MiTek®

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

RE: 0425-043 - MIKE TODD - GERKE RESIDENCE

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

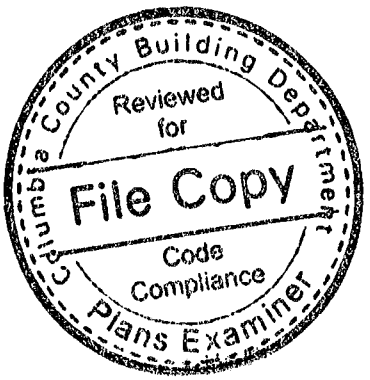
Site Information:
Customer Info: MIKE TODD CONSTRUCTION Project Name: JASON GERKE Model:
Lot/Block: 30-4S-17-08913-010 Subdivision: .
Address: ., .
City: COLUMBIA COUNTY State: FL

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

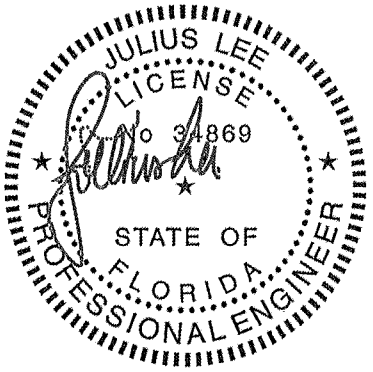
This package includes 26 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T37134678	A01	4/25/25	23	T37134700	PB01	4/25/25
2	T37134679	A02	4/25/25	24	T37134701	PB02	4/25/25
3	T37134680	A03	4/25/25	25	T37134702	PB03	4/25/25
4	T37134681	A04	4/25/25	26	T37134703	PB04	4/25/25
5	T37134682	A04A	4/25/25				
6	T37134683	A05	4/25/25				
7	T37134684	A05A	4/25/25				
8	T37134685	A06	4/25/25				
9	T37134686	A06A	4/25/25				
10	T37134687	A07	4/25/25				
11	T37134688	A07A	4/25/25				
12	T37134689	A08	4/25/25				
13	T37134690	A08A	4/25/25				
14	T37134691	A09	4/25/25				
15	T37134692	A09A	4/25/25				
16	T37134693	CJ01	4/25/25				
17	T37134694	CJ02	4/25/25				
18	T37134695	J01	4/25/25				
19	T37134696	J01A	4/25/25				
20	T37134697	J02	4/25/25				
21	T37134698	J03	4/25/25				
22	T37134699	J04	4/25/25				



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



Julius Lee PE No. 34869
MiTek Inc DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd Chesterfield, MO 63017
Date: April 25,2025

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

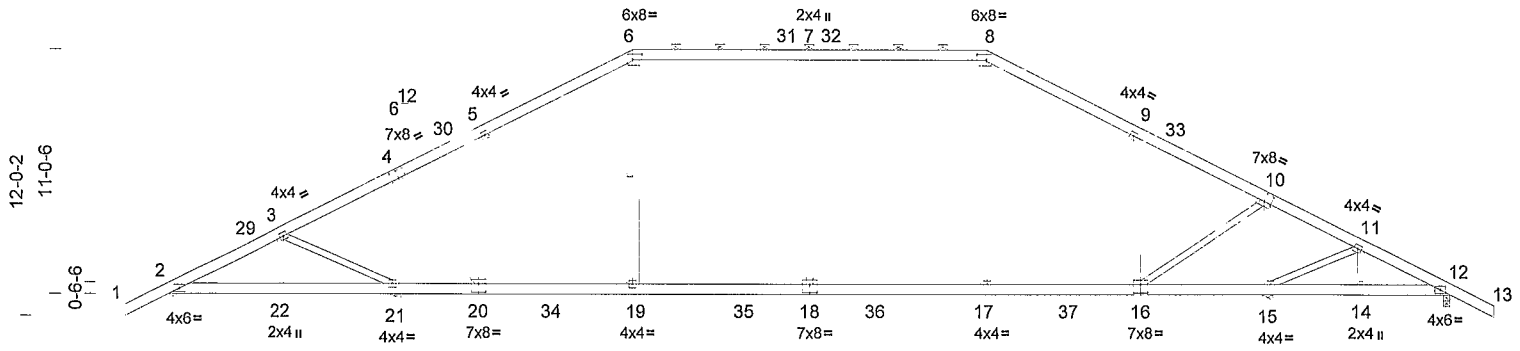
Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A01		9	1	Job Reference (optional)	T37134678

Mayo Truss Company, Inc. Mayo FL 32066 — Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11.46 — Page 1

ID:4DodhZdi?UY4KTAyv5lYW2zNS7j-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-2-0-0	5-0-0	10-2-12	14-1-12	21-0-0	29-0-0	37-0-0	43-10-4	49-9-4	54-0-0	58-0-0	60-0-0
2-0-0	5-0-0	5-2-12	3-11-0	6-10-4	8-0-0	8-0-0	6-10-4	5-11-0	4-2-12	4-0-0	2-0-0

58-0-0



5-0-0	10-2-12	14-0-0	21-1-12	29-0-0	36-10-4	44-0-0	49-9-4	54-0-0	58-0-0
5-0-0	5-2-12	3-9-4	7-1-12	7-10-4	7-10-4	7-1-12	5-9-4	4-2-12	4-0-0

Scale = 1 104.4

Plate Offsets (X, Y) [4 0-4-0 0-4-8], [6 0-5-4 0-3-0], [8 0-5-4,0-3-0], [10 0-4-0,0-4-8] [16 0-4-0,0-4-8], [18 0-4-0,0-4-8] [20 0-4-0 0-4-8]

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 33	Vert(LL)	-0 08	17-18	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 38	Vert(CT)	-0 15	17-18	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 95	Horz(CT)	0 03	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 476 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied except
2-0-0 oc purlins (5-7-3 max) 6-8
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 6-19, 7-18, 8-17

REACTIONS (size) 2=0-3-8, 12=0-3-8, 15=0-5-8, 21=0-5-8
Max Horiz 2=-222 (LC 10)
Max Uplift 2=-65 (LC 12), 12=-69 (LC 12)
Max Grav 2=436 (LC 23) 12=317 (LC 24) 15=2446 (LC 18) 21=2520 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-307/31, 3-5=-866/403 5-6=-1502/182, 6-7=-1640/206, 7-8=-1640/206, 8-9=-1684/187, 9-11=-1335/410, 11-12=-78/108, 12-13=0/54
BOT CHORD 2-22=-33/314, 21-22=-33/314, 19-21=-276/818, 17-19=0/1425, 15-17=-323/1108, 14-15=-76/61, 12-14=-76/89
WEBS 6-19=-298/65 7-18=-525/128, 8-17=-133/167, 4-21=-2088/90 3-22=0/199 10-15=-2066/107 9 16=-789/89, 11-14=0/136 11-15=-383/27 9-17=0/463, 3-21=-547/40, 5-20=-1137/83, 5-19=0/771 4-20=-18/1635, 6-18=-28/635 8-18=-22/439, 10-16=-16/1745

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=58ft, eave=7ft; Cat II, Exp B Enclosed MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 21-0-0, Zone2 21-0-0 to 29-0-0 Zone1 29-0-0 to 37-0-0 Zone2 37-0-0 to 45-2-7 Zone1 45-2-7 to 60-0-0 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
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 2 and 69 lb uplift at joint 12
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

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

April 25,2025

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 sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE
0425-043	A02		2	1	T37134679
					Job Reference (optional)

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 47 Page 1
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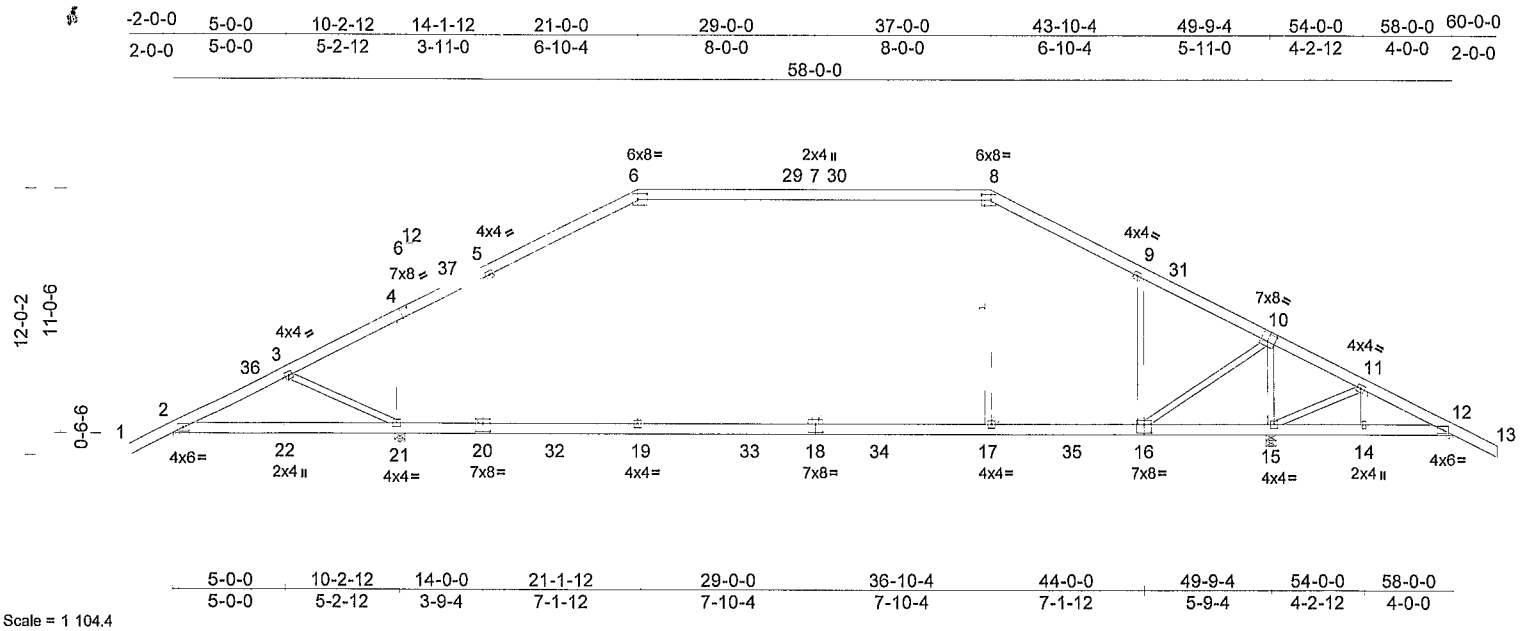


Scale = 1 104.4

Plate Offsets (X Y) [4 0-4-0,0-4-8], [6 0-5-4,0-3-0], [8 0-5-4,0-3-0] [10 0-4-0 0-4-8] [16 0-4-0 0-4-8] [18 0-4-0,0-4-8] [20 0-4-0 0-4-8]

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 27	Vert(LL)	-0 08	17-18	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 38	Vert(CT)	-0 15	17-18	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 94	Horz(CT)	0 03	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 476 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 6-19, 7-18, 8-17

REACTIONS (size) 2=0-3-8, 12=0-3-8 15=0-5-8 21=0-5-8
Max Horiz 2=222 (LC 11)
Max Uplift 2=-135 (LC 12) 12=-126 (LC 12) 15=-60 (LC 12) 21=-88 (LC 12)
Max Grav 2=436 (LC 23) 12=317 (LC 24) 15=2384 (LC 18) 21=2439 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-7=-1650/187, 7-8=-1650/187, 8-9=-1694/168, 9-11=-1350/405 11-12=-78/121, 12-13=0/54, 1-2=0/54 2-3=-299/131 3-5=-887/379, 5-6=-1515/159
BOT CHORD 2-22=-101/262 21-22=-101/262 19-21=-254/837, 17-19=0/1434, 15-17=-306/1121, 14-15=-77/49 12-14=-77/49
WEBS 3-22=-59/199, 3-21=-486/185, 4-21=-2081/101, 6-19=-298/77 6-18=-30/635, 7-18=-525/127, 8-18=-19/439 8-17=-133/167, 9-17=0/462 9-16=-784/100 10-16=-25/1740, 10-15=-2061/118 11-15=-339/147, 11-14=-57/136 5-19=0/760, 5-20=-1126/102, 4-20=-27/1630

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=58ft, eave=7ft; Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 21-0-0, Zone2 21-0-0 to 29-0-0, Zone1 29-0-0 to 37-0-0 Zone2 37-0-0 to 45-2-7, Zone1 45-2-7 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed porch left and right exposed,C-C for members and forces & MWFRS for reactions shown Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 21, 60 lb uplift at joint 15 126 lb uplift at joint 12 and 135 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

LOAD CASE(S) Standard

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

April 25,2025

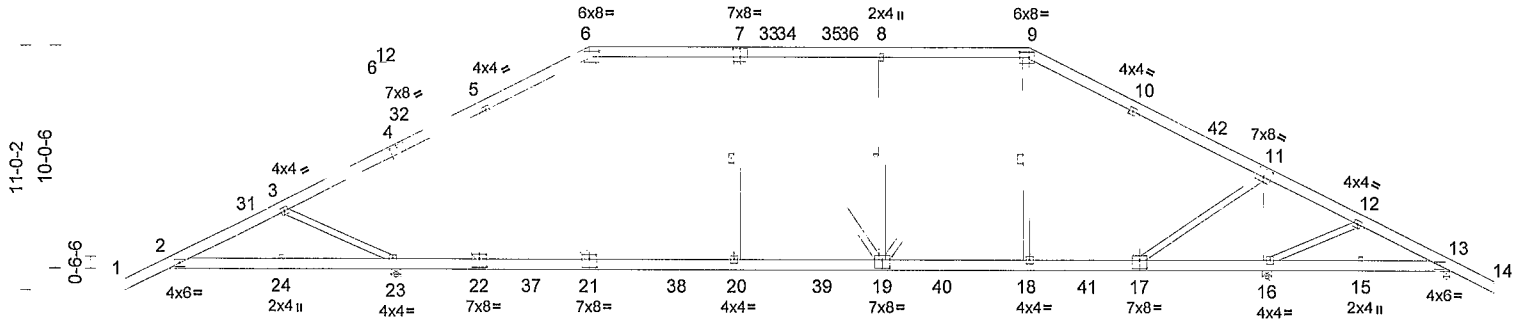
WARNING Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev 1/2/2023 BEFORE USE
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown and is for an individual building component not a truss system. Before use the building 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 sbcscomponents com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A03		2	1	Job Reference (optional)	T37134680

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print. 8.830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 48 ID:cv0FXQaFg942vKxYMUaSbIzNS1K-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page 1

-2-0-0	5-0-0	10-2-12	14-1-12	19-0-0	25-10-5	32-3-7	39-0-0	43-10-4	49-9-4	54-0-0	58-0-0	60-0-0
2-0-0	5-0-0	5-2-12	3-11-0	4-10-4	6-10-5	6-5-1	6-8-9	4-10-4	5-11-0	4-2-12	4-0-0	2-0-0
						58-0-0						



5-0-0	10-2-12	14-0-0	19-0-0	25-8-9	32-3-7	38-10-4	44-0-0	49-9-4	54-0-0	58-0-0
5-0-0	5-2-12	3-9-4	5-0-0	6-8-9	6-6-13	6-6-13	5-1-12	5-9-4	4-2-12	4-0-0

Scale = 1 104 2

Plate Offsets (X Y) [4 0-4-0,0-4-8] [6 0-5-4 0-3-0], [7 0-4-0,0-4-8] [9 0-5-4,0-3-0] [11 0-4-0 0-4-8], [17 0-4-0,0-4-8], [19 0-4-0,0-4-8], [21 0-4-0 0-4-8], [22 0-4-0,0-4-8]

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 20	Vert(LL)	-0 08	19-20	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 36	Vert(CT)	-0 15	19-20	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 98	Horz(CT)	0 04	16	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 492 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 6-21, 9-18, 7-20, 8-19

