



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

RE: Betsy\_Soto - Betsy Soto

MiTek USA, Inc.

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: Betsy Soto Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Ft. White 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 17 individual, Truss Design Drawings and 0 Additional Drawings.

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

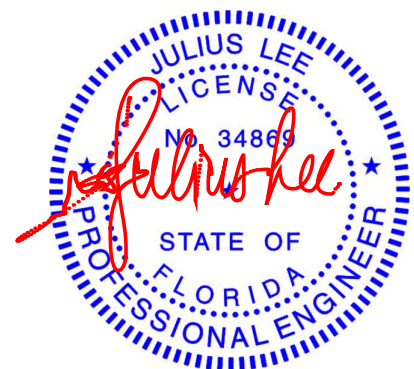
No.	Seal#	Truss Name	Date
1	T30040007	A1GIR	3/13/23
2	T30040008	A2	3/13/23
3	T30040009	A3	3/13/23
4	T30040010	A4	3/13/23
5	T30040011	A5	3/13/23
6	T30040012	A6	3/13/23
7	T30040013	A7	3/13/23
8	T30040014	A8GIR	3/13/23
9	T30040015	CJ01	3/13/23
10	T30040016	CJ02	3/13/23
11	T30040017	J1	3/13/23
12	T30040018	J1A	3/13/23
13	T30040019	J2	3/13/23
14	T30040020	J2A	3/13/23
15	T30040021	J3	3/13/23
16	T30040022	J4	3/13/23
17	T30040023	J5	3/13/23

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

Truss Design Engineer's Name: Lee, Julius

My license renewal date for the state of Florida is February 28, 2025.

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



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

March 14, 2023

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040007
BETSY_SOTO	A1GIR	Hip Girder	1	2	Job Reference (optional)	

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

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ID:wfiqvYhGQF696oaYFLUJNzdtl5-AAxOOHNV1CvVBC0jqisTApPEEtsMVGPS0ZPyszbOfK

-2-0-0	4-9-14	9-0-0	15-0-14	21-0-0	26-11-2	33-0-0	37-2-2	42-0-0	44-0-0
2-0-0	4-9-14	4-2-2	6-0-14	5-11-2	5-11-2	6-0-14	4-2-2	4-9-14	2-0-0

Scale = 1:75.2

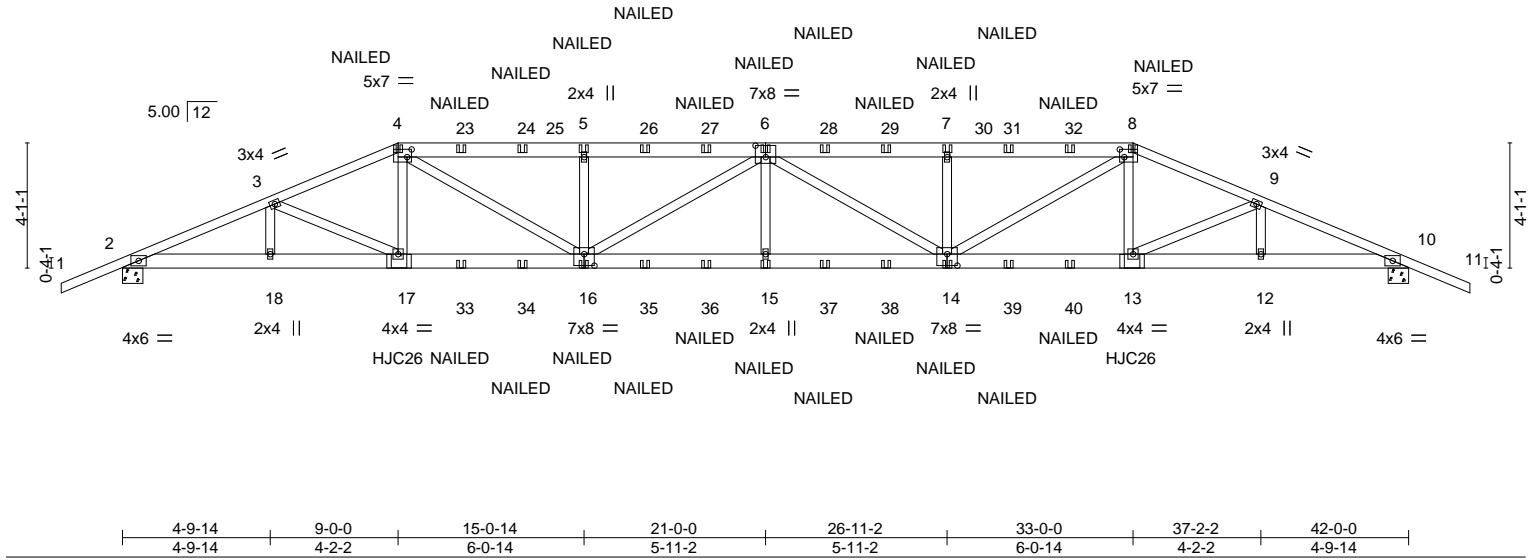


Plate Offsets (X,Y)--		[4:0-1-12,0-3-0], [6:0-4-0,0-4-8], [8:0-1-12,0-3-0], [14:0-4-0,0-4-8], [16:0-4-0,0-4-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.19	Vert(LL)	-0.22	15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.52	Vert(CT)	-0.43	15	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.20	Horz(CT)	0.10	10	n/a		
BCDL 10.0	Code FBC2020/TP12014		Matrix-MS					Weight: 540 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
4-6,6-8: 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-10-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-8-0, 10=0-8-0  
Max Horz 2=-78(LC 23)  
Max Uplift 2=-274(LC 8), 10=-274(LC 8)  
Max Grav 2=2007(LC 1), 10=2007(LC 1)

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

TOP CHORD 2-3=-4424/562, 3-4=-4071/609, 4-5=-5175/743, 5-6=-5172/742, 6-7=-5172/742,  
7-8=-5175/743, 8-9=-4071/609, 9-10=-4424/562  
BOT CHORD 2-18=-450/4057, 17-18=-450/4057, 16-17=-456/3732, 15-16=-647/5582, 14-15=-647/5582,  
13-14=-456/3732, 12-13=-450/4057, 10-12=-450/4057  
WEBS 3-17=-413/47, 4-17=-72/434, 4-16=-195/1758, 5-16=-465/106, 6-16=-547/28,  
6-15=0/307, 6-14=-547/28, 7-14=-465/106, 8-14=-195/1758, 8-13=-72/434,  
9-13=-413/47

#### 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=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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=274, 10=274.
- Use MiTek HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 23-11-4 oc max. starting at 9-0-6 from the left end to 32-11-10 to connect truss(es) to front face of bottom chord.

Continued on page 2 where hanger is in contact with lumber.



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Date:

March 14, 2023

**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	Betsy Soto	T30040007
BETSY_SOTO	A1GIR	Hip Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:29 2023 Page 2  
ID:wflvjYhGQFf696oaYFLUJNzdt5-AAxOOHNV1CvVBC0jqisTApPEEtMVGPSt0ZPyszbOfK

#### NOTES-

12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-8=-60, 8-11=-60, 2-10=-20

Concentrated Loads (lb)

Vert: 17=-83(F) 16=-23(F) 15=-23(F) 14=-23(F) 13=-83(F) 33=-23(F) 34=-23(F) 35=-23(F) 36=-23(F) 37=-23(F) 38=-23(F) 39=-23(F) 40=-23(F)



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



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Chesterfield, MO 63017

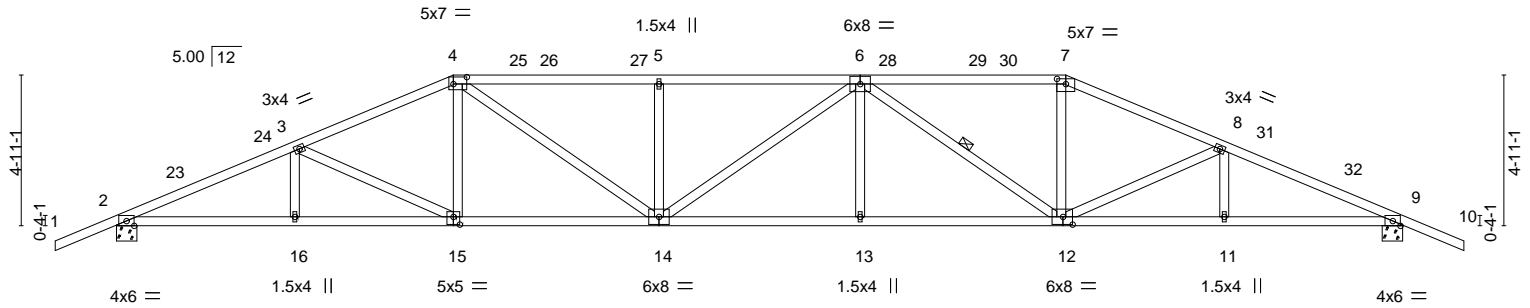
Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040008
BETSY_SOTO	A2	Hip	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:32 2023 Page 1  
ID:wfvjYhGQFf696oaYFLUJNzdt5-aldX0JPOK7I32gllVrPaoS1aL4nZibPuZ\_o3ZBzbOfH

2-0-0	5-9-14	11-0-0	17-8-9	24-3-7	31-0-0	36-2-2	42-0-0	44-0-0
2-0-0	5-9-14	5-2-2	6-8-9	6-6-13	6-8-9	5-2-2	5-9-14	2-0-0

Scale = 1:75.2



5-9-14	11-0-0	17-8-9	24-3-7	31-0-0	36-2-2	42-0-0
5-9-14	5-2-2	6-8-9	6-6-13	6-8-9	5-2-2	5-9-14

Plate Offsets (X,Y)-- [4:0-5-4,0-2-12], [7:0-3-8,0-2-1], [12:0-3-12,0-3-0], [15:0-2-8,0-3-0]									
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	0.84	Vert(LL)	-0.36 13-14 >999	240	MT20 244/190
TCDL	10.0	Lumber DOL 1.25		BC	1.00	Vert(CT)	-0.77 14-15 >652	180	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.31	Horz(CT)	0.23 9 n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS				Weight: 217 lb FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
6-7: 2x4 SP No.1  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 6-12

