max Grav 1=169 (LC 23), 26=140 (LC 24), 27=350 (LC 24), 28=78 (LC 1), 29=169 (LC 24), 30=44 (LC 24), 31=12 (LC 11), 32=127 (LC 18), 33=180 (LC 18), 34=170 (LC 18), 35=179 (LC 18), 36=162 (LC 1), 37=167 (LC 17), 38=162 (LC 23), 39=154 (LC 1), 40=49 (LC 12), 41=160 (LC 24), 42=174 (LC 17), 43=191 (LC 17), 44=169 (LC 17), 45=172 (LC 17), 46=180 (LC 17), 47=130 (LC 17), 48=18 (LC 3), 49=148 (LC 18), 50=26 (LC 12), 51=458 (LC 23)
(lb) - Maximum Compression/Maximum Tension
10-11=-141/439, 11-12=-141/439, 12-13=-141/439, 13-14=-141/439, 14-15=-141/439, 15-16=-141/439, 1-2=-368/193, 2-3=-158/171, 3-4=-147/180, 4-5=-201/223, 5-6=-194/209, 6-7=-176/249, 7-8=-157/351, 8-9=-161/486, 9-10=-156/462, 16-17=-156/462, 17-18=-161/486, 18-19=-116/351, 19-20=-83/249, 20-21=-46/135, 21-22=-13/51, 22-23=-19/37, 23-24=-35/43, 24-25=-56/37, 25-26=-212/59, 1-51=-56/330, 50-51=-41/97, 49-50=-41/97, 48-49=0/0, 4-49=-116/64, 47-48=-31/84, 46-47=-42/107, 45-46=-42/103, 43-45=-42/104, 42-43=-42/104, 41-42=-42/104, 40-41=-42/101, 29-30=-43/122, 28-29=-43/122, 27-28=-43/122, 26-27=-43/196, 39-40=-38/94, 38-39=-42/104, 37-38=-42/104, 36-37=-42/104, 35-36=-42/104, 33-35=-42/104, 32-33=-41/104, 31-32=-33/102

WEBS

8-44=-129/190, 9-43=-151/23, 11-42=-167/21, 12-41=-121/127, 13-39=-121/57, 14-38=-121/126, 15-37=-167/21, 17-36=-121/0, 18-35=-139/190, 19-34=-130/135, 20-33=-139/154, 21-32=-93/109, 23-29=-120/79, 24-28=-76/63, 25-27=-228/134, 7-45=-132/135, 6-46=-138/153, 5-47=-103/120, 3-50=0/29, 2-51=-293/165, 30-31=0/0, 22-30=-36/52

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=48ft; 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 for plates; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



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

June 11,2024

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

Job	Truss	Truss Type	Qty	Ply	
1223-055	A01	Piggyback Base Supported Gable	1	1	T34126667 Job Reference (optional)

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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.
- 11) All bearings are assumed to be SP No.2 .
- 12) Bearing at joint(s) 49, 30 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 60 lb uplift at joint 49, 1 lb uplift at joint 48, 24 lb uplift at joint 40, 16 lb uplift at joint 30, 25 lb uplift at joint 31, 54 lb uplift at joint 44, 24 lb uplift at joint 41, 23 lb uplift at joint 38, 54 lb uplift at joint 35, 28 lb uplift at joint 34, 35 lb uplift at joint 33, 23 lb uplift at joint 32, 1 lb uplift at joint 29, 2 lb uplift at joint 28, 6 lb uplift at joint 27, 29 lb uplift at joint 45, 33 lb uplift at joint 46, 46 lb uplift at joint 47, 54 lb uplift at joint 50 and 7 lb uplift at joint 51.
- 14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 40, 26, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 33, 32, 29, 28, 27, 45, 46, 47, 50, 51.
- 15) 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

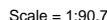
LOAD CASE(S) Standard

⚠ 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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Page: 1

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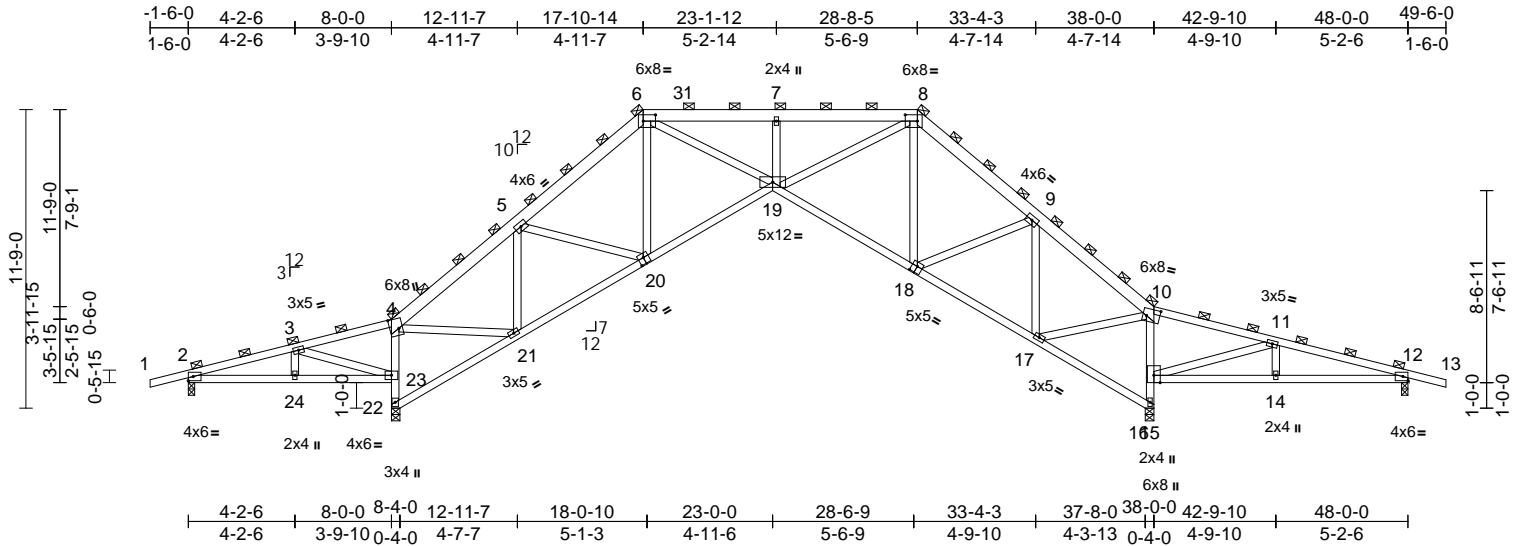
Job	Truss	Truss Type	Qty	Ply	
1223-055	A2A	Piggyback Base Girder	1	2	T34126669
Job Reference (optional)					

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

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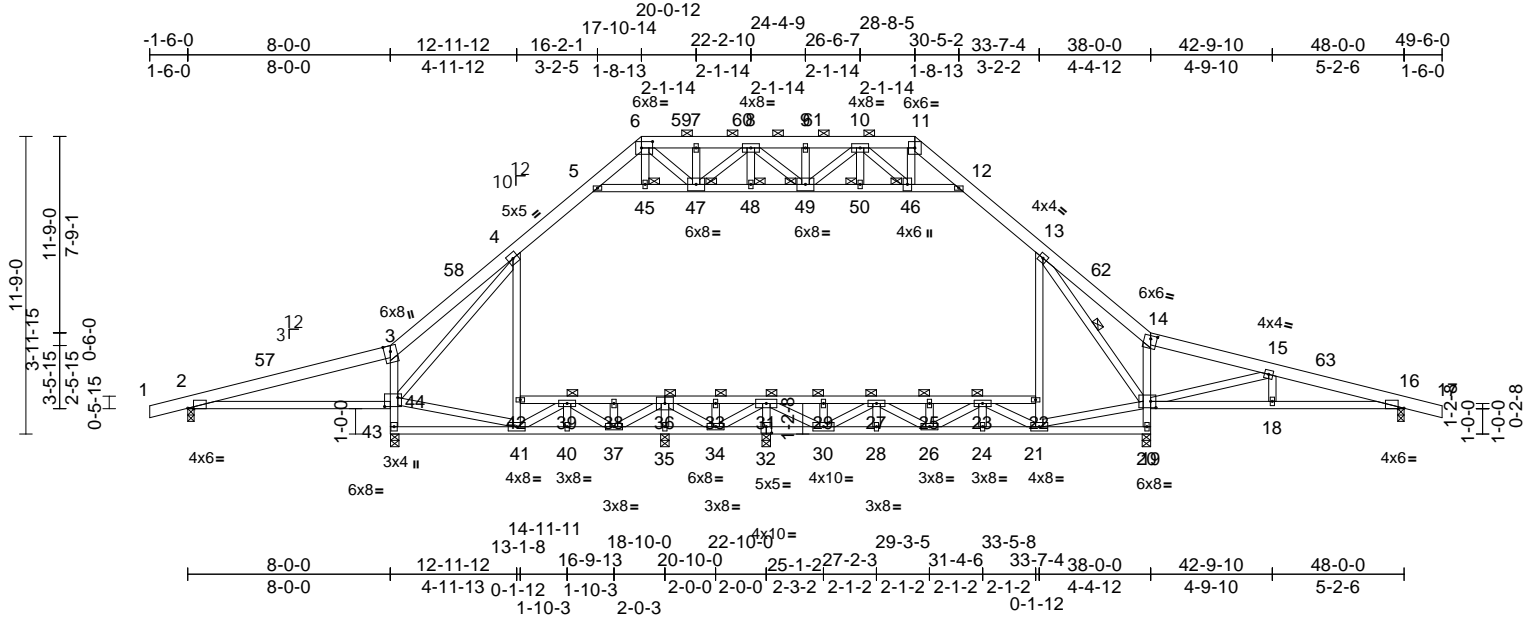
Job	Truss	Truss Type	Qty	Ply	
1223-055	A03	Attic	6	1	T34126670
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:51