REACTIONS (size) 2=0-3-8, 13=0-3-8 16=0-5-8, 23=0-5-8
Max Horiz 2=-203 (LC 10)
Max Uplift 2=-136 (LC 12) 13=-123 (LC 12) 16=-64 (LC 12), 23=-86 (LC 12)
Max Grav 2=423 (LC 23) 13=288 (LC 24) 16=2405 (LC 18) 23=2445 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54 2-3=-269/133, 3-5=-850/395, 5-6=-1384/145 6-8=-1765/172, 8-9=-1765/172, 9-10=-1623/157, 10-12=-1298/456 12-13=-14/180, 13-14=0/54
BOT CHORD 2-24=-104/226, 23-24=-104/226, 20-23=-267/1256 18-20=0/1741, 16-18=-349/1080 15-16=-130/5, 13-15=-130/46
WEBS 3-24=-61/195, 3-23=-476/183, 4-23=-2067/109, 6-21=-461/60, 9-18=-266/43, 10-18=0/545 10-17=-834/83 11-17=-20/1729 11-16=-2072/130 12-16=-329/143 12-15=-59/131, 7-20=-517/108, 6-20=-33/896 7-19=-12/118 8-19=-407/112, 9-19=-25/699, 5-21=0/847 5-22=-1166/71, 4-22=-12/1586

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=58ft, eave=7ft; Cat II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 19-0-0, Zone2 19-0-0 to 27-2-7, Zone1 27-2-7 to 39-0-0 Zone2 39-0-0 to 47-2-7, Zone1 47-2-7 to 60-0-0 zone cantilever left and right exposed end vertical left and right exposed, porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 13, 86 lb uplift at joint 23, 64 lb uplift at joint 16 and 136 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

LOAD CASE(S) Standard

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

April 25,2025

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 sbcscomponents com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A04		1	1	Job Reference (optional)	T37134681

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print: 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11.48 Page 1
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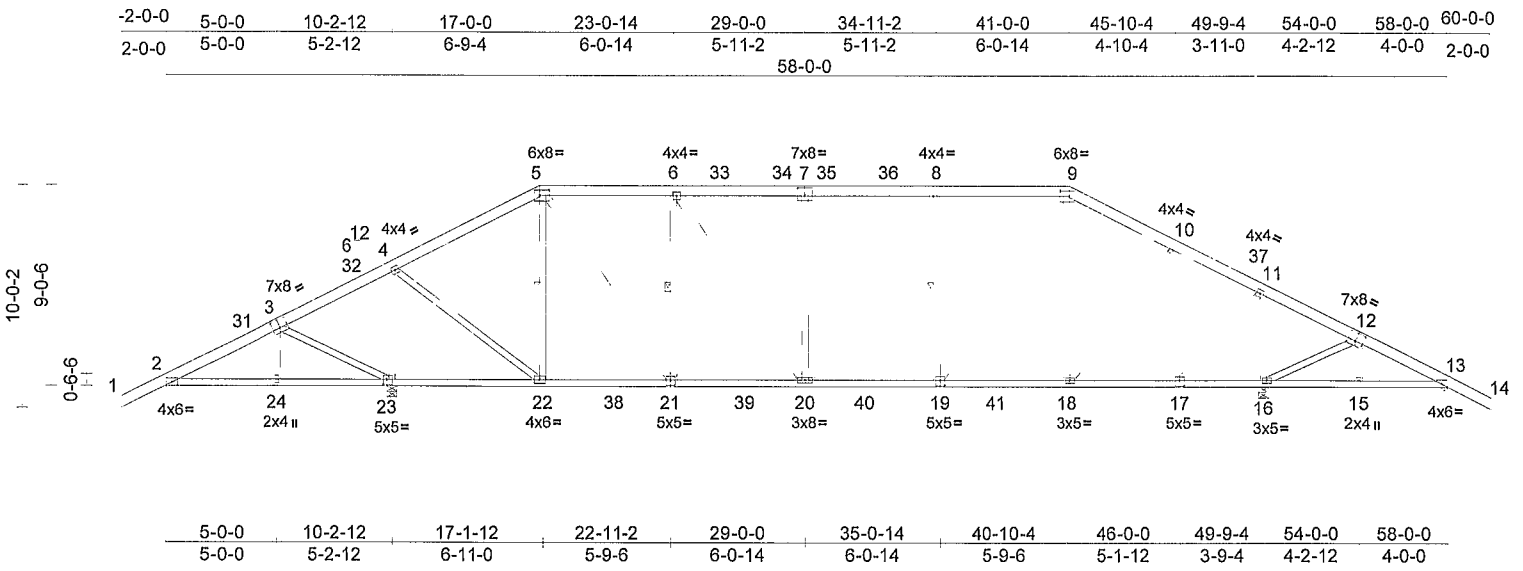

Scale = 1 104 1

Plate Offsets (X, Y) [3 0-4-0 0-4-8] [5 0-5-4,0-3-0] [7 0-4-0,0-4-8] [9 0-5-4,0-3-0], [12 0-4-0,0-4-8] [17 0-2-8,0-3-0], [19 0-2-8,0-3-0] [21 0-2-8 0-3-0] [23 0-2-0,0-3-0]

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)	-0 12	19-20	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 57	Vert(CT)	-0 20	19-20	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 98	Horz(CT)	0 05	16	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 438 lb	FT = 20%

LUMBER
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
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 5-22, 9-18 6-21, 7-20, 8-19

REACTIONS (size) 2=0-3-8 13=0-3-8, 16=0-5-8 23=0-5-8
Max Horiz 2=-184 (LC 10)
Max Uplift 2=-144 (LC 12) 13=-132 (LC 12) 16=-56 (LC 12) 23=-74 (LC 12)
Max Grav 2=308 (LC 23), 13=219 (LC 24), 16=2445 (LC 18), 23=2547 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54 2-4=-23/647 4-5=-1192/128, 5-6=-1607/161, 6-8=-1871/162, 8-9=-1749/167 9-10=-1441/147 10-11=-806/97, 11-13=-27/628 13-14=0/54
BOT CHORD 2-24=-182/44, 22-24=-394/104, 20-22=0/1640, 18-20=0/1744, 16-18=-530/670 15-16=-238/0, 13-15=-235/56
WEBS 5-22=-758/79, 9-18=-455/49 3-24=-71/177 6-21=-710/99, 7-20=-347/74, 6-20=-11/447 10-17= 1165/72 10-18=0/873, 11-16=-2149/100, 5-21=-40/1130, 12-15=-52/161, 12-16=-388/143 11-17=-15/1744 8-19=-570/97 9-19=-31/942, 4-23=-2147/133, 4-22=0/1697, 8-20=-4/245, 3-23=-455/174

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=58ft, eave=7ft, Cat. II, Exp B, Enclosed MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 17-0-0, Zone2 17-0-0 to 25-2-7, Zone1 25-2-7 to 41-0-0, Zone2 41-0-0 to 49-2-7, Zone1 49-2-7 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed, porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 13, 144 lb uplift at joint 2 56 lb uplift at joint 16 and 74 lb uplift at joint 23
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard

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

April 25,2025

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 sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314 434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A04A		1	1	Job Reference (optional)	T37134682

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print: 8 830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11.48 Page 1
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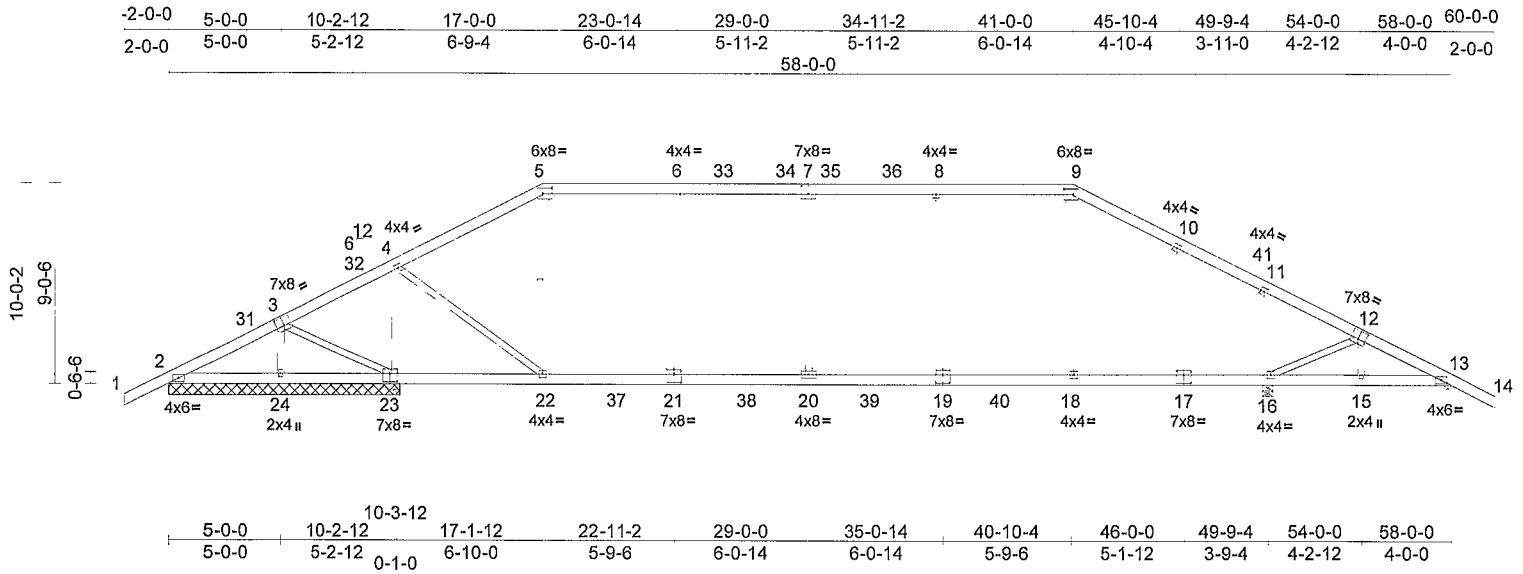

Scale = 1 104 1

Plate Offsets (X, Y) [3 0-4-0,0-4-8] [5 0-5-4,0-3-0] [7 0-4-0,0-4-8], [9 0-5-4 0-3-0] [12 0-4-0,0-4-8], [17 0-4-0 0-4-8], [19 0-4-0 0-4-8] [21 0-4-0,0-4-8], [23 0-4-0,0-4-8]

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 23	Vert(LL)	-0 09	19-20	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 34	Vert(CT)	-0 17	19-20	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 88	Horz(CT)	0 03	16	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 483 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 5-22 9-18, 6-21, 7-20, 8-19

REACTIONS (size) 2=10-5-8, 13=0-3-8, 16=0-5-8 23=10-5-8, 24=10-5-8
Max Horiz 2=-184 (LC 10)
Max Uplift 2=-74 (LC 12) 13=-125 (LC 12), 16=-65 (LC 12)
Max Grav 2=269 (LC 23) 13=256 (LC 24) 16=2407 (LC 18), 23=2430 (LC 17), 24=227 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-4=-54/517, 4-5=-1242/140, 5-6=-1658/168, 6-8=-1922/165, 8-9=-1799/167 9-10=-1493/144, 10-11=-867/89, 11-13=-19/536, 13-14=0/54
BOT CHORD 2-24=-189/81, 22-24=-327/85, 20-22=0/1712, 18-20=0/1808, 16-18=-450/733 15-16=-196/1, 13-15=-193/44
WEBS 5-22=-717/68, 9-18=-438/54, 4-22=0/1630, 3-24=-100/98, 4-23=-2073/125 3-23=-258/48, 9-19=-35/950, 6-21=-710/94 5-21=-33/1132, 6-20=-6/444, 7-20=-346/74, 8-20=-9/252, 8-19=-577/101, 11-16=-2084/110, 12-16=-353/143, 12-15=-51/144, 10-18=0/855, 10-17=-1144/81, 11-17=-24/1687

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=58ft, eave=7ft, Cat II Exp B, Enclosed MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 17-0-0, Zone2 17-0-0 to 25-2-7, Zone1 25-2-7 to 41-0-0 Zone2 41-0-0 to 49-2-7, Zone1 49-2-7 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed porch right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 16 125 lb uplift at joint 13, 74 lb uplift at joint 2 and 74 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

LOAD CASE(S) Standard

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

April 25,2025

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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MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A05		1	1	Job Reference (optional)	T37134683

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print 8 830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11.49 Page 1
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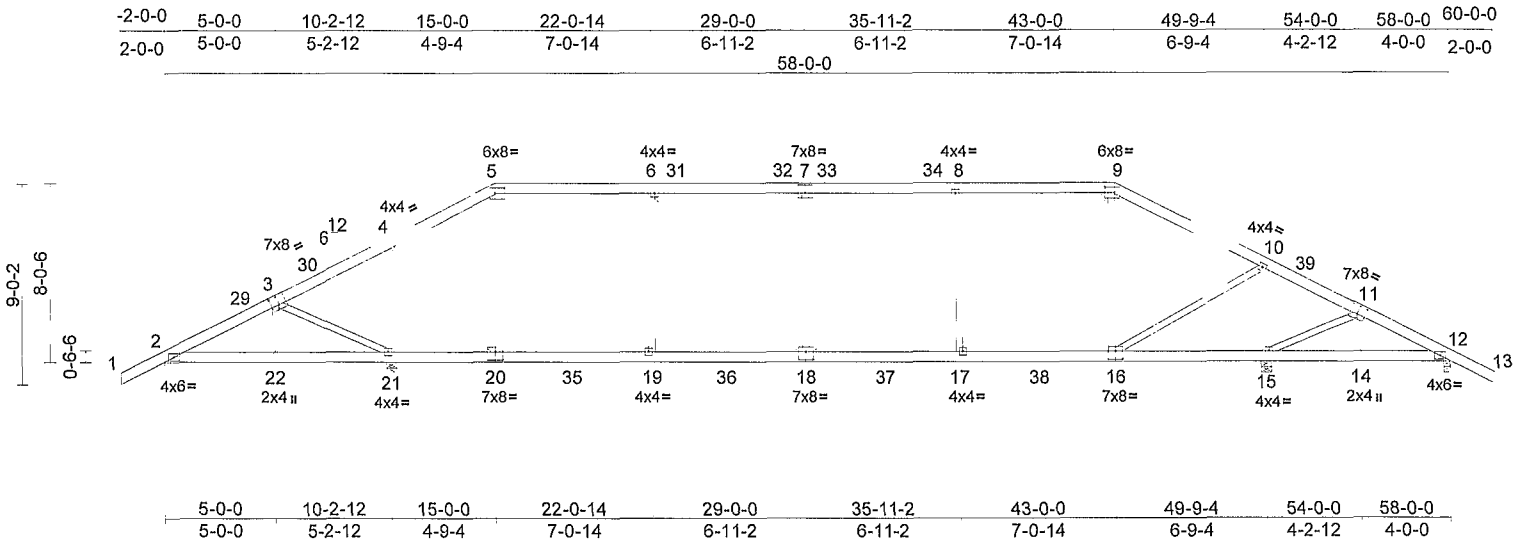


Scale = 1 104

Plate Offsets (X Y) [3 0-4-0 0-4-8], [5 0-5-4 0-3-0] [7 0-4-0,0-4-8], [9 0-5-4 0-3-0], [11 0-4-0,0-4-8] [16 0-4-0,0-4-8], [18 0-4-0 0-4-8], [20 0-4-0,0-4-8]

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 25	Vert(LL)	-0 11	17-18	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 39	Vert(CT)	-0 19	17-18	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 95	Horz(CT)	0 03	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 455 lb	FT = 20%

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

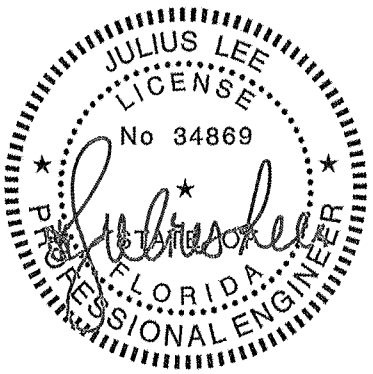
BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 5-20

