



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

RE: 3264866 - IC CONST. - KING RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: IC CONSTRUCTION Project Name: King Res. Model: Custom  
Lot/Block: N/A Subdivision: N/A  
Address: TBD, TBD  
City: Columbia Cty 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: 37.0 psf Floor Load: N/A psf

This package includes 38 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	T28611337	CJ01	8/24/22	15	T28611351	T01G	8/24/22
2	T28611338	CJ02	8/24/22	16	T28611352	T02	8/24/22
3	T28611339	CJ02A	8/24/22	17	T28611353	T02G	8/24/22
4	T28611340	CJ03	8/24/22	18	T28611354	T03	8/24/22
5	T28611341	CJ04	8/24/22	19	T28611355	T03G	8/24/22
6	T28611342	CJ04A	8/24/22	20	T28611356	T04	8/24/22
7	T28611343	CJ05	8/24/22	21	T28611357	T05	8/24/22
8	T28611344	CJ08	8/24/22	22	T28611358	T06	8/24/22
9	T28611345	EJ01	8/24/22	23	T28611359	T07	8/24/22
10	T28611346	HJ06	8/24/22	24	T28611360	T08	8/24/22
11	T28611347	HJ10	8/24/22	25	T28611361	T09G	8/24/22
12	T28611348	PB01	8/24/22	26	T28611362	T10	8/24/22
13	T28611349	PB01G	8/24/22	27	T28611363	T11	8/24/22
14	T28611350	T01	8/24/22	28	T28611364	T12	8/24/22

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature.

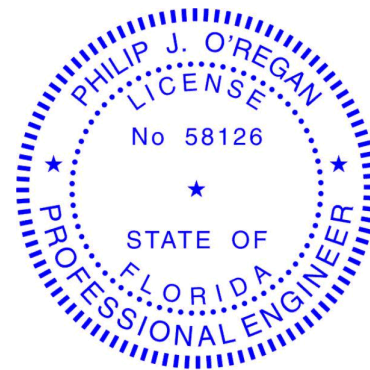
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision based on the parameters  
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: O'Regan, Philip

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.



Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24, 2022

O'Regan, Philip

1 of 2



RE: 3264866 - IC CONST. - KING RES.

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

**Site Information:**

Customer Info: IC CONSTRUCTION    Project Name: King Res.    Model: Custom

Lot/Block: N/A    Subdivision: N/A

Address: TBD, TBD

City: Columbia Cty    State: FL

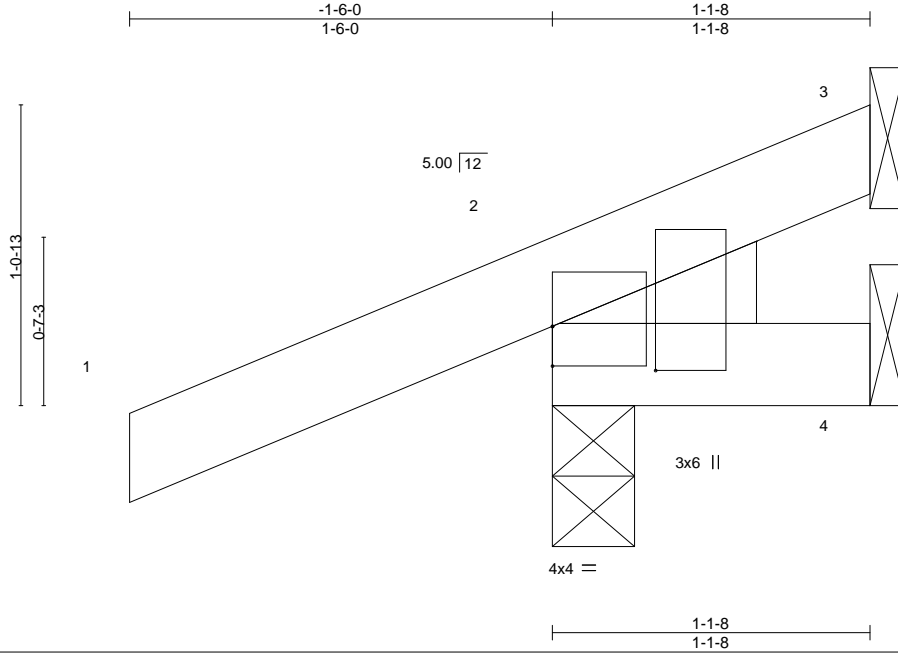
No.	Seal#	Truss Name	Date
29	T28611365	T13	8/24/22
30	T28611366	T13G	8/24/22
31	T28611367	T14	8/24/22
32	T28611368	T15	8/24/22
33	T28611369	T16	8/24/22
34	T28611370	T17	8/24/22
35	T28611371	T18	8/24/22
36	T28611372	T19	8/24/22
37	T28611373	T20	8/24/22
38	T28611374	V01	8/24/22

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611337
3264866	CJ01	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:18 2022 Page 1

ID:QkTwG?1TkZQgnTMu7DT1B0yPHpV-YSu75v3nMDMPvGaiNp\_BCguRRI32Mlg7pegfrCykwB



Scale = 1:8.2

Plate Offsets (X,Y)--		[2:0-0-0,0-1-11], [2:0-1-14,0-4-6]									
LOADING	(psf)	SPACING-		CSL		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	0.00	5	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.01	Vert(CT)	0.00	5	>999	180	GRIP
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 7 lb
											FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-1-8 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=34(LC 12)  
Max Uplift 3=-5(LC 9), 2=-80(LC 8), 4=-11(LC 1)  
Max Grav 3=6(LC 3), 2=177(LC 1), 4=11(LC 16)

**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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

**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



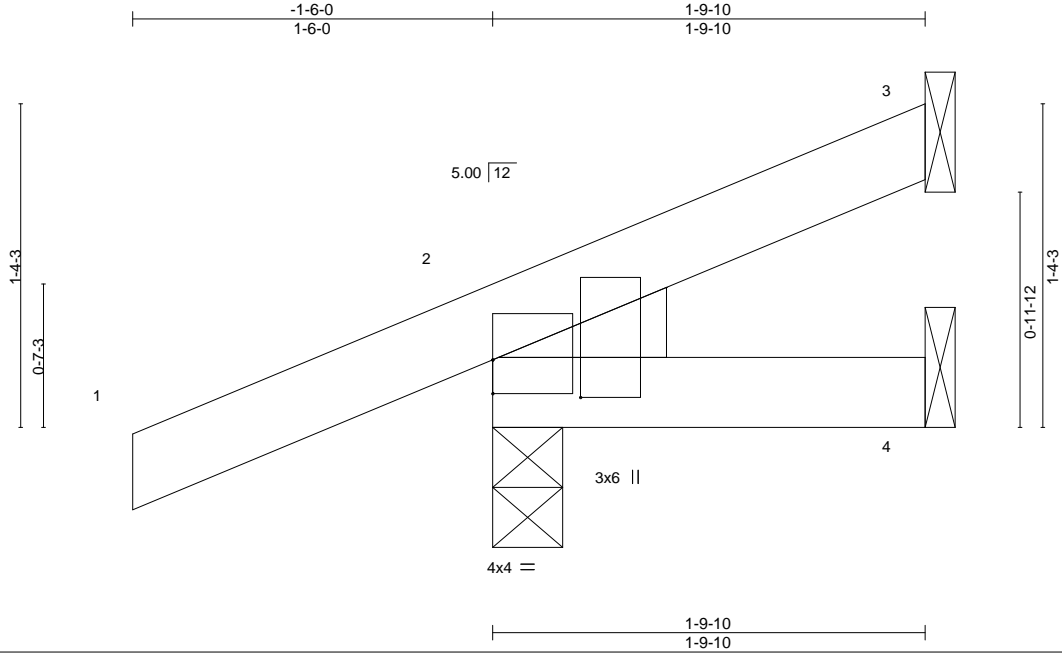
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611339
3264866	CJ02A	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:20 2022 Page 1  
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-Uq0tVb51trc78ak4UE1fH5znx6kQjCAQH9lv5ykw9



Scale = 1:9.6

Plate Offsets (X,Y)--		[2:0-0-0,0-1-11], [2:0-1-14,0-4-6]									
LOADING	(psf)	SPACING-		CSL		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.00	7	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	-0.00	7	>999	180	GRIP
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 9 lb
											FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=44(LC 12)  
Max Uplift 3=15(LC 12), 2=77(LC 8), 4=10(LC 9)  
Max Grav 3=24(LC 1), 2=181(LC 1), 4=26(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

August 24,2022

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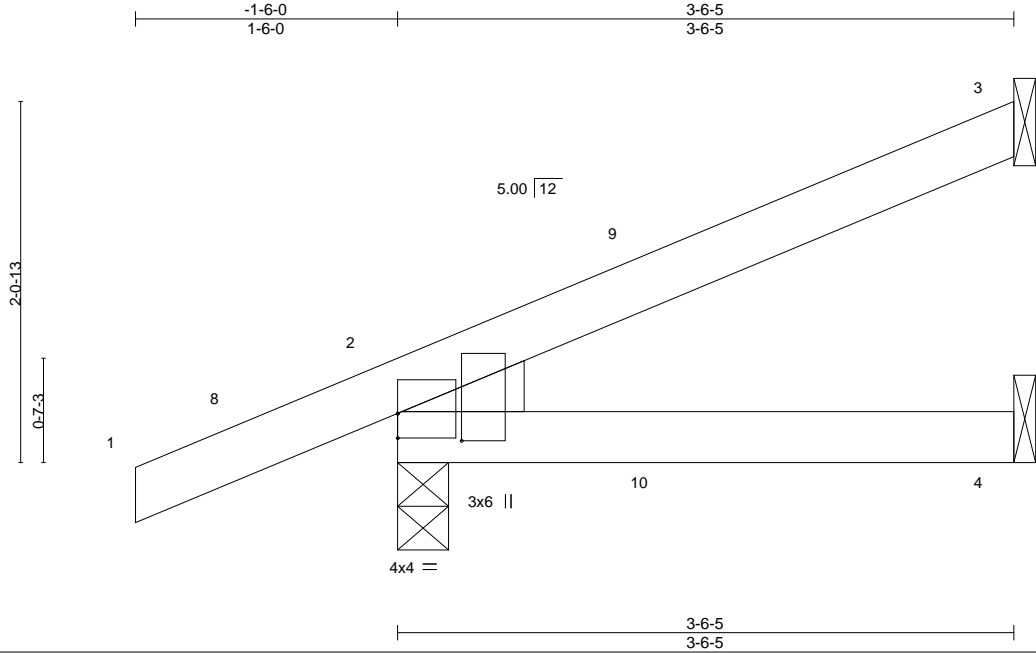


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611340
3264866	CJ03	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:21 2022 Page 1  
ID:QkTwG?1TkZQgnTMu7DT1B0yPHpV-y1aGjx5fe8k\_mjJH2xYuqIWxJV2NZfQZVcuJRXykw8



Scale = 1:13.2

Plate Offsets (X,Y)-- [2:0-0-0,0-1-11], [2:0-1-14,0-4-6]												
<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	0.15	Vert(LL)	0.02	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	0.02	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 15 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-5 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=68(LC 12)  
Max Uplift 3=41(LC 12), 2=87(LC 8), 4=21(LC 9)  
Max Grav 3=73(LC 1), 2=227(LC 1), 4=59(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 3-5-9 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.

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

August 24,2022

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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	IC CONST. - KING RES.	T28611341
3264866	CJ04	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:21 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-y1aGjx5fe8k\_mjJH2xYuqIWwFV1GZfQZVcuJRXykw8

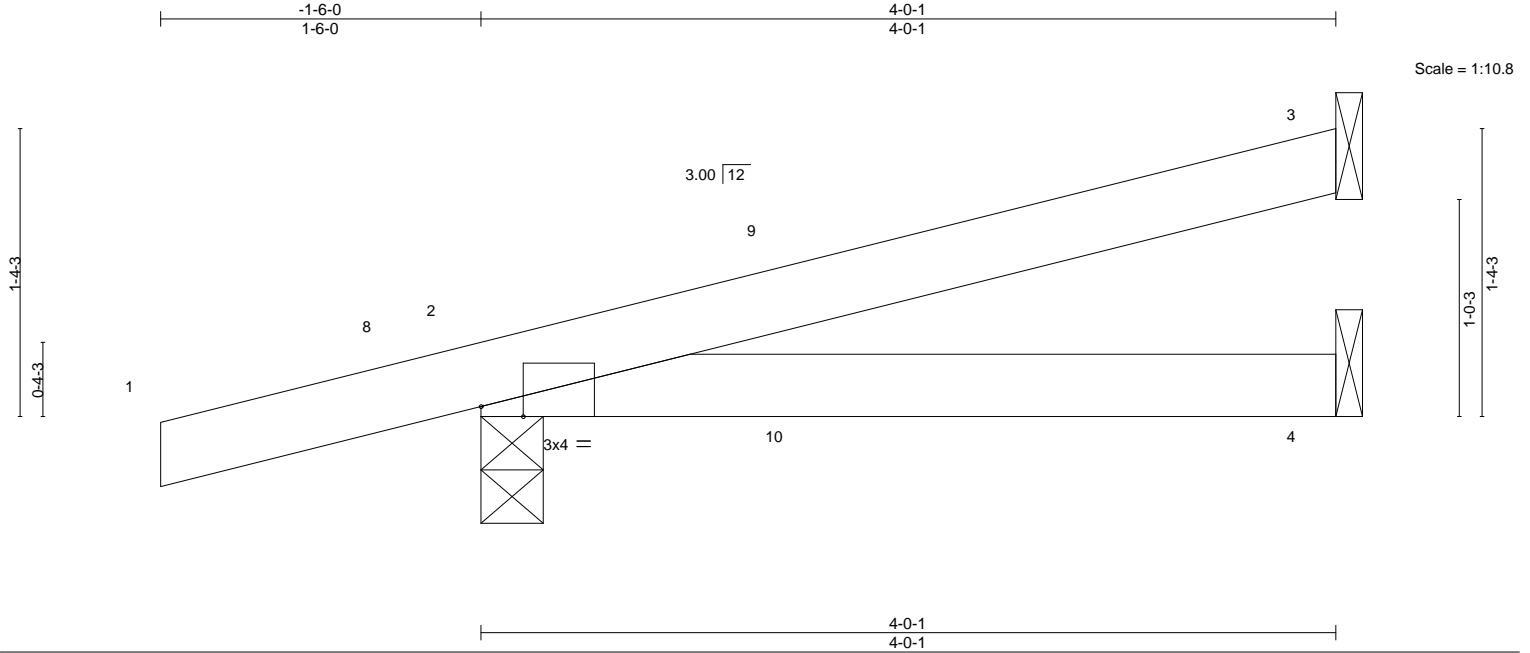


Plate Offsets (X,Y)-- [2:0-2-6,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	0.04	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.24	Vert(CT)	0.03	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 14 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=51(LC 8)  
Max Uplift 3=-43(LC 8), 2=-134(LC 8), 4=-23(LC 8)  
Max Grav 3=84(LC 1), 2=242(LC 1), 4=66(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 3-11-5 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=134.

