



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

RE: Brooks - Brooks

**MiTek USA, Inc.**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: MSD CONST. Project Name: BROOKS Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: COLUMBIA CO. State: FL

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: License #:  
Address:  
City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 59 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.

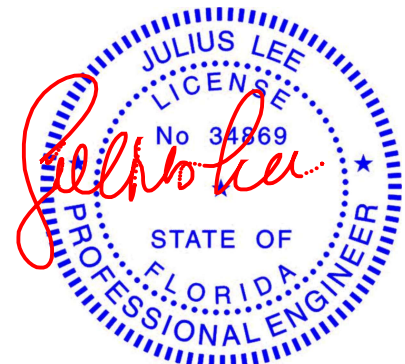
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T29051479	A01	10/24/2223	T29051501	B06		10/24/22
2	T29051480	A02	10/24/2224	T29051502	B07		10/24/22
3	T29051481	A03	10/24/2225	T29051503	B08		10/24/22
4	T29051482	A04	10/24/2226	T29051504	C01		10/24/22
5	T29051483	A05	10/24/2227	T29051505	C02		10/24/22
6	T29051484	A06	10/24/2228	T29051506	CJ01		10/24/22
7	T29051485	A07	10/24/2229	T29051507	CJ02		10/24/22
8	T29051486	A08	10/24/2230	T29051508	CJ03		10/24/22
9	T29051487	A09	10/24/2231	T29051509	D01		10/24/22
10	T29051488	A10	10/24/2232	T29051510	D02		10/24/22
11	T29051489	A11	10/24/2233	T29051511	D03		10/24/22
12	T29051490	A12	10/24/2234	T29051512	D04		10/24/22
13	T29051491	A13	10/24/2235	T29051513	D05		10/24/22
14	T29051492	A14	10/24/2236	T29051514	G01		10/24/22
15	T29051493	A15	10/24/2237	T29051515	GDR		10/24/22
16	T29051494	A16	10/24/2238	T29051516	H01		10/24/22
17	T29051495	A17	10/24/2239	T29051517	J01		10/24/22
18	T29051496	B01	10/24/2240	T29051518	J02		10/24/22
19	T29051497	B02	10/24/2241	T29051519	J03		10/24/22
20	T29051498	B03	10/24/2242	T29051520	J04		10/24/22
21	T29051499	B04	10/24/2243	T29051521	J05		10/24/22
22	T29051500	B05	10/24/2244	T29051522	J06		10/24/22

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, 2023.

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



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

October 25, 2022



RE: Brooks - Brooks

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

**Site Information:**

Customer Info: MSD CONST. Project Name: BROOKS Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: COLUMBIA CO. State: FL

No.	Seal#	Truss Name	Date
45	T29051523	J07	10/24/22
46	T29051524	J08	10/24/22
47	T29051525	J09	10/24/22
48	T29051526	J10	10/24/22
49	T29051527	J11	10/24/22
50	T29051528	J12	10/24/22
51	T29051529	J13	10/24/22
52	T29051530	J14	10/24/22
53	T29051531	M01	10/24/22
54	T29051532	M02	10/24/22
55	T29051533	PB01	10/24/22
56	T29051534	PB02	10/24/22
57	T29051535	PB03	10/24/22
58	T29051536	PB3A	10/24/22
59	T29051537	PB04	10/24/22

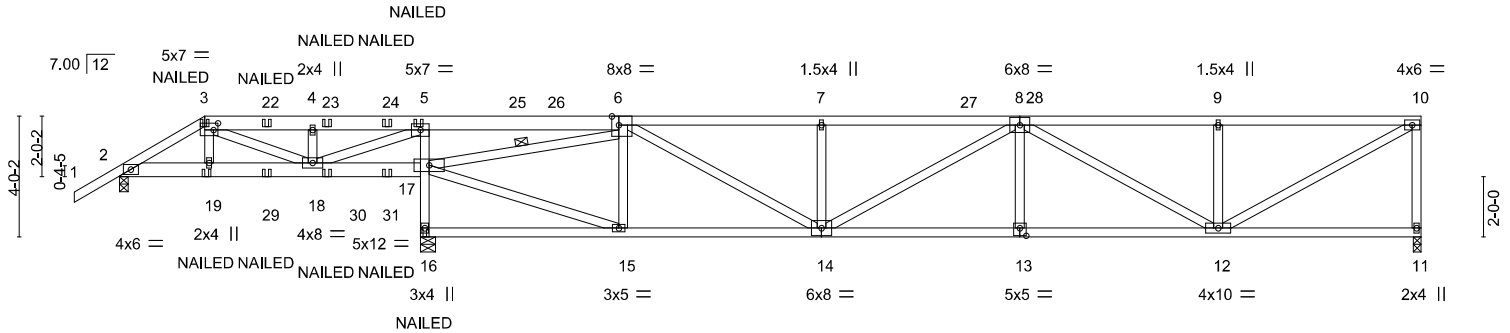
Job	Truss	Truss Type	Qty	Ply	Brooks	T29051479
BROOKS	A01	Half Hip Girder	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:38 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-1Q4Lfujb3OEmdKxh\_2Kg1AWMtVsoYiW2JPqtz3yQBqt

1-6-0	2-10-0	6-5-0	10-0-0	16-8-14	23-3-15	29-11-1	36-6-2	43-3-0
1-6-0	2-10-0	3-7-0	3-7-0	6-8-14	6-7-2	6-7-2	6-7-2	6-8-14

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	2-10-0	6-5-0	10-0-0	10-3-0	16-8-14	23-3-15	29-11-1	36-6-2	43-3-0											
	2-10-0	3-7-0	3-7-0	0-3-0	6-5-14	6-7-2	6-7-2	6-7-2	6-8-14											
Plate Offsets (X,Y)-- [3:0-1-12,0-2-12], [6:0-2-12,Edge], [13:0-2-8,0-3-0]																				
LOADING	(psf)	SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP		
	TCLL	20.0	Plate Grip DOL		1.25		TC 0.90		Vert(LL)		-0.18 13-14		>999		240		MT20		244/190	
	TCDL	10.0	Lumber DOL		1.25		BC 0.87		Vert(CT)		-0.45 13-14		>873		180					
	BCLL	0.0 *	Rep Stress Incr		NO		WB 0.81		Horz(CT)		-0.05 16		n/a		n/a					
	BCDL	10.0	Code FBC2020/TPI2014				Matrix-MS										Weight: 258 lb		FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
3-6: 2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
2-17: 2x6 SP No.2, 13-14: 2x4 SP No.1  
WEBS 2x4 SP No.2

#### REACTIONS.

(size) 11=0-3-0, 2=0-3-7, 16=0-6-0  
Max Horz 2=106(LC 23)  
Max Uplift 11=-2(LC 24), 2=-42(LC 8), 16=-2(LC 8)  
Max Grav 11=1252(LC 17), 2=287(LC 28), 16=1968(LC 1)

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

TOP CHORD 3-4=-174/343, 4-5=-174/341, 5-6=0/1128, 6-7=-2535/68, 7-8=-2535/68, 8-9=-1852/41,  
9-10=-1852/41, 10-11=-1192/35  
BOT CHORD 17-18=-1180/47, 16-17=-1911/35, 5-17=-803/69, 14-15=0/1391, 13-14=0/2569,  
12-13=0/2569  
WEBS 3-18=-463/20, 5-18=0/920, 6-15=-307/87, 6-14=-39/1307, 7-14=-494/99, 8-12=-823/6,  
9-12=-472/97, 10-12=-4/2091, 15-17=0/1502, 6-17=-2605/0

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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 connection.
- 3) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 2, 16.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) 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 (plf)  
Vert: 1-3=-60, 3-10=-60, 2-17=-20, 11-16=-20  
Concentrated Loads (lb)  
Vert: 19=10(F) 17=10(F) 29=10(F) 30=10(F) 31=10(F)



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

October 25,2022

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

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

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

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



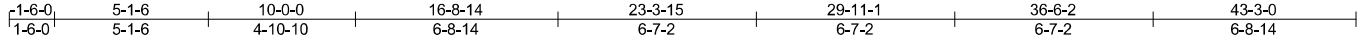
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051480
BROOKS	A02	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:40 2022 Page 1

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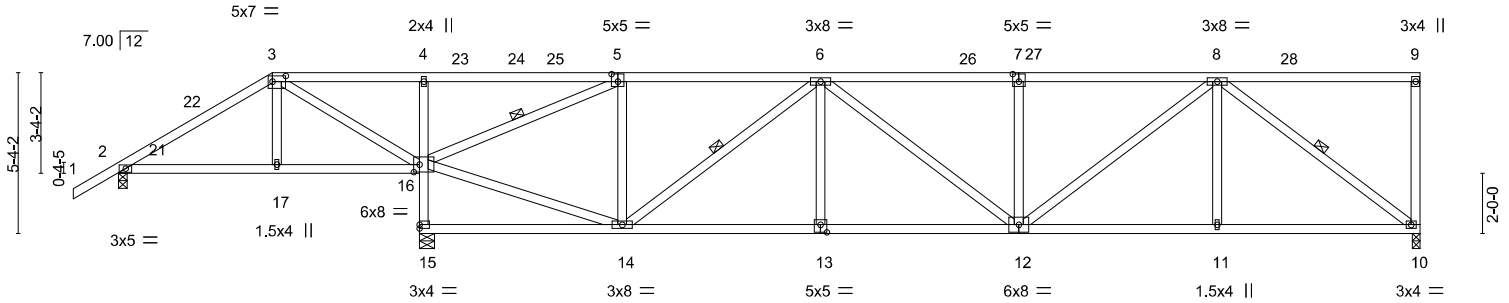


Plate Offsets (X,Y)--	[3:0-5-4,0-2-4], [5:0-2-8,0-3-0], [7:0-2-8,0-3-0], [13:0-2-8,0-3-0], [16:0-2-4,0-3-0]
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LOADING (psf)	SPACING-	CSL	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.62	Vert(LL) -0.16	12-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.81	Vert(CT) -0.37	12-13	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.53	Horz(CT) 0.04	10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 254 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-16, 6-14, 8-10

#### REACTIONS.

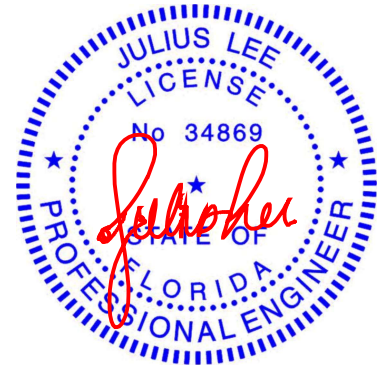
(size) 10=0-3-0, 2=0-3-7, 15=0-6-0  
Max Horz 2=147(LC 11)  
Max Uplift 2=-38(LC 12)  
Max Grav 10=1230(LC 1), 2=215(LC 1), 15=2094(LC 1)

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

TOP CHORD 3-4=0/875, 4-5=0/847, 5-6=-928/41, 6-7=-1833/51, 7-8=-1833/51  
BOT CHORD 15-16=-2035/31, 4-16=-417/84, 13-14=0/1781, 12-13=0/1781, 11-12=0/1336,  
10-11=0/1336  
WEBS 3-16=-902/1, 14-16=0/956, 5-16=-1947/0, 5-14=0/545, 6-14=-1075/31, 7-12=-302/60,  
8-12=-1/626, 8-11=0/313, 8-10=-1652/1

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl.; GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 5-1-6, Exterior(2R) 5-1-6 to 11-2-13, Interior(1) 11-2-13 to 43-1-4 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) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



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

October 25,2022

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

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Chesterfield, MO 63017

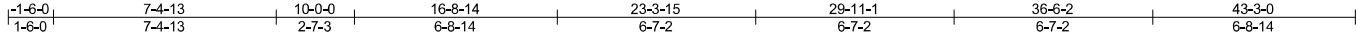


Job	Truss	Truss Type	Qty	Ply	Brooks	T29051481
BROOKS	A03	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:42 2022 Page 1

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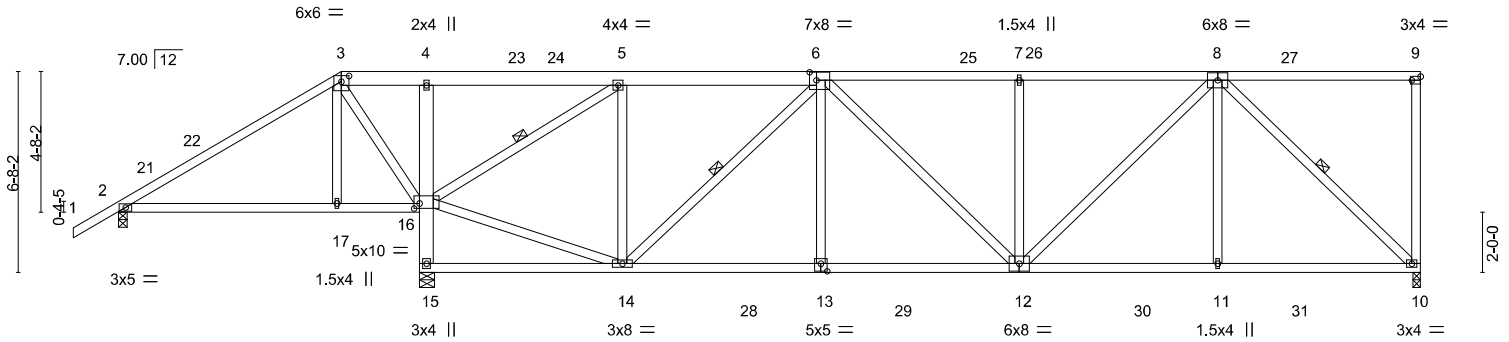


Plate Offsets (X,Y)-- [3:0-3-0,0-2-5], [6:0-2-12,0-3-4], [9:Edge,0-1-8], [13:0-2-8,0-3-0], [16:0-2-4,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.87	Vert(LL) -0.20 12-13 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.61	Vert(CT) -0.38 12-13 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 291 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
3-6: 2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
4-15: 2x6 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-16, 6-14, 8-10

#### REACTIONS.

(size) 10=0-3-0, 2=0-3-7, 15=0-6-0  
Max Horz 2=187(LC 11)  
Max Uplift 10=-3(LC 12), 2=-44(LC 12)  
Max Grav 10=1398(LC 18), 2=216(LC 17), 15=2365(LC 17)

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

TOP CHORD 2-3=-65/431, 3-4=0/793, 4-5=0/763, 5-6=-923/77, 6-7=-1737/80, 7-8=-1737/80  
BOT CHORD 2-17=-361/69, 16-17=-370/67, 15-16=-2266/22, 13-14=0/1544, 12-13=0/1550,  
11-12=0/1197, 10-11=0/1197  
WEBS 3-16=-959/65, 14-16=0/892, 5-16=-1930/10, 5-14=0/690, 6-14=-939/0, 6-13=0/315,  
7-12=-496/99, 8-12=-31/707, 8-11=0/411, 8-10=-1599/0, 3-17=0/287

#### NOTES-

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCLD=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 7-4-13, Exterior(2R) 7-4-13 to 13-6-4, Interior(1) 13-6-4 to 43-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

October 25,2022

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

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

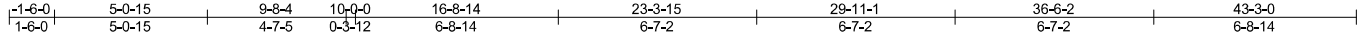


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051482
BROOKS	A04	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:43 2022 Page 1  
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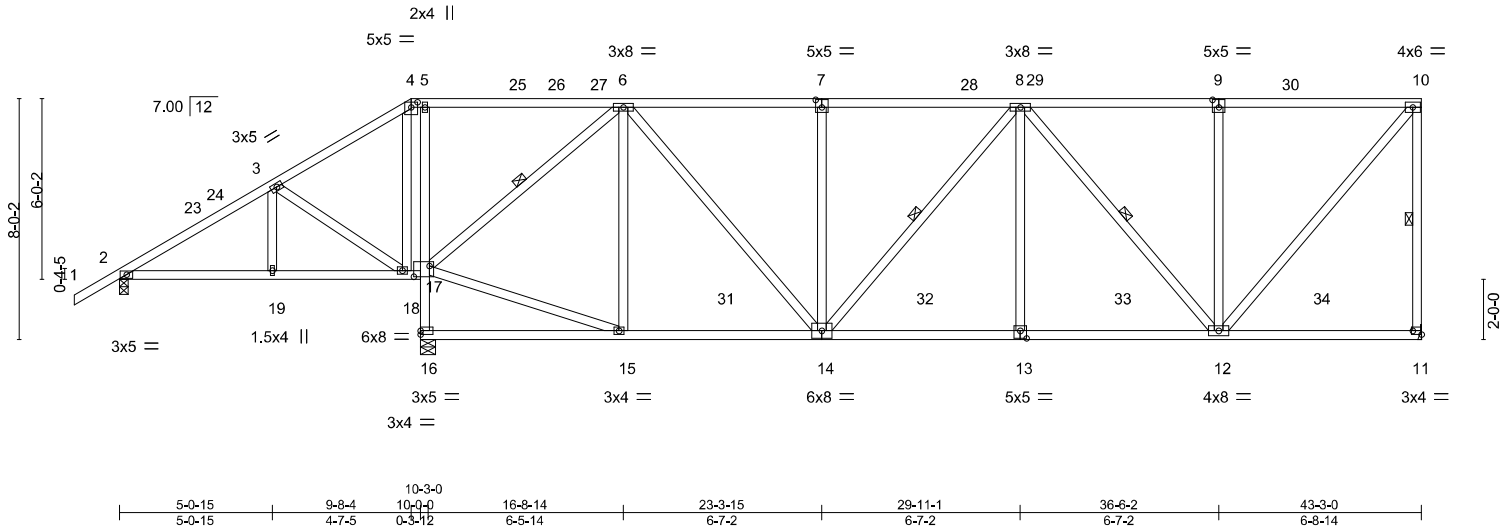


Plate Offsets (X,Y)-- [4:0-2-8,0-2-1], [7:0-2-8,0-3-0], [9:0-2-8,0-3-0], [11:Edge,0-1-8], [13:0-2-8,0-3-0], [17:0-6-4,0-4-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.66	Vert(LL) -0.21	13-14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.91	Vert(CT) -0.38	13-14	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.55	Horz(CT) 0.02	11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 300 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 10-11, 6-17, 8-14, 8-12

#### REACTIONS.

(size) 11=Mechanical, 2=0-3-7, 16=0-6-0  
Max Horz 2=227(LC 11)  
Max Uplift 11=-1(LC 12), 2=-36(LC 12)  
Max Grav 11=1444(LC 18), 2=267(LC 17), 16=2323(LC 17)

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

TOP CHORD 3-4=-50/553, 4-5=-6/451, 5-6=-5/470, 6-7=-1398/80, 7-8=-1398/80, 8-9=-1052/70, 9-10=-1052/70, 10-11=-1319/42  
BOT CHORD 17-18=-457/116, 16-17=-2230/32, 5-17=-689/66, 14-15=0/826, 13-14=0/1483, 12-13=0/1483  
WEBS 15-17=-8/888, 6-17=-1658/23, 6-14=0/824, 7-14=-306/60, 8-13=0/326, 8-12=-720/25, 9-12=-330/74, 10-12=0/1487, 3-18=-539/61

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 9-8-4, Exterior(2R) 9-8-4 to 15-9-10, Interior(1) 15-9-10 to 43-1-4 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) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 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.



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

October 25, 2022

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

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

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

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



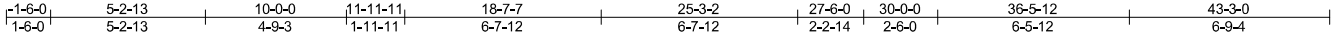
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051483
BROOKS	A05	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:46 2022 Page 1

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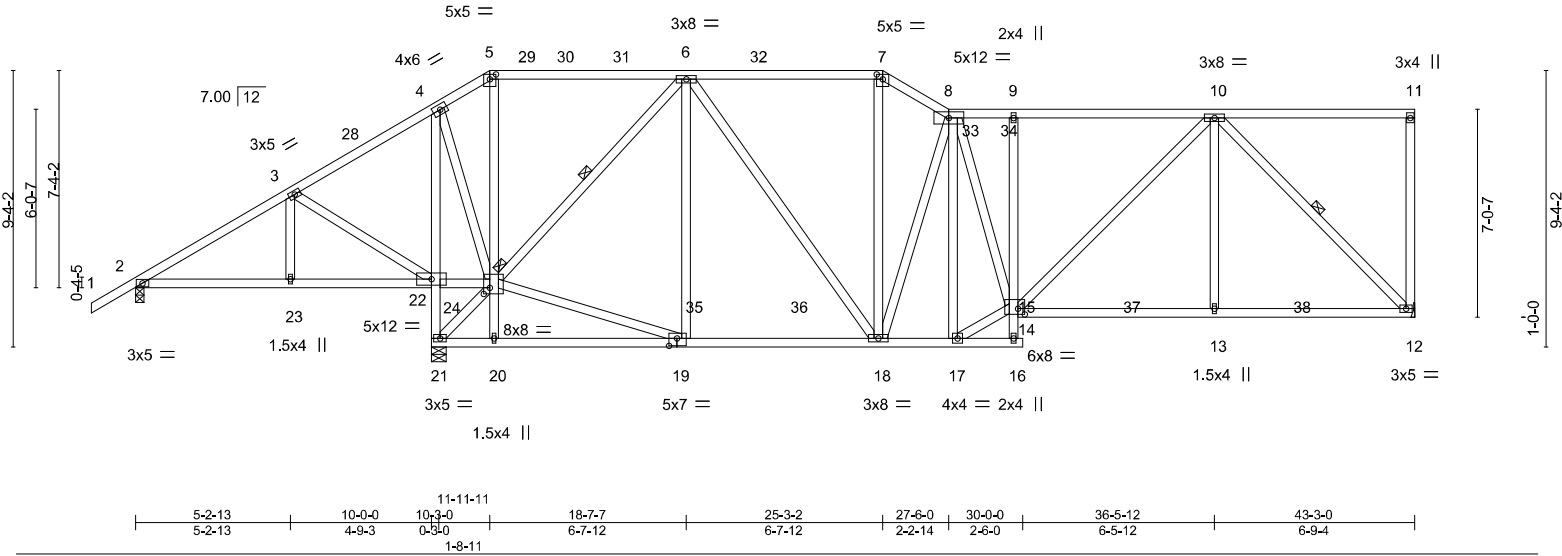


Plate Offsets (X,Y)-- [5:0-2-8,0-2-1], [7:0-2-8,0-2-1], [14:0-2-12,0-2-4], [19:0-3-4,0-3-0], [24:0-2-8,0-2-8]

LOADING (psf)	SPACING-	CSL	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.46	Vert(LL)	-0.15 18-19	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.69	Vert(CT)	-0.27 18-19	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Horz(CT)	0.04 12	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 345 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. Except:  
10-0-0 oc bracing: 14-16  
WEBS 1 Row at midpt 10-12, 6-24  
JOINTS 1 Brace at Jt(s): 24

#### REACTIONS.

(size) 12=Mechanical, 2=0-3-7, 21=0-6-0  
Max Horz 2=231(LC 11)  
Max Uplift 2=36(LC 12)  
Max Grav 12=1426(LC 18), 2=335(LC 21), 21=2307(LC 17)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-90/585, 6-7=-1282/123, 7-8=-1464/125, 8-9=-1680/103, 9-10=-1694/103  
BOT CHORD 21-22=-1562/59, 4-22=-1172/62, 20-21=-45/669, 19-20=-44/667, 18-19=-77/865,  
17-18=-71/1433, 9-14=-316/73, 13-14=-64/1197, 12-13=-64/1197  
WEBS 20-24=0/272, 5-24=-319/56, 6-18=0/653, 7-18=-1/473, 8-18=-744/73, 8-17=-716/21,  
14-17=-53/1553, 8-14=-19/714, 10-14=-19/653, 10-13=0/405, 10-12=-1648/28,  
3-22=-531/53, 22-24=-467/108, 6-24=-1470/60, 21-24=-1054/49, 4-24=0/893

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 11-11-11, Exterior(2R) 11-11-11 to 16-3-9, Interior(1) 16-3-9 to 25-3-2, Exterior(2E) 25-3-2 to 27-6-0, Interior(1) 27-6-0 to 43-1-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

October 25,2022

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

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

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

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

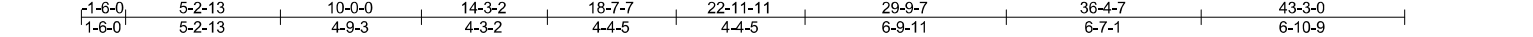


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

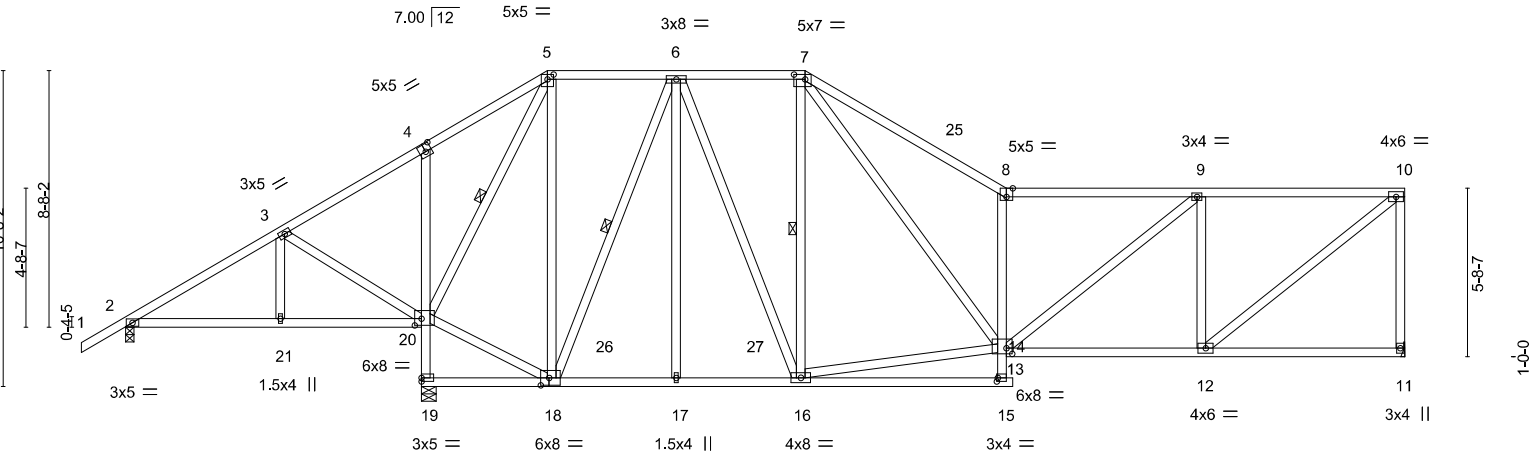
Job	Truss	Truss Type	Qty	Ply	Brooks	T29051484
BROOKS	A06	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc.
Mon Oct 24 13:00:48 2022
Page 1
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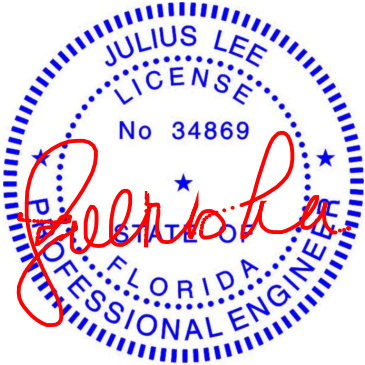


		5-2-13		10-0-0		10-3-0		14-3-2		18-7-7		22-11-11		30-0-0		36-4-7		43-3-0	
		5-2-13		4-9-3		0-3-0		4-0-2		4-4-5		4-4-5		7-0-5		6-4-7		6-10-9	
Plate Offsets (X,Y)--		[4:0-2-8,0-3-0],		[5:0-2-8,0-2-1],		[7:0-4-8,0-2-0],		[8:0-2-8,Edge],		[13:0-2-4,0-2-4],		[15:0-0-8,0-1-8],		[18:0-3-8,0-3-0],		[20:0-2-12,0-2-12]			
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL 20.0		Plate Grip DOL		1.25		TC 0.64		Vert(LL)		-0.16 12-13		>999		240		MT20		244/190	
TCDL 10.0		Lumber DOL		1.25		BC 0.75		Vert(CT)		-0.30 12-13		>999		180					
BCLL 0.0 *		Rep Stress Incr		YES		WB 0.67		Horz(CT)		-0.03 19		n/a		n/a					
BCDL 10.0		Code FBC2020/TPI2014				Matrix-AS										Weight: 333 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied. Except:
WEBS 2x4 SP No.2	10-0-0 oc bracing: 13-15
	WEBS 1 Row at midpt 5-20, 7-16, 6-18
REACTIONS.	
(size) 11=Mechanical, 2=0-3-7, 19=0-6-0	
Max Horz 2=240(LC 11)	
Max Uplift 2=25(LC 12), 19=13(LC 12)	
Max Grav 11=1363(LC 18), 2=328(LC 21), 19=2349(LC 17)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-172/285, 3-4=-88/643, 4-5=-11/656, 5-6=-323/140, 6-7=-1020/159, 7-8=-2408/206, 8-9=-2044/105, 9-10=-1451/87, 10-11=-1263/58
BOT CHORD	19-20=-2267/145, 17-18=-37/725, 16-17=-37/725, 8-13=-1527/188, 12-13=-50/1407
WEBS	14-3-2 to 18-7-7, Interior(1) 18-7-7 to 22-11-11, Exterior(2R) 22-11-11 to 27-3-10, Interior(1) 27-3-10 to 43-1-4 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
	7-13=-99/1708, 9-13=-23/760, 9-12=-846/107, 10-12=-24/1767, 3-20=-554/57, 6-18=-1141/27, 6-16=-23/705

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 14-3-2, Exterior(2R) 14-3-2 to 18-7-7, Interior(1) 18-7-7 to 22-11-11, Exterior(2R) 22-11-11 to 27-3-10, Interior(1) 27-3-10 to 43-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19.
  - 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.