#### REACTIONS.

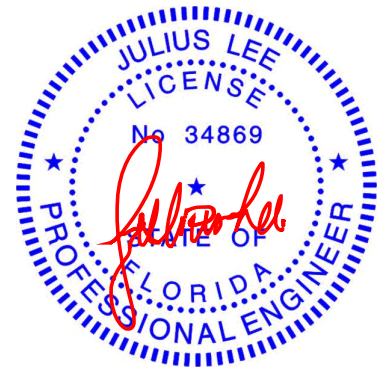
(size) 2=0-8-0, 9=0-8-0  
Max Horz 2=-92(LC 10)  
Max Uplift 2=-49(LC 12), 9=-49(LC 12)  
Max Grav 2=1800(LC 1), 9=1800(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3767/132, 3-4=-3254/149, 4-5=-3751/180, 5-6=-3751/180, 6-7=-2971/159,  
7-8=-3256/150, 8-9=-3763/130  
BOT CHORD 2-16=-44/3423, 15-16=-44/3423, 14-15=-4/2948, 13-14=-3/3711, 12-13=-3/3711,  
11-12=-60/3419, 9-11=-60/3419  
WEBS 3-15=-529/52, 4-15=0/404, 4-14=-39/1083, 5-14=-469/115, 6-13=0/325, 6-12=-1009/0,  
7-12=0/836, 8-12=-516/48

#### 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) -2-0-0 to 2-2-6, Interior(1) 2-2-6 to 11-0-0, Exterior(2R) 11-0-0 to 16-11-4, Interior(1) 16-11-4 to 31-0-0, Exterior(2R) 31-0-0 to 36-11-4, Interior(1) 36-11-4 to 44-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) 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.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

March 14,2023

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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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Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:34 2023 Page 1  
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 -2-0-0 6-9-14 13-0-0 21-0-0 29-0-0 35-2-2 42-0-0 44-0-0  
 2-0-0 6-9-14 8-0-0 8-0-0 8-0-0 6-2-2 6-9-14 2-0-0

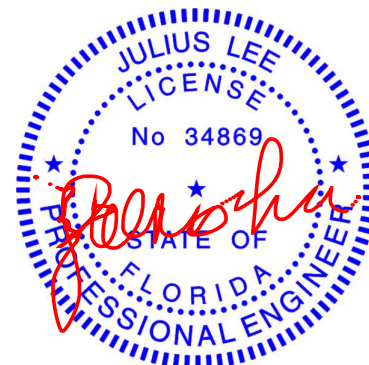
Structural drawing of a roof truss system. The drawing shows a cross-section of the truss with various members and supports. Key dimensions and specifications include:

- Overall Dimensions:**
  - Span: 5.00 m (12' 0" total, 6' 0" per half).
  - Height: 5.9-1 m (19' 4" total, 9' 4" per half).
- Members and Connections:**
  - Top Chords: 21, 22, 23, 24, 25, 26.
  - Bottom Chords: 14, 13, 12, 11, 10.
  - Vertical Members: 3, 4, 5, 6, 7.
  - Diagonal Members: 2, 1, 8, 9.
- Material Specifications:**
  - Top Chords: 6x8 =
  - Bottom Chords: 4x6 =
  - Vertical Members: 5x5 =
  - Diagonal Members: 1.5x4 ||
- Supports:**
  - Left Support: 0-4-1
  - Right Support: 0-4-1
- Dimensions and Spacing:**
  - 6-9-14
  - 13-0-0
  - 21-0-0
  - 29-0-0
  - 35-2-2
  - 42-0-0

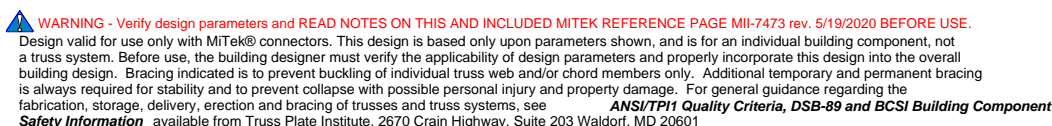
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2		

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDD=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) -2-0-0 to 2-2-6, Interior(1) 2-2-6 to 13-0-0, Exterior(2R) 13-0-0 to 18-11-4, Interior(1) 18-11-4 to 29-0-0, Exterior(2R) 29-0-0 to 35-1-0, Interior(1) 35-1-0 to 44-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



March 14, 2023





Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040010
BETSY_SOTO	A4	Hip	2	1	Job Reference (optional)	

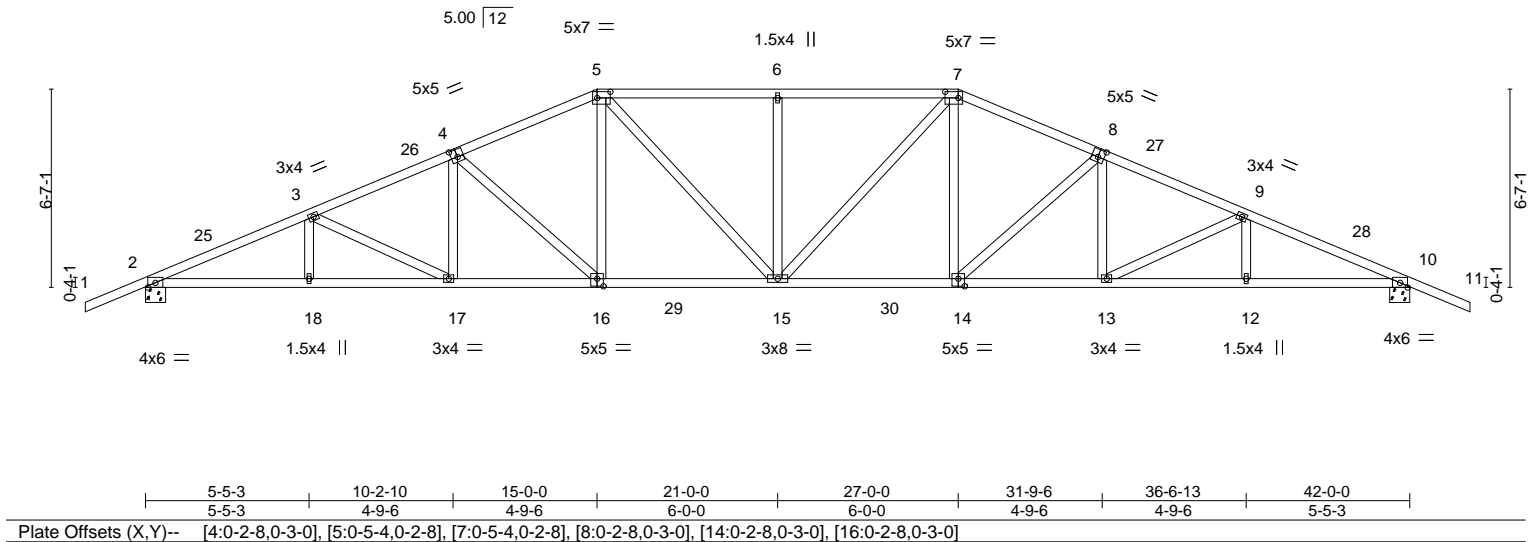
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:36 2023 Page 1

ID:wfvjYhGQF696oaYFLUJNzdlT5-TWs2sgSuOMoVXH33khU6yICLmhA8eMTUUcmGiyzbOfD

-2-0-0	5-5-3	10-2-10	15-0-0	21-0-0	27-0-0	31-9-6	36-6-13	42-0-0	44-0-0
2-0-0	5-5-3	4-9-6	4-9-6	6-0-0	6-0-0	4-9-6	4-9-6	5-5-3	2-0-0

Scale = 1:76.5



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.89	Vert(LL) -0.36 15-16 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.50	Vert(CT) -0.67 15-16 >754 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.22 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 238 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-8-0, 10=0-8-0  
Max Horz 2=121(LC 11)  
Max Uplift 2=-49(LC 12), 10=-49(LC 12)  
Max Grav 2=1988(LC 17), 10=1988(LC 18)

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

TOP CHORD 2-3=-4229/133, 3-4=-3701/146, 4-5=-3133/170, 5-6=-3126/177, 6-7=-3126/177,  
7-8=-3133/170, 8-9=-3701/146, 9-10=-4229/132  
BOT CHORD 2-18=-47/3944, 17-18=-47/3944, 16-17=-8/3424, 15-16=0/2918, 14-15=0/2841,  
13-14=-26/3334, 12-13=-64/3855, 10-12=-64/3855  
WEBS 3-17=-567/44, 4-17=0/441, 4-16=-688/43, 5-16=0/641, 5-15=-12/530, 6-15=-392/96,  
7-15=-12/530, 7-14=0/641, 8-14=-688/43, 8-13=0/442, 9-13=-568/44

#### 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., GCp=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-2-6, Interior(1) 2-2-6 to 15-0-0, Exterior(2R) 15-0-0 to 21-0-0, Interior(1) 21-0-0 to 27-0-0, Exterior(2R) 27-0-0 to 32-11-4, Interior(1) 32-11-4 to 44-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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, 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.



