



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

RE: 3363903 - IC CONST. - ROYSTER RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: IC CONSTRUCTION Project Name: Royster 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: 55.0 psf

This package includes 71 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	T30017789	CJ01	3/10/23	15	T30017803	F04	3/10/23
2	T30017790	CJ03	3/10/23	16	T30017804	F05	3/10/23
3	T30017791	CJ05	3/10/23	17	T30017805	F06	3/10/23
4	T30017792	EJ01	3/10/23	18	T30017806	HJ10	3/10/23
5	T30017793	EJ02	3/10/23	19	T30017807	KW1	3/10/23
6	T30017794	EJ03	3/10/23	20	T30017808	KW6	3/10/23
7	T30017795	EJ04	3/10/23	21	T30017809	PB01	3/10/23
8	T30017796	EJ05	3/10/23	22	T30017810	PB02G	3/10/23
9	T30017797	EJ06	3/10/23	23	T30017811	PB03	3/10/23
10	T30017798	EJ07	3/10/23	24	T30017812	PB04	3/10/23
11	T30017799	EJ08	3/10/23	25	T30017813	PB05	3/10/23
12	T30017800	F01	3/10/23	26	T30017814	PB06	3/10/23
13	T30017801	F02	3/10/23	27	T30017815	PB07	3/10/23
14	T30017802	F03	3/10/23	28	T30017816	T01	3/10/23

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

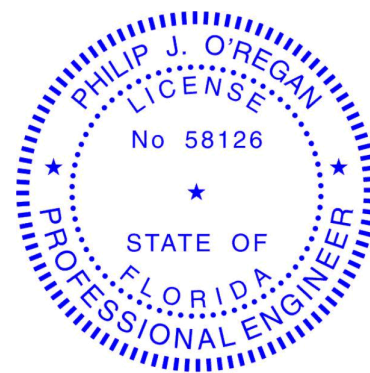
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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, 2025.

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



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

March 10, 2023

O'Regan, Philip

1 of 2



RE: 3363903 - IC CONST. - ROYSTER RES.

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

**Site Information:**

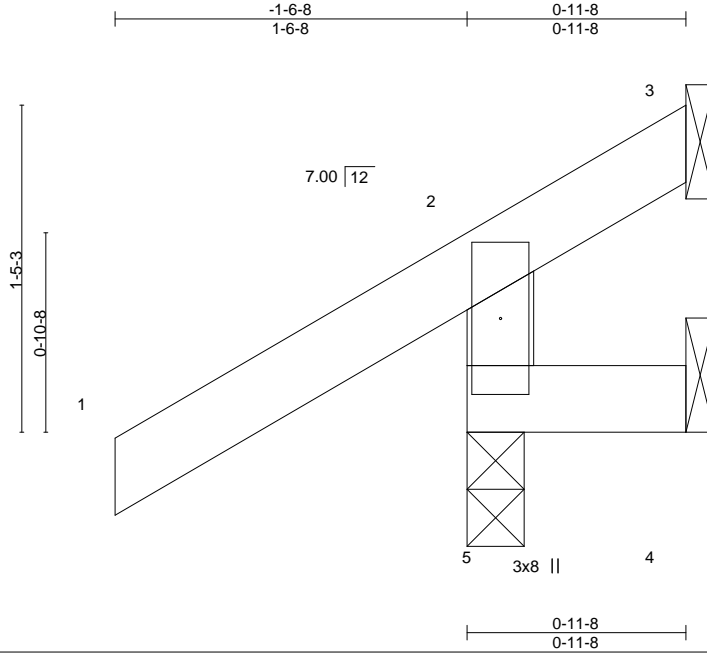
Customer Info: IC CONSTRUCTION    Project Name: Royster Res.    Model: Custom  
Lot/Block: N/A    Subdivision: N/A  
Address: TBD, TBD  
City: Columbia Cty    State: FL

No.	Seal#	Truss Name	Date
29	T30017817	T02	3/10/23
30	T30017818	T03	3/10/23
31	T30017819	T04	3/10/23
32	T30017820	T05	3/10/23
33	T30017821	T06	3/10/23
34	T30017822	T07	3/10/23
35	T30017823	T08	3/10/23
36	T30017824	T09	3/10/23
37	T30017825	T10	3/10/23
38	T30017826	T11	3/10/23
39	T30017827	T12	3/10/23
40	T30017828	T13	3/10/23
41	T30017829	T14	3/10/23
42	T30017830	T14G	3/10/23
43	T30017831	T15	3/10/23
44	T30017832	T16	3/10/23
45	T30017833	T17	3/10/23
46	T30017834	T18	3/10/23
47	T30017835	T19	3/10/23
48	T30017836	T19G	3/10/23
49	T30017837	T20	3/10/23
50	T30017838	T21	3/10/23
51	T30017839	T22	3/10/23
52	T30017840	T23	3/10/23
53	T30017841	T23G	3/10/23
54	T30017842	T24	3/10/23
55	T30017843	T25	3/10/23
56	T30017844	T26	3/10/23
57	T30017845	T27	3/10/23
58	T30017846	T27G	3/10/23
59	T30017847	T28	3/10/23
60	T30017848	T29	3/10/23
61	T30017849	T30	3/10/23
62	T30017850	T30G	3/10/23
63	T30017851	T31	3/10/23
64	T30017852	T32	3/10/23
65	T30017853	T33	3/10/23
66	T30017854	T34	3/10/23
67	T30017855	TFG01	3/10/23
68	T30017856	TFG02	3/10/23
69	T30017857	TFG03	3/10/23
70	T30017858	TFG04	3/10/23
71	T30017859	V01	3/10/23

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017789
3363903	CJ01	Jack-Open	6	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:36 2023 Page 1  
ID:y4QiaC6?Uffp4\_P2xWz6BjzxAPb-U1XQLq8Ae9TOQyFVP15UNHLijDBoGVSMYKtbUvzcgrH



Scale = 1:10.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.04	Vert(CT)	0.00	5	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR						Weight: 7 lb	FT = 20%
	Code FBC2020/TPI2014								

#### 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 0-11-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=40(LC 12)  
Max Uplift 5=67(LC 12), 3=-51(LC 1), 4=-16(LC 1)  
Max Grav 5=217(LC 1), 3=16(LC 16), 4=9(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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

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:

March 10,2023

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

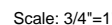
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

**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, 8530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:37 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-yD5oZA8oPTbF26piykjwUutZdWWW?yivB\_d8tLzcrgRG



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-11-8 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpI=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 2-10-12 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

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

March 10, 2023



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017791
3363903	CJ05	Jack-Open	6	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:02:38 2023
Page 1

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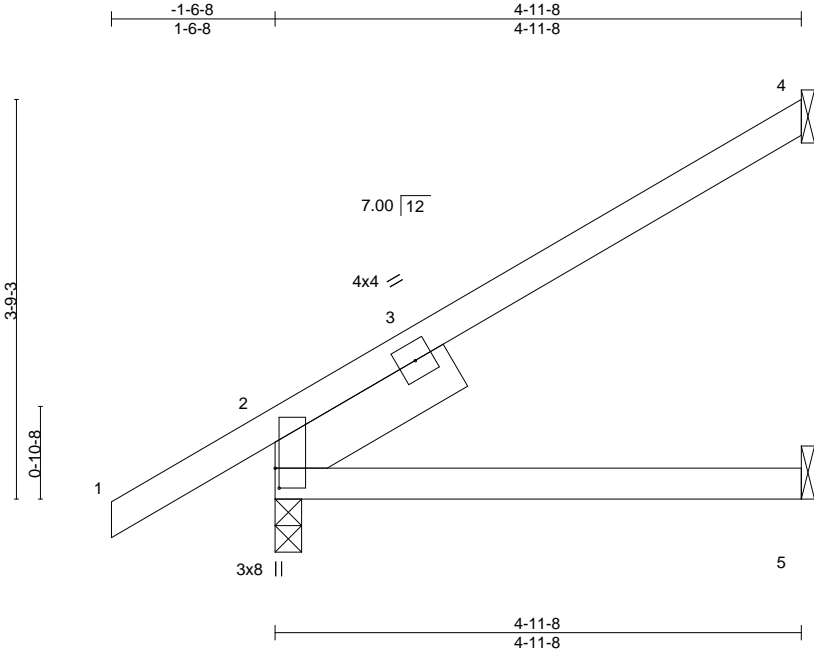


Plate Offsets (X,Y)--		[2:0-2-4,0-0-7]							
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0		Plate Grip DOL 1.25	TC 0.27	Vert(LL) 0.04	5-8	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL 1.25	BC 0.22	Vert(CT) -0.05	5-8	>999	180		
BCLL 0.0 *		Rep Stress Incr YES	WB 0.00	Horz(CT) 0.02	4	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014	Matrix-MP					Weight: 23 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-11-8 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER	Left 2x6 SP No.2 1-11-8		

**REACTIONS.** (size) 4=Mechanical, 2=0-3-0, 5=Mechanical  
Max Horz 2=133(LC 12)  
Max Uplift 4=-84(LC 12), 2=-52(LC 12), 5=-8(LC 12)  
Max Grav 4=120(LC 19), 2=278(LC 1), 5=86(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 4-10-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

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

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017792
3363903	EJ01	Jack-Partial	11	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:02:39 2023
Page 1

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6-11-8
6-11-8

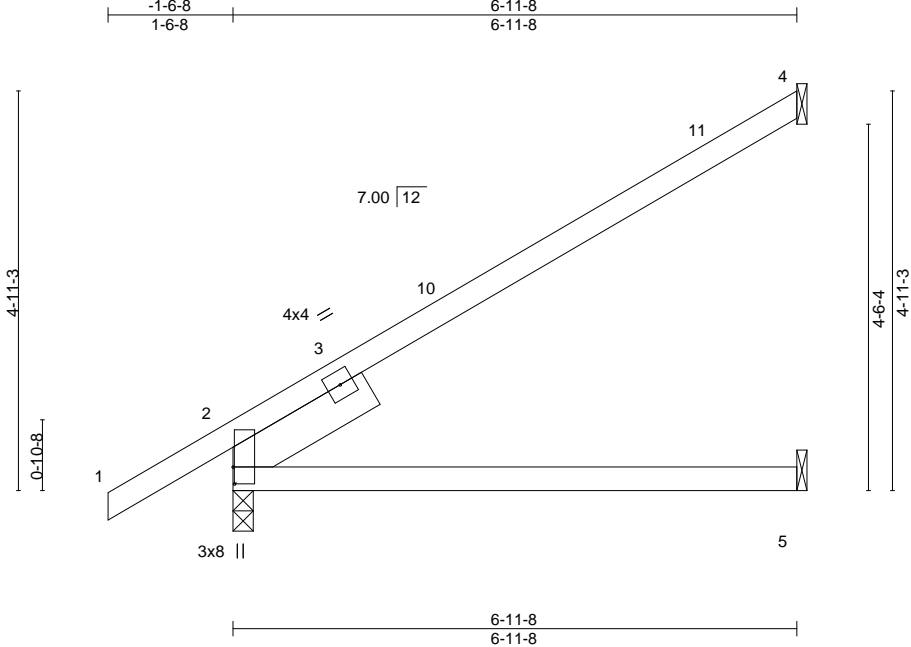


Plate Offsets (X,Y)--		[2:0-2-8,0-0-3]															
LOADING	(psf)	SPACING-		CSL.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP					
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	0.15	5-8	>568	240	MT20	244/190					
TCDL	7.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.21	5-8	>396	180							
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.06	4	n/a	n/a							
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS													
												Weight: 30 lb	FT = 20%				

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER	Left 2x6 SP No.2 1-11-8		

**REACTIONS.** (size) 4=Mechanical, 2=0-3-0, 5=Mechanical  
Max Horz 2=170(LC 12)  
Max Uplift 4=-106(LC 12), 2=-64(LC 12), 5=-9(LC 12)  
Max Grav 4=173(LC 19), 2=348(LC 1), 5=124(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-332/74

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 6-10-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5 except (jt=lb) 4=106.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017793
3363903	EJ02	Jack-Open	8	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:39 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-vcDZ\_sA2x4ryHQz449eB?vzFXQCETsroel6F5EzcgRE

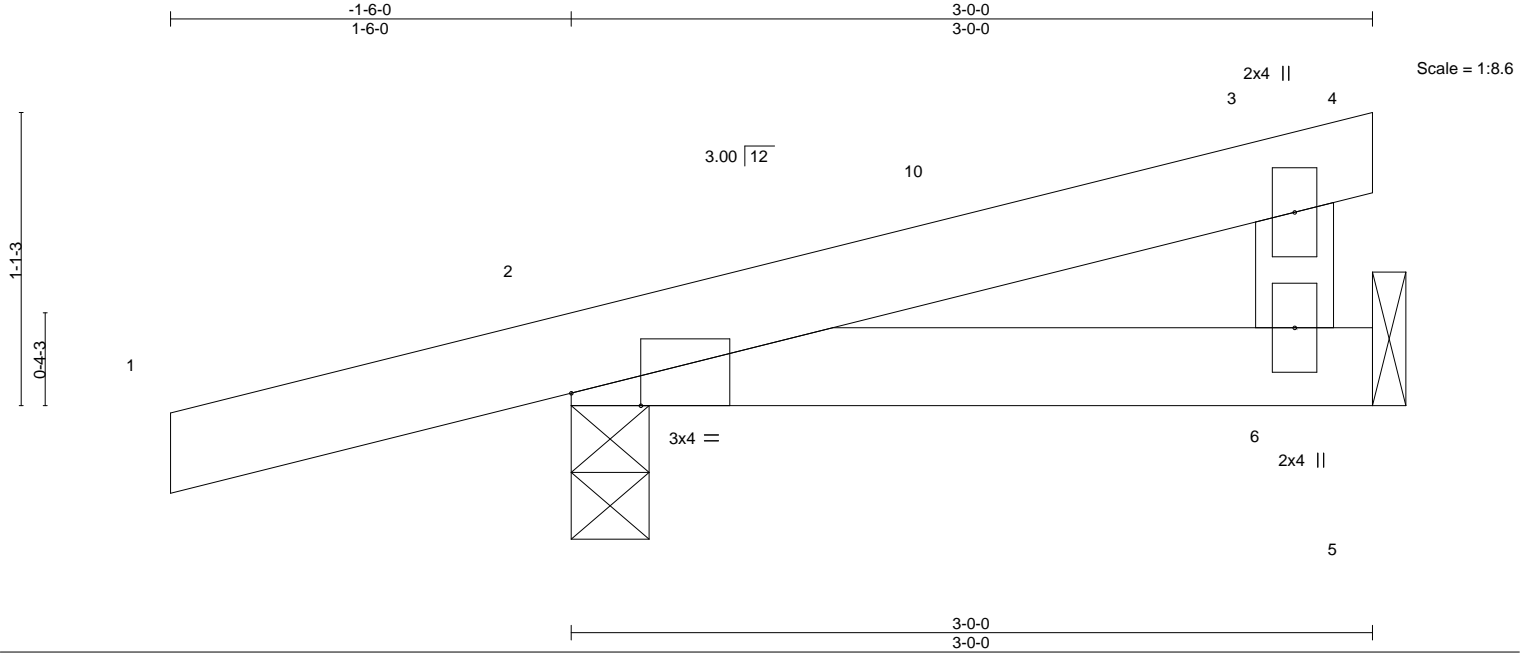


Plate Offsets (X,Y)-- [2:0-3-2,Edge]											
LOADING (psf)		SPACING-		CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	-0.00	9	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.00	9	>999	180	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							
										Weight: 12 lb	FT = 20%

#### LUMBER-

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

#### REACTIONS.

(size) 2=0-3-8, 6=Mechanical  
Max Horz 2=45(LC 8)  
Max Uplift 2=-104(LC 8), 6=-29(LC 12)  
Max Grav 2=203(LC 1), 6=88(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=25ft; 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 3-0-0 zone;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.
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- 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) 6 except (jt=lb) 2=104.