Page: 1

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Scale = 1:90.9									
Plate Offsets (X, Y): [2:0-2-12,Edge], [6:0-5-4,0-3-0], [14:0-3-0,0-1-8], [16:0-2-12,Edge], [19:0-2-8,0-3-0], [32:0-2-8,0-3-0], [44:0-6-4,0-4-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	-0.06 44-53	>999	240
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.14 44-53	>719	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.03 16	n/a	n/a
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Attic	-0.03 22-42	>999	360
Weight: 404 lb FT = 20%									

LUMBER		BOT CHORD	2-44=0/433, 43-44=-1466/55, 3-44=-589/157, 41-43=-8/14, 40-41=0/691, 37-40=0/691, 35-37=-443/204, 34-35=-443/203, 30-34=-984/0, 28-30=0/1143, 26-28=0/1143, 24-26=0/1263, 21-24=0/1263, 20-21=-298/1, 18-19=-122/806, 16-18=-122/806, 39-42=-12/22, 38-39=-96/446, 33-38=-96/1134, 31-33=0/1134, 29-31=-13/321, 27-29=-13/321, 25-27=-872/0, 23-25=-872/0, 22-23=-49/18, 41-44=0/789, 4-44=-917/82, 41-42=-186/101, 4-42=-157/180, 21-22=-17/329, 13-22=0/487, 5-45=-367/98, 45-47=-364/99, 47-48=-67/398, 48-49=-67/398, 49-50=-136/256, 46-50=-136/256, 12-46=-340/102, 35-36=-675/4, 31-32=-1202/0, 39-40=-12/25, 37-38=-193/0, 33-34=-178/0, 29-30=-218/0, 27-28=0/73, 25-26=-224/0, 23-24=-13/29, 21-23=-739/0, 23-26=0/214, 26-27=0/350, 27-30=-870/0, 30-31=0/1415, 31-34=-35/546, 34-36=-243/181, 36-37=0/859, 37-39=-446/32, 39-41=-97/193, 15-18=0/216, 6-45=-1/40, 11-46=-72/359, 7-47=-113/46, 8-48=-1/29, 9-49=-110/44, 10-50=-1/23, 10-46=-491/126, 10-49=-53/239, 8-49=-54/22, 8-47=-281/69, 6-47=-111/472, 19-20=-1966/5, 14-19=-390/170, 19-21=0/1033, 13-19=-1605/0, 15-19=-739/49
TOP CHORD 2x6 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.2		BRACING TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-11. Rigid ceiling directly applied. BOT CHORD WEBS 1 Row at midpt 13-19 JOINTS 1 Brace at Jt(s): 36, 31, 39, 33, 29, 27, 25, 23, 45, 46, 47, 48, 49, 50	WEBS
REACTIONS (size) 2=0-3-0, 16=0-3-0, 20=0-4-0, 32=0-4-0, 35=0-4-0, 43=0-4-0 Max Horiz 2=-195 (LC 10) Max Uplift 2=-28 (LC 8), 16=-44 (LC 9) Max Grav 2=466 (LC 1), 16=514 (LC 1), 20=1981 (LC 19), 32=1309 (LC 16), 35=743 (LC 18), 43=1522 (LC 18)			
FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/22, 2-3=-484/95, 3-4=-557/185, 4-5=-1026/211, 5-6=-758/158, 6-7=-867/212, 7-8=-867/212, 8-9=-1040/256, 9-10=-1040/256, 10-11=-594/148, 11-12=-755/153, 12-13=-1016/210, 13-14=-457/384, 14-15=-336/338, 15-16=-850/193, 16-17=0/22			
NOTES 1) Unbalanced roof live loads have been considered for			2) Wind: ASCE 7-22; Vults=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=48ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 3-3-10, Zone1 3-3-10 to 17-10-14, Zone2 17-10-14 to 24-8-5, Zone1 24-8-5 to 28-8-5, Zone2 28-8-5 to 35-5-13, Zone1 35-5-13 to 49-6-0 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) All plates are 2x4 MT20 unless otherwise indicated. 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=48ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 3-3-10, Zone1 3-3-10 to 17-10-14, Zone2 17-10-14 to 24-8-5, Zone1 24-8-5 to 28-8-5, Zone2 28-8-5 to 35-5-13, Zone1 35-5-13 to 49-6-0 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



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

June 11,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	
1223-055	A03	Attic	6	1	T34126670
Job Reference (optional)					

- 8) Ceiling dead load (5.0 psf) on member(s). 3-4, 4-5, 12-13, 13-14, 5-45, 45-47, 47-48, 48-49, 49-50, 46-50, 12-46; Wall dead load (5.0psf) on member(s).4-42, 13-22
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 39-42, 38-39, 36-38, 33-36, 31-33, 29-31, 27-29, 25-27, 23-25, 22-23
- 10) All bearings are assumed to be SP No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2 and 44 lb uplift at joint 16.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

 **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®

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

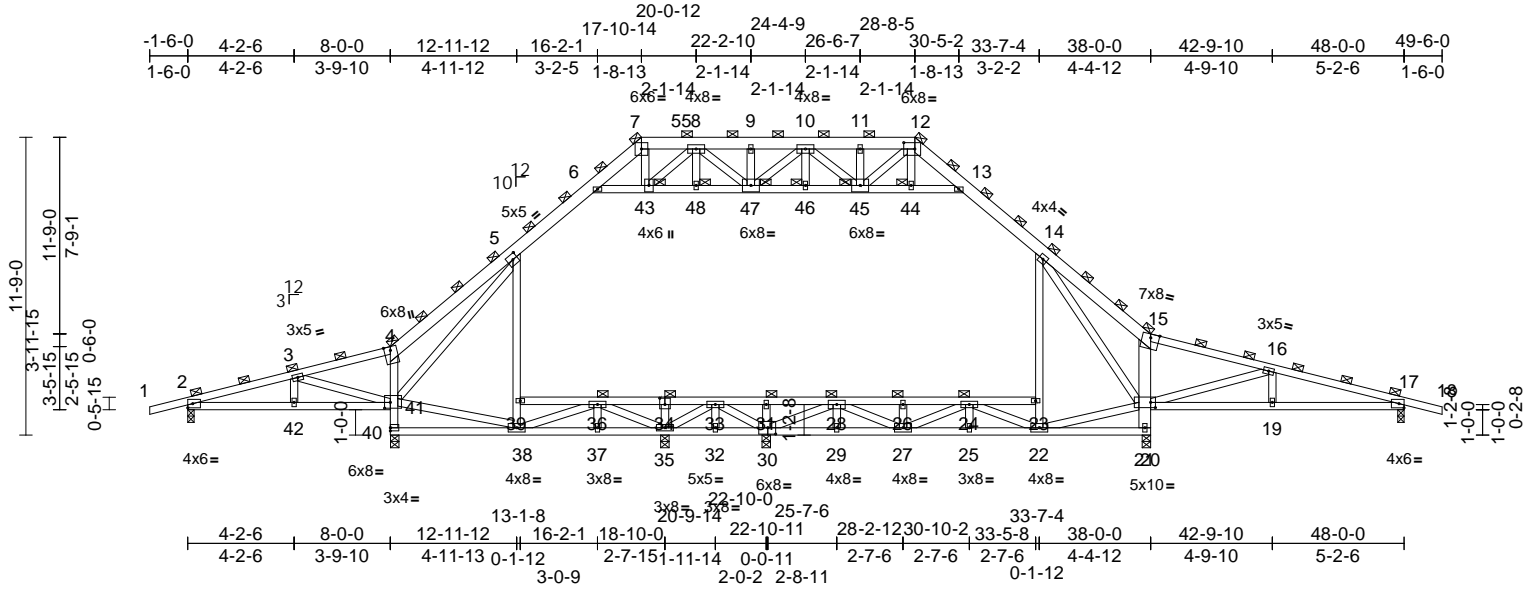
Job	Truss	Truss Type	Qty	Ply	
1223-055	A3A	Attic Girder	1	2	T34126671
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:50

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Scale = 1:90.9

Plate Offsets (X, Y): [5:0-2-4,0-2-8], [12:0-5-4,0-3-0], [20:0-2-4,0-2-8], [30:0-3-12,0-3-0], [34:0-2-8,0-3-0], [41:0-2-12,0-2-12]

Loading	(psf)	Spacing	4-10-8	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	-0.07	24-26	>999	240	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.86	Vert(CT)	-0.11	24-26	>999	180	
BCLL	0.0*	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.06	17	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Attic	-0.04	23-39	>999	360	Weight: 785 lb FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 1-4,15-18:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 15-21:2x6 SP No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
bracing.

