



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

RE: Columbia\_Model - Columbia Model

MiTek USA, Inc.

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: Florida Homes Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Columbia County State: FL

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

Name: License #:  
Address:  
City: State:

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

Design Code: 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 31 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	T28890167	A01AGIR	9/29/22	23	T28890189	B05	9/29/22
2	T28890168	A01GIR	9/29/22	24	T28890190	C01GE	9/29/22
3	T28890169	A02	9/29/22	25	T28890191	C02	9/29/22
4	T28890170	A02A	9/29/22	26	T28890192	C03GIR	9/29/22
5	T28890171	A03	9/29/22	27	T28890193	CJ01	9/29/22
6	T28890172	A03A	9/29/22	28	T28890194	J1	9/29/22
7	T28890173	A04	9/29/22	29	T28890195	J2	9/29/22
8	T28890174	A04A	9/29/22	30	T28890196	J3	9/29/22
9	T28890175	A05	9/29/22	31	T28890197	J4	9/29/22
10	T28890176	A05A	9/29/22				
11	T28890177	A06	9/29/22				
12	T28890178	A06A	9/29/22				
13	T28890179	A07	9/29/22				
14	T28890180	A07A	9/29/22				
15	T28890181	A08	9/29/22				
16	T28890182	A08A	9/29/22				
17	T28890183	A09	9/29/22				
18	T28890184	A10	9/29/22				
19	T28890185	B01GE	9/29/22				
20	T28890186	B02	9/29/22				
21	T28890187	B03	9/29/22				
22	T28890188	B04	9/29/22				



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:

September 29, 2022

Lee, Julius

1 of 1

Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890167
COLUMBIA_MODEL	A01AGIR	Hip Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:31 2022 Page 1

ID:I6mhBsqQl4K6KneDQWuCZCymcPk-bprLcEXkAQ5J7\_WzL3O8WbgyaskKQQW5ev?qohyYqE6

1-4-0	3-9-14	7-0-0	12-1-3	17-0-9	22-0-0	26-11-7	31-10-13	37-0-0	38-0-0
1-4-0	3-9-14	3-2-2	5-1-3	4-11-7	4-11-7	4-11-7	4-11-7	5-1-3	1-0-0

Scale = 1:66.9

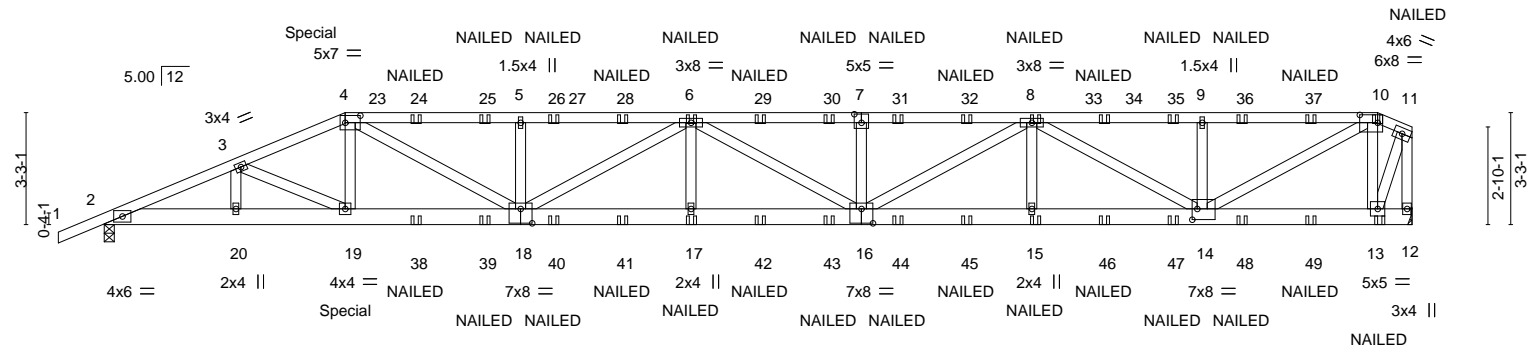


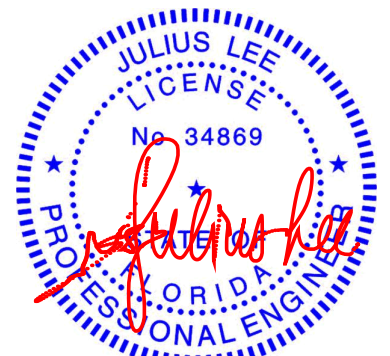
Plate Offsets (X,Y)--	[4:0-5-4,0-2-8], [7:0-2-8,0-3-0], [10:0-6-4,0-2-12], [14:0-1-12,0-3-12], [16:0-4-0,0-5-0], [18:0-4-0,0-5-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.80	Vert(LL) -0.41	16-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.85	Vert(CT) -0.83	16-17	>546	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.62	Horz(CT) 0.14	12	n/a	n/a		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS					Weight: 471 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-7,7-10: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-3-3 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* 16-18: 2x6 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
<b>REACTIONS.</b> (size) 2=0-3-8, 12=Mechanical Max Horz 2=89(LC 24) Max Grav 2=3152(LC 1), 12=3357(LC 1)	"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.

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7504/0, 3-4=-7415/0, 4-5=-9719/0, 5-6=-9719/0, 6-7=-10713/0, 7-8=-10713/0, 8-9=-5878/0, 9-10=-5878/0, 10-11=-1310/7, 11-12=-3375/0
BOT CHORD 2-20=0/6902, 19-20=0/6902, 18-19=0/6863, 17-18=0/10995, 16-17=0/10995, 15-16=0/9096, 14-15=0/9096, 13-14=0/1078
WEBS 3-19=-252/151, 4-19=0/761, 4-18=-62/3318, 5-18=-621/133, 6-18=-1507/0, 6-17=0/433, 6-16=-326/0, 7-16=-497/99, 8-16=0/1869, 8-15=0/434, 8-14=-3723/0, 9-14=-631/132, 10-14=0/5513, 10-13=-2626/84, 11-13=0/3089

- NOTES-**
- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-7-0 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.
  - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - 3) Unbalanced roof live loads have been considered for this design.
  - 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; 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
  - 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) Refer to girder(s) for truss to truss connections.
  - 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) 231 lb down and 127 lb up at 7-0-0 on top chord, and 361 lb down at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

September 29, 2022

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A01AGIR	Hip Girder	1	2	T28890167

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:32 2022 Page 2  
ID:l6mhBsQl4K6KneDQWuCZCymcPk-3?PjqZYMxkDAI759vmvN3pD7KGgf9tIfZlOK8yYqE5

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-10=-60, 10-11=-60, 2-12=-20

Concentrated Loads (lb)

Vert: 4=-184(B) 10=-132(B) 19=-361(B) 6=-126(B) 17=-64(B) 15=-64(B) 8=-126(B) 13=-66(B) 24=-126(B) 25=-126(B) 26=-126(B) 28=-126(B) 29=-126(B)

30=-126(B) 31=-126(B) 32=-126(B) 34=-126(B) 35=-126(B) 36=-126(B) 37=-126(B) 38=-64(B) 39=-64(B) 40=-64(B) 41=-64(B) 42=-64(B) 43=-64(B) 44=-64(B)

45=-64(B) 46=-64(B) 47=-64(B) 48=-64(B) 49=-64(B)



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September 29, 2022

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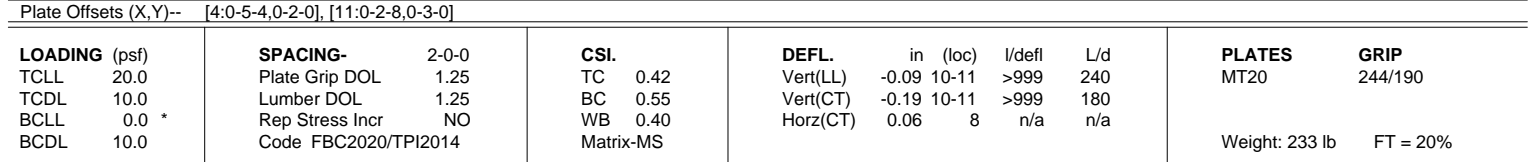
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

**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. Thu Sep 29 08:30:42 2022 Page 1  
ID:16mhBsqQl4K6KneDQWuCZCymcPk-mw0Vw\_geaoUlygr4Ut4jTvdwllAiVSj47AvgYyYqDx  
-1-4-0 3-9-14 7-0-0 12-1-15 17-2-1 22-4-0  
1-4-0 3-9-14 3-2-2 5-1-15 5-0-3 5-1-15  
Scale = 1:40.0



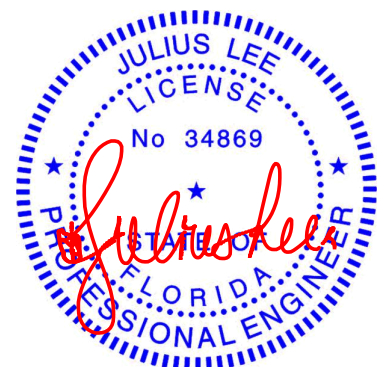
**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
Max Horz 2=96(LC 24)  
Max Grav 8=1960(LC 1), 2=1769(LC 1)

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

TOP CHORD	2-3=-3868/0, 3-4=-3643/0, 4-5=-3829/0, 5-6=-3829/0, 7-8=-269/55
BOT CHORD	2-12=0/3529, 11-12=0/3529, 10-11=0/3345, 9-10=0/2720, 8-9=0/2720
WEBS	3-11=-296/78, 4-11=0/628, 4-10=-44/617, 5-10=-652/136, 6-10=0/1288, 6-9=0/426, 6-8=-3088/0


**NOTES-**


- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; 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
- 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) Use MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-0-12 from the left end to 21-0-12 to connect truss(es) to front face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 231 lb down and 124 lb up at 7-0-0, 126 lb down and 60 lb up at 9-0-12, 126 lb down and 60 lb up at 11-0-12, 126 lb down and 60 lb up at 13-0-12, 126 lb down and 60 lb up at 15-0-12, 126 lb down and 60 lb up at 17-0-12, and 126 lb down and 60 lb up at 19-0-12, and 126 lb down and 60 lb up at 21-0-12 on top chord, and 361 lb down at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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**LOAD CASE(S)** Standard  
 **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	Columbia Model
COLUMBIA_MODEL	A01GIR	Half Hip Girder	1	2	T28890168

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:42 2022 Page 2  
ID:l6mhBsQl4K6KneDQWuCZCymcPk-mw0Vw\_geaoUlygr4Ut4jTvdwlIAiVSijA7AvgYyYqDx

#### LOAD CASE(S) Standard

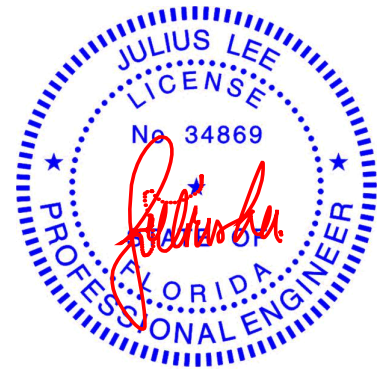
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 8-13=-20

Concentrated Loads (lb)

Vert: 4=-184(F) 11=-361(F) 9=-64(F) 6=-126(F) 16=-126(F) 17=-126(F) 18=-126(F) 21=-126(F) 22=-126(F) 23=-126(F) 24=-64(F) 25=-64(F) 26=-64(F) 27=-64(F)  
28=-64(F) 29=-64(F)



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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	Columbia Model	T28890169
COLUMBIA_MODEL	A02	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:44 2022 Page 1  
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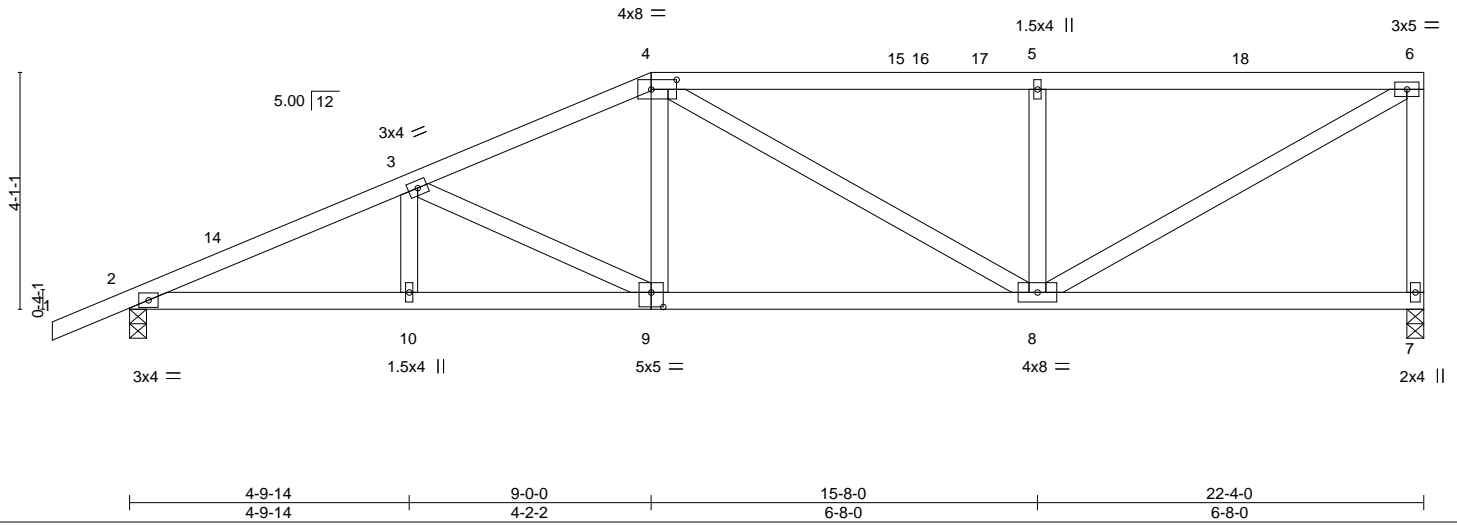


Plate Offsets (X,Y)-- [4:0-5-4,0-2-0], [9:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.43	Vert(LL) -0.09	8-9	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.57	Vert(CT) -0.20	8-9	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.04	7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 116 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

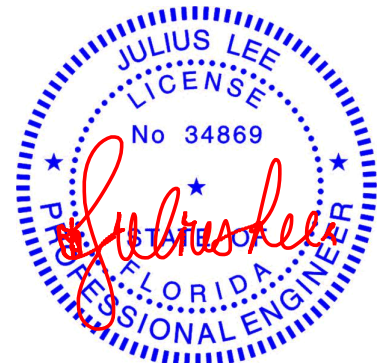
(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=121(LC 11)  
Max Uplift 7=-8(LC 9), 2=-32(LC 12)  
Max Grav 7=885(LC 1), 2=970(LC 1)

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

TOP CHORD 2-3=-1848/56, 3-4=-1423/93, 4-5=-1164/85, 5-6=-1164/85, 6-7=-826/81  
BOT CHORD 2-10=-170/1665, 9-10=-170/1665, 8-9=-132/1271  
WEBS 3-9=-438/42, 4-9=0/328, 5-8=-445/104, 6-8=-63/1304

#### 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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 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
- 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 8 lb uplift at joint 7 and 32 lb uplift at joint 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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Date:

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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**