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

March 14, 2023

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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



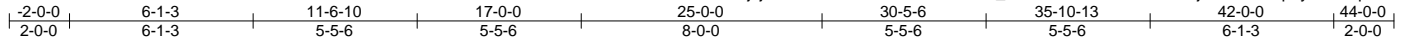
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040011
BETSY_SOTO	A5	Hip	2	1	Job Reference (optional)	

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

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ID:wfvjYhGQFf696oaYFLUJNZdt15-Pv\_oHMU8vz2DmbCRr6Wa2jHdNVr06DpnywFNnqzbOfB



Scale = 1:76.5

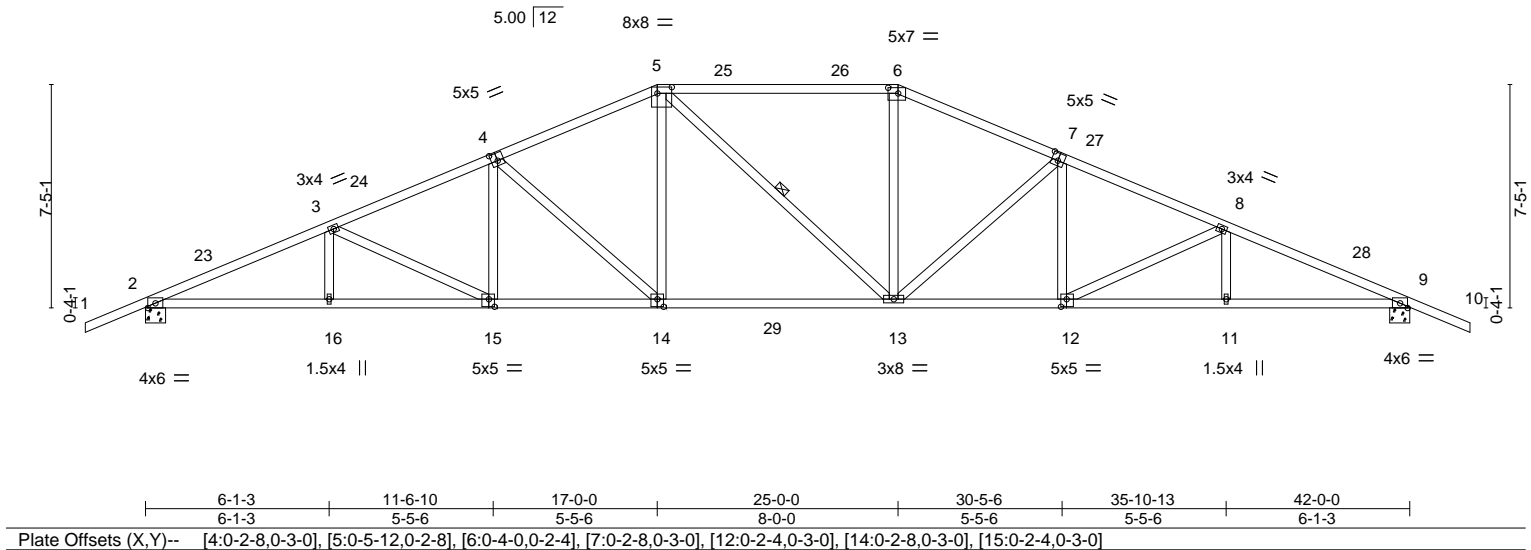


Plate Offsets (X,Y)--		[4:0-2-8,0-3-0], [5:0-5-12,0-2-8], [6:0-4-0,0-2-4], [7:0-2-8,0-3-0], [12:0-2-4,0-3-0], [14:0-2-8,0-3-0], [15:0-2-4,0-3-0]
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0
TCLL 20.0	Plate Grip DOL	1.25
TCDL 10.0	Lumber DOL	1.25
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code	FBC2020/TP12014
	<b>CSI.</b>	
	TC 0.74	
	BC 0.93	
	WB 0.70	
	Matrix-AS	
	<b>DEFL.</b>	
	in (loc)	I/defl L/d
	Vert(LL) -0.43 13-14	>999 240
	Vert(CT) -0.80 13-14	>633 180
	Horz(CT) 0.21 9	n/a n/a
	<b>PLATES</b>	<b>GRIP</b>
	MT20	244/190
	Weight: 230 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
5-6: 2x4 SP No.1  
BOT CHORD 2x4 SP No.2 \*Except\*  
12-14: 2x4 SP No.1  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-13

#### REACTIONS.

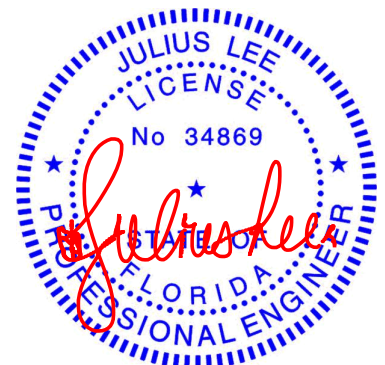
(size) 2=0-8-0, 9=0-8-0  
Max Horz 2=-135(LC 10)  
Max Uplift 2=-49(LC 12), 9=-49(LC 12)  
Max Grav 2=1983(LC 17), 9=1977(LC 18)

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

TOP CHORD 2-3=-4193/132, 3-4=-3541/157, 4-5=-2900/180, 5-6=-2678/181, 6-7=-2907/169,  
7-8=-3527/157, 8-9=-4179/132  
BOT CHORD 2-16=-42/3918, 15-16=-42/3918, 14-15=-8/3261, 13-14=0/2709, 12-13=-25/3149,  
11-12=-59/3805, 9-11=-59/3805  
WEBS 3-15=-704/40, 4-15=0/486, 4-14=-748/52, 5-14=0/751, 6-13=0/746, 7-13=-713/64,  
7-12=0/447, 8-12=-705/40

#### 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) -2-0-0 to 2-2-6, Interior(1) 2-2-6 to 17-0-0, Exterior(2R) 17-0-0 to 22-11-4, Interior(1) 22-11-4 to 25-0-0, Exterior(2R) 25-0-0 to 30-11-4, Interior(1) 30-11-4 to 44-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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.



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

March 14, 2023

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ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component

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



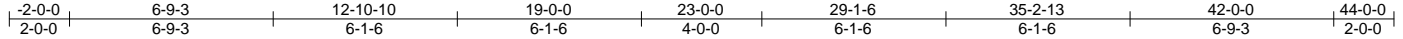
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040012
BETSY_SOTO	A6	Hip	2	1	Job Reference (optional)	

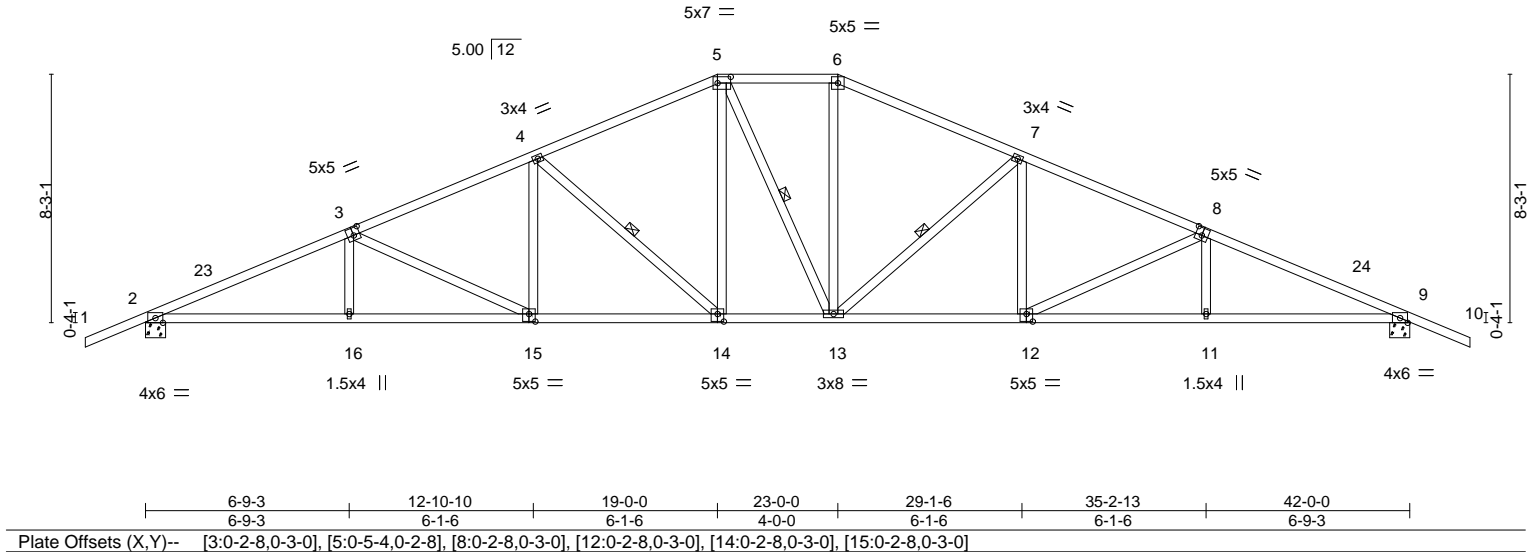
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:40 2023 Page 1

ID:wfvjvYhGQFf696oaYFLUJNZdlt5-LI6Yh2VPRalx0vMqzXY278MxEIY3aBF4PEKUrjzbof9



Scale = 1:76.5



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.89	Vert(LL) -0.26 14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.45	Vert(CT) -0.60 14-15 >836 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.20 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 237 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-14, 5-13, 7-13

#### REACTIONS.

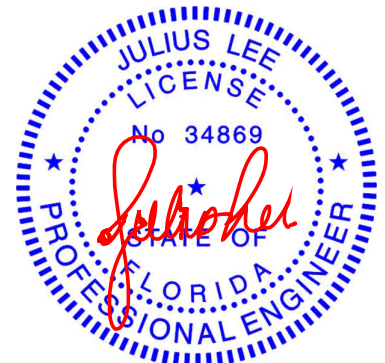
(size) 2=0-8-0, 9=0-8-0  
Max Horz 2=149(LC 11)  
Max Uplift 2=49(LC 12), 9=49(LC 12)  
Max Grav 2=1800(LC 1), 9=1800(LC 1)

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

TOP CHORD 2-3=-3678/99, 3-4=-3082/158, 4-5=-2456/176, 5-6=-2203/178, 6-7=-2455/170,  
7-8=-3082/158, 8-9=-3678/99  
BOT CHORD 2-16=-5/3322, 15-16=-7/3317, 14-15=-4/2798, 13-14=0/2192, 12-13=-20/2798,  
11-12=-24/3317, 9-11=-22/3322  
WEBS 3-16=0/288, 3-15=-572/6, 4-15=0/435, 4-14=-808/83, 5-14=-7/616, 6-13=0/635,  
7-13=-801/90, 7-12=0/413, 8-12=-572/6, 8-11=0/288

#### 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., GCp=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-2-6, Interior(1) 2-2-6 to 19-0-0, Exterior(2E) 19-0-0 to 23-0-0, Exterior(2R) 23-0-0 to 29-1-6, Interior(1) 29-1-6 to 44-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) 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.