JOINTS
1 Brace at Jt(s): 4,
7, 12, 15, 34, 31,
36, 28, 26, 24, 43,
44, 45, 46, 47, 48

REACTIONS (size)
2=0-3-0, 17=0-3-0, 21=0-4-0,
30=0-4-0, 35=0-4-0, 40=0-4-0
Max Horiz 2=-471 (LC 6)
Max Uplift 2=-48 (LC 4), 17=-65 (LC 5)
Max Grav 2=1089 (LC 1), 17=1296 (LC 1),
21=4982 (LC 15), 30=3212 (LC
12), 35=1762 (LC 14), 40=4026
(LC 14)

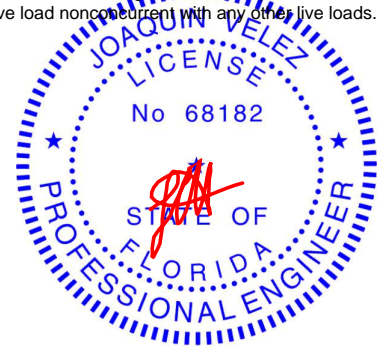
FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/53, 2-3=-1641/17, 3-4=-808/488,
4-5=-1059/632, 5-6=-2763/64, 6-7=-2119/0,
7-8=-1695/12, 8-9=-2974/10, 9-10=-2974/10,
10-11=-2489/10, 11-12=-2489/10,
12-13=-2133/0, 13-14=-2734/66,
14-15=-1147/917, 15-16=-916/679,
16-17=-2224/105, 17-18=0/53

BOT CHORD 2-42=-59/1522, 41-42=0/1522,
40-41=-3896/0, 4-41=-893/55, 38-40=-8/57,
37-38=0/1660, 35-37=0/1660,
32-35=-1228/287, 29-32=-1228/1818,
27-29=0/1818, 25-27=0/3430, 22-25=0/3430,
21-22=-1162/0, 19-20=-26/2074,
17-19=-26/2074, 36-39=-31/63,
33-36=0/2654, 31-33=0/3373, 28-31=0/3412,
26-28=-1938/0, 24-26=-1938/0, 23-24=-21/73
3-42=0/395, 3-41=-1310/33, 38-41=0/2039,
5-41=-3060/0, 38-39=-401/138,
5-39=-292/358, 22-23=-156/606,
14-23=-58/926, 16-19=0/542, 6-43=-772/173,
43-48=-130/798, 47-48=-130/798,
46-47=0/1296, 45-46=0/1296,
44-45=-660/181, 13-44=-673/176,
34-35=-679/0, 30-31=-825/0, 32-33=-77/71,
36-37=0/176, 35-36=-2292/0,
36-38=-152/719, 33-35=-284/756,
30-33=-1164/193, 28-29=0/197,
26-27=-690/0, 24-25=0/172, 22-24=-2101/0,
24-27=-99/69, 27-28=0/2047, 28-30=-3819/0,
7-43=0/1000, 12-44=0/151, 11-45=-267/56,
10-46=0/121, 9-47=-266/47, 8-48=0/104,
8-43=-1303/15, 8-47=0/665, 10-47=-118/36,
10-45=-775/13, 12-45=-2/1303,
20-21=-5034/0, 15-20=-888/140,
20-22=0/2963, 14-20=-3924/0,
16-20=-1822/7

NOTES

- 2-ply truss to be connected together with 10d
(0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0
oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at
0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 -
2 rows staggered at 0-9-0 oc.

- All loads are considered equally applied to all plies,
except if noted as front (F) or back (B) face in the LOAD
CASE(S) section. Ply to ply connections have been
provided to distribute only loads noted as (F) or (B),
unless otherwise indicated.
- Unbalanced roof live loads have been considered for
this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=48ft; eave=6ft; 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
- Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.



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

June 11,2024

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/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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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	
1223-055	A3A	Attic Girder	1	2	T34126671
			Job Reference (optional)		

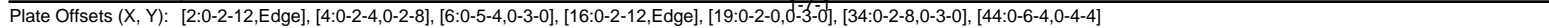
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Ceiling dead load (10.0 psf) on member(s). 4-5, 5-6, 13-14, 14-15, 6-43, 43-48, 47-48, 46-47, 45-46, 44-45, 13-44
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 36-39, 34-36, 33-34, 31-33, 28-31, 26-28, 24-26, 23-24
- 12) All bearings are assumed to be SP No.2 .
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2 and 65 lb uplift at joint 17.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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LUMBER **ROT CHORD** 2-44--86/130 13-44--1831/25 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)

BRACING		24-26=0/1254, 21-24=0/1254, 20-21=-28/23, 19-20=-1914/16, 14-19=-496/132, 18-19=-69/983, 16-18=-69/983, 39-42=-34/18, 35-39=-452/531, 33-35=0/531, 31-33=0/2057, 29-31=0/1113, 27-29=0/1113, 25-27=-601/0, 23-25=-601/0, 22-23=-7/34	Zone1 3-3-10 to 17-10-14, Zone2 17-10-14 to 24-8-5, Zone1 24-8-5 to 28-8-5, Zone2 28-8-5 to 35-5-13, Zone1 35-5-13 to 49-6-0 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
TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-11.		
BOT CHORD	Rigid ceiling directly applied.		
WEBS	1 Row at midpt 4-44, 13-19	WEBS	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.
JOINTS	1 Brace at Jt(s): 31, 45, 46, 47, 48, 49, 50, 39, 37, 35, 27, 25, 23		4) Provide adequate drainage to prevent water ponding.

FORCES	(lb) - Maximum Compression/Maximum Tension	33-34=-41/23, 29-30=-214/0, 27-28=0/78, 25-26=-245/0, 23-24=-75/2, 21-23=-662/0, 23-26=-41/38, 26-27=0/630, 27-30=-1208/0, 30-31=0/1304, 32-33=-917/0, 33-36=0/1380, 36-37=-766/0, 37-40=-8/257, 39-41=-476/0, 15-18=0/195
TOP CHORD	1-2=0/22, 2-3=-446/230, 3-4=-530/301, 4-5=-1165/149, 5-6=-865/85, 6-7=-996/126, 7-8=-996/126, 8-9=-1196/151, 9-10=-1196/151, 10-11=-683/93, 11-12=-862/81, 12-13=-1156/152, 13-14=-729/245, 14-15=-580/205, 15-16=-1034/139, 16-17=0/22	
	NOTES	
	1) Unbalanced roof live loads have been considered for this design.	

June 11, 2024

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Job	Truss	Truss Type	Qty	Ply	
1223-055	A04	Attic	3	1	T34126672
Job Reference (optional)					

- 8) Ceiling dead load (10.0 psf) on member(s). 3-4, 4-5, 12-13, 13-14, 5-50, 45-50, 45-46, 46-47, 47-48, 48-49, 12-49
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 39-42, 37-39, 35-37, 33-35, 31-33, 29-31, 27-29, 25-27, 23-25, 22-23
- 10) All bearings are assumed to be SP No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 2 and 25 lb uplift at joint 16.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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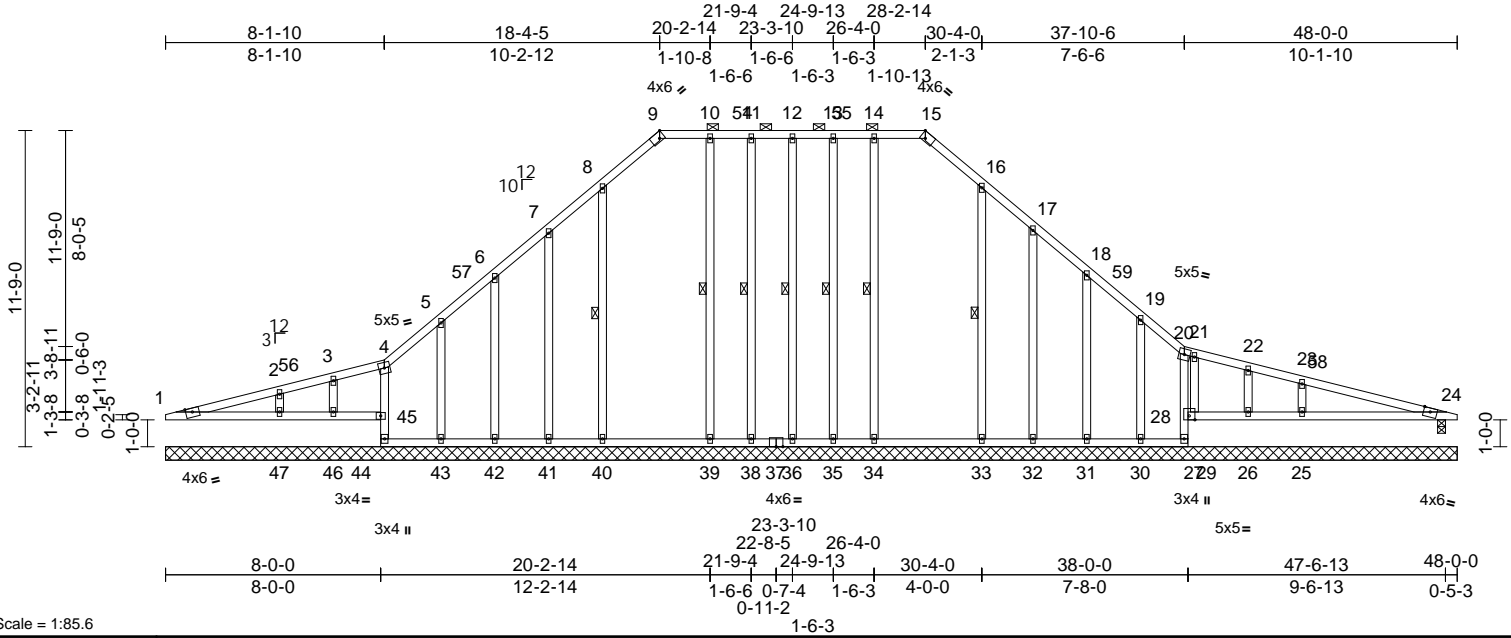
Job	Truss	Truss Type	Qty	Ply	
1223-055	A05	Piggyback Base Structural Gable	1	1	T34126673
Job Reference (optional)					