REACTIONS (size) 2=0-3-8 12=0-3-8 15=0-5-8 21=0-5-8
Max Horiz 2=-164 (LC 10)
Max Uplift 2=-138 (LC 12) 12=-128 (LC 12) 15=-58 (LC 12) 21=-86 (LC 12)
Max Grav 2=272 (LC 23) 12=207 (LC 24) 15=2430 (LC 18), 21=2585 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-4=-13/741, 4-5=-787/95 5-6=-1668/134, 6-8=-2045/133, 8-9=-1878/145, 9-10=-1281/110 10-12=-14/634, 12-13=0/54
BOT CHORD 2-22=-265/36, 21-22=-267/0 19-21=-597/681, 17-19=0/1871 15-17=-520/1061 14-15=-303/0 12-14=-301/42
WEBS 3-22=-63/203, 3-21=-490/187 4-21=-2220/114 4-20=-5/1773 5-20=-1063/86, 9-16=-694/85 10-16=0/1811 10-15=-2099/136 11-15=-320/135, 11-14=-65/131 6-19=-817/118, 5-19=-45/1498, 6-18=-17/559 7-18=-402/84 8-18=-5/271, 8-17=-638/105 9-17=-30/1198

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=58ft, eave=7ft; Cat II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10 Zone1 3-9-10 to 15-0-0, Zone2 15-0-0 to 23-2-7 Zone1 23-2-7 to 43-0-0, Zone2 43-0-0 to 51-2-7, Zone1 51-2-7 to 60-0-0 zone cantilever left and right exposed end vertical left and right exposed, porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 2, 86 lb uplift at joint 21, 58 lb uplift at joint 15 and 128 lb uplift at joint 12
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard



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

April 25,2025

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

Job	Truss	Truss Type	Qty	Ply	MIKE TODD GERKE RESIDENCE	
0425-043	A05A		1	1	Job Reference (optional)	T37134684

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 49 Page 1
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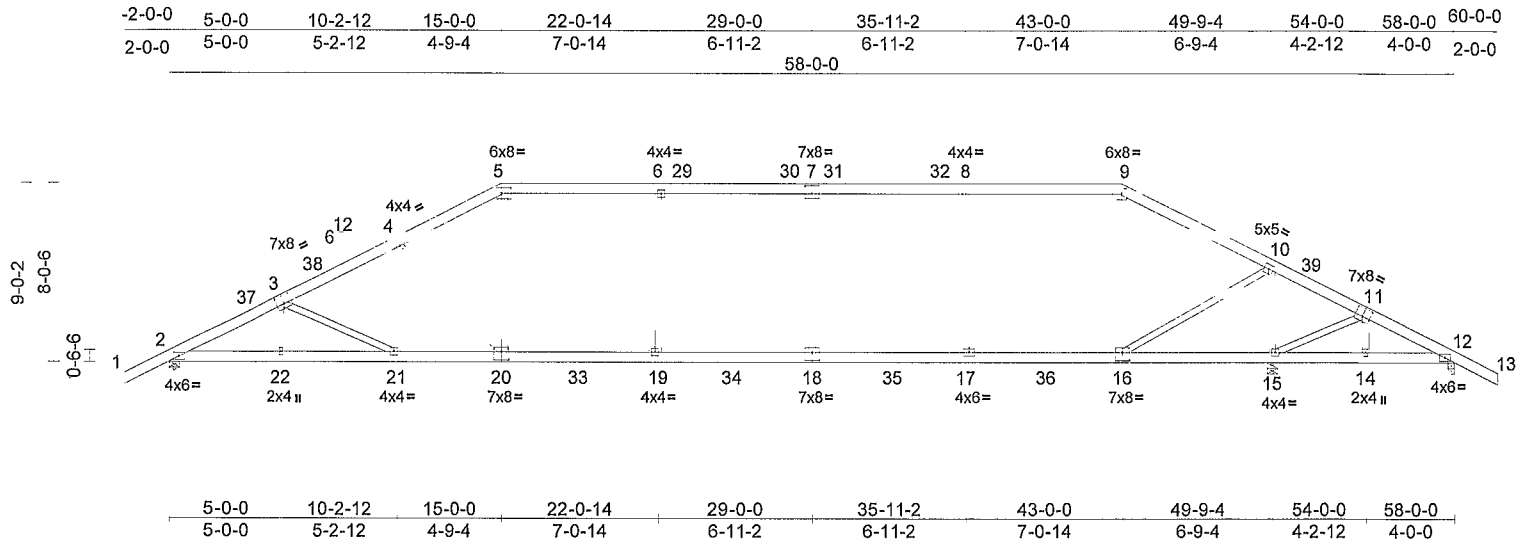


Scale = 1 104

Plate Offsets (X Y) [3 0-4-0,0-4-8], [5 0-5-4,0-3-0], [7 0-4-0 0-4-8], [9 0-5-4,0-3-0] [11 0-4-0 0-4-8] [16 0-4-0 0-4-8], [18 0-4-0 0-4-8], [20 0-4-0,0-4-8]

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 36	Vert(LL)	-0 23	18-19	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 62	Vert(CT)	-0 42	18-19	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 84	Horz(CT)	0 12	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight· 455 lb	FT = 20%

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

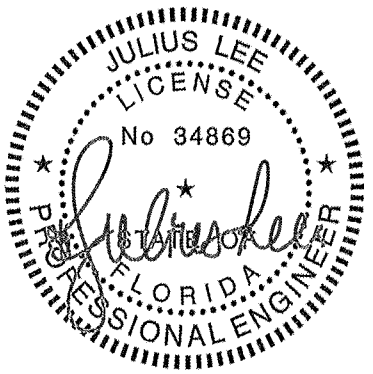
BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 9-16 6-18, 8-17

REACTIONS (size) 2=0-5-8 12=0-3-8, 15=0-5-8
Max Horiz 2=164 (LC 11)
Max Uplift 2=-48 (LC 12) 12=-388 (LC 25), 15=-54 (LC 12)
Max Grav 2=2297 (LC 17) 12=-69 (LC 24) 15=3363 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-6=-3430/184, 6-8=-3237/178, 8-9=-2513/171, 1-2=0/54, 2-4=-4266/160, 4-5=-3400/179, 9-10=-1402/119, 10-12=-27/1486 12-13=0/54
BOT CHORD 2-22=-37/3877, 21-22=-38/3874, 19-21=-2/3493, 17-19=0/3487 15-17=-1250/1176, 14-15=-1018/3 12-14=-1016/50
WEBS 5-20=0/733, 9-16=-1219/101, 10-16=-20/2849 10-15=-3013/158 6-19=-386/102, 5-19=-21/776 6-18=-287/25 7-18=-403/84, 8-18=-26/1093 8-17=-1173/125 9-17=-57/2021 11-15=-346/136 11-14=-65/136, 4-20=-644/87, 3-22=0/172 3-21=-425/40, 4-21=0/364

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=58ft; eave=7ft; Cat II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 15-0-0, Zone2 15-0-0 to 23-2-7 Zone1 23-2-7 to 43-0-0, Zone2 43-0-0 to 51-2-7, Zone1 51-2-7 to 60-0-0 zone cantilever left and right exposed end vertical left and right exposed, porch right exposed,C-C for members and forces & MWFRS for reactions shown Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 15, 48 lb uplift at joint 2 and 388 lb uplift at joint 12
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard



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

April 25,2025

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MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	T37134685
0425-043	A06	Hip	1	1	Job Reference (optional)	

Mayo Truss Company Inc. Mayo FL 32066 — Run 8 83 S Apr 11 2025 Print. 8.830 S Apr 11 2025 MiTek Industries Inc Fri Apr 25 08 11.50 — Page 1

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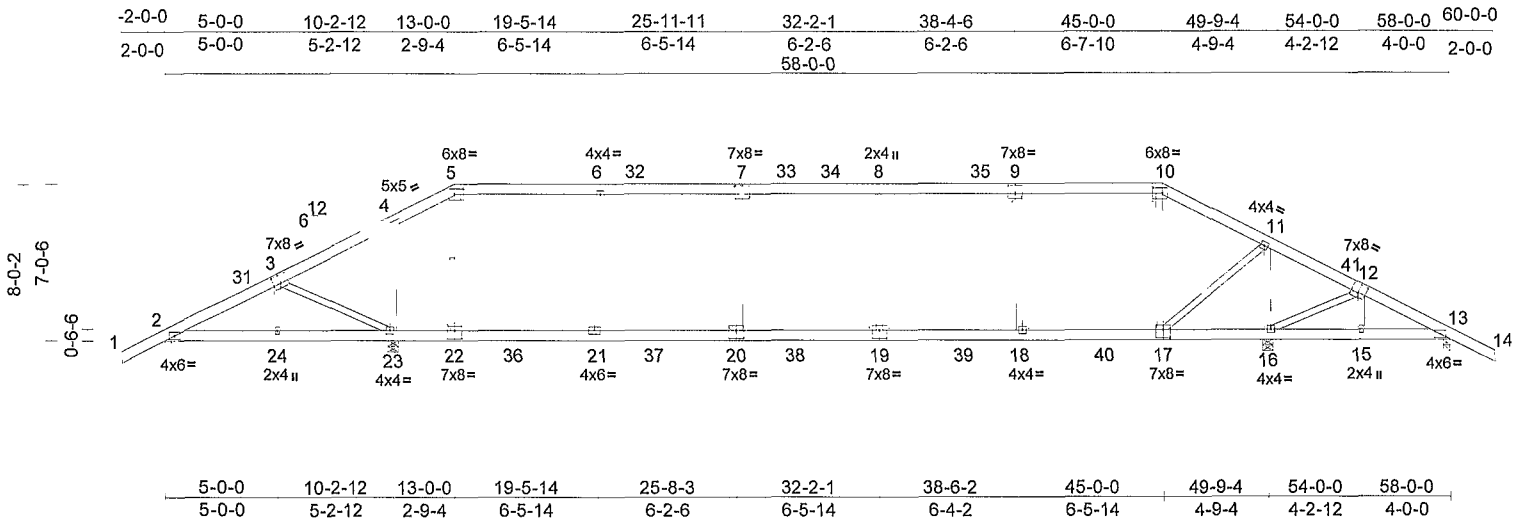

Scale = 1 103.9

Plate Offsets (X, Y) [3 0-4-0,0-4-8], [5 0-5-4,0-3-0] [7 0-4-0 0-4-8], [9 0-4-0 0-4-8], [10 0-5-4 0-3-0], [12 0-4-0 0-4-8], [17 0-4-0,0-4-8] [19 0-4-0,0-4-8] [20 0-4-0,0-4-8], [22 0-4-0,0-4-8]

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 23	Vert(LL)	-0 13	19-20	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 37	Vert(CT)	-0 23	19-20	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 97	Horz(CT)	0 03	16	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 458 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 5-22

REACTIONS (size) 2=0-3-8, 13=0-3-8, 16=0-5-8
23=0-5-8
Max Horiz 2=145 (LC 11)
Max Uplift 2=-138 (LC 12) 13=-164 (LC 23)
16=-60 (LC 12) 23=-84 (LC 12)
Max Grav 2=191 (LC 23), 13=69 (LC 24)
16=2571 (LC 18), 23=2647 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-4=-12/916, 4-5=-205/74
5-6=-1411/112, 6-8=-2139/117,
8-10=-2139/125 10-11=-772/91
11-13=-19/976, 13-14=0/54
BOT CHORD 2-24=-428/35, 23-24=-430/0,
21-23=-754/155, 18-21=0/2060,
16-18=-842/635 15-16=-576/0
13-15=-573/45
WEBS 4-22=0/1796 5-22=-1425/76,
10-17=-1030/77, 11-17=-1/1900,
11-16=-2255/108 6-21=-1015/113,
5-21=-50/1807 6-20=-18/915, 7-20=-461/89
7-19=-10/121, 8-19=-359/77, 9-19=-7/627
9-18=-822/103, 10-18=-36/1502,
12-16=-374/150, 12-15=-53/151,
3-24=-58/199, 3-23=-483/198, 4-23=-2284/79

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=58ft, eave=7ft Cat. II, Exp B Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10 Zone1 3-9-10 to 13-0-0 Zone2 13-0-0 to 21-2-7, Zone1 21-2-7 to 45-0-0, Zone2 45-0-0 to 53-2-7, Zone1 53-2-7 to 60-0-0 zone, cantilever left and right exposed end vertical left and right exposed porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 2, 60 lb uplift at joint 16, 84 lb uplift at joint 23 and 164 lb uplift at joint 13
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard

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

April 25,2025

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 sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A06A		1	1	Job Reference (optional)	T37134686

Mayo Truss Company Inc Mayo FL 32066 — Run 8 83 S Apr 11 2025 Print 8 830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11 50 — Page 1

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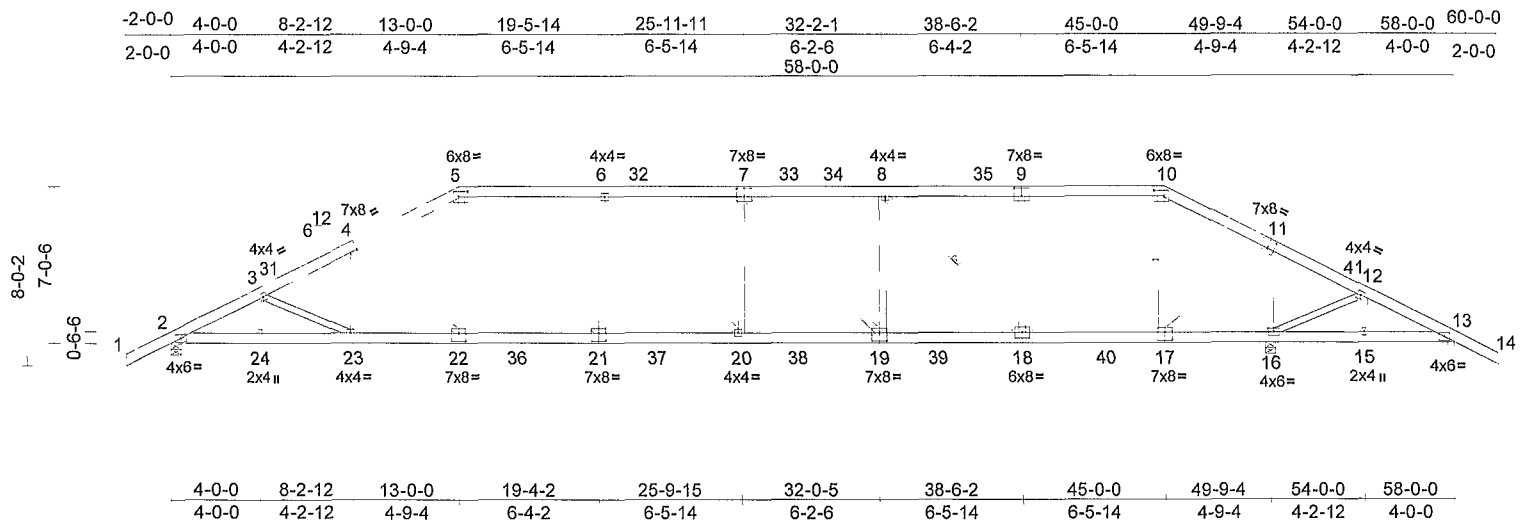

Scale = 1 103 9

Plate Offsets (X, Y) [4 0-4-0 0-4-8] [5 0-5-4,0-3-0] [7 0-4-0 0-4-8] [9 0-4-0,0-4-8], [10 0-5-8,0-3-0], [11 0-3-12,0-4-8], [17 0-4-0,0-4-8], [19 0-4-0,0-4-8] [21 0-4-0,0-4-8] [22 0-4-0 0-4-8]

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 39	Vert(LL)	-0 26	20-21	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 61	Vert(CT)	-0 47	20-21	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 92	Horz(CT)	0 13	16	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 455 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 10-17 7-19 8-18