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

March 14, 2023

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



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Chesterfield, MO 63017



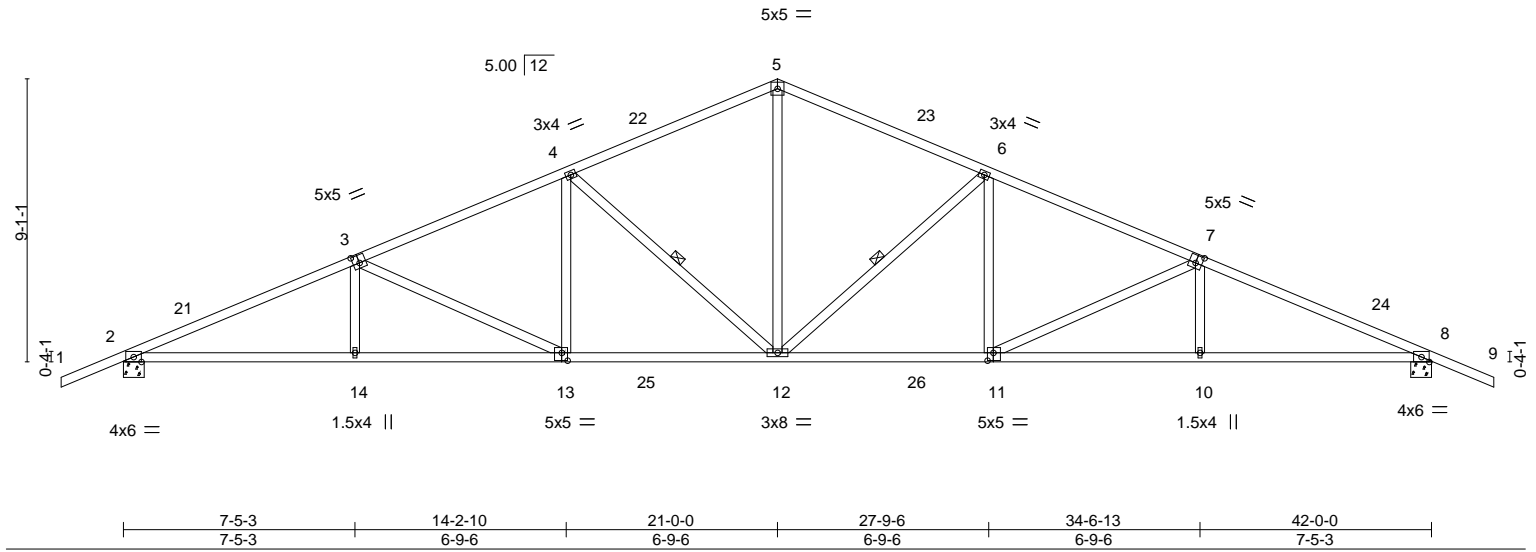
Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040013
BETSY_SOTO	A7	Common	5	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:42 2023 Page 1  
ID:wfvjYhGQff696oaYFLUJNzdlT5-IgDJ6kXfzCYfFCWD4ybWCZSl6Bq203MsYDbwczbOf7

2-0-0	7-5-3	14-2-10	21-0-0	27-9-6	34-6-13	42-0-0	44-0-0
2-0-0	7-5-3	6-9-6	6-9-6	6-9-6	6-9-6	7-5-3	2-0-0

Scale = 1:74.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.35 12-13 >999	L/d	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	1.00	Vert(CT)	-0.66 12-13 >768		180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.20 8 n/a		n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS						Weight: 222 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
1-3,7-9: 2x4 SP No.1  
BOT CHORD 2x4 SP No.1 \*Except\*  
11-13: 2x4 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 6-12, 4-12

#### REACTIONS.

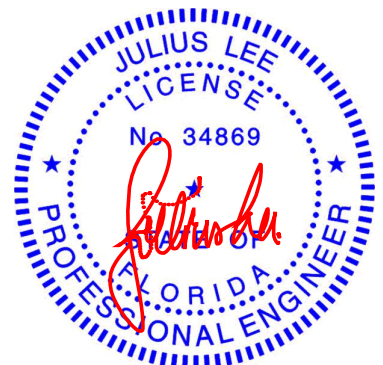
(size) 2=0-8-0, 8=0-8-0  
Max Horz 2=163(LC 10)  
Max Uplift 2=49(LC 12), 8=49(LC 12)  
Max Grav 2=1988(LC 17), 8=1988(LC 18)

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

TOP CHORD 2-3=-4059/81, 3-4=-3273/146, 4-5=-2505/171, 5-6=-2505/171, 6-7=-3273/146,  
7-8=-4060/81  
BOT CHORD 2-14=0/3790, 13-14=0/3781, 12-13=0/3065, 11-12=0/2950, 10-11=-2/3659, 8-10=0/3668  
WEBS 5-12=-7/1561, 6-12=-1022/97, 6-11=0/548, 7-11=-780/7, 7-10=0/324, 4-12=-1021/97,  
4-13=0/548, 3-13=-780/7, 3-14=0/324

#### 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) -2-0-0 to 2-2-6, Interior(1) 2-2-6 to 21-0-0, Exterior(2R) 21-0-0 to 25-2-6, Interior(1) 25-2-6 to 44-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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, 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:

March 14,2023

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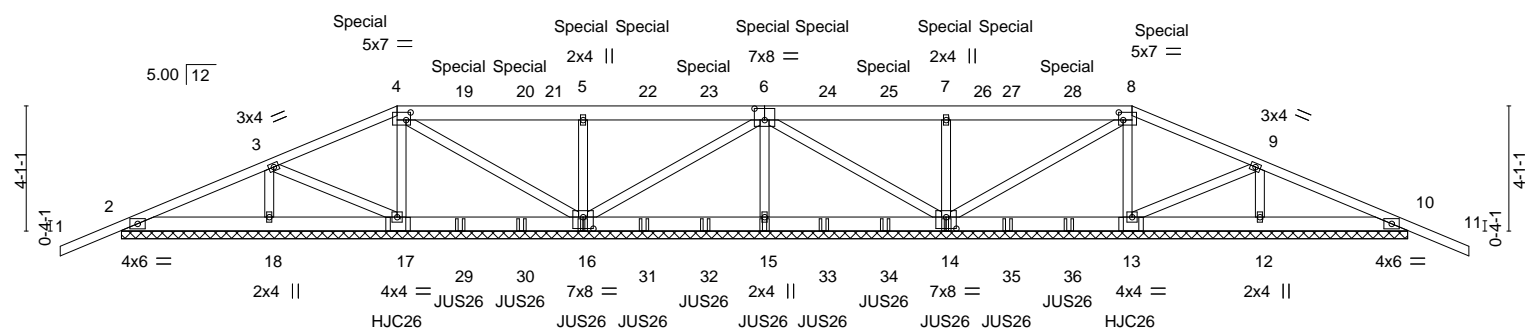


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040014
BETSY_SOTO	A8GIR	Hip Girder	1	2	Job Reference (optional)	

Mayo Truss Company, Inc.,		Mayo, FL - 32066,		8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:47 2023 Page 1					
ID:wfvjYhGQFf696oaYFLUJNzdlT5-ee1C9RbookBxLzOatVAhvc9Jx76hJSL50qwMbpzbOf2									
2-0-0	4-9-14	9-0-0	15-0-14	21-0-0	26-11-2	33-0-0	37-2-2	42-0-0	44-0-0
2-0-0	4-9-14	4-2-2	6-0-14	5-11-2	5-11-2	6-0-14	4-2-2	4-9-14	2-0-0

Scale = 1:75.2



"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.

4-9-14	9-0-0	15-0-14	21-0-0	26-11-2	33-0-0	37-2-2	42-0-0
4-9-14	4-2-2	6-0-14	5-11-2	5-11-2	6-0-14	4-2-2	4-9-14
Plate Offsets (X,Y)-- [4:0-1-12,0-3-0], [6:0-4-0,0-4-8], [8:0-1-12,0-3-0], [14:0-4-0,0-4-8], [16:0-4-0,0-4-8]							

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25		TC 0.17	Vert(LL) 0.00	11	n/r	120		MT20	244/190
TCDL 10.0	Lumber DOL 1.25		BC 0.13	Vert(CT) 0.00	10	n/r	120			
BCLL 0.0 *	Rep Stress Incr NO		WB 0.04	Horz(CT) 0.00	10	n/a	n/a			
BCDL 10.0	Code FBC2020/TP12014		Matrix-S						Weight: 540 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 4-6,6-8: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS.	All bearings 42-0-0.
(lb) - Max Horz 2=77(LC 7)	
Max Uplift	All uplift 100 lb or less at joint(s) 2, 18, 15, 12, 10 except 17=200(LC 8), 16=261(LC 8), 14=261(LC 8), 13=200(LC 8)
Max Grav	All reactions 250 lb or less at joint(s) except 2=336(LC 17), 18=351(LC 13), 17=1727(LC 1), 16=1296(LC 18), 15=1255(LC 17), 14=1296(LC 17), 13=1727(LC 1), 12=348(LC 14), 10=336(LC 18)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS	3-18=-274/51, 4-17=-298/79, 5-16=-606/213, 6-15=-302/91, 7-14=-606/213, 8-13=-298/79, 9-12=-274/51

- 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=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.
  - 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, 18, 15, 12, 10 except (jt=lb) 17=200, 16=261, 14=261, 13=200.
  - Use MiTek HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 23-11-4 oc max. starting at 9-0-6 from the left end to 32-11-10 to connect truss(es) to back face of bottom chord.
  - Use MiTek JUS26 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 11-0-12 from the left end to 30-11-4 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

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

**March 14,2023**

**MiTek**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto
BETSY_SOTO	A8GIR	Hip Girder	1	2	T30040014

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:47 2023 Page 2  
ID:wfvjYhGQFf696oaYFLUJNzdt5-ee1C9RbookBxLzOAtVAhvc9Jx76hjSL50qwMbpzbOf2

#### NOTES-

- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 71 lb up at 9-0-0, 78 lb down and 68 lb up at 11-0-12, 78 lb down and 68 lb up at 13-0-12, 78 lb down and 68 lb up at 15-0-12, 78 lb down and 68 lb up at 17-0-12, 78 lb down and 68 lb up at 19-0-12, 78 lb down and 68 lb up at 21-0-0, 78 lb down and 68 lb up at 22-11-4, 78 lb down and 68 lb up at 24-11-4, 78 lb down and 68 lb up at 26-11-4, 78 lb down and 68 lb up at 28-11-4, and 78 lb down and 68 lb up at 30-11-4, and 78 lb down and 71 lb up at 33-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