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

October 25,2022



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051485
BROOKS	A07	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:50 2022 Page 1

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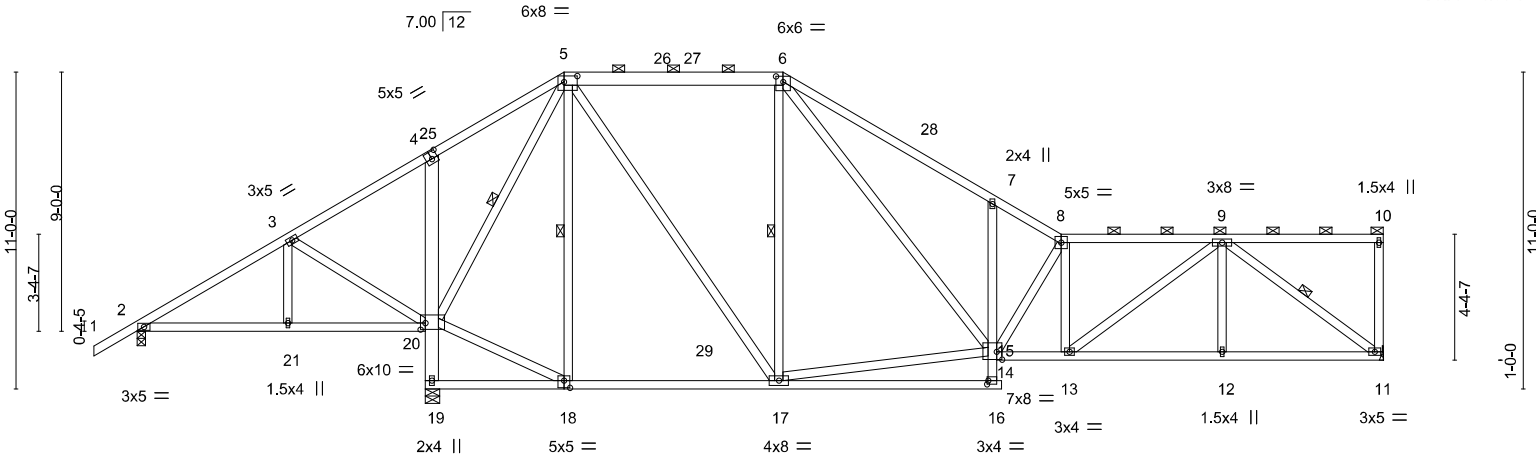


Plate Offsets (X,Y)--	[4:0-2-8,0-3-0], [5:0-5-8,0-2-8], [6:0-3-0,0-2-5], [14:0-2-4,0-3-4], [16:0-0-8,0-1-8], [18:0-2-8,0-3-0], [20:0-2-0,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.53	Vert(LL)	-0.21 17-18	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.70	Vert(CT)	-0.34 17-18	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.80	Horz(CT)	-0.03 19	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 324 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 5-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-7-7 max.): 5-6, 8-10.
BOT CHORD 2x4 SP No.2 *Except* 4-19: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 14-16
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-20, 5-18, 6-17, 9-11

<b>REACTIONS.</b>	(size) 2=0-3-7, 19=0-6-0, 11=Mechanical Max Horz 2=141(LC 11) Max Uplift 2=79(LC 22), 19=26(LC 12) Max Grav 2=288(LC 21), 19=2436(LC 17), 11=1337(LC 18)
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<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-81/413, 3-4=-45/781, 4-5=0/795, 5-6=-896/127, 6-7=-2307/174, 7-8=-2186/53, 8-9=-2341/28
BOT CHORD	2-21=-328/36, 20-21=-328/36, 19-20=-2341/128, 17-18=0/275, 7-14=-363/143, 13-14=-30/2356, 12-13=-21/1541, 11-12=-21/1541
WEBS	3-20=-561/59, 18-20=0/322, 5-20=-1894/57, 5-17=-27/1109, 6-17=-703/129, 14-17=-22/647, 6-14=-105/1700, 8-14=-920/0, 8-13=-417/55, 9-12=0/252, 9-13=-10/1000, 9-11=-1926/26

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 14-9-12, Exterior(2R) 14-9-12 to 19-1-11, Interior(1) 19-1-11 to 22-5-1, Exterior(2R) 22-5-1 to 26-8-15, Interior(1) 26-8-15 to 43-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25, 2022



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051486
BROOKS	A08	PIGGYBACK BASE	1	1	Job Reference (optional)	

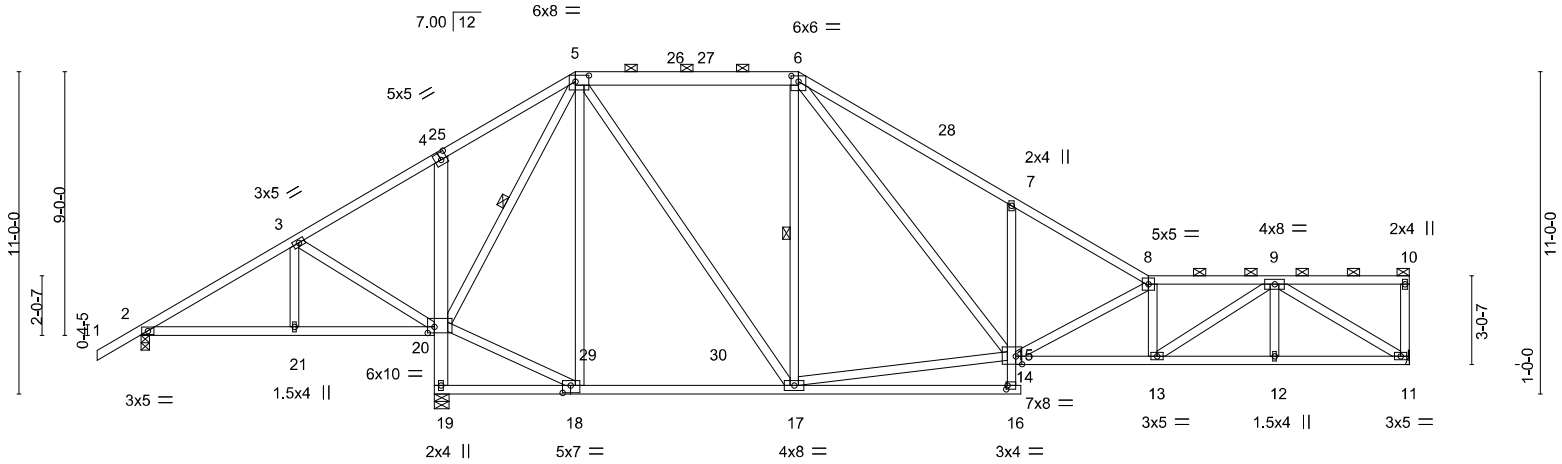
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:52 2022 Page 1

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1-6-0	5-2-13	10-0-0	14-9-12	22-5-1	30-0-0	34-4-5	38-7-14	43-3-0
1-6-0	5-2-13	4-9-3	4-9-12	7-7-5	7-6-15	4-4-5	4-3-10	4-7-2

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5-2-13	10-0-0	10-3-0	14-9-12	22-5-1	30-0-0	34-4-5	38-7-14	43-3-0
5-2-13	4-9-3	0-3-0	4-6-12	7-7-5	7-6-15	4-4-5	4-3-10	4-7-2

<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) I/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.50	Vert(LL)	-0.23	17-18	>999	240	MT20	244/190	
TCDL	10.0	Lumber DOL	1.25	BC	0.72	Vert(CT)	-0.38	17-18	>999	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	-0.04	19	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 315 lb	FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2 *Except* 5-6: 2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-11 max.): 5-6, 8-10.
BOT CHORD	2x4 SP No.2 *Except* 4-19: 2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied. Except:
WEBS	2x4 SP No.2	WEBS	10-0-0 oc bracing: 14-16 1 Row at midpt 5-20, 6-17

<b>REACTIONS.</b>	(size) 11=Mechanical, 2=0-3-7, 19=0-6-0 Max Horz 2=215(LC 11) Max Uplift 2=-182(LC 22), 19=-5(LC 12) Max Grav 11=1312(LC 18), 2=228(LC 21), 19=2572(LC 17)
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<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-80/614, 3-4=-48/999, 4-5=0/1013, 5-6=-846/161, 6-7=-2265/225, 7-8=-2189/99, 8-9=-2999/79
BOT CHORD	2-21=-521/93, 20-21=-521/93, 19-20=-2481/131, 7-14=-402/156, 13-14=-43/2985, 12-13=-36/1839, 11-12=-36/1839
WEBS	3-20=-564/59, 5-20=-2117/63, 5-17=-22/1163, 6-17=-731/117, 14-17=-11/651, 6-14=-122/1718, 8-14=-1366/42, 8-13=-573/65, 9-13=-17/1337, 9-11=-2142/36

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 14-9-12, Exterior(2R) 14-9-12 to 19-1-11, Interior(1) 19-1-11 to 22-5-1, Exterior(2R) 22-5-1 to 26-8-15, Interior(1) 26-8-15 to 43-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19 except (jt=lb) 2=182.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25, 2022

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

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

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



16023 Swingle Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051487
BROOKS	A09	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:54 2022 Page 1

ID: vAyZ7OAm5bhRAIwafF\_UtyyTqye-ZV2O0MwclJFVXo9mwPcQgYA6QxKTLu?P?vijX7yQBqd



Scale = 1:79.4

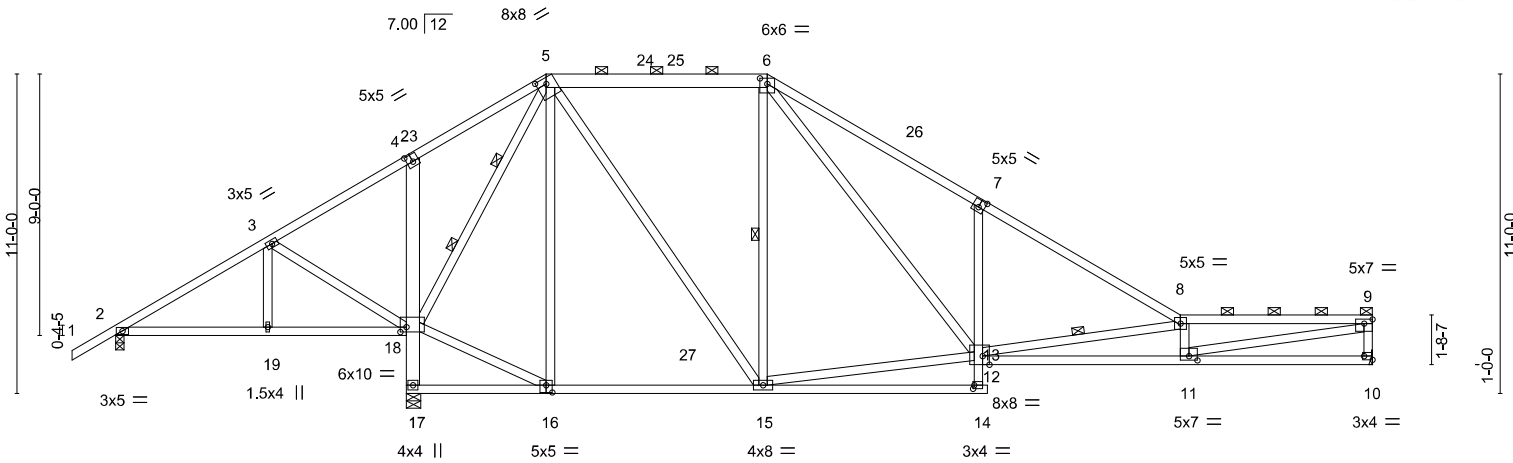


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-4-0,0-2-6], [6:0-3-0,0-2-5], [7:0-2-8,0-3-0], [9:Edge,0-1-12], [10:Edge,0-1-8], [11:0-3-8,0-1-12], [12:0-2-12,Edge], [14:0-0-8,0-1-8], [16:0-2-8,0-3-0], [18:0-2-8,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.87	Vert(LL)	-0.38 11-12	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.81	Vert(CT)	-0.72 11-12	>549	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.97	Horz(CT)	-0.08 17	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS					Weight: 306 lb	FT = 20%
	Code FBC2020/TPI2014							

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
5-6: 2x6 SP No.2	2-0-0 oc purlins (2-2-0 max.): 5-6, 8-9.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied. Except:
4-17: 2x6 SP No.2, 10-12: 2x4 SP No.1	10-0-0 oc bracing: 12-14
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 6-15, 8-12
	2 Rows at 1/3 pts 5-18
<b>REACTIONS.</b> (size) 10=Mechanical, 2=0-3-7, 17=0-6-0	
Max Horz 2=200(LC 11)	
Max Uplift 2=-624(LC 24), 17=-1(LC 12)	
Max Grav 10=1166(LC 18), 17=3171(LC 17)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-68/1536, 3-4=-36/1948, 4-5=0/1983, 5-6=-541/1159, 6-7=-1761/184, 7-8=-1782/68, 8-9=-4088/82, 9-10=-1032/48
BOT CHORD 2-19=-1368/107, 18-19=-1368/107, 17-18=-3078/126, 15-16=-321/113, 7-12=-370/135, 11-12=-64/4133
WEBS 3-18=-577/59, 16-18=-274/113, 5-18=-3057/76, 5-16=0/321, 5-15=-31/1366, 6-15=-852/119, 12-15=0/468, 6-12=-78/1550, 8-12=-2768/105, 8-11=-668/105, 9-11=-63/3936

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 14-9-12, Exterior(2R) 14-9-12 to 19-1-11, Interior(1) 19-1-11 to 22-5-1, Exterior(2R) 22-5-1 to 26-8-15, Interior(1) 26-8-15 to 43-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17 except (jt=lb) 2=624.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25, 2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051488
BROOKS	A10	PIGGYBACK BASE	1	1	Job Reference (optional)	

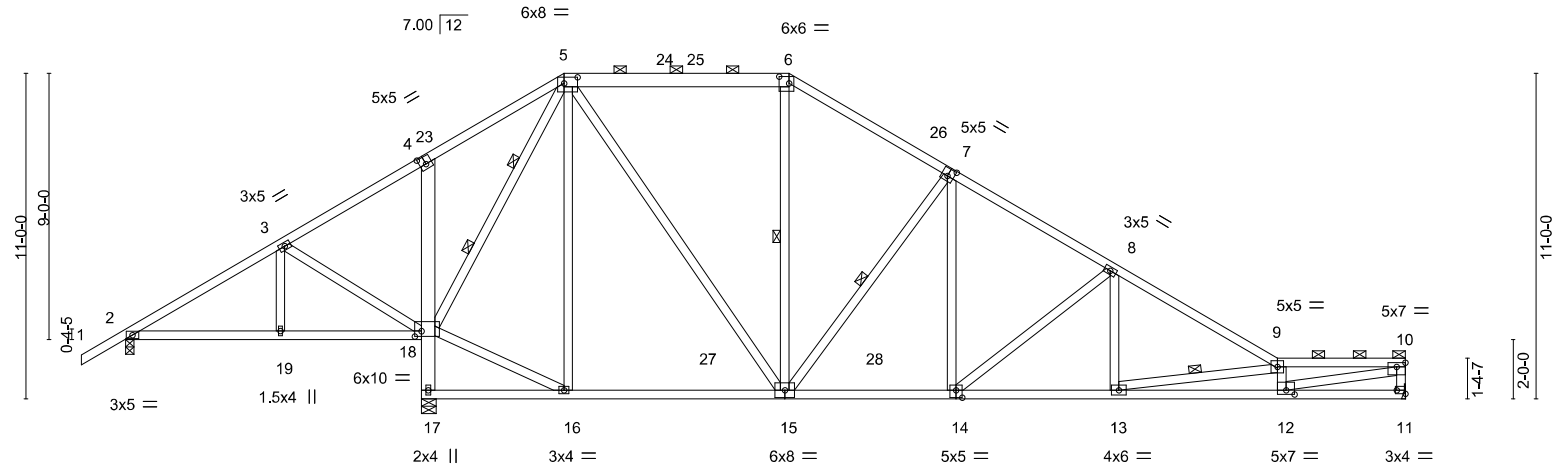
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:56 2022 Page 1

ID: vAyZ7OAm5bhRALwaf\_UtyyTqye-WuA8R2xuqWVDn5J92qeumzFYjI0SmqEISCBqb0yQBqb

1-6-0	5-2-13	10-0-0	14-9-12	22-5-1	27-11-1	33-5-2	38-11-2	43-3-0
1-6-0	5-2-13	4-9-3	4-9-12	7-7-5	5-6-0	5-6-0	5-6-0	4-3-14

Scale = 1:78.0



5-2-13	10-0-0	10-3-0	14-9-12	22-5-1	27-11-1	33-5-2	38-11-2	43-3-0
5-2-13	4-9-3	0-3-0	4-6-12	7-7-5	5-6-0	5-6-0	5-6-0	4-3-14

<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	20.0	Plate Grip DOL 1.25	TC 0.50	Vert(LL) -0.25 12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL 1.25	BC 0.78	Vert(CT) -0.47 12-13	>844	180		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.85	Horz(CT) -0.06 17	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014	Matrix-AS				Weight: 302 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 5-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-9-3 max.): 5-6, 9-10.
BOT CHORD 2x4 SP No.2 *Except* 4-17: 2x6 SP No.2, 11-14: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 6-15, 7-15, 9-13 2 Rows at 1/3 pts 5-18

**REACTIONS.** (size) 11=Mechanical, 2=0-3-7, 17=0-6-0  
Max Horz 2=206(LC 11)  
Max Uplift 2=327(LC 22)  
Max Grav 11=1298(LC 18), 2=148(LC 21), 17=2788(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-44/931, 3-4=-12/1305, 4-5=0/1348, 5-6=-738/175, 6-7=-878/158, 7-8=-1583/124,  
8-9=-2425/90, 9-10=-4056/88, 10-11=-1164/42  
BOT CHORD 2-19=-825/112, 18-19=-825/112, 17-18=-2754/95, 14-15=0/1209, 13-14=-23/2043,  
12-13=-72/4168  
WEBS 3-18=-565/58, 5-18=-2516/55, 5-16=0/348, 5-15=-44/1169, 7-15=-946/77, 7-14=0/845,  
8-14=-1034/74, 8-13=0/683, 9-13=-2166/72, 9-12=-965/82, 10-12=-70/3929

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-9-14, Interior(1) 2-9-14 to 14-9-12, Exterior(2R) 14-9-12 to 19-1-11, Interior(1) 19-1-11 to 22-5-1, Exterior(2R) 22-5-1 to 26-8-15, Interior(1) 26-8-15 to 43-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=327.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25,2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051489
BROOKS	A11	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:00:58 2022 Page 1

ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-SGLvskz8MXmw0PTX9FgNrOLqOZinEns?wWwguyQBqZ

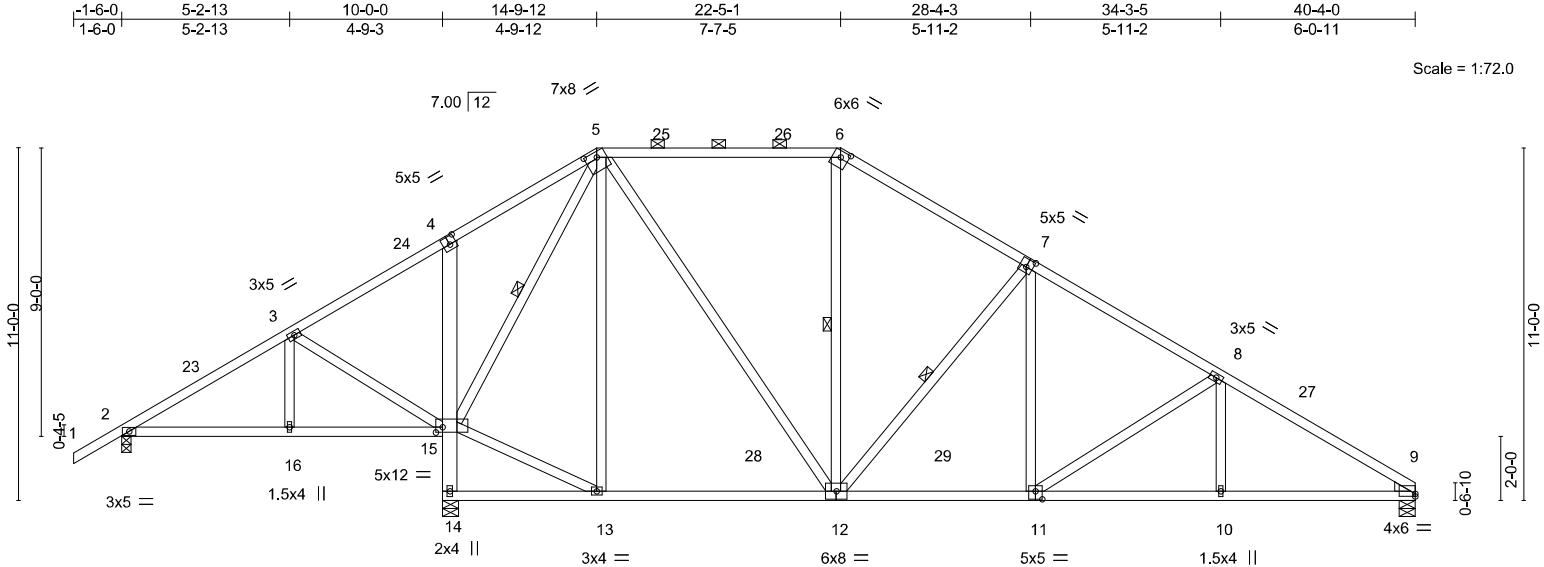


Plate Offsets (X,Y)--	[4:0-2-8,0-3-0], [5:0-4-8,0-2-0], [6:0-3-0,0-2-5], [7:0-2-8,0-3-0], [9:0-0-0,0-1-1], [11:0-2-8,0-3-0], [15:0-2-8,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.74	Vert(LL)	-0.19 12-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.79	Vert(CT)	-0.33 12-13	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.65	Horz(CT)	0.03 9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 272 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (4-6-8 max.): 5-6.
4-14: 2x6 SP No.2	Rigid ceiling directly applied.
WEBS 2x4 SP No.2	1 Row at midpt 5-15, 6-12, 7-12
WEDGE	
Right: 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-7, 14=0-6-0, 9=0-6-0  
Max Horz 2=189(LC 11)  
Max Uplift 2=42(LC 12), 9=-1(LC 12)  
Max Grav 2=378(LC 21), 14=2122(LC 17), 9=1338(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-270/107, 3-4=0/473, 4-5=0/493, 5-6=-884/136, 6-7=-1050/123, 7-8=-1619/76, 8-9=-2130/33  
BOT CHORD 14-15=-2088/9, 12-13=0/409, 11-12=0/1263, 10-11=0/1759, 9-10=0/1759  
WEBS 3-15=-554/44, 13-15=0/494, 5-15=-1550/0, 5-13=0/260, 5-12=-19/840, 7-12=-722/58, 7-11=0/542, 8-11=-573/63, 8-10=0/250

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-6-6, Interior(1) 2-6-6 to 14-9-12, Exterior(2R) 14-9-12 to 20-6-3, Interior(1) 20-6-3 to 22-5-1, Exterior(2R) 22-5-1 to 28-3-5, Interior(1) 28-3-5 to 40-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25,2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051490
BROOKS	A12	PIGGYBACK BASE	3	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:00 2022 Page 1

ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-OfPfHQ\_Pu90eGjdwHgrwpQAuMNFihLHNq91knyQBqX

1-6-0	5-2-13	10-0-0	14-9-12	22-5-1	28-4-3	34-3-5	40-4-0	41-10-0
1-6-0	5-2-13	4-9-3	4-9-12	7-7-5	5-11-2	5-11-2	6-0-11	1-6-0

Scale = 1:72.9

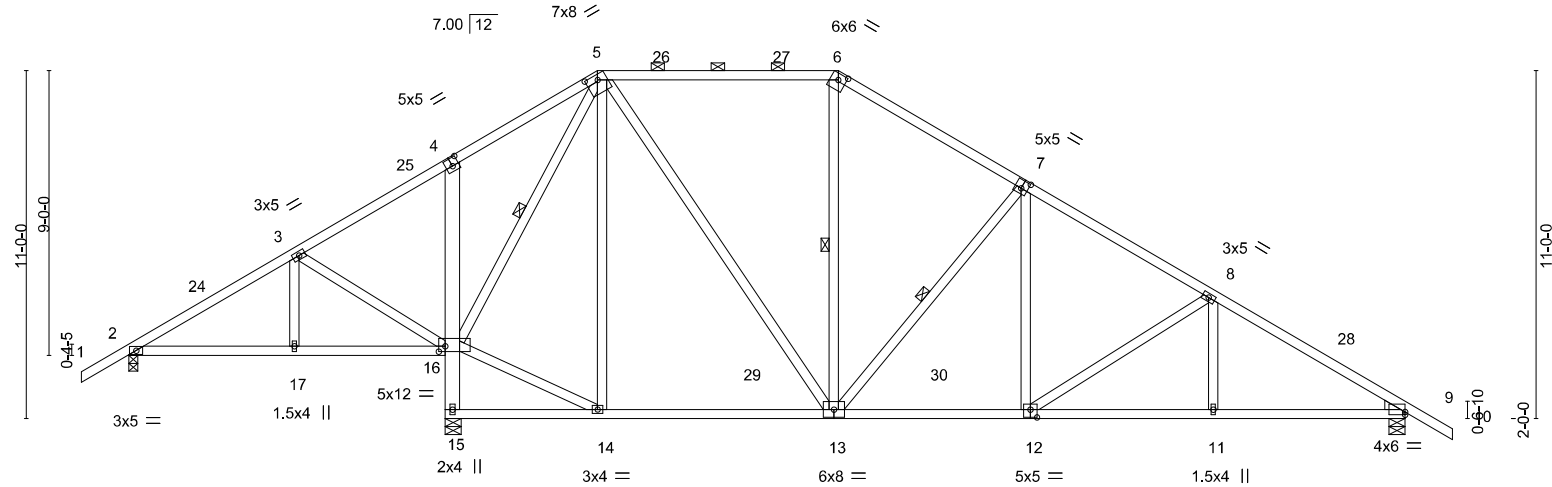


Plate Offsets (X,Y)--	[4:0-2-8,0-3-0], [5:0-4-8,0-2-0], [6:0-3-0,0-2-5], [7:0-2-8,0-3-0], [9:Edge,0-1-1], [12:0-2-8,0-3-0], [16:0-2-8,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.79	Vert(LL) -0.19 13-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.65	Vert(CT) -0.33 13-14 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 274 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (4-6-12 max.): 5-6.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	WEBS 1 Row at midpt 5-16, 6-13, 7-13
Right: 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-7, 15=0-6-0, 9=0-6-0  
Max Horz 2=194(LC 11)  
Max Uplift 2=47(LC 12), 9=43(LC 12)  
Max Grav 2=377(LC 21), 15=2128(LC 17), 9=1420(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-268/115, 3-4=0/482, 4-5=0/502, 5-6=-881/141, 6-7=-1046/129, 7-8=-1611/80, 8-9=-2112/31  
BOT CHORD 15-16=-2093/0, 13-14=0/412, 12-13=0/1253, 11-12=0/1737, 9-11=0/1737  
WEBS 3-16=-555/44, 14-16=0/497, 5-16=-1554/0, 5-14=0/261, 5-13=-17/838, 7-13=-718/56, 7-12=0/536, 8-12=-559/54