REACTIONS (size) 2=0-5-8, 13=0-3-8 16=0-5-8
Max Horiz 2=-145 (LC 10)
Max Uplift 2=-48 (LC 12) 13=-653 (LC 25), 16=-57 (LC 12)
Max Grav 2=2248 (LC 17), 13=-128 (LC 12) 16=3662 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-4153/118, 3-5=-3907/159 5-6=-3682/172, 6-8=-3711/162 8-10=-2124/141, 10-12=-586/2085, 12-13=-9/1758 13-14=0/54
BOT CHORD 2-24=-37/3765, 23-24=-37/3765, 20-23=-11/3740, 18-20=0/3756, 16-18=-1759/457 15-16=-1503/17, 13-15=-1503/58
WEBS 5-22=0/615, 10-17=-1749/97, 11-17=-33/2960, 11-16=-3314/136 12-16=-413/153 4-22=-565/81 6-21=-518/96, 5-21=-22/984 6-20=-15/151, 7-20=0/265, 7-19=-747/28, 8-19=0/810 8-18=-1562/36 9-18=-408/112 10-18=-64/2407, 12-15=-53/157, 3-24=-2/103, 3-23=-236/29 4-23=0/276

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=58ft, eave=7ft; Cat II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 4-0-0, Zone1 4-0-0 to 13-0-0, Zone2 13-0-0 to 21-2-7, Zone1 21-2-7 to 45-0-0, Zone2 45-0-0 to 53-2-7, Zone1 53-2-7 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed, porch right exposed C-C for members and forces & MWFRS for reactions shown Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 653 lb uplift at joint 13 57 lb uplift at joint 16 and 48 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

LOAD CASE(S) Standard

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

April 25,2025

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 sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A07		1	1	Job Reference (optional)	T37134687

Mayo Truss Company Inc. Mayo FL - 32066 | Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 51 | Page 1

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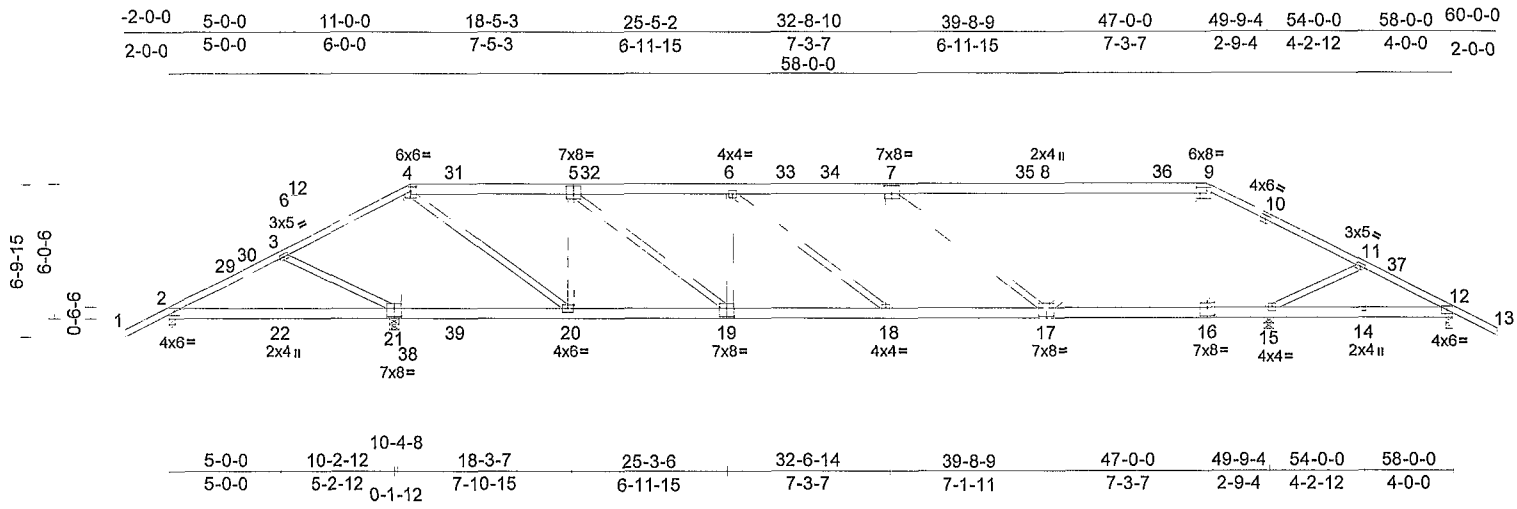

Scale = 1 103.8

Plate Offsets (X Y) [4 0-3-0 0-2-7], [5 0-4-0,0-4-8], [7 0-4-0,0-4-8], [9 0-2-0 0-3-4] [16 0-4-0,0-4-8], [17 0-4-0,0-4-8] [19 0-4-0,0-4-8], [21 0-4-0 0-4-8]

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 49	Vert(LL)	-0 13	18-19	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 40	Vert(CT)	-0 25	18-19	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 68	Horz(CT)	0 02	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 407 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No 2 *Except* 1-4 9-13 2x4 SP No 2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No 2

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 7-17, 4-21

REACTIONS (size) 2=0-3-8, 12=0-3-8 15=0-5-8, 21=0-5-8
Max Horiz 2=125 (LC 11)
Max Uplift 2=-251 (LC 24) 12=-240 (LC 23) 15=-71 (LC 12), 21=-79 (LC 12)
Max Grav 2=12 (LC 23) 12=-9 (LC 1), 15=2493 (LC 18) 21=2760 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-60/826 3-4=-16/1277, 4-6=-1985/88 6-8=-2159/101, 8-9=-1552/103, 9-10=-111/55, 10-11=-28/1081, 11-12=-68/748 12-13=0/54
BOT CHORD 2-22=-722/93, 20-22=-771/131, 18-20=0/1999, 15-18=-946/2158, 14-15=-645/14 12-14=-645/114
WEBS 3-22=-73/201, 3-21=-520/240 9-16=-1332/88, 10-15=-2188/73 5-20=-1147/122, 6-19=-540/96, 5-19=-22/1154 7-18=0/195, 8-17=-476/126 7-17=-777/16, 9-17=-54/1867 11-14=-47/178 10-16=-8/1780, 11-15=-407/165, 4-20=-38/2259 6-18=-6/207 4-21=-2283/122

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=58ft, eave=7ft, Cat. II Exp B Enclosed MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10, Zone1 3-9-10 to 11-0-0, Zone2 11-0-0 to 19-2-7, Zone1 19-2-7 to 47-0-0, Zone2 47-0-0 to 55-2-7, Zone1 55-2-7 to 60-0-0 zone, cantilever left and right exposed end vertical left and right exposed porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10 0psf
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 2, 79 lb uplift at joint 21, 71 lb uplift at joint 15 and 240 lb uplift at joint 12
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard

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

April 25,2025

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 sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A07A		1	1	Job Reference (optional)	T37134688

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print: 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 51 Page 1

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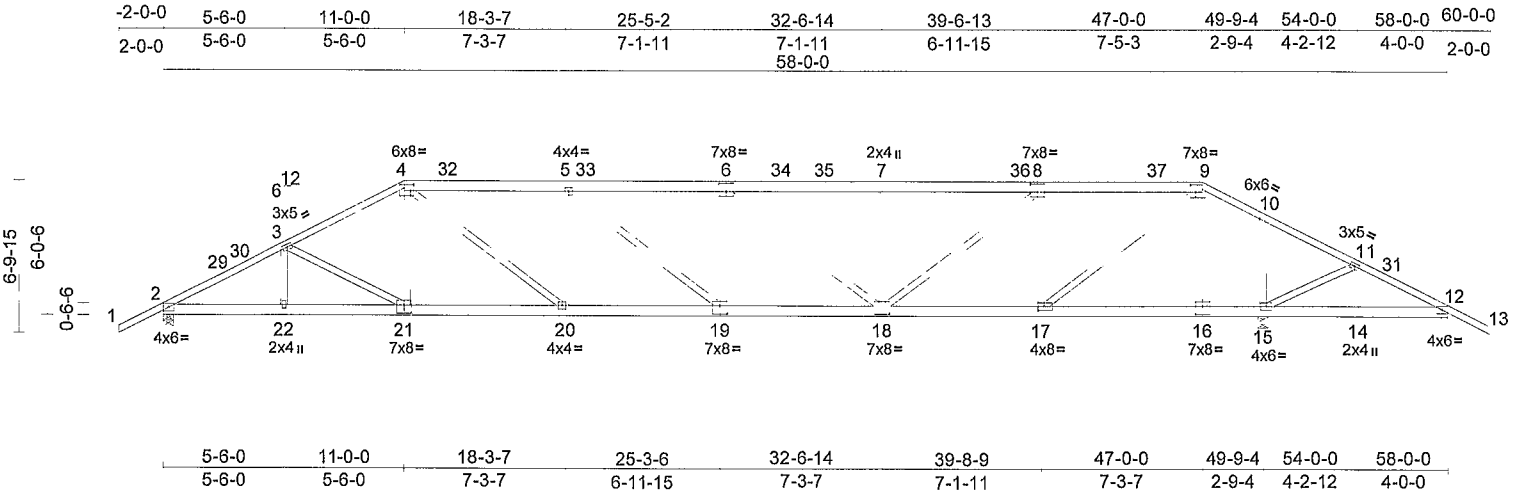

Scale = 1 103 8

Plate Offsets (X, Y) [4 0-1-12,0-3-4], [6 0-4-0 0-4-8], [8 0-4-0 0-4-8] [9 0-2-12 0-4-0] [16 0-3-12 0-4-8] [17 0-3-8,0-2-0], [18 0-4-0,0-4-8] [19 0-4-0,0-4-8], [21 0-4-0,0-4-8]

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 59	Vert(LL)	-0 27	19-20	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 63	Vert(CT)	-0 55	19-20	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 97	Horz(CT)	0 11	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 407 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No 2 *Except* 1-4 9-13 2x4 SP No 2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No 2

BRACING

TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 9-16, 6-18

REACTIONS (size) 2=0-5-8, 12=0-3-8 15=0-5-8
Max Horiz 2=-125 (LC 10)
Max Uplift 2=-47 (LC 12), 12=-786 (LC 23) 15=-62 (LC 12)
Max Grav 2=1946 (LC 23), 12=-125 (LC 12) 15=3490 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/54, 2-3=-3425/125, 3-4=-3116/137, 9-10=0/549, 10-11=-47/2183, 11-12=-75/1850, 12-13=0/54, 4-5=-3622/167, 5-7=-3711/144 7-9=-3076/131

BOT CHORD 2-22=-30/2998 20-22=-30/2998 17-20=0/3707 15-17=-1905/151, 14-15=-1628/26, 12-14=-1628/120

WEBS 3-22=-11/127, 3-21=-332/81, 4-21=0/406, 9-16=-2174/108 10-16=-30/2650 10-15=-3150/96 5-20=-623/107 4-20=-31/1237 5-19=0/199 6-19=0/229 6-18=-807/36 7-18=-403/86, 8-18=-34/1678 8-17=-1537/138 9-17=-81/2754 11-15=-434/166 11-14=-48/208

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=58ft, eave=7ft, Cat II, Exp B Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 3-9-10 Zone1 3-9-10 to 11-0-0, Zone2 11-0-0 to 19-2-7, Zone1 19-2-7 to 47-0-0 Zone2 47-0-0 to 55-2-7, Zone1 55-2-7 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed, porch right exposed C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 2, 62 lb uplift at joint 15 and 786 lb uplift at joint 12
8) This truss design requires that a minimum of 7/16 structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard

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

April 25,2025

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.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	T37134689
0425-043	A08		1	1	Job Reference (optional)	

Mayo Truss Company Inc. Mayo FL - 32066

Run 8 83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11 51 Page 1
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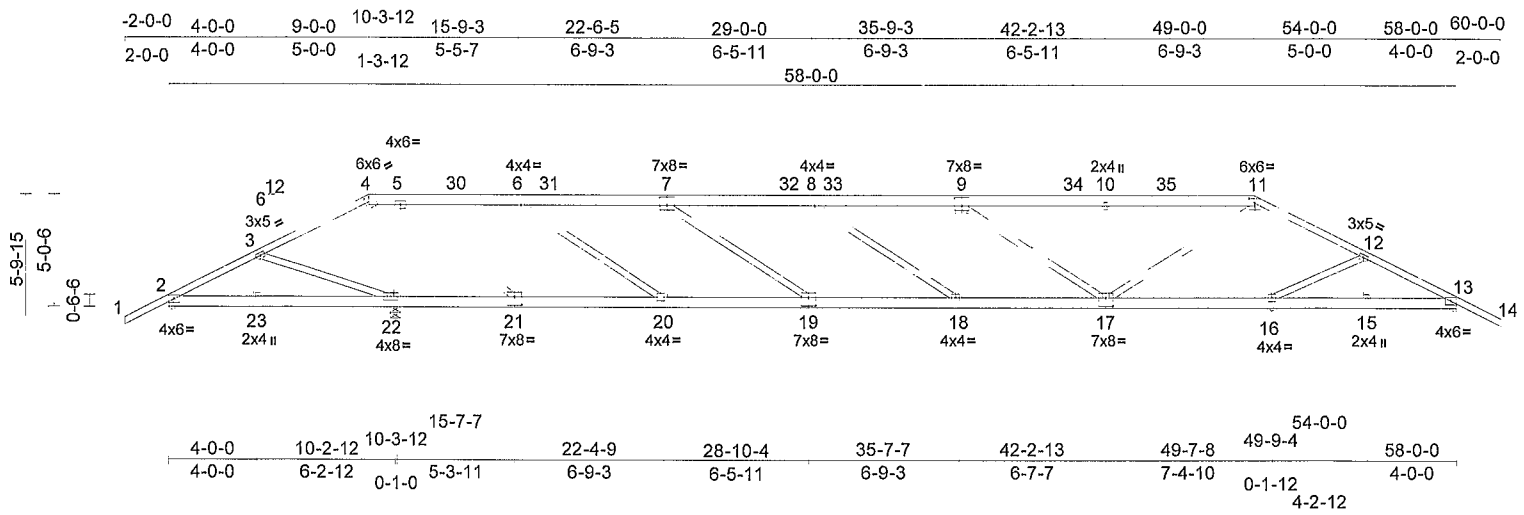

Scale = 1 103 8

Plate Offsets (X Y) [4 0-3-0,0-0-11] [7 0-4-0 0-4-8] [9 0-4-0 0-4-8] [11 0-3-0 0-2-7] [17 0-4-0,0-4-8], [19 0-4-0,0-4-8], [21 0-4-0 0-4-8]

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 49	Vert(LL)	-0 13	18-19	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 34	Vert(CT)	-0 25	18-19	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 79	Horz(CT)	0 01	16	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 403 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No 2 *Except* 1-4,11-14 2x4 SP No 2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No 2

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 9-17

REACTIONS (size) 2=0-3-8 13=0-3-8 16=0-5-8, 22=0-5-8
Max Horiz 2=-106 (LC 10)
Max Uplift 2=-447 (LC 24) 13=-443 (LC 23) 16=-68 (LC 12) 22=-77 (LC 12)
Max Grav 2=-119 (LC 16) 13=-115 (LC 9) 16=2554 (LC 24), 22=2745 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-49/1153 3-4=-6/1553, 4-5=0/1535, 5-6=-209/55 6-8=-2066/73, 8-10=-1844/78 10-11=-876/76 11-12=-33/1495, 12-13=-64/1158 13-14=0/54
BOT CHORD 2-23=-1009/89, 22-23=-1009/0 20-22=-1450/250 18-20=0/2074 16-18=-967/1834 15-16=-1014/0 13-15=-1014/110
WEBS 3-22=-516/221, 3-23=-61/235 11-16=-2234/122 12-16=-420/204, 12-15=-64/164, 6-21=-1280/108 5-21=-33/2123, 6-20=-23/1599 7-20=-774/91, 7-19=-10/637 8-19=-244/87 8-18=-289/10, 9-18=0/378, 9-17=-1205/23, 10-17=-434/116, 11-17=-47/2194, 5-22=-1589/79 4-22=-904/64