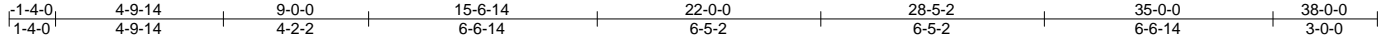
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A02A	Hip	1	1	T28890170

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:45 2022 Page 1

ID:l6mhBsQl4K6KneDQWuCZCymcPk-BVheY0iWtjsKp7afA?eQ5YFMnW6liiQ9s5OaGtyYqDu



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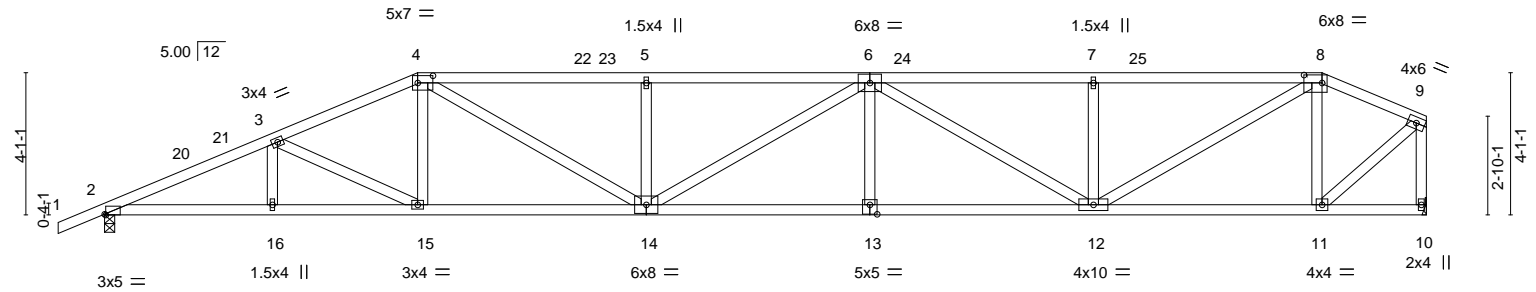


Plate Offsets (X,Y)--	[2:0-0-6,Edge], [4:0-5-4,0-2-8], [8:0-6-4,0-2-12], [13:0-2-8,0-3-4]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.75	Vert(LL) -0.31	14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.88	Vert(CT) -0.69	13-14	>655	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.85	Horz(CT) 0.16	10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 203 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
13-14: 2x4 SP No.1  
WEBS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 10=Mechanical  
Max Horz 2=105(LC 11)  
Max Uplift 2=33(LC 12)  
Max Grav 2=1596(LC 1), 10=1513(LC 1)

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

TOP CHORD 2-3=-3412/112, 3-4=-3041/111, 4-5=-3717/155, 5-6=-3717/155, 6-7=-2909/106,  
7-8=-2909/106, 8-9=-1245/66, 9-10=-1495/68  
BOT CHORD 2-16=-169/3105, 15-16=-169/3105, 14-15=-111/2777, 13-14=-116/3670, 12-13=-116/3670,  
11-12=-57/1095  
WEBS 3-15=-376/62, 4-15=0/387, 4-14=-47/1174, 5-14=-456/111, 6-12=-893/22,  
7-12=-457/111, 8-12=-55/2105, 8-11=-861/100, 9-11=-55/1475

#### 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=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 2-5-10, Interior(1) 2-5-10 to 9-0-0, Exterior(2R) 9-0-0 to 14-4-8, Interior(1) 14-4-8 to 35-0-0, Exterior(2E) 35-0-0 to 37-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 33 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29, 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	Columbia Model	T28890171
COLUMBIA_MODEL	A03	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:46 2022 Page 1  
ID:l6mhBsqQl4K6KneDQWuZCZCymcPk-fhF0mMj8e1\_BRH9rji9fdlodBvYpRHUJ5I87pKyYqDt

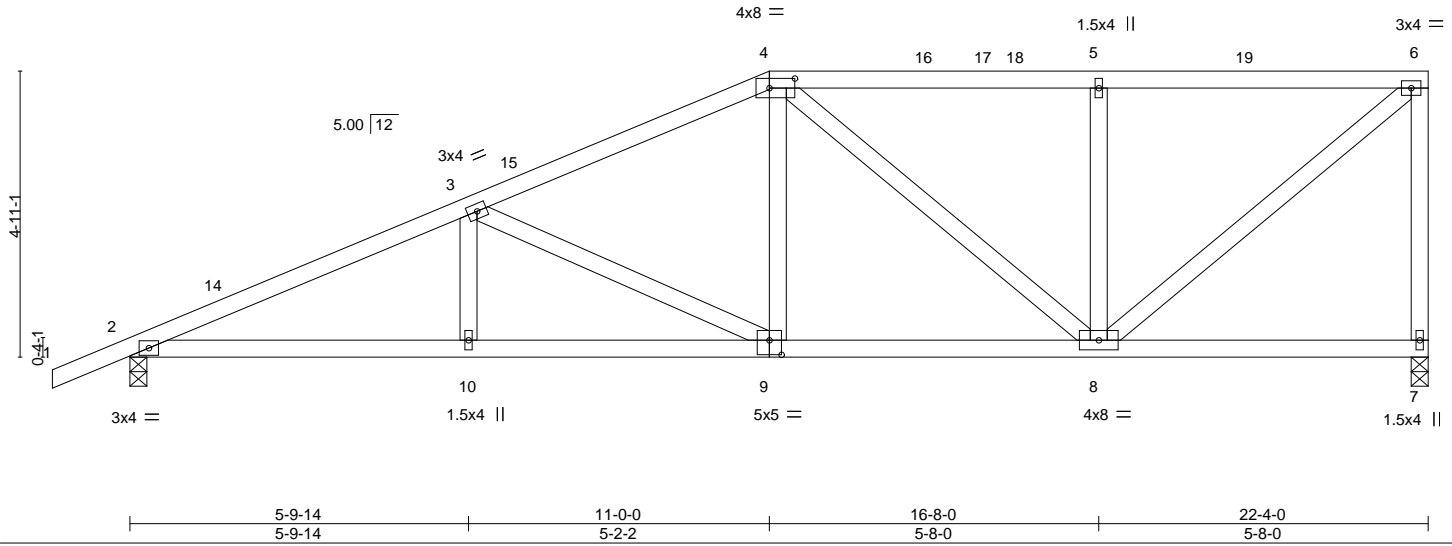
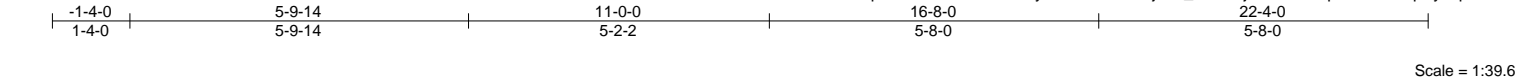


Plate Offsets (X,Y)-- [4:0-5-4,0-2-0], [9:0-2-8,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.33	Vert(LL)	-0.06	10	>999	240	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.48	Vert(CT)	-0.13	9-10	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35	Horz(CT)	0.04	7	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-AS						
								Weight: 121 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

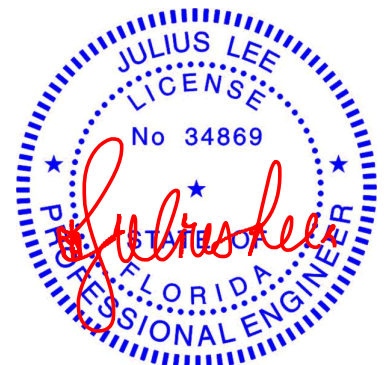
(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=147(LC 11)  
Max Uplift 7=-8(LC 9), 2=-32(LC 12)  
Max Grav 7=885(LC 1), 2=970(LC 1)

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

TOP CHORD 2-3=-1790/57, 3-4=-1233/94, 4-5=-846/89, 5-6=-846/89, 6-7=-835/83  
BOT CHORD 2-10=-180/1616, 9-10=-180/1616, 8-9=-134/1079  
WEBS 3-10=0/251, 3-9=-595/51, 4-9=0/370, 4-8=-301/61, 5-8=-382/89, 6-8=-65/1077

#### 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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 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 8 lb uplift at joint 7 and 32 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29,2022

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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	Columbia Model	T28890172
COLUMBIA_MODEL	A03A	Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:48 2022 Page 1

ID:16mhBsqQl4K6KneDQWuCZCymcPk-b4NmB2IOAeEugbJE7B7iAtqEj8uv9XbY2dEtCyYqDr



Scale = 1:66.2

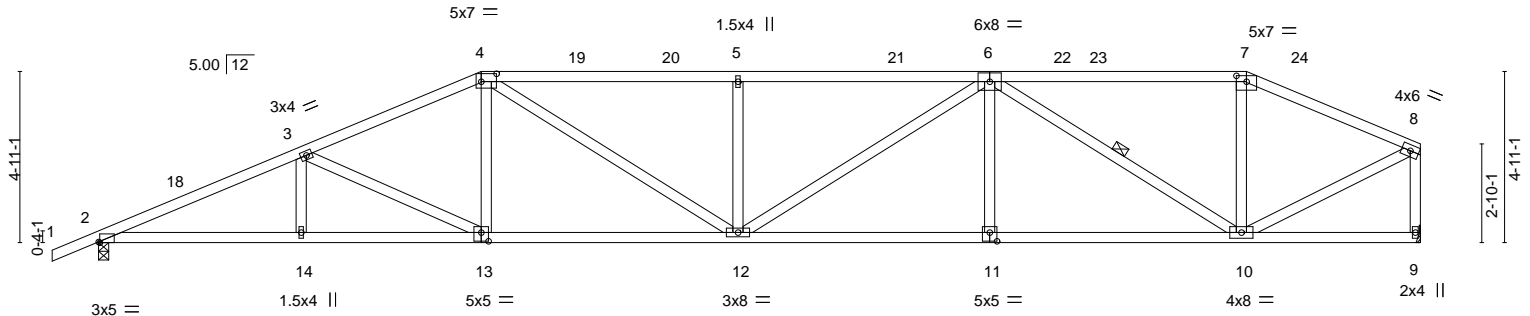


Plate Offsets (X,Y)--	[2:0-0-6,Edge], [4:0-5-4,0-2-12], [7:0-3-8,0-2-1], [11:0-2-8,0-3-0], [13:0-2-8,0-3-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.93	Vert(LL) -0.24	12	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.88	Vert(CT) -0.53	12-13	>850	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.51	Horz(CT) 0.15	9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 203 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 6-10

#### REACTIONS.

(size) 2=0-3-8, 9=Mechanical  
Max Horz 2=119(LC 11)  
Max Uplift 2=33(LC 12)  
Max Grav 2=1596(LC 1), 9=1513(LC 1)

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

TOP CHORD 2-3=-3384/111, 3-4=-2849/132, 4-5=-3186/141, 5-6=-3186/141, 6-7=-1475/97,  
7-8=-1636/84, 8-9=-1476/83  
BOT CHORD 2-14=-160/3072, 13-14=-160/3072, 12-13=-116/2574, 11-12=-100/2705, 10-11=-100/2705  
WEBS 3-13=-552/49, 4-13=0/387, 4-12=-4/850, 5-12=-519/122, 6-12=-19/594, 6-10=-1490/42,  
7-10=0/324, 8-10=-51/1625

#### 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=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 2-5-10, Interior(1) 2-5-10 to 11-0-0, Exterior(2R) 11-0-0 to 16-4-8, Interior(1) 16-4-8 to 33-0-0, Exterior(2E) 33-0-0 to 37-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 33 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29,2022

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

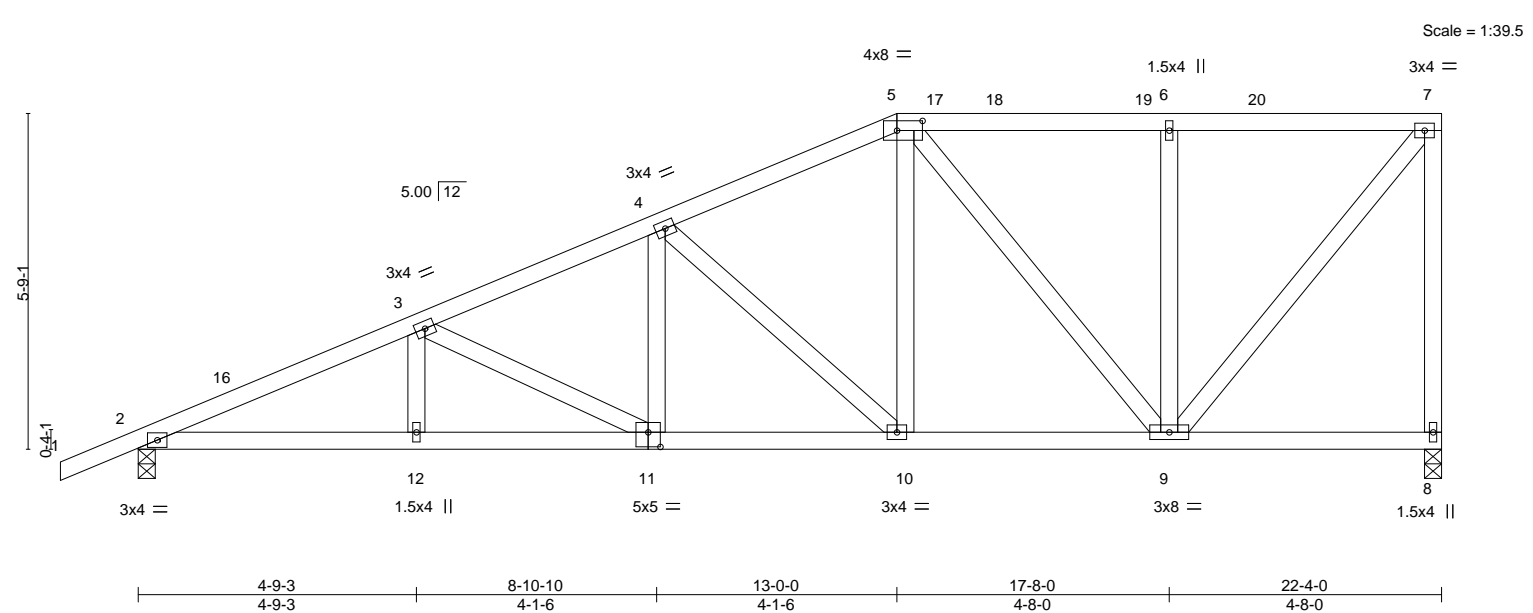
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:49 2022 Page 1  
 ID:16mhBsqQlK6KneDQWuCZCymcPk-3Gx9ON11wyNlllUQPrImFOQ9\_7bJeeYlnImPfyqDq

-1-4-0	4-9-3	8-10-10	13-0-0	17-8-0	22-4-0
1-4-0	4-9-3	4-1-6	4-1-6	4-8-0	4-8-0

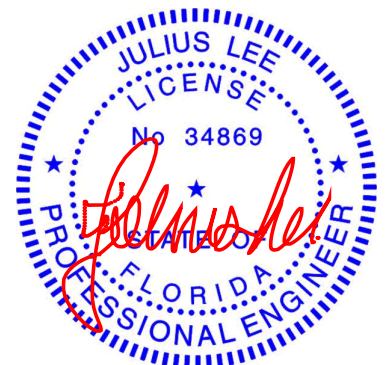


<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals. Rigid ceiling directly applied.
BOT CHORD	2x4 SP No.2	BOT CHORD	
WEBS	2x4 SP No.2		