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-6-6, Interior(1) 2-6-6 to 14-9-12, Exterior(2R) 14-9-12 to 20-6-3, Interior(1) 20-6-3 to 22-5-1, Exterior(2R) 22-5-1 to 28-3-5, Interior(1) 28-3-5 to 41-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25,2022

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051491
BROOKS	A13	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:03 2022 Page 1

ID: vAyZ7OAm5bhRAIwadF\_UtyyTqye-pE5ovR1HB4OD7ALVyoGYyR2iUaOwv2Ik3oOhL6yQBqU

1-6-0	5-2-13	10-0-0	14-9-12	21-5-15	24-9-2	34-8-8	39-11-12	42-4-0	43-10-0
1-6-0	5-2-13	4-9-3	4-9-12	6-8-3	3-3-3	9-11-6	5-3-4	2-4-4	1-6-0

Scale = 1:78.0

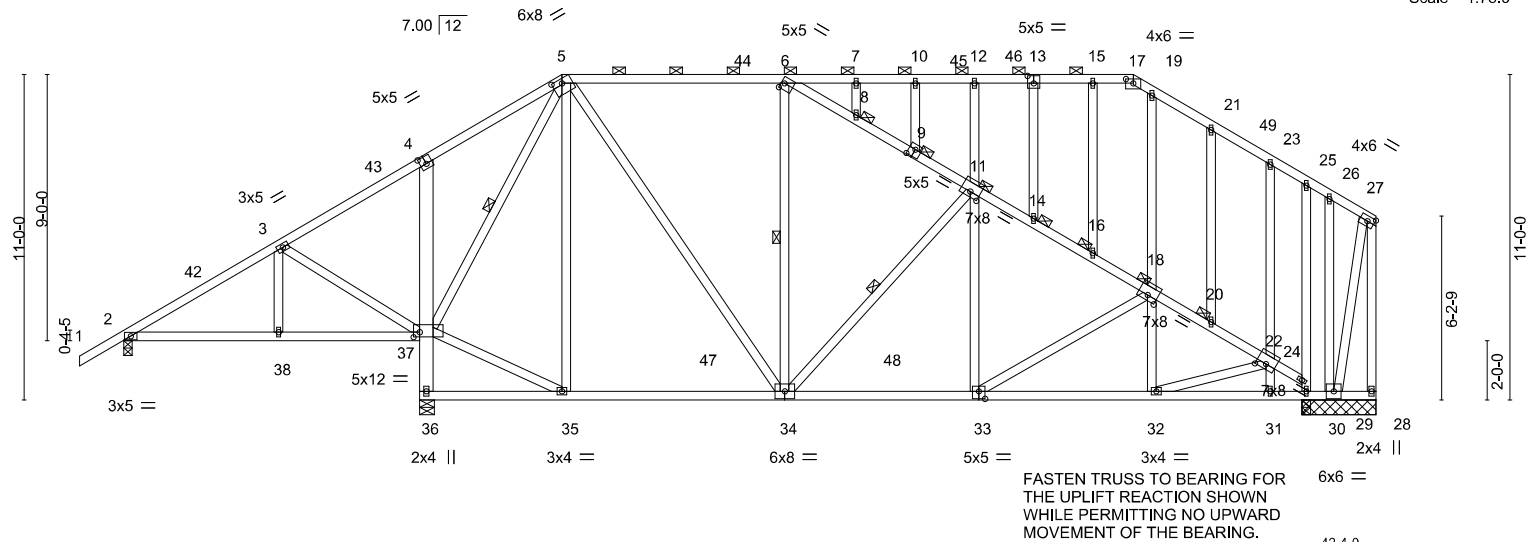


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-4-0,0-1-11], [6:0-1-4,0-2-8], [9:0-2-8,0-3-0], [11:0-4-0,0-2-0], [13:0-2-8,0-3-0], [17:0-3-0,0-1-12], [18:0-4-0,0-2-0], [22:0-4-0,0-2-0], [33:0-2-8,0-3-0], [37:0-2-8,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	Vert(LL)	-0.20 34-35	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.85	Vert(CT)	-0.36 33-34	>992	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.64	Horz(CT)	0.05 24	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS						
	Code FBC2020/TPI2014						Weight: 405 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SP No.2 *Except*	2-0-0 oc purlins (5-7-10 max.): 5-17, 6-24.
4-36: 2x6 SP No.2, 28-33: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-37, 6-34, 11-34
	JOINTS 1 Brace at Jt(s): 9, 11, 14, 16, 18, 20, 8

**REACTIONS.** All bearings 2-6-0 except (jt=length) 2-0-3-7, 36-0-6-0.  
 (lb) - Max Horz 2=263(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 24 except 29=1632(LC 19)  
 Max Grav All reactions 250 lb or less at joint(s) except 2=341(LC 21), 36=2162(LC 17), 28=972(LC 19), 30=1263(LC 19), 30=1119(LC 1), 24=832(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=68/482, 4-5=-2/499, 5-6=-882/131, 27-28=-831/0, 6-8=-782/0, 8-9=-814/0, 9-11=-821/0, 11-14=-1229/0, 14-16=-1263/0, 16-18=-1277/0, 18-20=-1456/0, 20-22=-1487/0, 22-24=-384/7, 23-25=-378/74  
 BOT CHORD 36-37=-2129/17, 34-35=-12/412, 33-34=-1/1241, 32-33=0/1461, 31-32=-29/457, 30-31=-29/457  
 WEBS 3-37=-555/44, 35-37=-5/499, 5-37=-1518/0, 5-35=0/263, 5-34=-3/798, 24-25=-585/8, 11-12=-253/51, 11-33=0/359, 22-23=0/258, 22-31=-562/13, 27-29=0/776, 11-34=-568/4, 22-32=0/1051

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-8-13, Interior(1) 2-8-13 to 14-9-12, Exterior(2R) 14-9-12 to 20-9-10, Interior(1) 20-9-10 to 34-1-9, Exterior(2R) 34-1-9 to 39-11-12, Interior(1) 39-11-12 to 42-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24 except (jt=lb) 29=1632.

Continued on page 2



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

October 25, 2022

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

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 Chesterfield, MO 63017

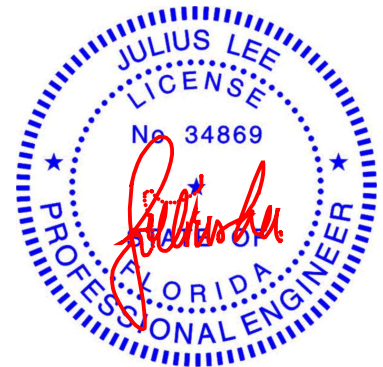
Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	A13	PIGGYBACK BASE	1	1	T29051491
Job Reference (optional)					

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:04 2022 Page 2  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-HQfA6n1vyNW4kKwhWWnn4ftEzk9eVYtIS7FtYyQBqT

#### NOTES-

- 10) 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) This truss has large uplift reaction at jt. 19 from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051492
BROOKS	A14	Piggyback Base	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:05 2022 Page 1

ID: vAyZ7OAm5bhRAIwadF\_UtyyTqye-IcDYK72XihexMUvU3DJ0ds73fN3RNzb1X6toQ?yQBqS

1-6-0	5-2-13	10-0-0	14-9-12	21-5-15	28-0-5	34-8-8	42-4-0	43-10-0
1-6-0	5-2-13	4-9-3	4-9-12	6-8-3	6-6-7	6-8-3	7-7-8	1-6-0

Scale = 1:76.5

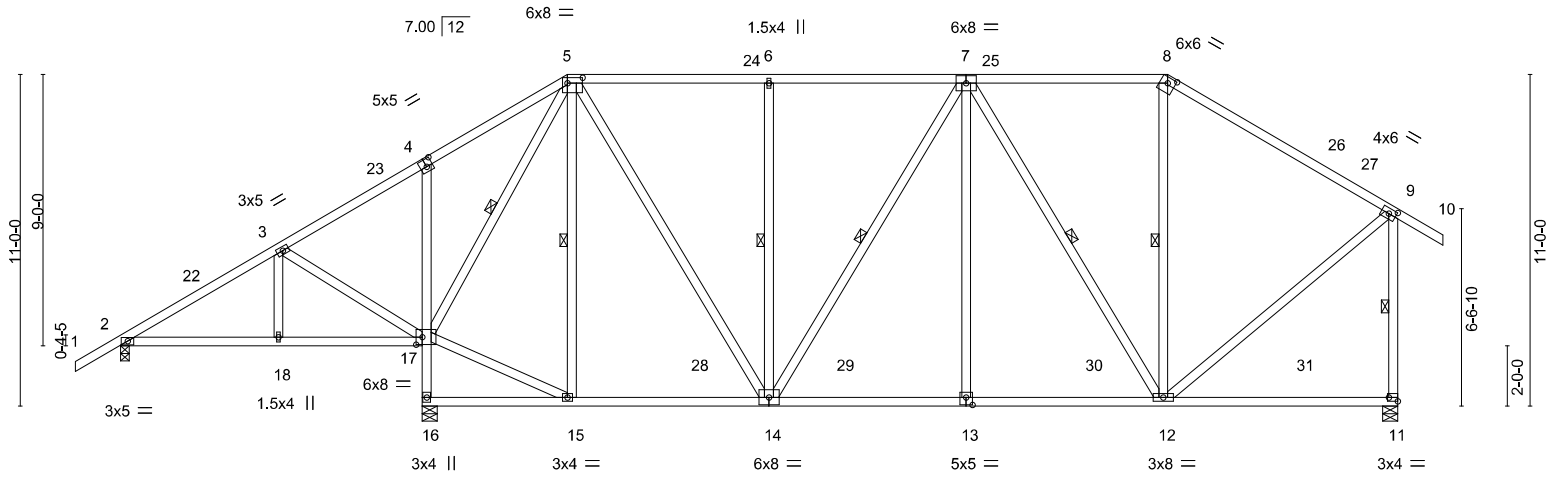


Plate Offsets (X,Y)--	5-2-13	10-0-0	10-3-0	14-9-12	21-5-15	28-0-5	34-8-8	42-4-0
	5-2-13	4-9-3	0-3-0	4-6-12	6-8-3	6-6-7	6-8-3	7-7-8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.61	Vert(LL)	-0.21 13-14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.91	Vert(CT)	-0.36 13-14	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.59	Horz(CT)	0.02 11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 321 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-17, 5-15, 6-14, 7-14, 7-12, 8-12, 9-11

#### REACTIONS.

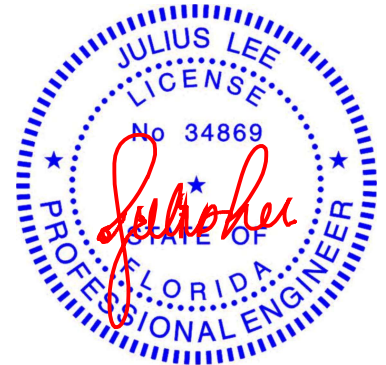
(size) 2=0-3-7, 16=0-6-0, 11=0-6-0  
Max Horz 2=272(LC 11)  
Max Uplift 2=42(LC 12), 11=40(LC 12)  
Max Grav 2=445(LC 17), 16=2094(LC 17), 11=1607(LC 18)

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

TOP CHORD 2-3=-443/43, 4-5=-49/251, 5-6=-1057/141, 6-7=-1057/141, 7-8=-895/134,  
8-9=-1113/122, 9-11=-1459/83  
BOT CHORD 2-18=-45/391, 17-18=-45/391, 16-17=-2046/19, 14-15=0/572, 13-14=0/1111,  
12-13=0/1111  
WEBS 3-17=-548/42, 15-17=0/636, 5-17=-1371/0, 5-14=-13/907, 6-14=-472/90, 7-13=0/331,  
7-12=-526/2, 9-12=0/1040

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-8-13, Interior(1) 2-8-13 to 14-9-12, Exterior(2R) 14-9-12 to 20-9-10, Interior(1) 20-9-10 to 34-8-8, Exterior(2R) 34-8-8 to 40-8-5, Interior(1) 40-8-5 to 43-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
- 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.



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

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051493
BROOKS	A15	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:07 2022 Page 1

ID: vAYZ7OAm5bhRALwadF\_UtTyTqye-h?Klp4oElufbnfGBelUHCPEBqfrhJ\_QMvUtyQBqQ

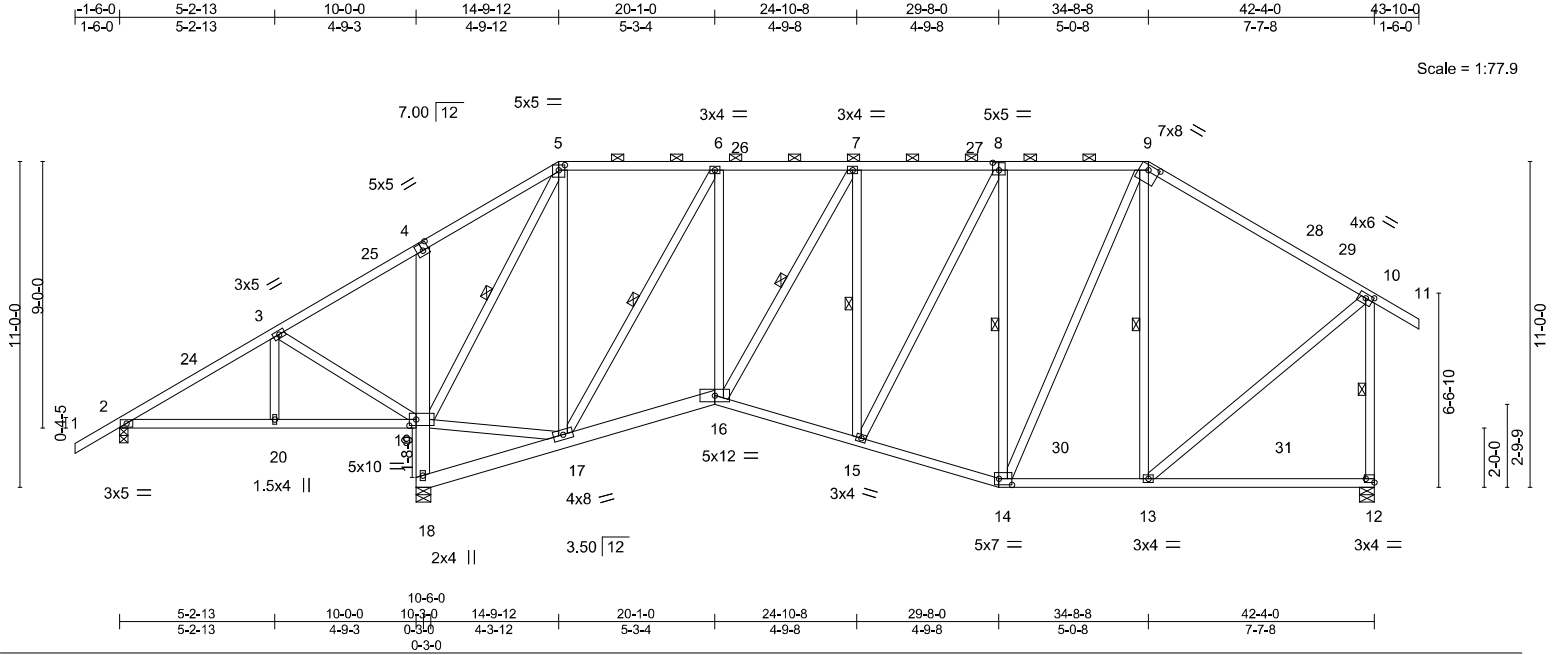


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-2-8,0-2-1], [8:0-2-8,0-3-0], [9:0-4-8,0-2-0], [10:0-3-0,0-1-12], [12:Edge,0-1-8], [14:0-5-4,0-2-8], [19:0-2-12,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.54	Vert(LL)	-0.12 12-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.54	Vert(CT)	-0.22 12-13	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.68	Horz(CT)	0.05 12	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 351 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-3-1 max.): 5-9.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 6-17, 7-16, 7-15, 8-14, 9-13, 10-12, 5-19

**REACTIONS.** (size) 2=0-3-7, 18=0-6-0, 12=0-6-0  
Max Horz 2=272(LC 11)  
Max Uplift 2=38(LC 12), 12=38(LC 12)  
Max Grav 2=347(LC 18), 18=2141(LC 17), 12=1521(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-254/69, 3-4=-73/431, 4-5=-8/441, 5-6=-491/112, 6-7=-1085/88, 7-8=-1151/114,  
8-9=-999/133, 9-10=-1036/122, 10-12=-1365/84  
BOT CHORD 18-19=-2056/27, 16-17=0/1185, 15-16=0/1206, 14-15=0/1033, 13-14=0/783  
WEBS 3-19=-553/44, 5-17=0/945, 6-17=-1275/0, 7-15=-271/28, 8-15=0/389, 8-14=-577/22,  
9-14=0/472, 9-13=-391/62, 10-13=0/945, 6-16=0/858, 17-19=0/531, 5-19=-1566/0

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl. GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-8-13, Interior(1) 2-8-13 to 14-9-12, Exterior(2R) 14-9-12 to 20-9-10, Interior(1) 20-9-10 to 34-8-8, Exterior(2R) 34-8-8 to 40-8-5, Interior(1) 40-8-5 to 43-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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October 25,2022

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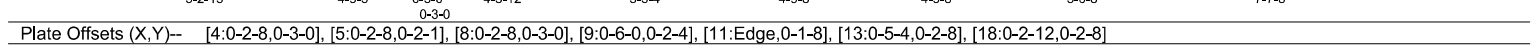
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
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Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:09 2022 Page 1  
ID:vAyZ7OAm5bhRAlwadF\_UtyyTqye-dOS3AV52mw8Nr5pfl3NynilfJ\_W9JfCskr0ZmyQBQo  
1-6-0 5-2-13 10-0-0 14-9-12 20-1-0 24-10-8 29-8-0 34-8-8 42-4-0  
1-6-0 5-2-13 4-9-3 4-9-12 5-3-4 4-9-8 4-9-8 5-0-8 7-7-8  
Scale = 1:77.8



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2 *Except* 9-10: 2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-15 max.): 5-9.
BOT CHORD	2x4 SP No.2 *Except* 4-17, 15-17: 2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 6-16, 7-15, 7-14, 8-13, 9-12, 5-18

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

**TOP CHORD**  
2-3=264/58, 3-4=-87/415, 4-5=-20/425, 5-6=-496/108, 6-7=-1092/80, 7-8=-1156/102,  
8-9=-1003/118, 9-10=-1039/100, 10-11=-1276/44

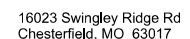
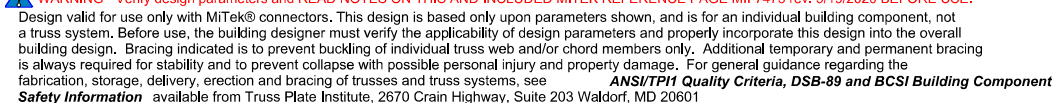
**BOT CHORD**  
17-18=-2048/36, 15-16=-1/1186, 14-15=-3/1211, 13-14=-17/1037, 12-13=-19/786

**WEBS**  
3-18=-553/44, 5-16=0/944, 6-16=-1277/0, 7-14=-273/34, 8-14=0/389, 8-13=-574/25,  
9-13=0/469, 9-12=-393/80, 10-12=0/953, 16-18=-11/531, 5-18=-1557/0, 6-15=0/860

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; B; Encl. gCp1=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 2-8-13, Interior(1) 2-8-13 to 14-9-12, Exterior(2R) 14-9-12 to 20-9-10, Interior(1) 20-9-10 to 34-8-8, Exterior(2R) 34-8-8 to 40-8-5, Interior(1) 40-8-5 to 42-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with CCDL = 10.0psf.
- 7) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 17.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 25.2022



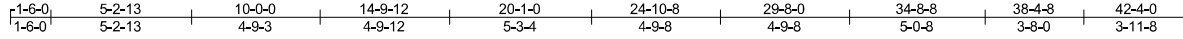


Job	Truss	Truss Type	Qty	Ply	Brooks	T29051495
BROOKS	A17	PIGGYBACK BASE GIRDE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:12 2022 Page 1

ID: vAyZ7OAm5bhRAIwadF\_UtYyTqye-2z8BoW7w3rWxiZXE\_BxPLwFKCaXW5T38i3g95yQBqL



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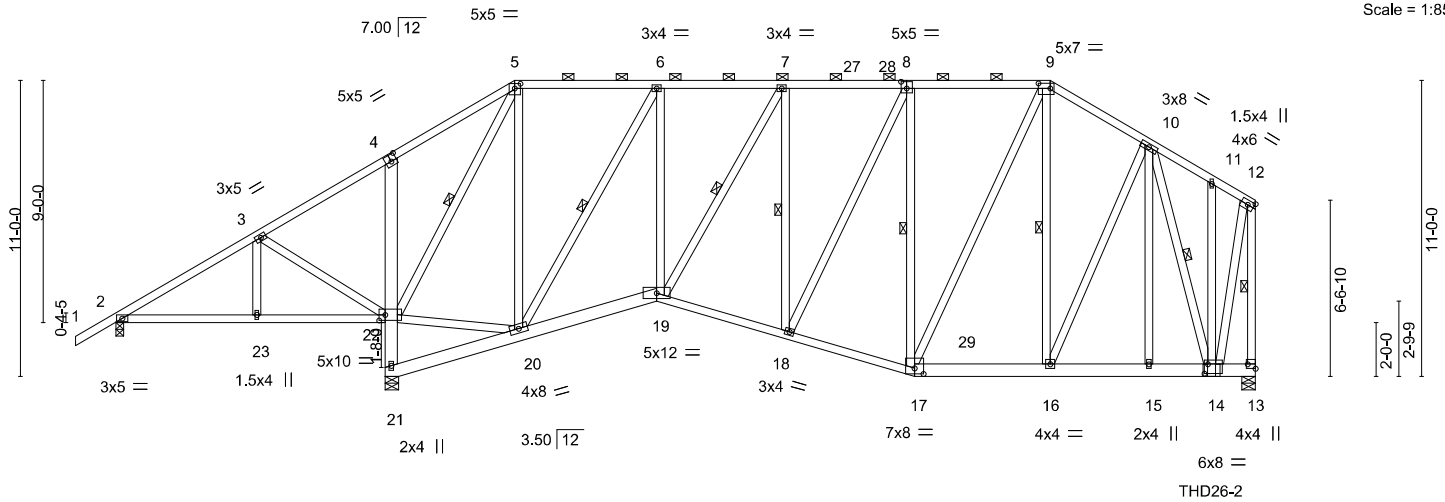


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-2-8,0-2-1], [8:0-2-8,0-3-0], [9:0-5-4,0-2-4], [13:Edge,0-3-8], [14:0-1-8,0-4-4], [17:0-4-0,0-2-8], [22:0-2-12,0-2-8]

LOADING (psf)	SPACING-	CSL	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.58	Vert(LL)	-0.08 18-19	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.43	Vert(CT)	-0.15 18-19	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.71	Horz(CT)	0.05 13	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 401 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\*  
2-22,17-19: 2x4 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-10 max.): 5-9.  
BOT CHORD Rigid ceiling directly applied or 5-0-9 oc bracing.  
WEBS 1 Row at midpt 6-20, 7-19, 7-18, 8-17, 9-16, 12-13, 5-22, 10-14

#### REACTIONS.

(size) 2=0-3-7, 21=0-6-0, 13=0-6-0  
Max Horz 2=265(LC 24)  
Max Uplift 2=-39(LC 25), 21=-10(LC 8), 13=-43(LC 8)  
Max Grav 2=337(LC 13), 21=2203(LC 29), 13=2103(LC 30)

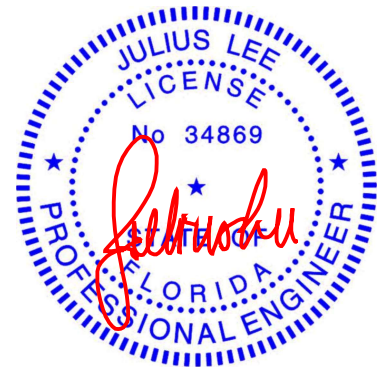
#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 3-4=-72/472, 4-5=-17/477, 5-6=-485/100, 6-7=-1110/84, 7-8=-1192/104, 8-9=-1052/121, 9-10=-1060/123, 10-11=-535/113, 11-12=-550/98, 12-13=-1943/72  
BOT CHORD 21-22=-2120/33, 19-20=0/1204, 18-19=0/1247, 17-18=0/1102, 16-17=0/850, 15-16=-5/679, 14-15=-5/679  
WEBS 3-22=-559/43, 5-20=0/996, 6-20=-1337/0, 8-18=0/371, 8-17=-554/39, 9-17=-32/460, 10-16=-59/528, 6-19=0/900, 20-22=-6/520, 5-22=-1634/0, 12-14=0/1651, 10-14=-1047/0

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 21, 13.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use MiTek THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 40-8-8 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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



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

October 25,2022

Continued on page 2

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

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

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

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



16023 Swingle Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	A17	PIGGYBACK BASE GIRDE	1	1	T29051495
Job Reference (optional)					

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:12 2022 Page 2

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#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-5=-60, 5-9=-60, 9-12=-60, 22-24=-20, 19-21=-20, 17-19=-20, 13-17=-20

Concentrated Loads (lb)

Vert: 14=-708(B)



Julius Lee PE No. 34869

MiTek Inc. DBA MiTek USA FL Cert 6634

16023 Swingley Ridge Rd. Chesterfield, MO 63017

Date:

October 25, 2022

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051496
BROOKS	B01	Half Hip Girder	1	2	Job Reference (optional)	

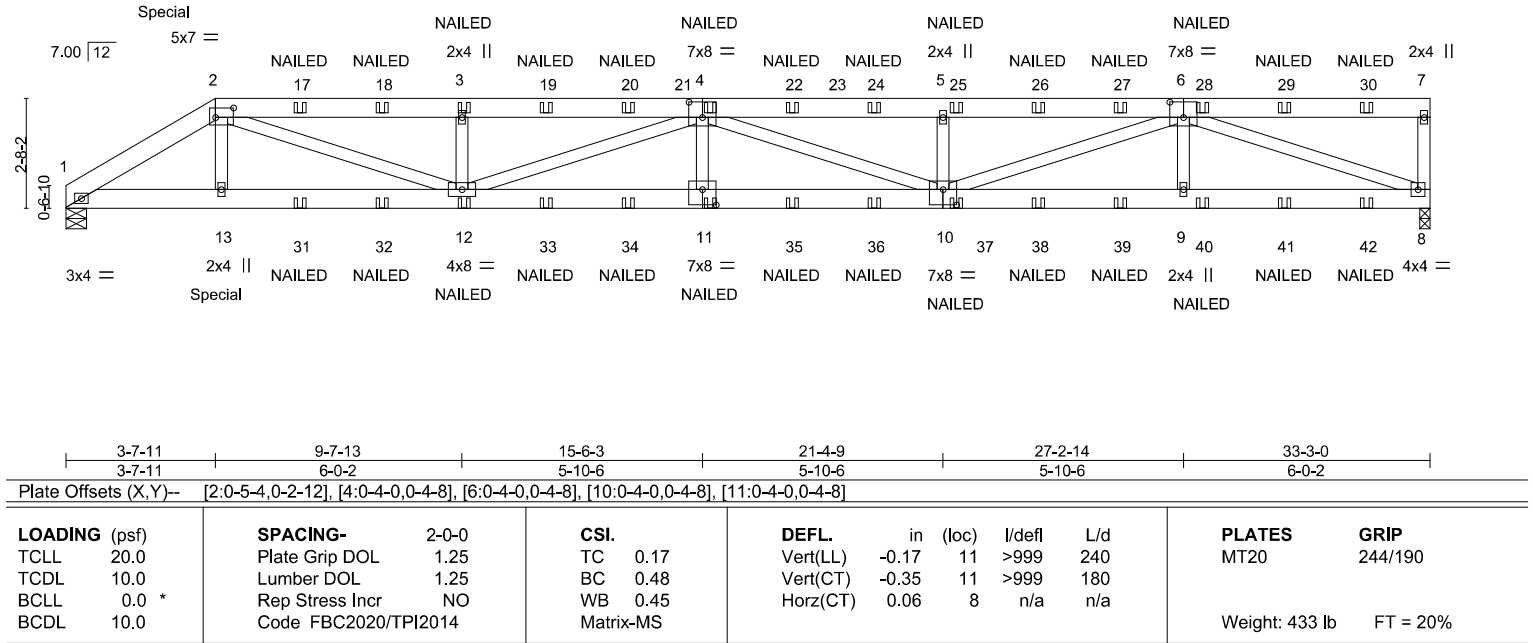
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:18 2022 Page 1

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Scale = 1:56.3



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2		
<b>REACTIONS.</b>		<b>NOTES.</b>	
(size)	1=0-6-0, 8=0-3-0	"Special" indicates special hanger(s) or other connection device(s) required at location(s) shown. The design/selection of such special connection device(s) is the responsibility of others. This applies to all applicable truss designs in this job.	
Max Horz	1=66(LC 7)		
Max Uplift	1=-89(LC 8), 8=-66(LC 8)		
Max Grav	1=1418(LC 36), 8=1366(LC 21)		

<b>FORCES.</b>		<b>NOTES.</b>	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:	
TOP CHORD	1-2=-2546/183, 2-3=-4286/266, 3-4=-4286/266, 4-5=-4729/290, 5-6=-4729/290	Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.	
BOT CHORD	1-13=-129/2181, 12-13=-128/2194, 11-12=-251/5106, 10-11=-251/5106, 9-10=-103/2964, 8-9=-103/2964	Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.	
WEBS	2-12=-101/2362, 3-12=-389/120, 4-12=-936/30, 4-11=0/253, 4-10=-418/22, 5-10=-398/121, 6-10=-154/1887, 6-9=0/281, 6-8=-3086/126	Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.	