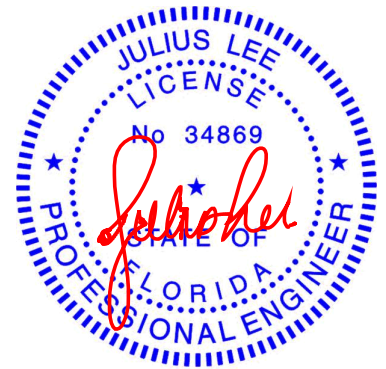
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-4=-60, 4-8=-60, 8-11=-60, 2-10=-20

Concentrated Loads (lb)

Vert: 4=-45(B) 8=-45(B) 17=-963(B) 16=-219(B) 5=-45(B) 6=-45(B) 15=-219(B) 14=-219(B) 7=-45(B) 13=-963(B) 19=-45(B) 20=-45(B) 22=-45(B) 23=-45(B) 24=-45(B) 25=-45(B) 27=-45(B) 28=-45(B) 29=-219(B) 30=-219(B) 31=-219(B) 32=-219(B) 33=-219(B) 34=-219(B) 35=-219(B) 36=-219(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	Betsy Soto	T30040015
BETSY_SOTO	CJ01	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:49 2023 Page 1  
ID:wflvjYhGQFf696oaYFLUJNZdlt5-a09ya7c2KLRFbHYZ?wD9\_1EXXh0BJZOU8PSgizbOf0

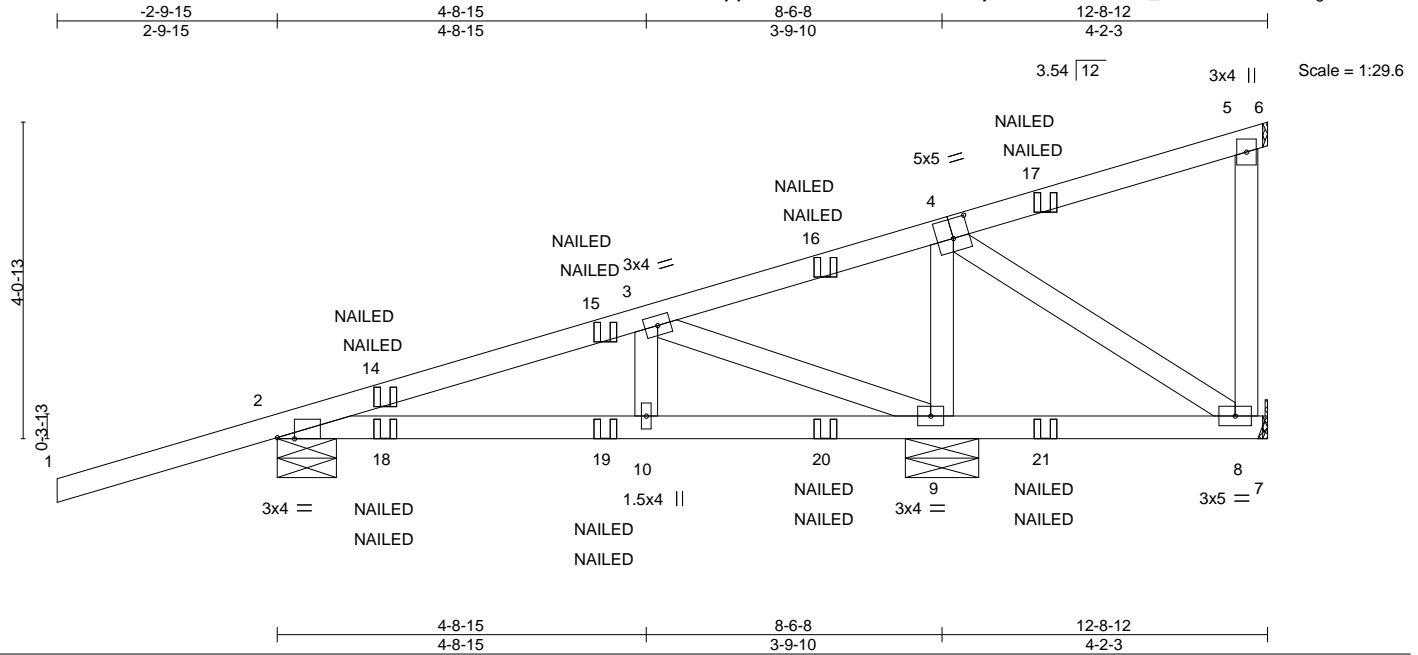


Plate Offsets (X,Y)--		[2:0-2-10,Edge], [4:0-2-8,0-3-0]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	-0.05	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	0.05	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 65 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 2=0-9-2, 9=0-11-5, 8=Mechanical  
Max Horz 2=118(LC 23)  
Max Uplift 2=203(LC 8), 9=236(LC 5), 8=72(LC 8)  
Max Grav 2=438(LC 28), 9=931(LC 29), 8=89(LC 1)

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

TOP CHORD 2-3=481/75, 3-4=88/284  
BOT CHORD 2-10=108/400, 9-10=108/400, 8-9=250/48  
WEBS 3-9=674/127, 4-9=557/163, 4-8=32/291

#### 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; Part. Encl., GCpi=0.55; 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.
- 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) 8 except (jt=lb) 2=203, 9=236.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

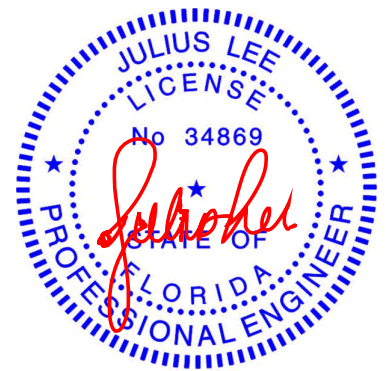
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-5=-60, 5-6=-20, 7-11=-20

Concentrated Loads (lb)

Vert: 14=71(F=35, B=35) 16=70(F=-35, B=-35) 17=180(F=-84, B=-96) 18=83(F=42, B=42) 19=3(F=2, B=2) 20=50(F=-25, B=-25) 21=70(F=121, B=-51)



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

March 14, 2023

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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	Betsy Soto	T30040016
BETSY_SOTO	CJ02	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:51 2023 Page 1  
ID:wfvjYhGQff696oaYFLUJNzdlt5-XPGj?oelrzhNqbix6LFd3SKt1kL2fAmhxRuZkazbOf\_

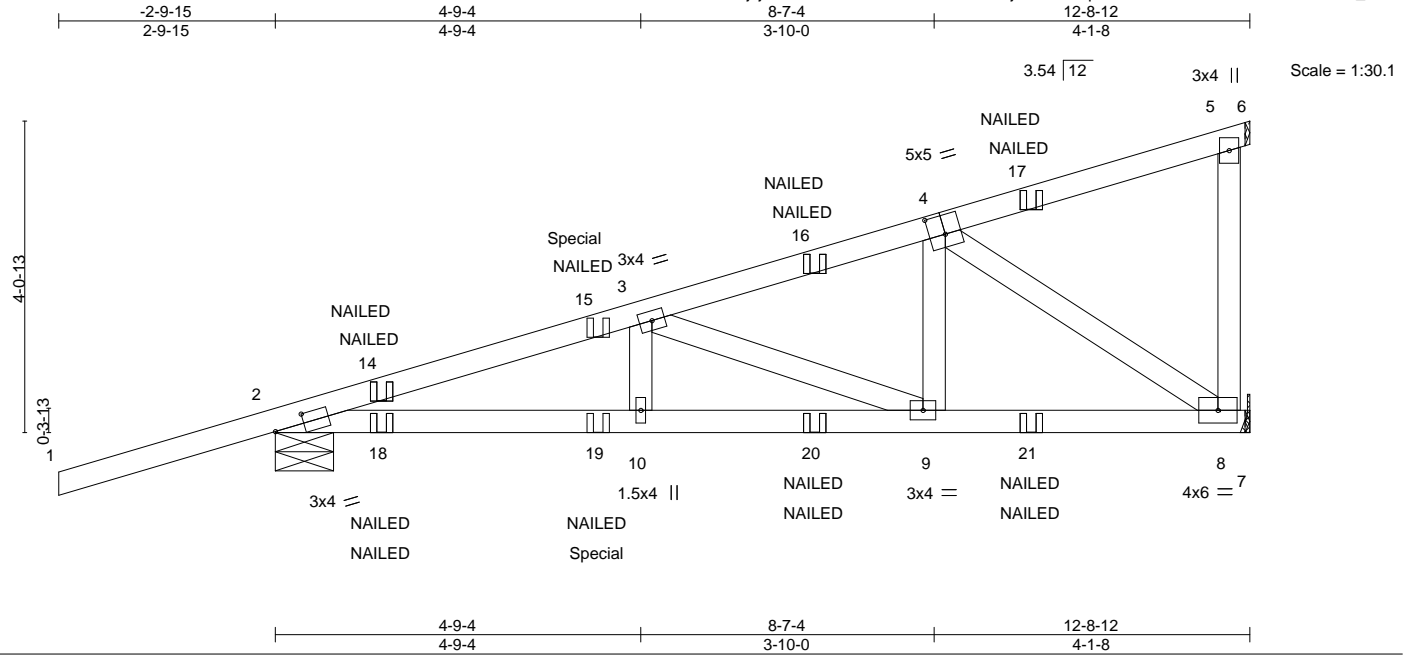


Plate Offsets (X,Y)--		[2:0-4-10,0-1-8], [4:0-2-8,0-3-0]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	-0.06	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.68	Vert(CT)	-0.08	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 65 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 4-9-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-9-2, 8=Mechanical  
Max Horz 2=118(LC 7)  
Max Uplift 2=240(LC 8), 8=97(LC 5)  
Max Grav 2=750(LC 28), 8=785(LC 30)

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

TOP CHORD 2-3=-1539/209, 3-4=-945/110  
BOT CHORD 2-10=-242/1409, 9-10=-242/1409, 8-9=-98/807  
WEBS 3-9=-632/157, 4-9=0/453, 4-8=-939/114

#### 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; Part. Encl., GCpi=0.55; 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.
- 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) 8 except (jt=lb) 2=240.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