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

TOP CHORD	2-3=1852/46, 3-4=1442/79, 4-5=1002/94, 5-6=611/95, 6-7=611/95, 7-8=841/88
BOT CHORD	2-12=186/1670, 11-12=186/1670, 10-11=172/1278, 9-10=124/891
WEBS	3-11=428/17, 4-11=0/290, 4-10=530/63, 5-10=0/449, 5-9=431/54, 6-9=307/80, 7-9=73/941

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl. GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-15, Interior(1) 17-2-15 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
- 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 7 lb uplift at joint 8 and 31 lb uplift at joint 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



September 29, 2022



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890174
COLUMBIA_MODEL	A04A	Hip	1	1	Job Reference (optional)	

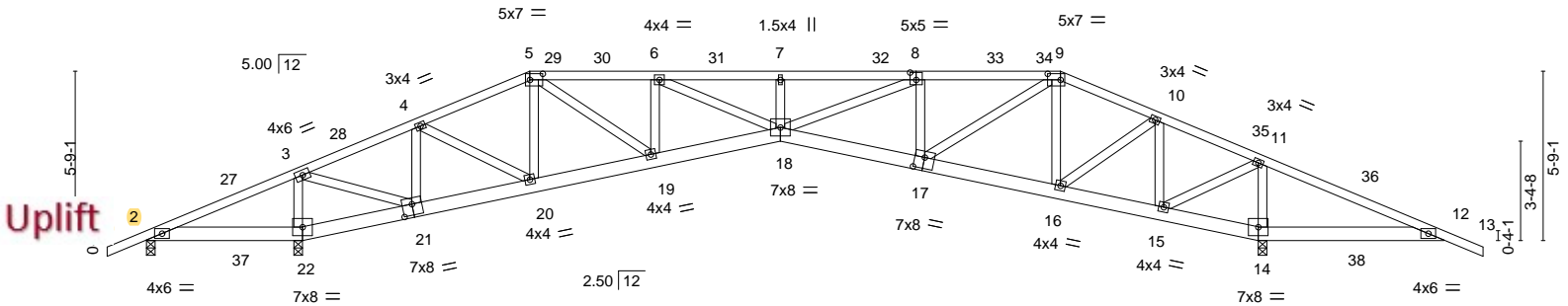
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:51 2022 Page 1

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1-4-0	5-3-8	9-1-12	13-0-0	17-3-0	21-6-0	26-3-0	31-0-0	34-4-4	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	3-10-4	3-10-4	4-3-0	4-3-0	4-9-0	4-9-0	3-4-4	3-4-4	6-3-8	1-4-0

Scale = 1:77.3



5-3-8	9-1-12	13-0-0	17-3-0	21-6-0	26-3-0	31-0-0	34-4-4	37-8-8	38-0-0	44-0-0
5-3-8	3-10-4	3-10-4	4-3-0	4-3-0	4-9-0	4-9-0	3-4-4	3-4-4	0-3-8	6-0-0

<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	0.72	Vert(LL)	-0.23	18	>999	240	MT20	244/190	
TCDL	10.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.45	18	>862	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.20	14	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 264 lb	FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

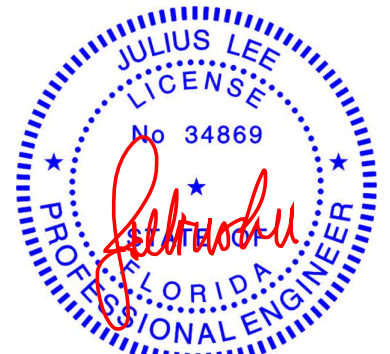
(size) 2=0-3-8, 22=0-3-8, 14=0-3-8  
Max Horz 2=103(LC 11)  
**Max Uplift 2=-765(LC 22), 14=-44(LC 12)**  
Max Grav 22=2601(LC 21), 14=1785(LC 1)

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

TOP CHORD 2-3=0/2533, 3-4=0/337, 4-5=-1007/53, 5-6=-2035/13, 6-7=-3438/0, 7-8=-3438/0, 8-9=-2151/0, 9-10=-1229/0, 10-11=-640/0, 11-12=-544/833  
BOT CHORD 2-22=-2287/0, 21-22=-2490/0, 20-21=-281/52, 19-20=0/888, 18-19=0/2079, 17-18=0/2265, 16-17=0/1148, 15-16=0/593, 14-15=-826/599, 12-14=-708/562  
WEBS 3-22=-1920/27, 3-21=0/2362, 4-21=-1207/9, 4-20=0/1163, 5-20=-662/13, 5-19=0/1418, 6-19=-925/9, 6-18=0/1549, 7-18=-274/69, 8-18=0/1333, 8-17=-787/48, 9-17=0/1230, 9-16=-497/155, 10-16=-143/806, 10-15=-896/168, 11-15=-131/1382, 11-14=-1424/209

#### 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=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 13-0-0, Exterior(2R) 13-0-0 to 19-2-11, Interior(1) 19-2-11 to 31-0-0, Exterior(2R) 31-0-0 to 37-2-11, Interior(1) 37-2-11 to 45-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 765 lb uplift at joint 2 and 44 lb uplift at joint 14.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29,2022

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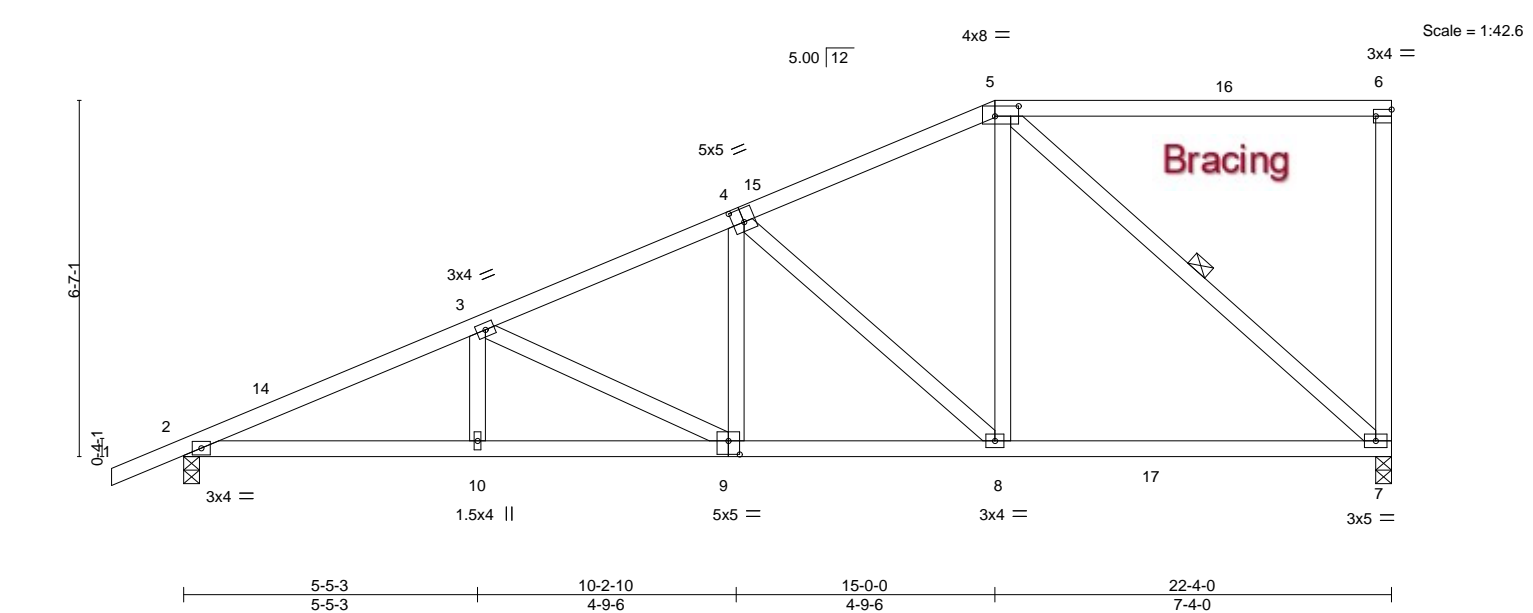
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

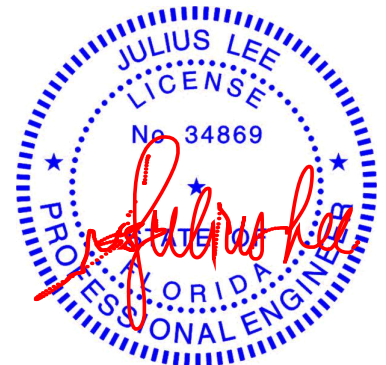
Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:52 2022 Page 1  
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 1-4-0 5-5-3 4-9-6 4-9-6 7-4-0



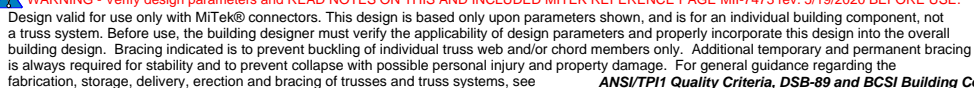
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt                      5-7

**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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 15-0-0, Exterior(2R) 15-0-0 to 19-2-15, Interior(1) 19-2-15 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
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 7 and 30 lb uplift at joint 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



September 29, 2022



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



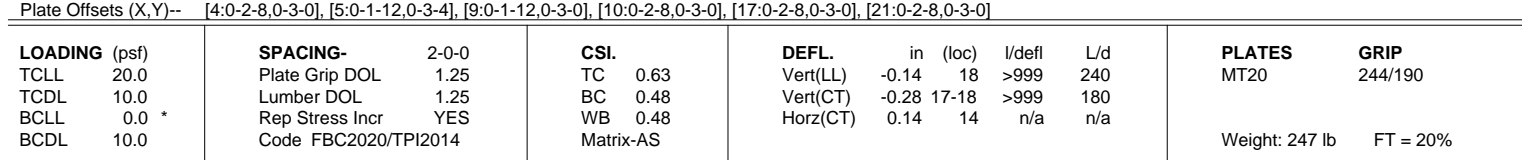
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:54 2022 Page 1

ID:l6mhBsqQl4K6KneDQWuVCZCymPk-QEk2R5p9lU?2OWmOBolXyR7wO8HfJsSUw\_4Y5syYqDl

1-4-0	5-3-8	10-1-12	15-0-0	18-3-0	21-6-0	25-3-0	29-0-0	33-4-0	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	4-10-4	4-10-4	3-3-0	3-3-0	3-9-0	3-9-0	4-4-4	4-4-4	6-3-8	1-4-0

Scale = 1:78.8



**REACTIONS.** (size) 2=0-3-8, 22=0-3-8, 14=0-3-8  
 Max Horz 2=-117(LC 10)  
 Max Uplift 2=-366(LC 22), 22=-3(LC 12), 14=-43(LC 12)  
 Max Grav 22=2119(LC 1), 14=1850(LC 1)

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

TOP CHORD	2-3=0/1428, 3-4=-834/68, 4-5=-1613/49, 5-6=-2096/31, 6-7=-2775/0, 7-8=-2775/0, 8-9=-2039/0, 9-10=-1497/0, 10-11=-869/0, 11-12=-533/816
BOT CHORD	2-22=-1251/0, 21-22=-1408/0, 20-21=0/782, 19-20=0/1479, 18-19=0/2145, 17-18=0/2113, 16-17=0/1373, 15-16=0/804, 14-15=-795/576, 12-14=-680/540
WEBS	3-22=-1699/62, 3-21=0/2122, 4-21=-871/14, 4-20=0/776, 5-20=-364/24, 5-19=0/986, 6-19=-818/0, 6-18=0/903, 8-18=0/893, 8-17=-818/50, 9-17=-14/1019, 9-16=-387/136, 10-16=-131/696, 10-15=-812/165, 11-15=-147/1604, 11-14=-1549/247

**NOTES-**

- 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=44ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 15-0-0, Exterior(2R) 15-0-0 to 21-6-0, Interior(1) 21-6-0 to 29-0-0, Exterior(2R) 29-0-0 to 35-2-11, Interior(1) 35-2-11 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 366 lb uplift at joint 2, 3 lb uplift at joint 22 and 43 lb uplift at joint 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.



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

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



Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890177
COLUMBIA_MODEL	A06	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:55 2022 Page 1

ID:16mhBsqQL4K6KneDQWuCZCymcPk-uQIQfRqnWo7v0gLa15pmUfg9cYcd2GWd9ep6dlyYqDk

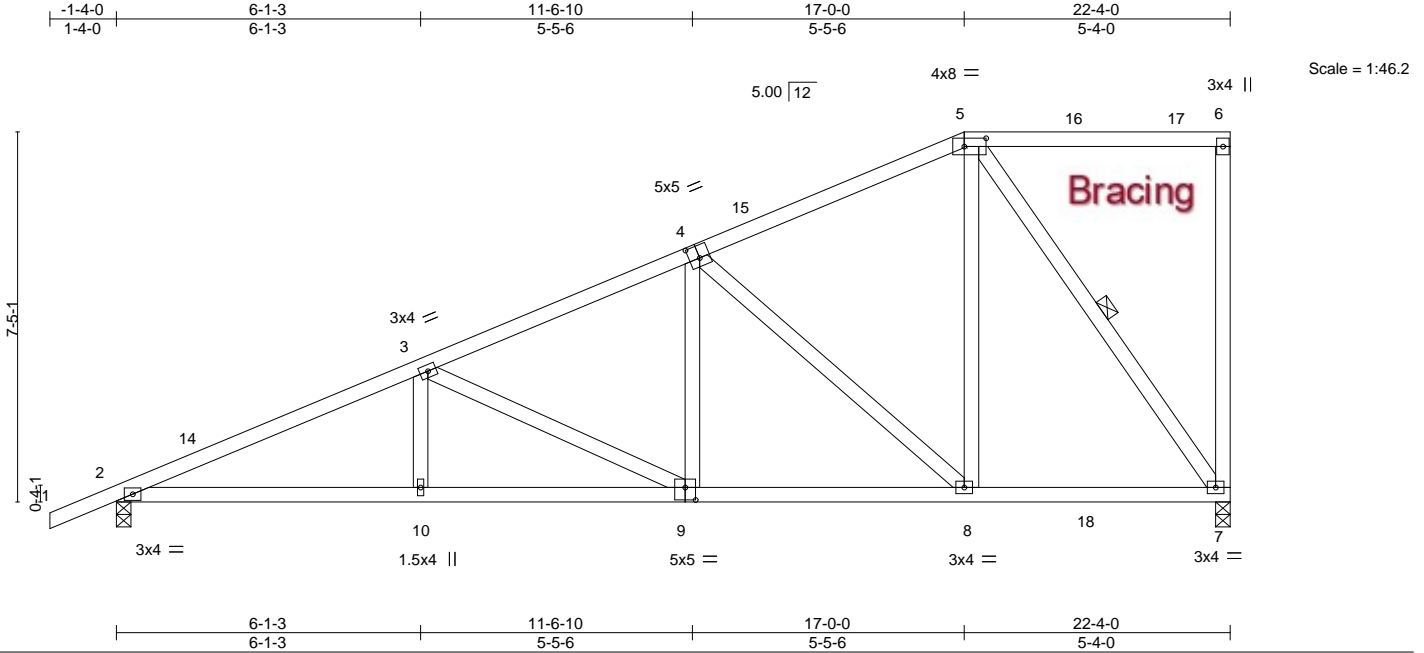


Plate Offsets (X,Y)--		[4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [9:0-2-8,0-3-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0		Plate Grip DOL	1.25	TC 0.35		Vert(LL)	-0.08 9-10	>999	240	MT20	244/190
TCDL 10.0		Lumber DOL	1.25	BC 0.56		Vert(CT)	-0.16 9-10	>999	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.68		Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0		Code	FBC2020/TPI2014	Matrix-AS						Weight: 133 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 5-7