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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	IC CONST. - KING RES.	T28611342
3264866	CJ04A	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:22 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-QD8ewG6HPSSrOtuTcf37NW37UvP2l6fikGes\_zykwt7

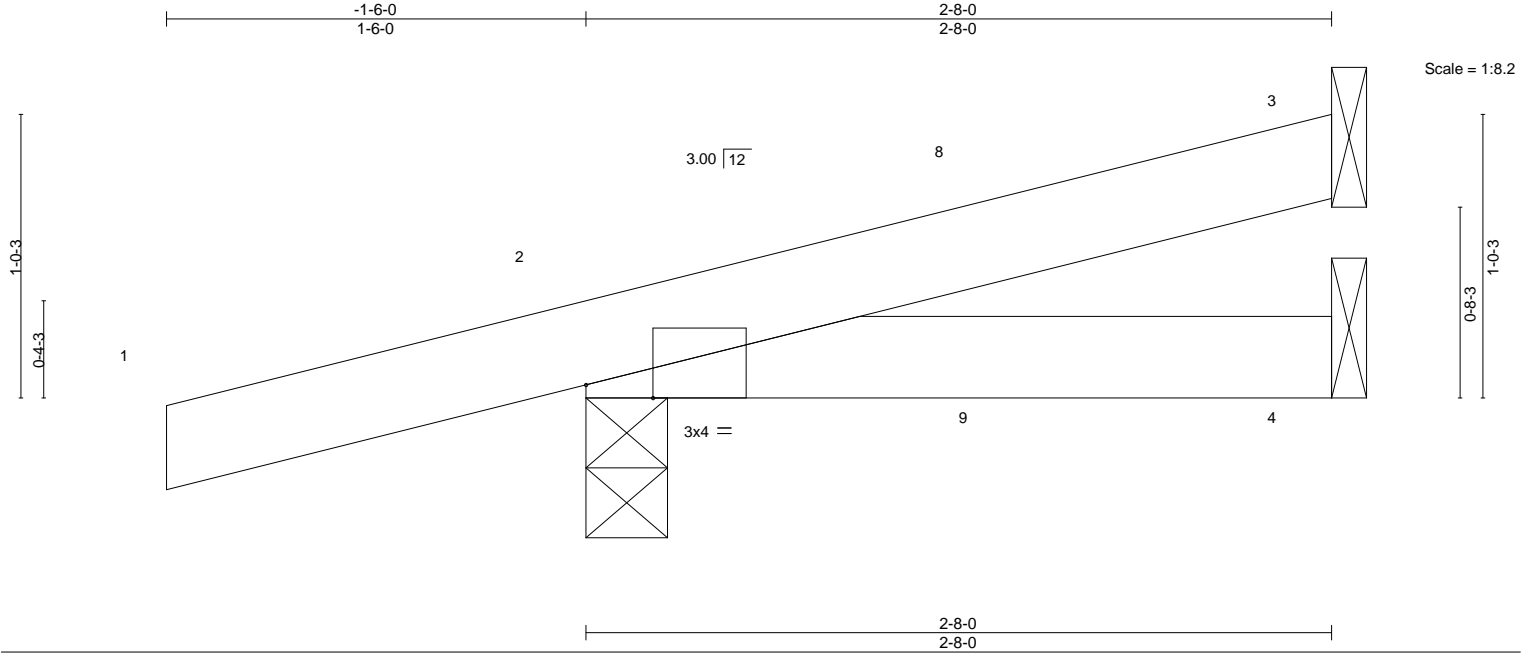


Plate Offsets (X,Y)-- [2:0-2-14,Edge]											
LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	-0.00	7	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	-0.00	7	>999	180	GRIP
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 10 lb
											FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=40(LC 8)  
Max Uplift 3=-23(LC 8), 2=-117(LC 8), 4=-13(LC 9)  
Max Grav 3=47(LC 1), 2=201(LC 1), 4=40(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-7-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=117.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:23 2022 Page 1  
 ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-vPi08c7wAm\_i?1TtAMaMvjbFQJhK1ZvswNPWPYkwT6  
 -1-6-0 4-8-12  
 1-6-0 4-8-12



Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611344
3264866	CJ08	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:24 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-NcGOLy8Yx36ZdB2sj45bSx8MGjzBm\_o?Ba7z2sykwt5



Scale = 1:16.4

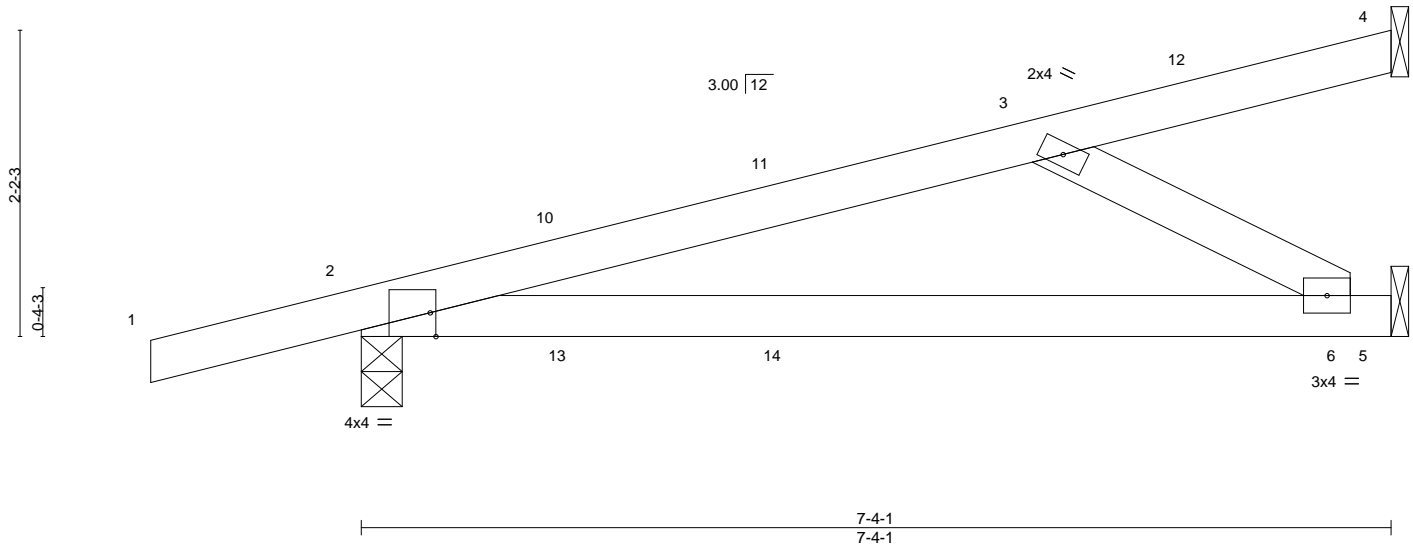


Plate Offsets (X,Y)-- [2:0-0-8,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.49	Vert(LL)	0.23	6-9	>382	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	0.20	6-9	>442	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.00	5	n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 28 lb FT = 20%

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611345
3264866	EJ01	Jack-Open	8	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:25 2022 Page 1

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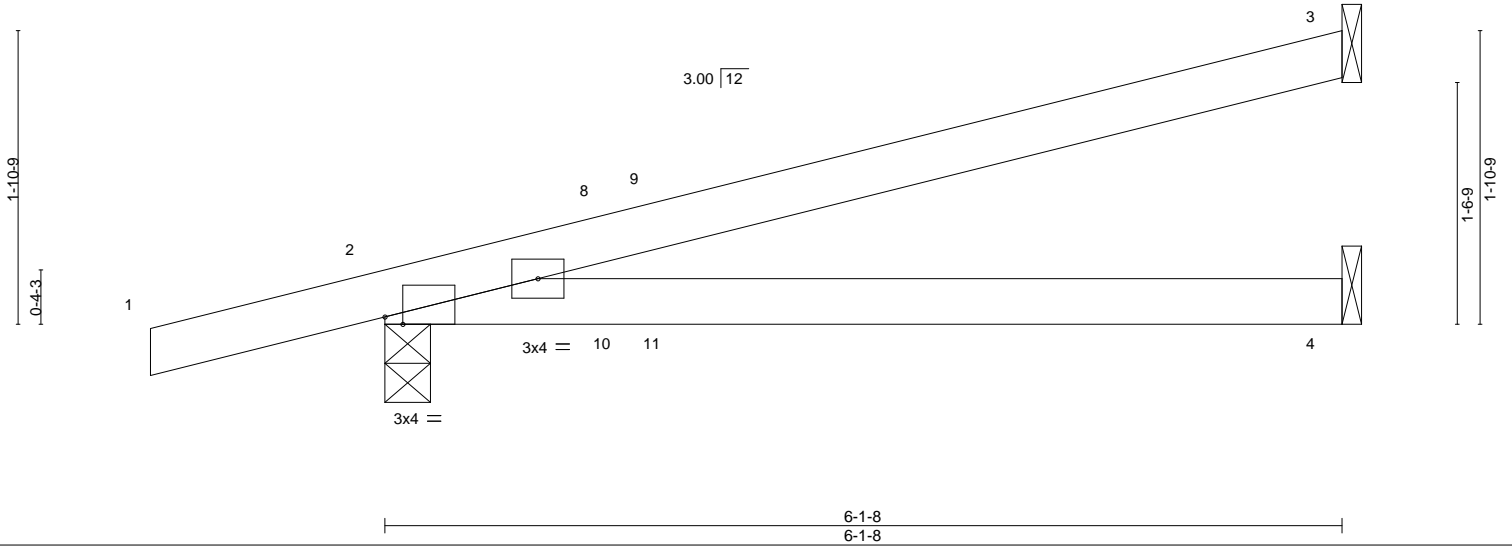


Plate Offsets (X,Y)-- [2:0-1-6,Edge]											
LOADING (psf)		SPACING-		CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	0.19	4-7	>378	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.57	Vert(CT)	0.17	4-7	>436	180	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 21 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 6-0-0 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=69(LC 8)  
Max Uplift 3=-72(LC 8), 2=-167(LC 8), 4=-38(LC 8)  
Max Grav 3=139(LC 1), 2=315(LC 1), 4=106(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-0-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=167.

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Philip J. O'Regan PE No.58126  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

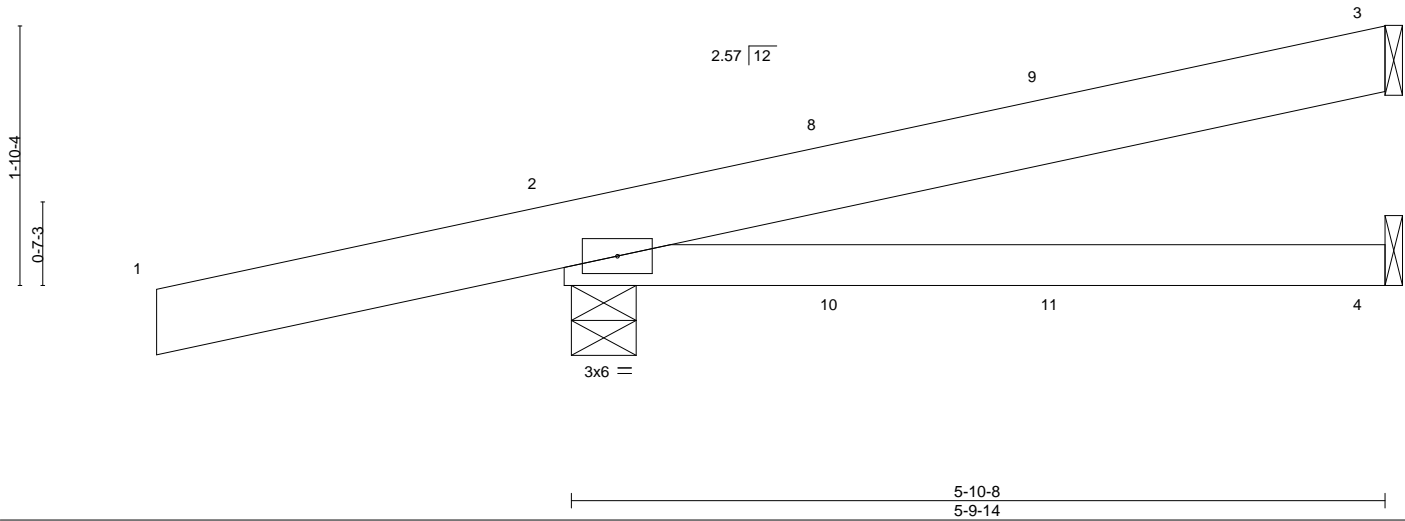
Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611346
3264866	HJ06	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:26 2022 Page 1  
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-J\_N9me9oThMHsVBErV83XMDmbWj6Evflfuc47kykwt3



Scale = 1:16.5



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.24	Vert(LL)	-0.03	4-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.26	Vert(CT)	-0.06	4-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						Weight: 30 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 2=0-5-9  
Max Horz 2=72(LC 19)  
Max Uplift 3=-113(LC 8), 4=-53(LC 5), 2=-238(LC 4)  
Max Grav 3=218(LC 1), 4=154(LC 3), 2=414(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=113, 2=238.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 16 lb down and 24 lb up at 2-0-0, and 10 lb down and 13 lb up at 3-6-15, and 87 lb down and 82 lb up at 5-9-12 on top chord, and 11 lb down and 20 lb up at 2-0-0, and 7 lb down and 13 lb up at 3-6-15, and 67 lb down and 57 lb up at 5-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 4-5=-20  
Concentrated Loads (lb)  
Vert: 3=-87(F) 4=-55(F) 10=-5(F) 11=3(B)

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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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



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Chesterfield, MO 63017

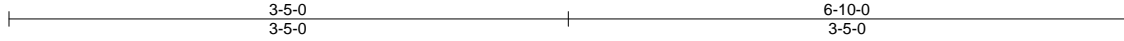


Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611348
3264866	PB01	Piggyback	18	1	Job Reference (optional)	

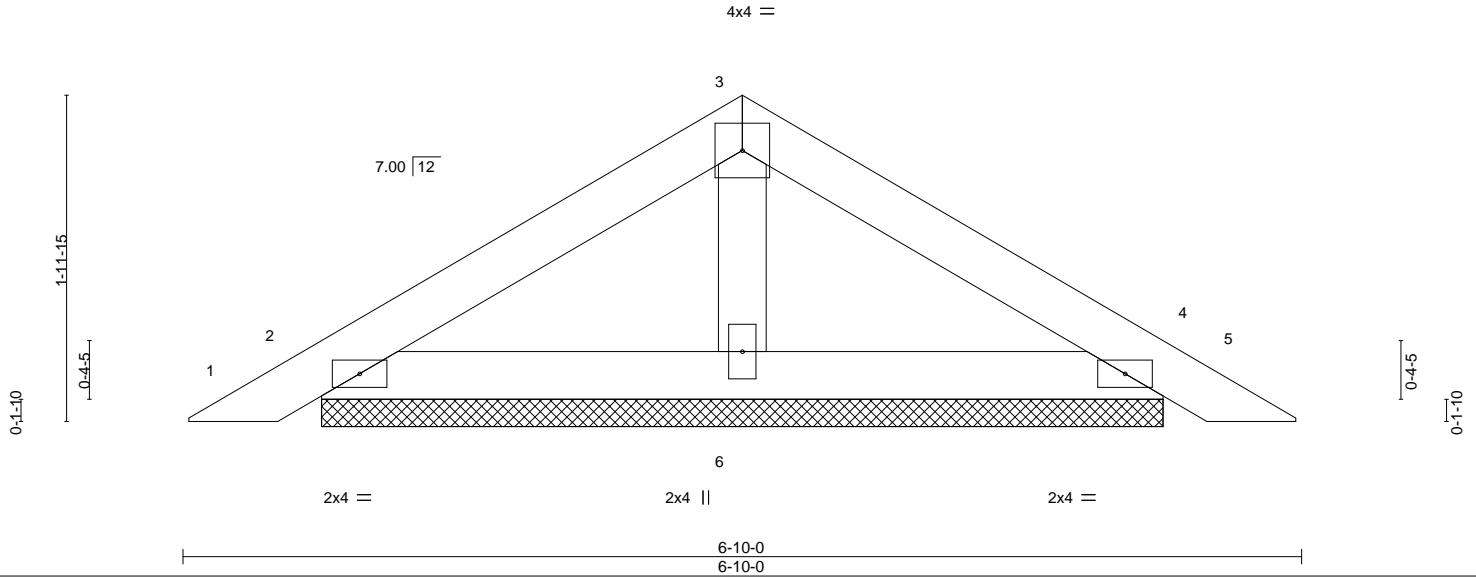
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:28 2022 Page 1

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Scale = 1:14.1



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.09	Vert(LL)	0.00	5	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.07	Vert(CT)	0.00	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-P						Weight: 21 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

#### BRACING-

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

#### REACTIONS.

(size) 2=5-1-11, 4=5-1-11, 6=5-1-11  
Max Horz 2=-40(LC 10)  
Max Uplift 2=-43(LC 12), 4=-48(LC 13), 6=-14(LC 12)  
Max Grav 2=131(LC 1), 4=131(LC 1), 6=177(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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