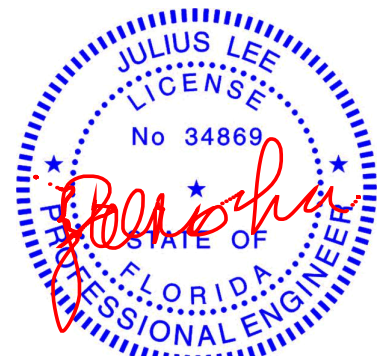
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-5=-60, 5-6=-20, 7-11=-20

Concentrated Loads (lb)

Vert: 14=71(F=35, B=35) 16=-70(F=-35, B=-35) 17=-192(F=-96, B=-96) 18=83(F=42, B=42) 19=3(F=2, B=2) 20=-50(F=-25, B=-25) 21=-102(F=-51, B=-51)



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

March 14, 2023

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040017
BETSY_SOTO	J1	Jack-Partial	13	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:52 2023 Page 1  
ID:wfiyYhGQf696oaYFLUJNzdlT5-?bq5D8ewcGpESI8g2mscgs8T8koOgwrA5e7F1zbOez

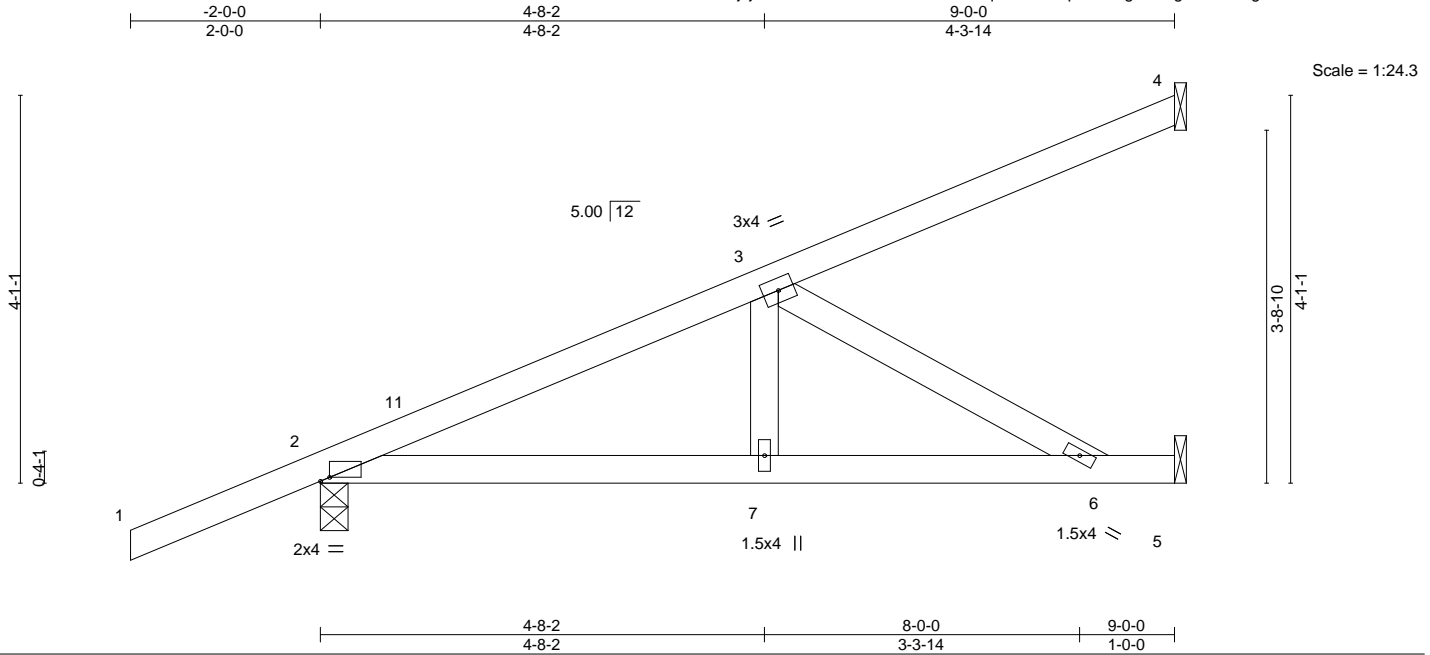


Plate Offsets (X,Y)-- [2:0-1-2,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.03	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.06	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014		Matrix-AS						Weight: 40 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

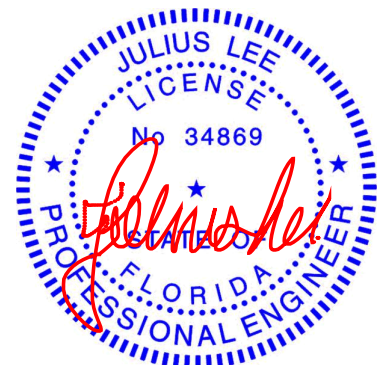
(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=155(LC 12)  
Max Uplift 4=47(LC 12), 2=-72(LC 12), 5=-14(LC 12)  
Max Grav 4=111(LC 17), 2=491(LC 1), 5=251(LC 17)

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

TOP CHORD 2-3=-534/73  
BOT CHORD 2-7=-199/483, 6-7=-199/483  
WEBS 3-6=-552/228

#### 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; Part. Encl., GCpi=0.55; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 8-11-4 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
- 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) 4, 2, 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.



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

March 14, 2023

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

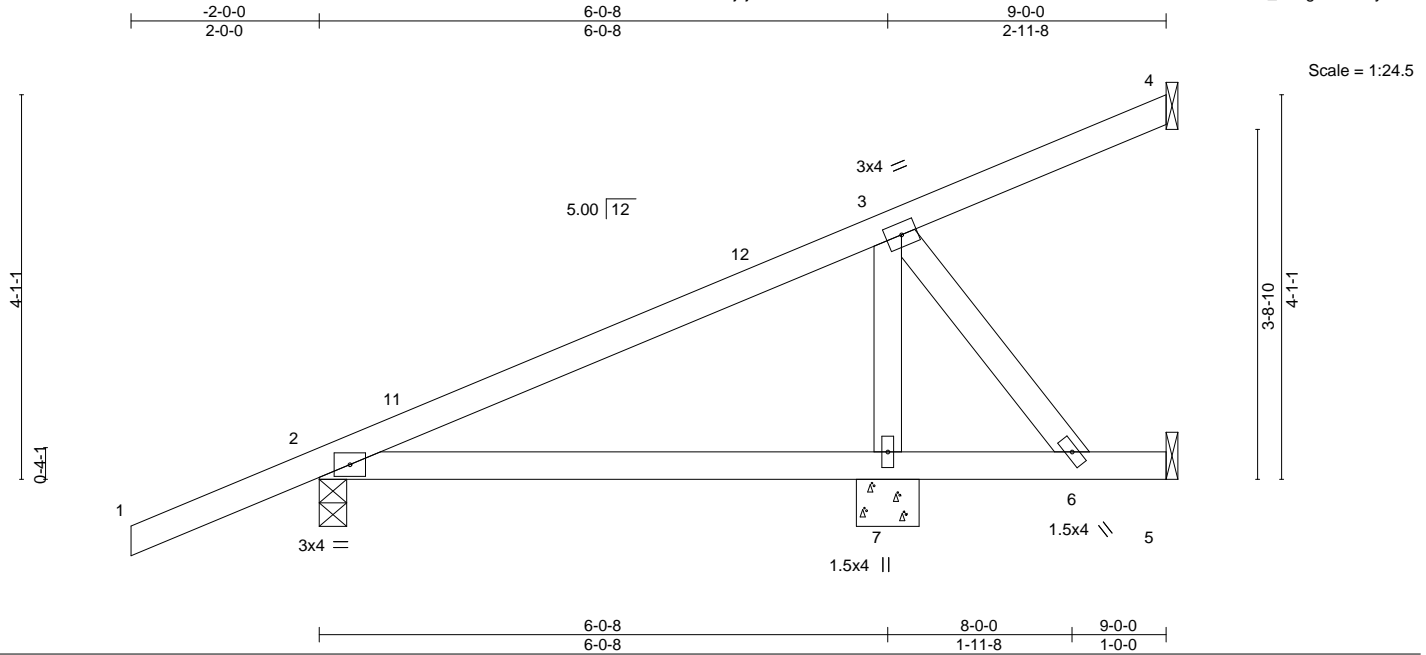


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040018
BETSY_SOTO	J1A	Jack-Partial	13	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:53 2023 Page 1  
ID:wfvjYhGQFf696oaYFLUJNZdlT5-ToOTQUfZNax53usKEmH58tPluY6z79w\_OInGoTzbOey



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.27	Vert(LL) -0.03	7-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.26	Vert(CT) -0.06	7-10	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 39 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

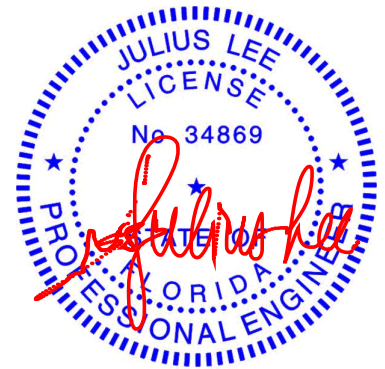
#### REACTIONS.