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=58ft, eave=7ft, Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 4-0-0, Zone1 4-0-0 to 9-0-0, Zone2 9-0-0 to 17-2-7, Zone1 17-2-7 to 49-0-0, Zone2 49-0-0 to 57-6-0 Zone1 57-6-0 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed, porch left and right exposed C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 443 lb uplift at joint 13 77 lb uplift at joint 22 68 lb uplift at joint 16 and 447 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

LOAD CASE(S) Standard

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

April 25,2025

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 sbcscomponents com)

MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A08A		1	1	Job Reference (optional)	T37134690

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print 8 830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11 52 Page 1

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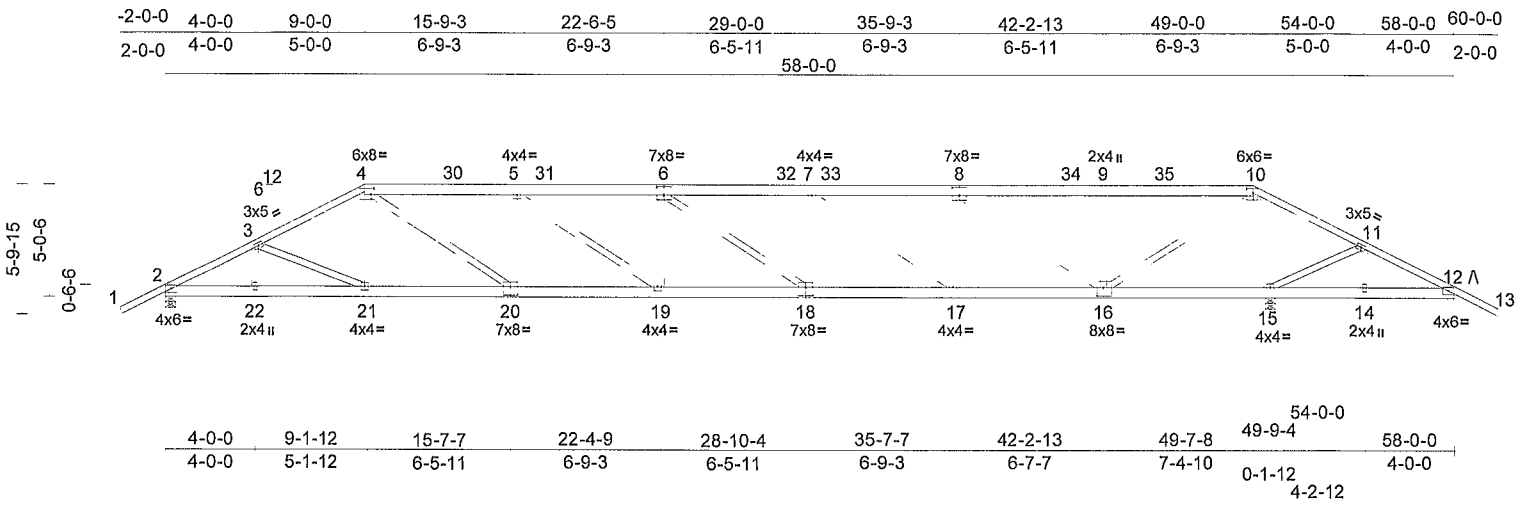

Scale = 1 103.8

Plate Offsets (X Y) [4 0-1-12 0-3-4] [6 0-4-0 0-4-8], [8 0-4-0,0-4-8], [10 0-3-8,0-2-4], [16 0-3-8 0-4-8], [18 0-4-0,0-4-8], [20 0-4-0,0-4-8]

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 41	Vert(LL)	-0 41	18-19	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 81	Vert(CT)	-0 80	18-19	>745	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 90	Horz(CT)	0 18	15	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 397 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No 2 *Except* 1-4,10-13 2x4 SP No 2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No 2

BRACING

TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied
WEBS 1 Row at midpt 7-17, 8-16

REACTIONS (size) 2=0-5-8 12=0-3-8, 15=0-5-8
Max Horiz 2=-106 (LC 10)
Max Uplift 2=-26 (LC 12), 12=REL, 15=-209 (LC 12)
Max Grav 2=2073 (LC 23), 15=2850 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/54 2-3=-3649/55 3-4=-3534/91, 4-5=-4546/105 5-7=-5180/59 7-9=-4123/0, 9-10=-2458/0, 10-11=-385/1025, 11-12=-259/636 12-13=0/54

BOT CHORD 2-22=0/3213 21-22=0/3213, 19-21=0/4572, 17-19=0/5189 15-17=-508/4099, 14-15=-516/298, 12-14=-516/298

WEBS 4-21=0/326, 4-20=-8/1744, 10-16=-116/3106 5-20=-884/87, 5-19=0/739, 6-19=-285/55, 6-18=-253/59, 7-18=0/363, 7-17=-1184/70, 8-17=0/812, 8-16=-2091/82 9-16=-445/114 11-15=-379/221 11-14=-75/136, 3-21=-151/73 3-22=-117/68 10-15=-2536/324

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=58ft, eave=7ft, Cat II, Exp B, Enclosed MWFRS (directional) and C-C Zone3 -2-0-0 to 4-0-0, Zone1 4-0-0 to 9-0-0 Zone2 9-0-0 to 17-2-7 Zone1 17-2-7 to 49-0-0, Zone2 49-0-0 to 57-6-0 Zone1 57-6-0 to 60-0-0 zone, cantilever left and right exposed , end vertical left and right exposed, porch right exposed C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) Provide adequate drainage to prevent water ponding
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2 and 209 lb uplift at joint 15
8) "Λ" indicates Released bearing allow for upward movement at joint(s) 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

LOAD CASE(S) Standard

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

April 25,2025

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MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	A09		1	2	Job Reference (optional)	T37134691

Mayo Truss Company Inc. Mayo FL 32066,

Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 54 Page 1
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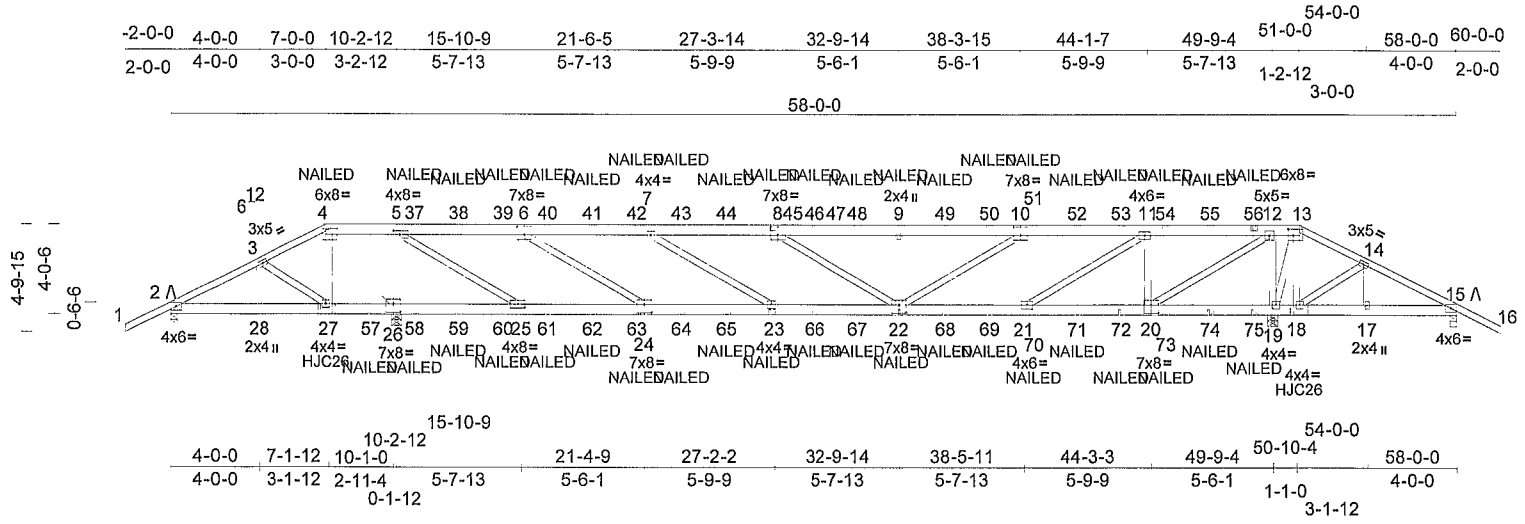


Scale = 1 103 8

Plate Offsets (X, Y) [4 0-2-12 0-3-0], [5 0-3-8,0-2-0], [6 0-4-0 0-4-8], [8 0-4-0 0-4-8] [10 0-4-0,0-4-8], [13 0-2-12 0-3-4], [20 0-4-0 0-4-8], [22 0-4-0 0-4-8], [24 0-4-0,0-4-8] [25 0-3-8,0-2-0] [26 0-4-0 0-4-8]

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 37	Vert(LL)	-0 26	22-23	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 75	Vert(CT)	-0 52	22-23	>917	180		
BCLL	0 0*	Rep Stress Incr	NO	WB	0 61	Horz(CT)	0 08	19	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-MS							Weight. 812 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No 2 *Except* 1-4,13-16 2x4 SP No 2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No 2

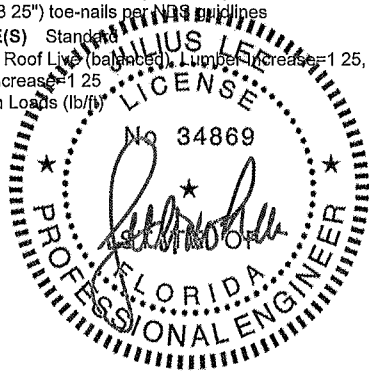
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-11 oc purlins
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing

REACTIONS (size) 2=0-3-8, 15=0-3-8, 19=0-5-8, 26=0-5-8
Max Horiz 2=-87 (LC 6)
Max Uplift 2=REL 15=REL, 19=-379 (LC 8) 26=-443 (LC 8)
Max Grav 19=4810 (LC 20), 26=5254 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-197/620, 3-4=-229/949, 4-5=-435/1841, 5-7=-6422/0, 7-9=-7993/0 9-11=-7991/0, 11-12=-3677/0, 12-13=-273/1037, 13-14=-239/964, 14-15=-198/618, 15-16=0/54
BOT CHORD 2-28=-509/230, 27-28=-509/230, 25-27=-1702/547, 23-25=0/6489, 21-23=0/8020, 19-21=-1049/3779, 18-19=-815/304, 17-18=-508/231 15-17=-508/231
WEBS 4-27=-154/668, 4-26=-1606/399, 5-26=-3481/171, 12-19=-3431/162 13-19=-734/283, 13-18=-192/437, 12-20=-52/5164, 6-25=-2707/213, 5-25=-103/5423 6-24=-86/3696, 7-24=-1759/187 7-23=-52/2000, 8-23=-794/177 8-22=-49/169, 9-22=-662/156, 10-22=0/1747 10-21=-1642/162, 11-21=-36/3618, 11-20=-2625/186, 3-27=-387/91 3-28=-23/217, 14-18=-389/105, 14-17=-39/223

NOTES
1) 2-ply truss to be connected together with 10d (0 131"x3") nails as follows
Top chords connected as follows 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered 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
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 TCDL=6 0psf; BCDL=6 0psf, h=15ft, B=45ft L=58ft, eave=7ft, Cat. II, Exp B Enclosed, MWFRS (directional) cantilever left and right exposed , end vertical left and right exposed porch left and right exposed, Lumber DOL=1 60 plate grip DOL=1 60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
6) Provide adequate drainage to prevent water ponding
7) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
8) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 443 lb uplift at joint 26 and 379 lb uplift at joint 19
10) '/\' indicates Released bearing allow for upward movement at joint(s) 2, 15
11) Use MiTek HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 43-11-4 oc max starting at 7-0-6 from the left end to 50-11-10 to connect truss(es) to front face of bottom chord
12) Fill all nail holes where hanger is in contact with lumber
13) NAILED" indicates 3-10d (0 148"x3 ') or 3-12d (0 148 'x3 25") toe-nails per NDS guidelines

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced) Lumber Increase=1 25, Plate Increase=1 25
Uniform Loads (lb/ft)



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

April 25,2025

Continued on page 2

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

Vert 1-4=-60 4-13=-60, 13-16=-60 29-32=-20

Concentrated Loads (lb)

Vert 4=-124 (F), 27=-460 (F), 18=-640 (F), 23=-56 (F) 8=-124 (F) 22=-56 (F), 9=-124 (F), 37=-124 (F), 38=-124 (F) 39=-124 (F) 40=-124 (F), 41=-124 (F), 42=-124 (F) 43=-124 (F), 44=-124 (F), 46=-124 (F) 48=-124 (F), 49=-124 (F), 50=-124 (F), 51=-124 (F) 52=-124 (F) 53=-124 (F), 54=-124 (F), 55=-124 (F), 56=-124 (F), 57=-237 (F), 58=-56 (F), 59=-56 (F) 60=-56 (F), 61=-56 (F), 62=-56 (F) 63=-56 (F), 64=-56 (F), 65=-56 (F), 66=-56 (F), 67=-56 (F) 68=-56 (F) 69=-56 (F), 70=-56 (F), 71=-56 (F), 72=-56 (F) 73=-56 (F) 74=-56 (F), 75=-56 (F)

⚠ 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	MIKE TODD - GERKE RESIDENCE	
0425-043	A09A		1	3	Job Reference (optional)	T37134692

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11 56 Page 1
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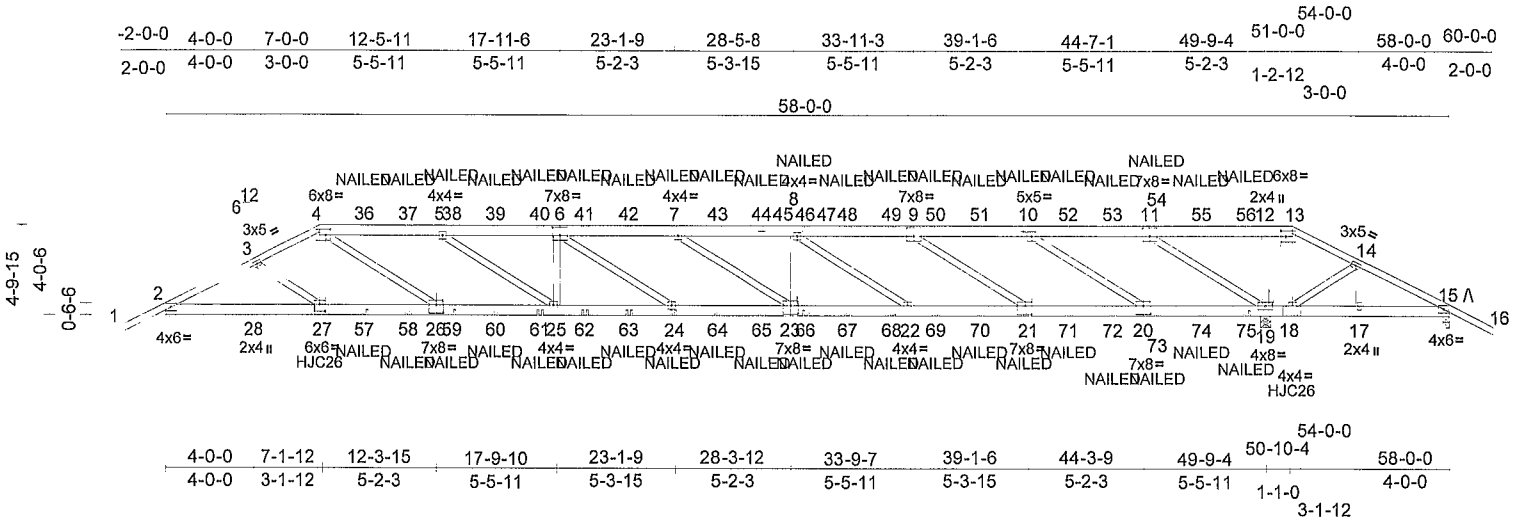