<b>NOTES-</b>		<b>WARNING</b>	
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:		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	
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.		Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601	
3) Unbalanced roof live loads have been considered for this design.		ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component	
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCdL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=33ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60			
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.			
6) Provide adequate drainage to prevent water ponding.			
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.			
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.			
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8.			
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.			
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 139 lb down and 74 lb up at 3-7-11 on top chord, and 64 lb down and 46 lb up at 3-7-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.			

<b>LOAD CASE(S)</b> Standard		October 25,2022	
Continued on page 2			
<b>WARNING</b>		<b>MI</b>	
Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.		Mitek	
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		16023 Swingley Ridge Rd Chesterfield, MO 63017	
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601			

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	B01	Half Hip Girder	1	2	T29051496

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:18 2022 Page 2  
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#### LOAD CASE(S) Standard

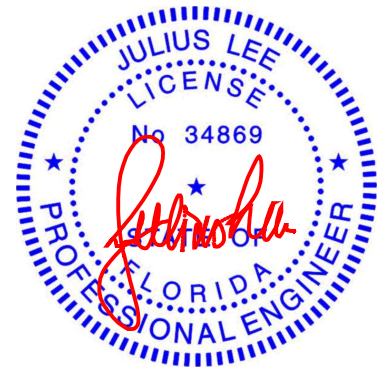
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=-60, 2-7=-60, 8-14=-20

Concentrated Loads (lb)

Vert: 2=-2(F) 13=-62(F) 12=-2(F) 3=-2(F) 4=-2(F) 11=-2(F) 17=-2(F) 18=-2(F) 19=-2(F) 20=-2(F) 22=-2(F) 24=-2(F) 25=-2(F) 26=-2(F) 27=-2(F) 28=-2(F) 29=-2(F)  
30=-2(F) 31=-2(F) 32=-2(F) 33=-2(F) 34=-2(F) 35=-2(F) 36=-2(F) 37=-2(F) 38=-2(F) 39=-2(F) 40=-2(F) 41=-2(F) 42=-2(F)



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

October 25, 2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051497
BROOKS	B02	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:20 2022 Page 1

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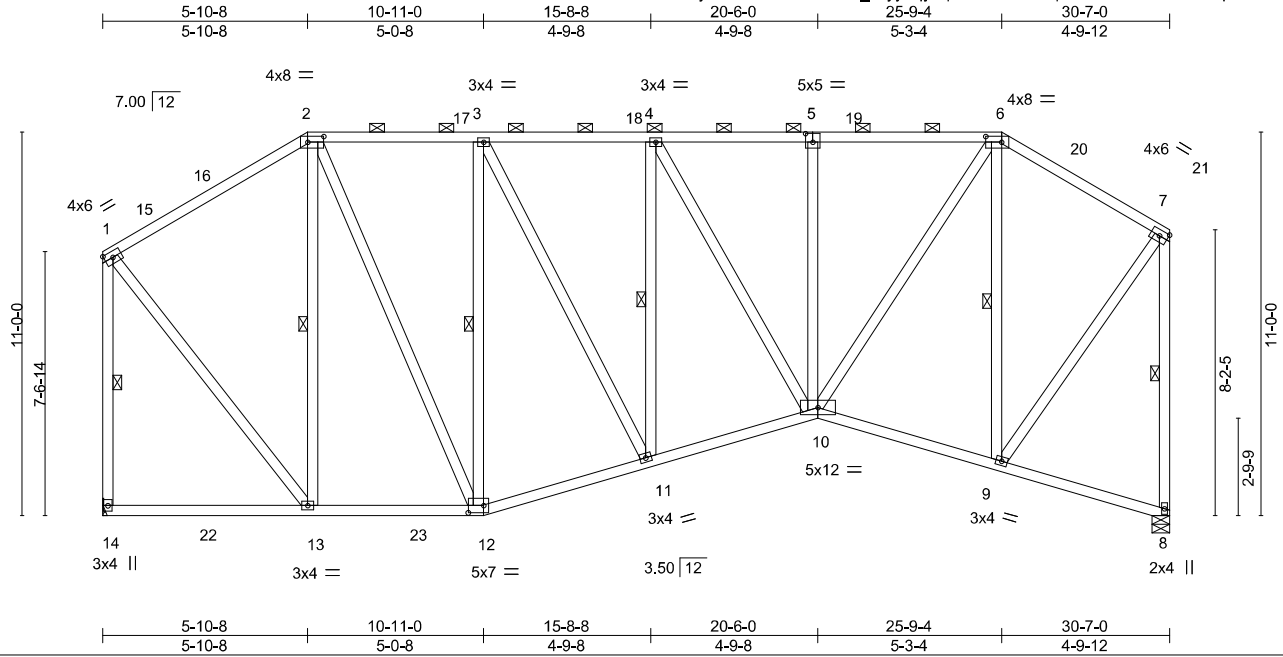


Plate Offsets (X,Y)-- [2:0-5-8,0-2-0], [5:0-2-8,0-3-0], [6:0-5-8,0-2-0], [12:0-5-4,0-2-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.06 10-11 >999 240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.12 10-11 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.06 8 n/a n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS				Weight: 271 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-10 max.): 2-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 2-13, 3-12, 4-11, 6-9, 1-14, 7-8

**REACTIONS.** (size) 14=Mechanical, 8=0-6-0  
Max Horz 14=274(LC 11)  
Max Grav 14=1369(LC 18), 8=1314(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-831/110, 2-3=-910/117, 3-4=-1120/100, 4-5=-1135/75, 5-6=-1131/74, 6-7=-769/98,  
1-14=-1253/39, 7-8=-1246/44  
BOT CHORD 13-14=-247/266, 12-13=-148/714, 11-12=-119/1021, 10-11=-108/1245, 9-10=-93/665  
WEBS 2-13=-553/96, 2-12=-22/679, 3-12=-714/25, 3-11=0/493, 4-11=-370/53, 5-10=-253/51,  
6-10=-35/1038, 6-9=-805/123, 1-13=-15/990, 7-9=-42/1019

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-2-7, Interior(1) 3-2-7 to 5-10-8, Exterior(2R) 5-10-8 to 10-2-6, Interior(1) 10-2-6 to 25-9-4, Exterior(2R) 25-9-4 to 30-1-2, Interior(1) 30-1-2 to 30-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25,2022

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051498
BROOKS	B03	PIGGYBACK BASE GIRDE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:21 2022 Page 1

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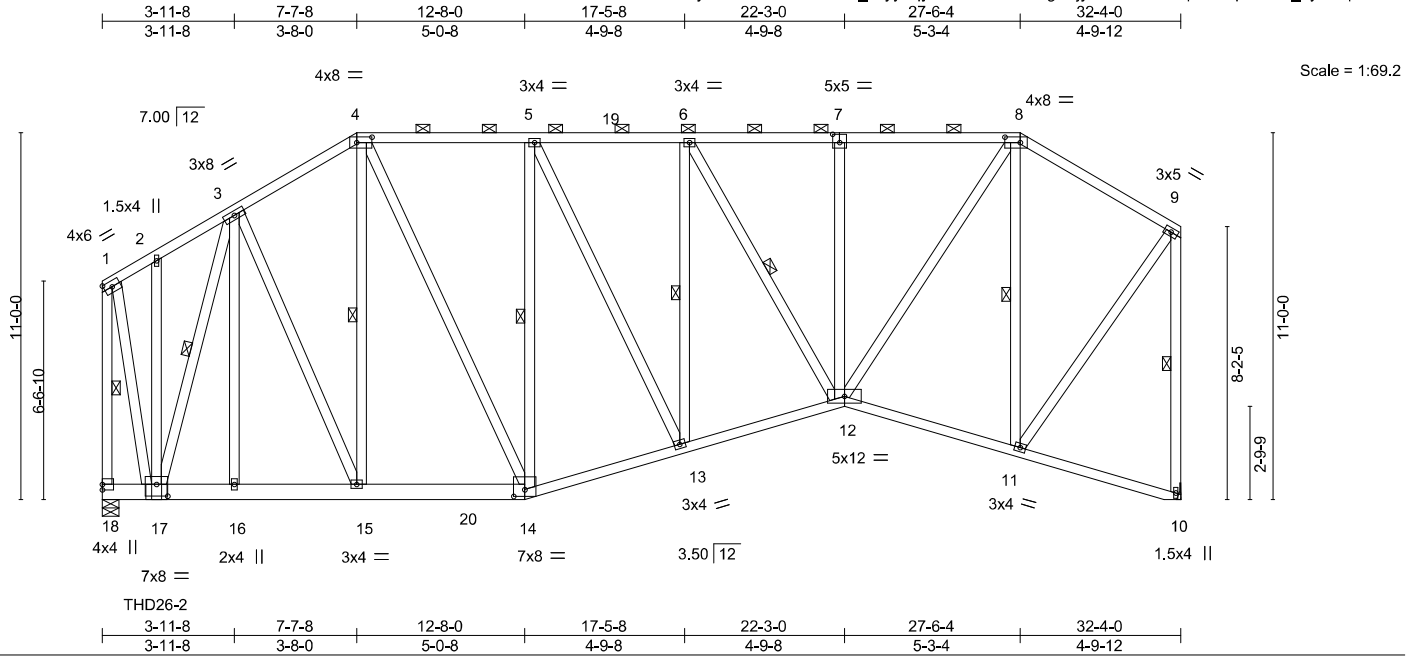


Plate Offsets (X,Y)--		[4:0-5-8,0-2-0], [7:0-2-8,0-3-0], [8:0-5-8,0-2-0], [14:0-4-0,0-2-8], [17:0-4-0,0-4-4]					
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 20.0		Plate Grip DOL	1.25	TC 0.66		Vert(LL)	-0.08 12-13 >999 240
TCDL 10.0		Lumber DOL	1.25	BC 0.46		Vert(CT)	-0.14 12-13 >999 180
BCLL 0.0 *		Rep Stress Incr	NO	WB 0.38		Horz(CT)	0.07 10 n/a n/a
BCDL 10.0		Code FBC2020/TPI2014		Matrix-MS			
						<b>PLATES</b>	<b>GRIP</b>
						MT20	244/190
						Weight: 328 lb FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
14-18: 2x6 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-2 max.): 4-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-15, 5-14, 6-13, 6-12, 8-11, 1-18, 9-10, 3-17

#### REACTIONS.

(size) 18=0-6-0, 10=Mechanical  
Max Horz 18=277(LC 7)  
Max Uplift 18=42(LC 8), 10=3(LC 8)  
Max Grav 18=2138(LC 29), 10=1422(LC 29)

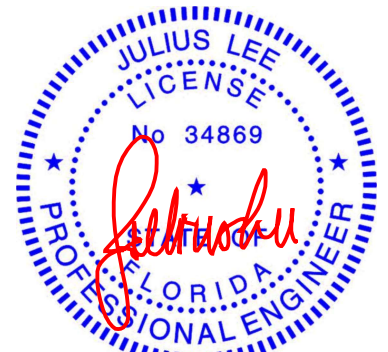
#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-559/98, 2-3=-541/113, 3-4=-1091/123, 4-5=-1105/123, 5-6=-1291/104,  
6-7=-1270/80, 7-8=-1266/79, 8-9=-833/98, 1-18=-1977/71, 9-10=-1358/15  
BOT CHORD 17-18=-254/186, 16-17=-138/802, 15-16=-138/802, 14-15=-92/963, 13-14=-71/1243,  
12-13=-69/1422, 11-12=-63/720  
WEBS 3-15=-71/580, 4-15=-288/123, 4-14=-41/593, 5-14=-674/38, 5-13=-8/438, 6-13=-306/72,  
7-12=-261/53, 8-12=-25/1188, 8-11=-888/82, 9-11=-3/1111, 1-17=0/1706,  
3-17=-1115/0

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use MiTek THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 1-7-8 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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



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

October 25,2022

Continued on page 2

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	B03	PIGGYBACK BASE GIRDE	1	1	T29051498
Job Reference (optional)					

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:22 2022 Page 2  
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#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-60, 4-8=-60, 8-9=-60, 14-18=-20, 12-14=-20, 10-12=-20  
Concentrated Loads (lb)  
Vert: 17=-707(B)



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October 25, 2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051501
BROOKS	B06	PIGGYBACK BASE	3	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:27 2022 Page 1  
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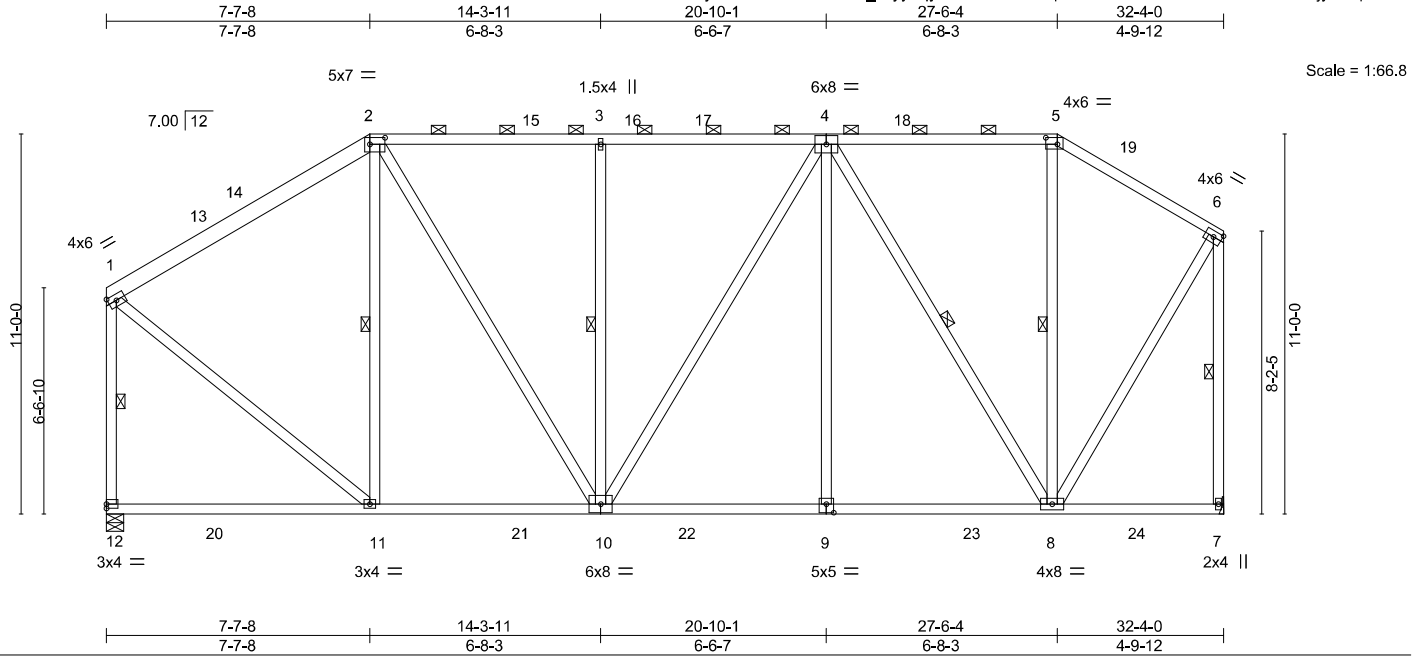


Plate Offsets (X,Y)--		[2:0-5-4,0-2-4], [5:0-4-0,0-2-4], [9:0-2-8,0-3-0]			
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.75	in (loc) l/defl L/d	GRIP
TCDL 10.0	Lumber DOL	1.25	BC 0.91	Vert(LL) -0.22 9-10 >999 240	MT20 244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Vert(CT) -0.36 9-10 >999 180	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-AS	Horz(CT) 0.03 7 n/a n/a	
				Weight: 271 lb FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 1-2: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-9-15 max.): 2-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 2-11, 3-10, 4-8, 5-8, 1-12, 6-7

**REACTIONS.** (size) 12=0-6-0, 7=Mechanical  
Max Horz 12=275(LC 11)  
Max Uplift 7=-1(LC 12)  
Max Grav 12=1512(LC 17), 7=1510(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1113/98, 2-3=-1151/123, 3-4=-1151/123, 4-5=-656/115, 5-6=-800/114,  
1-12=-1367/41, 6-7=-1429/35  
BOT CHORD 10-11=-127/940, 9-10=-69/1091, 8-9=-69/1091  
WEBS 2-11=-405/103, 2-10=-16/594, 3-10=-464/89, 4-9=0/341, 4-8=-876/9, 1-11=0/1085,  
6-8=-21/1182

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp B; Encl. GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-4-9, Interior(1) 3-4-9 to 7-7-8, Exterior(2R) 7-7-8 to 12-2-6, Interior(1) 12-2-6 to 27-6-4, Exterior(2E) 27-6-4 to 32-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25, 2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051502
BROOKS	B07	PIGGYBACK BASE	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:28 2022 Page 1  
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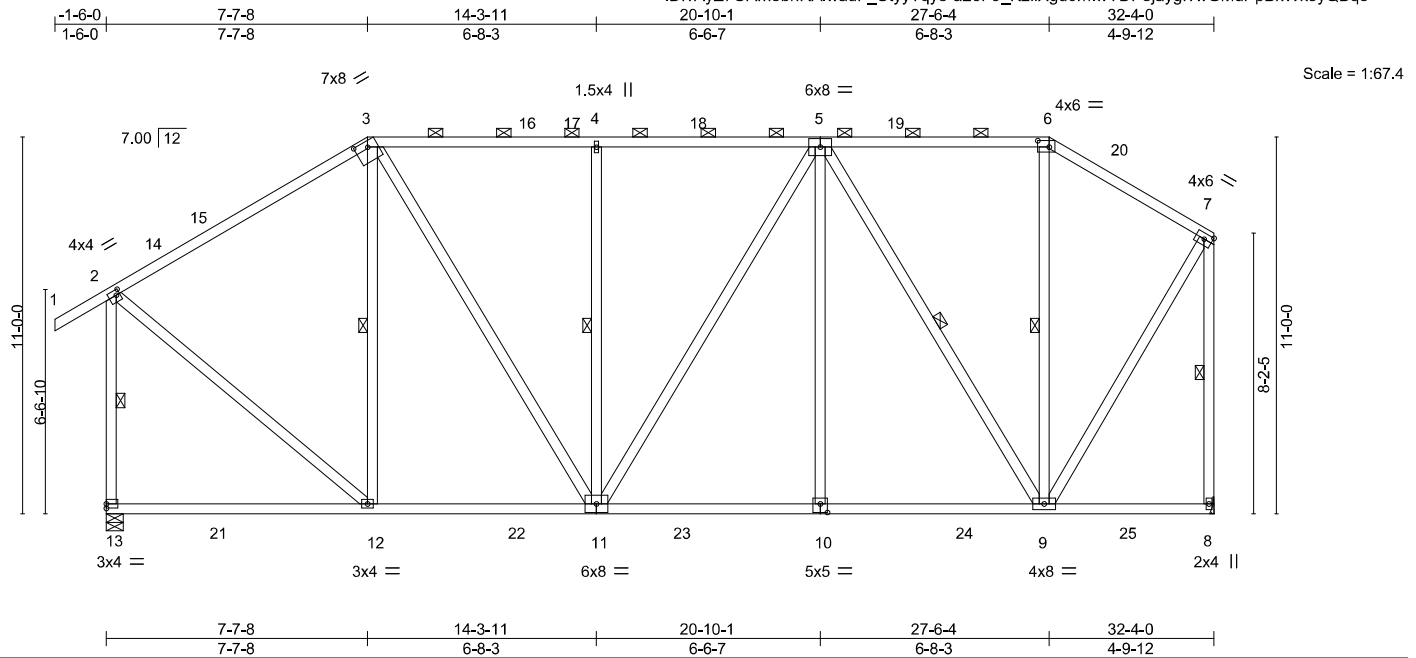


Plate Offsets (X,Y)-- [2:0-1-4,0-1-12], [3:0-4-8,0-2-0], [6:0-4-0,0-2-4], [10:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.75	Vert(LL)	-0.22 10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.91	Vert(CT)	-0.36 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.62	Horz(CT)	0.03 8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 266 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-9-15 max.): 3-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 3-12, 4-11, 5-9, 6-9, 2-13, 7-8

**REACTIONS.** (size) 13=0-6-0, 8=Mechanical  
Max Horz 13=288(LC 11)  
Max Uplift 13=-33(LC 12), 8=-6(LC 12)  
Max Grav 13=1604(LC 17), 8=1509(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1111/116, 3-4=-1148/132, 4-5=-1148/132, 5-6=-654/118, 6-7=-798/116, 2-13=-1456/77, 7-8=-1426/40  
BOT CHORD 12-13=-258/253, 11-12=-134/938, 10-11=-71/1090, 9-10=-71/1090  
WEBS 3-12=-404/84, 3-11=-9/598, 4-11=-469/88, 5-10=0/341, 5-9=-874/12, 2-12=0/1086, 7-9=-23/1181

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-8-13, Interior(1) 1-8-13 to 7-7-8, Exterior(2R) 7-7-8 to 12-2-6, Interior(1) 12-2-6 to 27-6-4, Exterior(2E) 27-6-4 to 32-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25, 2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051503
BROOKS	B08	PIGGYBACK BASE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:31 2022 Page 1

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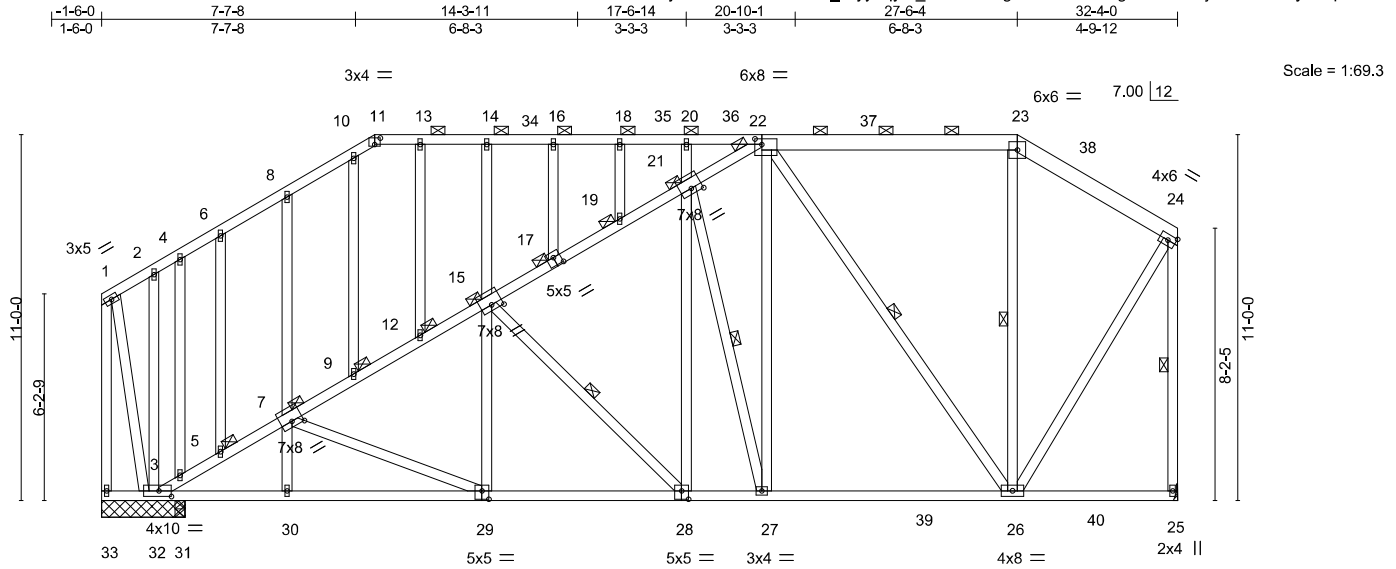


Plate Offsets (X,Y)--	[7:0-4-0,0-2-0], [11:0-2-0,0-2-5], [15:0-4-0,0-2-0], [17:0-2-8,0-3-0], [21:0-4-0,0-2-0], [22:0-2-8,0-2-0], [28:0-2-8,0-3-0], [29:0-2-8,0-3-0], [32:0-4-8,0-2-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.42	Vert(LL)	-0.14 28-29	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.68	Vert(CT)	-0.29 28-29	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.58	Horz(CT)	0.06 25	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 368 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
23-24,22-23: 2x6 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, and 2-0-0 oc purlins (6-0-0 max.): 11-23, 22-32.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 23-26, 24-25, 15-28, 21-27, 22-26  
JOINTS 1 Brace at Jt(s): 19, 17, 15, 12, 9, 7, 5, 21, 22

#### REACTIONS.

All bearings 2-6-0 except (jt=length) 25=Mechanical, 31=0-3-8.  
(lb) - Max Horz 33=274(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) except 32=-231(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) except 33=876(LC 18), 25=1420(LC 19), 32=303(LC 17), 31=449(LC 19)

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

TOP CHORD 22-23=-624/112, 23-24=-759/110, 1-33=-847/0, 24-25=-1339/25, 3-32=-1918/0, 3-5=-1892/0, 5-7=-1877/0, 7-9=-1622/0, 9-12=-1615/0, 12-15=-1603/0, 15-17=-1196/0, 17-19=-1199/0, 19-21=-1159/0, 21-22=-1019/0, 2-4=-266/44, 4-6=-289/65, 6-8=-275/86, 8-10=-285/124  
BOT CHORD 32-33=-253/221, 31-32=-2/1821, 30-31=-2/1821, 29-30=-2/1821, 28-29=-9/1564, 27-28=-48/1188, 26-27=-54/1059  
WEBS 24-26=-23/1110, 14-15=-288/56, 15-29=0/298, 1-32=0/805, 21-28=0/455, 7-29=-268/0, 15-28=-531/0, 22-27=0/918, 21-27=-646/13, 22-26=-778/0

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-6-14, Interior(1) 3-6-14 to 8-2-7, Exterior(2R) 8-2-7 to 12-9-5, Interior(1) 12-9-5 to 27-6-4, Exterior(2E) 27-6-4 to 32-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 32.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051504
BROOKS	C01	PIGGYBACK BASE SUPPO	1	1	Job Reference (optional)	

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:33 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-w?v7CiO56HAzjneGi5pammHwigo1xl68zTfHPNyQBq0