All bearings Mechanical except (jt=length) 2=0-3-8, 7=0-8-0.  
(lb) - Max Horz 2=155(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 4, 2, 5, 7  
Max Grav All reactions 250 lb or less at joint(s) 4, 5 except 2=363(LC 1), 7=412(LC 17)

**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; Part. Encl., GCpi=0.55; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 8-11-4 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) 4, 2, 5, 7.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Julius Lee PE No. 34869  
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	Betsy Soto	T30040019
BETSY_SOTO	J2	Jack-Open	6	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:55 2023 Page 1  
ID:wfvjYhGQF696oaYFLUJNzdt5-PAWDrAhpvBBoJC?jLAKZEIuajLzb3xHs3snsLzbOew

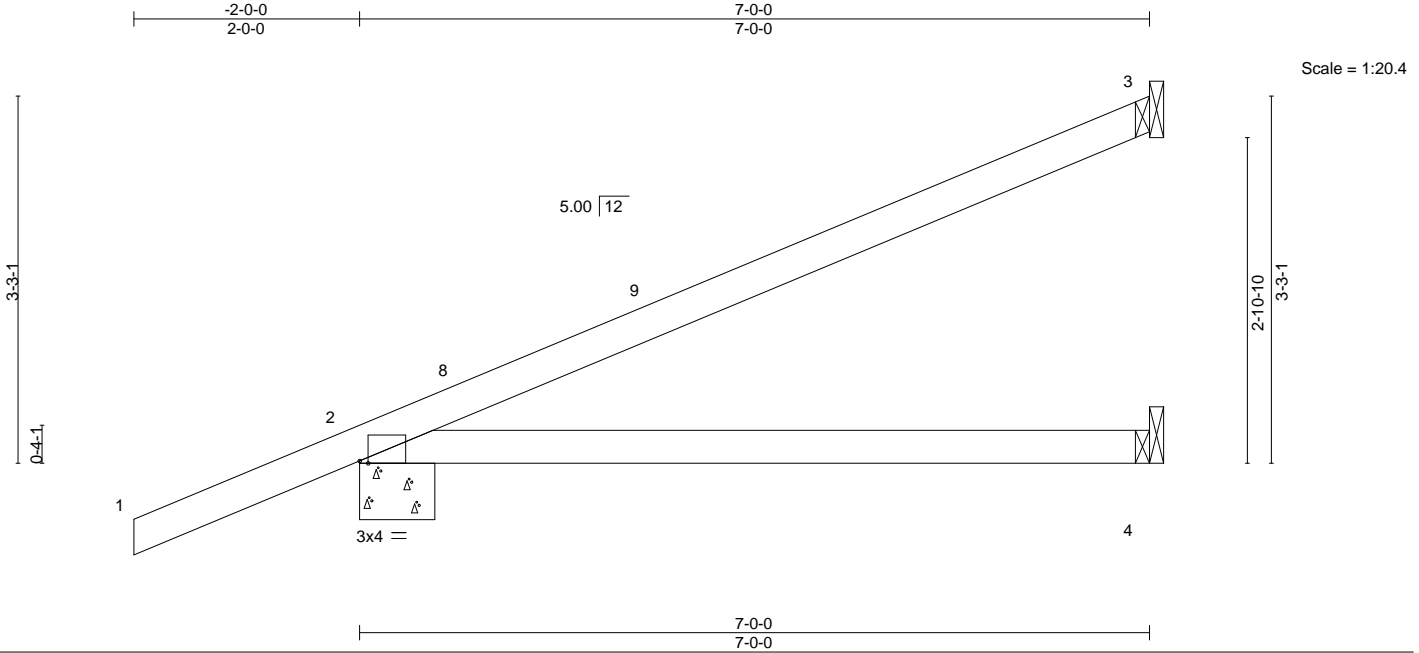


Plate Offsets (X,Y)-- [2:0-0-14,Edge]											
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0		Plate Grip DOL	1.25	TC 0.57		Vert(LL)	0.09 4-7	>909	240	MT20	244/190
TCDL 10.0		Lumber DOL	1.25	BC 0.48		Vert(CT)	-0.20 4-7	>414	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014		Matrix-AS						Weight: 25 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

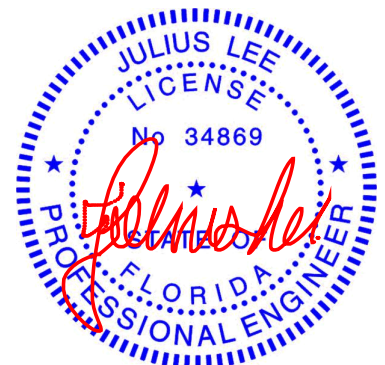
#### REACTIONS.

(size) 3=Mechanical, 2=0-8-0, 4=Mechanical  
Max Horz 2=127(LC 12)  
Max Uplift 3=-69(LC 12), 2=-70(LC 12)  
Max Grav 3=192(LC 17), 2=415(LC 1), 4=122(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; Part. Encl., GCpi=0.55; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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  
Date:

March 14, 2023

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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**

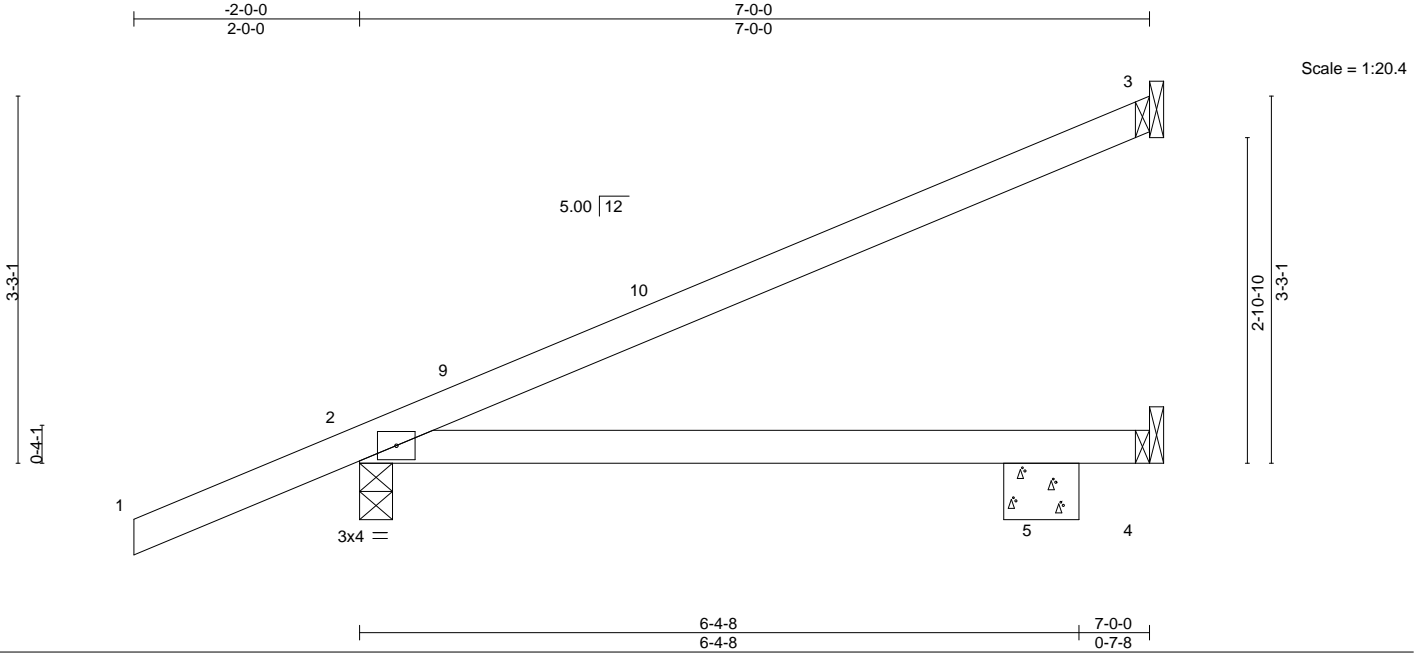


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040020
BETSY_SOTO	J2A	Jack-Open	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:56 2023 Page 1  
ID:wffvjYhGQFf696oaYFLUJNzdl5-tN4c2WiRgVJfwMavvuromW1mel6YKWBQ5jcK0ozbOev



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.49	Vert(LL) 0.05	5-8	>999	240		MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.40	Vert(CT) -0.09	5-8	>831	180			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS						Weight: 25 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

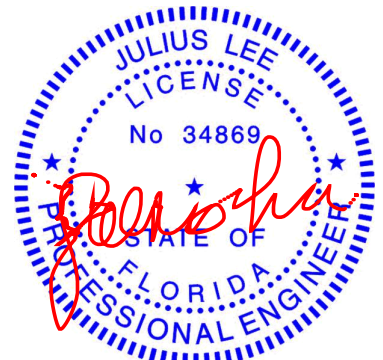
#### REACTIONS.

All bearings Mechanical except (jt=length) 2=0-3-8, 5=0-8-0.  
(lb) - Max Horz 2=127(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 3, 2 except 4=165(LC 17)  
Max Grav All reactions 250 lb or less at joint(s) 3, 4 except 2=378(LC 1), 5=335(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; Part. Encl., GCpi=0.55; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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 except (jt=lb) 4=165.
- 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.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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March 14,2023

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



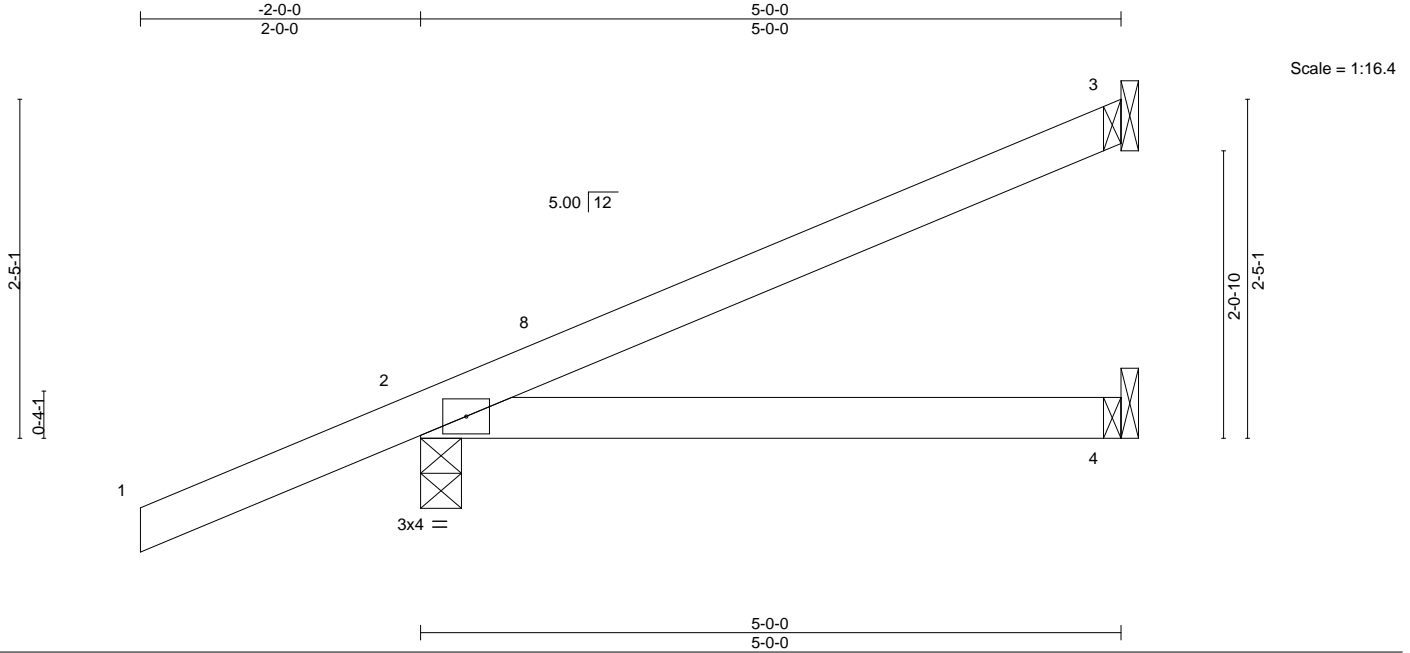
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040021
BETSY_SOTO	J3	Jack-Open	8	1	Job Reference (optional)	