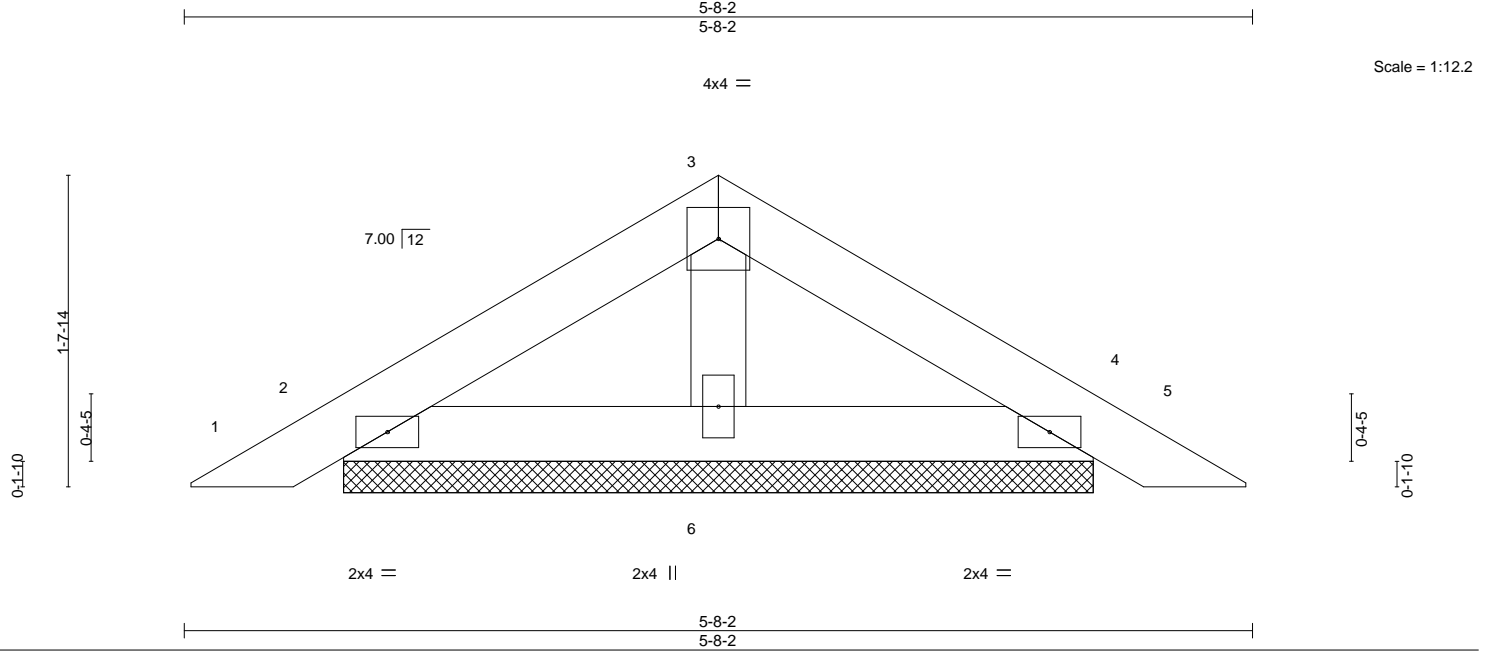
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611349
3264866	PB01G	GABLE	2	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:29 2022 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	Vert(LL)	0.00	4	n/r	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.04	Vert(CT)	0.00	5	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.02	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code FBC2020/TPI2014						Weight: 17 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=3-11-13, 4=3-11-13, 6=3-11-13  
Max Horz 2=-33(LC 10)  
Max Uplift 2=-37(LC 12), 4=-41(LC 13), 6=-10(LC 12)  
Max Grav 2=109(LC 1), 4=109(LC 1), 6=135(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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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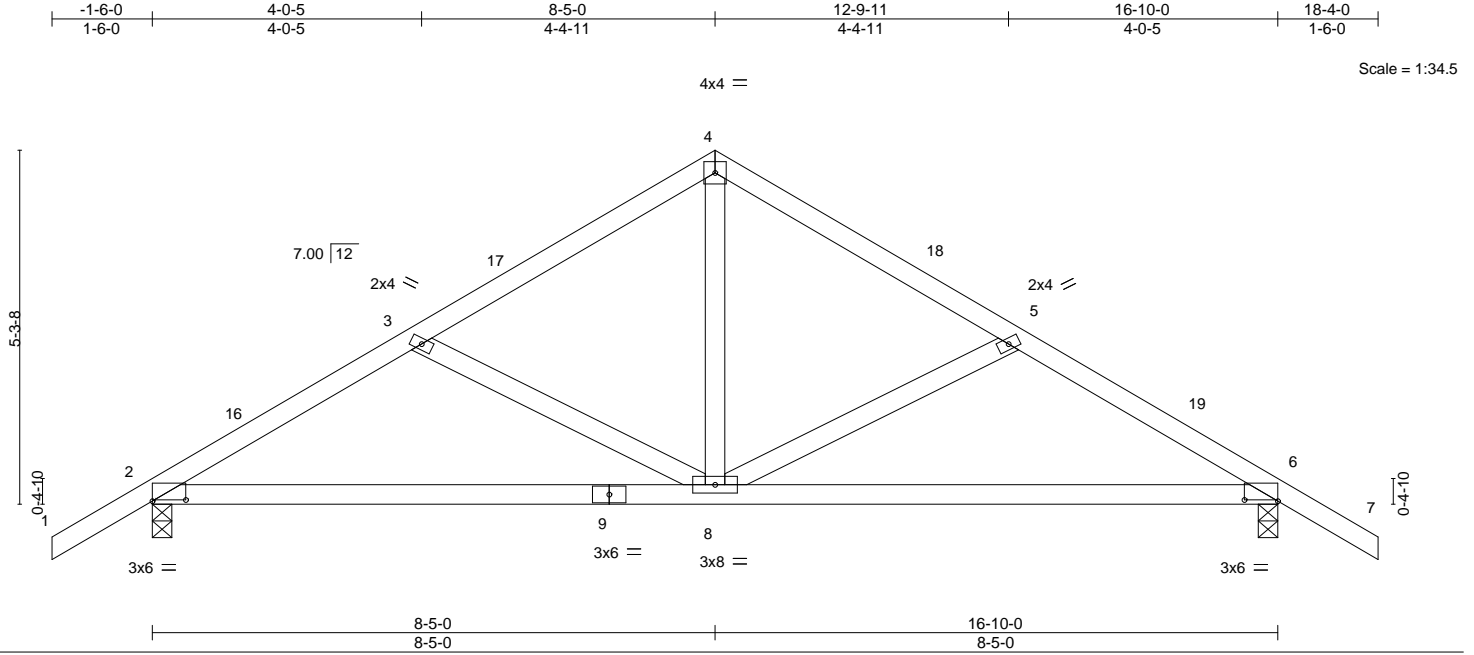
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611350
3264866	T01	Common	2	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:30 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-Bldfc?CJXvsl6V?4KC?hCORn80MAhuuaWaHGVykw?



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	-0.08 8-15 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.62	Vert(CT)	-0.16 8-15 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.02 6 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 81 lb		FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=-127(LC 10)  
Max Uplift 2=-159(LC 12), 6=-159(LC 13)  
Max Grav 2=704(LC 1), 6=704(LC 1)

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

TOP CHORD 2-3=-928/206, 3-4=-702/162, 4-5=-702/162, 5-6=-928/206  
BOT CHORD 2-8=-188/785, 6-8=-118/783  
WEBS 4-8=-54/463, 5-8=-282/165, 3-8=-282/165

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 8-5-0, Exterior(2R) 8-5-0 to 11-5-0, Interior(1) 11-5-0 to 18-4-0 zone; 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) except (jt=lb) 2=159, 6=159.

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Date:

August 24, 2022

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

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

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



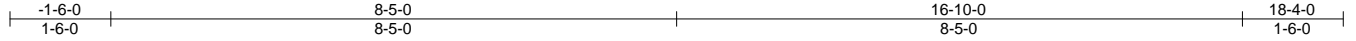
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611351
3264866	T01G	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:31 2022 Page 1

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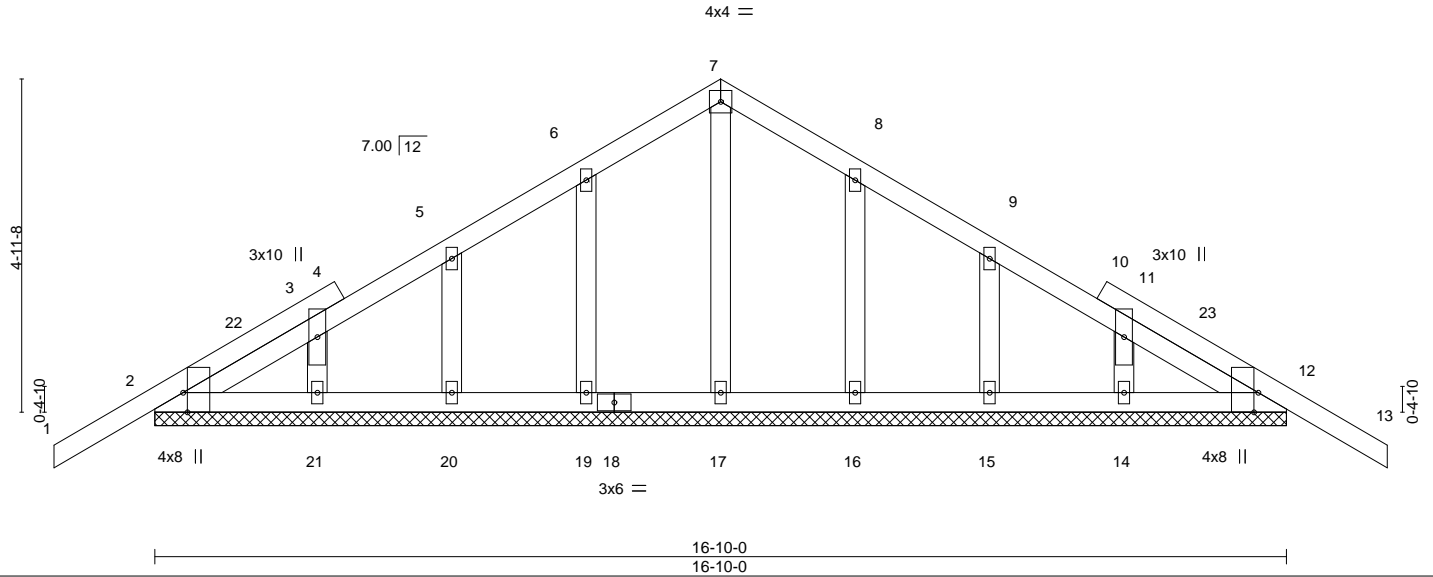


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [12:0-3-8,Edge]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		<b>CSI.</b>	
		TC 0.13	
		BC 0.04	
		WB 0.04	
		Matrix-S	
		<b>DEFL.</b>	
		in (loc)	l/defl L/d
		Vert(LL) -0.01 13	n/r 120
		Vert(CT) -0.01 13	n/r 120
		Horz(CT) 0.00 12	n/a n/a
		<b>PLATES</b>	<b>GRIP</b>
		MT20	244/190
		Weight: 92 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

#### 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 16-10-0.  
(lb) - Max Horz 2=120(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 17, 19, 20, 21, 16, 15, 14

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 8-5-0, Corner(3R) 8-5-0 to 11-5-0, Exterior(2N) 11-5-0 to 18-4-0 zone; 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 2x4 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, 12, 19, 20, 21, 16, 15, 14.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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



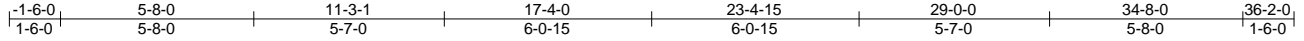
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611352
3264866	T02	Common	6	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:33 2022 Page 1

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4x4 =

Scale = 1:67.6

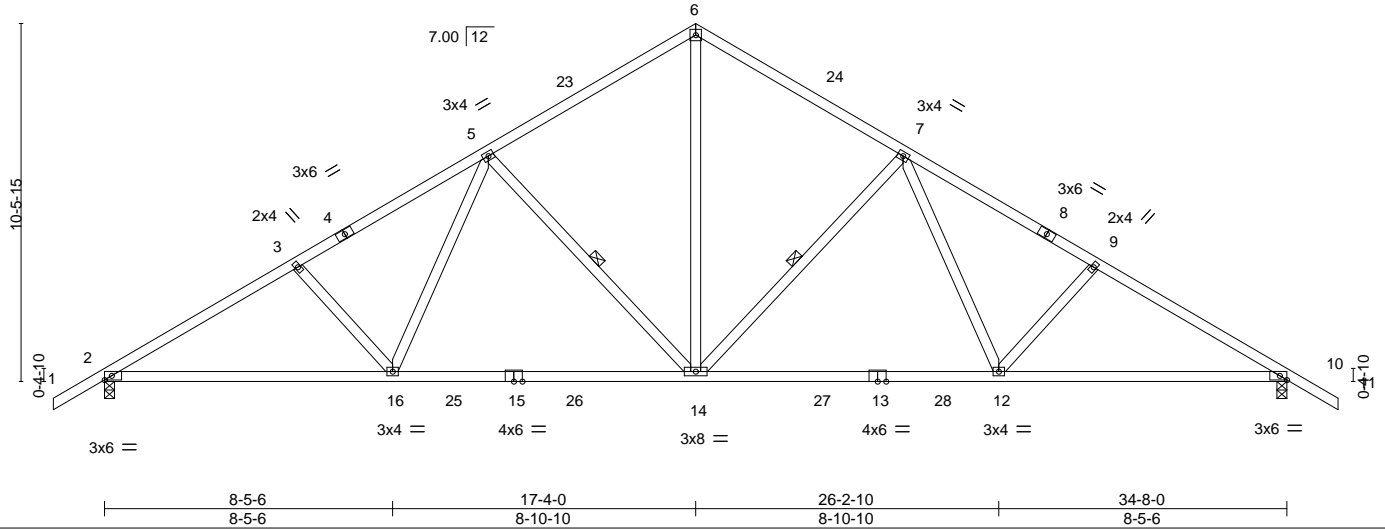


Plate Offsets (X,Y)-- [10:0-2-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.37	Vert(LL)	-0.25 12-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.95	Vert(CT)	-0.41 12-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.10 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 190 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 7-14, 5-14

#### REACTIONS.

(size) 2=0-3-8, 10=0-3-8  
Max Horz 2=242(LC 11)  
Max Uplift 2=293(LC 12), 10=293(LC 13)  
Max Grav 2=1562(LC 19), 10=1562(LC 20)

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

TOP CHORD 2-3=-2452/434, 3-5=-2297/426, 5-6=-1566/354, 6-7=-1566/354, 7-9=-2297/426,  
9-10=-2452/435  
BOT CHORD 2-16=-445/2249, 14-16=-294/1827, 12-14=-180/1701, 10-12=-282/2068  
WEBS 6-14=-224/1236, 7-14=-686/270, 7-12=-91/607, 9-12=-283/177, 5-14=-686/270,  
5-16=-91/607, 3-16=-283/177

#### NOTES-

- Unbalanced roof live loads HAVE been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-11-10, Interior(1) 1-11-10 to 17-4-0, Exterior(2R) 17-4-0 to 20-9-10, Interior(1) 20-9-10 to 36-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=293, 10=293.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL) Lake City, FL - 32055, 8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:35 2022 Page 1  
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 1-6-0 5-8-0 11-3-1 17-4-0 23-4-15 29-0-0 34-8-0 36-2-0  
 1-6-0 5-8-0 5-7-0 6-0-15 6-0-15 5-7-0 5-8-0 1-6-0



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-4-10 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt
OTHERS	2x4 SP No.3		8-19, 6-24

**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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-11-10, Interior(1) 1-11-10 to 17-4-0, Exterior(2R) 17-4-0 to 20-9-10, Interior(1) 20-9-10 to 36-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 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, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 14, 2 except (it=lb) 24=385, 12=206, 15=544, 16=233, 12=206.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24, 2022



Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611354
3264866	T03	Piggyback Base	3	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:37 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-U6YJ4Plit3JhBXM\_lqeTgAXQyKGJiVwB6m9?cykwsu

2-6-6	5-0-11	9-10-10	14-6-10	19-7-9	26-5-9	31-8-10	36-11-13	42-8-0	44-2-0
2-6-6	2-6-5	4-10-0	4-7-15	5-0-15	6-10-0	5-3-1	5-3-3	5-8-3	1-6-0