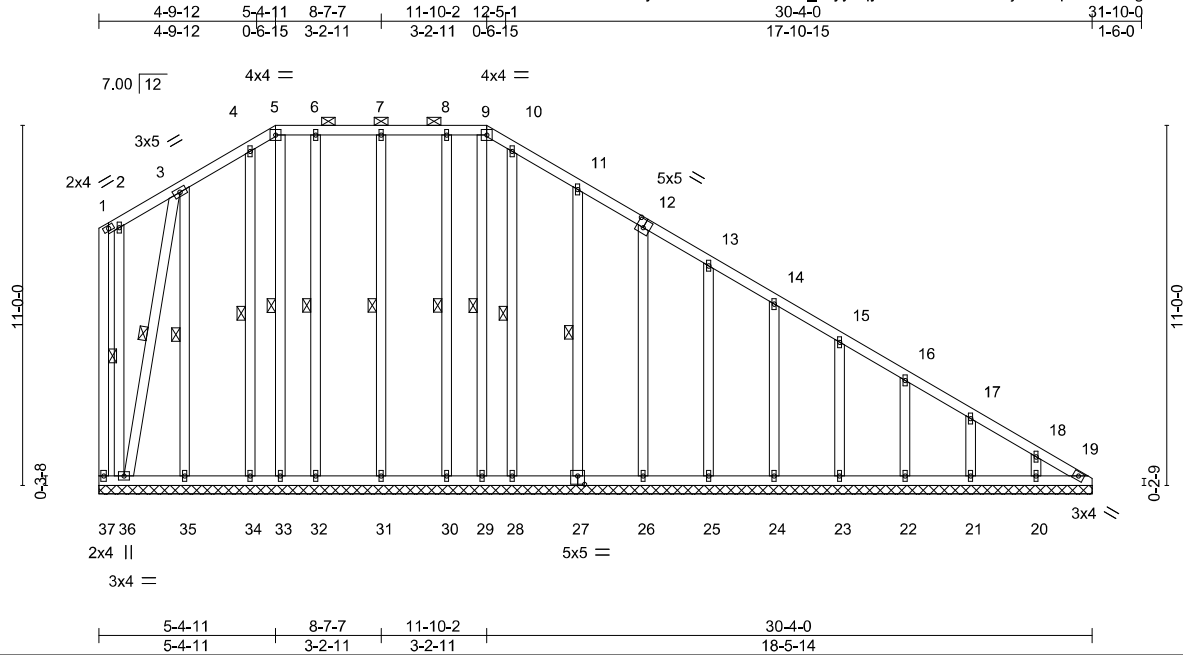


Plate Offsets (X,Y)-- [12:0-2-8,0-3-0], [27:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.28	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT)	0.01	19	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 308 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, and 2-0-0 oc purlins (6-0-0 max.): 5-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 1-37, 6-32, 4-34, 3-35, 8-30, 5-33, 9-29, 11-27, 10-28, 7-31, 3-36

#### REACTIONS.

All bearings 30-4-0.  
(lb) - Max Horz 37=-284(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 37, 32, 34, 36, 35, 33, 29, 27, 26, 25, 24, 22, 23, 21, 20, 31, 19  
Max Grav All reactions 250 lb or less at joint(s) 37, 32, 34, 36, 35, 30, 33, 29, 27, 28, 26, 25, 24, 22, 23, 21, 20, 31, 19

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

TOP CHORD 18-19=-252/196  
BOT CHORD 36-37=-194/250

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-2-2, Interior(1) 3-2-2 to 5-4-11, Exterior(2R) 5-4-11 to 8-7-7, Interior(1) 8-7-7 to 11-10-2, Exterior(2R) 11-10-2 to 14-7-7, Interior(1) 14-7-7 to 30-1-15 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37, 32, 34, 36, 35, 33, 29, 27, 26, 25, 24, 22, 23, 21, 20, 31, 19.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25,2022

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051505
BROOKS	C02	PIGGYBACK BASE	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:35 2022 Page 1

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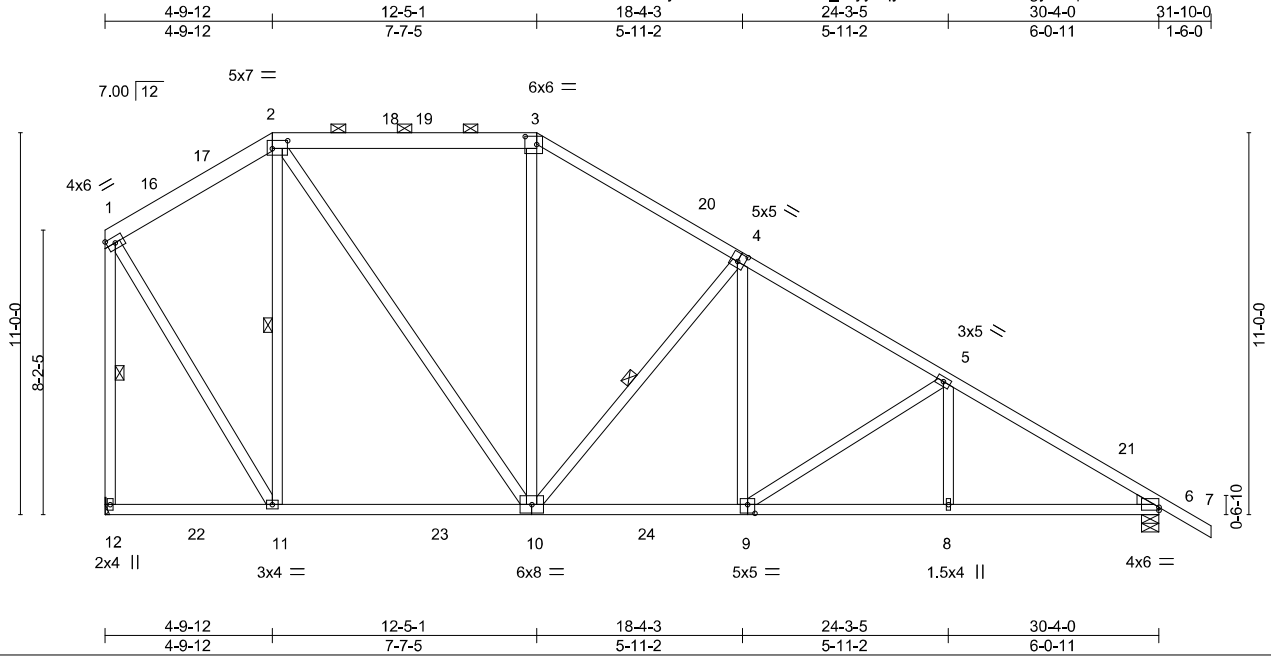


Plate Offsets (X,Y)-- [2:0-5-4,0-2-12], [3:0-4-0,0-2-12], [4:0-2-8,0-3-0], [6:0-0-0,0-1-1], [9:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.50	Vert(LL)	-0.19 10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.80	Vert(CT)	-0.32 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.46	Horz(CT)	0.06 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 223 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 2-11, 4-10, 1-12

#### REACTIONS.

(size) 12=Mechanical, 6=0-6-0  
Max Horz 12=-295(LC 10)  
Max Uplift 12=-3(LC 12), 6=-33(LC 12)  
Max Grav 12=1423(LC 18), 6=1469(LC 18)

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

TOP CHORD 1-2=-736/118, 2-3=-975/124, 3-4=-1153/109, 4-5=-1713/61, 5-6=-2207/13,  
1-12=-1353/35  
BOT CHORD 10-11=0/666, 9-10=0/1365, 8-9=0/1820, 6-8=0/1820  
WEBS 2-11=-633/138, 2-10=-43/750, 3-10=0/258, 4-10=-708/55, 4-9=0/529, 5-9=-545/55,  
1-11=-39/1117

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-2-2, Interior(1) 3-2-2 to 4-9-12, Exterior(2R) 4-9-12 to 9-1-4, Interior(1) 9-1-4 to 12-5-1, Exterior(2R) 12-5-1 to 16-8-9, Interior(1) 16-8-9 to 31-10-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 6.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

October 25,2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

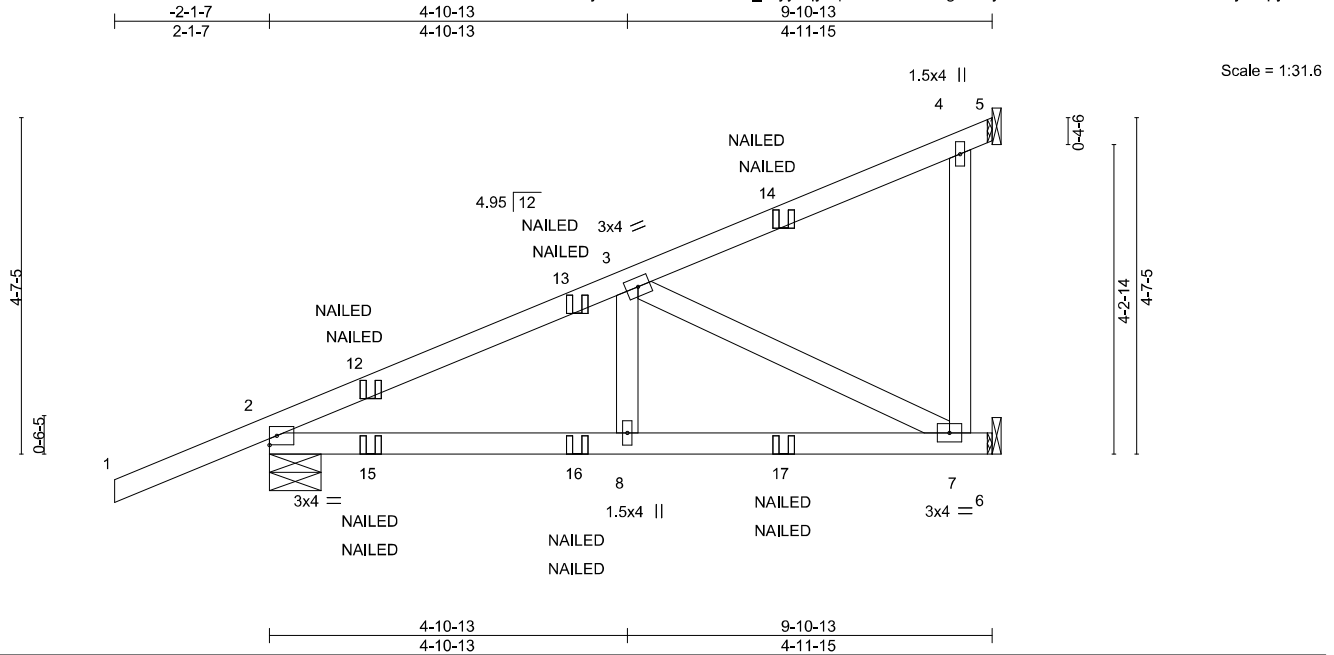
Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	CJ01	Diagonal Hip Girder	2	1	T29051506

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:37 2022 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.57	Vert(LL) -0.05	7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.56	Vert(CT) -0.12	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.27	Horz(CT) -0.01	5	n/a	n/a		
BCDL 10.0	Code FBC2020/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" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

#### REACTIONS.

(size) 5=Mechanical, 2=0-8-8, 6=Mechanical  
Max Horz 2=129(LC 24)  
Max Uplift 2=-110(LC 8), 6=-124(LC 8)  
Max Grav 5=208(LC 3), 2=477(LC 1), 6=361(LC 1)

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

TOP CHORD 2-3=-647/18  
BOT CHORD 2-8=-68/547, 7-8=-68/547  
WEBS 3-7=-610/76

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=110, 6=124.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) 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 (plf)  
Vert: 1-5=-60, 6-9=-20  
Concentrated Loads (lb)  
Vert: 12=60(F=30, B=30) 14=-95(F=-51, B=-44) 15=59(F=29, B=29) 16=-1(F=-0, B=-0) 17=-60(F=-33, B=-27)



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

October 25,2022

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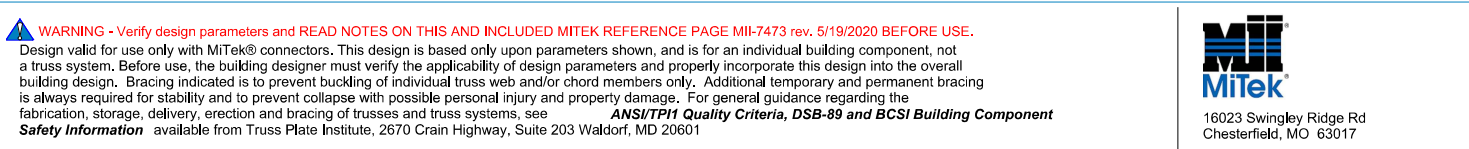
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd  
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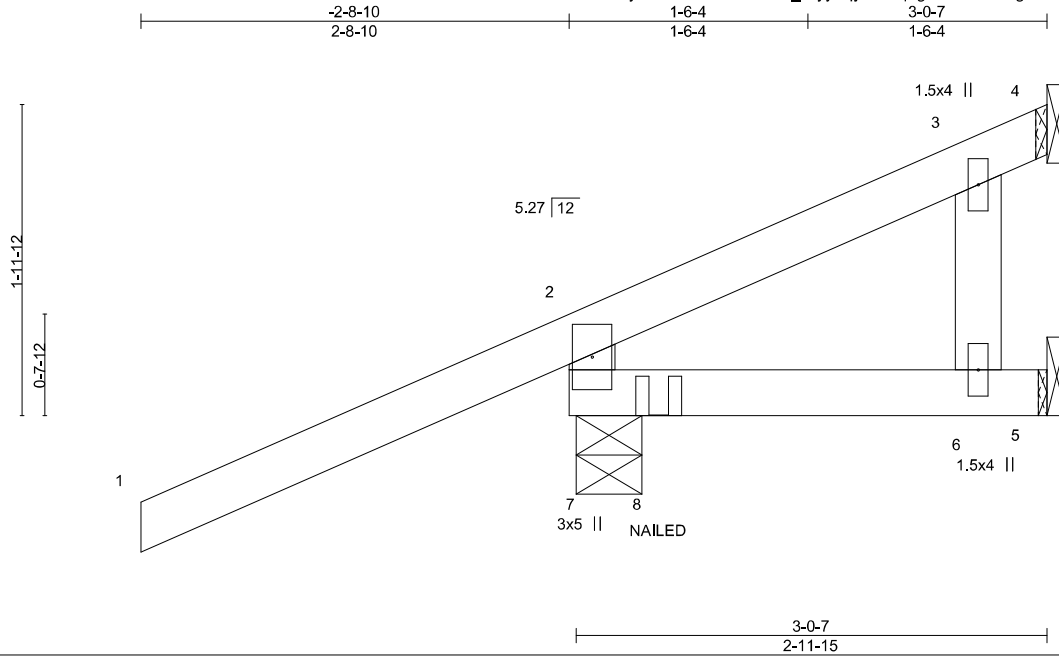


Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	CJ03	Diagonal Hip Girder	1	1	T29051508

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:40 2022 Page 1

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Scale = 1:14.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.64	Vert(LL)	0.01	6-7	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.19	Vert(CT)	0.01	6-7	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.01	Horz(CT)	-0.01	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP						Weight: 16 lb	FT = 20%
	Code FBC2020/TPI2014								

#### 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 3-0-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=0-5-0, 4=Mechanical, 5=Mechanical  
Max Horz 7=68(LC 8)  
Max Uplift 7=-116(LC 8), 5=-6(LC 21)  
Max Grav 7=354(LC 1), 4=41(LC 3), 5=20(LC 9)

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

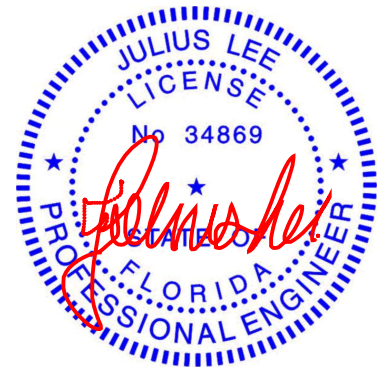
TOP CHORD 2-7=-312/105

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=116.
- 7) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) 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 (plf)  
Vert: 1-2=-60, 2-4=-60, 5-7=-20  
Concentrated Loads (lb)  
Vert: 8=22(B)



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

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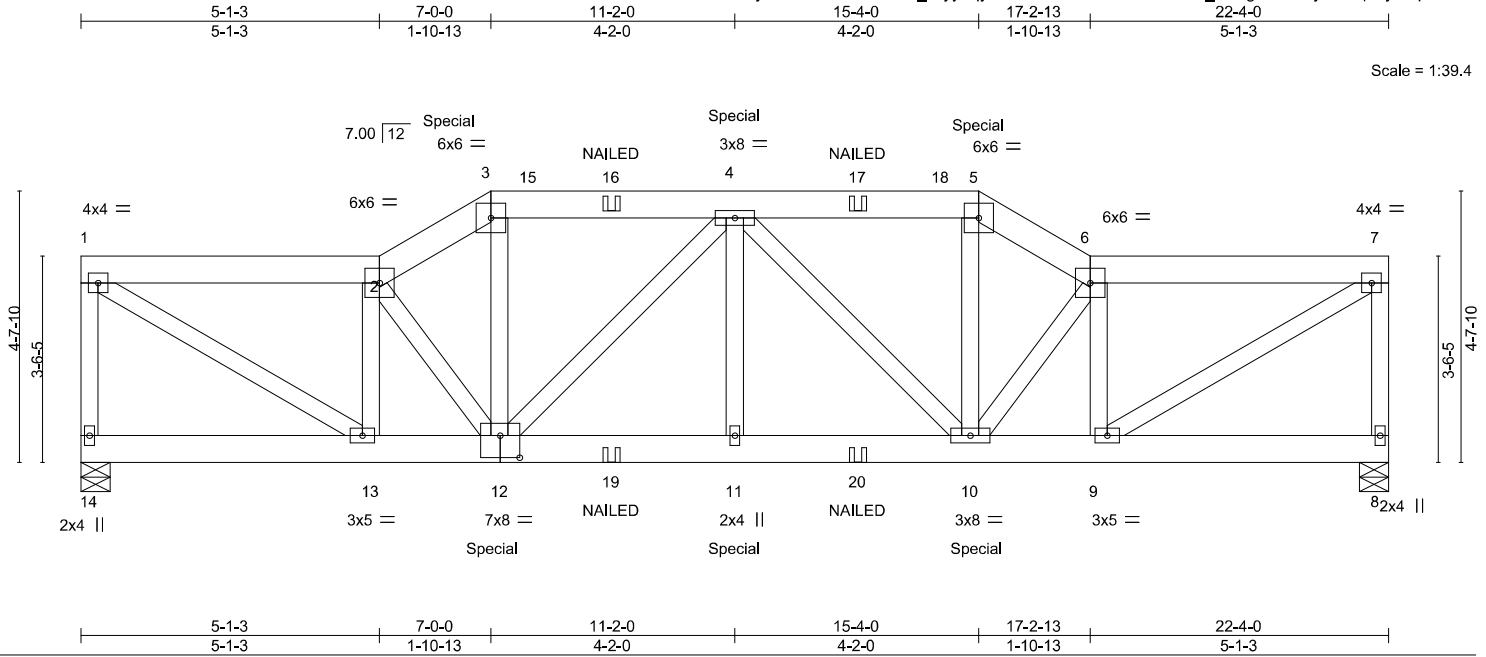
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Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	D01	Roof Special Girder	1	2	T29051509

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:43 2022 Page 1  
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Scale = 1:39.4

Plate Offsets (X,Y)-- [12:0-4-0,0-4-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.05 11	>999	240
TCDL	10.0	Lumber DOL	1.25	BC	0.30	Vert(CT)	-0.09 11	>999	180
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.02 8	n/a	n/a
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS					
								Weight: 359 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 or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 14=0-6-0, 8=0-6-0  
Max Horz 14=-105(LC 23)  
Max Uplift 14=-142(LC 8), 8=-142(LC 8)  
Max Grav 14=1851(LC 1), 8=1851(LC 1)

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

TOP CHORD 1-14=-1775/166, 1-2=-2554/242, 2-3=-3012/314, 3-4=-2644/286, 4-5=-2646/281, 5-6=-3017/308, 6-7=-2554/244, 7-8=-1775/167  
BOT CHORD 12-13=-236/2630, 11-12=-273/3076, 10-11=-273/3076, 9-10=-224/2630  
WEBS 1-13=-249/2985, 2-13=-1603/195, 3-12=-100/1007, 4-12=-676/36, 4-11=0/440, 4-10=-672/43, 5-10=-97/1009, 6-9=-1612/184, 7-9=-250/2984

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=142, 8=142.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 278 lb down and 47 lb up at 7-0-0, 128 lb down and 75 lb up at 11-0-12, and 128 lb down and 75 lb up at 11-3-4, and 278 lb down and 47 lb up at 15-4-0 on top chord, and 392 lb down and 133 lb up at 7-0-0, 86 lb down at 11-0-12, and 86 lb down at 11-3-4, and 392 lb down and 133 lb up at 15-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

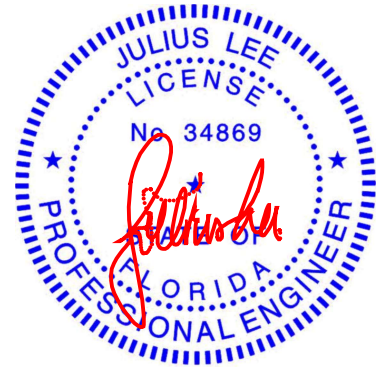
#### LOAD CASE(S) Standard

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

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



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

October 25, 2022



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	D01	Roof Special Girder	1	2	T29051509

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:43 2022 Page 2  
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#### LOAD CASE(S) Standard

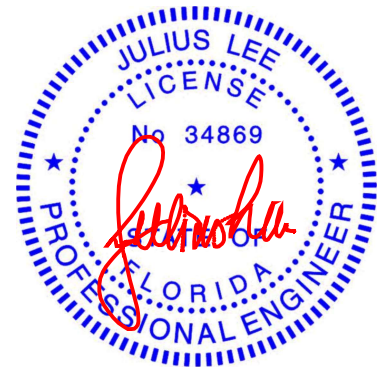
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 3-5=-60, 5-6=-60, 6-7=-60, 8-14=-20

Concentrated Loads (lb)

Vert: 3=-202(B) 5=-202(B) 12=-392(B) 11=-120(B) 4=-256(B) 10=-392(B) 16=-128(B) 17=-128(B) 19=-60(B) 20=-60(B)



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



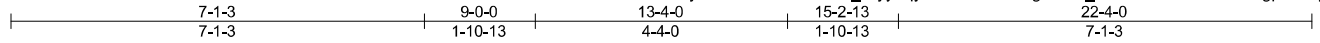
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051510
BROOKS	D02	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:44 2022 Page 1

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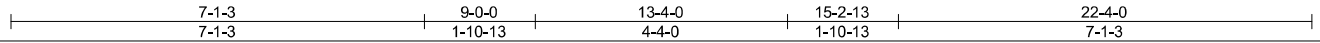
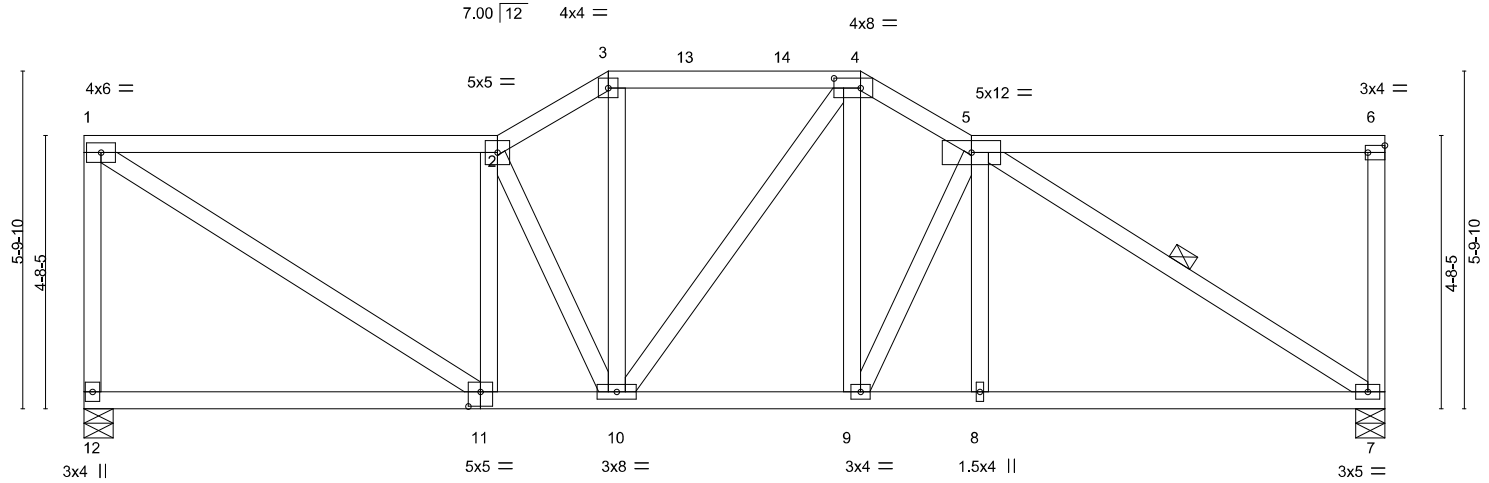


Plate Offsets (X,Y)-- [4:0-5-8,0-2-0], [6:Edge,0-1-8], [11:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	Vert(LL)	-0.09 11-12	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.46	Vert(CT)	-0.19 11-12	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.34	Horz(CT)	0.02 7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS					Weight: 154 lb	FT = 20%
	Code FBC2020/TPI2014							

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-7

#### REACTIONS.

(size) 12=0-6-0, 7=0-6-0  
Max Horz 12=-143(LC 10)  
Max Grav 12=882(LC 1), 7=882(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-12=-804/79, 1-2=-951/64, 2-3=-1041/75, 3-4=-862/72, 4-5=-1039/68  
BOT CHORD 10-11=-140/986, 9-10=-98/859, 8-9=-92/997, 7-8=-89/1001  
WEBS 1-11=-69/1082, 2-11=-528/83, 2-10=-326/65, 3-10=0/361, 4-9=-12/365, 5-9=-359/36, 5-7=-1130/64

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-0-0, Exterior(2R) 9-0-0 to 12-0-0, Interior(1) 12-0-0 to 13-4-0, Exterior(2E) 13-4-0 to 15-2-13, Interior(1) 15-2-13 to 22-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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October 25,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051511
BROOKS	D03	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:46 2022 Page 1

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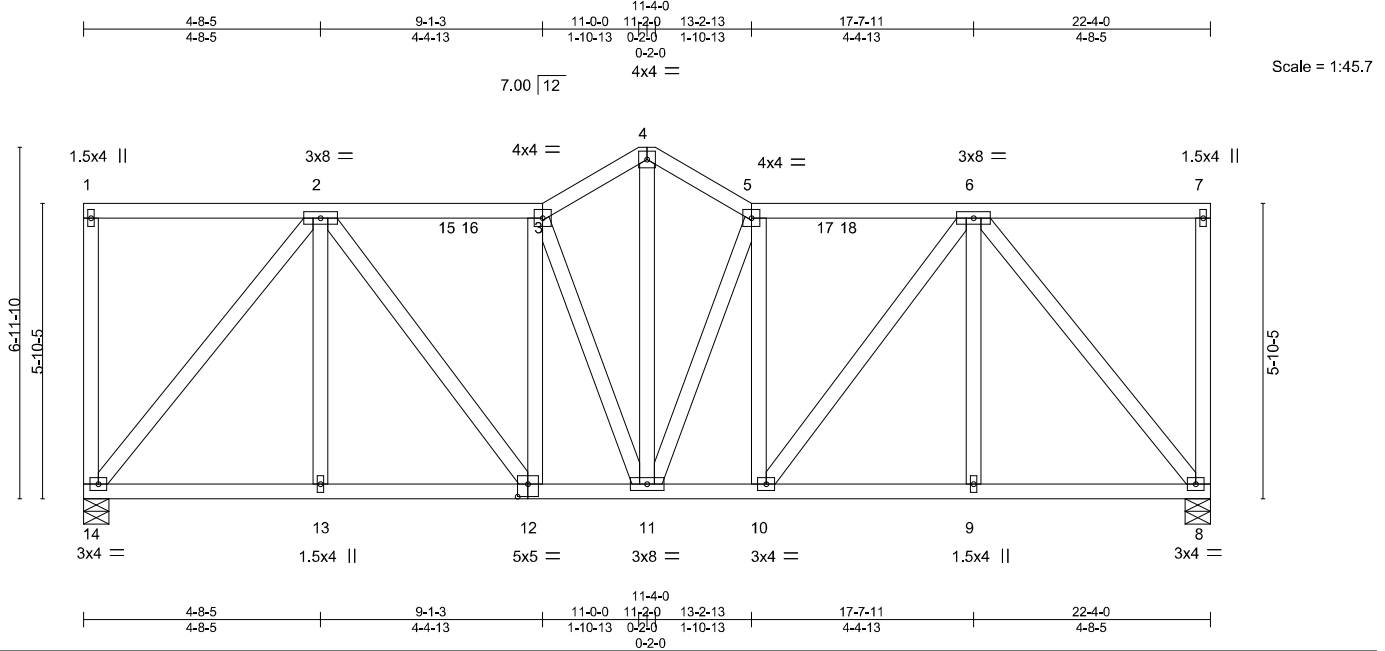