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

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Scale = 1:85.6

Plate Offsets (X, Y): [9:0-2-4,Edge], [15:Edge,0-2-11]

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)	-0.02	25-51	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	-0.04	25-51	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.03	24	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 336 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 9-15.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 12-36, 8-40, 16-33,
10-39, 14-34, 11-38,
13-35

REACTIONS (size)

1=48-0-0, 24=48-0-0, 25=48-0-0,
26=48-0-0, 27=48-0-0, 28=48-0-0,
29=48-0-0, 30=48-0-0, 31=48-0-0,
32=48-0-0, 33=48-0-0, 34=48-0-0,
35=48-0-0, 36=48-0-0, 38=48-0-0,
39=48-0-0, 40=48-0-0, 41=48-0-0,
42=48-0-0, 43=48-0-0, 44=48-0-0,
45=48-0-0, 46=48-0-0, 47=48-0-0
Max Horiz 1=196 (LC 10)
Max Uplift 25=8 (LC 12), 26=5 (LC 12),
28=204 (LC 12), 30=65 (LC 12),
31=21 (LC 12), 32=61 (LC 12),
35=37 (LC 12), 38=37 (LC 12),
41=61 (LC 12), 42=18 (LC 12),
43=67 (LC 12), 45=33 (LC 8),
47=4 (LC 12)

FORCES

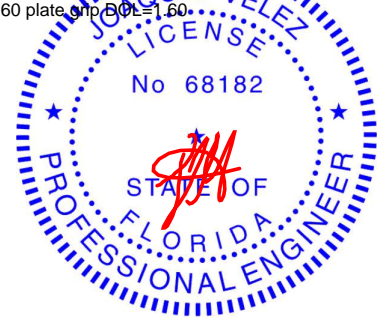
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 9-10=114/179, 10-11=114/179,
11-12=114/179, 12-13=114/179,
13-14=114/179, 14-15=114/179,
1-2=342/117, 2-3=163/101, 3-4=152/106,
4-5=210/146, 5-6=195/116, 6-7=182/99,
7-8=166/167, 8-9=162/187, 20-21=100/39,
21-22=108/46, 22-23=121/38,
23-24=143/59, 15-16=152/177,
16-17=111/152, 17-18=126/87,
18-19=126/35, 19-20=131/50
BOT CHORD 1-47=68/338, 46-47=68/181,
45-46=68/181, 44-45=0/0, 4-45=170/34,
43-44=56/151, 42-43=56/151,
41-42=56/151, 40-41=56/151,
39-40=56/151, 38-39=56/151,
36-38=56/151, 35-36=56/151,
34-35=56/151, 33-34=56/151,
32-33=56/151, 31-32=56/151,
30-31=56/151, 29-30=56/151, 28-29=0/0,
20-28=60/5, 27-28=56/152, 26-27=56/152,
25-26=56/152, 24-25=56/152

WEBS

12-36=92/38, 8-40=200/65, 7-41=109/123,
6-42=136/90, 5-43=139/62, 3-46=78/29,
2-47=221/107, 17-32=115/123,
18-31=138/94, 19-30=123/56,
21-27=117/27, 22-26=42/20,
23-25=288/139, 16-33=173/52,
10-39=169/0, 14-34=167/0, 11-38=81/71,
13-35=79/67

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=48ft; eave=6ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 0-0-0 to 4-9-10,
Zone1 4-9-10 to 18-4-5, Zone2 18-4-5 to 25-1-13, Zone1
25-1-13 to 28-2-14, Zone2 28-2-14 to 35-0-5, Zone1
35-0-5 to 47-5-1 zone; cantilever left and right exposed ;
end vertical left and right exposed; for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate and BDL=1.60



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

June 11,2024

Continued on page 2

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MiTek®

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	
1223-055	A05	Piggyback Base Structural Gable	1	1	T34126673 Job Reference (optional)

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:52
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Page: 2

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) N/A
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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, with BCDL = 10.0psf.
- 11) All bearings are assumed to be SP No.2 .
- 12) Bearing at joint(s) 45, 28 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 45, 204 lb uplift at joint 28, 61 lb uplift at joint 41, 18 lb uplift at joint 42, 67 lb uplift at joint 43, 4 lb uplift at joint 47, 61 lb uplift at joint 32, 21 lb uplift at joint 31, 65 lb uplift at joint 30, 5 lb uplift at joint 26, 8 lb uplift at joint 25, 37 lb uplift at joint 38 and 37 lb uplift at joint 35.
- 14) 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.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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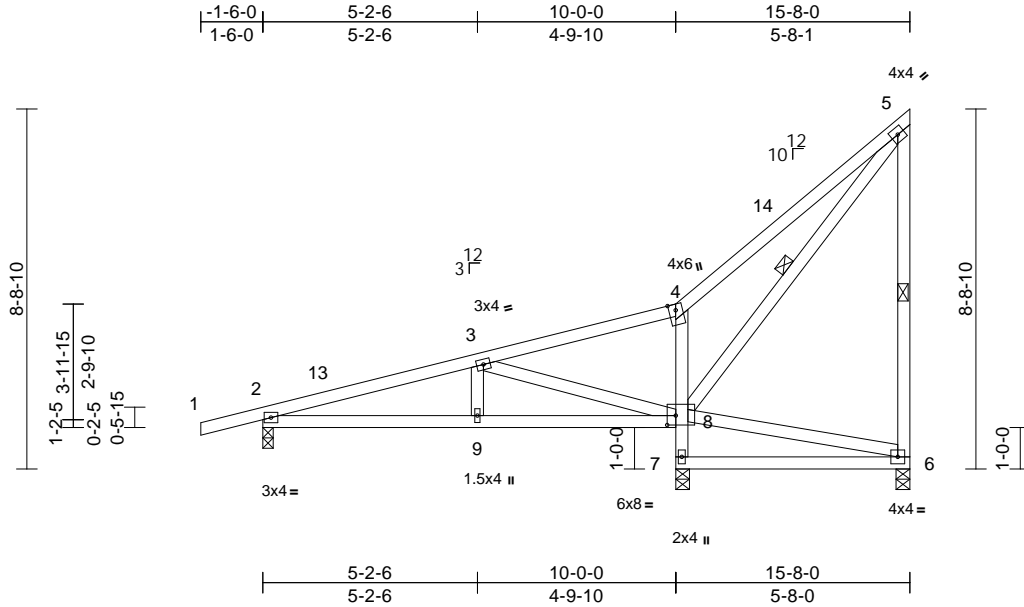
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
1223-055	B01	Roof Special	3	1	T34126674

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:52
ID:wC7m2Q6iRX_qG5HNBD6KBHy4UNc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:55.8

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

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	0.34	Vert(LL)	-0.03	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.24	Vert(CT)	-0.05	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 99 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 5-6, 5-8

REACTIONS

(size) 2=0-3-0, 6=0-4-0, 7=0-4-0
Max Horiz 2=239 (LC 11)
Max Uplift 2=-29 (LC 8), 6=-69 (LC 9), 7=-16 (LC 12)
Max Grav 2=445 (LC 1), 6=149 (LC 17), 7=780 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