Scale = 1:75.4

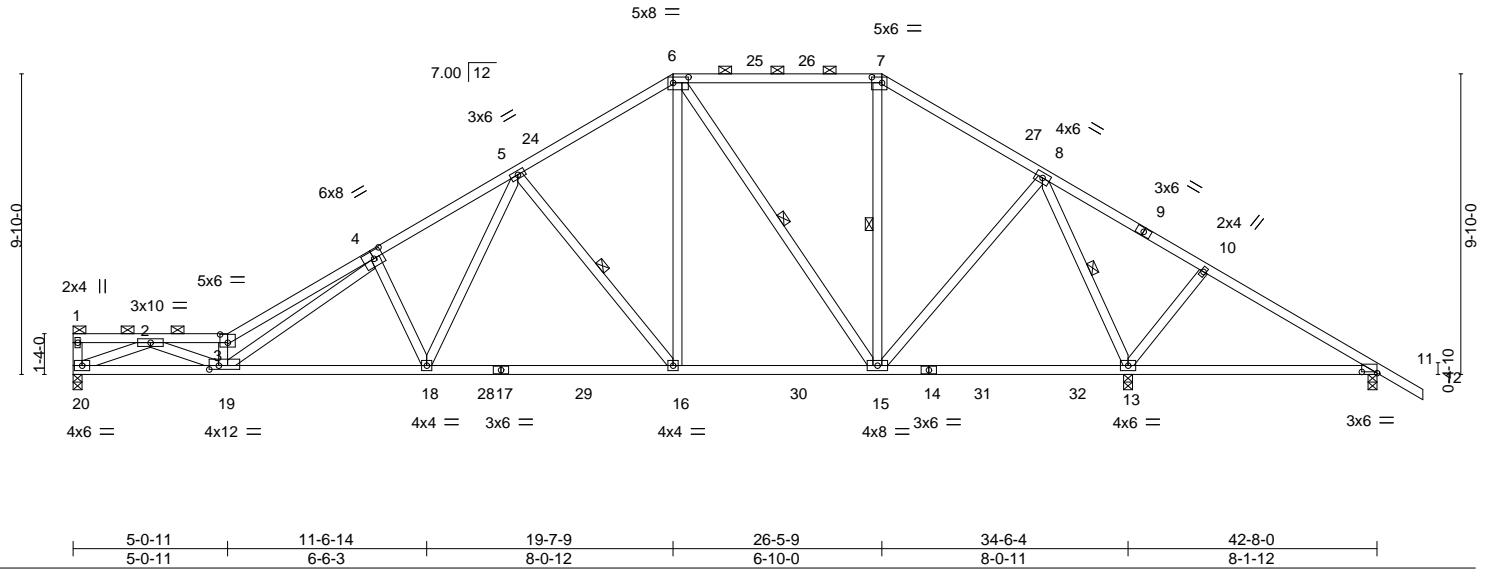


Plate Offsets (X,Y)-- [3:0-3-0,0-3-4], [4:0-3-12,0-3-0], [6:0-6-0,0-2-4], [7:0-4-0,0-2-4], [11:0-6-0,0-0-8], [19:0-3-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.72	Vert(LL) -0.37	18-19	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.92	Vert(CT) -0.65	18-19	>633	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.82	Horz(CT) 0.06	13	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 255 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
3-4: 2x4 SP M 31  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
4-19: 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals, and 2-0-0 oc purlins (2-5-1 max.): 1-3, 6-7.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 5-16, 6-15, 7-15, 8-13

#### REACTIONS.

(size) 20=0-3-8, 13=0-3-8, 11=0-3-8  
Max Horz 20=-219(LC 8)  
Max Uplift 20=-233(LC 12), 13=-438(LC 12), 11=-681(LC 25)  
Max Grav 20=1190(LC 2), 13=2926(LC 2), 11=153(LC 12)

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

TOP CHORD 2-3=-4392/795, 3-4=-5547/1072, 4-5=-2144/432, 5-6=-1044/294, 6-7=-392/208,  
7-8=-513/199, 8-10=-326/1838, 10-11=-337/1693  
BOT CHORD 19-20=-573/2452, 18-19=-431/2232, 16-18=-226/1451, 15-16=-133/911, 13-15=-551/200,  
11-13=-1390/326  
WEBS 2-20=-2514/505, 2-19=-346/2190, 3-19=-2856/616, 4-19=-689/3396, 4-18=-743/265,  
5-18=-218/1114, 5-16=-895/299, 6-16=-189/1013, 6-15=-927/215, 8-15=-186/1359,  
8-13=-2566/452, 10-13=-311/185

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-15, Interior(1) 4-4-15 to 19-7-9, Exterior(2R) 19-7-9 to 23-10-12, Interior(1) 23-10-12 to 26-5-9, Exterior(2R) 26-5-9 to 30-8-12, Interior(1) 30-8-12 to 44-2-0 zone; porch 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) except (jt=lb) 20=233, 13=438, 11=681.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Date:

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611356
3264866	T04	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),		Lake City, FL - 32055,		8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:41 2022 Page 1					
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4-4-0	9-6-2	14-6-13	19-7-9	26-5-9	31-8-10	36-11-13	42-8-0	44-2-0	
4-4-0	5-2-2	5-0-12	5-0-12	6-10-0	5-3-1	5-3-3	5-8-3	1-6-0	

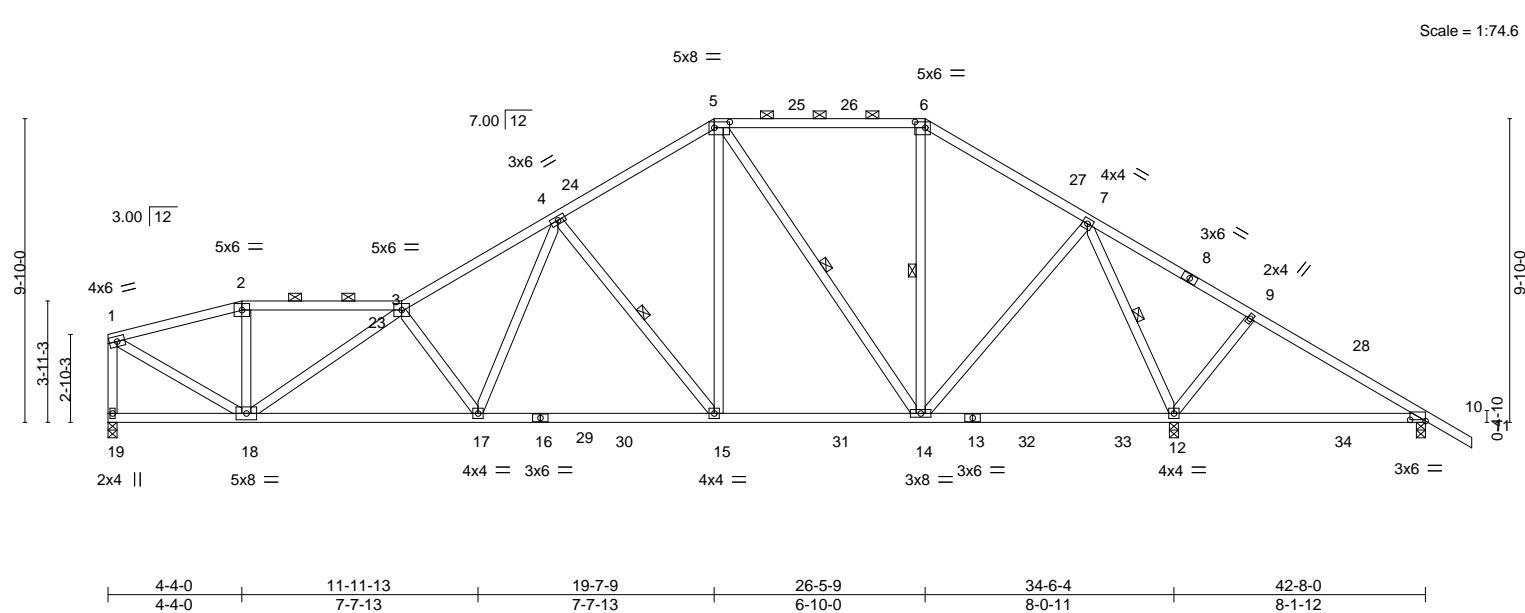


Plate Offsets (X,Y)--		[5:0-6-0,0-2-4], [6:0-4-0,0-2-4], [10:0-6-0,0-0-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.64	Vert(LL)	0.24 12-22	>408	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.89	Vert(CT)	0.21 12-22	>460	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.95	Horz(CT)	0.06 12	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 261 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-13 max.): 2-3, 5-6.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 4-15, 5-14, 6-14, 7-12

<b>REACTIONS.</b>	(size) 19=0-3-8, 12=0-3-8, 10=0-3-8
	Max Horz 19=-216(LC 13)
	Max Uplift 19=-261(LC 12), 12=-305(LC 12), 10=-175(LC 23)
	Max Grav 19=1312(LC 2), 12=2283(LC 2), 10=163(LC 24)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-1457/403, 2-3=-1398/404, 3-4=-2356/663, 4-5=-1334/474, 5-6=-707/353, 6-7=-876/354, 7-9=-123/801, 9-10=-134/666, 1-19=-1255/364
BOT CHORD	17-18=-531/2421, 15-17=-283/1643, 14-15=-147/1133, 10-12=-543/152
WEBS	3-18=-1263/355, 3-17=-757/303, 4-17=-214/1005, 4-15=-869/314, 5-15=-217/986, 5-14=-744/190, 7-14=-115/937, 7-12=-1884/416, 9-12=-299/232, 1-18=-420/1597

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-0, Exterior(2R) 4-4-0 to 8-7-3, Interior(1) 8-7-3 to 19-7-9, Exterior(2R) 19-7-9 to 23-10-12, Interior(1) 23-10-12 to 26-5-9, Exterior(2R) 26-5-9 to 30-8-12, Interior(1) 30-8-12 to 44-2-0 zone; porch 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) except (jt=lb) 19=261, 12=305, 10=175.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

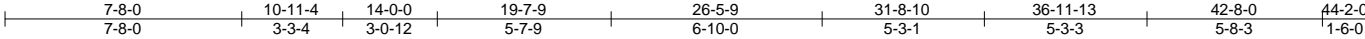
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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><b>MiTek</b></p> <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
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Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611357
3264866	T05	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:43 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-JFvaKSMSTvVsP6?VLZx2jxQUxNQNJSCoZ1DTCFykws0



Scale = 1:74.6

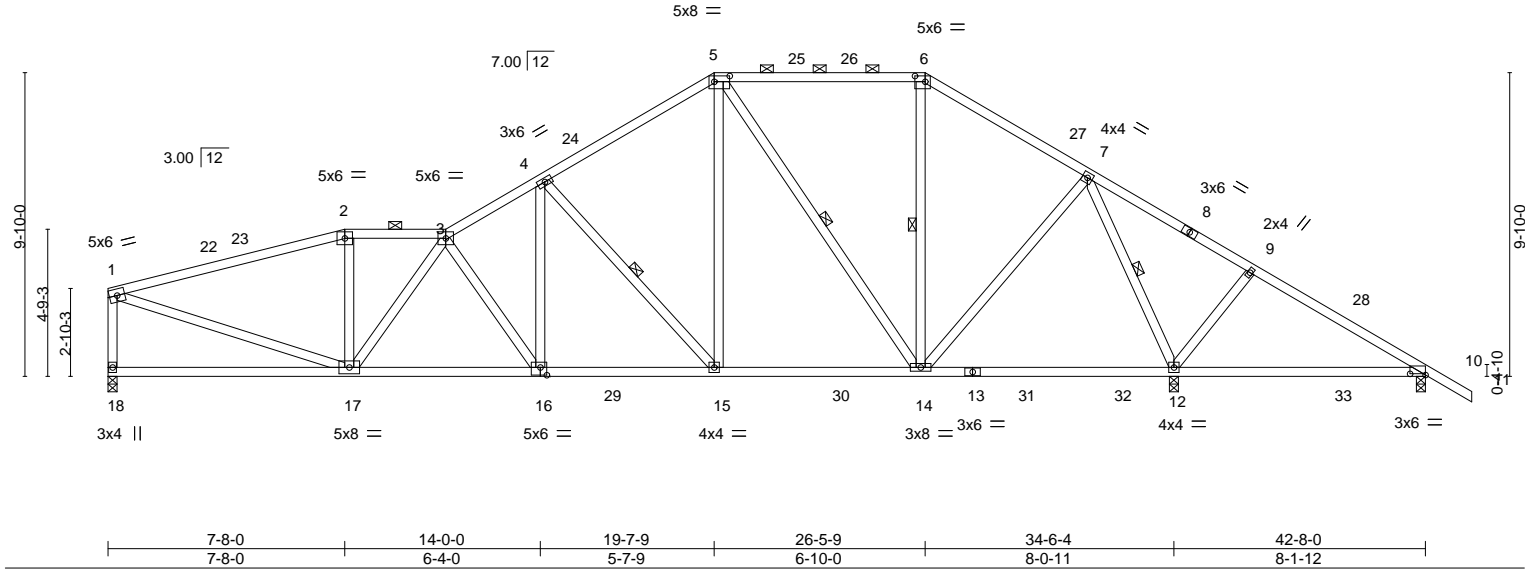


Plate Offsets (X,Y)--		[5:0-6-0,0-2-4], [6:0-4-0,0-2-4], [10:0-6-0,0-0-8], [16:0-2-8,0-3-0]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.97	Vert(LL)	0.24 12-21	>408	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.75	Vert(CT)	0.21 12-21	>461	180		
BCLL	0.0 **	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.05 12	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 266 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-15 max.): 2-3, 5-6.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 4-15, 5-14, 6-14, 7-12

**REACTIONS.** (size) 18=0-3-8, 12=0-3-8, 10=0-3-8  
Max Horz 18=-216(LC 13)  
Max Uplift 18=-262(LC 12), 12=-297(LC 13), 10=-151(LC 23)  
Max Grav 18=1312(LC 2), 12=2241(LC 2), 10=177(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1875/511, 2-3=-1785/523, 3-4=-2002/589, 4-5=-1341/471, 5-6=-723/355,  
6-7=-894/359, 7-9=-110/744, 9-10=-121/610, 1-18=-1186/367  
BOT CHORD 16-17=-438/2123, 15-16=-315/1727, 14-15=-152/1134, 10-12=-495/140  
WEBS 3-17=-593/177, 3-16=-701/219, 4-15=-919/320, 5-15=-213/934, 5-14=-718/197,  
7-14=-114/912, 7-12=-1842/399, 9-12=-299/232, 1-17=-450/1791, 4-16=-144/795

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-15, Interior(1) 4-4-15 to 7-8-0, Exterior(2E) 7-8-0 to 10-11-4, Interior(1) 10-11-4 to 19-7-9, Exterior(2R) 19-7-9 to 23-10-12, Interior(1) 23-10-12 to 26-5-9, Exterior(2R) 26-5-9 to 30-8-12, Interior(1) 30-8-12 to 44-2-0 zone; porch 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) except (jt=lb) 18=262, 12=297, 10=151.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611358
3264866	T06	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:45 2022 Page 1  
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-Fe1KI8O)?WlaeQ8uS\_zWoMWtHB6aBN951LiaH8ykwsrm  
5-1-6 11-0-0 12-4-6 19-7-9 26-5-9 31-8-10 36-11-13 42-8-0 44-2-0  
5-1-6 5-10-11 1-4-6 7-3-3 6-10-0 5-3-1 5-3-3 5-8-3 1-6-0