#### REACTIONS.

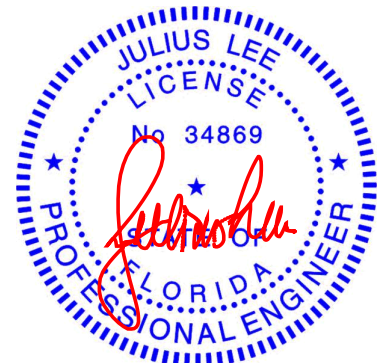
(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=222(LC 11)  
Max Uplift 7=-3(LC 12), 2=-29(LC 12)  
Max Grav 7=1010(LC 17), 2=1054(LC 17)

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

TOP CHORD 2-3=-1967/47, 3-4=-1288/73, 4-5=-662/98  
BOT CHORD 2-10=-196/1847, 9-10=-196/1847, 8-9=-156/1153, 7-8=-112/622  
WEBS 3-10=0/260, 3-9=-746/45, 4-9=0/477, 4-8=-730/57, 5-8=0/736, 5-7=-1011/97

#### 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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 17-0-0, Exterior(2R) 17-0-0 to 21-2-15, Interior(1) 21-2-15 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 3 lb uplift at joint 7 and 29 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29,2022

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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	Columbia Model
COLUMBIA_MODEL	A06A	Hip	1	1	T28890178

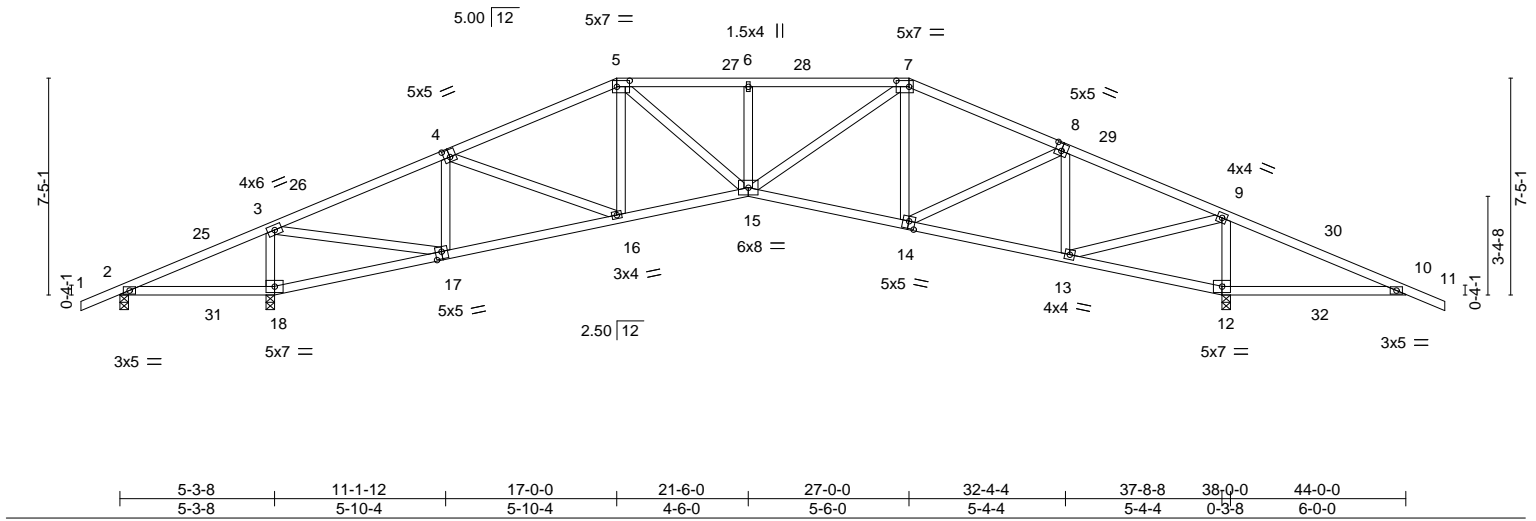
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:57 2022 Page 1

ID:16mhBsQ4K6KneDQWuCZCymcPk-qpQA47r22PNdFzVytWsEa4lQCLHIWDywcylCiByYqDi

1-4-0	5-3-8	11-1-12	17-0-0	21-6-0	27-0-0	32-4-4	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	5-10-4	5-10-4	4-6-0	5-6-0	5-4-4	5-4-4	6-3-8	1-4-0

Scale = 1:78.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	-0.13 15 >999 240	MT20		244/190	
TCDL	10.0	Lumber DOL	1.25	BC	0.52	Vert(CT)	-0.28 14-15 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.13 12 n/a n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-AS							
								Weight: 227 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 18=0-3-8, 12=0-3-8  
Max Horz 2=132(LC 10)  
Max Uplift 2=260(LC 22), 18=10(LC 12), 12=43(LC 12)  
Max Grav 18=2013(LC 1), 12=1865(LC 1)

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

TOP CHORD 2-3=0/1175, 3-4=-1206/46, 4-5=-1771/35, 5-6=-2198/0, 6-7=-2198/0, 7-8=-1620/2,  
8-9=-1119/0, 9-10=-534/805  
BOT CHORD 2-18=-1014/0, 17-18=-1162/0, 16-17=0/1113, 15-16=0/1628, 14-15=0/1500,  
13-14=0/1002, 12-13=-783/577, 10-12=-666/540  
WEBS 3-18=-1639/79, 3-17=0/2186, 4-17=-725/28, 4-16=0/566, 5-15=0/828, 6-15=-309/77,  
7-15=-3/932, 8-14=-128/543, 8-13=-711/173, 9-13=-168/1771, 9-12=-1568/258

#### 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=44ft; eave=5ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 17-0-0, Exterior(2R) 17-0-0 to 23-2-11, Interior(1) 23-2-11 to 27-0-0, Exterior(2R) 27-0-0 to 33-2-11, Interior(1) 33-2-11 to 45-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 260 lb uplift at joint 2, 10 lb uplift at joint 18 and 43 lb uplift at joint 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.



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

September 29, 2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890179
COLUMBIA_MODEL	A07	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:30:58 2022 Page 1

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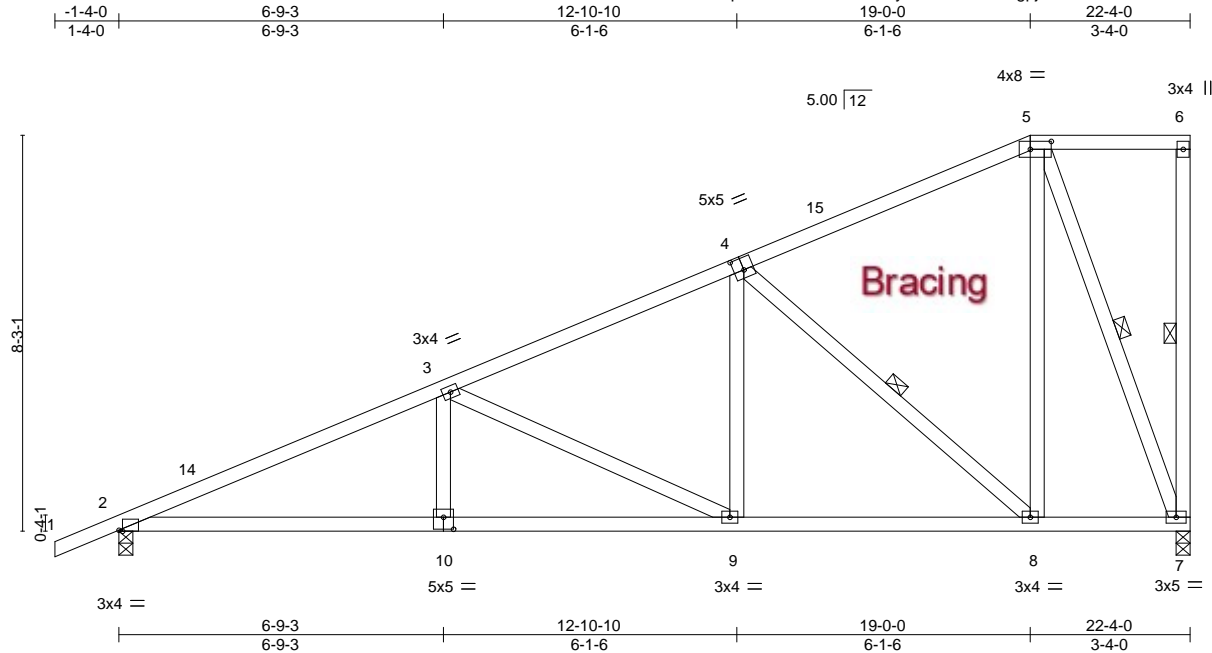


Plate Offsets (X,Y)-- [2:0-0-14,Edge], [4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [10:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.45	Vert(LL)	-0.09 10-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.62	Vert(CT)	-0.21 10-13	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.56	Horz(CT)	0.04 7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 139 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 6-7, 4-8, 5-7

#### REACTIONS.

(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=247(LC 11)  
Max Uplift 7=-5(LC 12), 2=-28(LC 12)  
Max Grav 7=885(LC 1), 2=970(LC 1)

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

TOP CHORD 2-3=-1712/63, 3-4=-1059/62, 4-5=-389/103  
BOT CHORD 2-10=-207/1544, 9-10=-207/1544, 8-9=-138/889, 7-8=-103/327  
WEBS 3-9=-715/77, 4-9=0/492, 4-8=-764/46, 5-8=0/600, 5-7=-874/113

#### 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=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 19-0-0, Exterior(2E) 19-0-0 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 5 lb uplift at joint 7 and 28 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	A07A	Hip	1	1	T28890180

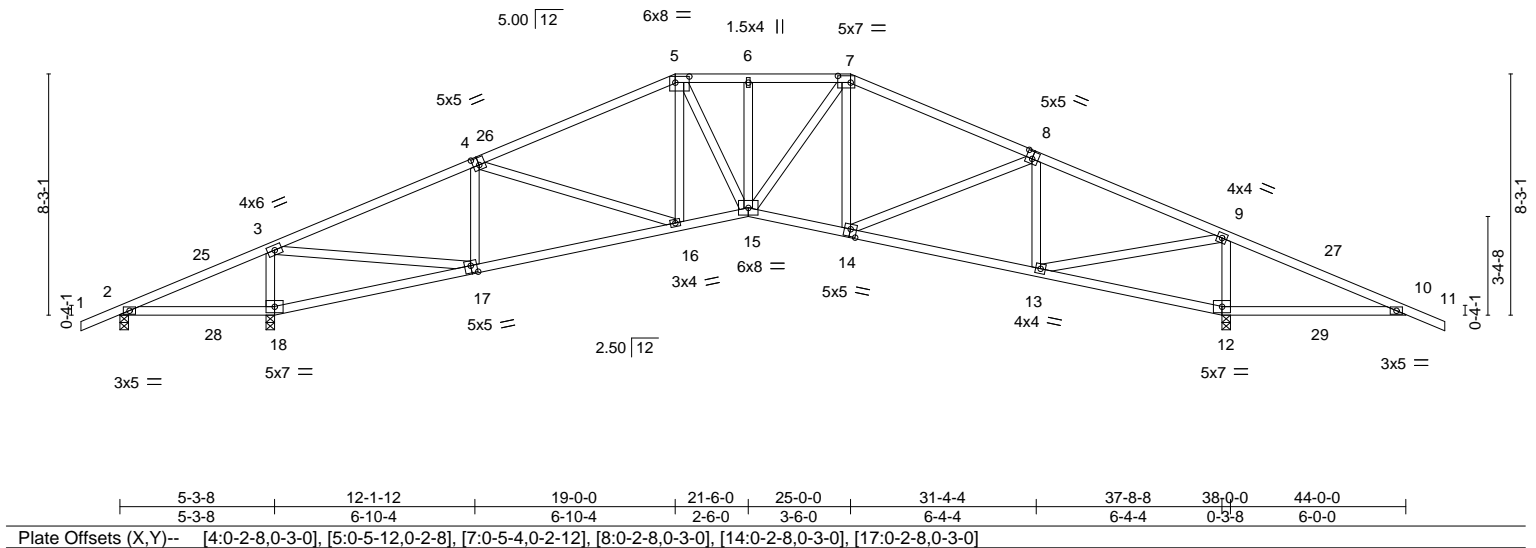
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:00 2022 Page 1

ID:16mhBsqQl4K6KneDQWuCZCymcPk-EO5Ji8uwLKIB6REXYfPxBiNuXZJjahMJwXslWyyYqDf

1-4-0 5-3-8 12-1-12 19-0-0 21-6-0 25-0-0 31-4-4 37-8-8 44-0-0 45-4-0  
1-4-0 5-3-8 6-10-4 6-10-4 2-6-0 3-6-0 6-4-4 6-4-4 6-3-8 1-4-0

Scale = 1:78.8



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.85	Vert(LL)	-0.14 16-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.65	Vert(CT)	-0.32 16-17	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(CT)	0.11 12	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 234 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

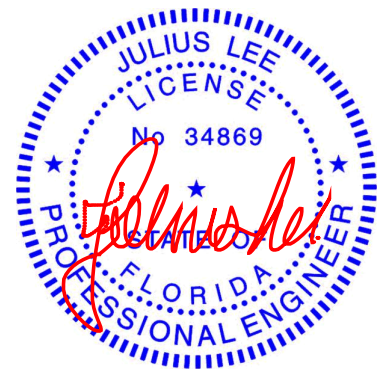
(size) 2=0-3-8, 18=0-3-8, 12=0-3-8  
Max Horz 2=-146(LC 10)  
Max Uplift 2=-164(LC 22), 18=-16(LC 12), 12=-42(LC 12)  
Max Grav 18=1909(LC 1), 12=1879(LC 1)

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

TOP CHORD 2-3=0/919, 3-4=-1506/35, 4-5=-1837/24, 5-6=-1815/18, 6-7=-1815/18, 7-8=-1687/13,  
8-9=-1330/0, 9-10=-534/788  
BOT CHORD 2-18=-773/0, 17-18=-914/0, 16-17=0/1377, 15-16=0/1674, 14-15=0/1548, 13-14=0/1188,  
12-13=-764/577, 10-12=-647/539  
WEBS 3-18=-1579/95, 3-17=0/2191, 4-17=-593/39, 4-16=0/380, 5-15=0/443, 7-15=0/568,  
8-14=-120/388, 8-13=-623/179, 9-13=-183/1911, 9-12=-1584/268

#### 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=44ft; eave=5ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 19-0-0, Exterior(2E) 19-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 31-3-3, Interior(1) 31-3-3 to 45-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 164 lb uplift at joint 2, 16 lb uplift at joint 18 and 42 lb uplift at joint 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.