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:57 2023 Page 1  
ID:wfvjYhGQFf696oaYFLUJNzdtIt5-LZe\_Gsi3RpRWYW95TbM1Jja?79VX3zRaJNLtxEzbOeu



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	0.03	4-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.22	Vert(CT)	-0.05	4-7	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 19 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

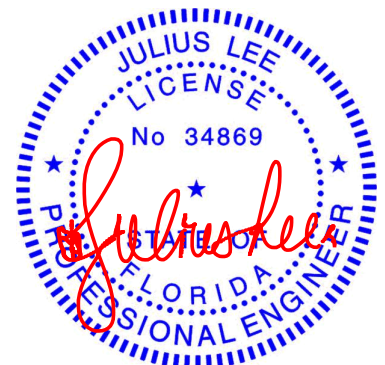
#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=99(LC 12)  
Max Uplift 3=-45(LC 12), 2=-70(LC 12)  
Max Grav 3=129(LC 17), 2=342(LC 1), 4=86(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; Part. Encl., GCpi=0.55; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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 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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Date:

March 14, 2023

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

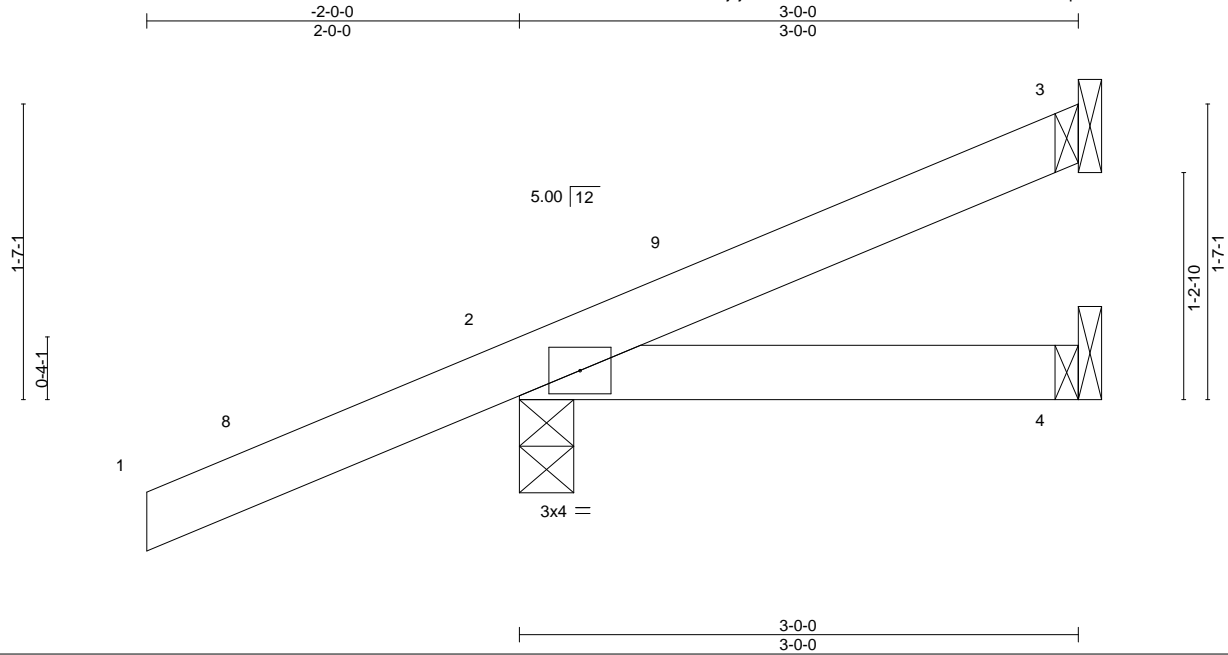


Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040022
BETSY_SOTO	J4	Jack-Open	8	1	Job Reference (optional)	

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:05:59 2023 Page 1  
ID:wfvjYhGQFf696oaYFLUJNzdt5-lxkhYkZqHEnpJUa0OVO8fLtzDJXtsnhq\_?7zbOes



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.24	Vert(LL) -0.00	4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.07	Vert(CT) -0.01	4-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 13 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

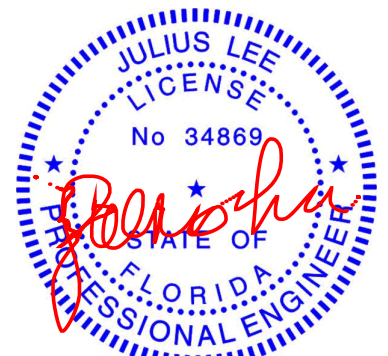
#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=71(LC 12)  
Max Uplift 3=-19(LC 12), 2=-75(LC 12)  
Max Grav 3=63(LC 17), 2=278(LC 1), 4=46(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; Part. Encl., GCpi=0.55; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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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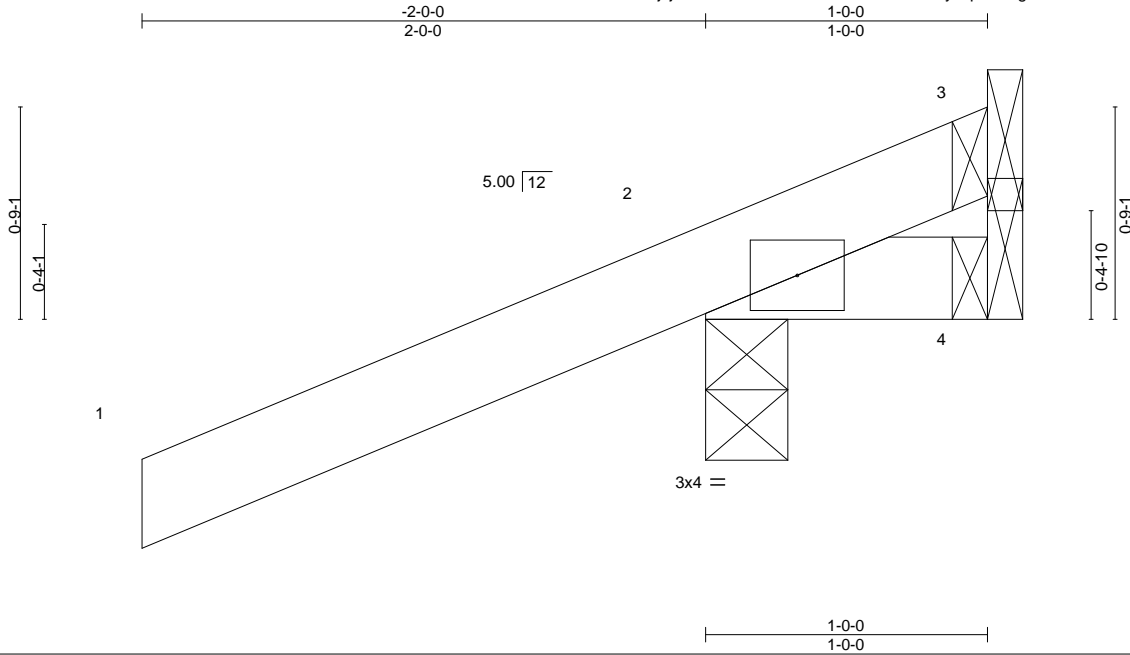


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Betsy Soto	T30040023
BETSY_SOTO	J5	Jack-Open	8	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Mar 13 09:06:00 2023 Page 1  
ID:wfvjYhGQFf696oaYFLUJNzdlT5-m8J6utlykP5Pzug8kvkxMBVJMJZ6GKA0?LaYYZzbOer



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.26	Vert(LL) 0.00	5	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.04	Vert(CT) 0.00	5	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 7 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

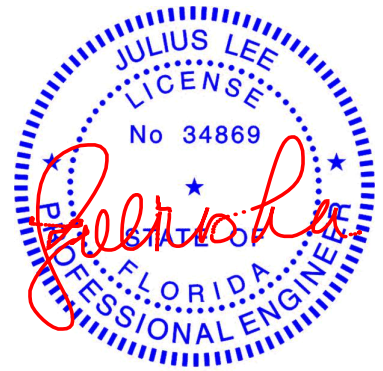
#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=44(LC 12)  
Max Uplift 3=-28(LC 1), 2=-112(LC 12), 4=-54(LC 1)  
Max Grav 3=19(LC 12), 2=281(LC 1), 4=35(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; Part. Encl., GCpi=0.55; 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, 4 except (jt=lb) 2=112.



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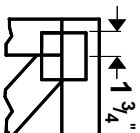
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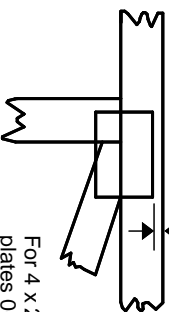
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

## 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



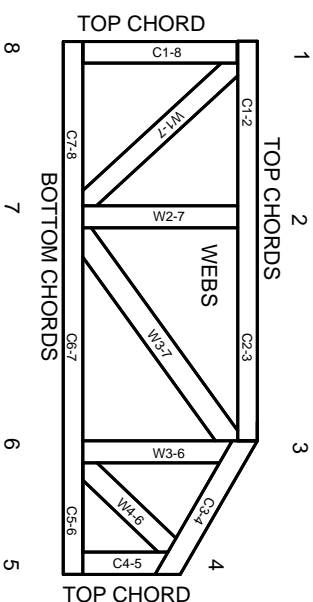
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: 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/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.