Scale = 1:75.2

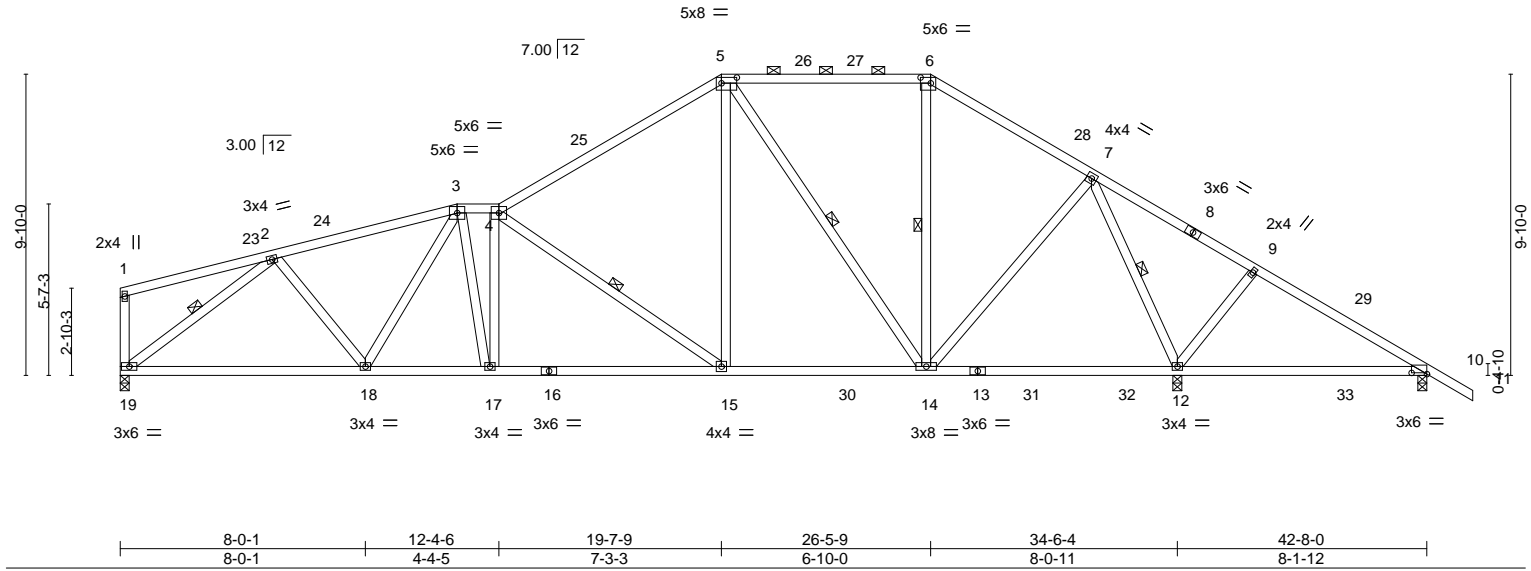


Plate Offsets (X,Y)--		[5:0-6-0,0-2-4], [6:0-4-0,0-2-4], [10:0-6-0,0-0-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>		<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	0.24 12-22 >409 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.77	Vert(CT)	0.21 12-22 >460 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.07 12 n/a n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 264 lb		FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-13 max.): 3-4, 5-6.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 4-15, 5-14, 6-14, 7-12, 2-19

<b>REACTIONS.</b>		(size) 12=0-3-8, 19=0-3-8, 10=0-3-8
Max Horz		19=-216(LC 13)
Max Uplift		12=-290(LC 12), 19=-264(LC 12), 10=-113(LC 23)
Max Grav		12=2163(LC 2), 19=1305(LC 2), 10=201(LC 24)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-1813/527, 3-4=-1909/600, 4-5=-1368/466, 5-6=-742/362, 6-7=-917/370, 7-9=-99/644, 9-10=-110/513
BOT CHORD	18-19=-339/1422, 17-18=-368/1814, 15-17=-405/1924, 14-15=-155/1140, 10-12=-411/131
WEBS	2-18=-40/501, 3-17=-147/538, 4-17=-342/180, 4-15=-996/363, 5-15=-180/878, 5-14=-704/203, 7-14=-117/859, 7-12=-1757/391, 9-12=-297/232, 2-19=-1740/523

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-15, Interior(1) 4-4-15 to 11-0-0, Exterior(2E) 11-0-0 to 12-4-6, Interior(1) 12-4-6 to 19-7-9, Exterior(2R) 19-7-9 to 23-10-12, Interior(1) 23-10-12 to 26-5-9, Exterior(2R) 26-5-9 to 30-8-12, Interior(1) 30-8-12 to 44-2-0 zone; porch 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) except (jt=lb) 12=290, 19=264, 10=113.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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	IC CONST. - KING RES.	T28611359
3264866	T07	Piggyback Base	4	1	Job Reference (optional)	

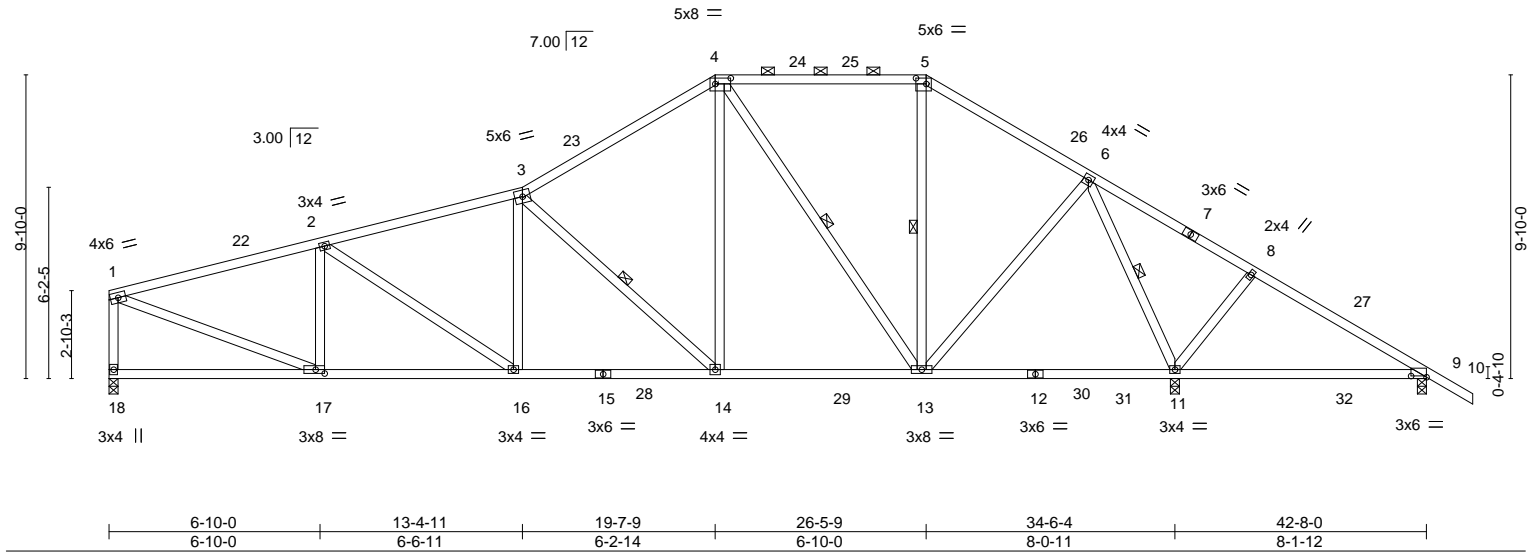
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:46 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-jqbjzUPLmqtRGZj40hVILa25OaScwotFF?S7paykwsI

6-10-0	13-4-11	19-7-9	26-5-9	31-8-10	36-11-13	42-8-0	44-2-0
6-10-0	6-6-11	6-2-14	6-10-0	5-3-1	5-3-3	5-8-3	1-6-0

Scale = 1:74.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	0.24 11-21 >409	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	0.21 11-21 >461				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.05 11 n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 259 lb FT = 20%			

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### REACTIONS.

(size) 18=0-3-8, 11=0-3-8, 9=0-3-8  
Max Horz 18=-216(LC 13)  
Max Uplift 18=-264(LC 12), 11=-294(LC 13), 9=-113(LC 23)  
Max Grav 18=1323(LC 2), 11=2185(LC 2), 9=201(LC 24)

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

TOP CHORD 1-2=-1822/473, 2-3=-1927/539, 3-4=-1371/463, 4-5=-751/360, 5-6=-927/363,  
6-8=-96/657, 8-9=-107/525, 1-18=-1215/349  
BOT CHORD 16-17=-362/1737, 14-16=-317/1827, 13-14=-160/1155, 9-11=-422/129  
WEBS 2-17=-453/203, 3-14=-954/301, 4-14=-180/917, 4-13=-710/188, 6-13=-117/875,  
6-11=-1782/382, 8-11=-298/232, 1-17=-440/1804

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-15, Interior(1) 4-4-15 to 19-7-9, Exterior(2R) 19-7-9 to 23-10-12, Interior(1) 23-10-12 to 26-5-9, Exterior(2R) 26-5-9 to 30-8-12, Interior(1) 30-8-12 to 44-2-0 zone; porch 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) except (jt=lb) 18=264, 11=294, 9=113.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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	IC CONST. - KING RES.	T28611360
3264866	T08	Piggyback Base	4	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,			8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:48 2022 Page 1			
			ID:QkTWg?1TkZOgnTMu7DT1B0yPHpV-gDiTN9QbHR79VttT76XDQ?8RCO85OkSXjXEtTykwsj			
0-5-8	6-11-0	13-4-11	19-7-9	26-5-9	34-2-8	38-6-0
0-5-8	6-5-8	6-5-11	6-2-14	6-10-0	7-8-15	4-3-8
						42-8-0
						44-2-0
						1-6-0

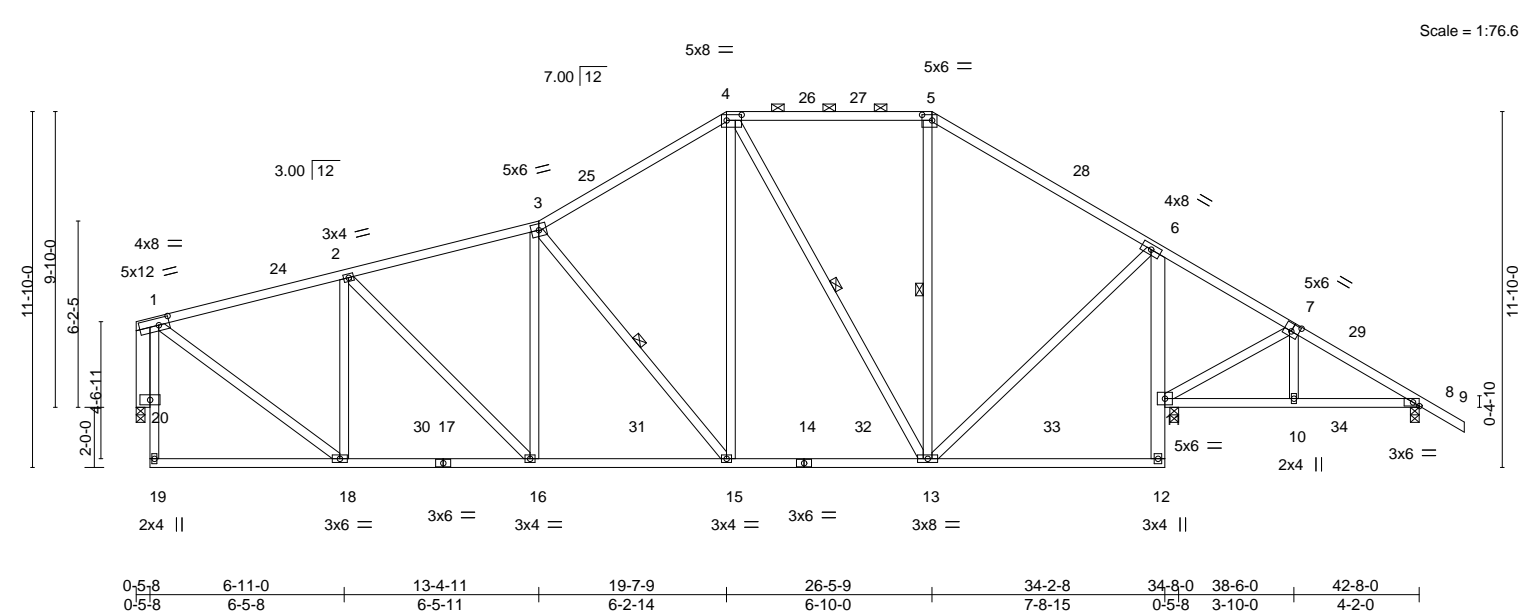


Plate Offsets (X,Y)--		[1:0-4-4,0-2-12], [4:0-6-0,0-2-4], [5:0-4-0,0-2-4], [7:0-3-0,0-3-0], [8:0-2-8,Edge]					
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	in (loc)	I/defl
TCDL	7.0	Lumber DOL	1.25	BC	0.65	Vert(LL)	L/d
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Vert(CT)	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		Horz(CT)	
						<b>PLATES</b>	
						<b>GRIP</b>	
						Weight: 301 lb	
						FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-4-14 oc purlins, except
BOT CHORD	2x4 SP No.2 *Except*		2-0-0 oc purlins (5-10-6 max.): 4-5.
WEBS	2x4 SP No.3 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
	4-13: 2x4 SP No.2		6-0-0 oc bracing: 12-13.
OTHERS	2x6 SP No.2	WEBS	1 Row at midpt 3-15, 4-13, 5-13

<b>REACTIONS.</b>		(size)	11=0-3-8, 8=0-3-8, 20=0-3-8
		Max Horz	20=-218(LC 13)
		Max Uplift	11=-234(LC 13), 8=-131(LC 13), 20=-272(LC 12)
		Max Grav	11=1851(LC 2), 8=367(LC 26), 20=1386(LC 2)

<b>FORCES.</b>		(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-1259/358, 2-3=-1510/454, 3-4=-1228/446, 4-5=-720/376, 5-6=-925/377, 7-8=-331/371	
BOT CHORD	1-20=-1290/354, 16-18=-243/1193, 15-16=-246/1427, 13-15=-138/1017, 6-11=-1445/424, 10-11=-220/254, 8-10=-221/255	
WEBS	1-18=-324/1453, 2-18=-617/231, 2-16=-59/367, 3-15=-675/242, 4-15=-150/800, 4-13=-612/151, 6-13=-131/1013, 7-11=-347/383	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-4 to 4-10-7, Interior(1) 4-10-7 to 19-7-9, Exterior(2R) 19-7-9 to 23-10-12, Interior(1) 23-10-12 to 26-5-9, Exterior(2R) 26-5-9 to 30-8-12, Interior(1) 30-8-12 to 44-2-0 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=234, 8=131, 20=272.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611361
3264866	T09G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:50 2022 Page 1

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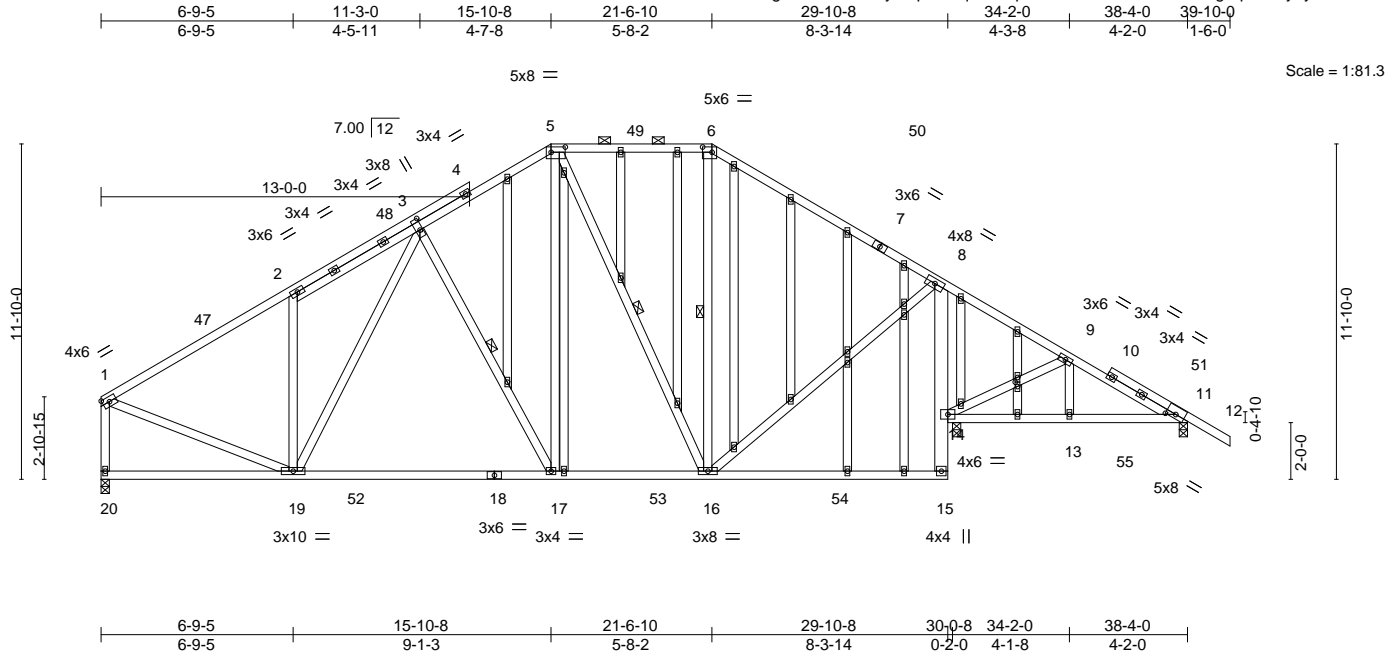