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

March 10,2023

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

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

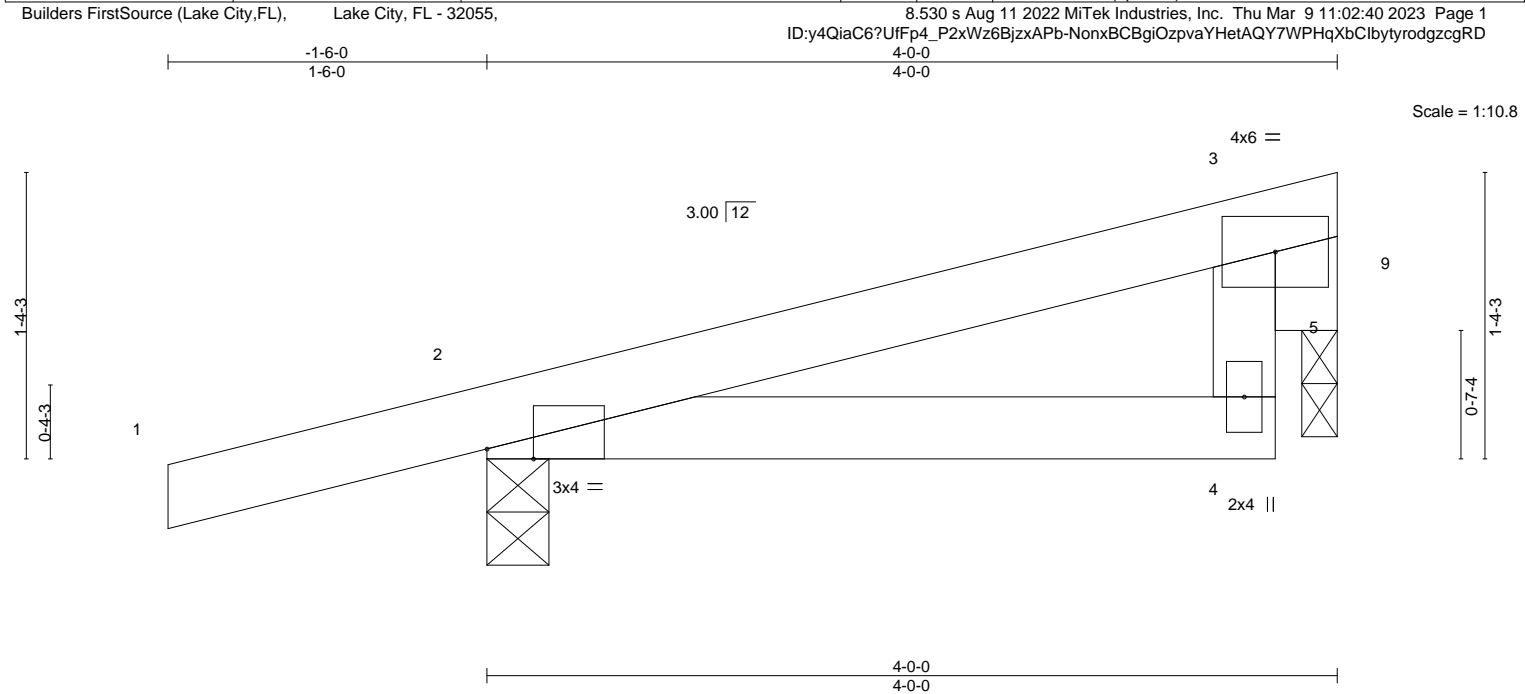
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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. - ROYSTER RES.	T30017794
3363903	EJ03	MONO TRUSS	5	1	Job Reference (optional)	



Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017795
3363903	EJ04	Jack-Open	6	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:41 2023 Page 1

ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-r\_LJPXBtI5gXk7TBahf4K2YTEpoxlW56cbMA6zcgRC



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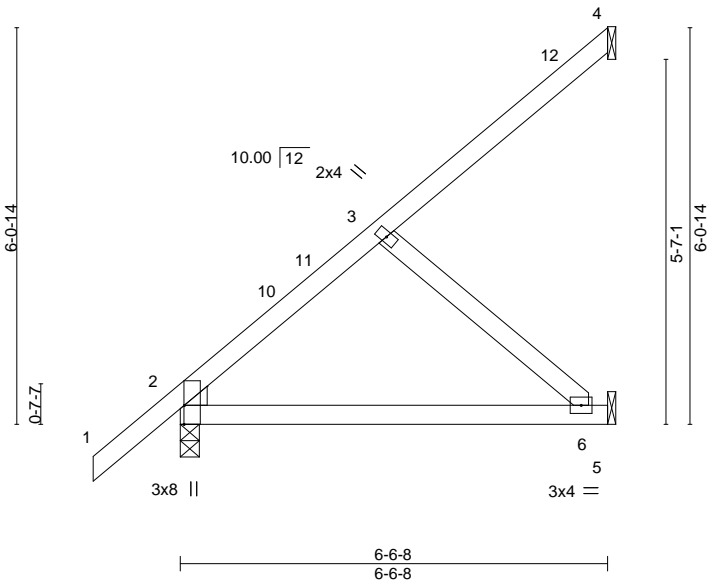


Plate Offsets (X,Y)--		[2:0-3-8,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.25	TC	0.29	Vert(LL)	-0.06	6-9	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.37	Vert(CT)	-0.11	6-9	>679	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	2	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP								Weight: 32 lb	FT = 20%

<b>LUMBER-</b>			<b>BRACING-</b>		
TOP CHORD	2x4	SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.	
BOT CHORD	2x4	SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS	2x4	SP No.3			
WEDGE					
Left: 2x4	SP No.3				

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical

Max Horz 2=229(LC 12)

Max Uplift 4=-66(LC 12), 2=-20(LC 12), 5=-84(LC 12)

Max Grav 4=80(LC 19), 2=319(LC 1), 5=177(LC 19)

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

WEBS 3-6=-200/255

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

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:

March 10,2023



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017796
3363903	EJ05	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:42 2023 Page 1

ID:y4QiaC6?UIFP4\_P2xWz6BjzxAPb-JAuhctCxE?DX8tiflHCudYbjPe9UgCpEKGKviYzcgRB



2x4 ||

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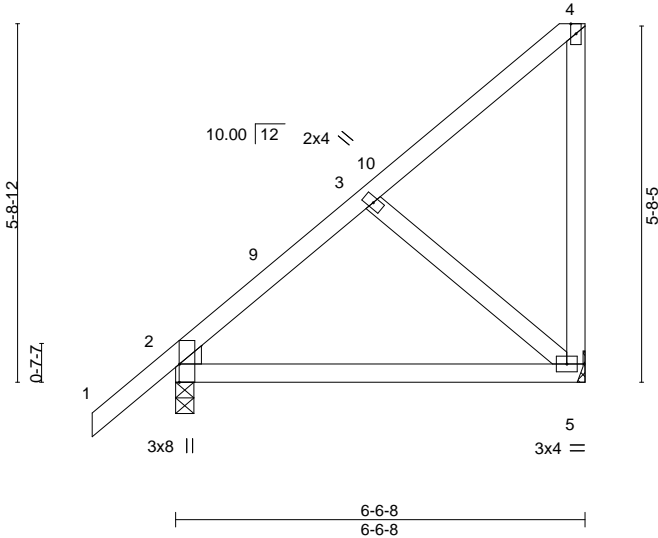


Plate Offsets (X,Y)--		[2:0-3-8,Edge]											
LOADING	(psf)	SPACING-		CSL		DEFL.	in	(loc)	I/defl	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.28	Vert(LL)	-0.05	5-8	>999	240		MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.10	5-8	>764	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	2	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP								Weight: 40 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
WEDGE			
Left: 2x4 SP No.3			

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical  
 Max Horz 2=230(LC 12)  
 Max Uplift 2=-16(LC 12), 5=-157(LC 12)  
 Max Grav 2=316(LC 1), 5=253(LC 19)

**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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-4-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.  
 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
 5) Refer to girder(s) for truss to truss connections.  
 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 5=157.

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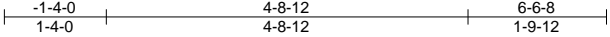
Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017797
3363903	EJ06	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:43 2023 Page 1

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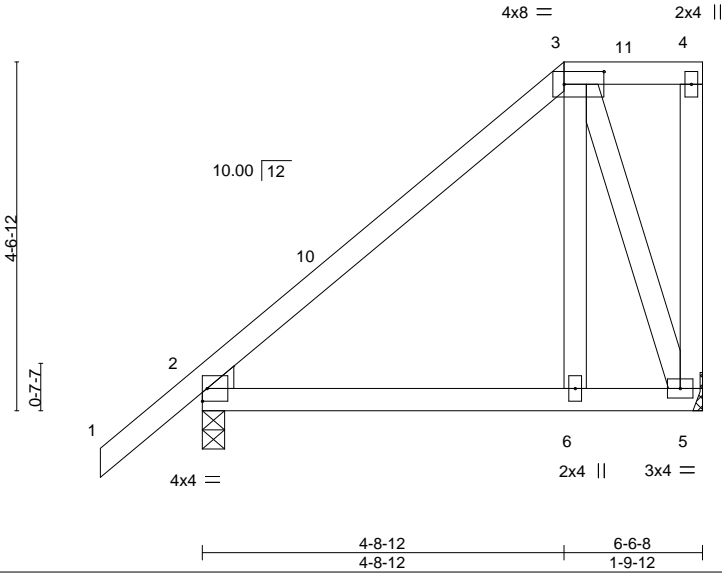


Plate Offsets (X,Y)-- [3:0-6-4,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	0.03	6-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.03	6-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014		Matrix-MP						Weight: 43 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical  
Max Horz 2=181(LC 12)  
Max Uplift 2=-54(LC 12), 5=-106(LC 12)  
Max Grav 2=316(LC 1), 5=229(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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-8-12, Exterior(2E) 4-8-12 to 6-4-12 zone;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) 2 except (jt=lb) 5=106.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017798
3363903	EJ07	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:02:44 2023
Page 1

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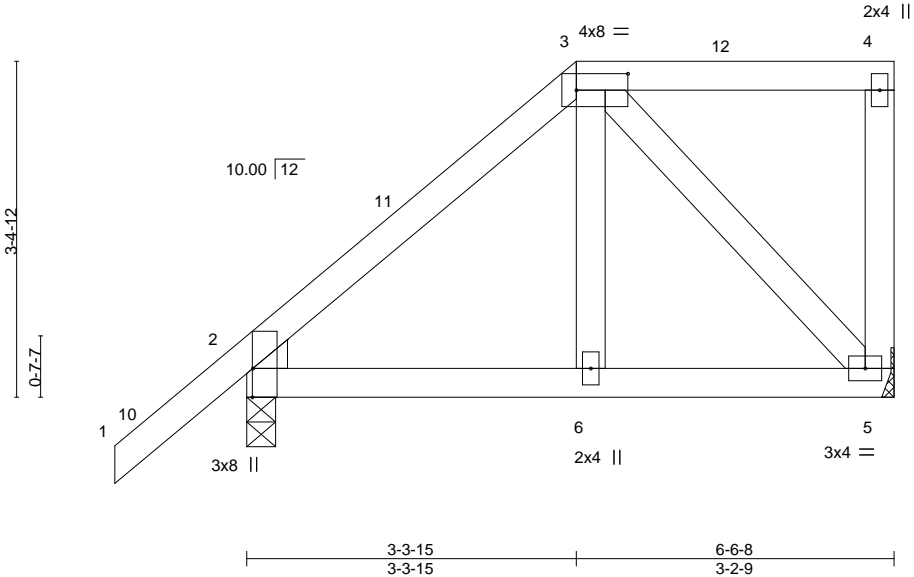


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-6-4,0-2-0]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	0.01	6-9	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.13	Vert(CT)	-0.01	6-9	>999	180	GRIP
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	2	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 38 lb
											FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
WEDGE			
Left: 2x4 SP No.3			

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical

Max Horz 2=138(LC 12)

Max Uplift 2=-76(LC 12), 5=-73(LC 12)

Max Grav 2=316(LC 1), 5=229(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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-3-15, Exterior(2E) 3-3-15 to 6-4-12 zone;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) 2, 5.

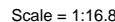
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023



Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:45 2023 Page 1  
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<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
WEDGE			
Left: 2x4 SP No.3			

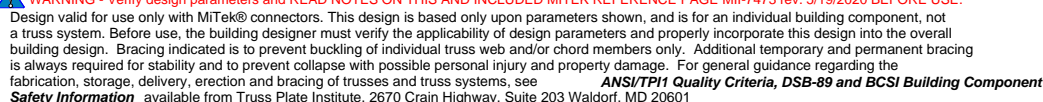
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-251/85

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDEL=4.2psf; BCDEL=3.0psf; h=25ft; 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
- 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) 2, 5.