Scale = 1 103.8

Plate Offsets (X Y) [4 0-2-8,0-3-0] [6 0-4-0 0-4-8], [9 0-4-0,0-4-8], [11 0-4-0 0-4-8] [13 0-2-12,0-3-0] [20 0-4-0,0-4-8], [21 0-3-8,0-4-12], [23 0-4-0,0-4-8], [26 0-4-0,0-4-8] [27 0-3-0 0-3-12]

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 25	Vert(LL)	-0 43	23-24	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 87	Vert(CT)	-0 87	23-24	>688	180		
BCLL	0 0*	Rep Stress Incr	NO	WB	0 36	Horz(CT)	0 18	19	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 1217 lb FT = 20%	

LUMBER
TOP CHORD 2x6 SP No 2 *Except* 1-4 13-16 2x4 SP No 2
BOT CHORD 2x6 SP No 2
WEBS 2x4 SP No 2

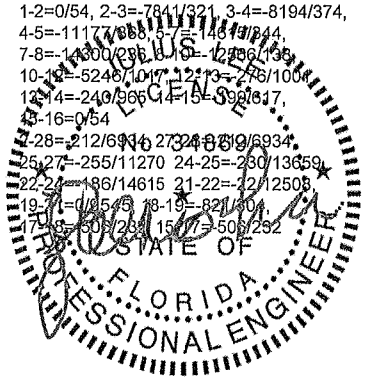
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except.
6-0-0 oc bracing 18-19,17-18 15-17

REACTIONS (size) 2=0-5-8 15=0-3-8, 19=0-5-8
Max Horiz 2=87 (LC 7)
Max Uplift 2=-217 (LC 8), 15=REL, 19=-452 (LC 8)
Max Grav 2=4191 (LC 19), 19=5795 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-7841/321, 3-4=-8194/374, 4-5=-11177/668, 5-7=-14611/844, 7-8=-14300/836, 8-10=-12256/736, 10-12=-5246/1017, 12-13=-276/1004, 13-14=-240/966, 14-15=-399/617, 15-16=0/54
BOT CHORD 2-28=-212/6914, 27-28=-212/6914, 25-27=-255/11270, 24-25=-230/13659, 22-24=-186/14615, 21-22=-22/12503, 19-21=0/8545, 18-19=-821/304, 17-18=-506/284, 15-17=-506/292
WEBS 4-27=-85/870, 13-19=-619/291, 13-18=-193/425, 12-19=-723/123, 11-19=-6669/192, 5-26=-2395/156, 4-26=-23/4619, 5-25=0/2813, 6-25=-1300/118, 6-24=0/1161, 7-24=-414/102, 7-23=-455/83, 8-23=0/623, 8-22=-2139/123, 9-22=0/1450, 9-21=-3672/140, 10-21=0/2352, 10-20=-5299/181, 11-20=0/3188, 3-27=-63/578, 14-18=-399/106, 14-17=-39/219, 3-28=-499/64

NOTES
1) 3-ply truss to be connected together with 10d (0 131"x3") nails as follows
Top chords connected as follows 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows. 2x4 - 1 row at 0-9-0 oc, Except member 4-27 2x4 - 1 row at 0-7-0 oc, Except member 13-18 2x4 - 1 row at 0-7-0 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 TCDL=6 0psf, BCDL=6 0psf, h=15ft, B=45ft, L=58ft, eave=7ft Cat. II Exp B, Enclosed, MWFRS (directional), cantilever left and right exposed end vertical left and right exposed, porch right exposed Lumber DOL=1 60 plate grip DOL=1 60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding
7) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
8) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 217 lb uplift at joint 2 and 452 lb uplift at joint 19
10) Λ" indicates Released bearing allow for upward movement at joint(s) 15
11) Use MiTek HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 43-11-4 oc max starting at 7-0-6 from the left end to 50-11-10 to connect truss(es) to back face of bottom chord
12) Fill all nail holes where hanger is in contact with lumber
13) 'NAILED" indicates 3-10d (0 148 'x3") or 3-12d (0 148"x3 25 ') toe-nails per NDS guidlines

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced) Lumber Increase=1 25, Plate Increase=1 25
Uniform Loads (lb/ft)



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

April 25,2025

Continued on page 2

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Vert. 1-4=-60, 4-13=-60, 13-16=-60, 29-32=-20

Concentrated Loads (lb)

Vert. 27=-640 (B), 18=-640 (B), 24=-56 (B), 7=-124 (B), 21=-56 (B), 10=-124 (B), 36=-124 (B), 37=-124 (B), 38=-124 (B), 39=-124 (B), 40=-124 (B), 41=-124 (B) 42=-124 (B), 43=-124 (B), 44=-124 (B), 46=-124 (B) 48=-124 (B), 49=-124 (B), 50=-124 (B), 51=-124 (B), 52=-124 (B), 53=-124 (B), 54=-124 (B), 55=-124 (B), 56=-124 (B), 57=-56 (B), 58=-56 (B), 59=-56 (B), 60=-56 (B), 61=-56 (B), 62=-56 (B), 63=-56 (B), 64=-56 (B), 65=-56 (B), 66=-56 (B), 67=-56 (B) 68=-56 (B), 69=-56 (B) 70=-56 (B), 71=-56 (B), 72=-56 (B), 73=-56 (B) 74=-56 (B), 75=-56 (B)

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Chesterfield MO 63017
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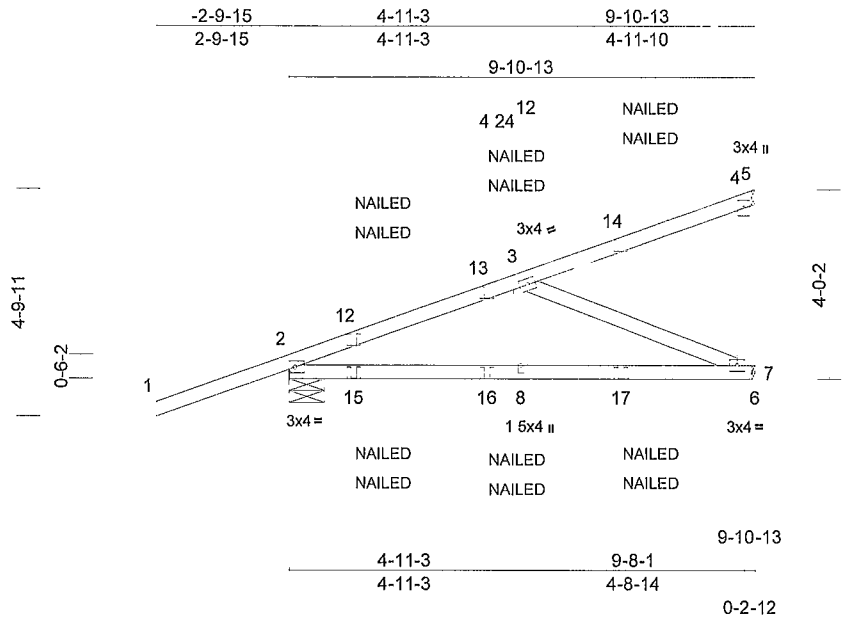
Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	CJ01		3	1	Job Reference (optional)	T37134693

Mayo Truss Company Inc. Mayo FL - 32066, Run 8 83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries Inc Fri Apr 25 08 11 56 ID:SFn1ni1QYuTiOux_ZyzE1tzNTPq-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page 1



Scale = 1.49

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 62	Vert(LL)	-0 04	8-11	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 62	Vert(CT)	-0 06	7-8	>999	180		
BCLL	0 0*	Rep Stress Incr	NO	WB	0 28	Horz(CT)	-0 01	2	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-MS							Weight. 50 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 or 6-0-0 oc purlins except end verticals
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

REACTIONS (size) 2=0-9-2 7= Mechanical
Max Horiz 2=152 (LC 8)
Max Uplift 2=-209 (LC 8) 7=-96 (LC 8)
Max Grav 2=559 (LC 13), 7=504 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/57, 2-3=-715/385 3-4=-114/16 4-5=-2/0 4-7=-175/72
BOT CHORD 2-8=-256/638 7-8=-151/638, 6-7=0/0
WEBS 3-8=0/196 3-7=-645/159

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=24ft eave=4ft Cat. II, Exp B, Partially Enclosed, MWFRS (directional); cantilever left and right exposed , Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
5) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
6) Refer to girder(s) for truss to truss connections
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 209 lb uplift at joint 2 and 96 lb uplift at joint 7
8) "NAILED" indicates 3-10d (0 148"x3") or 2-12d (0 148"x3 25") toe-nails per NDS guidlines
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced) Lumber Increase=1 25, Plate Increase=1 25
Uniform Loads (lb/ft)
Vert 1-4=-60, 4-5=-20 6-9=-20
Concentrated Loads (lb)
Vert 12=77 (F=38, B=38), 14=-77 (F=-38 B=-38), 15=77 (F=39 B=39) 16=11 (F=6 B=6), 17=-43 (F=-22 B=-22)

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

April 25,2025

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Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	CJ02	Diagonal Hip Girder	1	1	Job Reference (optional)	T37134694

Mayo Truss Company Inc Mayo FL 32066 — Run 8 83 S Apr 11 2025 Print 8 830 S Apr 11 2025 MiTek Industries Inc Fri Apr 25 08 11 57 — Page 1

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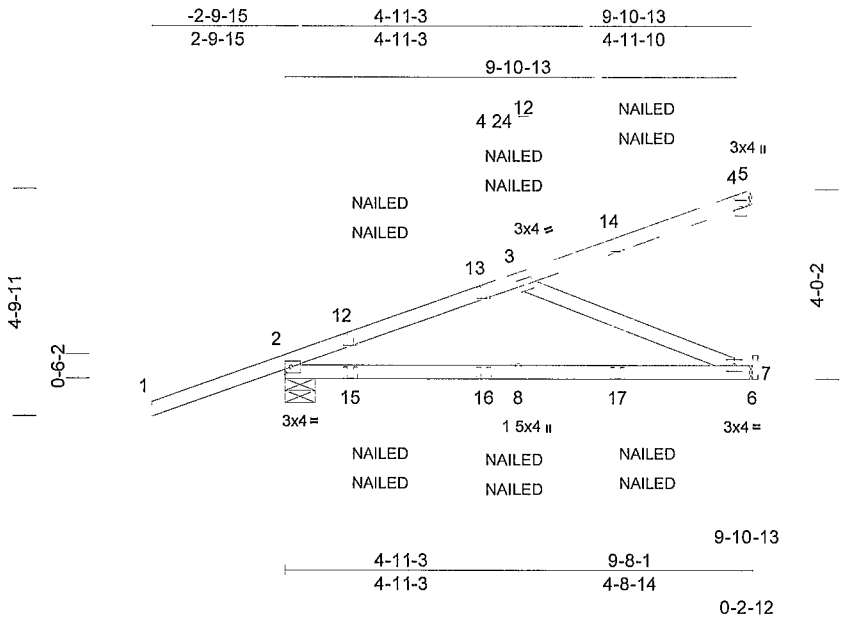

Scale = 1 49

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 62	Vert(LL)	-0 04	8-11	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 62	Vert(CT)	-0 06	7-8	>999	180		
BCLL	0 0*	Rep Stress Incr	NO	WB	0 28	Horz(CT)	-0 01	2	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 50 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 or 6-0-0 oc purlins except end verticals
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

REACTIONS (size) 2=0-7-12 7= Mechanical
Max Horiz 2=120 (LC 8)
Max Uplift 2=-195 (LC 8), 7=-76 (LC 8)
Max Grav 2=548 (LC 13), 7=488 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/57, 2-3=-717/385, 3-4=-121/17, 4-5=-2/0, 4-7=-166/60
BOT CHORD 2-8=-256/620, 7-8=-128/620, 6-7=0/0
WEBS 3-8=0/196, 3-7=-626/134

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=24ft eave=4ft Cat. II, Exp B, Enclosed MWFRS (directional), cantilever left and right exposed Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
5) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
6) Refer to girder(s) for truss to truss connections
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 2 and 76 lb uplift at joint 7
8) "NAILED" indicates 3-10d (0 148"x3") or 2-12d (0 148'x3 25') toe-nails per NDS guidlines
9) In the LOAD CASE(S) section loads applied to the face of the truss are noted as front (F) or back (B)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced) Lumber Increase=1 25, Plate Increase=1 25
Uniform Loads (lb/ft)
Vert. 1-4=-60, 4-5=-20, 6-9=-20
Concentrated Loads (lb)
Vert. 12=77 (F=38, B=38), 14=-77 (F=-38 B=-38) 15=77 (F=39, B=39), 16=11 (F=6 B=6) 17=-43 (F=-22, B=-22)

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

April 25,2025

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Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	J01		42	1	Job Reference (optional)	T37134695

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print. 8.830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 57 Page 1
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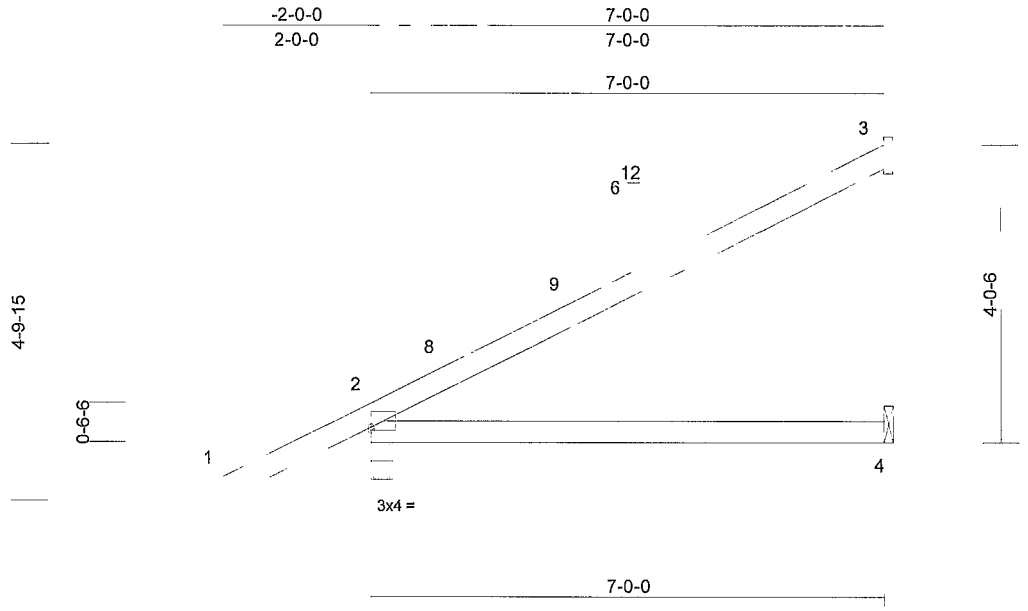

Scale = 1 31.4

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

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 58	Vert(LL)	-0 09	4-7	>908	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 51	Vert(CT)	-0 21	4-7	>397	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 00	Horz(CT)	0 02	2	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 26 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No 2

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=119 (LC 12)
Max Uplift 2=-34 (LC 12), 3=-45 (LC 12)
Max Grav 2=415 (LC 1), 3=184 (LC 1), 4=124 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-440/299
BOT CHORD 2-4=-258/115

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 -2-0-0 to 1-0-0, Zone1 1-0-0 to 6-11-4 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) Refer to girder(s) for truss to truss connections
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 3 and 34 lb uplift at joint 2
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

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

April 25,2025

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16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	J01A		4	1	Job Reference (optional)	T37134696

Mayo Truss Company Inc. Mayo FL 32066 | Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11 57 | Page 1