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

September 29, 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



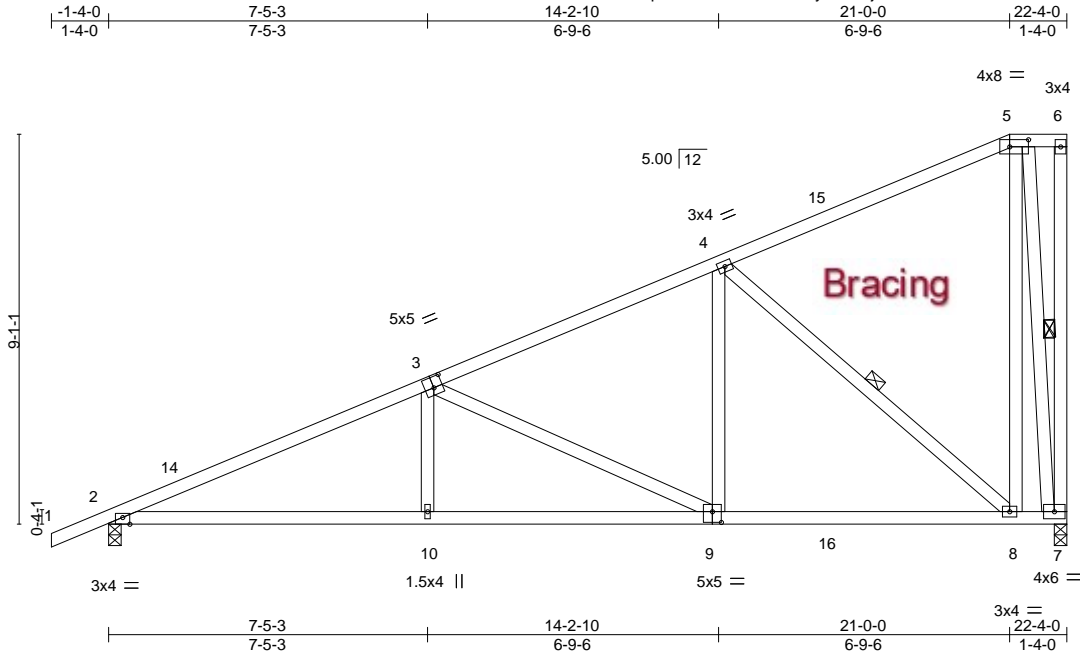
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890181
COLUMBIA_MODEL	A08	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:01 2022 Page 1

ID: l6mhBsQl4K6KneDQWuCZCymcPk-jafhvUvY6et2kbok6MwAkww4CybZSsqWXaGQryyYqDe



Scale = 1:53.7

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.79	Vert(LL)	-0.14 10-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.78	Vert(CT)	-0.26 10-13	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-AS					Weight: 146 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 6-7, 4-8, 5-7

#### REACTIONS.

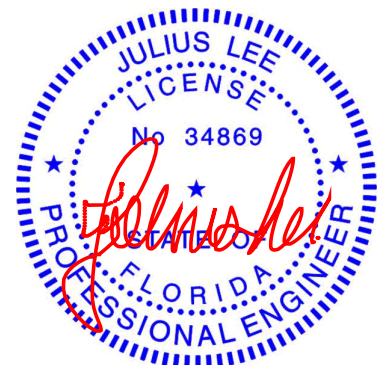
(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=272(LC 11)  
Max Uplift 7=-6(LC 12), 2=-26(LC 12)  
Max Grav 7=1028(LC 17), 2=1057(LC 17)

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

TOP CHORD 2-3=-1802/22, 3-4=-1021/86, 4-5=-298/107  
BOT CHORD 2-10=-157/1684, 9-10=-159/1675, 8-9=-149/949  
WEBS 3-10=0/337, 3-9=-792/12, 4-9=0/561, 4-8=-1030/91, 5-8=-63/968, 5-7=-1174/75

#### 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=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 21-0-0, Exterior(2E) 21-0-0 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 6 lb uplift at joint 7 and 26 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

September 29,2022

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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	Columbia Model
COLUMBIA_MODEL	A08A	Hip	1	1	T28890182

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:03 2022 Page 1

ID:16mhBsQl4K6KneDQWuCZCymcPk-fznRKAwpdF7mzuy6DnyepL?TnmLZwxvp?ulXvryYqDc

1-4-0	5-3-8	10-6-5	15-9-3	21-0-0	23-0-0	27-10-13	32-9-11	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	5-2-13	5-2-13	5-2-13	2-0-0	4-10-13	4-10-13	4-10-13	6-3-8	1-4-0

Scale = 1:78.6

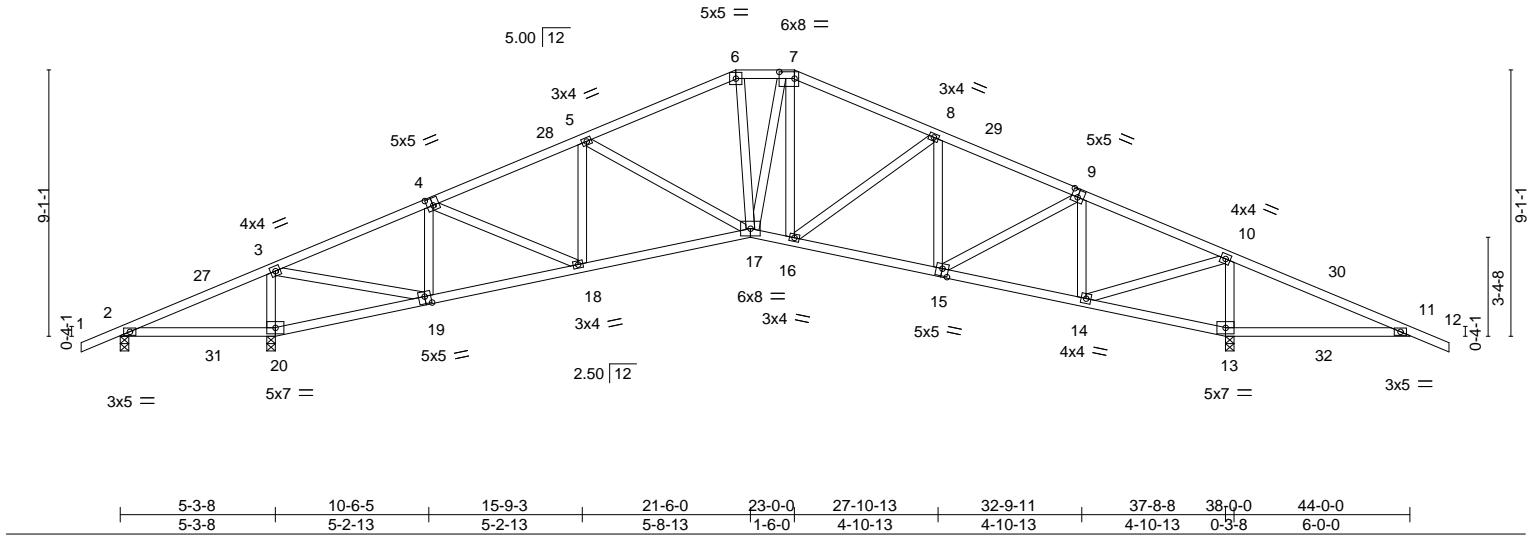


Plate Offsets (X,Y)--	[4:0-2-8,0-3-0], [7:0-6-4,0-2-12], [9:0-2-8,0-3-0], [15:0-2-8,0-3-0], [19:0-2-8,0-3-0]
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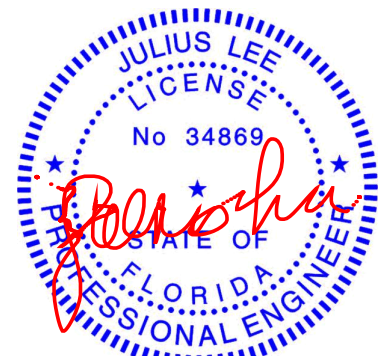
LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.59	Vert(LL)	-0.10	17	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.49	Vert(CT)	-0.22	17-18	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.46	Horz(CT)	0.11	13	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS					Weight: 243 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 20=0-3-8, 13=0-3-8  
Max Horz 2=160(LC 10)  
Max Uplift 2=209(LC 17), 20=11(LC 12), 13=42(LC 12)  
Max Grav 20=1971(LC 1), 13=1870(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=0/1099, 3-4=-1117/41, 4-5=-1770/23, 5-6=-1682/11, 6-7=-1527/20, 7-8=-1622/9,  
8-9=-1588/0, 9-10=-1030/0, 10-11=-534/811  
BOT CHORD 2-20=-947/0, 19-20=-1091/0, 18-19=0/1040, 17-18=0/1647, 16-17=0/1467, 15-16=0/1488,  
14-15=0/923, 13-14=-790/576, 11-13=-673/540  
WEBS 3-20=-1616/61, 3-19=0/2058, 4-19=-777/11, 4-18=0/652, 5-18=-258/37, 6-17=0/424,  
7-17=-20/400, 8-15=-341/129, 9-15=-124/623, 9-14=-763/164, 10-14=-147/1717,  
10-13=-1572/245

- 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=44ft; eave=5ft; Cat. II; Exp B; Encl. GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 21-0-0, Exterior(2E) 21-0-0 to 23-0-0, Exterior(2R) 23-0-0 to 29-2-11, Interior(1) 29-2-11 to 45-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 209 lb uplift at joint 2, 11 lb uplift at joint 20 and 42 lb uplift at joint 13.
  - 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:

September 29,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

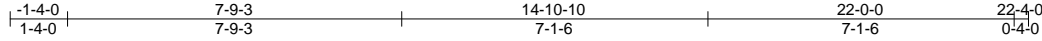
Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890183
COLUMBIA_MODEL	A09	Common	3	1	Job Reference (optional)	

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:04 2022 Page 1

ID:l6mhBsqQl4K6KneDQWuCZCymcPk-79LpYwXROZFdb2XJnUUtMYa9AcUfijjDYV4RHjYqDb



Scale = 1:53.5

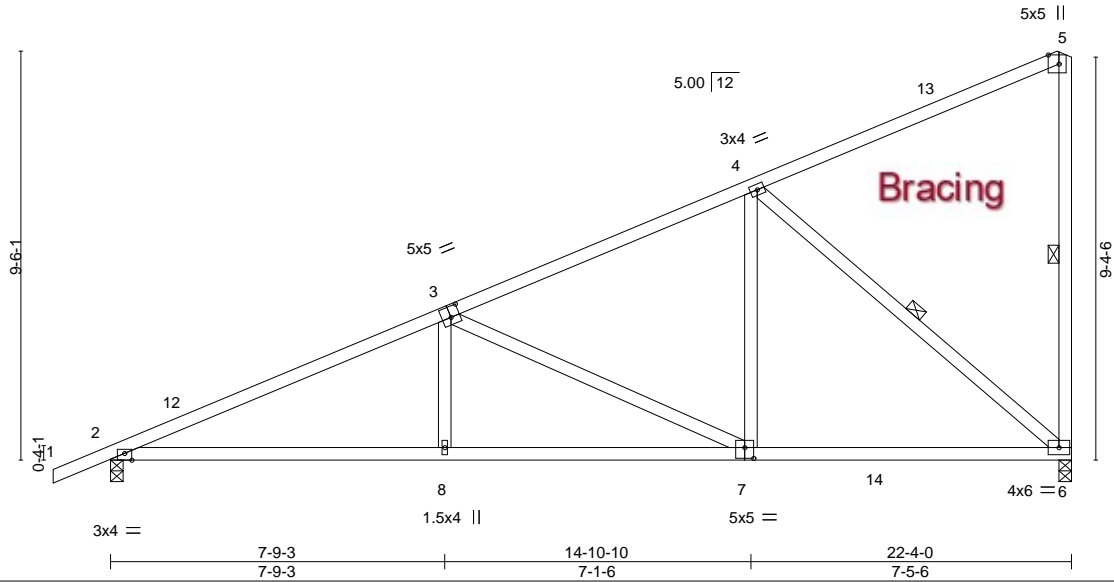


Plate Offsets (X,Y)-- [2:0-2-0,Edge], [3:0-2-8,0-3-0], [5:0-2-9,Edge], [7:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.83	Vert(LL) -0.21 6-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.88	Vert(CT) -0.37 6-7 >714 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.05 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 123 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-6, 4-6

#### REACTIONS.

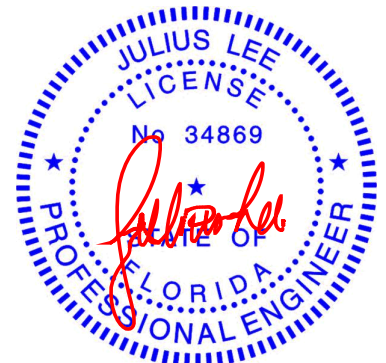
(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=287(LC 11)  
Max Uplift 2=-25(LC 12), 6=-7(LC 12)  
Max Grav 2=1056(LC 17), 6=1039(LC 17)

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

TOP CHORD 2-3=-1768/75, 3-4=-967/114  
BOT CHORD 2-8=-222/1654, 7-8=-224/1645, 6-7=-183/884  
WEBS 3-8=0/354, 3-7=-830/50, 4-7=0/595, 4-6=-1106/149

#### 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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 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.
- 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 25 lb uplift at joint 2 and 7 lb uplift at joint 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.