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

March 10, 2023



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017800
3363903	F01	Floor	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:47 2023 Page 1  
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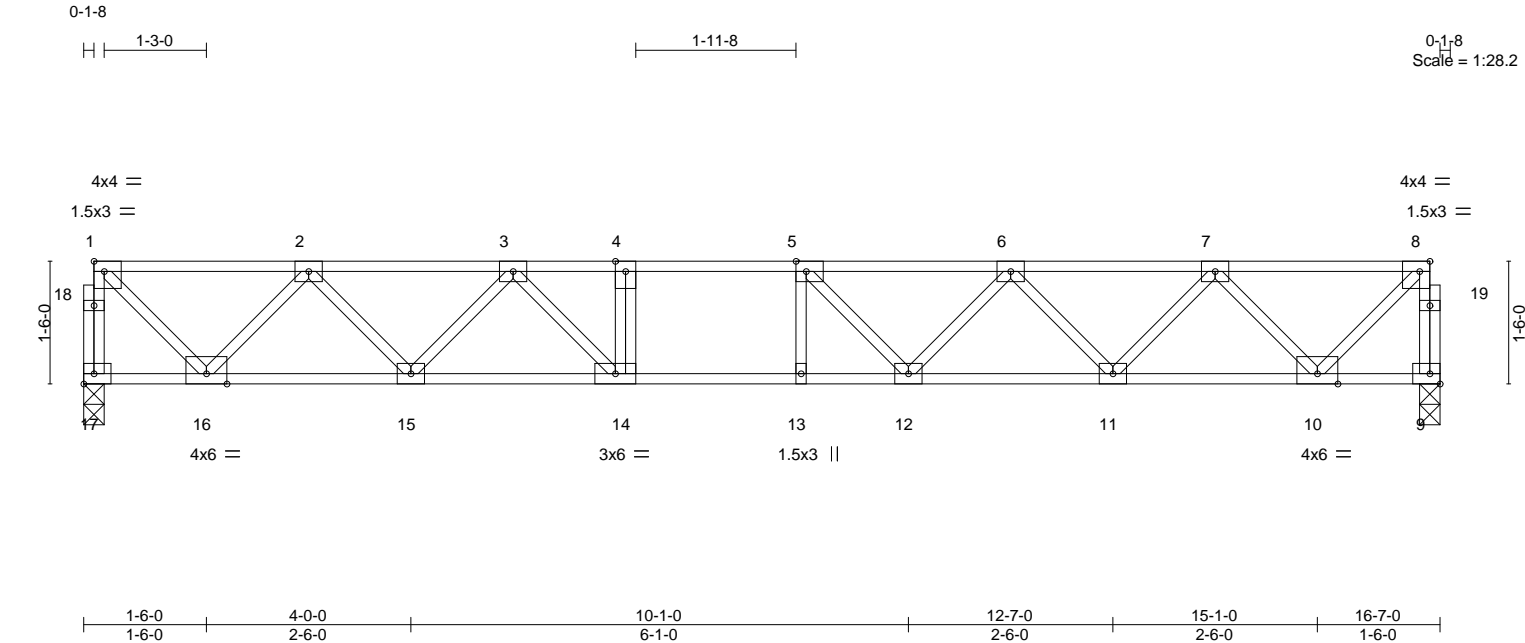


Plate Offsets (X,Y)--		[1:Edge,0-1-8], [5:0-1-8,Edge], [8:0-1-8,Edge]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.19 12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.25 12-13	>779	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.04 9	n/a	n/a		
BCDL	5.0	Code	FBC2020/TPI2014	Matrix-S						Weight: 90 lb	FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-14.
WEBS	2x4 SP No.3(flat)		
REACTIONS.			
(size) 17=0-3-0, 9=0-3-0			
Max Grav 17=892(LC 1), 9=892(LC 1)			


FORCES.			
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	1-17=-889/0, 8-9=-888/0, 1-2=-793/0, 2-3=-1900/0, 3-4=-2628/0, 4-5=-2628/0, 5-6=-2509/0, 6-7=-1916/0, 7-8=-788/0		
BOT CHORD	15-16=0/1483, 14-15=0/2316, 13-14=0/2628, 12-13=0/2628, 11-12=0/2334, 10-11=0/1479		
WEBS	8-10=0/1082, 1-16=0/1090, 7-10=-1028/0, 2-16=-1027/0, 7-11=0/649, 2-15=0/620, 6-11=-622/0, 3-15=-617/0, 6-12=0/363, 3-14=0/644, 5-12=-416/84, 4-14=-288/0		

NOTES-			
1) Unbalanced floor live loads have been considered for this design.			
2) All plates are 3x4 MT20 unless otherwise indicated.			
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.			
Strongbacks to be attached to walls at their outer ends or restrained by other means.			

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

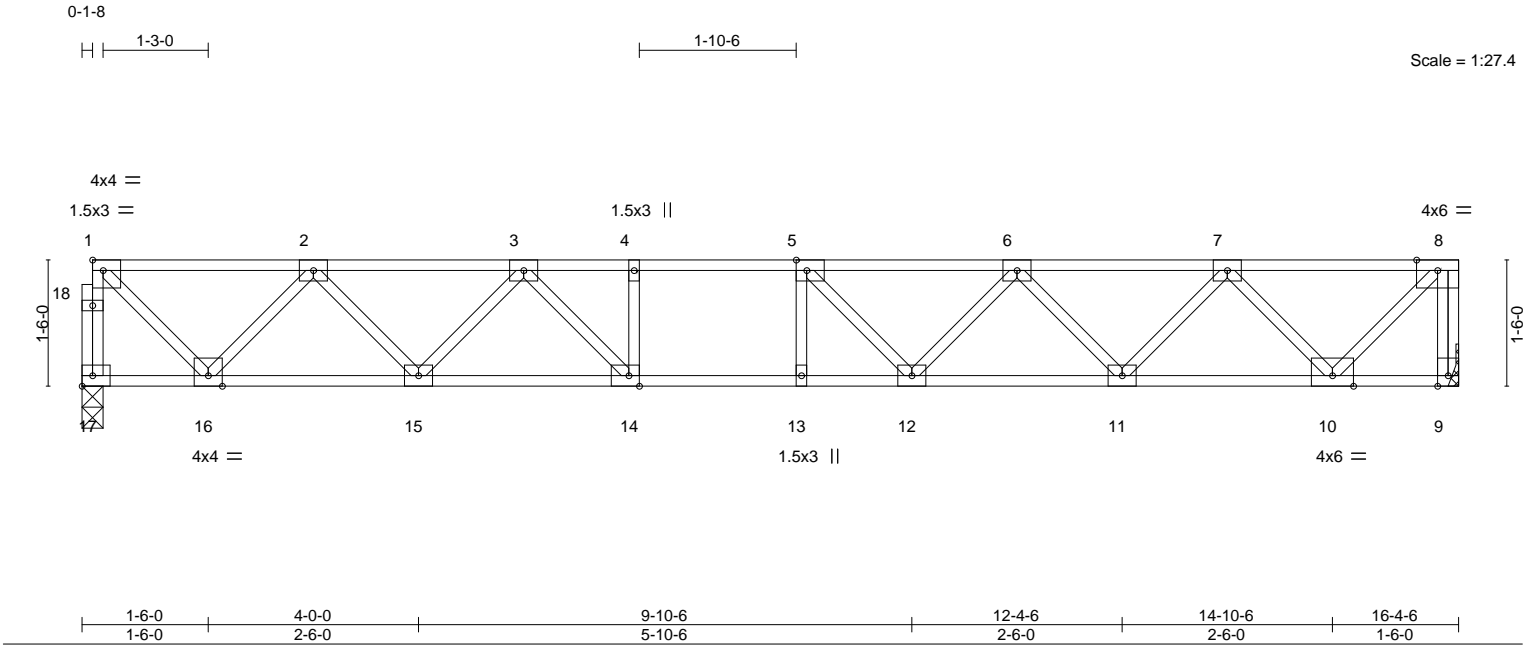
March 10,2023

<b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b> 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		 16023 Swingley Ridge Rd Chesterfield, MO 63017	
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Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017801
3363903	F02	Floor	7	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:48 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-8KGytXHpr\_hso9p6YJlsprfa24Z4pH7jCnDvCzcgR5



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.68	Vert(LL)	-0.17 12-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.87	Vert(CT)	-0.23 12-13	>840	240		
BCLL 0.0	Rep Stress Incr YES	WB 0.52	Horz(CT)	0.04 9	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-S					Weight: 88 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS.	(size) 17=0-3-0, 9=Mechanical
	Max Grav 17=880(LC 1), 9=886(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-17=-877/0, 8-9=-881/0, 1-2=-781/0, 2-3=-1867/0, 3-4=-2560/0, 4-5=-2560/0, 5-6=-2453/0, 6-7=-1883/0, 7-8=-774/0
BOT CHORD	15-16=0/1460, 14-15=0/2272, 13-14=0/2560, 12-13=0/2560, 11-12=0/2289, 10-11=0/1458
WEBS	8-10=0/1095, 1-16=0/1073, 7-10=-1017/0, 2-16=-1011/0, 7-11=0/632, 2-15=0/604, 6-11=-604/0, 3-15=-603/0, 6-12=0/345, 3-14=0/614, 5-12=-390/92, 4-14=-276/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.

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:

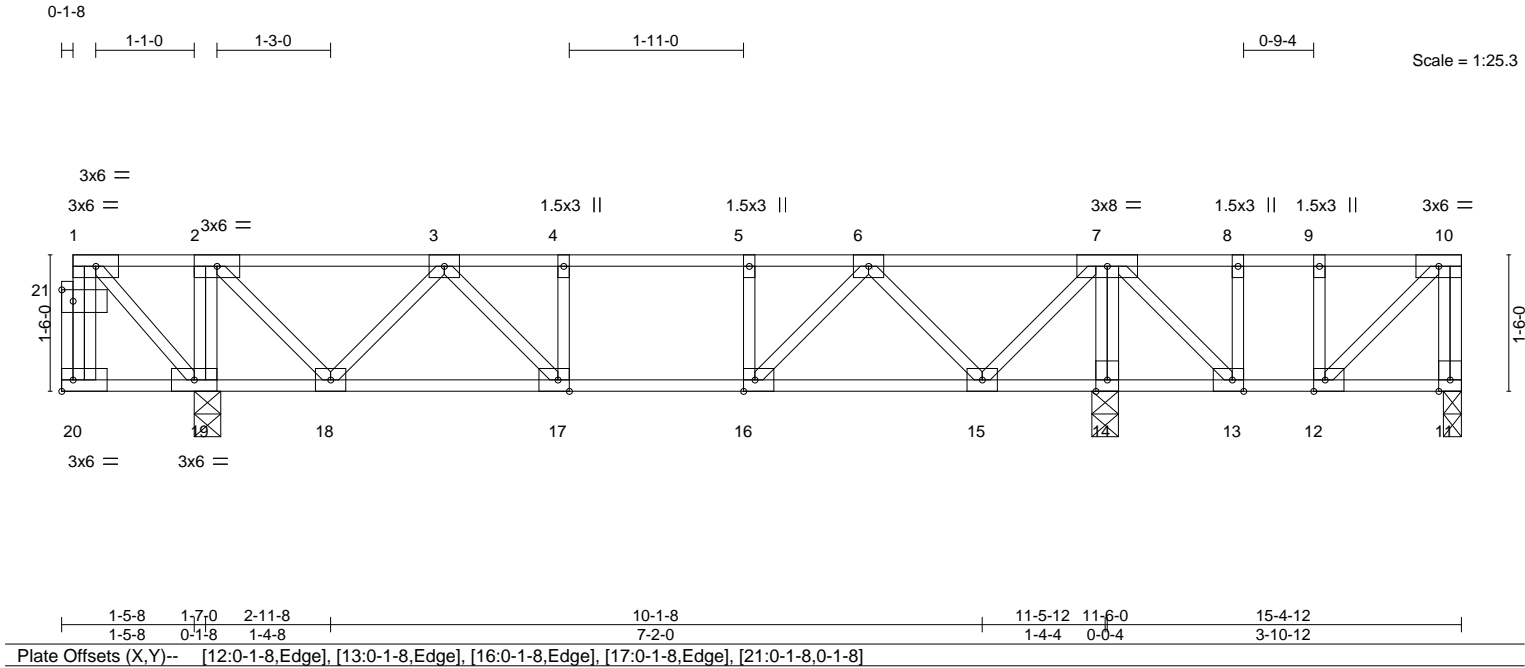
March 10,2023



Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017803
3363903	F04	Floor	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:50 2023 Page 1  
ID:y4QiaC6?UfP4\_P2xWz6BjzxAPb-4jNjHclyLTEP66JCDzLmyEw3Qsu3YmWQAWGK\_5zcgR3



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.40	Vert(LL)	-0.04 17-18	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.36	Vert(CT)	-0.05 17-18	>999	240		
BCLL 0.0	Rep Stress Incr NO	WB 0.28	Horz(CT)	0.01 14	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-S					Weight: 93 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 11=0-2-6, 19=0-3-8, 14=0-3-8  
Max Uplift 11=-35(LC 3)  
Max Grav 11=211(LC 11), 19=1008(LC 3), 14=832(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=0/344, 2-3=-336/210, 3-4=-836/0, 4-5=-836/0, 5-6=-836/0, 6-7=-300/49  
BOT CHORD 18-19=-344/0, 17-18=-95/681, 16-17=0/836, 15-16=0/660, 14-15=-350/29, 13-14=-350/29  
WEBS 2-19=-656/0, 7-14=-859/0, 1-19=-494/0, 7-15=0/593, 2-18=0/584, 6-15=-545/0, 3-18=-542/0, 6-16=0/328, 3-17=0/360, 7-13=0/420

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) All plates are 3x4 MT20 unless otherwise indicated.  
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 11.  
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11.  
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.  
6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 11-20=-10, 1-10=-100  
Concentrated Loads (lb)  
Vert: 1=-300

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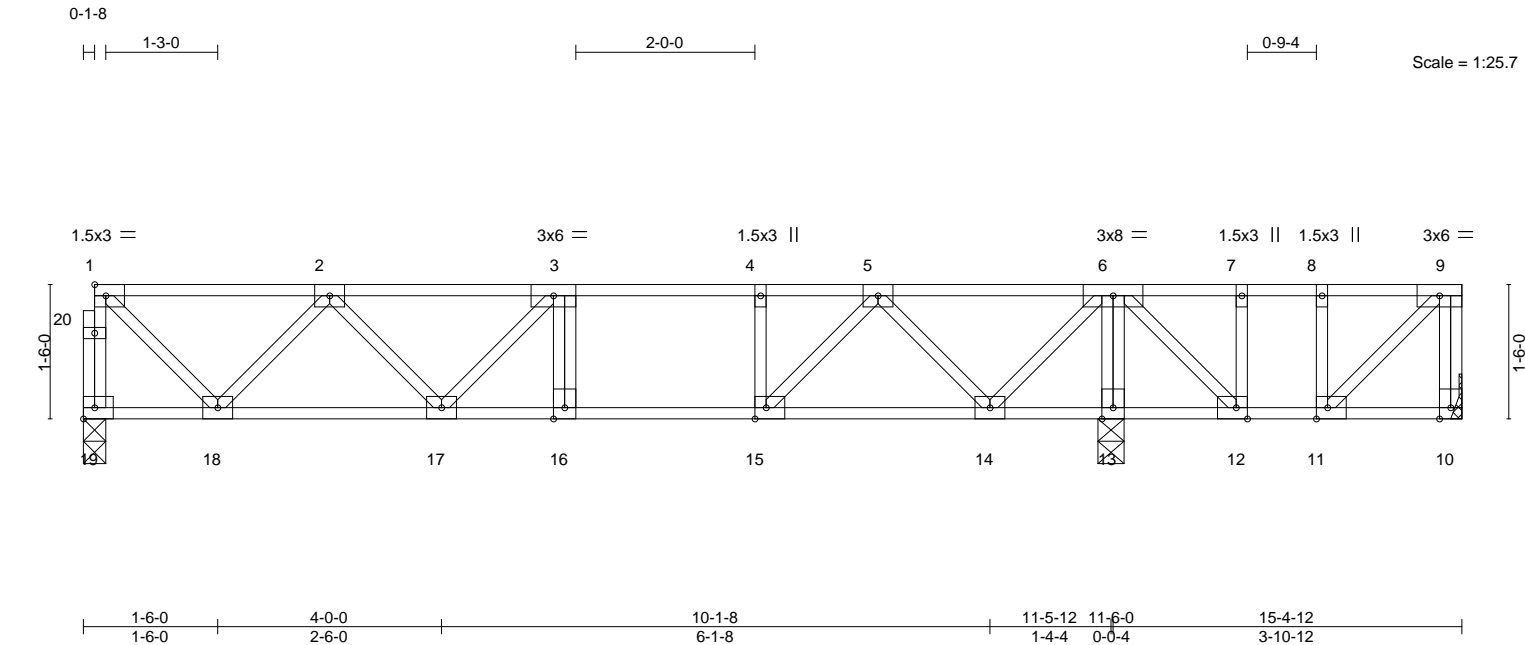
Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017804
3363903	F05	Floor	4	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:51 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-Yvx5VyJa6mMFjGuOngs?URTC1G7DHCsZPA0uWXzcgR2



1-6-0	4-0-0	10-1-8	11-5-12	11-6-0	15-4-12
1-6-0	2-6-0	6-1-8	1-4-4	0-0-4	3-10-12
Plate Offsets (X,Y)-- [11:0-1-8,Edge], [12:0-1-8,Edge], [15:0-1-8,Edge]					

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14,12-13.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 19=0-3-0, 10=Mechanical, 13=0-3-8  
Max Grav 19=622(LC 10), 10=273(LC 7), 13=853(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-19=-615/0, 9-10=-274/0, 1-2=-522/0, 2-3=-1148/0, 3-4=-1266/0, 4-5=-1266/0, 5-6=-528/0  
BOT CHORD 17-18=0/979, 16-17=0/1266, 15-16=0/1266, 14-15=0/966  
WEBS 6-13=-859/0, 1-18=0/715, 6-14=0/663, 2-18=-680/0, 5-14=-660/0, 2-17=0/251, 5-15=0/497, 9-11=0/320, 6-12=-2/314

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.