Plate Offsets (X,Y)-- [3:0-5-0,0-1-4], [5:0-6-0,0-2-4], [6:0-4-0,0-2-4], [11:0-4-1,0-1-12], [23:0-1-14,0-1-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.70	Vert(LL)	-0.31 17-19	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.94	Vert(CT)	-0.49 17-19	>728	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.41	Horz(CT)	0.01 11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 390 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except*	2-2-0 oc bracing: 17-19
OTHERS 5-16: 2x4 SP No.2	6-0-0 oc bracing: 15-16.
	1 Row at midpt 3-17, 5-16, 6-16

**REACTIONS.** (size) 20=0-3-8, 11=0-3-8, 14=0-3-8  
Max Horz 20=-219(LC 8)  
Max Uplift 20=-235(LC 12), 11=-123(LC 13), 14=-257(LC 13)  
Max Grav 20=1250(LC 19), 11=381(LC 26), 14=1659(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1283/256, 2-3=-1288/385, 3-5=-981/297, 5-6=-651/264, 6-8=-854/240, 9-11=-353/231, 1-20=-1172/248  
BOT CHORD 17-19=-198/1067, 16-17=-119/885, 8-14=-1246/242, 13-14=-134/299, 11-13=-134/299  
WEBS 2-19=-308/226, 3-17=-407/221, 5-17=-152/696, 5-16=-475/137, 8-16=-99/842, 9-14=-360/226, 1-19=-139/1087, 3-19=-132/293

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-11-12, Interior(1) 3-11-12 to 15-10-8, Exterior(2E) 15-10-8 to 21-6-10, Exterior(2R) 21-6-10 to 26-11-11, Interior(1) 26-11-11 to 39-10-0 zone; porch 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=235, 11=123, 14=257.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

**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**

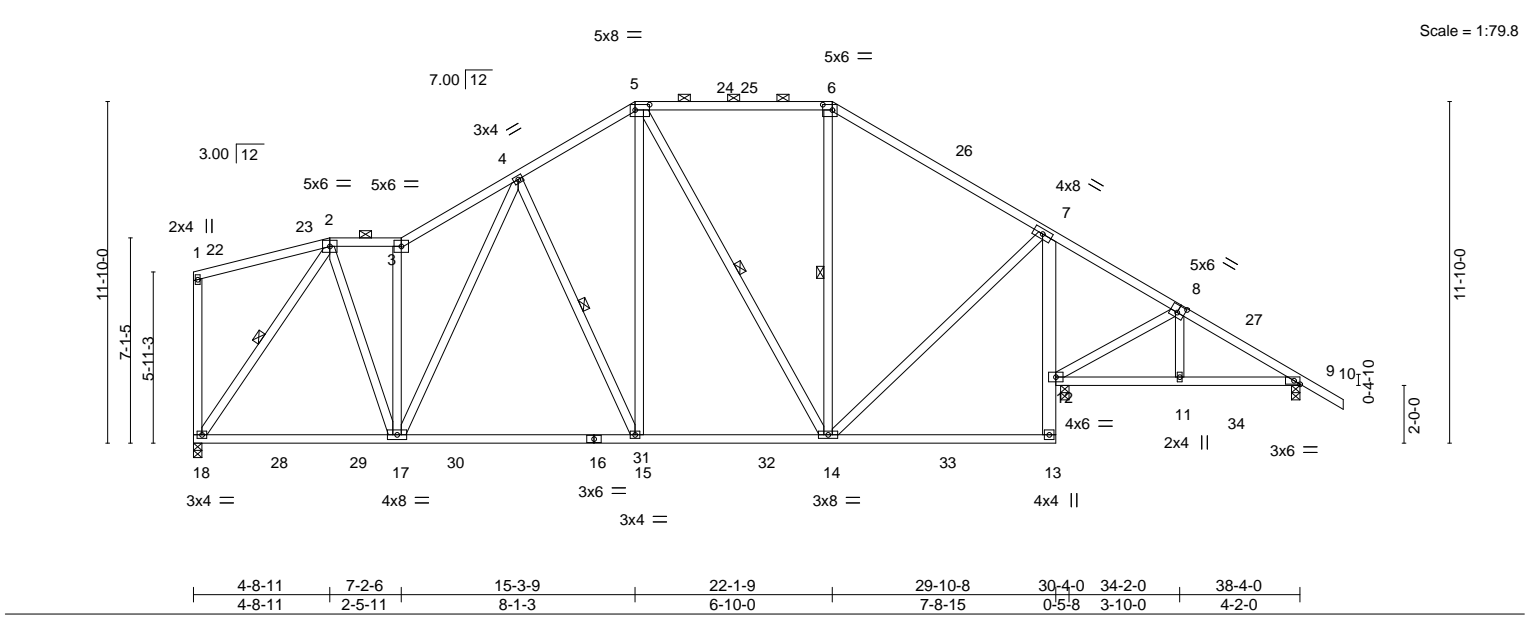
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611362
3264866	T10	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),		Lake City, FL - 32055,		8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:51 2022 Page 1				
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-4oOb0BTUaMWkMLc2pF4w2dmy9b8Ob3n_PH9uUoykwsg								
4-8-11	7-2-6	11-3-0	15-3-9	22-1-9	29-10-8	34-2-0	38-4-0	39-10-0
4-8-11	2-5-11	4-0-10	4-0-10	6-10-0	7-8-15	4-3-8	4-2-0	1-6-0

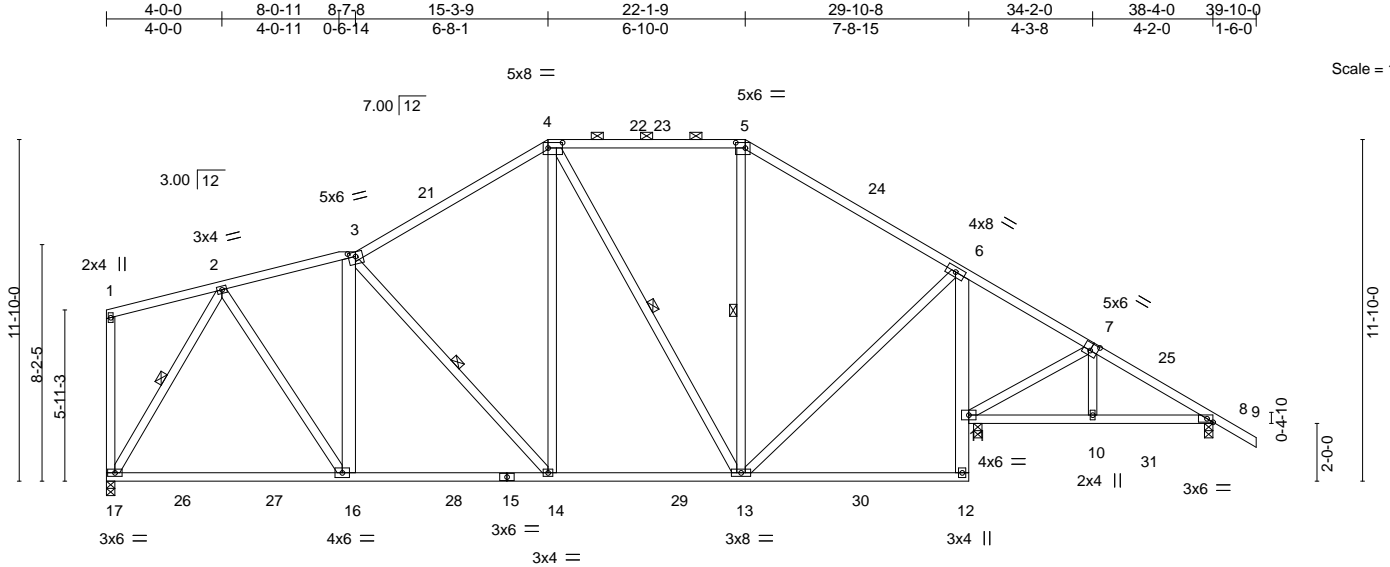


Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611363
3264866	T11	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:53 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-0BWMMRtUk6\_mRcemQwf7O72rIMPp?315Hsbe?Zgykwse



Scale = 1:79.8

Plate Offsets (X,Y)--	[3:0-3-0,0-1-13], [4:0-6-0,0-2-4], [5:0-4-0,0-2-4], [7:0-3-0,0-3-0], [8:0-2-8,Edge]
-----------------------	---

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.59	Vert(LL)	-0.21 16-17	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.80	Vert(CT)	-0.34 16-17	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.40	Horz(CT)	0.02 8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 280 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SP No.2 *Except* 6-12: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-13.
WEBS 2x4 SP No.3 *Except* 3-16: 2x6 SP No.2, 4-13: 2x4 SP No.2	WEBS 1 Row at midpt 3-14, 4-13, 5-13, 2-17

**REACTIONS.** (size) 11=0-3-8, 8=0-3-8, 17=0-3-8  
Max Horz 17=-237(LC 13)  
Max Uplift 11=-199(LC 13), 8=-133(LC 13), 17=-230(LC 12)  
Max Grav 11=1665(LC 2), 8=381(LC 26), 17=1260(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1071/305, 3-4=-1010/368, 4-5=-625/342, 5-6=-816/337, 7-8=-359/379  
BOT CHORD 16-17=-177/692, 14-16=-174/1049, 13-14=-133/859, 6-11=-1261/359, 10-11=-230/278, 8-10=-232/279  
WEBS 2-16=-143/725, 3-16=-300/172, 3-14=-326/152, 4-14=-78/507, 4-13=-422/120, 6-13=-109/859, 7-11=-347/383, 2-17=-1194/334

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-0-0, Interior(1) 4-0-0 to 15-3-9, Exterior(2R) 15-3-9 to 19-1-9, Interior(1) 19-1-9 to 22-1-9, Exterior(2R) 22-1-9 to 25-11-9, Interior(1) 25-11-9 to 39-10-0 zone; porch 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) except (jt=lb) 11=199, 8=133, 17=230.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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



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Chesterfield, MO 63017

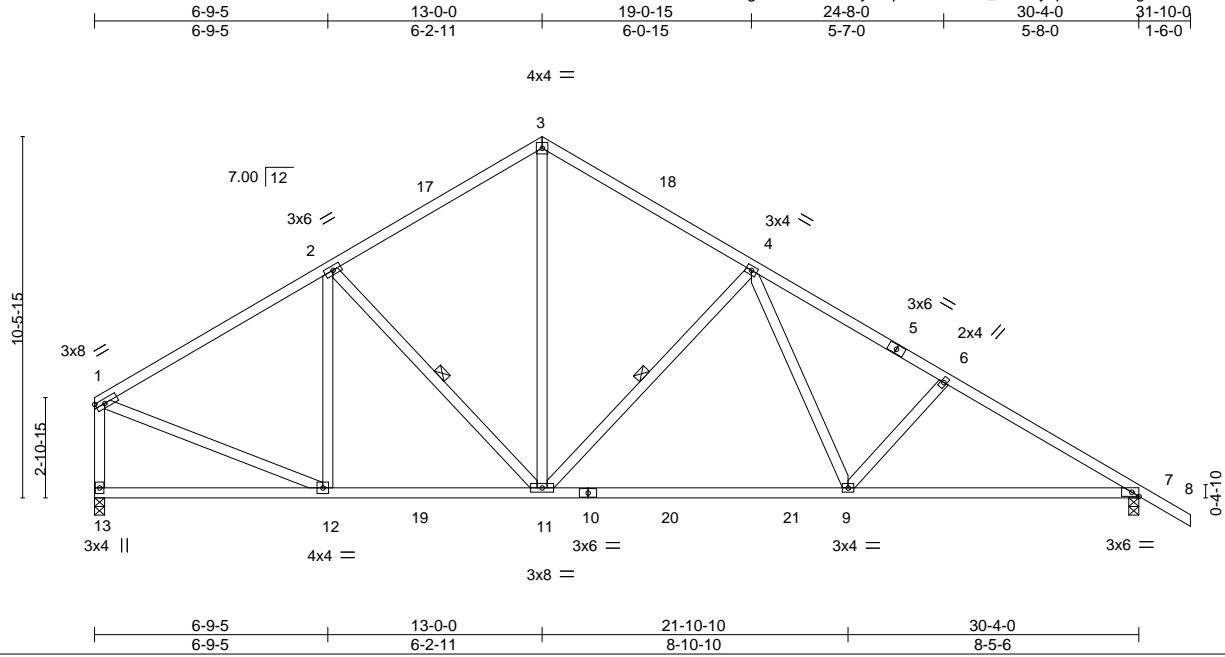
16023 Swingley Ridge Rd  
Chesterfield MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611365
3264866	T13	Common	4	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:55 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-zZd6rZW\_eb09ryvp249sCTwgkDUXxVZKv76dZykwsc



Scale = 1:66.9

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.47	Vert(LL)	-0.24	9-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.89	Vert(CT)	-0.39	9-11	>922	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.05	7	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 180 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### REACTIONS.

(size) 13=0-3-8, 7=0-3-8  
Max Horz 13=-229(LC 8)  
Max Uplift 13=-206(LC 12), 7=-266(LC 13)  
Max Grav 13=1272(LC 19), 7=1379(LC 20)

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

TOP CHORD 1-2=-1281/240, 2-3=-1200/296, 3-4=-1176/291, 4-6=-1944/374, 6-7=-2100/383,  
1-13=-1164/223  
BOT CHORD 11-12=-172/1188, 9-11=-121/1372, 7-9=-238/1764  
WEBS 3-11=-172/868, 4-11=-699/270, 4-9=-90/626, 6-9=-285/178, 1-12=-152/1097

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-2-2, Interior(1) 3-2-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-0-6, Interior(1) 16-0-6 to 31-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=206, 7=266.

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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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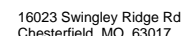
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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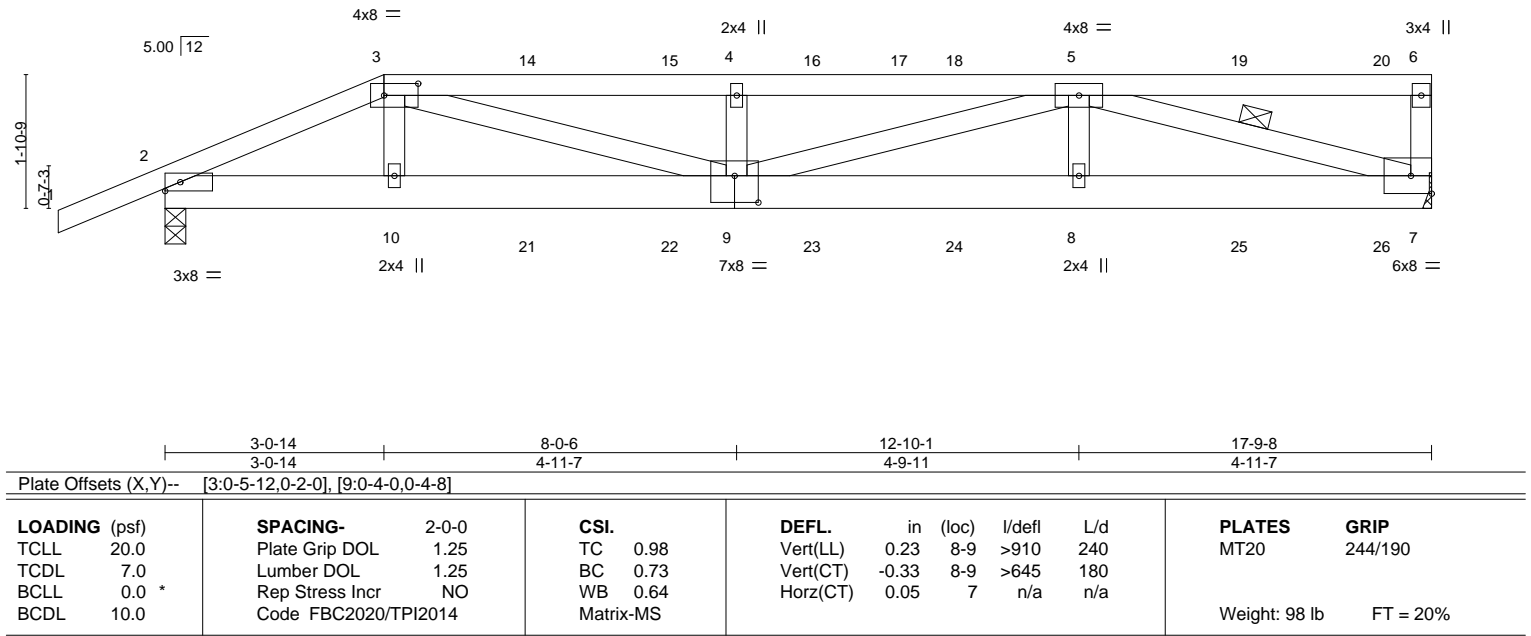