Plate Offsets (X,Y)-- [12:0-2-8,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.23	Vert(LL)	-0.03	11	>999	240	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.25	Vert(CT)	-0.06	11	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.02	8	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-AS						
								Weight: 181 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) 14=0-6-0, 8=0-6-0  
Max Horz 14=-176(LC 10)  
Max Uplift 14=-3(LC 8), 8=-3(LC 9)  
Max Grav 14=882(LC 1), 8=882(LC 1)

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

TOP CHORD 2-3=-832/55, 3-4=-862/72, 4-5=-861/72, 5-6=-842/53  
BOT CHORD 13-14=-151/602, 12-13=-151/602, 11-12=-137/846, 10-11=-110/849, 9-10=-79/601, 8-9=-79/601  
WEBS 3-12=-258/62, 4-11=-42/671, 3-11=-348/64, 5-11=-357/50, 2-14=-934/50, 2-12=-41/388, 6-10=-48/397, 6-8=-934/58

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 11-2-0, Exterior(2E) 11-2-0 to 13-2-13, Interior(1) 13-2-13 to 22-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 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.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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October 25,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051512
BROOKS	D04	Flat	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:48 2022 Page 1

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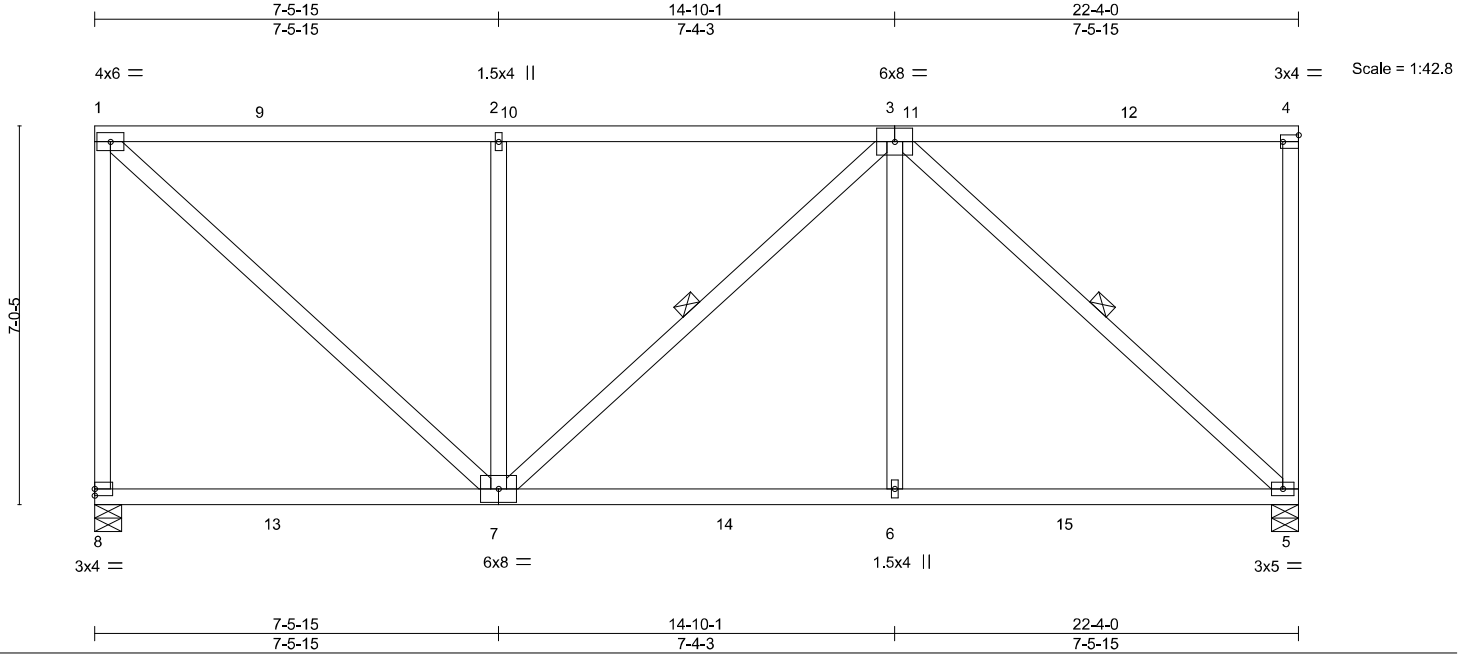


Plate Offsets (X,Y)-- [4:Edge,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.79	Vert(LL)	-0.19	7-8	>999	240	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.73	Vert(CT)	-0.33	7-8	>814	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.02	5	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-AS						
								Weight: 147 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 8=0-6-0, 5=0-6-0  
Max Horz 8=189(LC 11)  
Max Uplift 8=-29(LC 8), 5=-29(LC 9)  
Max Grav 8=1039(LC 18), 5=1030(LC 17)

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

TOP CHORD 1-8=-855/354, 1-2=-804/259, 2-3=-804/259  
BOT CHORD 6-7=-271/824, 5-6=-271/824  
WEBS 1-7=-359/1037, 2-7=-530/319, 3-6=0/466, 3-5=-1053/281

#### NOTES-

- Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 19-2-4, Corner(3) 19-2-4 to 22-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 5.
- 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.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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October 25, 2022

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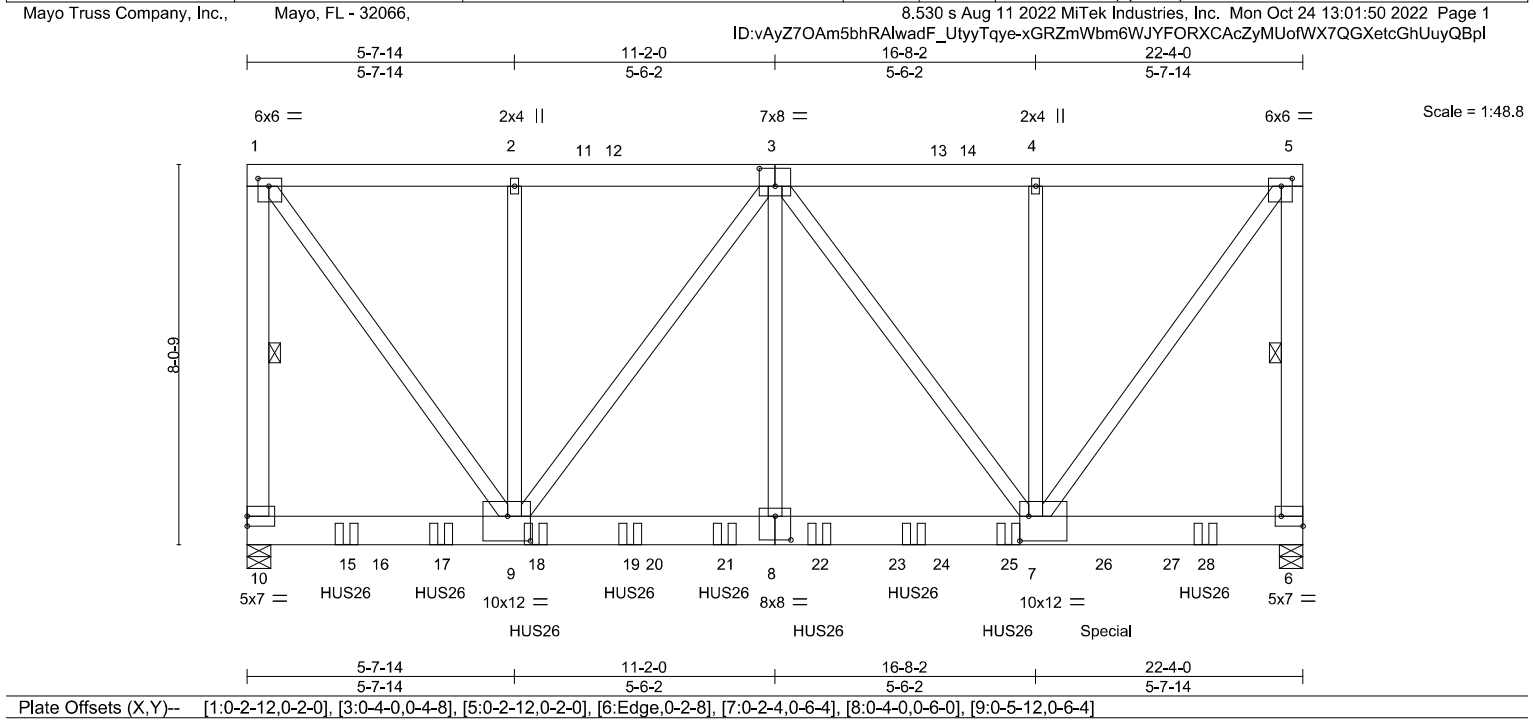
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051513
BROOKS	D05	Flat Girder	1	2	Job Reference (optional)	



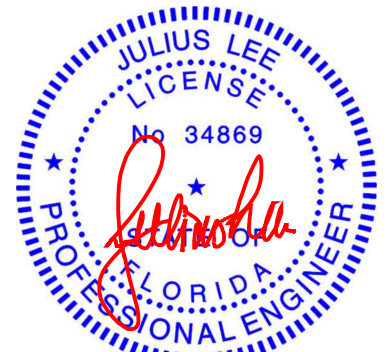
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.45	Vert(LL) -0.12 8-9 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.79	Vert(CT) -0.21 8-9 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 473 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 1-10, 5-6
1-10,5-6: 2x6 SP No.2, 1-9,5-7: 2x4 SP No.1	

<b>REACTIONS.</b>	(size) 10=0-6-0, 6=0-6-0
	Max Horz 10=-211(LC 6)
	Max Uplift 10=-42(LC 4)
	Max Grav 10=8273(LC 2), 6=9126(LC 2)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-10=-7236/48, 1-2=-5170/70, 2-3=-5170/70, 3-4=-5614/0, 4-5=-5614/0, 5-6=-7842/0
BOT CHORD	8-9=-49/6701, 7-8=-49/6701
WEBS	1-9=-27/8731, 2-9=-330/128, 3-9=-2589/0, 3-8=-4/3300, 3-7=-1839/156, 4-7=-324/134, 5-7=0/9467

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
  - Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 4-2-0 oc max. starting at 2-1-4 from the left end to 20-3-4 to connect truss(es) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1372 lb down at 18-1-4, and 1353 lb down and 23 lb up at 18-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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#### LOAD CASE(S) - Standard

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	D05	Flat Girder	1	2	T29051513

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:50 2022 Page 2  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-xGRZmWbm6WJYFORXCACzYMUofWX7QGxetGhUuyQBpl

#### LOAD CASE(S) Standard

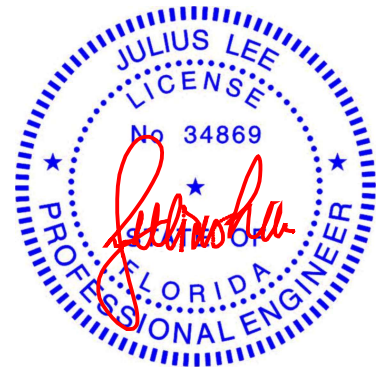
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-5=-60, 6-10=-20

Concentrated Loads (lb)

Vert: 15=-1294(F) 17=-1262(F) 18=-1262(F) 19=-1262(F) 21=-1262(F) 22=-1262(F) 24=-1259(F) 25=-1259(F) 26=-2413(F) 28=-1185(F)



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

October 25, 2022

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	G01	GABLE	1	2	T29051514

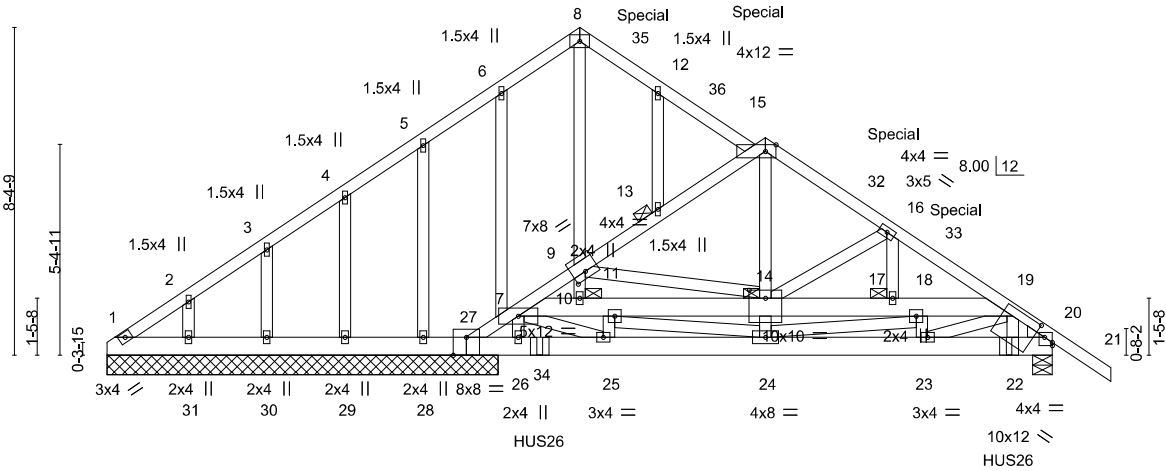
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:54 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtTyTqye-p2g4cteGAKp\_k0IIIR0hV6CfNN7oeMDoEoEEudfyQBph



4x6 =

Scale = 1:59.0



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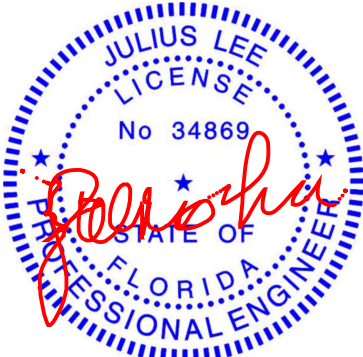
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 8-15,15-27: 2x4 SP No.1, 7-19: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-12 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 13, 14, 10, 17
WEDGE	
Right: 2x4 SP No.2	

**REACTIONS.** All bearings 10-0-0 except (jt=length) 20=0-6-0.  
 (lb) - Max Horz 1=-157(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 29, 30, 31 except 28=-1185(LC 20)  
 Max Grav All reactions 250 lb or less at joint(s) 29, 30, 31 except 1=449(LC 2), 20=4643(LC 2), 27=4904(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 15-16=-3733/0, 16-19=-4968/0, 19-20=-5024/0, 1-2=-722/0, 2-3=-715/0, 3-4=-728/0, 4-5=-668/0, 5-6=-802/0, 6-8=-612/0, 8-12=-947/101, 12-15=-1118/12, 7-27=-4103/0, 7-9=-4404/0, 9-13=-2859/0, 13-15=-2262/0, 11-14=-374/0, 14-17=-1041/0, 17-18=-1041/0, 18-19=-374/0  
 BOT CHORD 1-31=0/574, 30-31=0/574, 29-30=0/574, 28-29=0/574, 27-28=0/574, 26-27=0/3825, 25-26=0/3816, 24-25=0/4893, 23-24=0/4358, 22-23=0/3438, 20-22=0/3469  
 WEBS 8-9=-579/0, 12-13=-1054/0, 6-7=-7/352, 5-28=-340/2, 14-15=0/1196, 9-10=-432/0, 14-16=-1488/0, 9-14=-2074/0, 18-24=0/692, 7-26=-293/83, 7-25=0/1227, 19-23=0/1048

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-3-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - Gable studs spaced at 2-0-0 oc.
- Continued on page 2

Continued on page 2



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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	G01	GABLE	1	2	T29051514

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

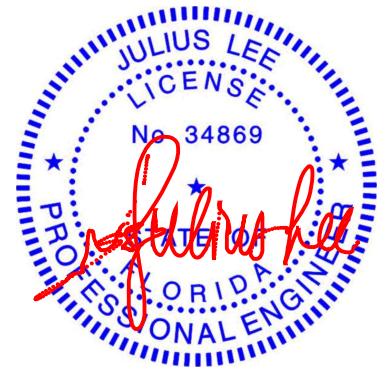
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:54 2022 Page 2  
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#### NOTES-

- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 30, 31 except (jt=lb) 28=1185.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 14) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 12-0-0 oc max. starting at 11-0-12 from the left end to 23-0-12 to connect truss(es) to back face of bottom chord.
- 15) Fill all nail holes where hanger is in contact with lumber.
- 16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1397 lb down at 13-0-12, 1318 lb down at 15-0-12, and 1248 lb down at 19-0-12, and 1100 lb down at 21-0-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
  - Vert: 15-19=-60, 19-21=-60, 1-20=-20, 1-8=-60, 8-15=-60
- Concentrated Loads (lb)
  - Vert: 22=-1112(B) 32=-1119(B) 33=-981(B) 34=-1224(B) 35=-1197(B) 36=-1178(B)



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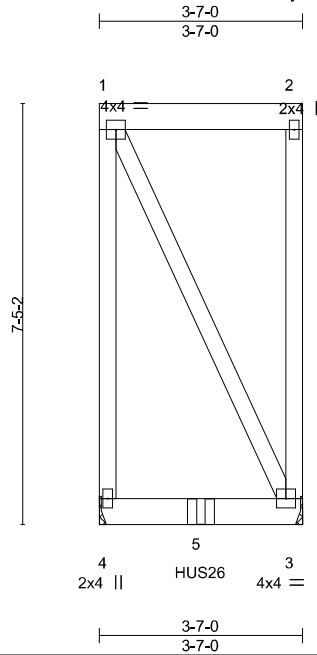


16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	GDR	Flat Girder	1	2	T29051515

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:56 2022 Page 1  
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Scale = 1:40.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	Vert(LL)	-0.02	3-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.62	Vert(CT)	-0.03	3-4	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP						
	Code FBC2020/TPI2014						Weight: 94 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 or 3-7-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 3=Mechanical  
Max Horz 4=-195(LC 4)  
Max Uplift 4=-35(LC 4), 3=-34(LC 5)  
Max Grav 4=860(LC 26), 3=860(LC 25)

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

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 3.
- Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent at 1-9-8 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-60, 3-4=-20  
Concentrated Loads (lb)  
Vert: 5=-1192(B)



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

October 25,2022

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

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



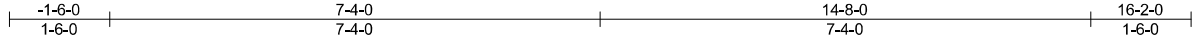
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051516
BROOKS	H01	Common Supported Gable	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:57 2022 Page 1

ID:vAyZ7OAm5bhRALwadF\_UtvyTqye-DdMCEvg9TfBZbTTt68ECkqH2IL0eZd6gUCTYE\_yQBpe



4x4 =

Scale = 1:34.5

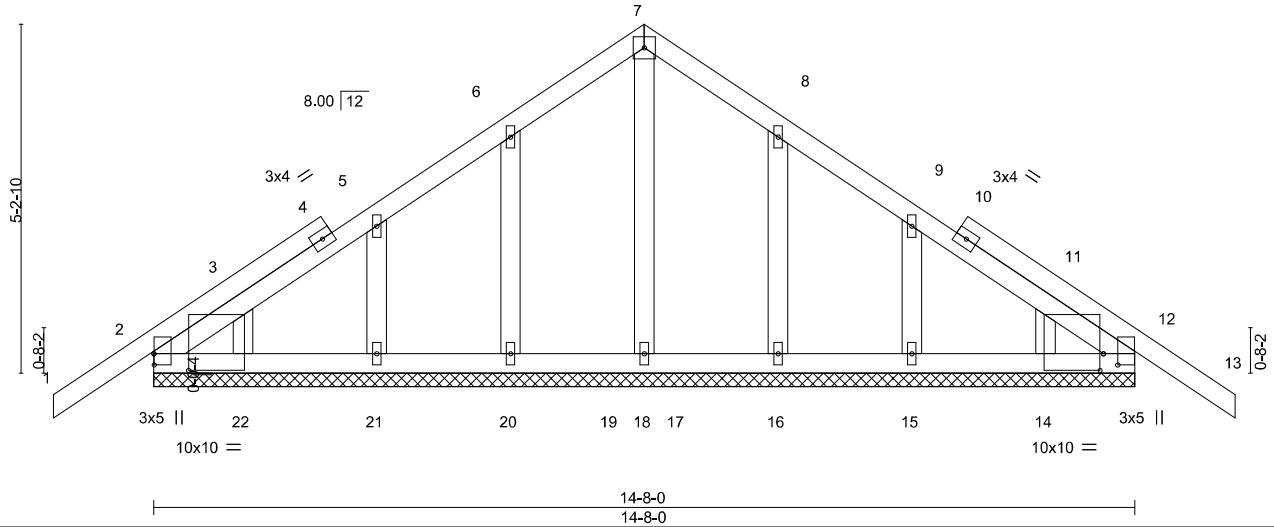


Plate Offsets (X,Y)-- [2:0-2-0,0-0-1], [8:0-0-0,0-0-0], [9:0-0-0,0-0-0], [12:0-2-0,0-2-9], [14:0-0-10,0-3-0], [22:0-6-4,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0		TC 0.14	Vert(LL)	-0.01	13	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25		BC 0.01	Vert(CT)	-0.01	13	n/r	120		
BCLL 0.0 *	Lumber DOL 1.25		WB 0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES		Matrix-S						Weight: 89 lb	FT = 20%
	Code FBC2020/TPI2014									

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E  
OTHERS 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.

#### REACTIONS.

All bearings 14-8-0.  
(lb) - Max Horz 2=102(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 20, 21, 22, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 20, 21, 22, 16, 15, 14

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) -1-6-0 to 1-3-13, Exterior(2N) 1-3-13 to 7-4-0, Corner(3R) 7-4-0 to 10-4-0, Exterior(2N) 10-4-0 to 16-2-0 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Solid blocking is required on both sides of the truss at joint(s), 12.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 20, 21, 22, 16, 15, 14.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

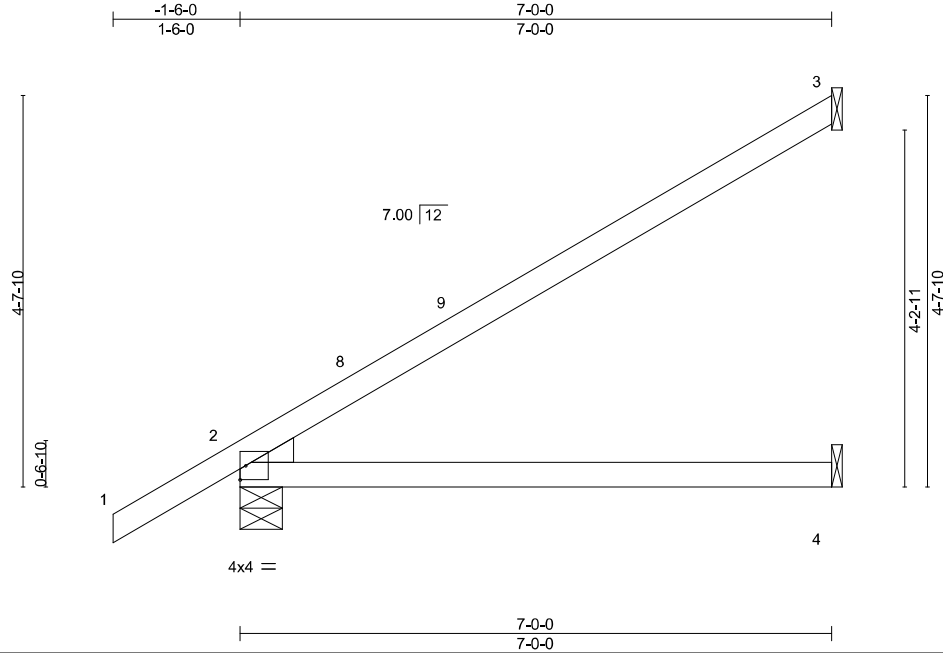


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J01	Jack-Open	6	1	T29051517

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:58 2022 Page 1  
ID:vAyZ7OAm5bhRALwaf\_UtyyTqye-ipwaSFhnEzJQDd23grRG2q6MkEyI4wqjsC6nQyQBpd



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	Vert(LL)	-0.09	4-7	>897	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.52	Vert(CT)	-0.22	4-7	>383		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.02	2	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS						
	Code FBC2020/TPI2014						Weight: 26 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-6-0, 4=Mechanical  
Max Horz 2=129(LC 12)  
Max Uplift 3=-55(LC 12), 2=-10(LC 12)  
Max Grav 3=188(LC 1), 2=377(LC 1), 4=126(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



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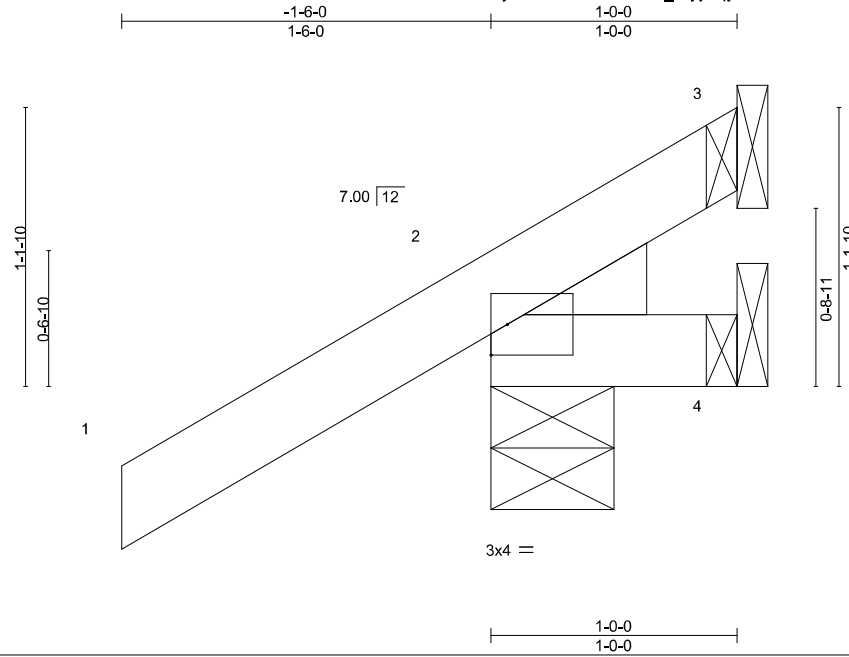


Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J02	Jack-Open	3	1	T29051518

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:01:59 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-A?TzfbIP?HRGrndGEZHgpFMOI8iX1XAzzWyfJsyQBpc



Scale = 1:9.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.05	Vert(CT)	0.00	7	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP							
	Code FBC2020/TPI2014							Weight: 7 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

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

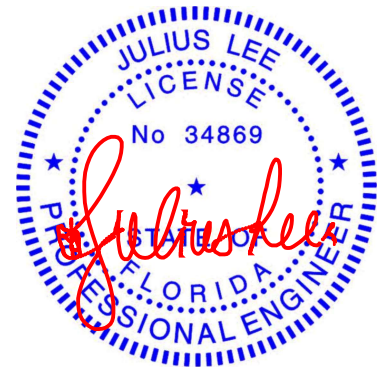
#### REACTIONS.