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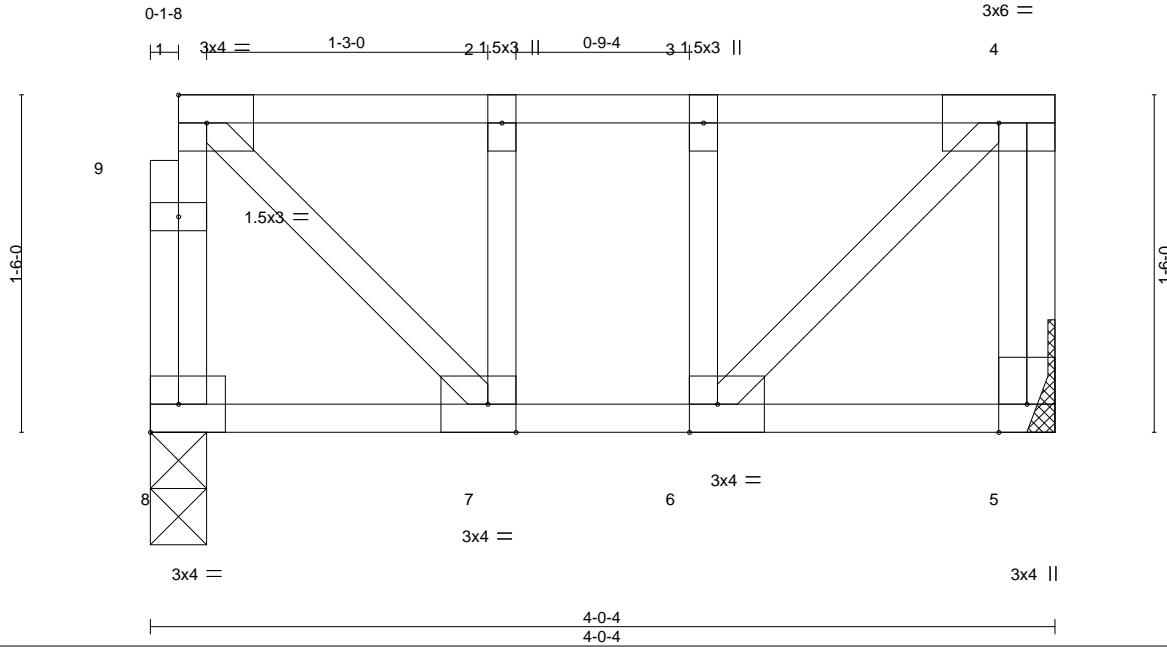
Philip J. O'Regan PE No.58126  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017805
3363903	F06	Floor	5	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:52 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-06VTiIKCt4U6LQTaLONE1f?TBgdq0jxeqlR2zzcgR1



Scale = 1:10.2

Plate Offsets (X,Y)--		[6:0-1-8,Edge], [7:0-1-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.13
TCDL 10.0	Lumber DOL	1.00	BC 0.08
BCLL 0.0	Rep Stress Incr	YES	WB 0.10
BCDL 5.0	Code	FBC2020/TPI2014	Matrix-S
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) -0.00 6 >999 360
			Vert(CT) -0.00 6 >999 240
			Horz(CT) 0.00 5 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 244/190
			Weight: 28 lb FT = 20%F, 11%E

#### LUMBER-

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 8=0-3-0, 5=Mechanical  
Max Grav 8=201(LC 1), 5=207(LC 1)

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

#### NOTES-

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

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

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

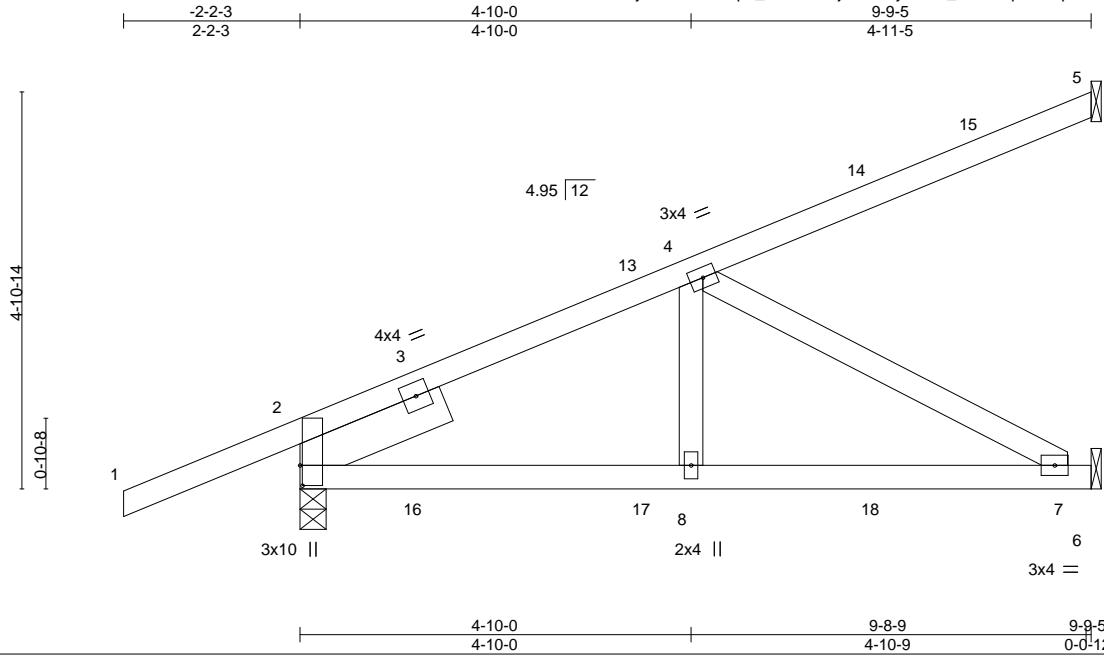


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017806
3363903	HJ10	Diagonal Hip Girder	3	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:54 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-yUdD7\_LSPkqakdzSpQi645h0TDyUaM?58EY7szcgR?



Scale = 1:28.5

Plate Offsets (X,Y)--		[2:0-3-0,0-0-5]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	0.05	7-8	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.09	7-8	>999	180	GRIP
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.29	Horz(CT)	-0.02	5	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 50 lb
											FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 1-11-8

#### 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) 5=Mechanical, 2=0-3-14, 6=Mechanical  
Max Horz 2=170(LC 8)  
Max Uplift 5=86(LC 8), 2=246(LC 4), 6=154(LC 8)  
Max Grav 5=142(LC 1), 2=476(LC 35), 6=307(LC 35)

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

TOP CHORD 2-4=-569/253  
BOT CHORD 2-8=-297/461, 7-8=-297/461  
WEBS 4-7=-526/339

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=246, 6=154.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb down and 127 lb up at 1-5-5, 61 lb down and 127 lb up at 1-5-5, 83 lb down and 49 lb up at 4-3-4, 83 lb down and 49 lb up at 4-3-4, and 114 lb down and 95 lb up at 7-1-3, and 114 lb down and 95 lb up at 7-1-3 on top chord, and 9 lb down and 43 lb up at 1-5-5, 9 lb down and 43 lb up at 1-5-5, 23 lb down and 9 lb up at 4-3-4, 23 lb down and 9 lb up at 4-3-4, and 47 lb down and 23 lb up at 7-1-3, and 47 lb down and 23 lb up at 7-1-3 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: 1-5=-54, 6-9=-20  
Concentrated Loads (lb)  
Vert: 3=65(F=33, B=33) 14=68(F=-34, B=-34) 17=4(F=2, B=2) 18=-58(F=-29, B=-29)

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

March 10,2023

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017807
3363903	KW1	GABLE	1	1	Job Reference (optional)	

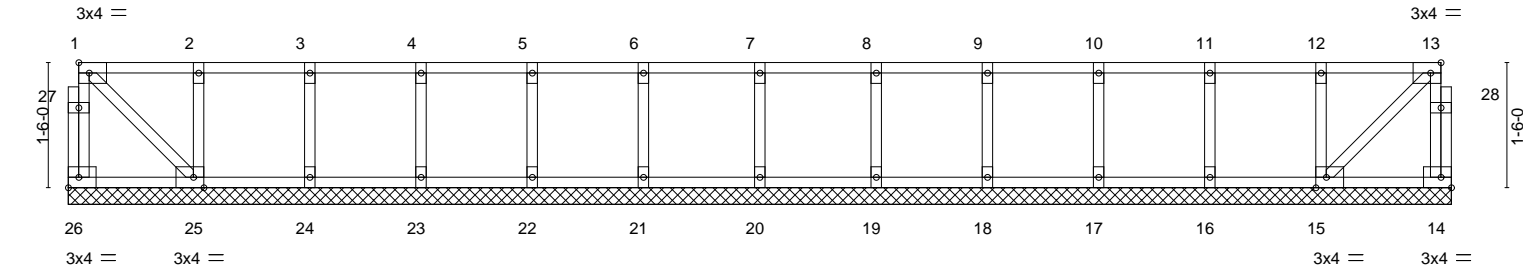
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:56 2023 Page 1  
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0-1-8

0-1-8

Scale = 1:27.6



1-6-12	2-10-12	4-2-12	5-6-12	6-10-12	8-3-8	9-8-4	11-0-4	12-4-4	13-8-4	15-0-4	16-7-0
1-6-12	1-4-0	1-4-0	1-4-0	1-4-0	1-4-12	1-4-12	1-4-0	1-4-0	1-4-0	1-4-0	1-6-12
Plate Offsets (X,Y)-- [13:0-1-8,Edge], [15:0-1-8,Edge], [25:0-1-8,Edge]											

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	15	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-S						Weight: 82 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 2x4 SP No.3(flat)	10-0-0 oc bracing: 25-26,14-15.
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 16-7-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 15, 20, 16, 17, 18, 19, 24, 23, 22, 21

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

**NOTES-**  
1) All plates are 1.5x3 MT20 unless otherwise indicated.  
2) Gable requires continuous bottom chord bearing.  
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
4) Gable studs spaced at 1-4-0 oc.  
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017808
3363903	KW6	GABLE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:57 2023 Page 1  
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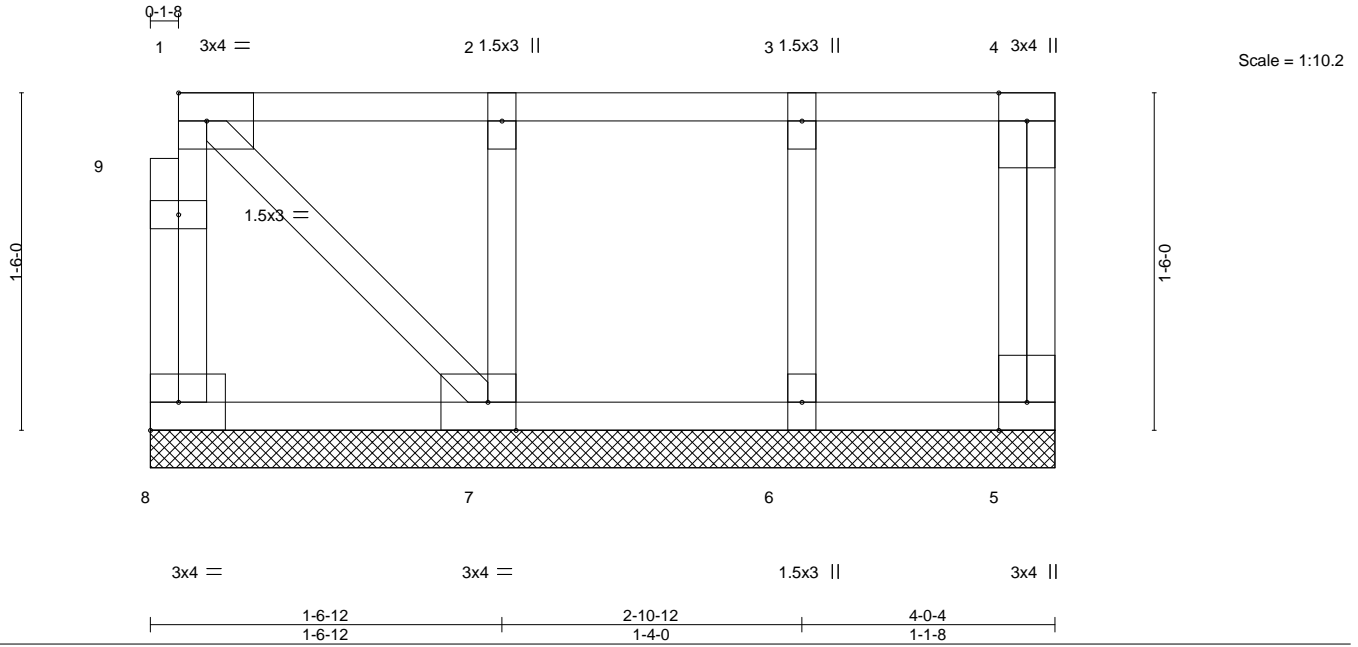


Plate Offsets (X,Y)-- [7:0-1-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00		
BCDL	5.0	Code	FBC2020/TPI2014	Matrix-P				Weight: 25 lb	FT = 20%F, 11%E

#### LUMBER-

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

All bearings 4-0-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 8, 5, 7, 6

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

#### NOTES-

- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

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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

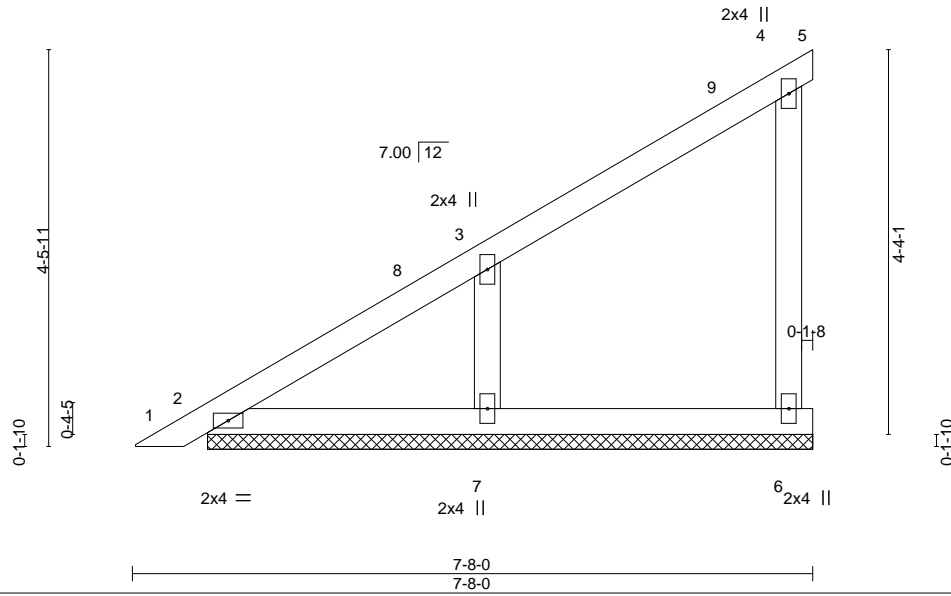


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017809
3363903	PB01	PIGGYBACK	11	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:58 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-rFskzLPzTwEG3LwkheUeGwFUc4gsQs6b0lCfDzcgQx