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL) Lake City, FL - 32055, 8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:57 2022 Page 1  
 ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-vyltGEXFACG4tG3C9VBKHu04a0MH?wRsnDcDiRykwsa  
 13-0-0 30-4-0 31-10-0  
 13-0-0 17-4-0 1-6-0



Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611367
3264866	T14	Half Hip Girder	1	1	Job Reference (optional)	



<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 5-10-9 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-7

**REACTIONS.** (size) 7=Mechanical, 2=0-3-8  
Max Horz 2=63(LC 23)  
Max Uplift 7=666(LC 5), 2=566(LC 4)  
Max Grav 7=1299(LC 1), 2=1165(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2194/1093, 3-4=-3584/1833, 4-5=-3594/1838, 6-7=-250/129  
BOT CHORD 2-10=-1015/1992, 9-10=-1021/2004, 8-9=-1530/2987, 7-8=-1530/2987  
WEBS 3-10=-68/259, 3-9=-853/1653, 4-9=-489/252, 5-9=-323/635, 5-8=-113/363, 5-7=-2980/1527

- NOTES-**
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=666, 2=566.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 78 lb up at 5-1-10, 85 lb down and 78 lb up at 7-1-10, 85 lb down and 78 lb up at 9-1-10, 85 lb down and 76 lb up at 11-1-10, 85 lb down and 78 lb up at 13-1-10, and 85 lb down and 78 lb up at 15-1-10, and 99 lb down and 77 lb up at 17-1-10 on top chord, and 107 lb down and 77 lb up at 3-0-14, 66 lb down and 57 lb up at 5-1-10, 66 lb down and 57 lb up at 7-1-10, 66 lb down and 57 lb up at 9-1-10, 66 lb down and 57 lb up at 11-1-10, 66 lb down and 57 lb up at 13-1-10, and 66 lb down and 57 lb up at 15-1-10, and 76 lb down and 53 lb up at 17-1-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 3-6=-54, 7-11=-20

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Philip J. O'Regan PE No.58126  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

Continued on page 2

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**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611367
3264866	T14	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:08:59 2022 Page 2  
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-rKtdhwZViqWbKZDaHwEoNJ5DlqtMThn9FX5JmKykwsY

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 10=-77(F) 8=-55(F) 5=-85(F) 14=-85(F) 15=-85(F) 16=-85(F) 18=-85(F) 19=-85(F) 20=-99(F) 21=-55(F) 22=-55(F) 23=-55(F) 24=-55(F) 25=-55(F) 26=-60(F)

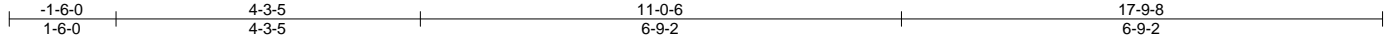


Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611368
3264866	T15	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:00 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-JXR?vGa7T7eSxjomqel1vXdWCEHUCAYITBrJmykwsX



Scale = 1:32.4

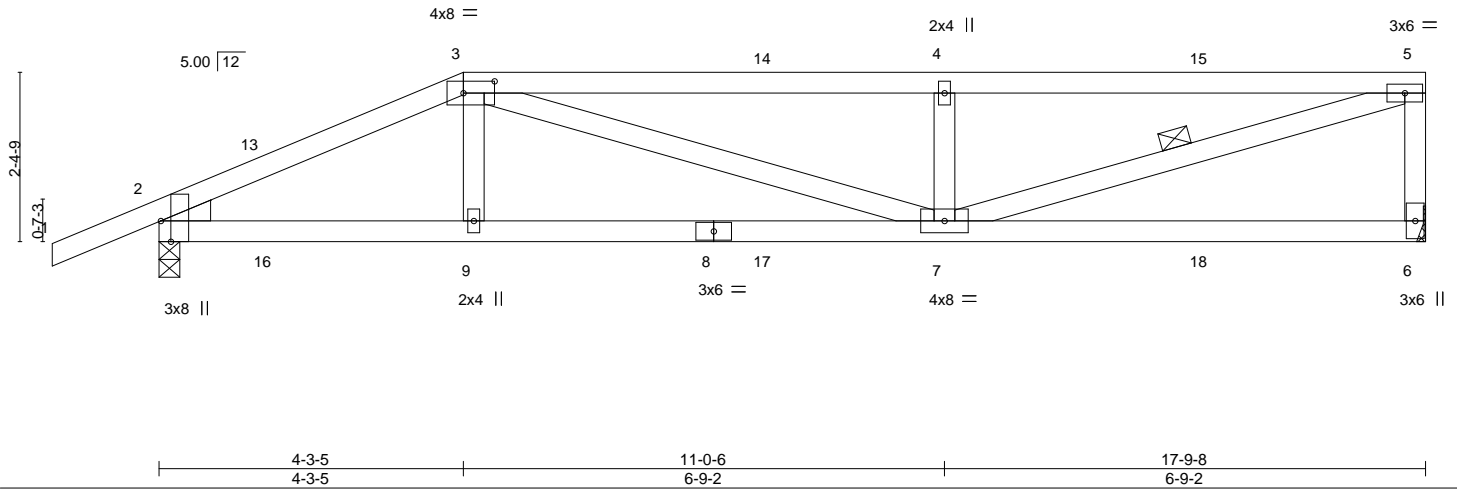


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-5-4,0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.49	Vert(LL)	0.17	7-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.49	Vert(CT)	-0.17	7-9	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.55	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 85 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 6=Mechanical, 2=0-3-8  
Max Horz 2=80(LC 12)  
Max Uplift 6=317(LC 8), 2=326(LC 8)  
Max Grav 6=649(LC 1), 2=737(LC 1)

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

TOP CHORD 2-3=-1163/1104, 3-4=-1428/1317, 4-5=-1428/1317, 5-6=-586/468  
BOT CHORD 2-9=-1025/1032, 7-9=-1042/1037  
WEBS 3-7=-288/409, 4-7=-410/198, 5-7=-1326/1432

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-3-5, Exterior(2R) 4-3-5 to 8-6-3, Interior(1) 8-6-3 to 17-7-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=317, 2=326.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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



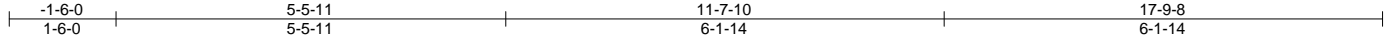
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611369
3264866	T16	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:01 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-nj?N6calDRmJZtNzOLGGSkAiOdelxYrSiraQrCykwsW



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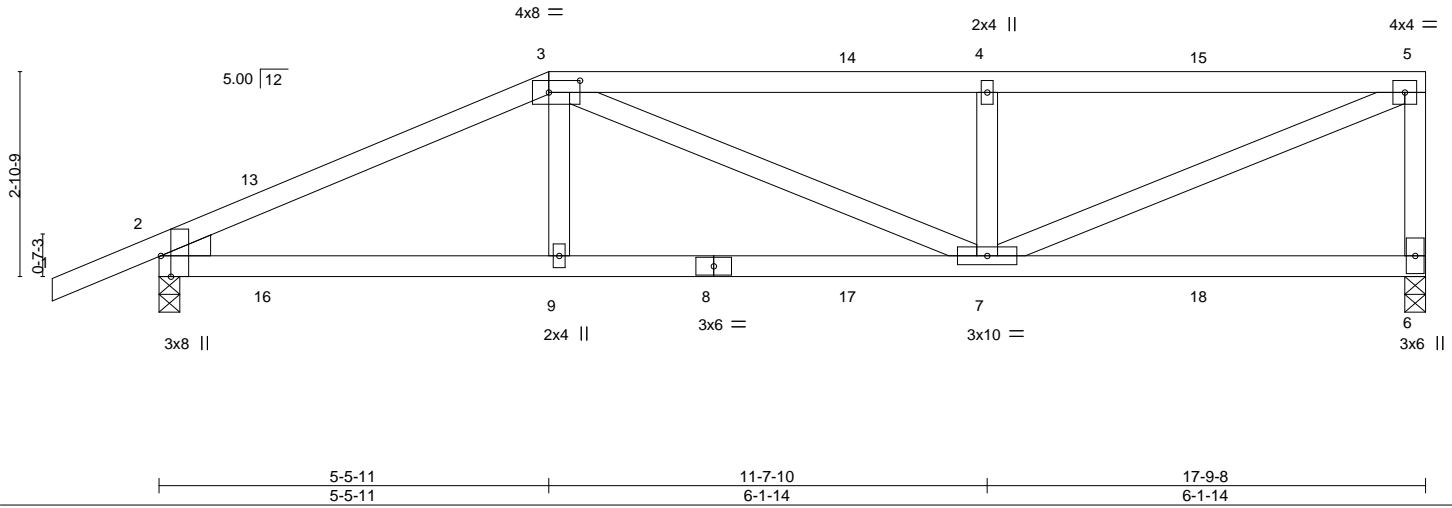


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-5-4,0-2-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	in	(loc)	I/defl	L/d
TCDL	7.0	Lumber DOL	1.25	BC	0.42	Vert(LL)	0.11	7-9	>999
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Vert(CT)	-0.11	7-9	>999
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		Horz(CT)	0.02	6	n/a
								Weight: 86 lb	
								FT = 20%	

#### LUMBER-

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

#### REACTIONS.

(size) 6=0-3-8, 2=0-3-8  
Max Horz 2=97(LC 12)  
Max Uplift 6=316(LC 8), 2=316(LC 8)  
Max Grav 6=649(LC 1), 2=737(LC 1)

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

TOP CHORD 2-3=-1110/1025, 3-4=-1092/1021, 4-5=-1092/1021, 5-6=-593/488  
BOT CHORD 2-9=-963/973, 7-9=-978/978  
WEBS 3-9=-263/213, 4-7=-374/181, 5-7=-1078/1148

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 5-5-11, Exterior(2R) 5-5-11 to 9-8-10, Interior(1) 9-8-10 to 17-7-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=316, 2=316.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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	IC CONST. - KING RES.	T28611370
3264866	T17	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:02 2022 Page 1

ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-FvZmKybN\_luAB1y9y2nV\_xjua1?Yg1NbxUK\_NfykwsV



Scale = 1:32.4

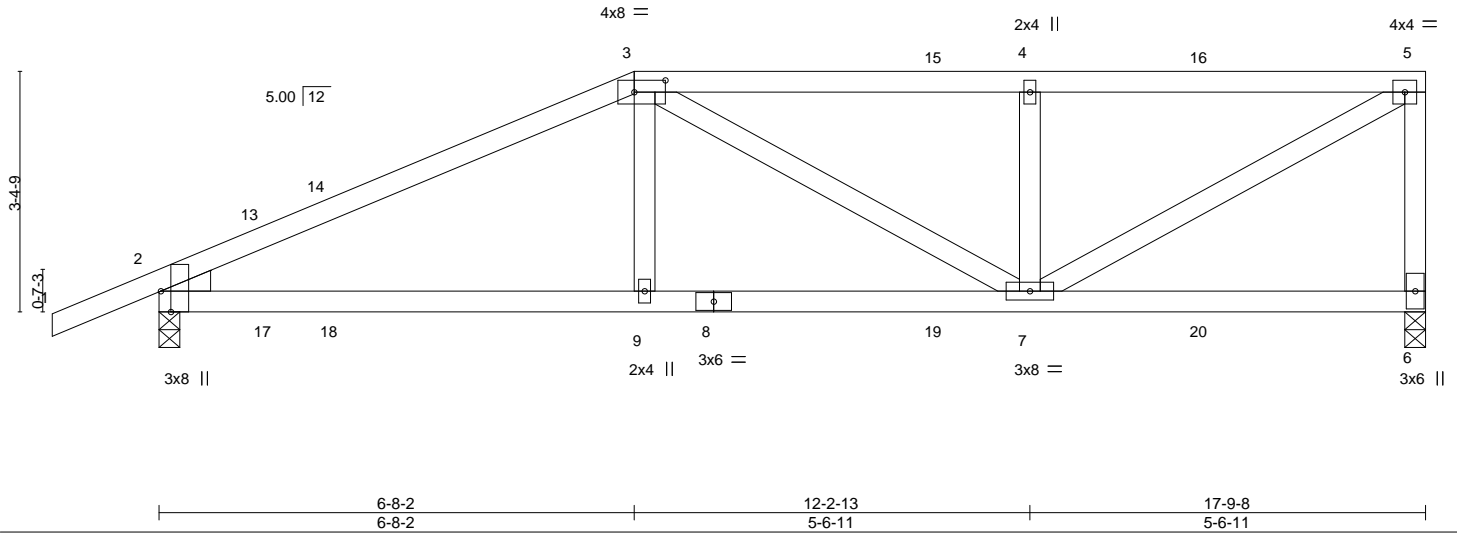


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-5-4,0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.37	Vert(LL)	0.11 9-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.38	Vert(CT)	-0.09 9-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.02 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 87 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 6=0-3-8, 2=0-3-8  
Max Horz 2=115(LC 12)  
Max Uplift 6=314(LC 8), 2=306(LC 8)  
Max Grav 6=649(LC 1), 2=737(LC 1)

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

TOP CHORD 2-3=-1053/954, 3-4=-852/807, 4-5=-852/807, 5-6=-597/508  
BOT CHORD 2-9=-919/911, 7-9=-933/917  
WEBS 3-9=-301/240, 4-7=-330/161, 5-7=-906/952

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-8-2, Exterior(2R) 6-8-2 to 10-11-0, Interior(1) 10-11-0 to 17-7-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=314, 2=306.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

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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	IC CONST. - KING RES.	T28611371
3264866	T18	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:03 2022 Page 1  
ID:QkTwG?1TkZQgnTMu7DT1B0yPHpV-k668Xlc?1201oBXLWmkX9F?IRE1PWVI983Xv5ykwu

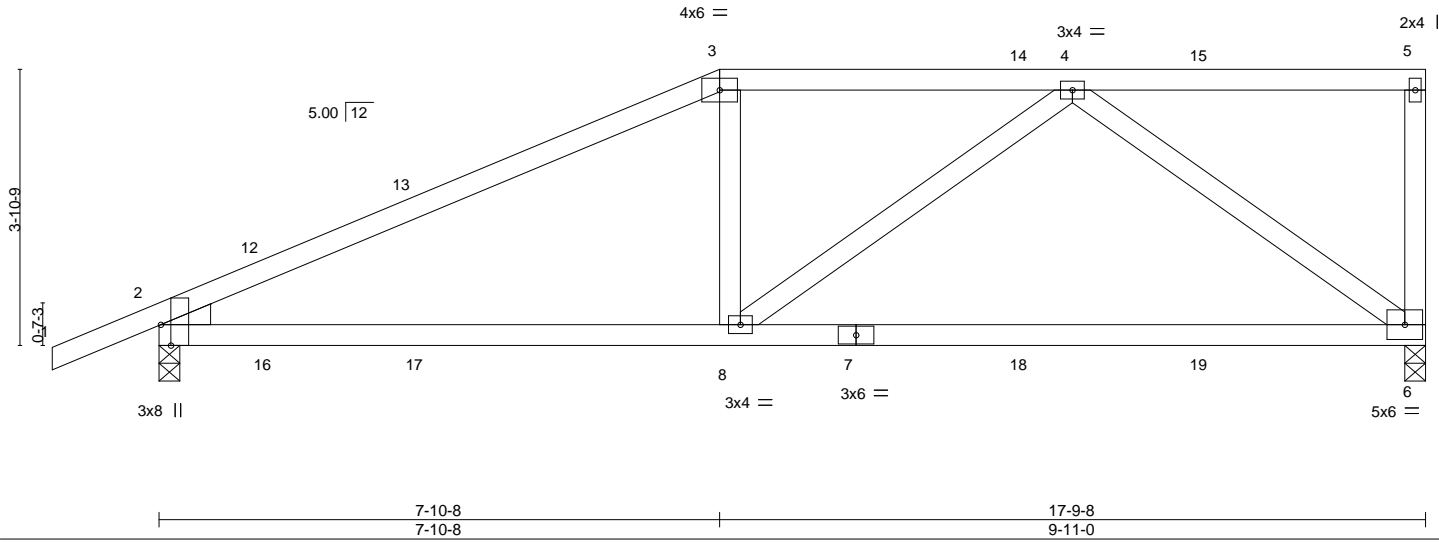


Plate Offsets (X,Y)-- [2:0-3-8,Edge]		7-10-8		17-9-8	
		7-10-8		9-11-0	
LOADING (psf)	SPACING-	2-0-0		CSI.	DEFL.
TCLL 20.0	Plate Grip DOL	1.25		TC 0.63	in (loc) l/defl L/d
TCDL 7.0	Lumber DOL	1.25		BC 0.82	Vert(LL) 0.41 6-8 >514 240
BCLL 0.0 *	Rep Stress Incr	YES		WB 0.53	Vert(CT) -0.44 6-8 >476 180
BCDL 10.0	Code FBC2020/TPI2014			Matrix-MS	Horz(CT) 0.02 6 n/a n/a
					PLATES GRIP
					MT20 244/190
					Weight: 84 lb FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=132(LC 12)  
Max Uplift 2=297(LC 8), 6=311(LC 8)  
Max Grav 2=737(LC 1), 6=649(LC 1)

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

TOP CHORD 2-3=-1014/935, 3-4=-865/915  
BOT CHORD 2-8=-907/863, 6-8=-545/635  
WEBS 4-8=-462/340, 4-6=-756/619

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 7-10-8, Exterior(2R) 7-10-8 to 12-1-7, Interior(1) 12-1-7 to 17-7-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=297, 6=311.