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

September 29,2022

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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	Columbia Model	T28890184
COLUMBIA_MODEL	A10	Roof Special	5	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:06 2022 Page 1

ID: l6mhBsQQL4K6KneDQWuCCZCymcPk-3XSazByhwAWLqMhhuvWLRzd\_hzLm7lUFhs\_BW9yYqDZ

1-4-0	5-3-8	10-10-5	16-5-3	22-0-0	27-6-13	33-1-11	37-8-8	44-0-0	45-4-0
1-4-0	5-3-8	5-6-13	5-6-13	5-6-13	5-6-13	5-6-13	4-6-13	6-3-8	1-4-0

Scale = 1:76.0

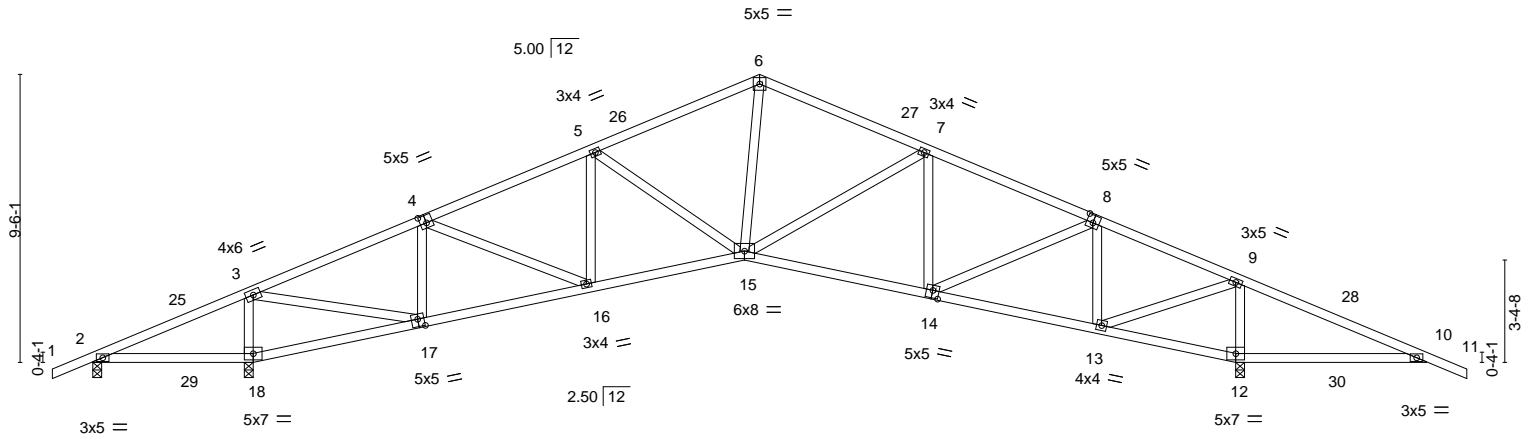


Plate Offsets (X,Y)--	[4:0-2-8,0-3-0], [8:0-2-8,0-3-0], [14:0-2-8,0-3-0], [17:0-2-8,0-3-0]
-----------------------	--

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.61	Vert(LL)	-0.11 14-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.59	Vert(CT)	-0.27 14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.47	Horz(CT)	0.11 12	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 230 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

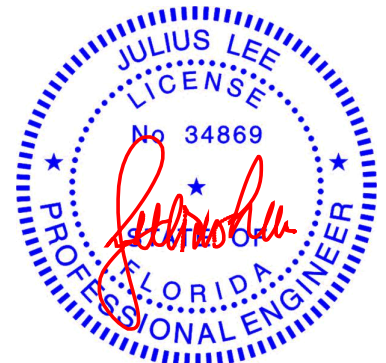
(size) 2=0-3-8, 18=0-3-8, 12=0-3-8  
Max Horz 2=167(LC 10)  
Max Uplift 2=204(LC 17), 18=12(LC 12), 12=42(LC 12)  
Max Grav 18=1963(LC 1), 12=1872(LC 1)

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

TOP CHORD 2-3=0/1074, 3-4=-1204/44, 4-5=-1797/30, 5-6=-1674/22, 6-7=-1590/20, 7-8=-1619/1, 8-9=-958/0, 9-10=-533/816  
BOT CHORD 2-18=-923/0, 17-18=-1067/0, 16-17=0/1115, 15-16=0/1670, 14-15=0/1514, 13-14=0/861, 12-13=-794/576, 10-12=-679/540  
WEBS 3-18=-1611/68, 3-17=0/2100, 4-17=-736/19, 4-16=0/592, 5-15=-272/121, 6-15=0/904, 7-14=-322/141, 8-14=-139/690, 8-13=-786/170, 9-13=-142/1676, 9-12=-1577/243

#### 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=44ft; eave=5ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 3-0-13, Interior(1) 3-0-13 to 22-0-0, Exterior(2R) 22-0-0 to 26-4-13, Interior(1) 26-4-13 to 45-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 204 lb uplift at joint 2, 12 lb uplift at joint 18 and 42 lb uplift at joint 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.



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

September 29, 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	Columbia Model	T28890185
COLUMBIA_MODEL	B01GE	Common Supported Gable	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:08 2022 Page 1  
ID:l6mhBsQl4K6KneDQWuCZCymcPk-?waKNt\_xSnm33gr40KYpWOiR0n9nbIVY8ATla2yYqDX  
28-0-0 29-4-0  
14-0-0 14-0-0 14-0-0 1-4-0

Scale = 1:50.9

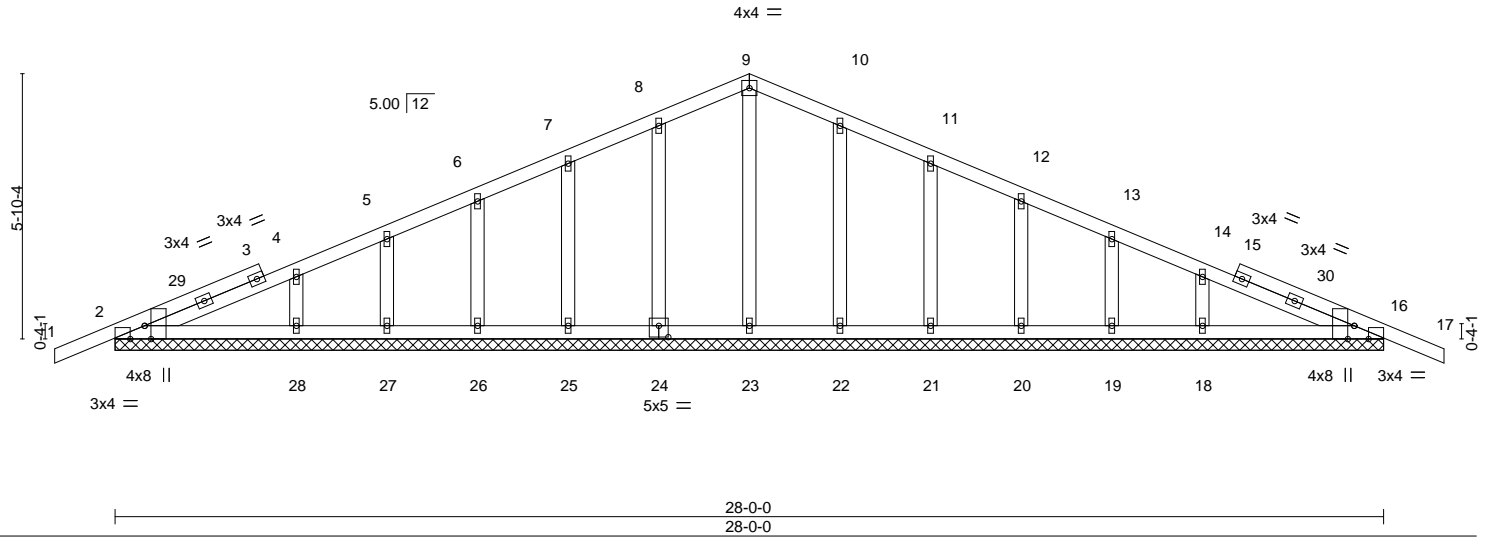


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-3-13,Edge], [16:0-3-8,Edge], [16:0-3-13,Edge], [24:0-2-8,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.11	Vert(LL)	-0.00	16	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.10	Vert(CT)	0.00	16	n/r	120	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	16	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						
								Weight: 149 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 28-0-0.  
(lb) - Max Horz 2=90(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 24, 25, 26, 27, 22, 21, 20, 19  
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 25, 26, 27, 22, 21, 20, 19 except 28=269(LC 1), 18=269(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=28ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 14-0-0, Corner(3R) 14-0-0 to 17-0-0, Exterior(2N) 17-0-0 to 29-4-0 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
- 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, 16, 24, 25, 26, 27, 22, 21, 20, 19.



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

September 29, 2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017







Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890188
COLUMBIA_MODEL	B04	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:12 2022 Page 1

ID:l6mhBsqQl4K6KneDQWuCZCymcPk-uhqrDF1SW0GUYH8rFAdhEt1aONcXwS73nRVjpyYqDT

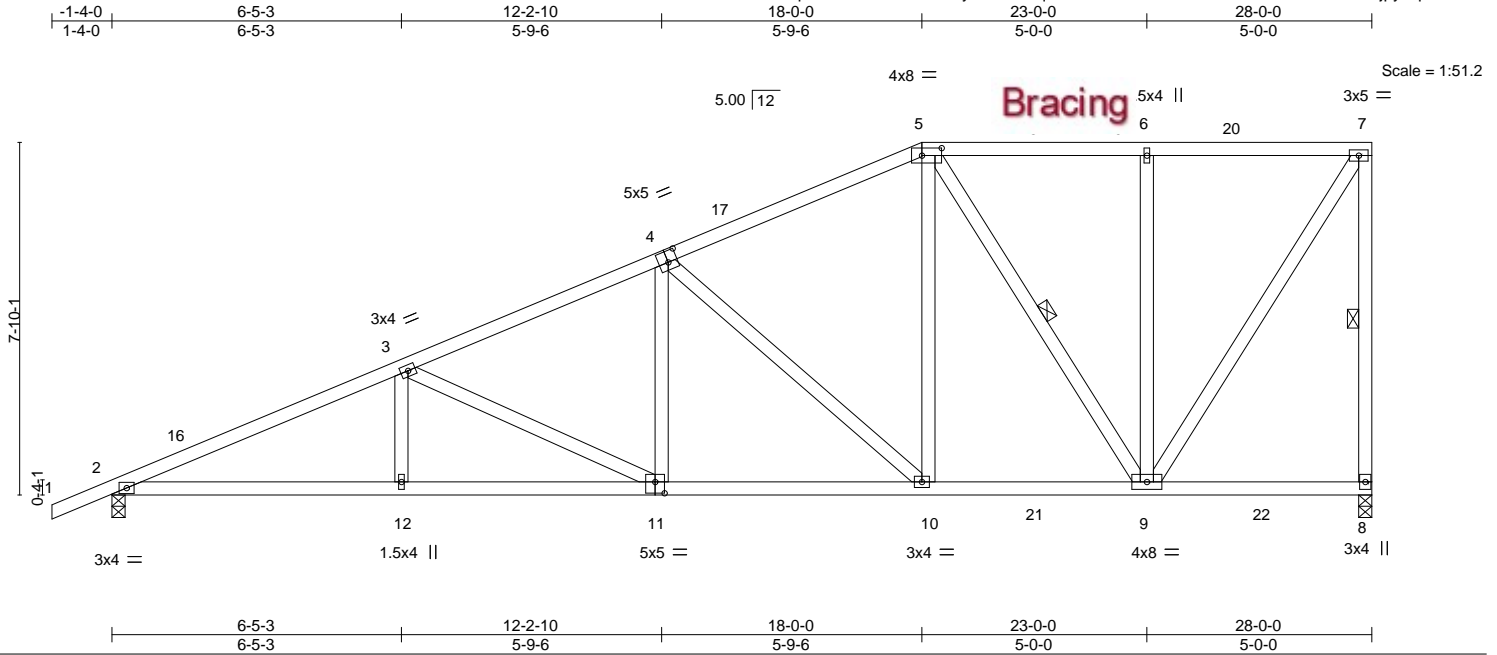


Plate Offsets (X,Y)-- [4:0-2-8,0-3-0], [5:0-5-4,0-2-0], [11:0-2-8,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.46	Vert(LL)	-0.13 11-12	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.69	Vert(CT)	-0.26 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-AS					Weight: 177 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 7-8, 5-9

#### REACTIONS.

(size) 8=0-3-8, 2=0-3-8  
Max Horz 2=235(LC 11)  
Max Uplift 8=-3(LC 12), 2=-29(LC 12)  
Max Grav 8=1282(LC 17), 2=1317(LC 17)

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

TOP CHORD 2-3=-2606/55, 3-4=-1885/83, 4-5=-1201/108, 5-6=-698/114, 6-7=-698/114,  
7-8=-1174/95  
BOT CHORD 2-12=-222/2442, 11-12=-222/2442, 10-11=-181/1705, 9-10=-137/1131  
WEBS 3-12=0/274, 3-11=-792/48, 4-11=0/508, 4-10=-786/57, 5-10=0/770, 5-9=-751/69,  
6-9=-313/83, 7-9=-82/1271

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 27-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 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:

September 29, 2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890189
COLUMBIA_MODEL	B05	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:13 2022 Page 1

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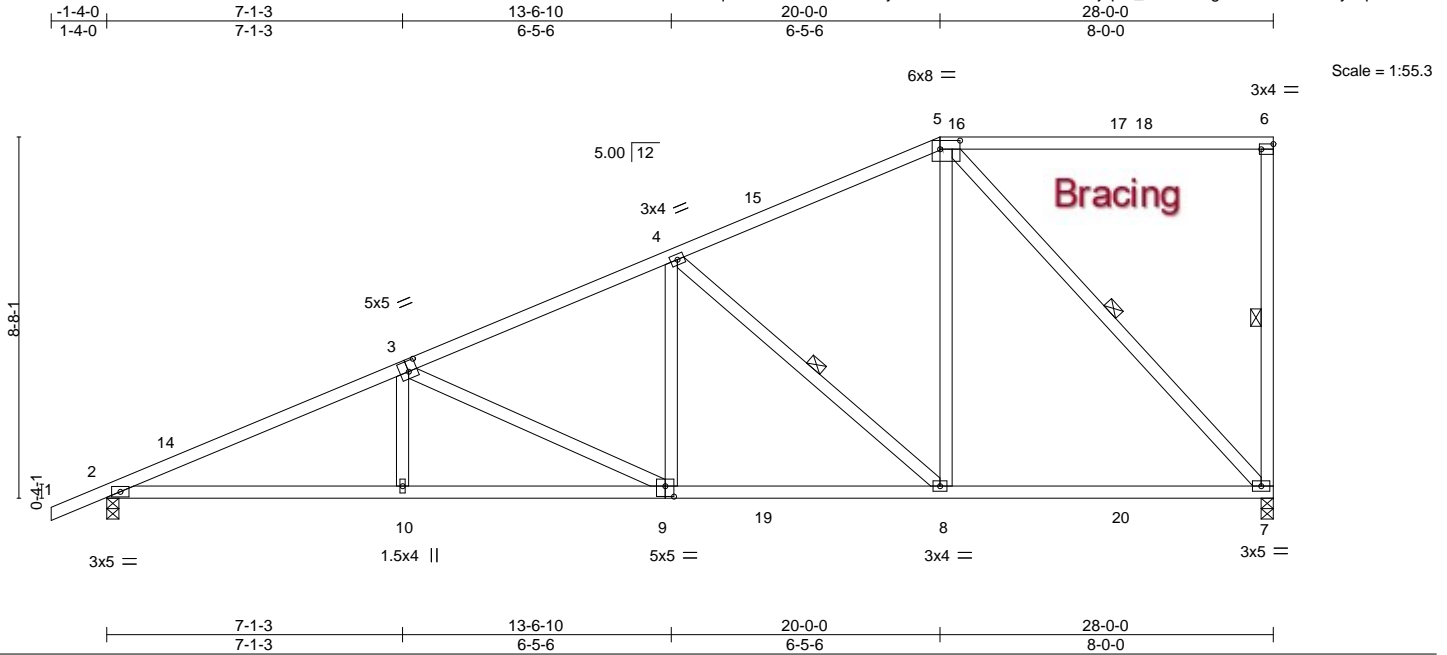


Plate Offsets (X,Y)-- [3:0-2-8,0-3-0], [5:0-5-12,0-2-8], [6:Edge,0-1-8], [9:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.77	Vert(LL)	-0.15 7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.83	Vert(CT)	-0.26 10-13	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.78	Horz(CT)	0.07 7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS					Weight: 163 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 6-7, 4-8, 5-7

#### REACTIONS.

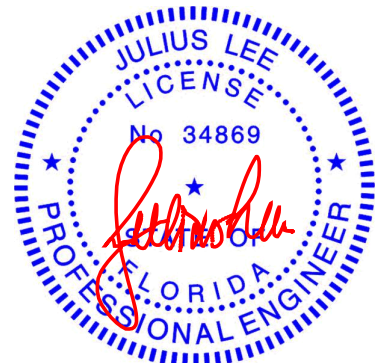
(size) 7=0-3-8, 2=0-3-8  
Max Horz 2=260(LC 11)  
Max Uplift 7=4(LC 12), 2=-28(LC 12)  
Max Grav 7=1301(LC 17), 2=1334(LC 17)

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

TOP CHORD 2-3=-2533/32, 3-4=-1787/93, 4-5=-1039/115  
BOT CHORD 2-10=-201/2361, 9-10=-203/2353, 8-9=-193/1663, 7-8=-129/961  
WEBS 3-10=0/316, 3-9=-752/13, 4-9=0/522, 4-8=-948/83, 5-8=0/976, 5-7=-1341/99