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.11	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 31 lb	FT = 20%
	Code FBC2020/TPI2014							

#### 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 10-0-0 oc bracing.

#### REACTIONS.

All bearings 6-9-13.  
(lb) - Max Horz 2=151(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 5 except 6=122(LC 12), 7=132(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 5, 6, 2 except 7=301(LC 19)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 7-8-0 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.
- 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) 5 except (jt=lb) 6=122, 7=132.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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:

March 10,2023

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017810
3363903	PB02G	PIGGYBACK	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:02:59 2023 Page 1

ID:y4QiaC6?UfPp4\_P2xWz6BjzAPb-JSQ6AhPbEDN7hVVwFM?tp7oh1U1z9v9kFPyJn3zcgQw

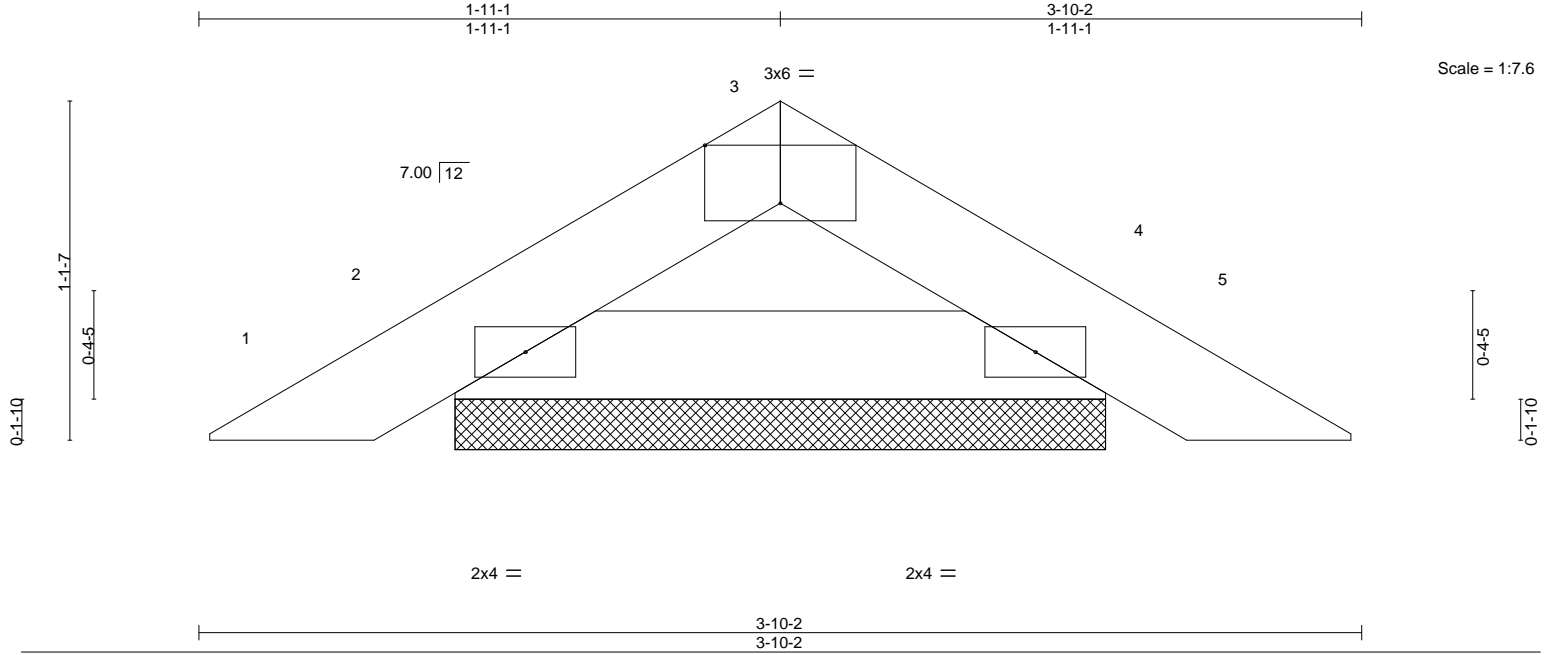


Plate Offsets (X,Y)--		[3:0-3:0,Edge]											
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.02	Vert(LL)	-0.00	4	n/r	120	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.00	4	n/r	120			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%	

#### LUMBER-

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

#### REACTIONS.

(size) 2=2-1-13, 4=2-1-13  
Max Horz 2=-22(LC 10)  
Max Uplift 2=-32(LC 12), 4=-32(LC 13)  
Max Grav 2=109(LC 1), 4=109(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=25ft; 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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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:

March 10,2023

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



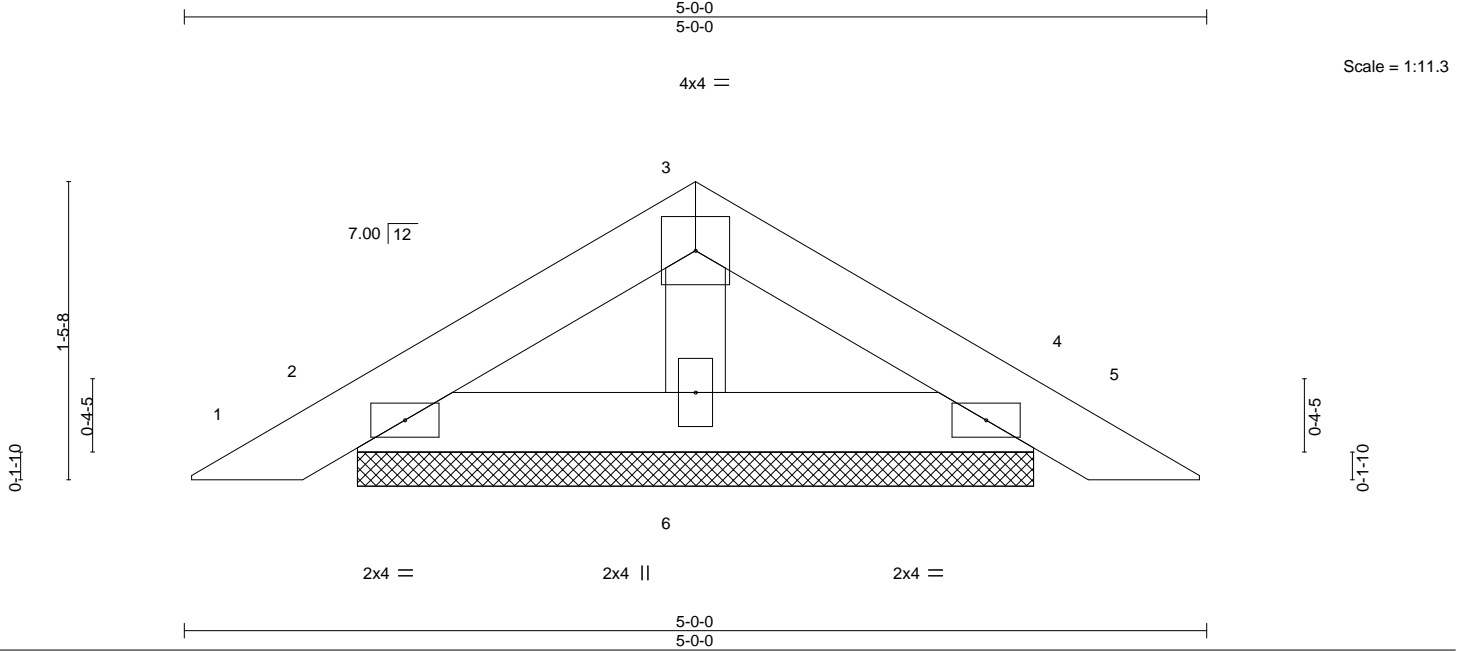
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017811
3363903	PB03	Piggyback	4	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:00 2023 Page 1

ID:y4QiaC6?UfPp4\_P2xWz6BjzxAPb-ne\_VO1QD\_XV\_lf47p3W6LLsauNauMCuT3hsKWzcgQv



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.04	Vert(LL) 0.00	4	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.03	Vert(CT) 0.00	4	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT) 0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-P					Weight: 14 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 5-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=3-3-11, 4=3-3-11, 6=3-3-11  
Max Horz 2=-30(LC 10)  
Max Uplift 2=-37(LC 12), 4=-41(LC 13), 6=-9(LC 12)  
Max Grav 2=97(LC 1), 4=97(LC 1), 6=110(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=25ft; 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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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

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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. - ROYSTER RES.	T30017812
3363903	PB04	GABLE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:03:01 2023
Page 1
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-FqYtbNRlrdrwofJMn2LuYt?3lhEdpu1ijRPsyzcgQu

3-10-9

3-10-9

12-1-8

8-2-15

Scale = 1:21.5

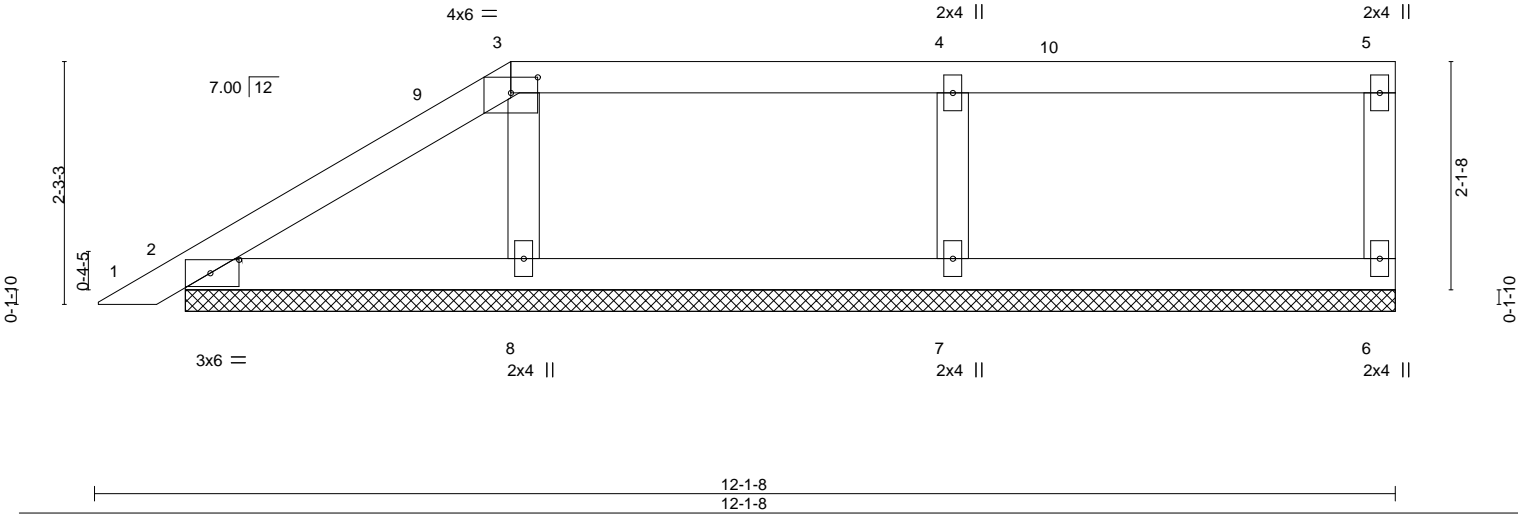


Plate Offsets (X,Y)-- [2:0-3-3,0-1-8], [3:0-3-0,0-1-12]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	-0.00	1	n/r
TCDL	7.0	Lumber DOL	1.25	BC	0.13	Vert(CT)	0.00	1	n/r
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S					
						<b>PLATES</b>	<b>GRIP</b>		
						MT20	244/190		
						Weight: 43 lb		FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

**REACTIONS.** All bearings 11-3-5.

(lb) - Max Horz 2=76(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 8 except 7=110(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 6, 2, 8 except 7=337(LC 1)

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

**WEBS** 4-7=252/136

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 3-10-9, Exterior(2R) 3-10-9 to 8-0-0, Interior(1) 8-0-0 to 11-11-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 4-0-0 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.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 8 except (jt=lb) 7=110.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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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:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017813
3363903	PB05	GABLE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:02 2023 Page 1  
ID:y4QiaC6?UffP4\_P2xWz6BjzxAPb-j16FpjSTW8liYyEVwUZaRmQAPi2qMGyBxNAzOOzcqQt

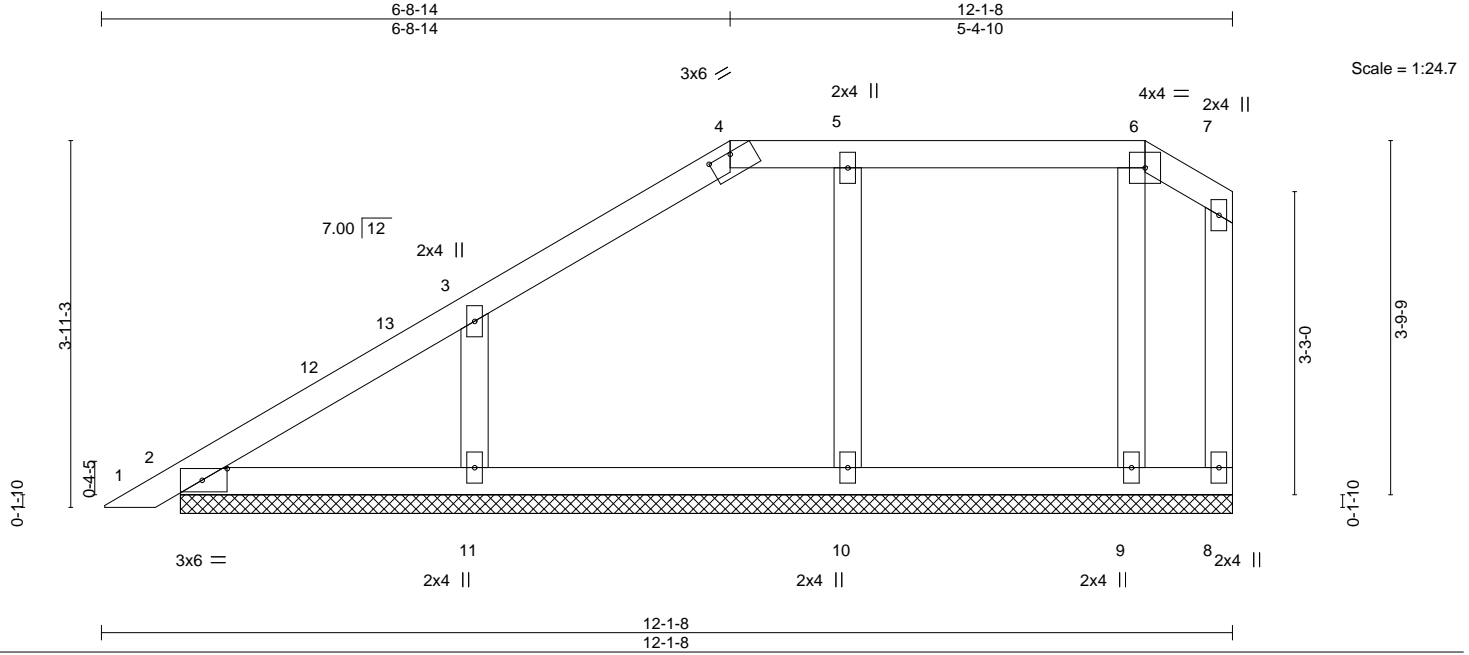


Plate Offsets (X,Y)-- [2:0-3-3,0-1-8], [4:0-3-0,0-0-4]

LOADING (psf)	SPACING-		CSL.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.10	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						Weight: 53 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 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 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 8-9.