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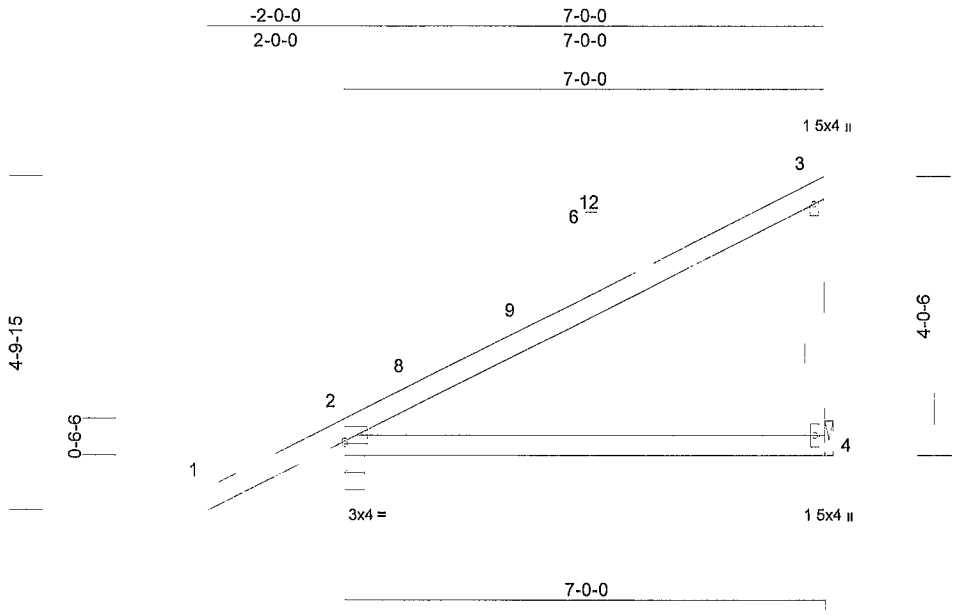

Scale = 1 33 5

Plate Offsets (X Y) [2 Edge 0-0-8]

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 57	Vert(LL)	-0 09	4-7	>940	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 49	Vert(CT)	-0 20	4-7	>411	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 00	Horz(CT)	0 02	2	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 31 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=150 (LC 12)
Max Uplift 2=-57 (LC 12) 4=-55 (LC 12)
Max Grav 2=412 (LC 1) 4=282 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-477/301 3-4= 202/175
BOT CHORD 2-4=-315/165

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=24ft; eave=4ft, Cat II, Exp B Partially Enclosed MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 6-10-4 zone, cantilever left and right exposed C-C for members and forces & MWFRS for reactions shown Lumber DOL=1 60 plate grip DOL=1 60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
4) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
5) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
6) Refer to girder(s) for truss to truss connections
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 4 and 57 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

LOAD CASE(S) Standard

Julius Lee PE No. 34869
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	J02		8	1	Job Reference (optional)	T37134697

Mayo Truss Company Inc Mayo FL 32066, Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 57 Page 1
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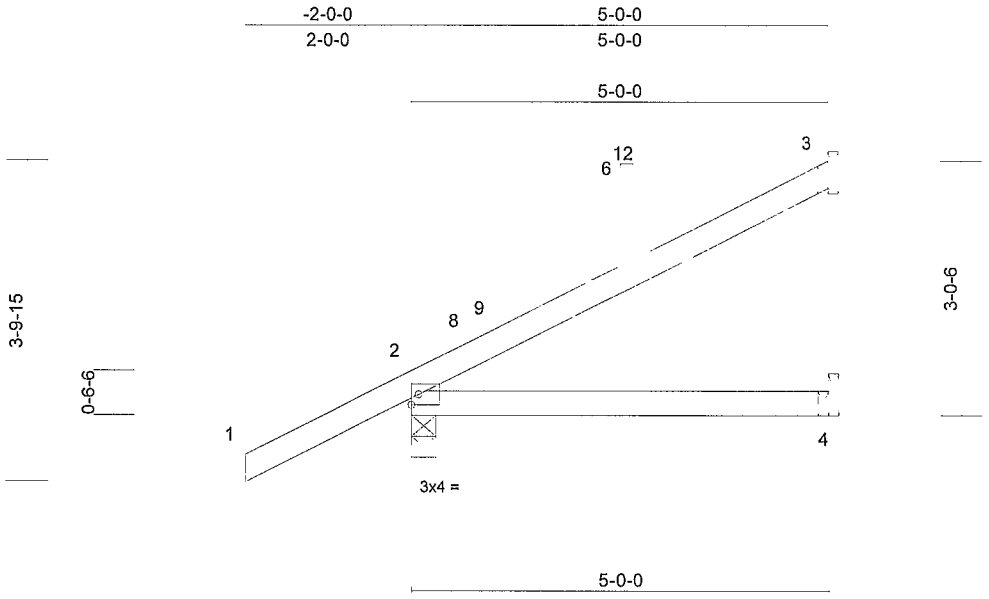

Scale = 1 27.6

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 27	Vert(LL)	0 03	4-7	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 24	Vert(CT)	-0 05	4-7	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 00	Horz(CT)	0 01	3	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 19 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No 2

BRACING
TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied

REACTIONS (size) 2=0-3-8 3= Mechanical, 4= Mechanical
Max Horiz 2=119 (LC 12)
Max Uplift 2=-60 (LC 12) 3=-55 (LC 12)
Max Grav 2=342 (LC 1) 3=139 (LC 17) 4=88 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54 2-3=-400/255
BOT CHORD 2-4=-202/105

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, Partially Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0 Zone1 1-0-0 to 4-11-4 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) Refer to girder(s) for truss to truss connections
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 3 and 60 lb uplift at joint 2
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

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

April 25,2025

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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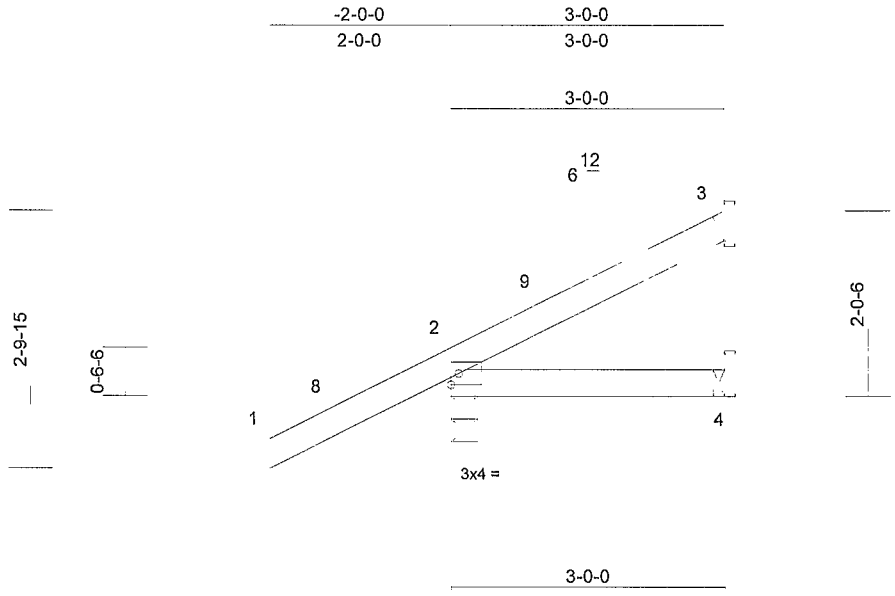
MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	J03		8	1	Job Reference (optional)	T37134698

Mayo Truss Company Inc. Mayo FL 32066 | Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 57 ID.z2DeZM0onaLrmkMn?ES?VfzNTPr-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f | Page 1



Scale = 1 25.4

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 27	Vert(LL)	0 00	4-7	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 07	Vert(CT)	-0 01	4-7	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 00	Horz(CT)	0 00	3	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-MP							Weight. 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No 2

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

REACTIONS (size) 2=0-3-8 3= Mechanical, 4= Mechanical
Max Horiz 2=85 (LC 12)
Max Uplift 2=-67 (LC 12), 3=-27 (LC 12)
Max Grav 2=278 (LC 1) 3=70 (LC 17) 4=48 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-308/219
BOT CHORD 2-4=-98/45

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 Partially Enclosed, MWFRS (directional) and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 2-11-4 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) Refer to girder(s) for truss to truss connections
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 3 and 67 lb uplift at joint 2

LOAD CASE(S) Standard

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

April 25,2025

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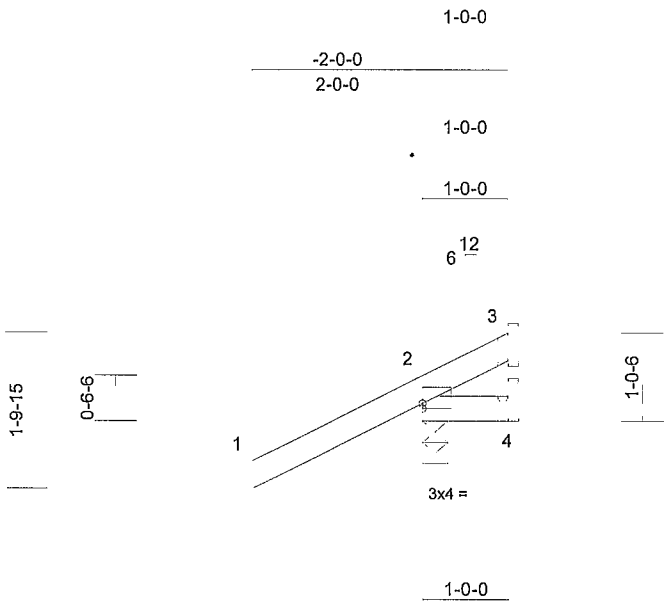
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	T37134699
0425-043	J04		8	1	Job Reference (optional)	

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 57 ID.z2DeZM0onaLrmkMn?ES?VfzNTPr RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1 27 1

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

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 27	Vert(LL)	0 00	4-7	>999	240	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 09	Vert(CT)	0 00	4-7	>999	180		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 00	Horz(CT)	0 00	3	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 7 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No 2

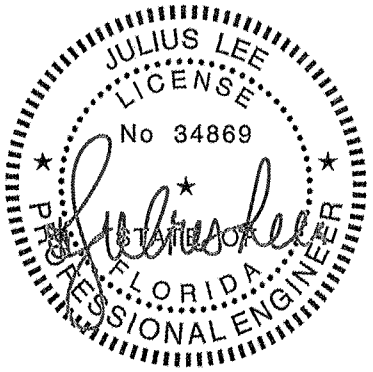
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

REACTIONS (size) 2=0-3-8, 3= Mechanical 4= Mechanical
Max Horiz 2=53 (LC 12)
Max Uplift 2=-106 (LC 12) 3=-34 (LC 1) 4=-48 (LC 1)
Max Grav 2=281 (LC 1), 3=17 (LC 12) 4=31 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-248/196
BOT CHORD 2-4=-123/106

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, Partially 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
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) Refer to girder(s) for truss to truss connections
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 2, 48 lb uplift at joint 4 and 34 lb uplift at joint 3

LOAD CASE(S) Standard



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

April 25,2025

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MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	PB01		3	1	Job Reference (optional)	T37134700

Mayo Truss Company Inc. Mayo FL 32066, Run 8 83 S Apr 11 2025 Print: 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 57 Page 1
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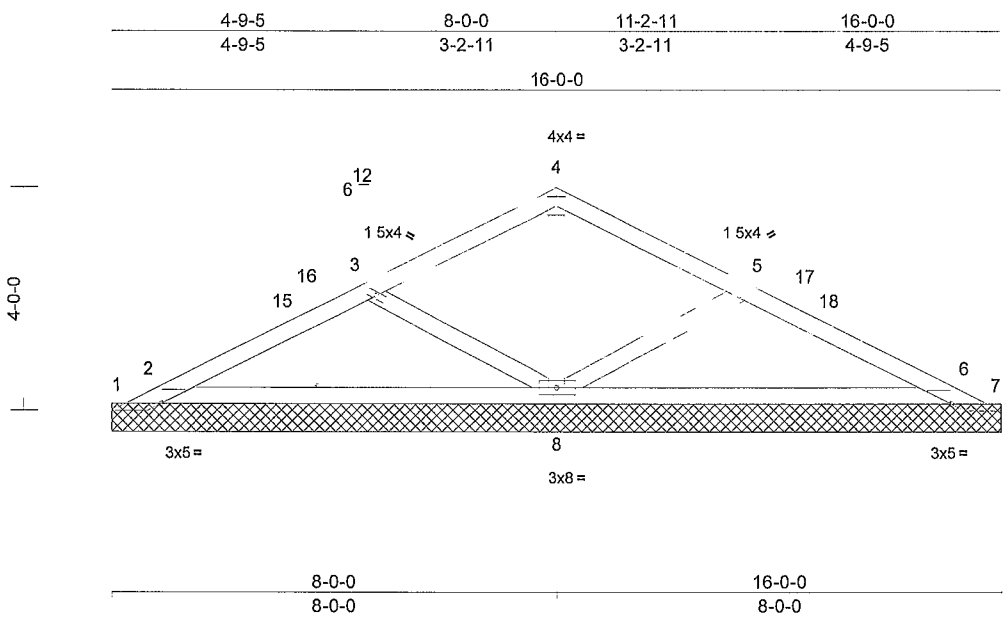

Scale = 1 41.5

Plate Offsets (X Y) [2 0-0-4,Edge] [6 0-0-4 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 32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 36	Vert(TL)	n/a	-	n/a	999		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 07	Horiz(TL)	0 00	7	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 63 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) 1=16-0-0 2=16-0-0 6=16-0-0 7=16-0-0 8=16-0-0
Max Horiz 1=-63 (LC 10)
Max Uplift 1=-258 (LC 3), 7=-254 (LC 3) 8=-13 (LC 12)
Max Grav 1=-38 (LC 12), 2=522 (LC 23), 6=505 (LC 24), 7=-36 (LC 12) 8=674 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-12/164, 2-3=-189/61, 3-4=-11/162, 4-5=-13/162 5-6=-188/59, 6-7=0/124
BOT CHORD 2-8=-110/148 6-8=-110/148
WEBS 4-8=-292/71 3-8=-252/118, 5-8=-252/118

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=24ft; eave=4ft, Cat II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 0-3-15 to 3-3-15, Zone1 3-3-15 to 8-0-0, Zone2 8-0-0 to 12-2-15 Zone1 12-2-15 to 15-8-1 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) Gable requires continuous bottom chord bearing
5) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
6) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 258 lb uplift at joint 1, 254 lb uplift at joint 7 and 13 lb uplift at joint 8
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer

LOAD CASE(S) Standard

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

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Chesterfield MO 63017
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	PB02		2	1	Job Reference (optional)	T37134701

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries, Inc. Fri Apr 25 08 11.58 Page 1
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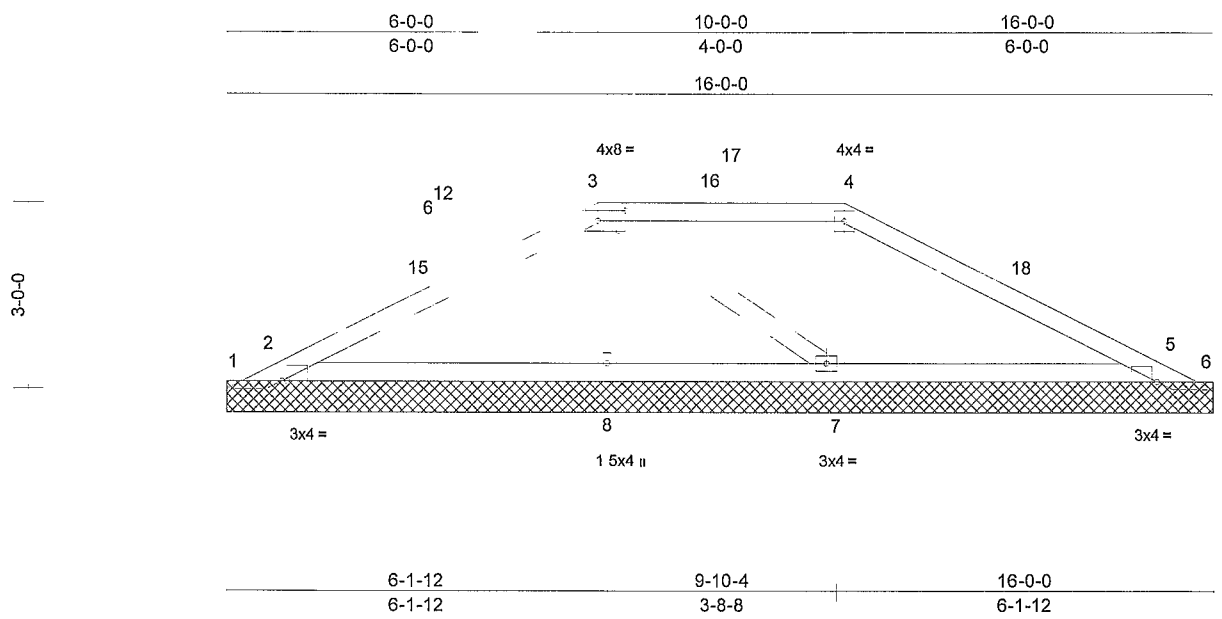