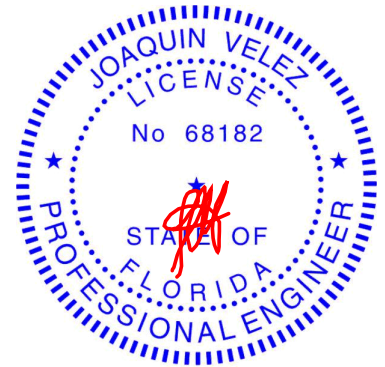
TOP CHORD 1-2=0/22, 2-3=-609/6, 3-4=-279/251, 4-5=-168/295, 5-6=-129/261
BOT CHORD 2-9=-226/558, 8-9=-218/558, 7-8=-725/125, 4-8=-236/145, 6-7=-20/54
WEBS 3-8=-742/107, 6-8=-145/131, 5-8=-274/7, 3-9=0/206

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 -1-6-0 to 1-6-0, Zone1 1-6-0 to 15-6-4 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
- 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) All bearings are assumed to be SP No.2 .
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 6, 29 lb uplift at joint 2 and 16 lb uplift at joint 7.
- 7) 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:

June 11,2024

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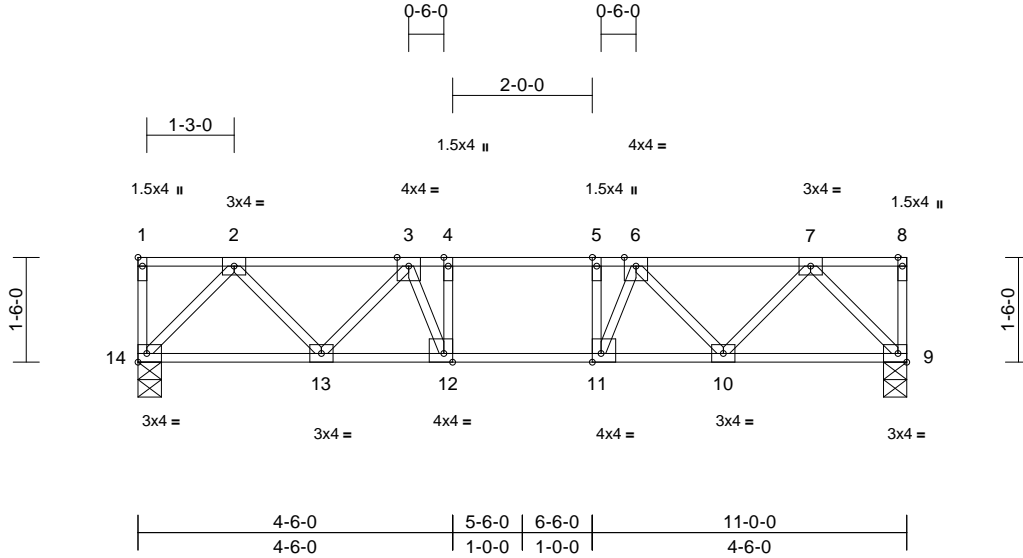
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	
1223-055	F01	Floor	2	1	T34126675
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:52
ID:7VYCv2_3VfqZ8c_umv8Rr_y4Ufs-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.05	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.41	Vert(CT)	-0.06	12-13	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-S							Weight: 60 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 9=0-4-0, 14=0-4-0
Max Grav 9=598 (LC 1), 14=598 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-14=-34/0, 8-9=-34/0, 1-2=0/0, 2-3=-829/0,
3-4=-1157/0, 4-5=-1157/0, 5-6=-1157/0,
6-7=-829/0, 7-8=0/0

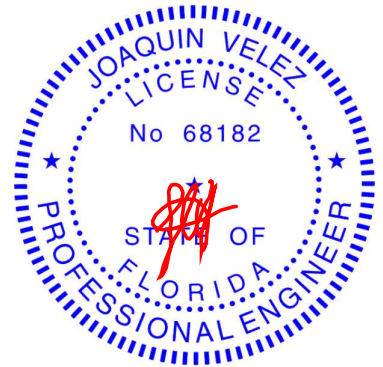
BOT CHORD 13-14=0/529, 12-13=0/1106, 11-12=0/1157,
10-11=0/1106, 9-10=0/529

WEBS 4-12=-286/25, 5-11=-287/25, 7-9=-765/0,
7-10=0/446, 6-10=-412/0, 6-11=-56/377,
2-14=-765/0, 2-13=0/446, 3-13=-412/0,
3-12=-56/376

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2 .
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



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

June 11,2024

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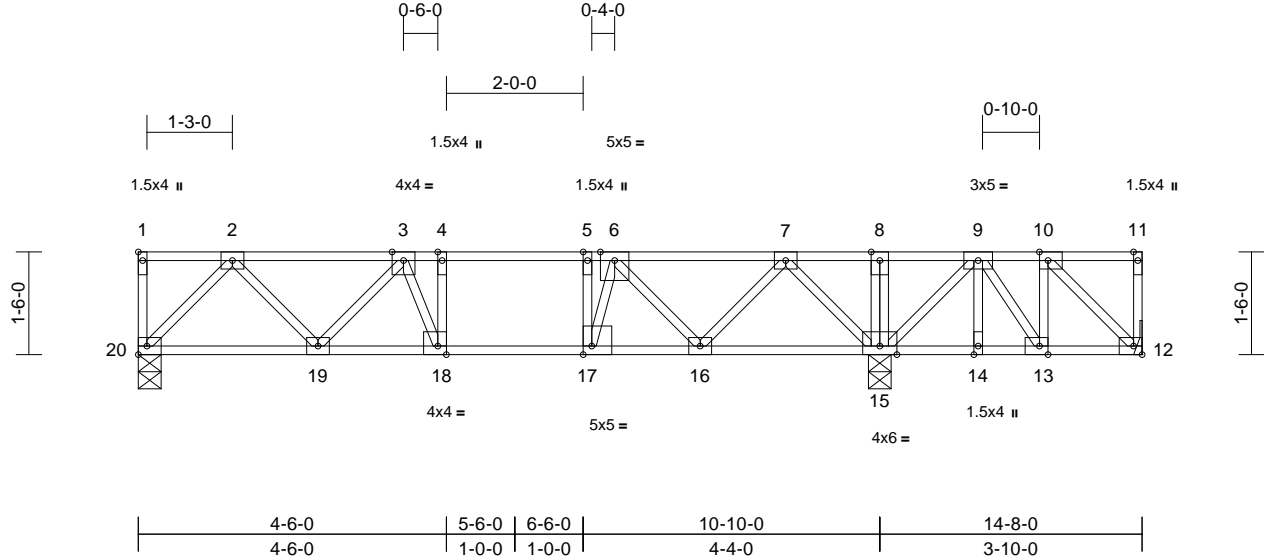
16023 Swingle Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	
1223-055	F02	Floor	2	1	T34126676
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:52
ID:0prat2RuYKc9iRuB_uqLQ?y4UfG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f

Page: 1



Scale = 1:33.7

Plate Offsets (X, Y): [1:Edge,0-0-12], [10:0-1-8,Edge], [13:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.05	18-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.06	18-19	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	15	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-S							Weight: 86 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 12= Mechanical, 15=0-4-0, 20=0-4-0
Max Uplift 12=-82 (LC 3)
Max Grav 12=191 (LC 7), 15=998 (LC 8), 20=544 (LC 3)

FORCES

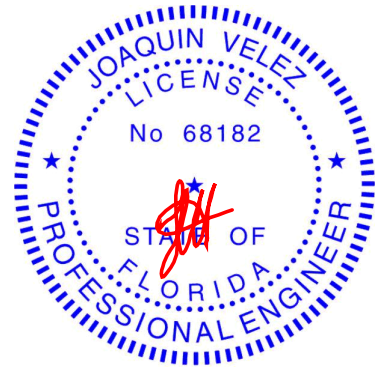
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-34/0, 11-12=-58/0, 1-2=0/0, 2-3=-732/0, 3-4=-945/0, 4-5=-945/0, 5-6=-945/0, 6-7=-541/0, 7-8=0/528, 8-9=0/528, 9-10=-127/98, 10-11=0/0
BOT CHORD 19-20=0/478, 18-19=0/949, 17-18=0/945, 16-17=0/869, 15-16=-4/258, 14-15=-197/113, 13-14=-197/113, 12-13=-98/127
WEBS 4-18=-146/41, 5-17=-353/0, 8-15=-126/0, 7-15=-819/0, 7-16=0/492, 6-16=-490/0, 6-17=0/440, 9-15=-460/0, 10-12=-179/139, 9-14=0/4, 10-13=-186/0, 2-20=-692/0, 2-19=0/378, 3-19=-323/0, 3-18=-78/173, 9-13=0/246

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- Bearings are assumed to be: Joint 20 SP No.2, Joint 15 SP No.2.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 12.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

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:

June 11,2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

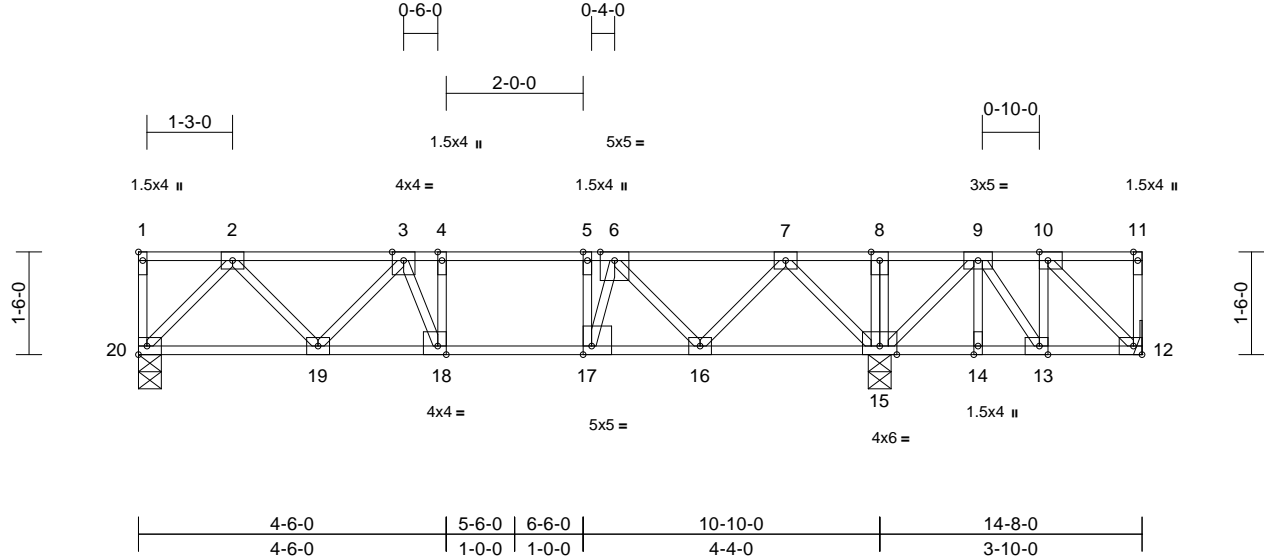
Job	Truss	Truss Type	Qty	Ply	
1223-055	F03	Floor	1	1	T34126677
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:52

Page: 1

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Scale = 1:33.7

Plate Offsets (X, Y): [1:Edge,0-0-12], [10:0-1-8,Edge], [13:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.05	18-19	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.06	18-19	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	15	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-S							Weight: 86 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 12= Mechanical, 15=0-4-0, 20=0-4-0
Max Uplift 12=-82 (LC 3)
Max Grav 12=190 (LC 7), 15=998 (LC 8), 20=544 (LC 3)

FORCES

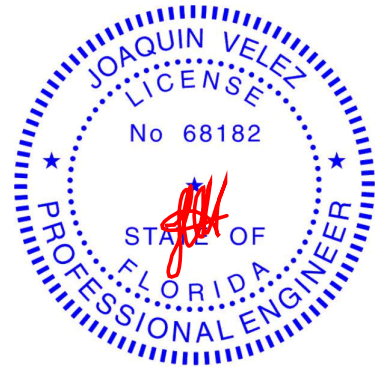
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-34/0, 11-12=-58/0, 1-2=0/0, 2-3=-732/0, 3-4=-944/0, 4-5=-944/0, 5-6=-944/0, 6-7=-541/0, 7-8=0/528, 8-9=0/528, 9-10=-127/98, 10-11=0/0
BOT CHORD 19-20=0/478, 18-19=0/948, 17-18=0/944, 16-17=0/868, 15-16=-4/257, 14-15=-198/113, 13-14=-198/113, 12-13=-98/127
WEBS 4-18=-146/42, 5-17=-353/0, 8-15=-126/0, 2-20=-692/0, 2-19=0/377, 3-19=-322/0, 3-18=-79/174, 7-15=-819/0, 7-16=0/492, 6-16=-490/0, 6-17=0/440, 9-15=-460/0, 10-12=-179/139, 9-14=0/4, 10-13=-186/0, 9-13=0/246

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- Bearings are assumed to be: Joint 20 SP No.2, Joint 15 SP No.2.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 12.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

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:

June 11,2024

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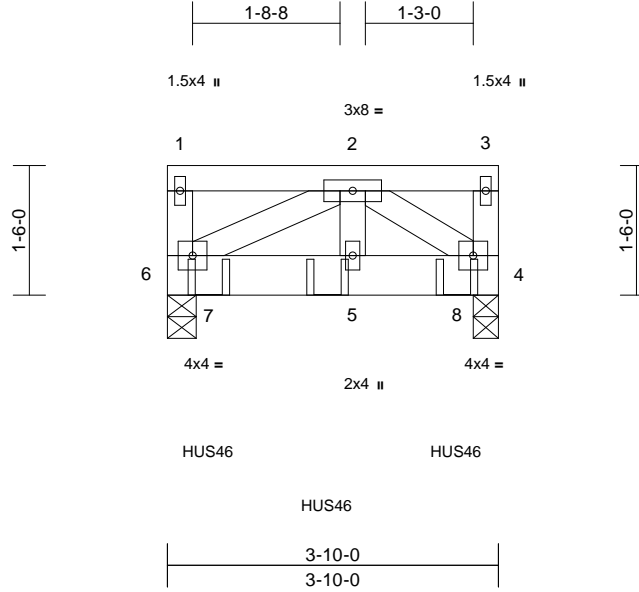
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	
1223-055	F04	Floor Girder	1	2	T34126678
Job Reference (optional)					

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:53
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Page: 1



Scale = 1:26.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	0.00	5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(CT)	0.00	5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-P							Weight: 46 lb	FT = 11%

LUMBER

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

BRACING

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

REACTIONS (size) 4=0-3-8, 6=0-4-0
Max Grav 4=481 (LC 1), 6=457 (LC 1)

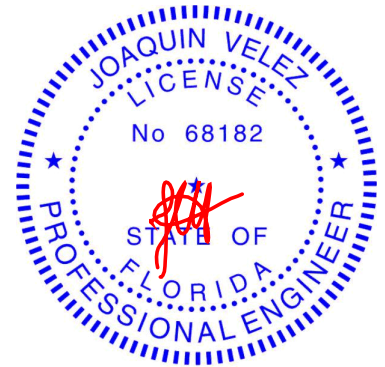
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-6=-87/0, 3-4=-60/0, 1-2=0/0, 2-3=0/0
BOT CHORD 5-6=0/341, 4-5=0/341
WEBS 2-4=-422/0, 2-5=-129/233, 2-6=-391/0

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

- Use MiTek HUS46 (With 4-16d nails into Girder & 4-16d nails into Truss) or equivalent spaced at 1-6-0 oc max. starting at 0-5-12 from the left end to 3-4-4 to connect truss(es) to front face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 5=-181 (F), 7=-184 (F), 8=-184 (F)



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

June 11,2024

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MiTek®

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Chesterfield, MO 63017
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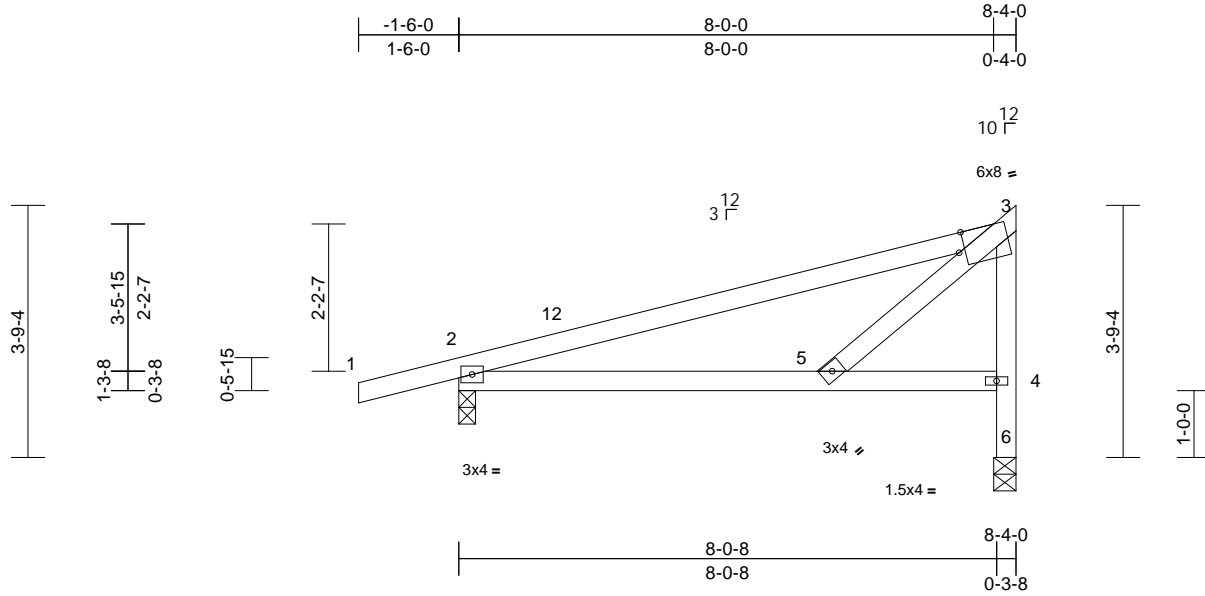
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
1223-055	M01	Roof Special	3	1	T34126679

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:53

Page: 1

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Scale = 1:34.5

Plate Offsets (X, Y): [3:0-1-2,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	0.51	Vert(LL)	-0.03	5-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.06	5-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 37 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=0-3-0, 6=0-4-0
Max Horiz 2=94 (LC 11)
Max Uplift 2=-37 (LC 12)
Max Grav 2=426 (LC 1), 6=319 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-3=-411/71, 3-5=-121/468,
4-6=-319/105, 3-4=-276/102

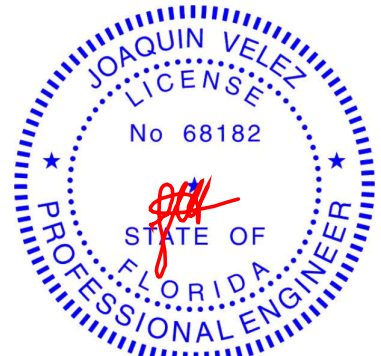
BOT CHORD 2-5=-136/346, 4-5=-111/123

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 1-6-0 to 1-6-0,
Zone1 1-6-0 to 8-2-4 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
- 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) All bearings are assumed to be SP No.2 .