(size) 3=Mechanical, 2=0-6-0, 4=Mechanical  
Max Horz 2=46(LC 12)  
Max Uplift 3=-8(LC 1), 2=-64(LC 12), 4=-21(LC 1)  
Max Grav 3=8(LC 12), 2=198(LC 1), 4=19(LC 12)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

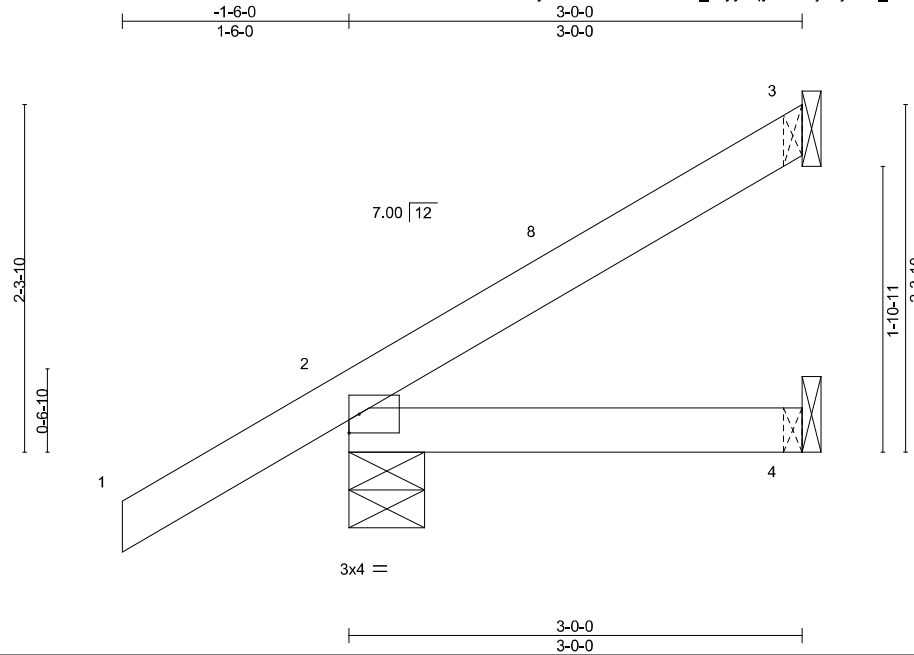


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J03	Jack-Open	3	1	T29051519

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:01 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-6Obj4HjWui\_45neL\_J8ugSkoyNcVQfGPqRmNlyQBpa



Scale = 1:15.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	-0.00	4-7	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.08	Vert(CT)	-0.01	4-7	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP						
	Code FBC2020/TPI2014						Weight: 12 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

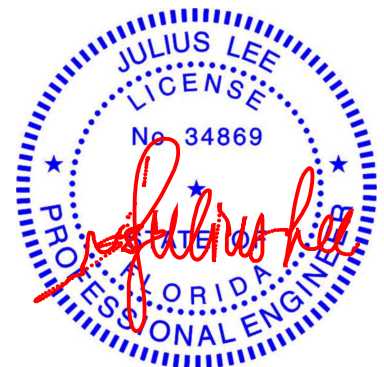
#### REACTIONS.

(size) 3=Mechanical, 2=0-6-0, 4=Mechanical  
Max Horz 2=73(LC 12)  
Max Uplift 3=-19(LC 12), 2=-33(LC 12)  
Max Grav 3=68(LC 17), 2=230(LC 1), 4=52(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.



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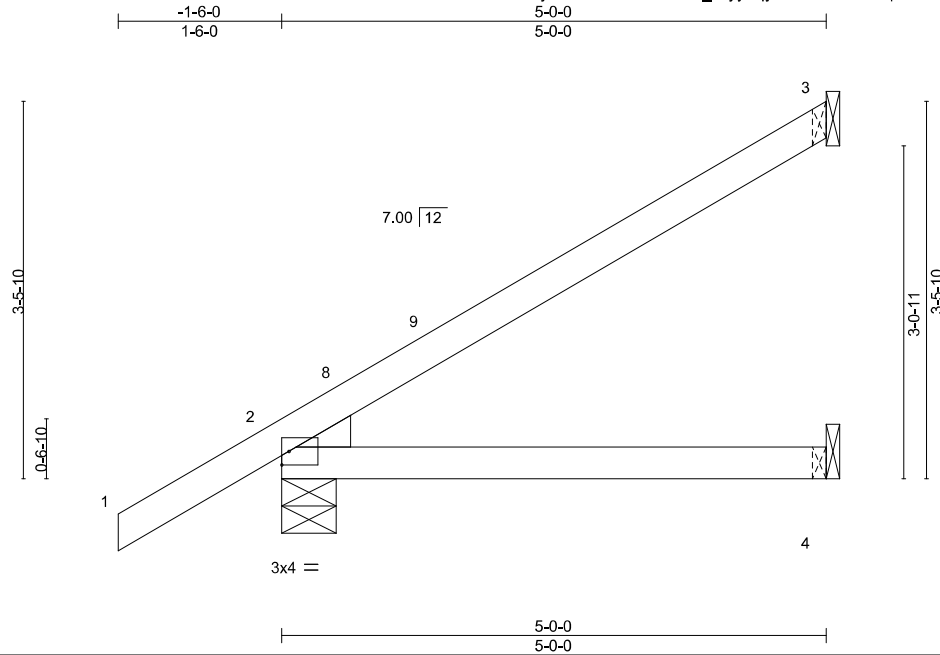


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J04	Jack-Open	2	1	T29051520

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:02 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-aa95HdkIHCqriEMrvhqNRu\_tFMh8EtvQeUAJwByQBpZ



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	-0.02	4-7	>999	240	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.25	Vert(CT)	-0.06	4-7	>999	180	
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Rep Stress Incr YES	Matrix-AS						
	Code FBC2020/TPI2014							

Weight: 20 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

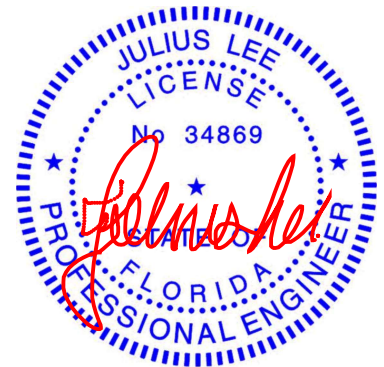
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 3=Mechanical, 2=0-6-0, 4=Mechanical  
Max Horz 2=101(LC 12)  
Max Uplift 3=-37(LC 12), 2=-20(LC 12)  
Max Grav 3=129(LC 1), 2=301(LC 1), 4=90(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



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

October 25, 2022

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

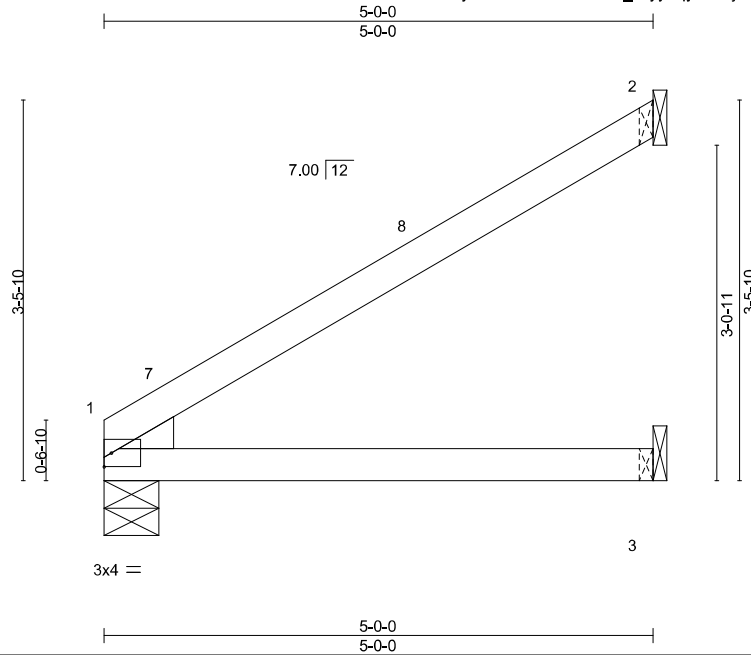


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J05	Jack-Open	1	1	T29051521

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:03 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-2mjTVylw2VyiJOx1TPLcz5X1UI0AzK9Zs8wtSdyQBpY



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	Vert(LL)	-0.02	3-6	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.26	Vert(CT)	-0.06	3-6	>996		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.01	1	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS					Weight: 17 lb	FT = 20%
	Code FBC2020/TPI2014							

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

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

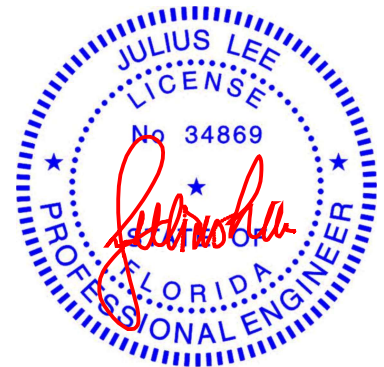
#### REACTIONS.

(size) 1=0-6-0, 2=Mechanical, 3=Mechanical  
Max Horz 1=69(LC 12)  
Max Uplift 2=41(LC 12)  
Max Grav 1=198(LC 1), 2=136(LC 1), 3=92(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



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

October 25, 2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

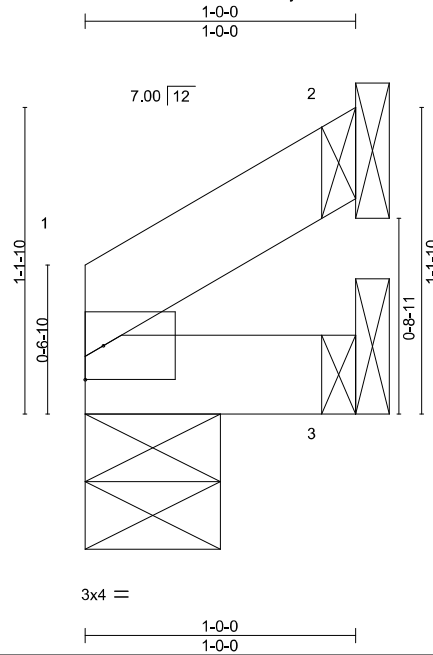


Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J06	Jack-Open	1	1	T29051522

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:04 2022 Page 1

ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-WzHsilmYpp4ZxYWD16srWJ4H89PJinPi5ofQ\_4yQBpX



Scale = 1:8.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.01	Vert(LL)	-0.00	6	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.01	Vert(CT)	-0.00	6	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP							
	Code FBC2020/TPI2014							Weight: 3 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.

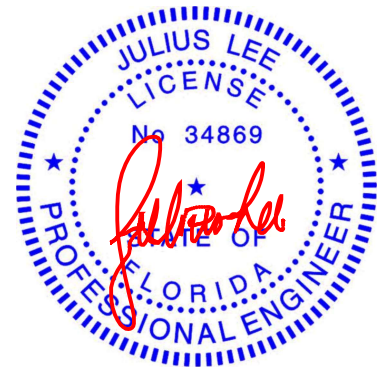
#### REACTIONS.

(size) 1=0-6-0, 2=Mechanical, 3=Mechanical  
Max Horz 1=14(LC 12)  
Max Uplift 2=-9(LC 12)  
Max Grav 1=40(LC 1), 2=26(LC 17), 3=19(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.



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

October 25,2022

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

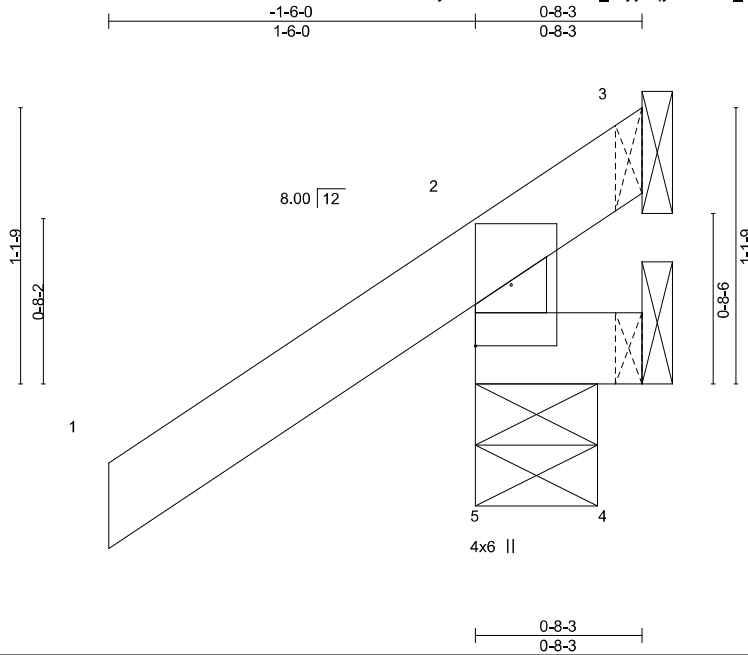


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J07	Jack-Open	1	1	T29051523

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:06 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-TLPc7\_noLQKHAsgc8XvJbk9aez5HAhv?Y58X3yyQBpV



Scale = 1:9.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	0.00 5	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.04	Vert(CT)	0.00 5	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR						
	Code FBC2020/TPI2014						Weight: 6 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 0-8-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-6-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=57(LC 12)  
Max Uplift 5=-98(LC 12), 3=-97(LC 1), 4=-37(LC 1)  
Max Grav 5=275(LC 1), 3=51(LC 12), 4=7(LC 12)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.



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

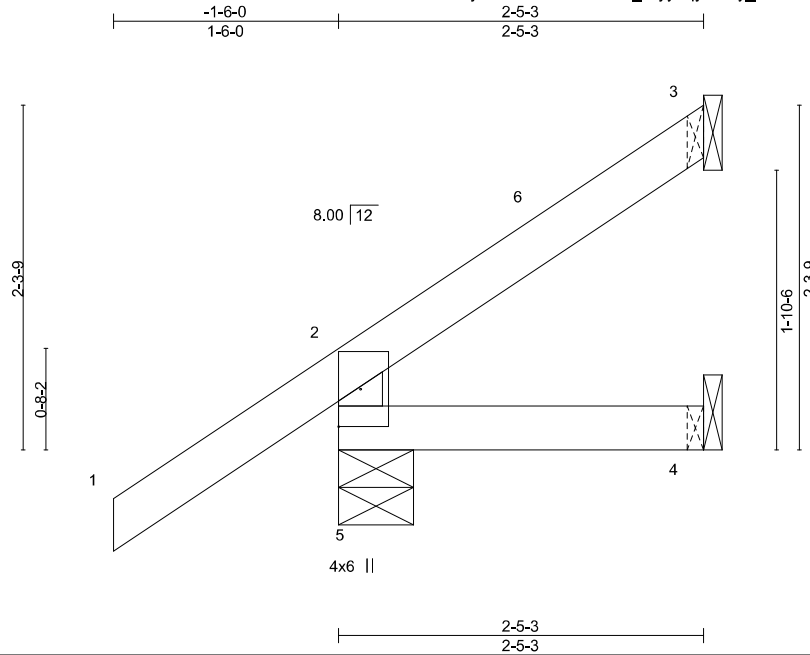


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J08	Jack-Open	1	1	T29051524

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:07 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-xYy\_LKoQ6kS8o0EoiEQY8xhmKNRTv889nlu4bPyQBpU



Scale = 1:15.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	-0.00	4-5	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.05	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR						
	Code FBC2020/TPI2014						Weight: 11 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 2-5-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

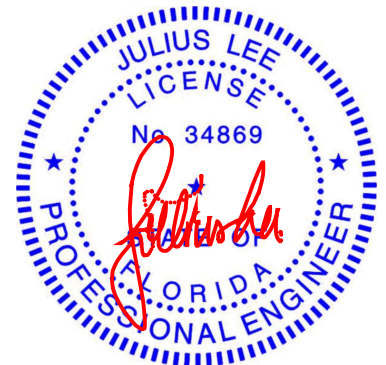
#### REACTIONS.

(size) 5=0-6-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=85(LC 12)  
Max Uplift 5=-37(LC 12), 3=-15(LC 12)  
Max Grav 5=224(LC 1), 3=45(LC 17), 4=38(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-4-7 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



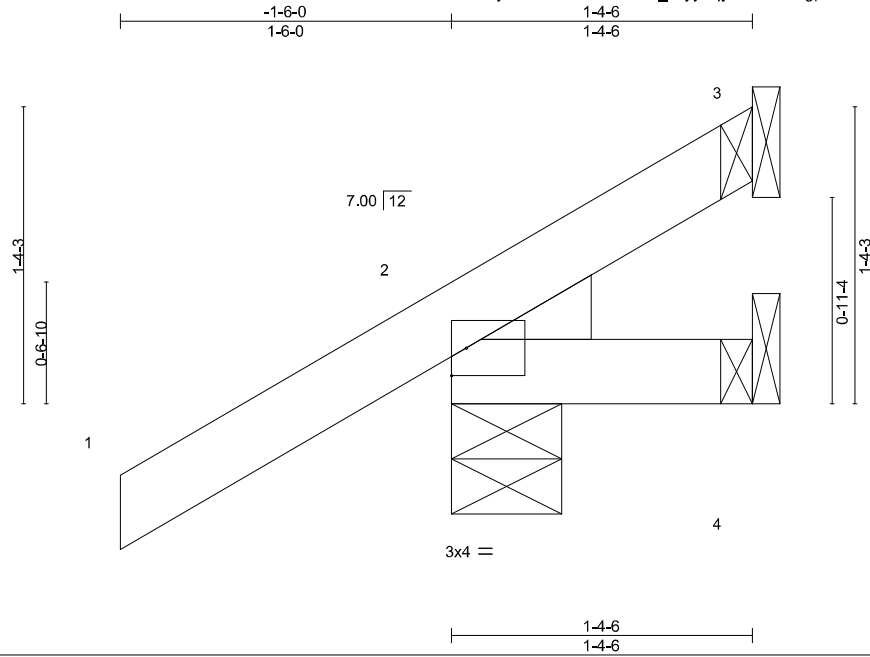
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J09	Jack-Open	1	1	T29051525

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:08 2022 Page 1

ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-PkWMYgp2t2a?Q9p\_Gyxng9Ex1mngebOl0Pde7ryQBpT



Scale = 1:10.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.05	Vert(CT)	0.00	7	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP						Weight: 8 lb	FT = 20%
	Code FBC2020/TPI2014								

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-4-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 2=0-6-0, 4=Mechanical  
Max Horz 2=51(LC 12)  
Max Uplift 3=-5(LC 9), 2=-53(LC 12), 4=-8(LC 1)  
Max Grav 3=14(LC 17), 2=194(LC 1), 4=17(LC 3)

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

#### NOTES-

- Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.



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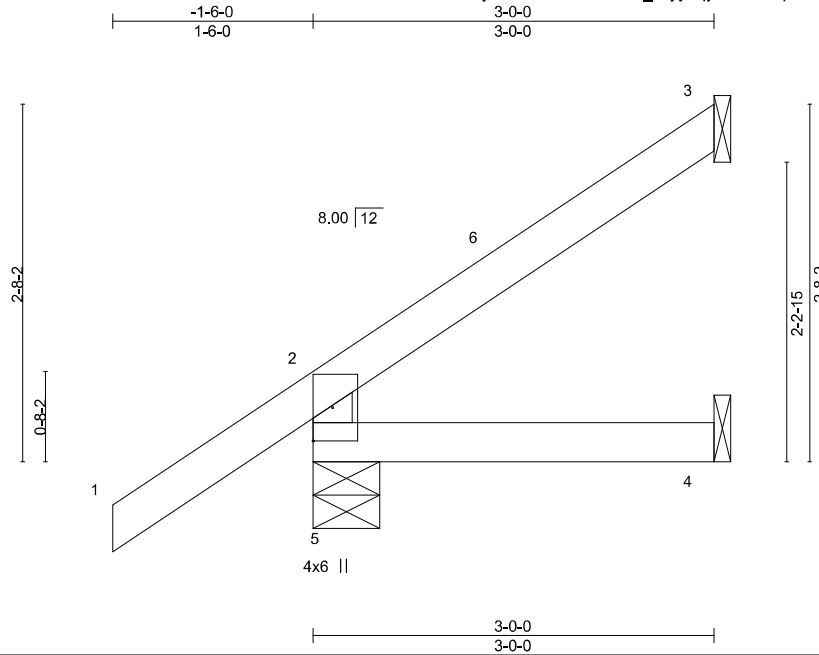
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J10	Jack-Open	15	1	T29051526

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:09 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-tw4kl0qheLis1JOBpfS0DMn6GA6bN2eRF3NBfHyQBpS



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	-0.00	4-5	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.07	Vert(CT)	-0.01	4-5	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR						
	Code FBC2020/TPI2014						Weight: 13 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 3-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

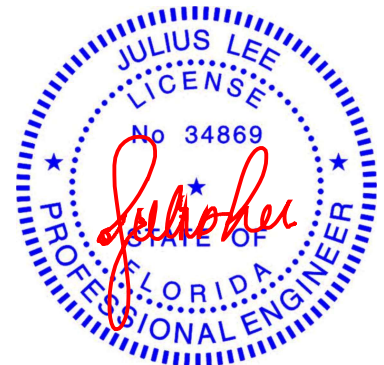
#### REACTIONS.

(size) 5=0-6-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=94(LC 12)  
Max Uplift 5=-31(LC 12), 3=-22(LC 12)  
Max Grav 5=240(LC 1), 3=65(LC 17), 4=49(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.



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Date:

October 25,2022

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

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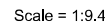
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:10 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtlyTqye-L7e7zMqJPfqiTzNNNzFmaJHXaSG6VubTj6kCjyQBpR



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 1-0-1 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-7, 4=Mechanical  
Max Horz 2=50(LC 12)  
Max Uplift 2=-73(LC 12), 4=-28(LC 1)  
Max Grav 2=198(LC 1), 4=29(LC 12)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDEL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (directional) and C-C Exterior(2E) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



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

October 25, 2022



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



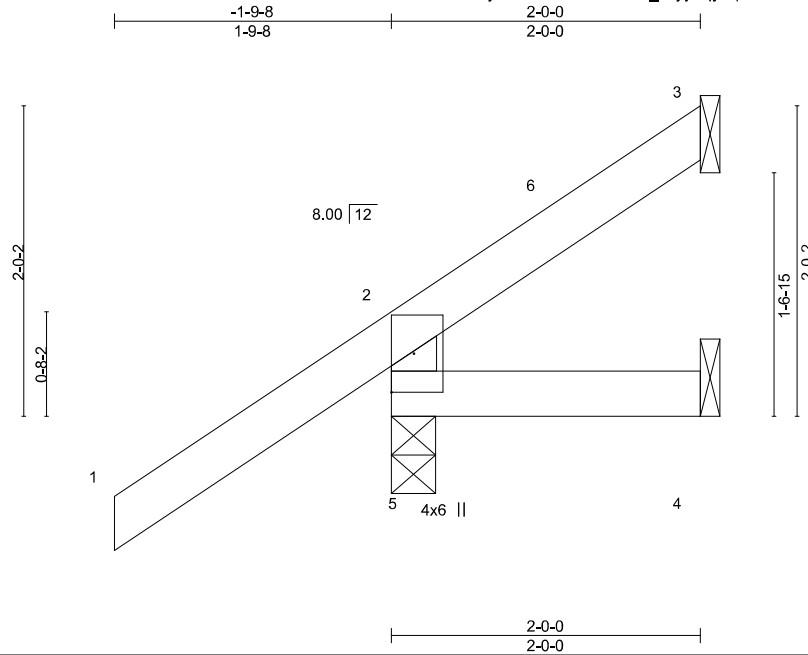
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J12	Jack-Open	5	1	T29051528

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:11 2022 Page 1  
ID: vAyZ7OAm5bhRAIwadF\_UtyyTqye-pJCVAhxrAzyZHdYZx4UUlnsPR\_nsry8kiNslkAyQBpQ



Scale = 1:14.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.08	Vert(CT)	0.00	4-5	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR							
	Code FBC2020/TPI2014								

Weight: 10 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 2-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-7, 3=Mechanical, 4=Mechanical  
Max Horz 5=86(LC 12)  
Max Uplift 5=60(LC 12), 3=11(LC 9), 4=3(LC 1)  
Max Grav 5=251(LC 1), 3=20(LC 17), 4=27(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-9-8 to 1-2-8, Interior(1) 1-2-8 to 1-11-14 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.



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

October 25, 2022

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

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

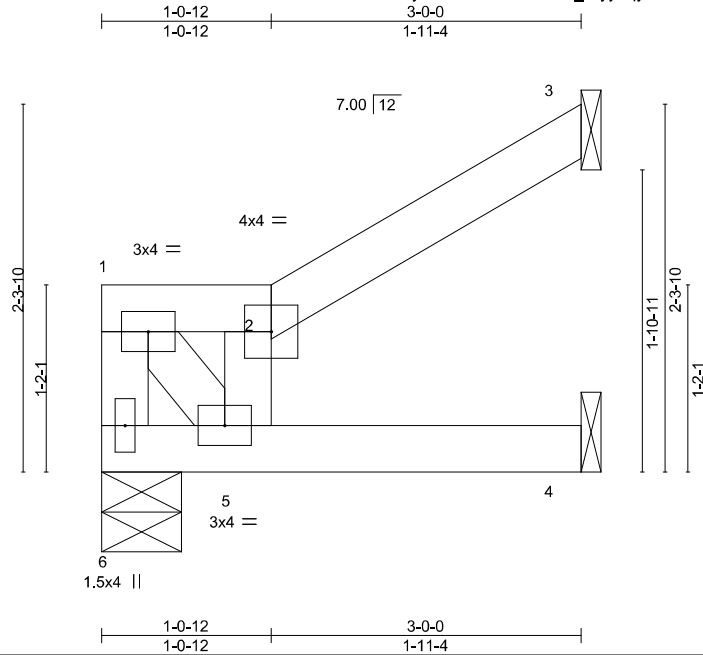


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J13	Roof Special	1	1	T29051529

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:13 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtTyTqye-liKFbNtBiaCHWxiy2VXyNCxpAnSDJsL19hLo02yQBpO



Scale = 1:14.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	Vert(LL)	-0.01 5	>999	240	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.15	Vert(CT)	-0.01 4-5	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.02	Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP					Weight: 13 lb	FT = 20%
	Code FBC2020/TPI2014							

#### 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 3-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 6=0-6-0, 3=Mechanical, 4=Mechanical  
Max Horz 6=43(LC 12)  
Max Uplift 3=-19(LC 12)  
Max Grav 6=112(LC 1), 3=56(LC 1), 4=65(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 1-0-12, Interior(1) 1-0-12 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) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



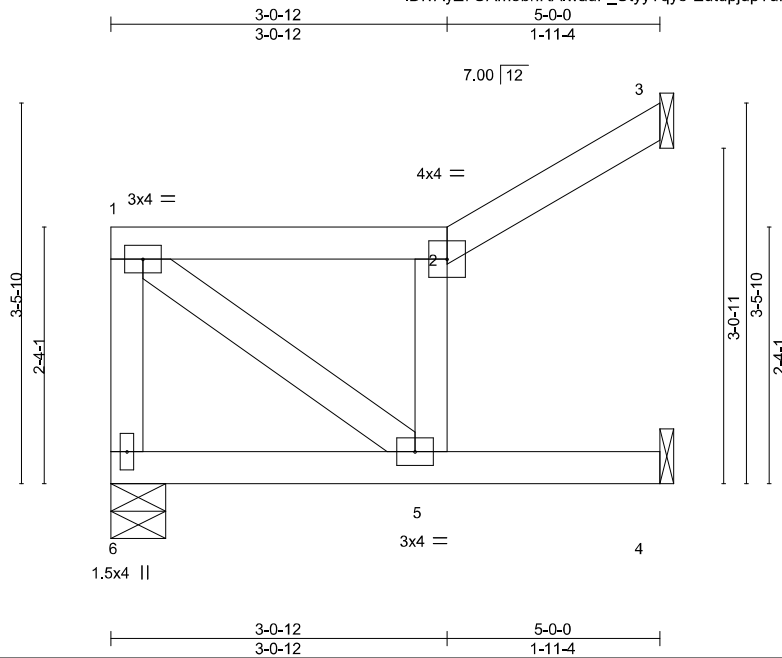
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks
BROOKS	J14	Roof Special	1	1	T29051530

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:14 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-EutdpjupTuK884H8cC2BwQUyhBid2JZBOL5yLVyQBpN



Scale = 1:21.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	0.06	5-6	>920	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.53	Vert(CT)	-0.11	5-6	>528		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.02	Horz(CT)	0.01	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS						
	Code FBC2020/TPI2014						Weight: 25 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.

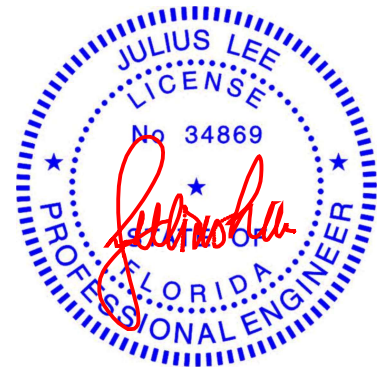
#### REACTIONS.