Scale = 1 37 3

Plate Offsets (X Y) [2 0-1-0,Edge] [3 0-5-4,0-2-0], [5 0-1-0 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)	n/a	-	n/a	999	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 15	Vert(TL)	n/a	-	n/a	999		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 04	Horiz(TL)	0 00	6	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 60 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) 1=16-0-0, 2=16-0-0 5=16-0-0, 6=16-0-0 7=16-0-0, 8=16-0-0
Max Horiz 1=-47 (LC 10)
Max Uplift 1=-303 (LC 17), 2=-25 (LC 12), 5=-29 (LC 12) 6=-290 (LC 1), 7=-1 (LC 12)
Max Grav 1=21 (LC 12), 2=598 (LC 1), 5=569 (LC 1) 6=24 (LC 12) 7=356 (LC 24), 8=317 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-30/186, 2-3=-116/108, 3-4=-33/50, 4-5=-92/108, 5-6=-26/151
BOT CHORD 2-8=-114/56, 7-8=-1/45, 5-7=-122/34
WEBS 3-8=-222/52 3-7=-39/23, 4-7=-253/72

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=24ft eave=4ft, Cat. II, Exp B, Enclosed MWFRS (directional) and C-C Zone3 0-3-15 to 3-3-15 Zone1 3-3-15 to 6-0-0, Zone3 6-0-0 to 10-0-0, Zone2 10-0-0 to 14-6-3, Zone1 14-6-3 to 15-8-1 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) Gable requires continuous bottom chord bearing
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
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2 29 lb uplift at joint 5 303 lb uplift at joint 1, 290 lb uplift at joint 6 1 lb uplift at joint 7, 25 lb uplift at joint 2 and 29 lb uplift at joint 5
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable or consult qualified building designer

LOAD CASE(S) Standard

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

April 25,2025

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Chesterfield MO 63017
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	PB03		2	1	Job Reference (optional)	T37134702

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print. 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 58 Page 1
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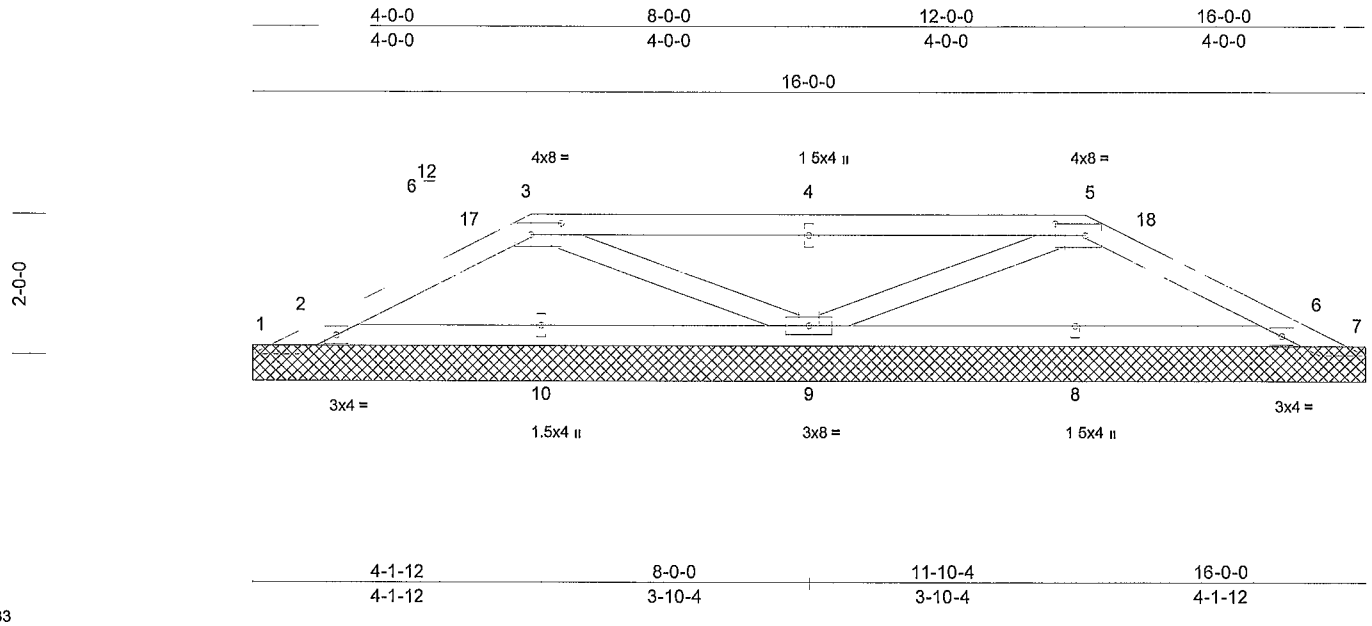

Scale = 1 33

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

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 17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 11	Vert(TL)	n/a	-	n/a	999		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 03	Horiz(TL)	0 00	7	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 63 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) 1=16-0-0 2=16-0-0 6=16-0-0, 7=16-0-0, 8=16-0-0, 9=16-0-0, 10=16-0-0
Max Horiz 1=31 (LC 11)
Max Uplift 1=-77 (LC 17), 2=-5 (LC 12) 6=-15 (LC 12) 7=-62 (LC 1) 9=-17 (LC 8)
Max Grav 1=6 (LC 12), 2=259 (LC 1) 6=243 (LC 1), 7=8 (LC 12), 8=257 (LC 1) 9=358 (LC 24) 10=258 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-23/74, 2-3=-51/33, 3-4=-8/19 4-5=-8/19, 5-6=-53/32, 6-7=-8/49
BOT CHORD 2-10=-10/31, 9-10=-6/19 8-9=-6/19 6-8=-12/27
WEBS 3-10=-178/41 5-8=-178/42, 5-9=-20/21, 4-9=-269/73, 3-9=-19/22

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=24ft; eave=4ft, Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 0-3-15 to 3-3-15, Zone1 3-3-15 to 4-0-0, Zone2 4-0-0 to 8-0-0, Zone1 8-0-0 to 12-0-0, Zone3 12-0-0 to 15-8-1 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) Gable requires continuous bottom chord bearing
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
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 2 15 lb uplift at joint 6 77 lb uplift at joint 1 62 lb uplift at joint 7, 17 lb uplift at joint 9, 5 lb uplift at joint 2 and 15 lb uplift at joint 6
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer

LOAD CASE(S) Standard

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

April 25,2025

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Chesterfield MO 63017
314.434 1200 / MiTek-US com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - GERKE RESIDENCE	
0425-043	PB04		2	1	Job Reference (optional)	T37134703

Mayo Truss Company Inc. Mayo FL 32066

Run 8 83 S Apr 11 2025 Print: 8 830 S Apr 11 2025 MiTek Industries Inc. Fri Apr 25 08 11 58 Page 1
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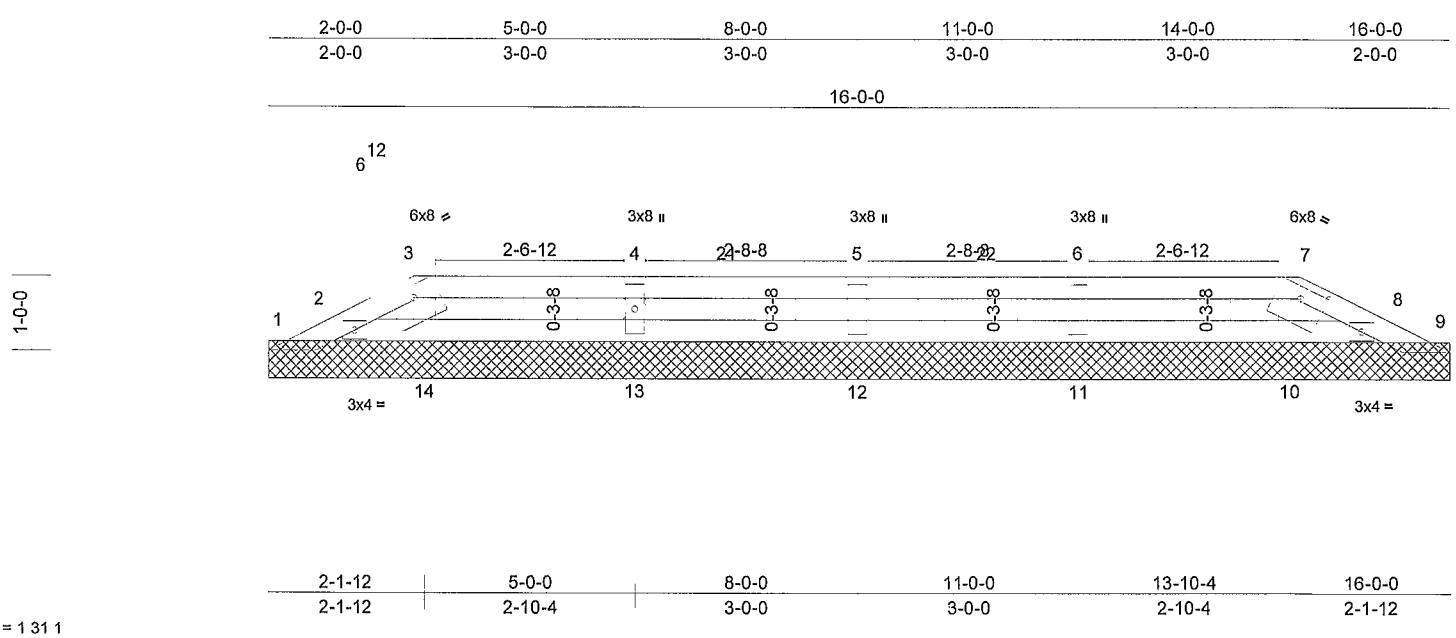


Scale = 1 31 1

Plate Offsets (X Y) [3 0-4-0 0-1-15], [7 0-4-0 0-1-15]

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 09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10 0	Lumber DOL	1 25	BC	0 06	Vert(TL)	n/a	-	n/a	999		
BCLL	0 0*	Rep Stress Incr	YES	WB	0 02	Horiz(TL)	0 00	9	n/a	n/a		
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight. 48 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) 1=16-0-0, 2=16-0-0 8=16-0-0 9=16-0-0, 10=16-0-0 11=16-0-0, 12=16-0-0 13=16-0-0, 14=16-0-0
Max Horiz 1=-14 (LC 10)
Max Uplift 1=-1 (LC 8), 8=-4 (LC 12) 11=-9 (LC 9) 13=-9 (LC 8)
Max Grav 1=23 (LC 18), 2=69 (LC 17) 8=56 (LC 1) 9=23 (LC 24) 10=168 (LC 24) 11=252 (LC 23), 12=234 (LC 1) 13=252 (LC 24), 14=171 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-19/21, 2-3=-22/15, 3-4=-7/14 4-5=-7/14, 5-6=-7/14 6-7=-7/14 7-8=-21/14 8-9=-8/9
BOT CHORD 2-14=-1/32 13-14=-7/13 12-13=-7/13, 11-12=-7/13, 10-11=-7/13, 8-10=-2/31
WEBS 3-14=-129/42 5-12=-174/41 7-10=-128/43 4-13=-191/60 6-11=-191/60

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=24ft, eave=4ft, Cat. II Exp B, Enclosed MWFRS (directional) and C-C Zone3 0-3-15 to 2-0-0 Zone2 2-0-0 to 6-2-15, Zone1 6-2-15 to 14-0-0, Zone3 14-0-0 to 15-8-1 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) Gable requires continuous bottom chord bearing
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
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 8, 1 lb uplift at joint 1, 9 lb uplift at joint 13 9 lb uplift at joint 11 and 4 lb uplift at joint 8
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer

LOAD CASE(S) Standard

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

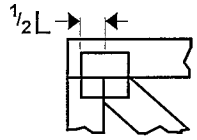
April 25,2025

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 sbcscomponents com)

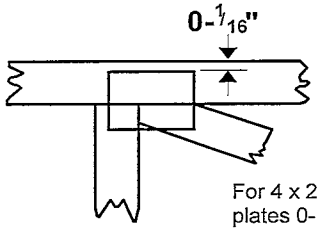
MiTek®
16023 Swingley Ridge Rd
Chesterfield MO 63017
314.434 1200 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION



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



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

This symbol indicates the required direction of slots in connector plates

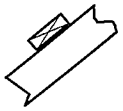
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

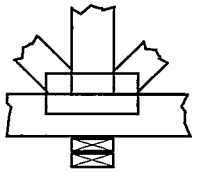
The first dimension is the plate width measured perpendicular to slots Second dimension is the length parallel to slots

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

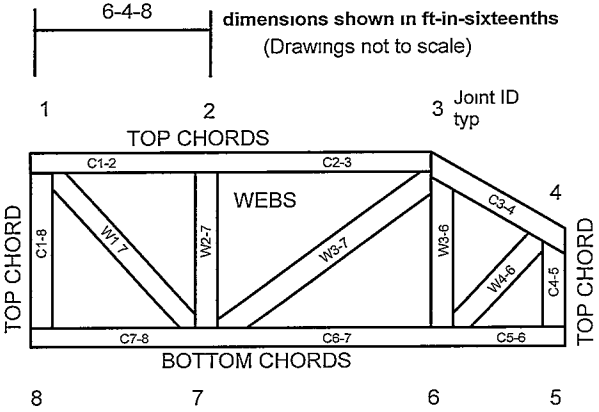


Indicates location where bearings (supports) occur Icons vary but reaction section indicates joint number/letter where bearings occur Min size shown is for crushing only

Industry Standards:

ANSI/TPI1	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/TPI 1 section 6 3 These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1 Additional stability bracing for truss system e.g diagonal or X-bracing, is always required See BCSI

2 Truss bracing must be designed by an engineer For wide truss spacing, individual lateral braces themselves may require bracing or alternative Tor I bracing should be considered

3 Never exceed the design loading shown and never stack materials on inadequately braced trusses.

4 Provide copies of this truss design to the building designer, erection supervisor property owner and all other interested parties

5 Cut members to bear tightly against each other

6 Place plates on each face of truss at each joint and embed fully Knots and wane at joint locations are regulated by ANSI/TPI 1

7 Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1

8 Unless otherwise noted moisture content of lumber shall not exceed 19% at time of fabrication

9 Unless expressly noted this design is not applicable for use with fire retardant, preservative treated or green lumber

10 Camber is a non-structural consideration and is the responsibility of truss fabricator General practice is to camber for dead load deflection

11 Plate type, size orientation and location dimensions indicated are minimum plating requirements

12 Lumber used shall be of the species and size and in all respects, equal to or better than that specified

13 Top chords must be sheathed or purlins provided at spacing indicated on design

14 Bottom chords require lateral bracing at 10 ft. spacing or less, if no ceiling is installed unless otherwise noted

15 Connections not shown are the responsibility of others

16 Do not cut or alter truss member or plate without prior approval of an engineer

17 Install and load vertically unless indicated otherwise.

18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use

19 Review all portions of this design (front, back, words and pictures) before use Reviewing pictures alone is not sufficient.

20 Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria

21 The design does not take into account any dynamic or other loads other than those expressly stated