- 6) Bearing at joint(s) 6 considers parallel to grain value
using ANSI/TPI 1 angle to grain formula. Building
designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 37 lb uplift at joint
2.
- 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.
- 9) Graphical purlin representation does not depict the size
or the orientation of the purlin along the top and/or
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:

June 11,2024

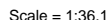
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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)

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:53 Page: 1
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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:

June 11.2024



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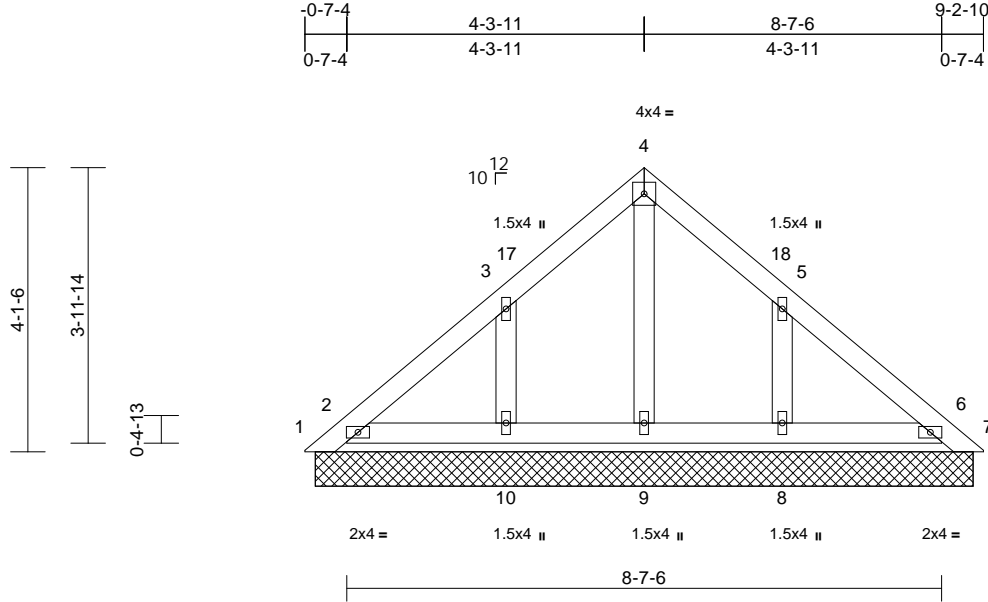
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
1223-055	PB1A	Piggyback	1	1	T34126681

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:53
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Page: 1



Scale = 1:33.4

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.04	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 42 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) 1=9-6-5, 2=9-6-5, 6=9-6-5, 7=9-6-5,
8=9-6-5, 9=9-6-5, 10=9-6-5,
11=9-6-5, 14=9-6-5
Max Horiz 1=78 (LC 10)
Max Uplift 1=99 (LC 17), 7=55 (LC 18),
8=44 (LC 12), 10=44 (LC 12)
Max Grav 1=40 (LC 11), 2=215 (LC 17),
6=185 (LC 1), 7=15 (LC 12), 8=206
(LC 18), 9=97 (LC 1), 10=206 (LC
17), 11=215 (LC 17), 14=185 (LC
1)

FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=84/134, 2-3=79/53, 3-4=76/99,
4-5=74/104, 5-6=62/35, 6-7=38/54
BOT CHORD 2-10=35/96, 9-10=35/96, 8-9=35/96,
6-8=35/96
WEBS 4-9=74/6, 3-10=154/167, 5-8=154/167

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 0-8-6 to 3-8-6,
Zone1 3-8-6 to 5-4-12, Zone2 5-4-12 to 9-4-8, Zone1
9-4-8 to 10-1-2 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.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 1, 55 lb uplift at joint 7, 44 lb uplift at joint 10 and 44 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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:

June 11,2024

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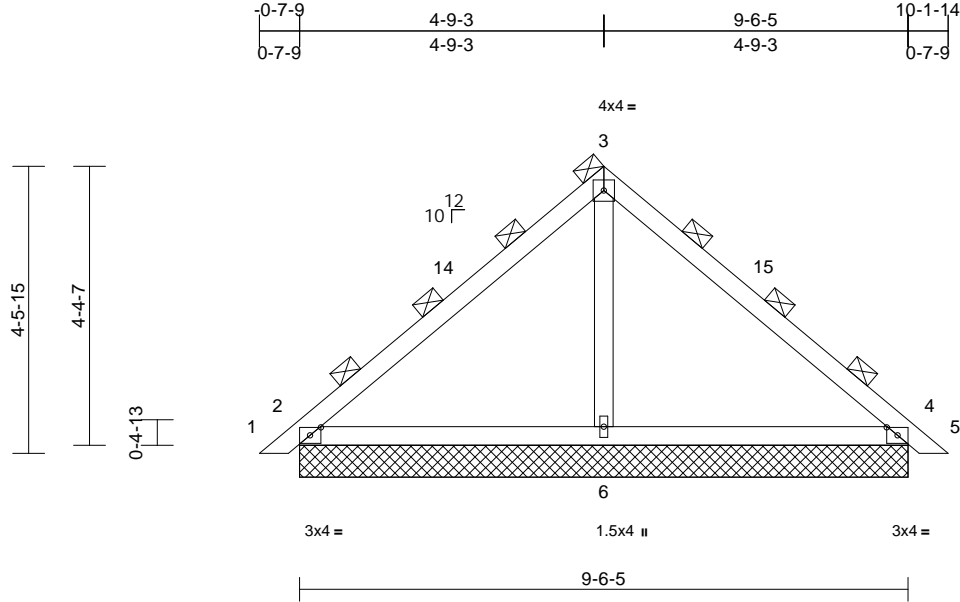
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
1223-055	PB1B	Piggyback	1	2	T34126682

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:53
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Page: 1



Scale = 1:36.1

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

Loading	(psf)	Spacing	4-10-8	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 81 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS

(size) 2=9-6-5, 4=9-6-5, 6=9-6-5, 7=9-6-5,
11=9-6-5
Max Horiz 2=-208 (LC 10), 7=-208 (LC 10)
Max Uplift 2=-78 (LC 12), 4=-78 (LC 12),
7=-78 (LC 12), 11=-78 (LC 12)
Max Grav 2=644 (LC 1), 4=644 (LC 1), 6=688
(LC 1), 7=644 (LC 1), 11=644 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum
Tension

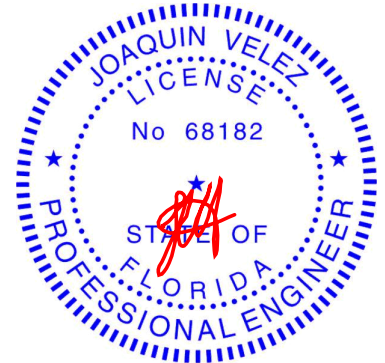
TOP CHORD 1-2=0/38, 2-3=-511/309, 3-4=-511/317,
4-5=0/38
BOT CHORD 2-6=-106/304, 4-6=-113/270
WEBS 3-6=-282/0

NOTES

- 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-22; 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 0-2-12 to 3-2-12,
Zone1 3-2-12 to 5-4-12, Zone2 5-4-12 to 9-10-0, Zone1
9-10-0 to 10-6-11 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 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 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 78 lb uplift at joint
2, 78 lb uplift at joint 4, 78 lb uplift at joint 2 and 78 lb
uplift at joint 4.
- See Standard Industry Piggyback Truss Connection
Detail for Connection to base truss as applicable, or
consult qualified building designer.
- Graphical purlin representation does not depict the size
or the orientation of the purlin along the top and/or
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:

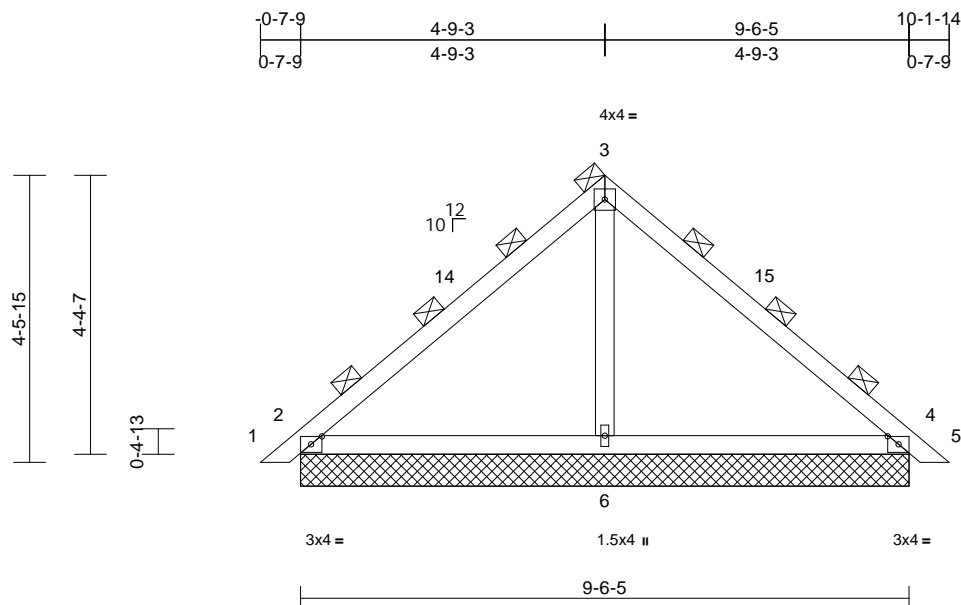
June 11,2024

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Scale = 1:36.1

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

[illegible]

LUMBER

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

BRACING

TOP CHORD	2-0-0 oc purlins (6-0-0 max.) (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=9-6-5, 4=9-6-5, 6=9-6-5, 7=9-6-5,
11=9-6-5

Max Horiz 2=-208 (LC 10), 7=-208 (LC 10)

Max Uplift 2=-78 (LC 12), 4=-78 (LC 12),
7=-78 (LC 12), 11=-78 (LC 12)

Max Grav 2=644 (LC 1), 4=644 (LC 1), 6=688
(LC 1), 7=644 (LC 1), 11=644 (LC
1)

FORCES

(1b) Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/38, 2-3=-511/309, 3-4=-511/317,
4-5=0/38

BOT CHORD $2-6=-106/304$, $4-6=-113/270$

WEBS 3-6=-282/0

NOTES

- 1) 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.

- 4) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 0-2-12 to 3-2-12,
Zone1 3-2-12 to 5-4-12, Zone2 5-4-12 to 9-10-0, Zone1
9-10-0 to 10-6-11 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
- 5) 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.
- 6) Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4'-0" oc.
- 9) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 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.
- 11) All bearings are assumed to be SP No.2 .
- 12) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 78 lb uplift at joint 2
78 lb uplift at joint 4, 78 lb uplift at joint 2 and 78 lb
uplift at joint 4.
- 13) See Standard Industry Piggyback Truss Connection
Detail for Connection to base truss as applicable, or
consult qualified building designer.
- 14) Graphical purlin representation does not depict the size or
the orientation of the purlin along the top and/or
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:

June 11, 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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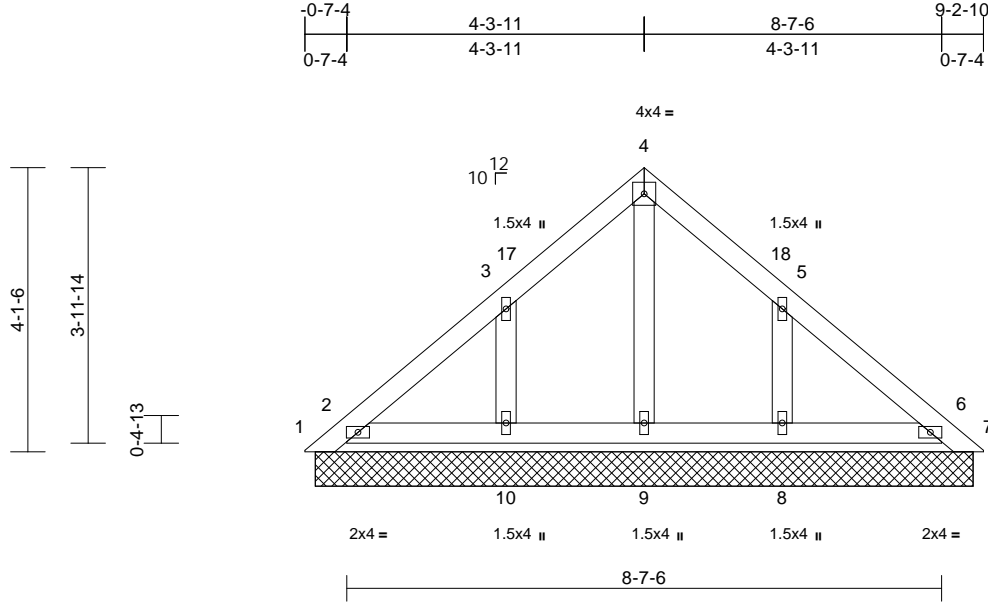
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
1223-055	PB02	Piggyback	1	1	T34126684

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Mon Jun 10 10:08:53
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Page: 1



Scale = 1:33.4

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.04	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 42 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) 1=9-6-5, 2=9-6-5, 6=9-6-5, 7=9-6-5,
8=9-6-5, 9=9-6-5, 10=9-6-5,
11=9-6-5, 14=9-6-5
Max Horiz 1=78 (LC 10)
Max Uplift 1=99 (LC 17), 7=55 (LC 18),
8=44 (LC 12), 10=44 (LC 12)
Max Grav 1=40 (LC 11), 2=215 (LC 17),
6=185 (LC 1), 7=15 (LC 12), 8=206
(LC 18), 9=97 (LC 1), 10=206 (LC
17), 11=215 (LC 17), 14=185 (LC
1)

FORCES

(lb) - Maximum Compression/Maximum
Tension

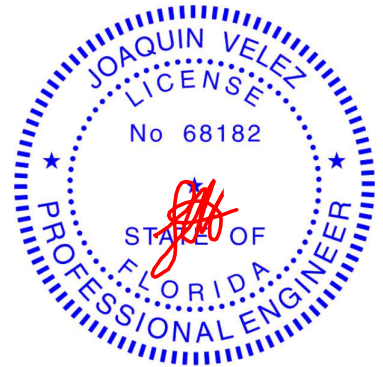
TOP CHORD 1-2=-84/134, 2-3=-79/53, 3-4=-76/99,
4-5=-74/104, 5-6=-62/35, 6-7=-38/54
BOT CHORD 2-10=-35/96, 9-10=-35/96, 8-9=-35/96,
6-8=-35/96
WEBS 4-9=-74/6, 3-10=-154/167, 5-8=-154/167

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 0-8-6 to 3-8-6,
Zone1 3-8-6 to 5-4-12, Zone2 5-4-12 to 9-4-8, Zone1
9-4-8 to 10-1-2 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.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 10, 44 lb uplift at joint 8, 99 lb uplift at joint 1 and 55 lb uplift at joint 7.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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:

June 11,2024

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

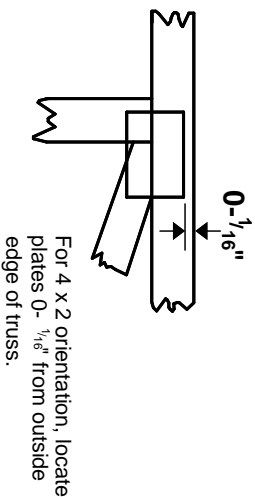
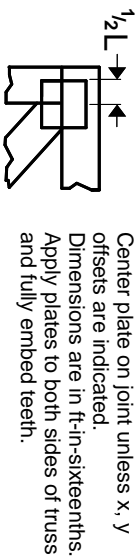
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

Symbols

PLATE LOCATION AND ORIENTATION



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

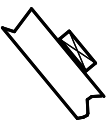
—
This symbol indicates the required direction of slots in connector plates.

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

PLATE SIZE

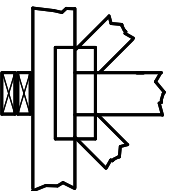
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

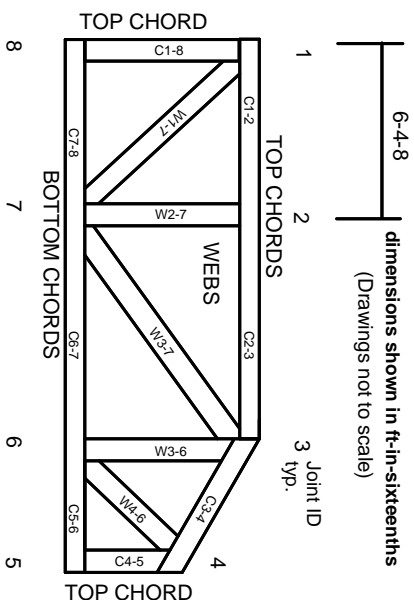
BEARING



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 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.