#### REACTIONS.

All bearings 11-3-5.  
(lb) - Max Horz 2=127(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 9 except 11=135(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 8, 2, 9 except 11=306(LC 19), 10=289(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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 6-8-14, Exterior(2E) 6-8-14 to 11-11-12 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.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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) 8, 10, 9 except (jt=lb) 11=135.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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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:

March 10,2023

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017814
3363903	PB06	GABLE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:04 2023 Page 1

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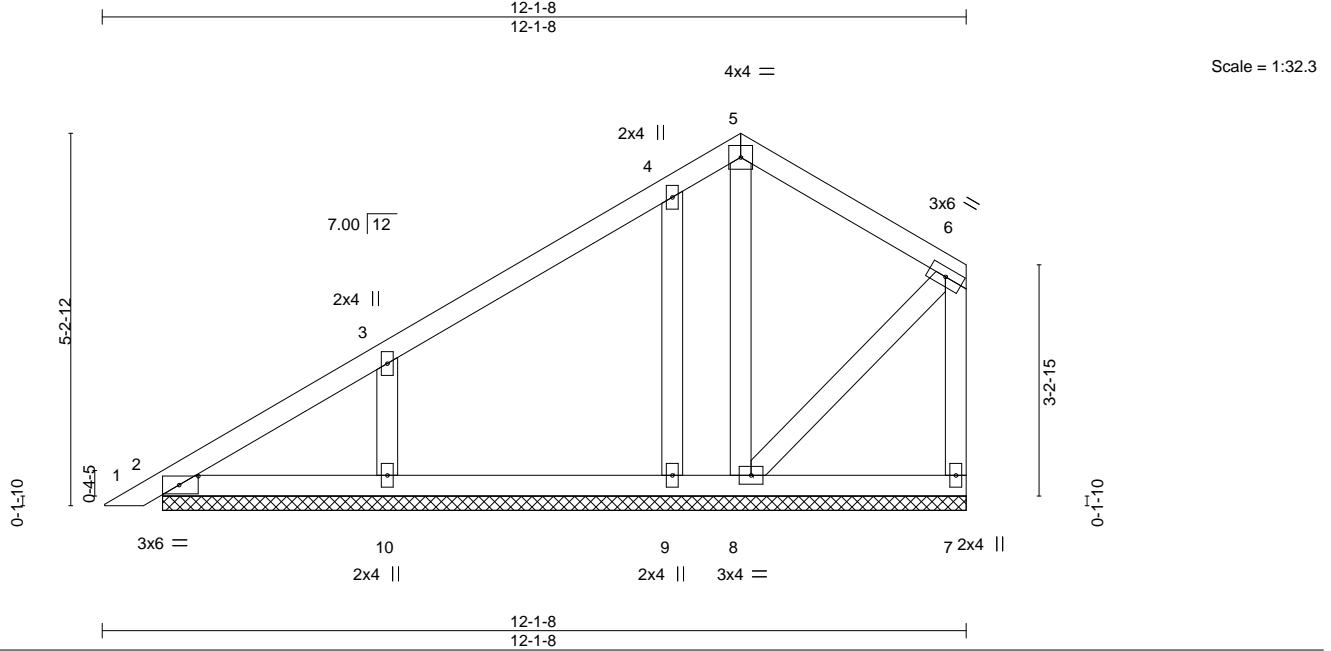


Plate Offsets (X,Y)--		[2:0-3-3,0-1-8]									
LOADING	(psf)	SPACING-		CSL		DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	0.00	1	n/r	120	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	0.00	1	n/r	120	GRIP
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	7	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S							Weight: 63 lb
											FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 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 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 7-8.

#### REACTIONS.

All bearings 11-3-5.  
(lb) - Max Horz 2=147(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 8 except 10=143(LC 12), 9=113(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 7, 2, 9, 8 except 10=315(LC 19)

**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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 8-11-8, Exterior(2E) 8-11-8 to 11-11-12 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 4-0-0 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) 7, 2, 8 except (jt=lb) 10=143, 9=113.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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:

March 10,2023

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

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017815
3363903	PB07	Piggyback	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:03:05 2023
Page 1
ID:y4QiaC6?UifP4\_P2xWz6BjzxAPb-8cnORIUMp37GPQy4bd6H2O2f0v2qZdrddLPd?jzcgQq

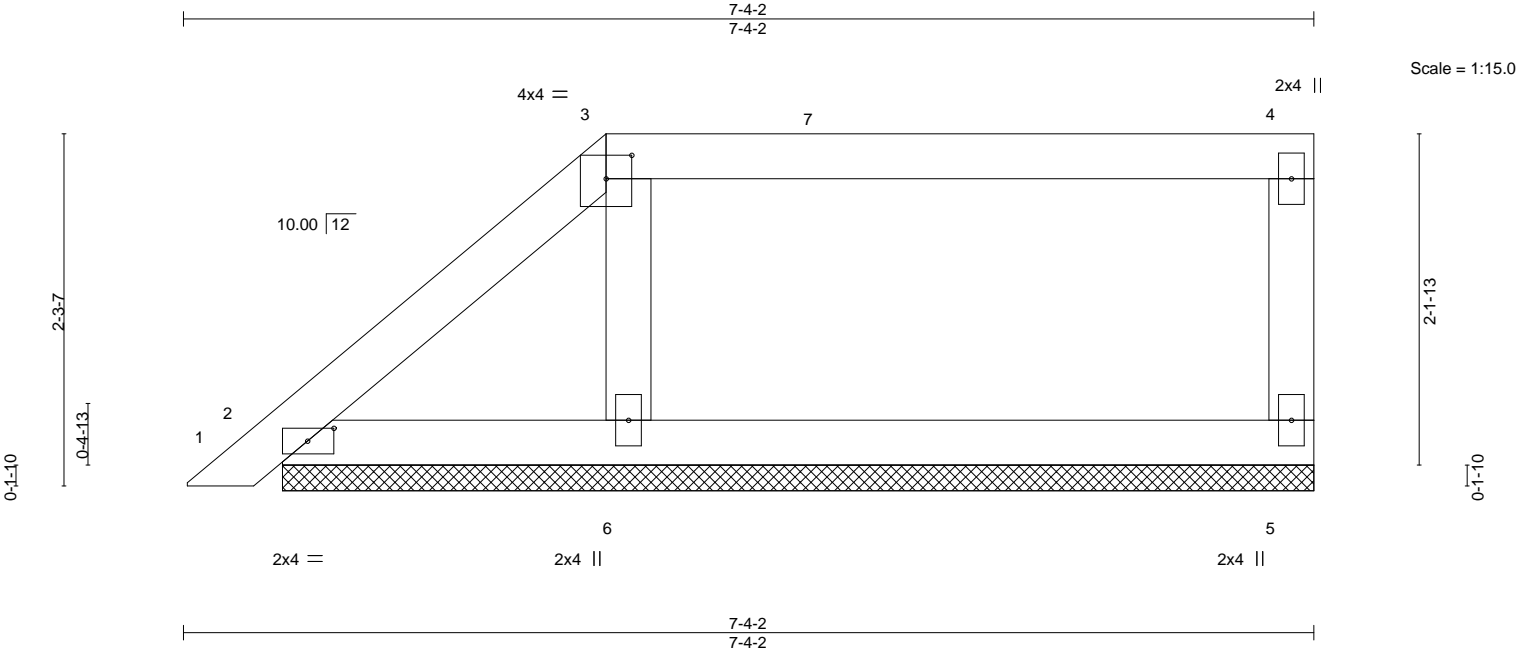


Plate Offsets (X,Y)--		[2:0-2-1,0-1-0], [3:0-2-0,0-1-13]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.25		TC 0.31		Vert(LL) -0.00 1	n/r	120	MT20	244/190
TCDL 7.0		Lumber DOL 1.25		BC 0.15		Vert(CT) 0.00 1	n/r	120		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.05		Horz(CT) 0.00 5	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014		Matrix-P					Weight: 27 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

**REACTIONS.** (size) 5=6-8-6, 2=6-8-6, 6=6-8-6  
Max Horz 2=76(LC 12)  
Max Uplift 5=-52(LC 8), 2=-14(LC 12), 6=-60(LC 9)  
Max Grav 5=155(LC 1), 2=99(LC 1), 6=253(LC 1)

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

- NOTES-**
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; 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.
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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:

March 10,2023

March 10, 2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017816
3363903	T01	Hip Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

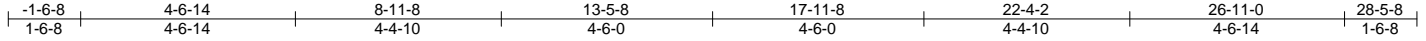
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-5=-54, 5-8=-54, 8-12=-54, 16-20=-20
- Concentrated Loads (lb)
- Vert: 5=-107(F) 8=-173(F) 15=-321(F) 6=-107(F) 7=-107(F) 13=-321(F) 24=-107(F) 25=-107(F) 27=-107(F) 28=-107(F) 29=-65(F) 30=-65(F) 31=-65(F) 32=-65(F) 33=-65(F) 34=-65(F)

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017817
3363903	T02	Hip	1	1	Job Reference (optional)	

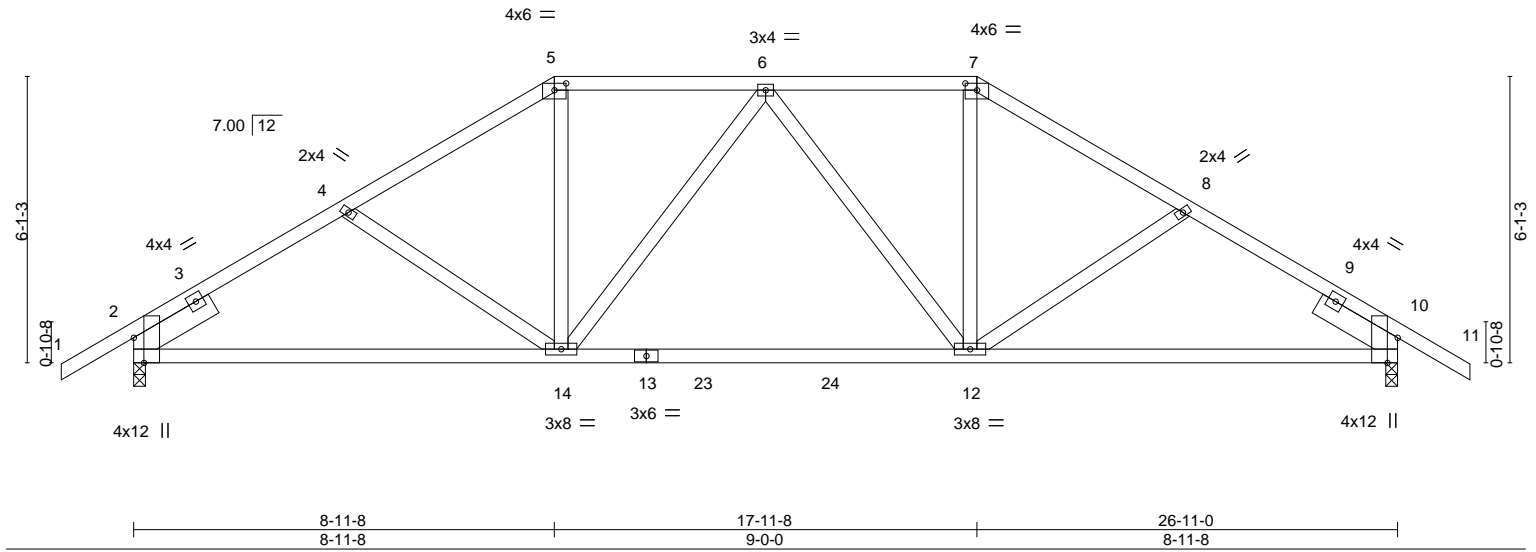
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:09 2023 Page 1

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Scale = 1:49.1



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	-0.22	12-14	>999	L/d	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.35	12-14	>930		180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.06	10	n/a		n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS								Weight: 152 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

#### REACTIONS.

(size) 2=0-3-0, 10=0-3-0  
 Max Horz 2=144(LC 10)  
 Max Uplift 2=273(LC 12), 10=273(LC 13)  
 Max Grav 2=1151(LC 2), 10=1151(LC 2)

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

TOP CHORD 2-4=1495/359, 4-5=1379/315, 5-6=1173/312, 6-7=1173/312, 7-8=1379/315,  
 8-10=1495/359  
 BOT CHORD 2-14=310/1253, 12-14=201/1250, 10-12=213/1233  
 WEBS 5-14=71/473, 7-12=71/473

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 8-11-8, Exterior(2R) 8-11-8 to 13-5-8, Interior(1) 13-5-8 to 17-11-8, Exterior(2R) 17-11-8 to 22-5-12, Interior(1) 22-5-12 to 28-5-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=273, 10=273.