(size) 6=0-6-0, 3=Mechanical, 4=Mechanical  
Max Horz 6=66(LC 12)  
Max Uplift 3=-19(LC 12), 4=-4(LC 12)  
Max Grav 6=192(LC 1), 3=56(LC 1), 4=135(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-0-12, Interior(1) 3-0-12 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) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



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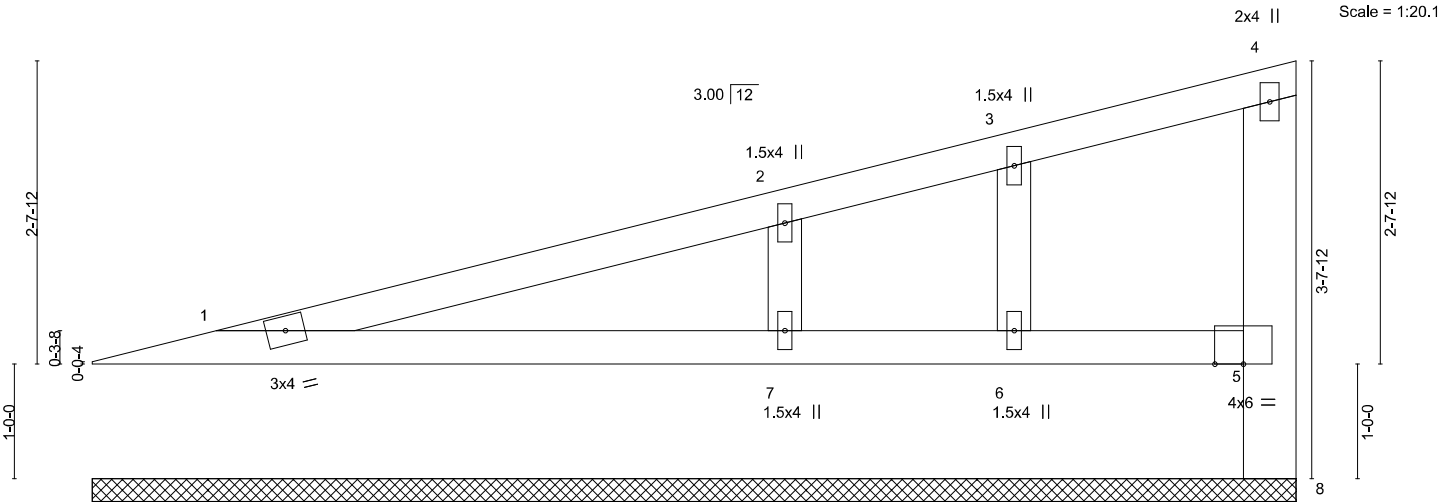
Job	Truss	Truss Type	Qty	Ply	Brooks	T29051531
BROOKS	M01	GABLE	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:15 2022 Page 1

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10-6-0  
10-6-0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.27	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	8	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S					Weight: 41 lb	FT = 20%

#### LUMBER-

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

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

#### REACTIONS.

All bearings 10-6-0.  
(lb) - Max Horz 1=91(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 7  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=410(LC 1)

#### FORCES.

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

WEBS 2-7--294/246

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) 1-1-3 to 4-1-3, Exterior(2N) 4-1-3 to 10-3-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Bearing at joint(s) 8, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 6, 7.
- 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



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Job	Truss	Truss Type	Qty	Ply	Brooks	T29051532
BROOKS	M02	Monopitch	16	1		

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:16 2022 Page 1  
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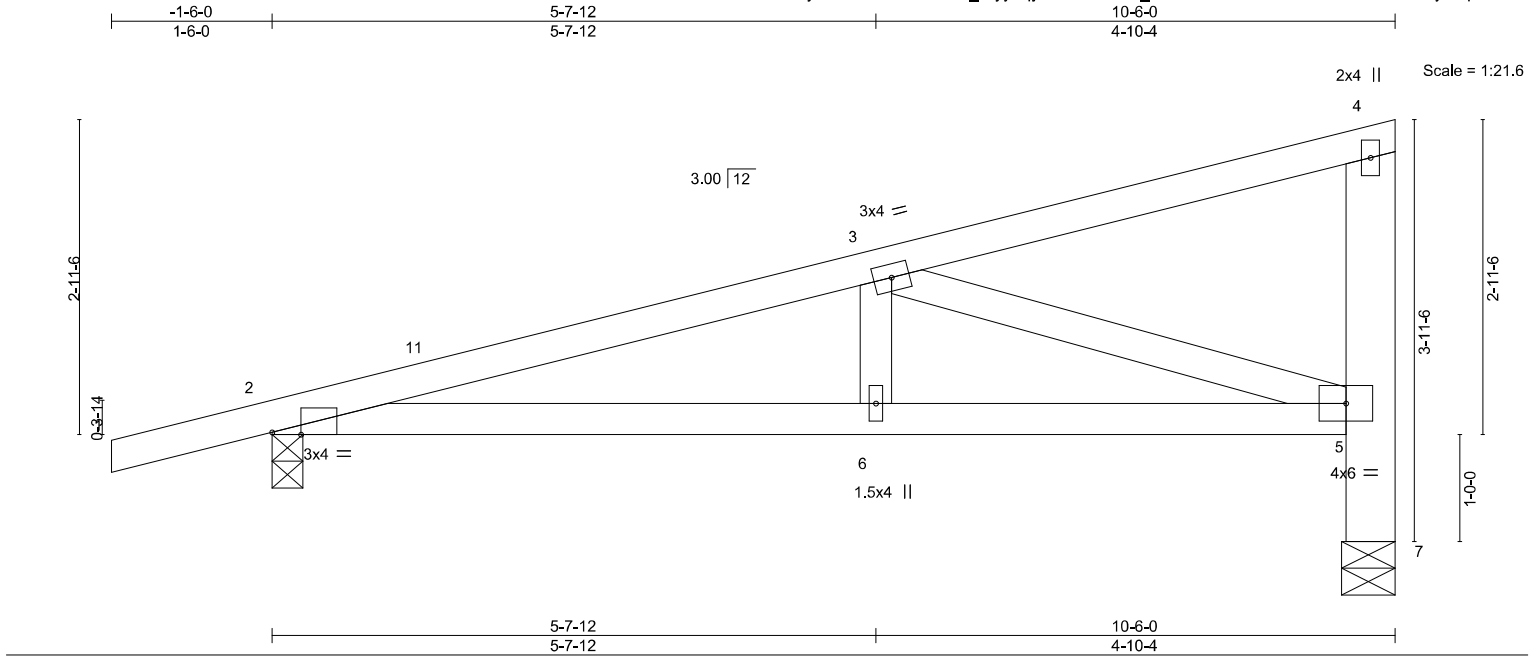


Plate Offsets (X,Y)-- [2:0-3-4,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.25	TC	0.24	Vert(LL)	-0.03 6-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.35	Vert(CT)	-0.08 6-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.02 7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS						Weight: 50 lb	FT = 20%

#### LUMBER-

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

**REACTIONS.** (size) 2=0-3-7, 7=0-6-0  
Max Horz 2=103(LC 11)  
Max Uplift 2=-37(LC 12)  
Max Grav 2=507(LC 1), 7=404(LC 1)

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

TOP CHORD 2-3=-874/158, 5-7=-404/102  
BOT CHORD 2-6=-246/829, 5-6=-246/829  
WEBS 3-5=-830/197

#### NOTES-

- 1) Wind: ASCE 7-16; 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; Encl., GCpf=0.18; MWFRS (directional) and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-3-4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

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



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October 25,2022

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

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

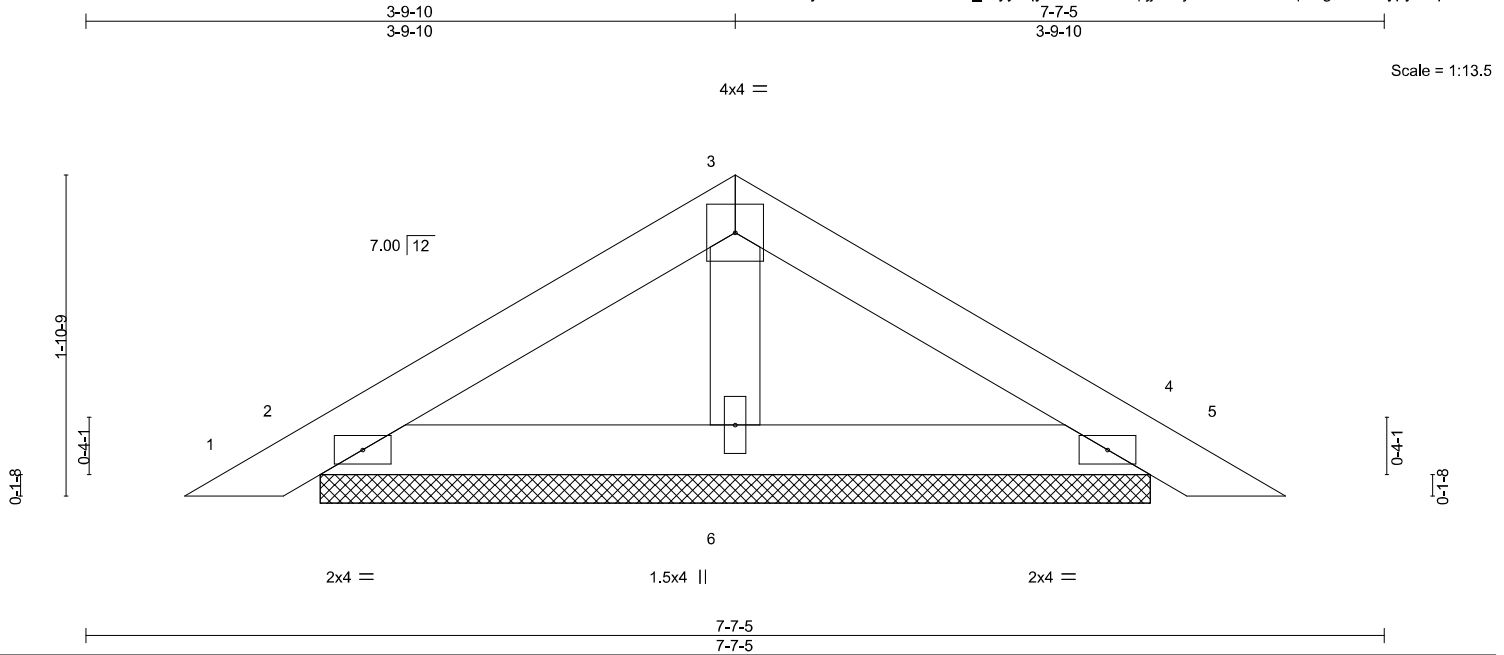


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051533
BROOKS	PB01	GABLE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:17 2022 Page 1  
ID:vAyZ7OAm5bhRAIwadF\_UtyyTqye-eTZmRlwlpij?Y?jHLbuY26UTPqUFgPd4JJcypyQBpK



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.10	Vert(LL)	0.00	5	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.07	Vert(CT)	0.00	5	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.01	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code FBC2020/TPI2014						Weight: 20 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=4-10-6, 4=4-10-6, 6=4-10-6  
Max Horz 2=-30(LC 10)  
Max Uplift 2=-25(LC 12), 4=-25(LC 12)  
Max Grav 2=134(LC 1), 4=134(LC 1), 6=182(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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

October 25, 2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051534
BROOKS	PB02	Piggyback	9	1	Job Reference (optional)	

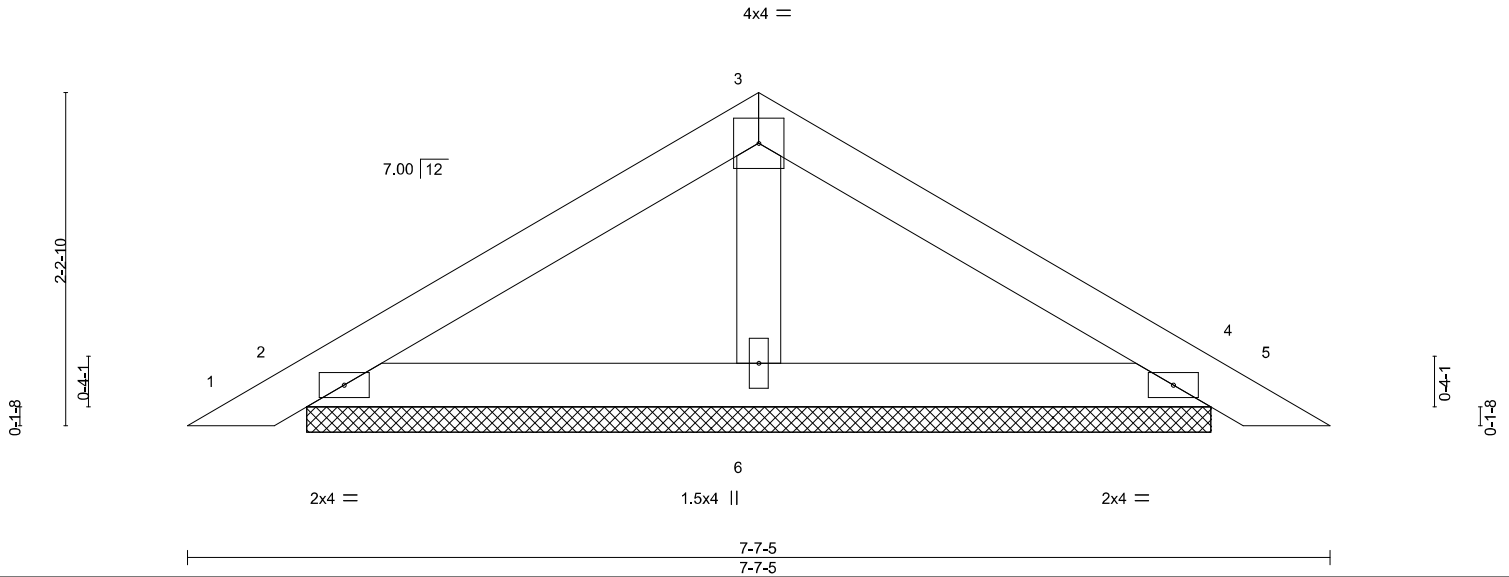
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:18 2022 Page 1  
ID:vAyZ7OAm5bhRALwadF\_UtyyTqye-6f78e5xKW6raciavr2674GfeWoAB\_7cmJz39UGyQBpJ

3-9-10  
3-9-10

7-7-5  
3-9-10

Scale = 1:15.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.14	Vert(LL)	0.00	5	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.10	Vert(CT)	0.01	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=6-0-4, 4=6-0-4, 6=6-0-4  
Max Horz 2=36(LC 11)  
Max Uplift 2=27(LC 12), 4=27(LC 12)  
Max Grav 2=157(LC 1), 4=157(LC 1), 6=227(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-3-8 to 3-3-8, Interior(1) 3-3-8 to 3-9-10, Exterior(2R) 3-9-10 to 6-9-12, Interior(1) 6-9-12 to 7-3-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Brooks	T29051535
BROOKS	PB03	Piggyback	18	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:20 2022 Page 1  
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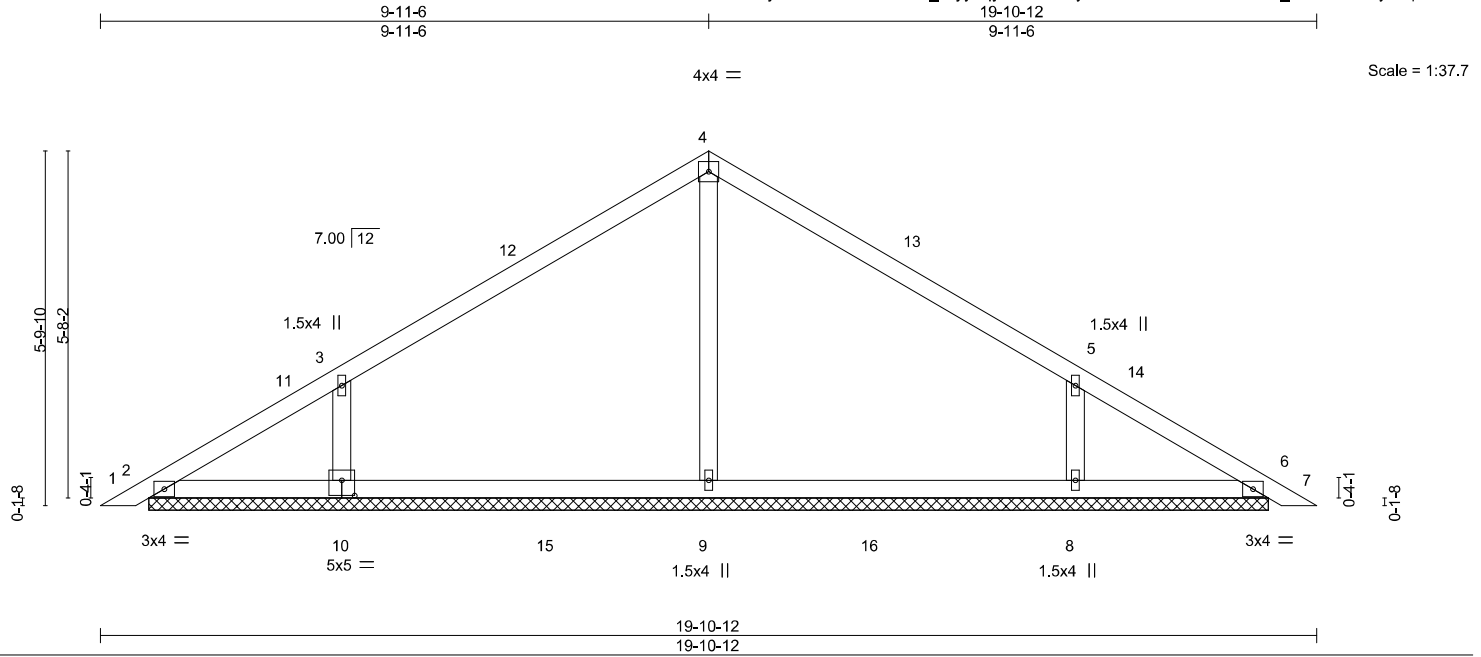


Plate Offsets (X,Y)-- [10:0-2-8,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25		TC 0.38	Vert(LL)	-0.00	7	n/r	MT20	244/190
TCDL 10.0	Lumber DOL 1.25		BC 0.40	Vert(CT)	-0.00	7	n/r		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.14	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S					Weight: 74 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

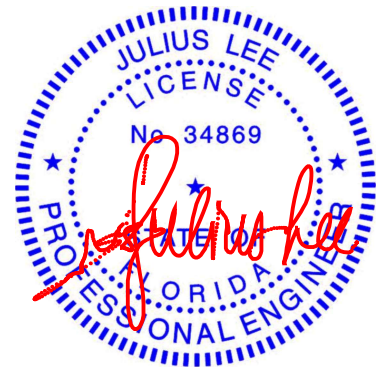
All bearings 18-3-11.  
(lb) - Max Horz 2=98(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 10, 8  
Max Grav All reactions 250 lb or less at joint(s) 2, 6 except 9=572(LC 17), 10=477(LC 17), 8=513(LC 18)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 4-9=-290/16, 3-10=-353/127, 5-8=-350/128

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-3-8 to 3-3-8, Interior(1) 3-3-8 to 9-11-6, Exterior(2R) 9-11-6 to 12-11-6, Interior(1) 12-11-6 to 19-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job BROOKS	Truss PB3A	Truss Type GABLE	Qty 1	Ply 1	Brooks T29051536
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Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:24 2022 Page 1  
ID:vAyZ7OAm5bhRAIwaf\_UtyyTqye-xpUPv8?56ybjLd23CJDxKXvgDDBdOqgfhvWUHVyQBpD

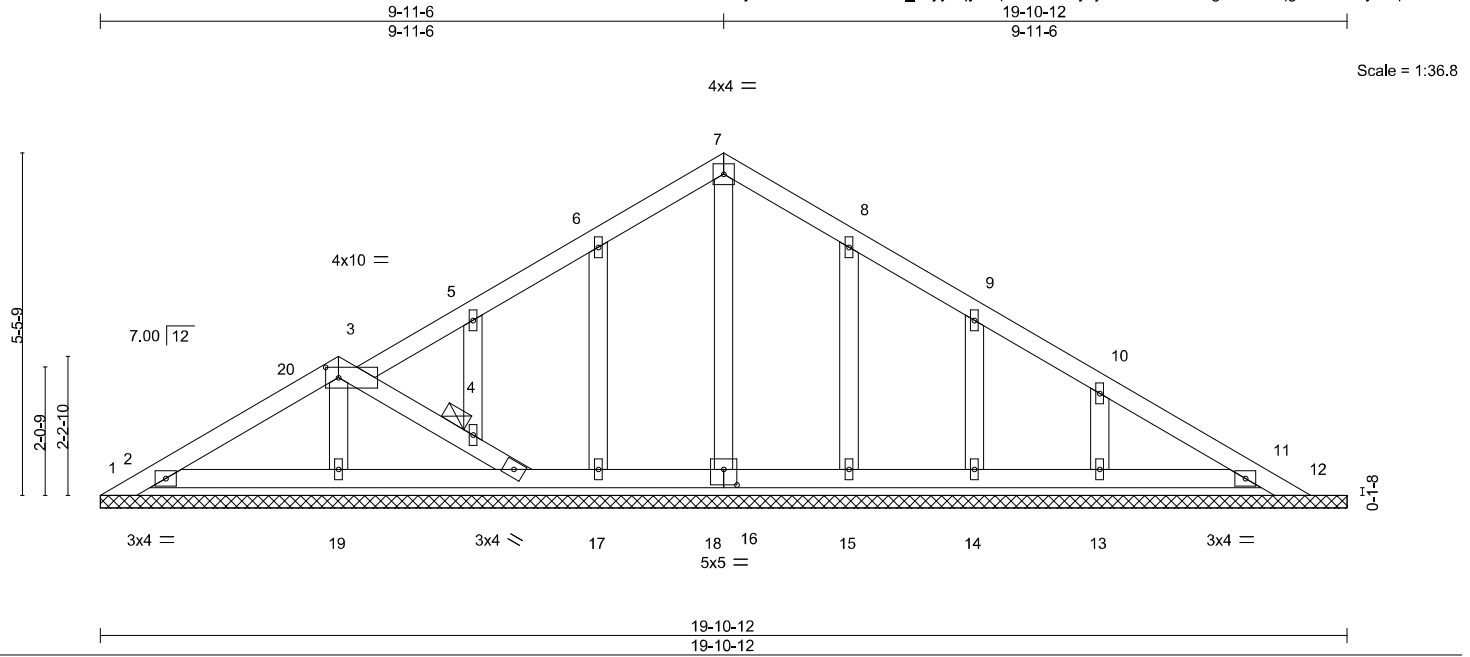


Plate Offsets (X,Y)-- [3:0-2-8,0-2-0], [16:0-2-8,0-3-0]		19-10-12 19-10-12			
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.13	in (loc) l/defl L/d	MT20 244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.23	Vert(LL) n/a - n/a 999	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S	Horz(CT) 0.00 11 n/a n/a	
				Weight: 93 lb FT = 20%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6'-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 4

#### REACTIONS.

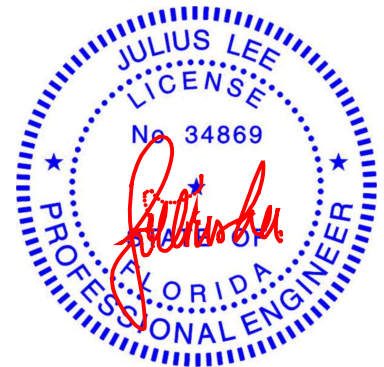
All bearings 19-10-12.  
(lb) - Max Horz 1=-92(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 17, 12, 15, 14, 13, 19, 11 except 1=-116(LC 17)  
Max Grav All reactions 250 lb or less at joint(s) 1, 2, 16, 17, 18, 12, 15, 14, 13, 11 except 19=440(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-19=-333/168

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) 0-3-8 to 3-3-8, Exterior(2N) 3-3-8 to 9-11-6, Corner(3R) 9-11-6 to 12-11-6, Exterior(2N) 12-11-6 to 19-0-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 17, 12, 15, 14, 13, 19, 11 except (jt=lb) 1=116.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Brooks	T29051537
BROOKS	PB04	Piggyback	1	1	Job Reference (optional)	

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

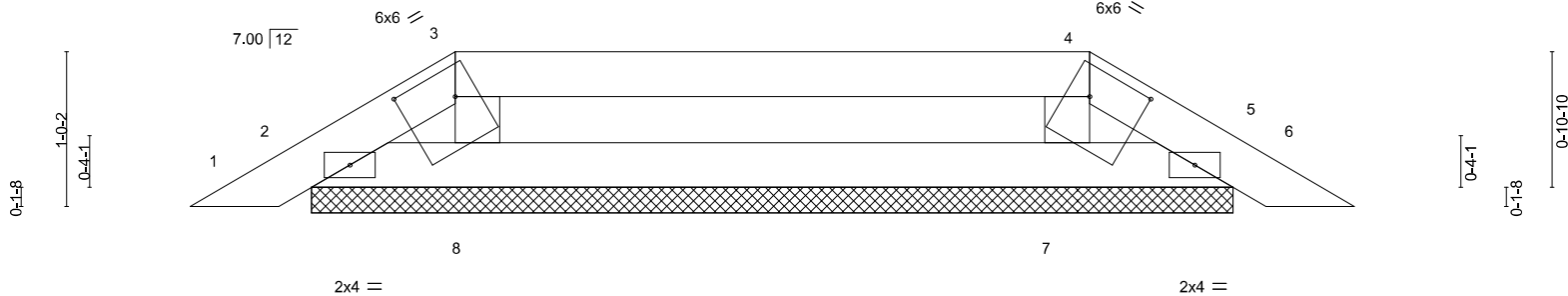
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Oct 24 13:02:21 2022 Page 1

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7-7-5

7-7-5

Scale = 1:15.1



										7-7-5																			
Plate Offsets (X,Y)--										[3:0-4-4,0-2-4], [4:0-4-4,0-2-4]										7-7-5									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP											
TCLL 20.0		Plate Grip DOL		1.25		TC 0.30		Vert(LL)		-0.00 5		n/r		120		MT20		244/190											
TCDL 10.0		Lumber DOL		1.25		BC 0.09		Vert(CT)		-0.00 5		n/r		120															
BCLL 0.0 *		Rep Stress Incr		YES		WB 0.01		Horz(CT)		0.00 5		n/a		n/a															
BCDL 10.0		Code FBC2020/TPI2014				Matrix-P										Weight: 22 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.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

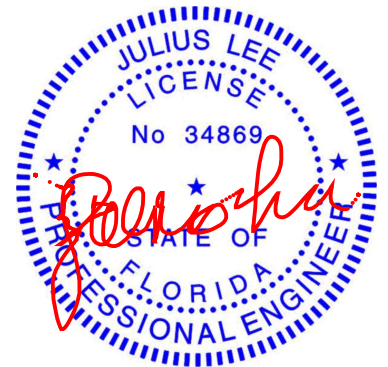
#### REACTIONS.

All bearings 6-0-4.  
(lb) - Max Horz 2=15(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 5  
Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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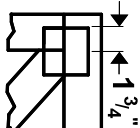
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



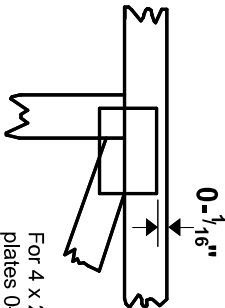
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

# 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 20/20 software** or upon request.

## PLATE SIZE

4 X 4

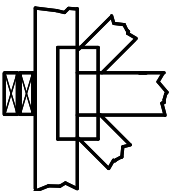
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



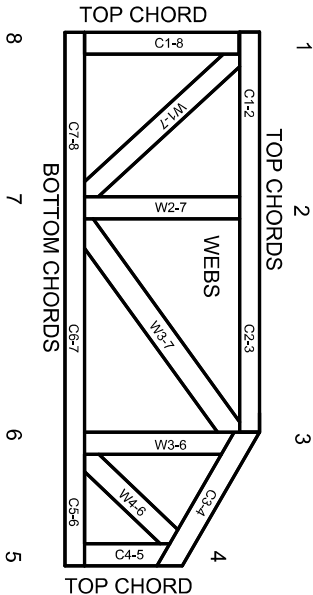
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TFP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.