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Date:

August 24,2022

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

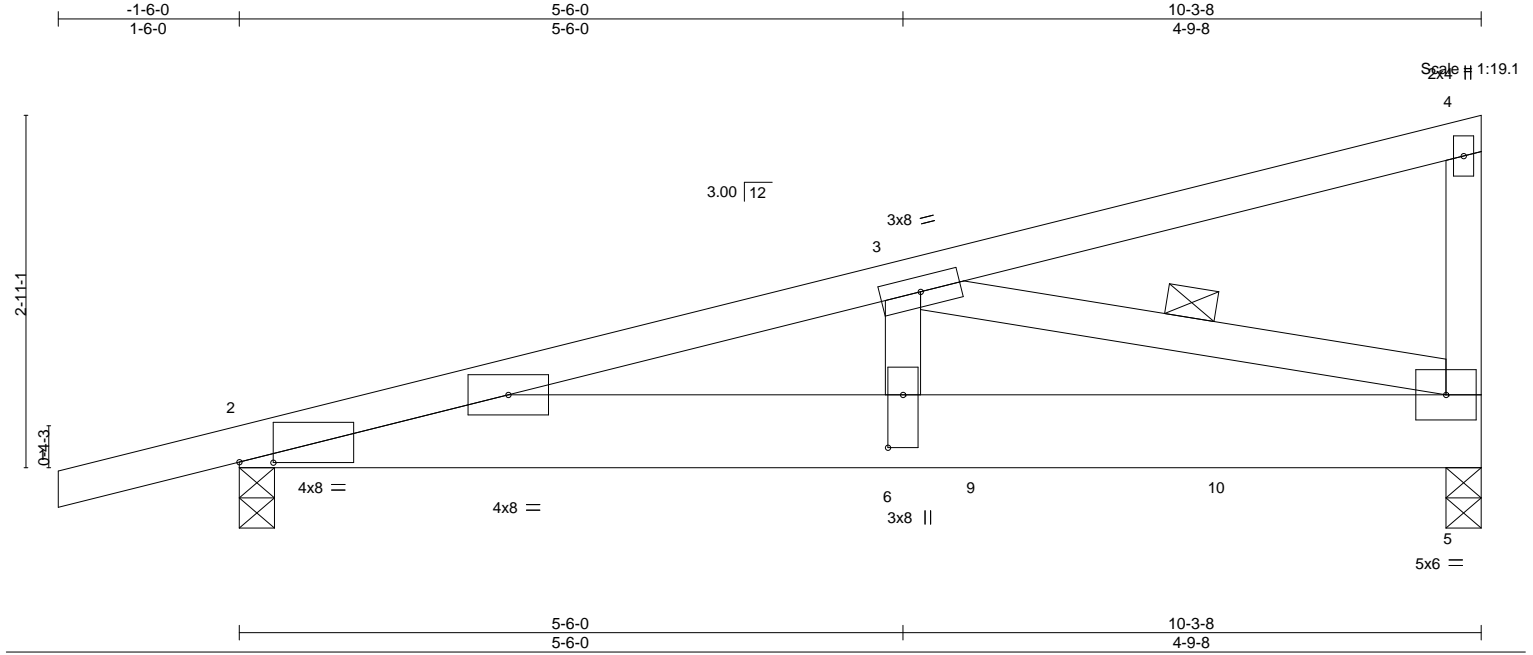


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611372
3264866	T19	Monopitch Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:04 2022 Page 1  
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-ClgWkedeWM8uQK5Y3Tpz4MoBOrgV8xSuOop4SXYkwsT



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.54	Vert(LL)	0.10 5-6 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.15 5-6 >816 180				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.02 5 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 61 lb		FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3

#### REACTIONS.

(size) 5=0-3-8, 2=0-3-8  
Max Horz 2=106(LC 4)  
Max Uplift 5=832(LC 4), 2=559(LC 4)  
Max Grav 5=1643(LC 1), 2=1096(LC 1)

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

TOP CHORD 2-3=-3318/1627  
BOT CHORD 2-6=-1628/3195, 5-6=-1628/3195  
WEBS 3-6=-736/1442, 3-5=-3224/1643

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=832, 2=559.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1281 lb down and 688 lb up at 6-2-4, and 629 lb down and 338 lb up at 8-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 2-5=-20  
Concentrated Loads (lb)  
Vert: 9=-1281(B) 10=-629(B)

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 8-10-6 oc bracing.  
WEBS 1 Row at midpt 3-5

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24, 2022

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

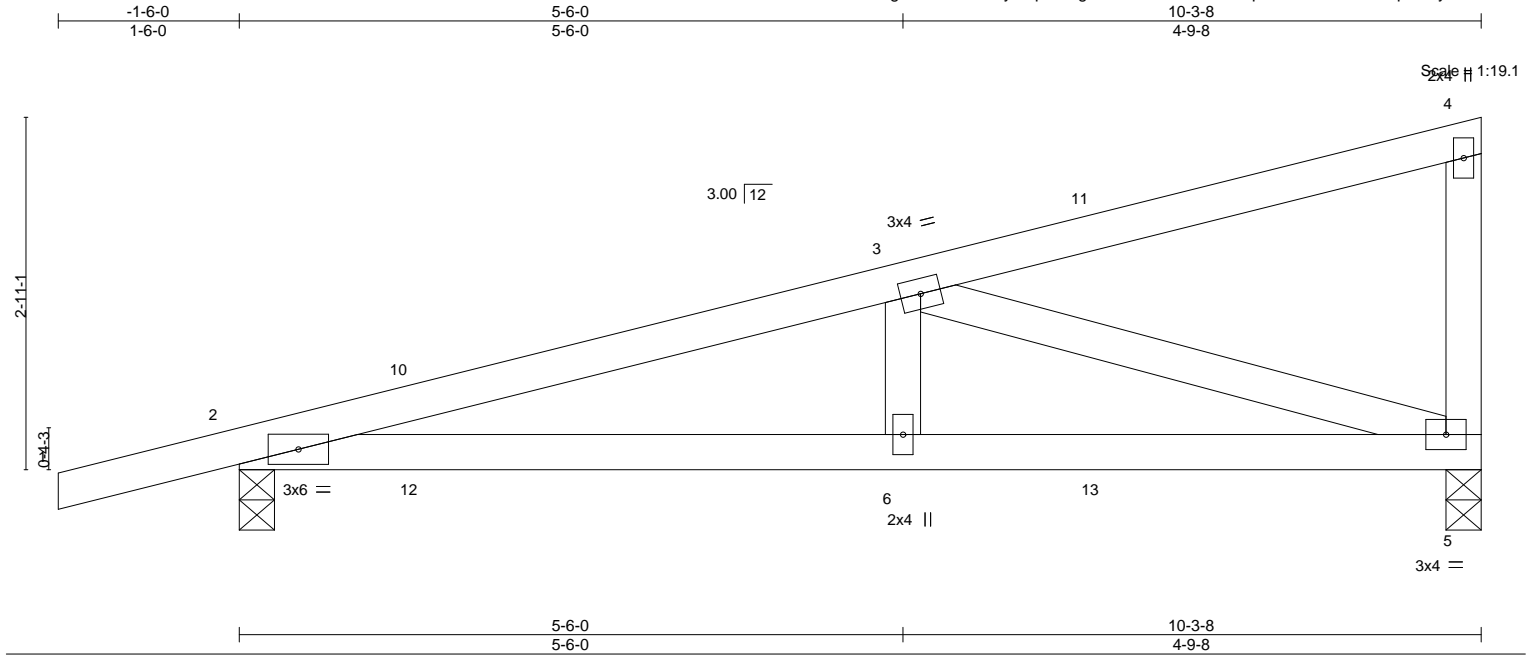


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611373
3264866	T20	Monopitch	11	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:04 2022 Page 1  
ID:QkTwG?1TkZOgnTMu7DT1B0yPHpV-ClgWkedeWM8uQK5Y3Tpz4MoEiri480VuOop4SXYkwsT



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	Vert(LL)	0.07	6-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.32	Vert(CT)	-0.06	6-9	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.36	Horz(CT)	-0.01	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 45 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 5-8-4 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 5=0-3-8  
Max Horz 2=104(LC 8)  
Max Uplift 2=-234(LC 8), 5=-192(LC 8)  
Max Grav 2=462(LC 1), 5=369(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-798/925  
BOT CHORD 2-6=-980/757, 5-6=-980/757  
WEBS 3-6=-300/220, 3-5=-771/998

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-1-12 zone; porch 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=234, 5=192.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

August 24,2022

#### 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**

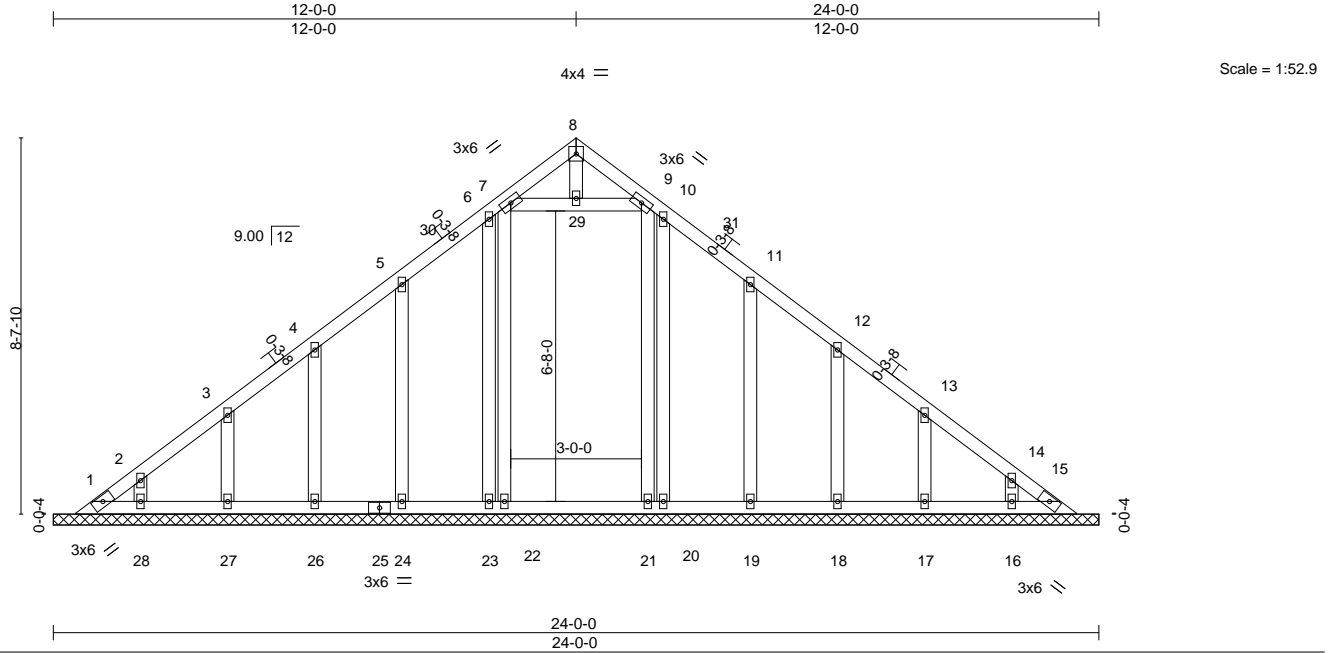


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Job	Truss	Truss Type	Qty	Ply	IC CONST. - KING RES.	T28611374
3264866	V01	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Jul 18 2022 MiTek Industries, Inc. Tue Aug 23 15:09:06 2022 Page 1  
ID:QkTwG?1TkZQgnTMu7DT1B0yPHpV-8hoG9Jeu2zPbgeFwBusR9ntfYeQuc\_IBs6IBWQykwsR



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2'-0-0	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.08	Horz(CT)	0.00	15	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 155 lb	FT = 20%
	Code FBC2020/TPI2014							

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

#### REACTIONS.

All bearings 24'-0-0.  
(lb) - Max Horz 1=183(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 23, 24, 26, 27, 28, 20, 19, 18, 17, 16  
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 23, 24, 26, 27, 28, 20, 19, 18, 17, 16 except  
22=275(LC 19), 21=259(LC 21)

**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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-1 to 4-0-0, Interior(1) 4-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 15-0-0, Interior(1) 15-0-0 to 23-0-15 zone; 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 23, 24, 26, 27, 28, 20, 19, 18, 17, 16.

#### 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.

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.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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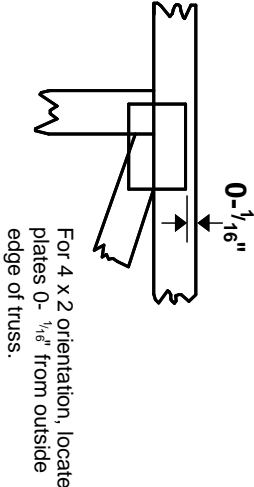
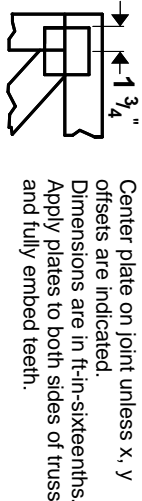
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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# Symbols

## PLATE LOCATION AND ORIENTATION



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

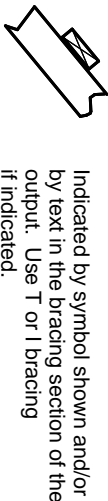
This symbol indicates the required direction of slots in connector plates.

## PLATE SIZE

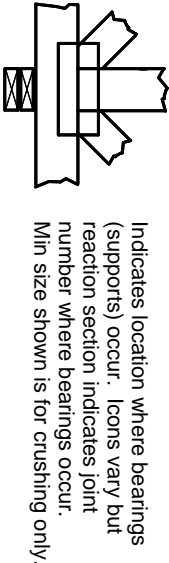
4 X 4

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

## LATERAL BRACING LOCATION

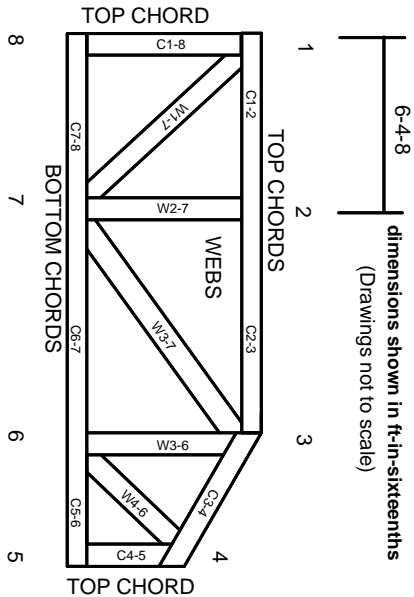


## BEARING



**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



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.