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:

March 10,2023

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

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



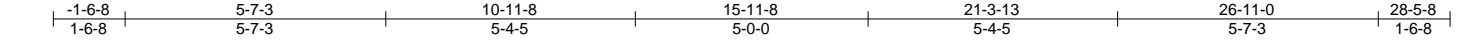
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017818
3363903	T03	Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:10 2023 Page 1

ID:y4QiaC6?UfFp4\_P2xWz6BjzAPb-UZbHUSYVeciZVBr2OAIISIRkweUEpiMmd7OgxzcqQl



Scale = 1:49.5

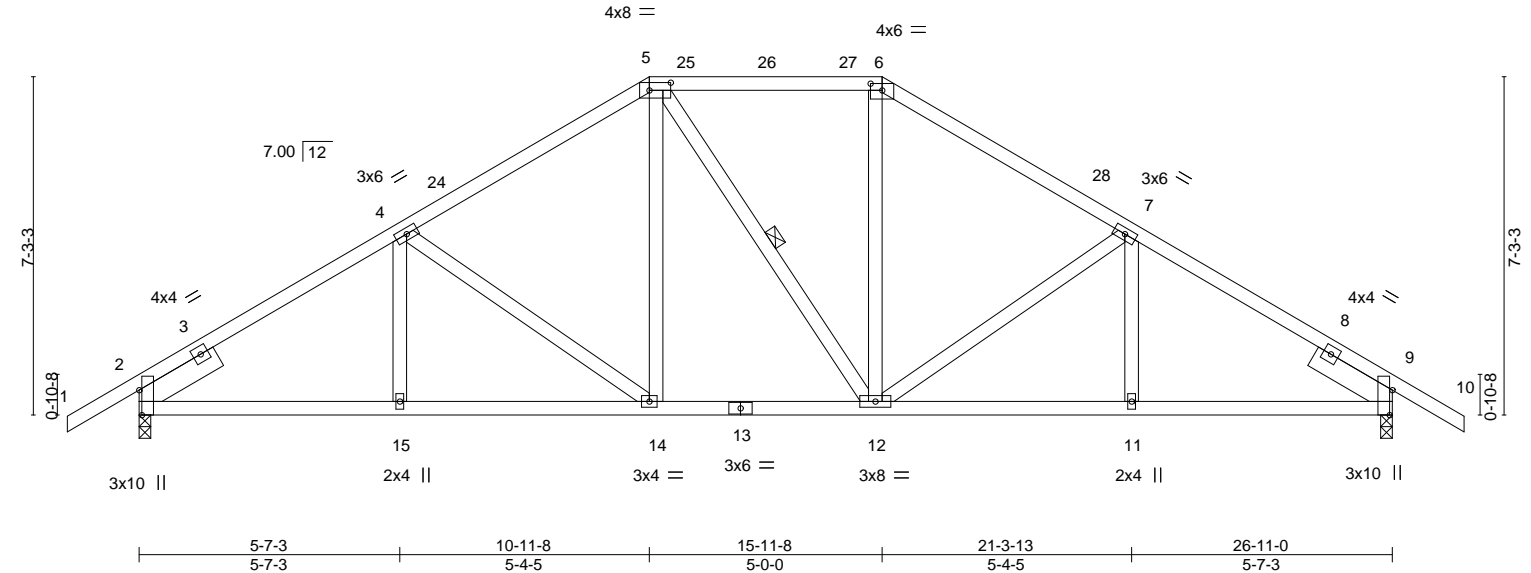


Plate Offsets (X,Y)-- [2:0-6-7,Edge], [5:0-5-8,0-2-0], [6:0-3-0,0-1-12], [9:0-6-7,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.57	Vert(LL)	-0.08 14-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.63	Vert(CT)	-0.16 14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.27	Horz(CT)	0.06 9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 161 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-12

#### REACTIONS.

(size) 2=0-3-0, 9=0-3-0  
 Max Horz 2=-172(LC 10)  
 Max Uplift 2=-268(LC 12), 9=-268(LC 13)  
 Max Grav 2=1079(LC 1), 9=1079(LC 1)

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

TOP CHORD 2-4=-1404/334, 4-5=-1154/298, 5-6=-940/301, 6-7=-1154/298, 7-9=-1404/334  
 BOT CHORD 2-15=-301/1148, 14-15=-301/1148, 12-14=-154/939, 11-12=-186/1148, 9-11=-186/1148  
 WEBS 4-14=-318/181, 5-14=-73/322, 6-12=-65/322, 7-12=-318/181

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 10-11-8, Exterior(2R) 10-11-8 to 15-2-7, Interior(1) 15-2-7 to 15-11-8, Exterior(2R) 15-11-8 to 20-2-7, Interior(1) 20-2-7 to 28-5-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=268, 9=268.

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:

March 10,2023

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017819
3363903	T04	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:11 2023 Page 1

ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-zm9fioZ7PvtQ7LQEytDhlflbuKzHzCvW?HsxCNzcgQk
20-9-3
26-11-0
28-5-8

-1-6-8
6-1-13
12-11-8
13-11-8
6-9-11
6-1-13
1-6-8

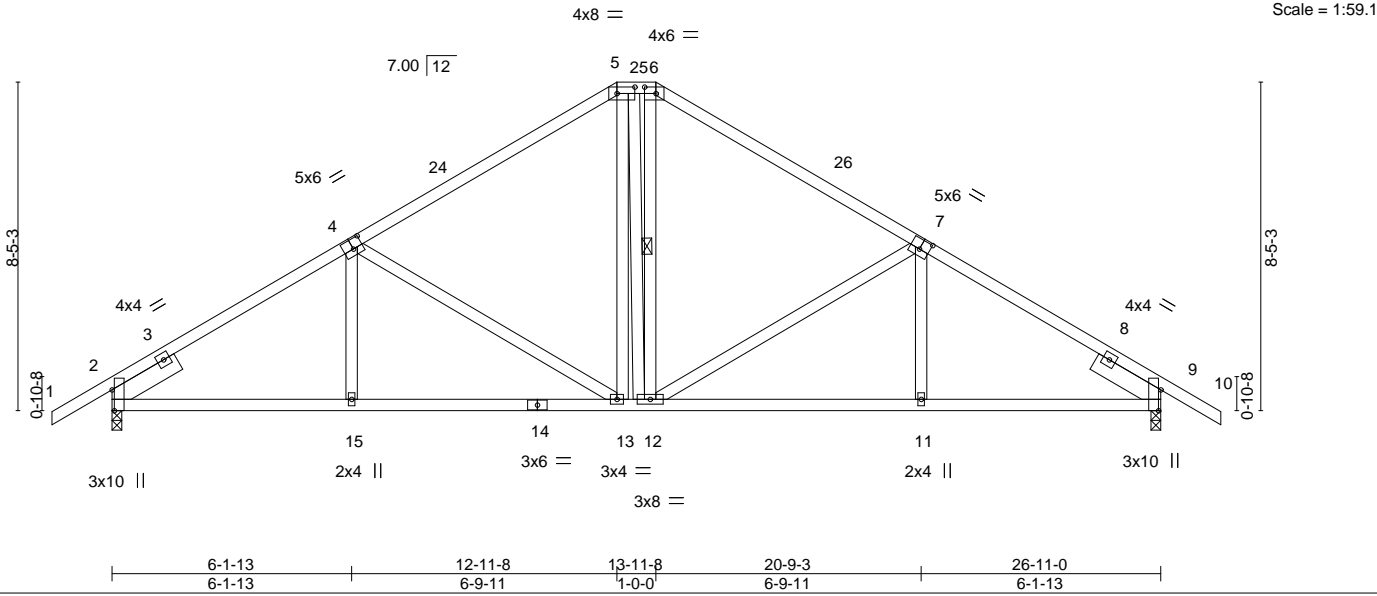


Plate Offsets (X,Y)--		[2:0-6-7,Edge], [4:0-3-0,0-3-0], [5:0-5-8,0-2-0], [6:0-3-8,0-2-0], [7:0-3-0,0-3-0], [9:0-6-7,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.61
TCDL 7.0	Lumber DOL	1.25	BC 0.66
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.53
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) -0.09 13-15 >999 240
			Vert(CT) -0.20 13-15 >999 180
			Horz(CT) 0.07 9 n/a n/a
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			244/190
			Weight: 171 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-12
SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8	

**REACTIONS.** (size) 2=0-3-0, 9=0-3-0  
Max Horz 2=-199(LC 10)  
Max Uplift 2=-263(LC 12), 9=-263(LC 13)  
Max Grav 2=1079(LC 1), 9=1079(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1414/328, 4-5=-1063/284, 5-6=-843/283, 6-7=-1066/284, 7-9=-1412/328  
BOT CHORD 2-15=-313/1164, 13-15=-312/1165, 12-13=-112/840, 11-12=-178/1159, 9-11=-178/1158  
WEBS 4-13=-425/234, 5-13=-75/274, 6-12=-125/353, 7-12=-421/233

- 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 12-11-8, Exterior(2E) 12-11-8 to 13-11-8, Exterior(2R) 13-11-8 to 18-2-7, Interior(1) 18-2-7 to 28-5-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=263, 9=263.

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.

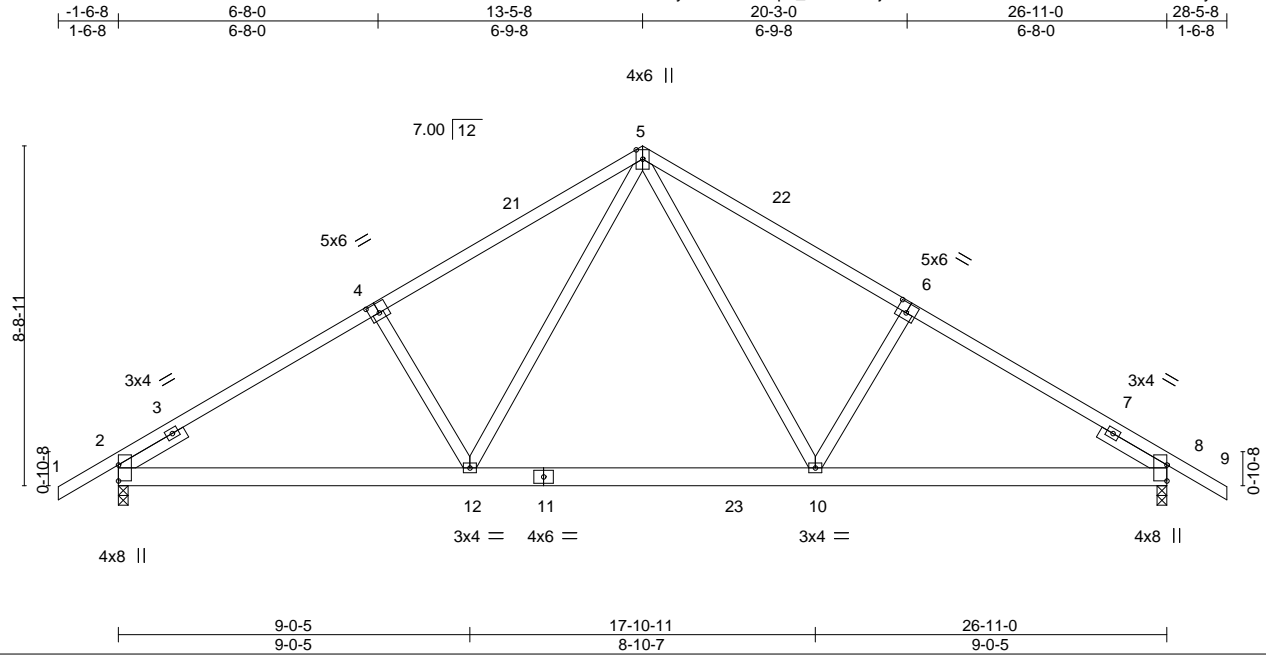
Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017820
3363903	T05	Common	3	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:13 2023 Page 1  
ID:y4QiaC6?UifP4\_P2xWz6BjzxAPb-v8GP6UaNX78Meac3IF9N4Ns77byR7loTbL2HFzcgQi



Scale = 1:59.2

Plate Offsets (X,Y)--		[4:0-3-0,0-3-0], [6:0-3-0,0-3-0]					
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 20.0		Plate Grip DOL	1.25	TC 0.94		Vert(LL)	-0.22 10-12 >999 240
TCDL 7.0		Lumber DOL	1.25	BC 0.90		Vert(CT)	-0.40 10-12 >813 180
BCLL 0.0 *		Rep Stress Incr	NO	WB 0.47		Horz(CT)	0.05 8 n/a n/a
BCDL 10.0		Code FBC2020/TPI2014		Matrix-MS			
						<b>PLATES</b>	<b>GRIP</b>
						MT20	244/190
						Weight: 162 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

#### REACTIONS.

(size) 2=0-3-0, 8=0-3-0  
Max Horz 2=-205(LC 10)  
Max Uplift 2=-343(LC 12), 8=-343(LC 13)  
Max Grav 2=1495(LC 19), 8=1494(LC 20)

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

TOP CHORD 2-4=-2120/489, 4-5=-2013/524, 5-6=-2011/524, 6-8=-2119/489  
BOT CHORD 2-12=-446/1906, 10-12=-200/1293, 8-10=-307/1751  
WEBS 5-10=-276/994, 6-10=-299/240, 5-12=-276/997, 4-12=-298/240

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 13-5-8, Exterior(2R) 13-5-8 to 16-5-8, Interior(1) 16-5-8 to 28-5-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=343, 8=343.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-5=-54, 5-9=-54, 12-13=-20, 10-12=-80(F=-60), 10-17=-20

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:

March 10,2023

#### 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. - ROYSTER RES.	T30017821
3363903	T06	Roof Special	2	1	Job Reference (optional)	

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

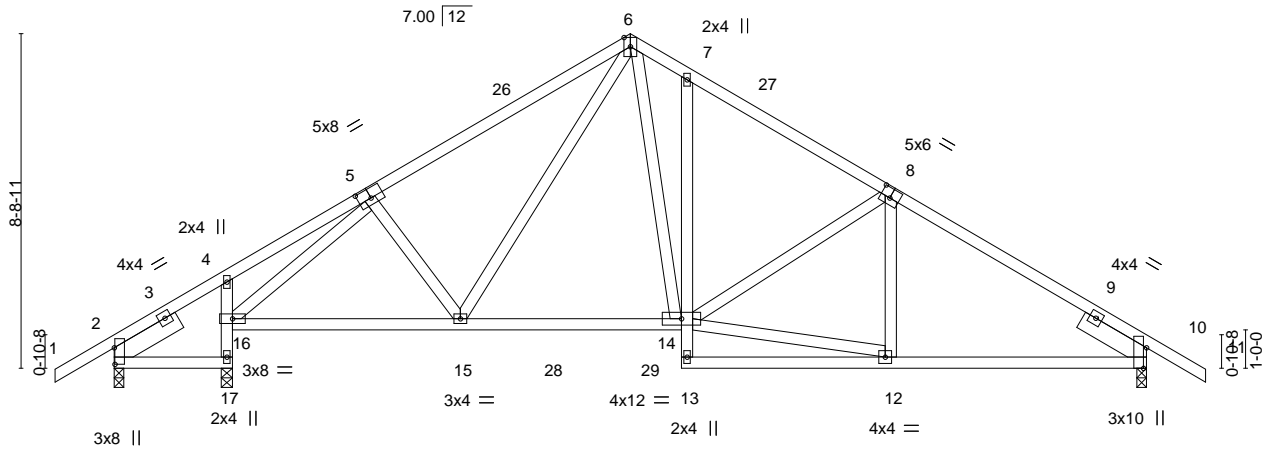
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:14 2023 Page 1

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4x6 ||

Scale = 1:60.1



2-11-4	3-1-0	9-0-5	14-9-8	20-3-0	26-11-0
2-11-4	0-1-12	5-11-5	5-9-3	5-5-8	6-8-0

Plate Offsets (X,Y)-- [2:0-5-3,0-0-3], [5:0-4-0,0-3-0], [8:0-3-0,0-3-0], [10:0-6-7,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.50	Vert(LL)	-0.09 14-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.61	Vert(CT)	-0.15 14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.63	Horz(CT)	0.05 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 174 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 4-17,7-13: 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 6-0-0 oc bracing: 2-17  
 5-1-6 oc bracing: 16-17.

#### REACTIONS.

(size) 2=0-3-0, 17=0-3-8, 10=0-3-0  
 Max Horz 2=-205(LC 10)  
 Max Uplift 2=-125(LC 13), 17=-280(LC 12), 10=-256(LC 13)  
 Max Grav 2=217(LC 20), 17=1258(LC 19), 10=1100(LC 20)

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

TOP CHORD 5-6=-1153/305, 6-7=-1108/343, 7-8=-1131/277, 8-10=-1367/308  
 BOT CHORD 16-17=-1197/273, 15-16=-216/1009, 14-15=-64/846, 10-12=-151/1098  
 WEBS 5-16=-1344/283, 6-15=-110/305, 6-14=-229/755, 12-14=-153/1091, 8-14=-276/183

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 13-5-8, Exterior(2R) 13-5-8 to 16-5-8, Interior(1) 16-5-8 to 28-5-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=125, 17=280, 10=256.