#### NOTES-

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 20-0-0, Exterior(2R) 20-0-0 to 24-2-15, Interior(1) 24-2-15 to 27-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) 7, 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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MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

September 29,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	C01GE	Common Supported Gable	1	1	T28890190

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:14 2022 Page 1  
ID:l6mhBsQl4K6KneDQWuZCZCymcPk-q4xbex3i2dWCobIEMbfEmfyTVCDH?0dQX5wcoiyYqDR



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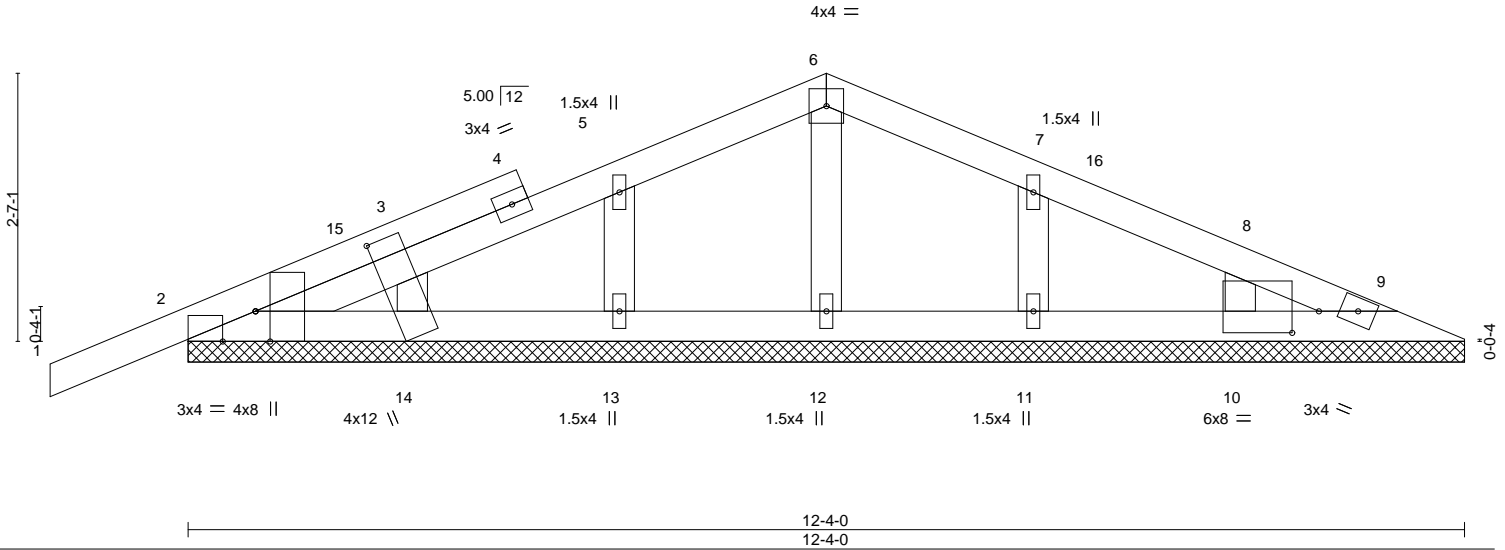


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-3-13,Edge], [10:0-3-2,0-2-8], [14:0-2-1,1-2-13]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25		TC 0.11	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.25		BC 0.03	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.02	Horz(CT)	0.00	9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						Weight: 51 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.

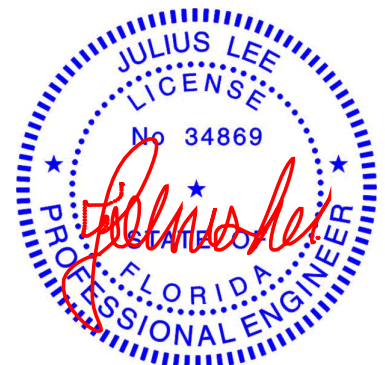
#### REACTIONS.

All bearings 12-4-0.  
(lb) - Max Horz 2=39(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 9, 12, 13, 14, 11, 10

**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) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 6-2-0, Corner(3R) 6-2-0 to 9-2-0, Exterior(2N) 9-2-0 to 11-7-14 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
- 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, 13, 11, 10.



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

September 29,2022

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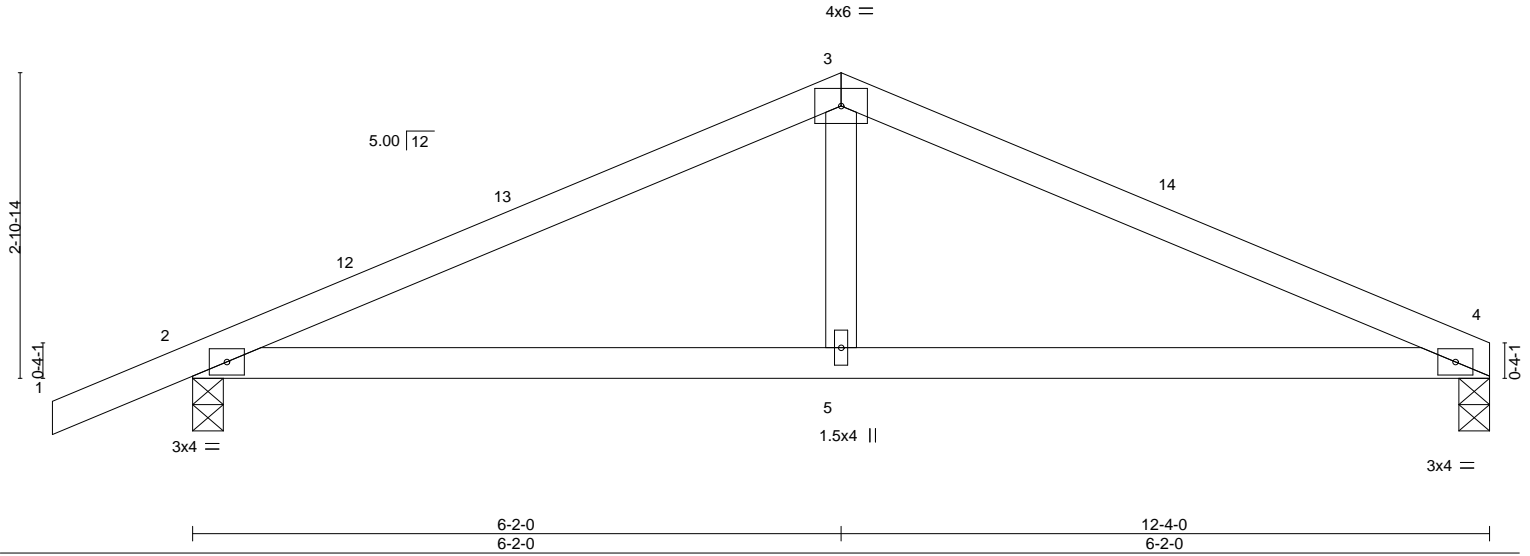


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	C02	Common	2	1	T28890191

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:16 2022 Page 1  
ID:l6mhBsqQL4K6KneDQWuCZCymcPk-mT3M3c4zaFmw1uScU0hir41ln?oyTwNj\_PPjYqDP



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.38	Vert(LL)	-0.05	5-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.40	Vert(CT)	-0.10	5-8	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS						Weight: 44 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.

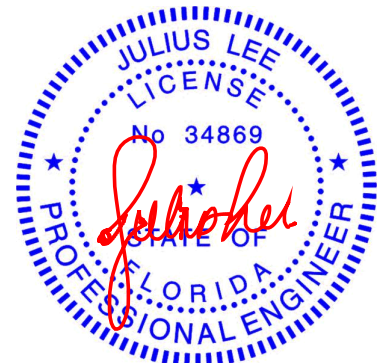
(size) 4=0-3-8, 2=0-3-8  
Max Horz 2=44(LC 11)  
Max Uplift 2=-35(LC 12)  
Max Grav 4=489(LC 1), 2=578(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-780/178, 3-4=-779/187  
BOT CHORD 2-5=-106/681, 4-5=-106/681  
WEBS 3-5=0/279

#### 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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-2-0, Exterior(2R) 6-2-0 to 9-2-0, Interior(1) 9-2-0 to 12-4-0 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.
- 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.
- 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:

September 29, 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

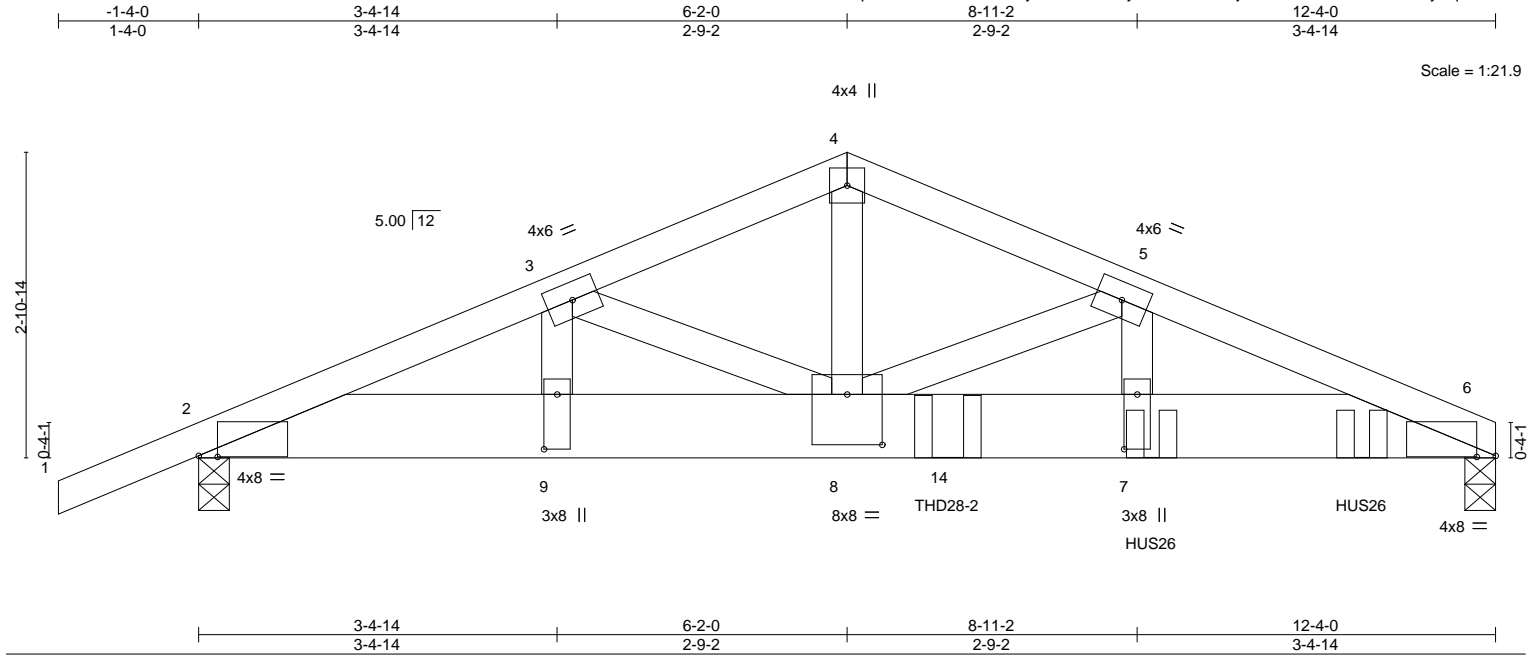


Job	Truss	Truss Type	Qty	Ply	Columbia Model
COLUMBIA_MODEL	C03GIR	Common Girder	1	2	T28890192

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:17 2022 Page 1

ID:l6mhBsqQl4K6KneDQWuCZCymcPk-FtdkGy5bKYunf21o2jDxOlateP8rCGktD38GP1yYqDO



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 0.43	Vert(LL) -0.07 7-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.50	Vert(CT) -0.15 7-8 >995 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.03 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 148 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 6=0-3-8, 2=0-3-8  
Max Horz 2=43(LC 7)  
Max Grav 6=4836(LC 1), 2=2539(LC 1)

#### FORCES.

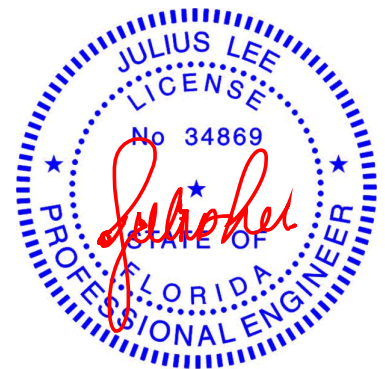
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-5523/0, 3-4=-6163/0, 4-5=-6155/0, 5-6=-9369/0  
BOT CHORD 2-9=0/5058, 8-9=0/5058, 7-8=0/8614, 6-7=0/8614  
WEBS 4-8=0/4466, 5-8=-3262/0, 5-7=0/2576, 3-8=0/799, 3-9=-602/0

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 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.
- 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.
- Use MiTek THD28-2 (With 28-16d nails into Girder & 16-10d nails into Truss) or equivalent at 7-1-8 from the left end to connect truss(es) to front face of bottom chord.
- Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-0-12 from the left end to 11-0-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-60, 4-6=-60, 2-6=-20



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

September 29, 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	Columbia Model
COLUMBIA_MODEL	C03GIR	Common Girder	1	2	T28890192

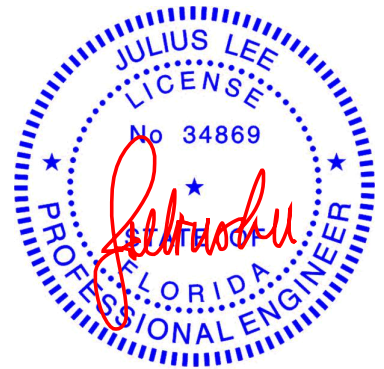
Mayo Truss Company, Inc., Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:18 2022 Page 2  
ID:I6mhBsQl4K6KneDQWuCZCymcPk-jrB6Ul6D5s0eGcc?bQkAwV72OpU4xj\_0SjupxTyYqDN

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 7=-1493(F) 11=-1493(F) 14=-3337(F)



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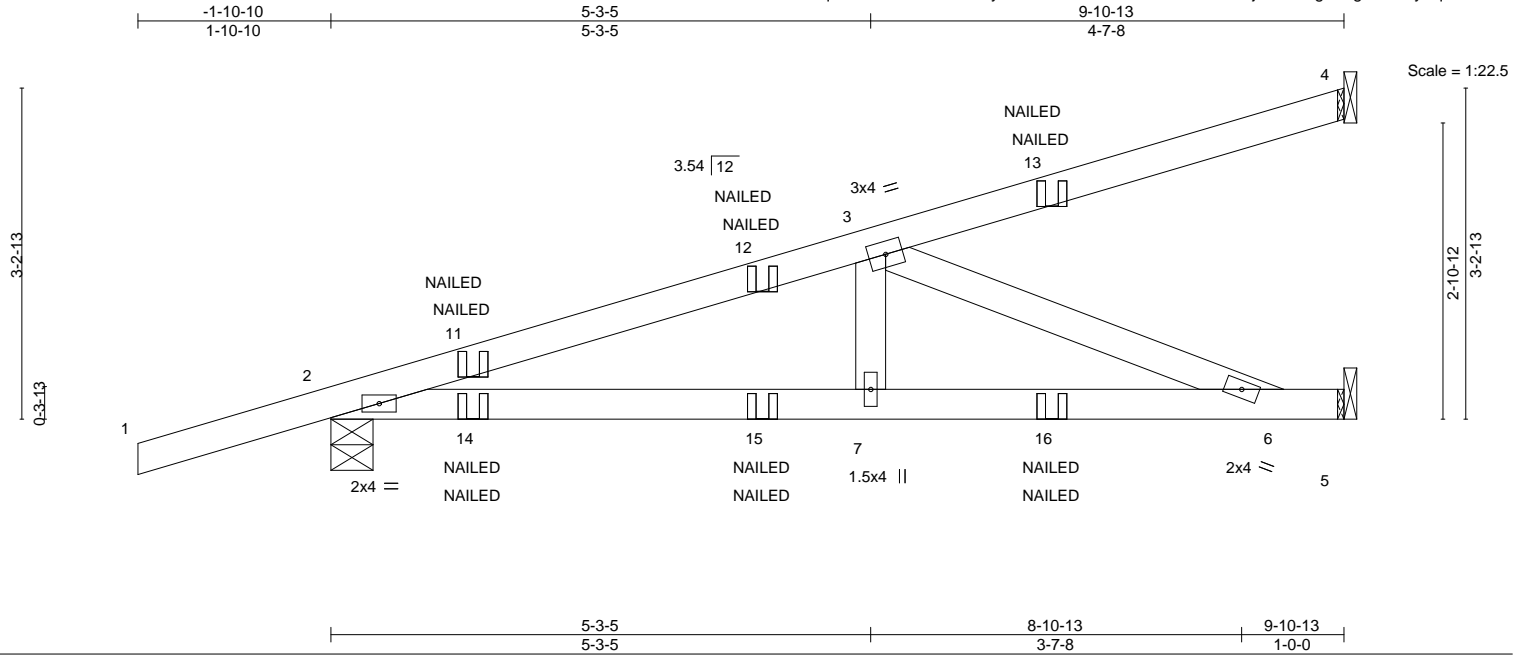


16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890193
COLUMBIA_MODEL	CJ01	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:19 2022 Page 1  
ID:16mhBsqQl4K6KneDQWuCZCymcPk-B2IUhe7rsA8VuMAB98FPTJfEkDmsgEJ9gNdNTvyYqDM



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.46	Vert(LL)	-0.05	6-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.65	Vert(CT)	-0.11	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.24	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 41 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 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 2=0-4-15, 5=Mechanical  
Max Horz 2=90(LC 8)  
Max Uplift 4=30(LC 8), 2=68(LC 8)  
Max Grav 4=143(LC 1), 2=417(LC 1), 5=326(LC 1)

#### FORCES.

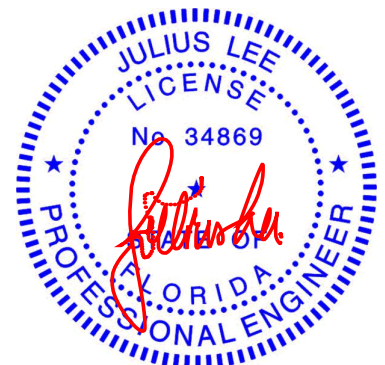
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-850/0  
BOT CHORD 2-7=-15/787, 6-7=-15/787  
WEBS 3-7=0/306, 3-6=-846/16

#### 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); 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) 4, 2.
- "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: 1-4=-60, 5-8=-20  
Concentrated Loads (lb)  
Vert: 11=117(F=58, B=58) 13=-84(F=-42, B=-42) 14=57(F=28, B=28) 15=-12(F=-6, B=-6) 16=-63(F=-32, B=-32)



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September 29, 2022

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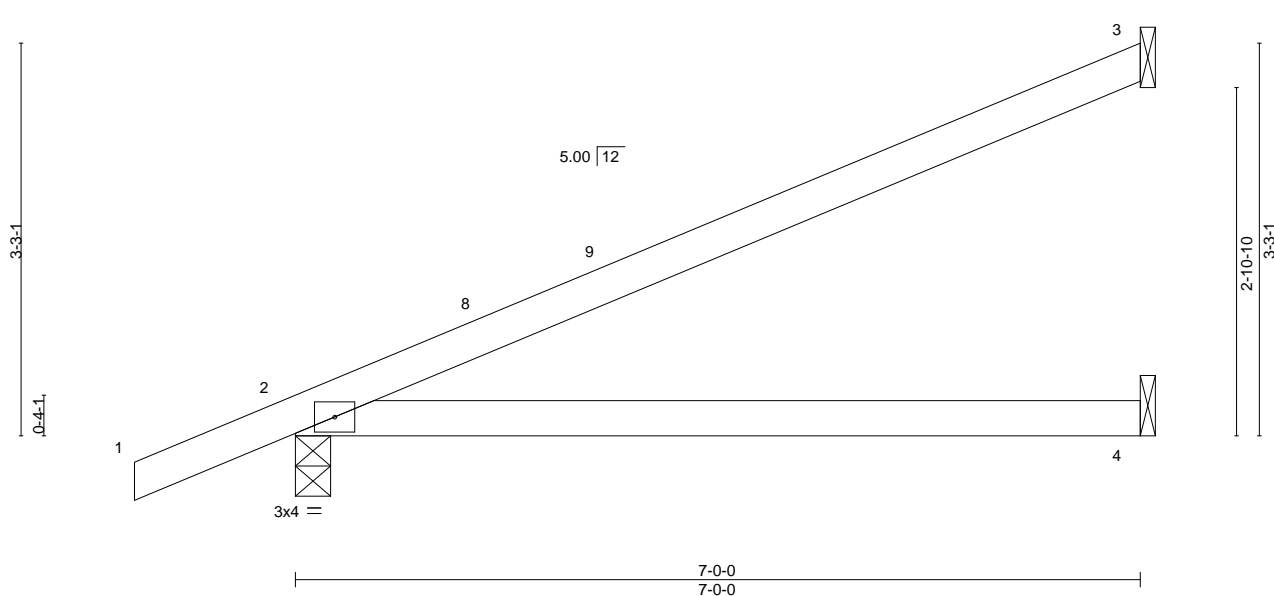
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



16023 Swingley Ridge Rd  
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Mayo Truss Company, Inc., Mayo, FL - 32066, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:20 2022 Page 1  
ID:l6mhBsqQl4K6KneDQWuCZCymcPk-fEJtv\_7TdTGMWWINjrme?wCNhd9SPKMJv1Nw0MyYqDL  
-1-4-0 7-0-0  
1-4-0 7-0-0



<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 0.60	Vert(LL) -0.08 4-7 >992 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.50	Vert(CT) -0.21 4-7 >401 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-AS		Weight: 24 lb	FT = 20%

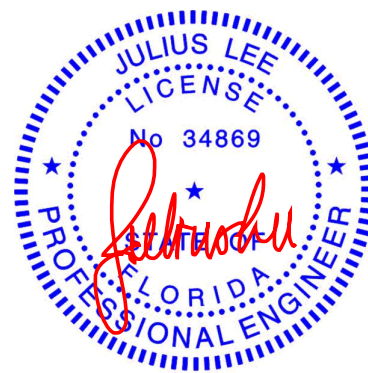
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

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

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=90(LC 12)  
Max Uplift 3=39(LC 12), 2=22(LC 12)  
Max Grav 3=186(LC 1), 2=365(LC 1), 4=124(LC 3)

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

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 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.



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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	Columbia Model	T28890195
COLUMBIA_MODEL	J2	Jack-Open	4	1	Job Reference (optional)	

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

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ID:16mhBsqQl4K6KneDQWuCZCymcPk-7QsF6K85OnPD7fKaGZhtY8ld?0Zn8BcS8h6UYoyYqDK

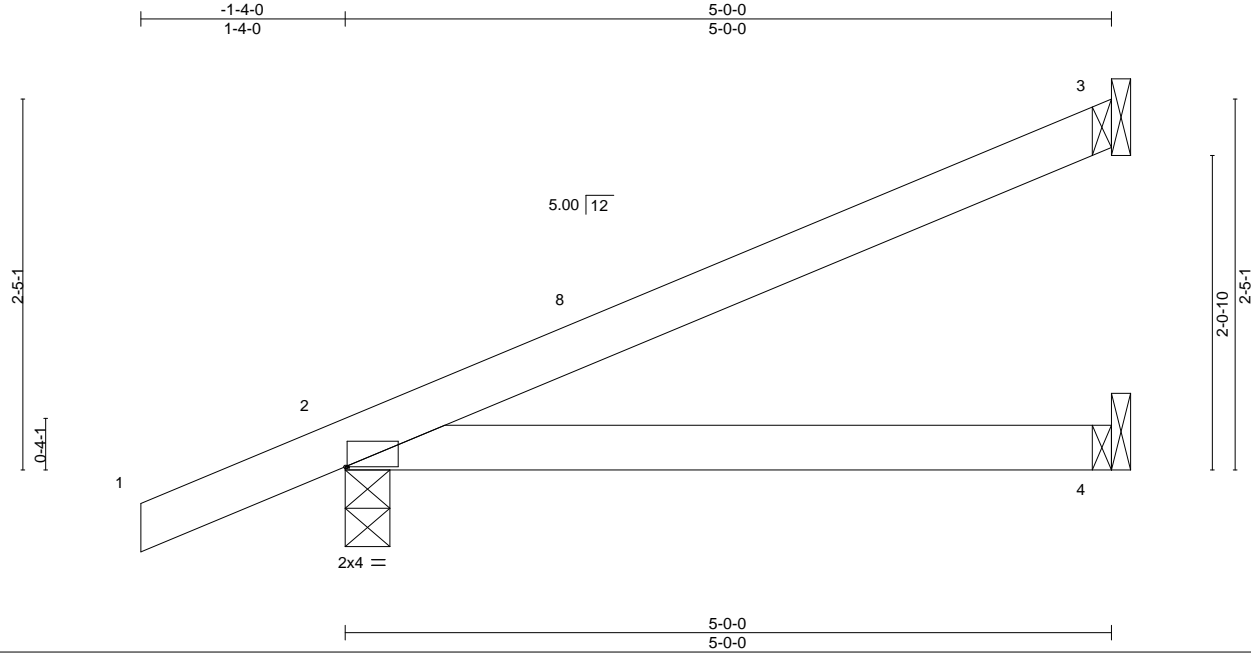


Plate Offsets (X,Y)-- [2:0-0-2,0-0-0]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) I/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.28	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	-0.05	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014		Matrix-AS						Weight: 18 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=70(LC 12)  
Max Uplift 3=-25(LC 12), 2=-28(LC 12)  
Max Grav 3=127(LC 1), 2=288(LC 1), 4=88(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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 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.



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Date:

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Chesterfield, MO 63017

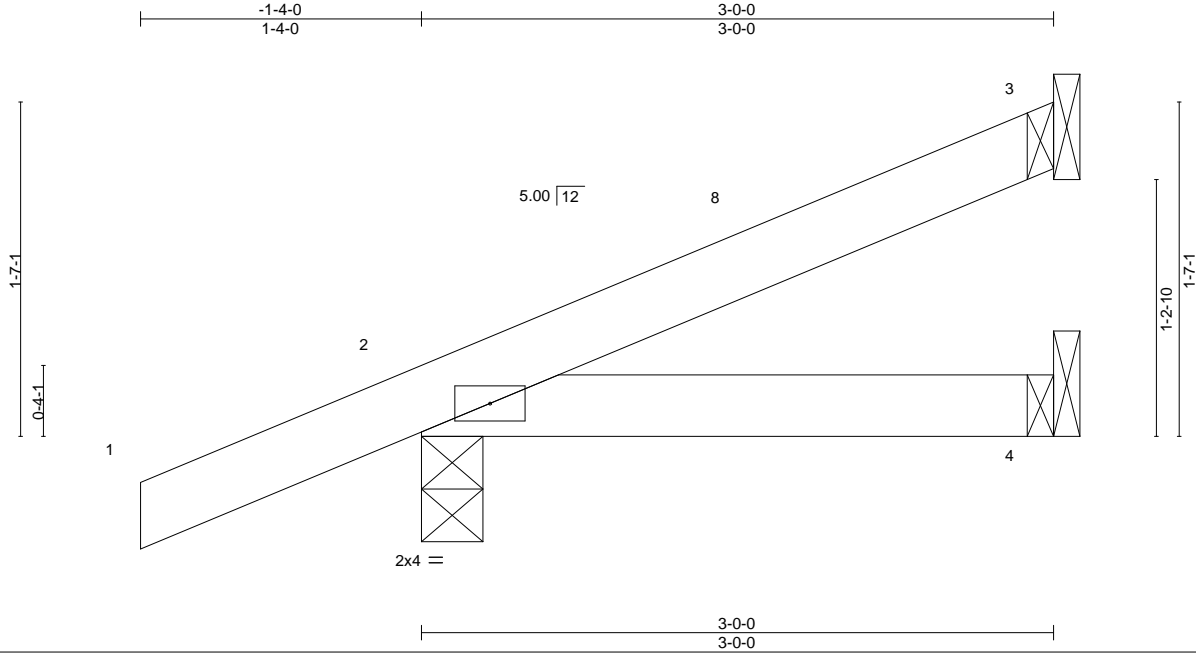


Job	Truss	Truss Type	Qty	Ply	Columbia Model	T28890196
COLUMBIA_MODEL	J3	Jack-Open	4	1	Job Reference (optional)	

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Sep 29 08:31:22 2022 Page 1  
ID:l6mhBsqQl4K6KneDQWuCZCymcPK-bcQdJg9j95X4lpvmqGo65LHrTQwbtescMLs14EyYqDJ



Scale = 1:10.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	Vert(LL)	-0.00	4-7	>999	MT20	244/190
TCDL 10.0	1.25	BC 0.07	Vert(CT)	-0.01	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-MP					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.

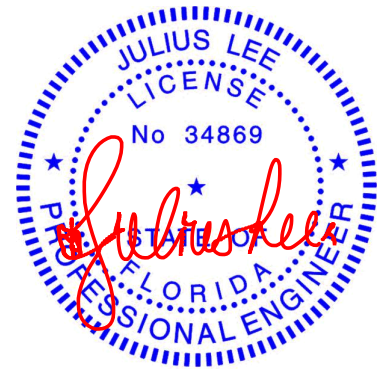
#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=50(LC 12)  
Max Uplift 3=11(LC 12), 2=36(LC 12)  
Max Grav 3=67(LC 1), 2=216(LC 1), 4=50(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) -1-4-0 to 1-8-0, Interior(1) 1-8-0 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.



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

September 29,2022

**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**



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# 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



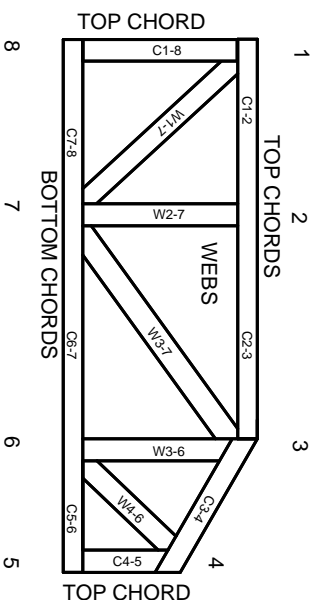
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## 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.