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:

March 10,2023

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

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



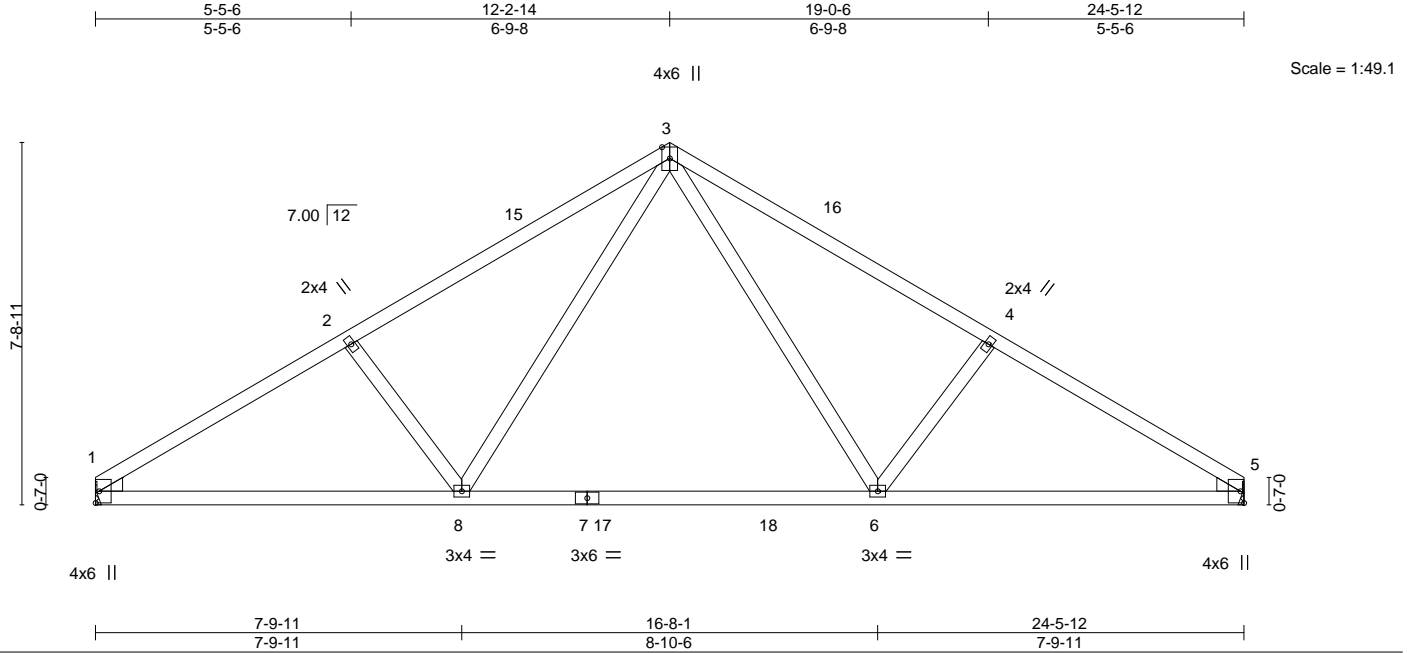
16023 Swingley Ridge Rd  
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017823
3363903	T08	Common	4	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:17 2023 Page 1  
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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.56	Vert(LL)	-0.26	6-8	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.80	Vert(CT)	-0.41	6-8	>722	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.24	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 117 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 , Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=Mechanical, 5=Mechanical  
Max Horz 1=-168(LC 8)  
Max Uplift 1=-207(LC 12), 5=-207(LC 13)  
Max Grav 1=1046(LC 19), 5=1046(LC 20)

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

TOP CHORD 1-2=-1586/333, 2-3=-1449/340, 3-4=-1449/340, 4-5=-1586/333  
BOT CHORD 1-8=-339/1442, 6-8=-115/903, 5-6=-226/1317  
WEBS 3-6=-166/687, 4-6=-320/238, 3-8=-166/687, 2-8=-320/238

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 12-2-14, Exterior(2R) 12-2-14 to 15-2-14, Interior(1) 15-2-14 to 24-5-12 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.
- 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) 1=207, 5=207.

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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:

March 10,2023

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

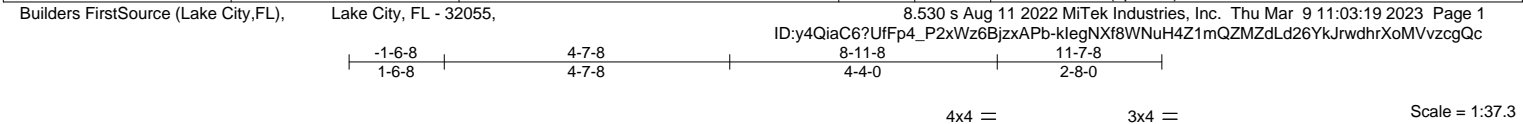
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017825
3363903	T10	Half Hip	1	1	Job Reference (optional)	



Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017826
3363903	T11	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:20 2023 Page 1  
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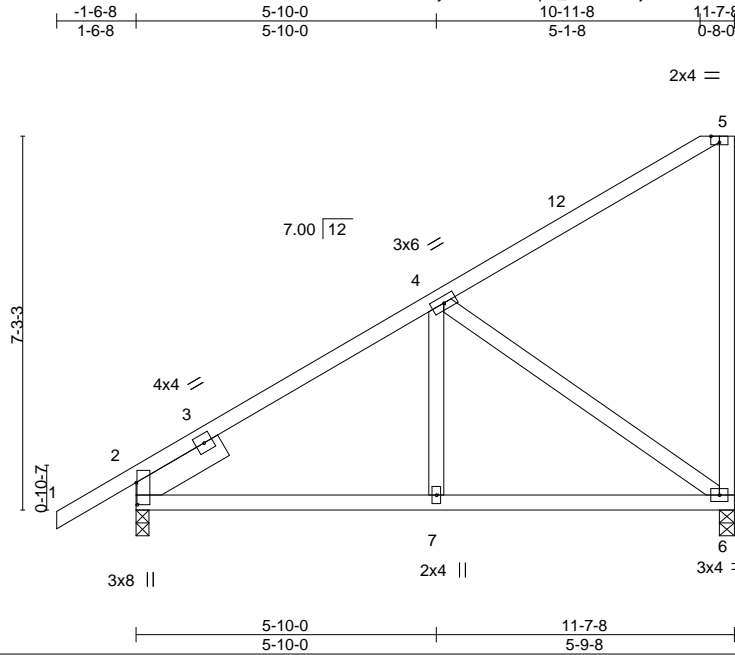


Plate Offsets (X,Y)-- [2:0-5-3,0-0-3], [5:0-2-0,Edge]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.32	Vert(LL) -0.03	6-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.31	Vert(CT) -0.06	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.40	Horz(CT) -0.01	2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 70 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 1-11-8

**REACTIONS.** (size) 2=0-3-0, 6=0-3-8  
Max Horz 2=274(LC 12)  
Max Uplift 2=-82(LC 12), 6=-209(LC 12)  
Max Grav 2=514(LC 1), 6=442(LC 19)

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

TOP CHORD 2-4=-350/19  
BOT CHORD 2-7=-194/380, 6-7=-194/380  
WEBS 4-6=-454/233

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 11-5-12 zone; end vertical left 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) 2 except (jt=lb) 6=209.

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:

March 10,2023

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017827
3363903	T12	Monopitch	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:03:21 2023
Page 1
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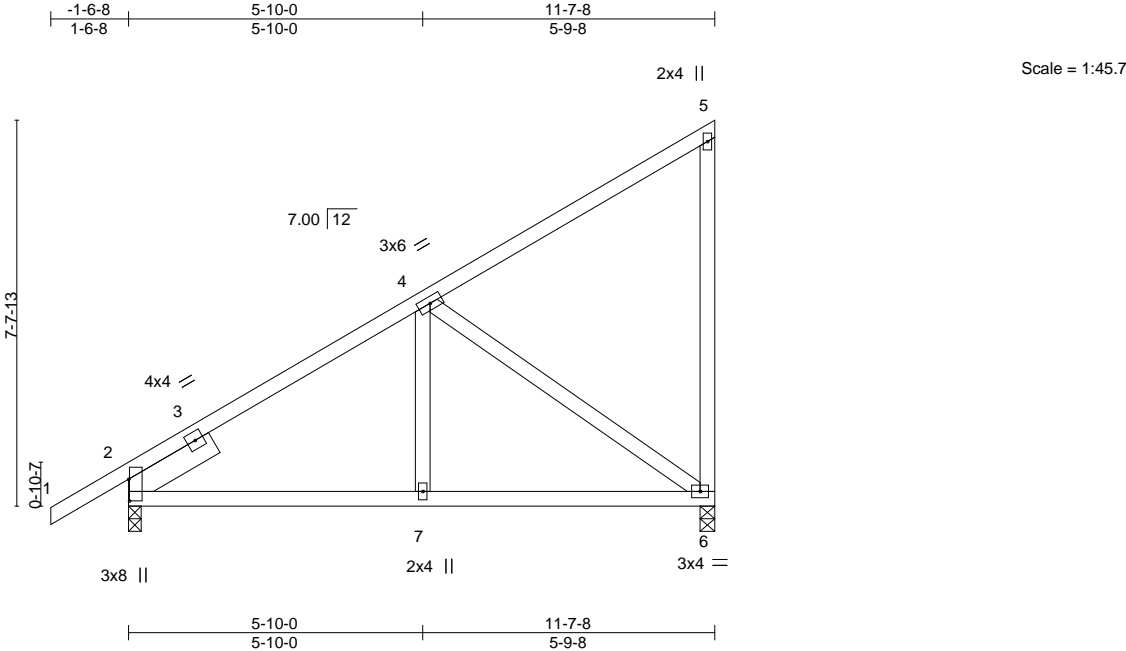


Plate Offsets (X,Y)--		[2:0-5-3,0-0-3]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.32	Vert(LL)	-0.03	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.31	Vert(CT)	-0.06	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 70 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-8		

**REACTIONS.** (size) 2=0-3-0, 6=0-3-8  
Max Horz 2=274(LC 12)  
Max Uplift 2=-82(LC 12), 6=-209(LC 12)  
Max Grav 2=514(LC 1), 6=442(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-350/25  
BOT CHORD 2-7=-210/380, 6-7=-210/380  
WEBS 4-6=-454/253

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 11-5-12 zone; end vertical left 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) 2 except (jt=lb) 6=209.

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.

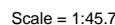
Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

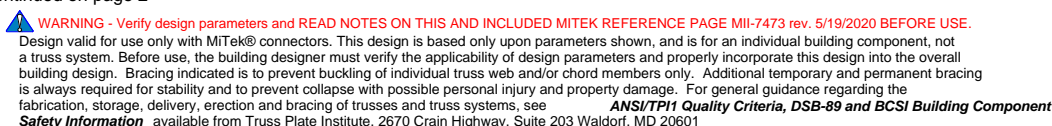
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LOAD CASE(S) Standard

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

Continued on page 2



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017828
3363903	T13	Monopitch Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:23 2023 Page 2  
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-4=-54, 5-8=-20
- Concentrated Loads (lb)
- Vert: 10=-935(F) 11=-928(F) 12=-886(F) 13=-886(F) 14=-886(F) 15=-886(F)

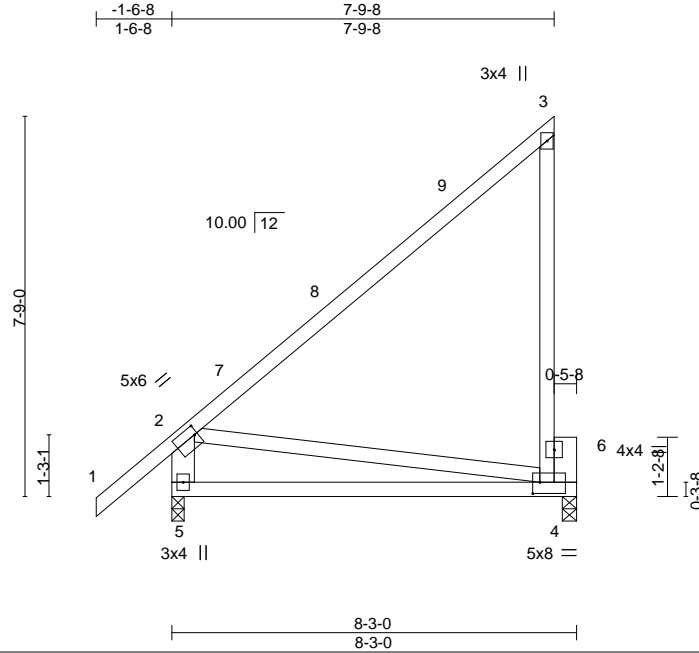


Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017829
3363903	T14	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:23 2023 Page 1

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Scale = 1:47.0

Plate Offsets (X,Y)--		[2:0-0-12,0-2-4], [4:0-1-12,0-2-12]															
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP					
TCLL	20.0	Plate Grip DOL	1.25	TC	0.67	Vert(LL)	-0.11	4-5	>837	240	MT20	244/190					
TCDL	7.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.22	4-5	>419	180							
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	-0.01	4	n/a	n/a							
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS													
												Weight: 56 lb	FT = 20%				

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 2-5: 2x6 SP No.2  
 OTHERS 2x6 SP No.2

#### REACTIONS.

(size) 5=0-3-0, 4=0-3-8  
 Max Horz 5=244(LC 12)  
 Max Uplift 5=15(LC 12), 4=171(LC 12)  
 Max Grav 5=389(LC 1), 4=296(LC 19)

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

TOP CHORD 2-5=-312/104  
 BOT CHORD 4-5=-645/424  
 WEBS 2-4=-406/630

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 7-7-12 zone; end vertical left 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) 5 except (jt=lb) 4=171.

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:

March 10,2023

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

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

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

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



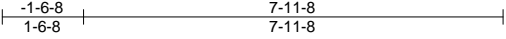
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017830
3363903	T14G	Monopitch Supported Gable	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:24 2023 Page 1

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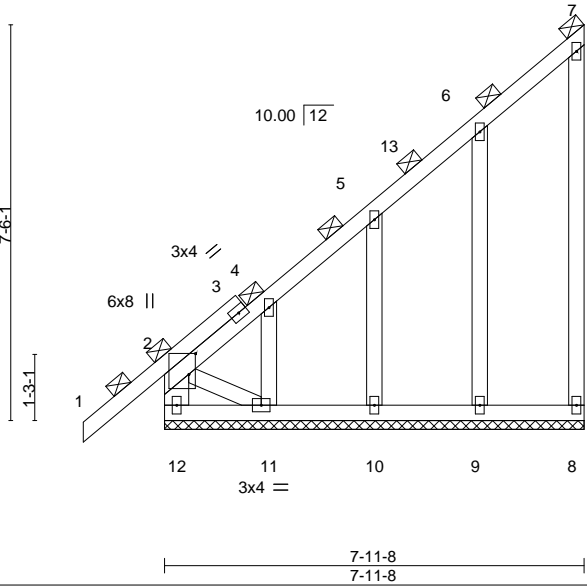


Plate Offsets (X,Y)--		[2:0-4-12,0-1-8]			
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.33	Vert(LL) 0.01 1 n/r 120	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.04	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) -0.00 8 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S		Weight: 64 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except*	6-0-0 oc bracing: 11-12.
2-12: 2x6 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 7-11-8.  
(lb) - Max Horz 12=254(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 12, 8, 10, 9 except 11=171(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 12, 8, 10, 11, 9

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-12=-311/183, 2-4=-425/213, 4-5=-345/157  
BOT CHORD 11-12=-351/157  
WEBS 2-11=-177/396

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-8 to 1-5-8, Exterior(2N) 1-5-8 to 7-9-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* 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.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8, 10, 9 except (jt=lb) 11=171.
  - 11) 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 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:

March 10,2023

**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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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

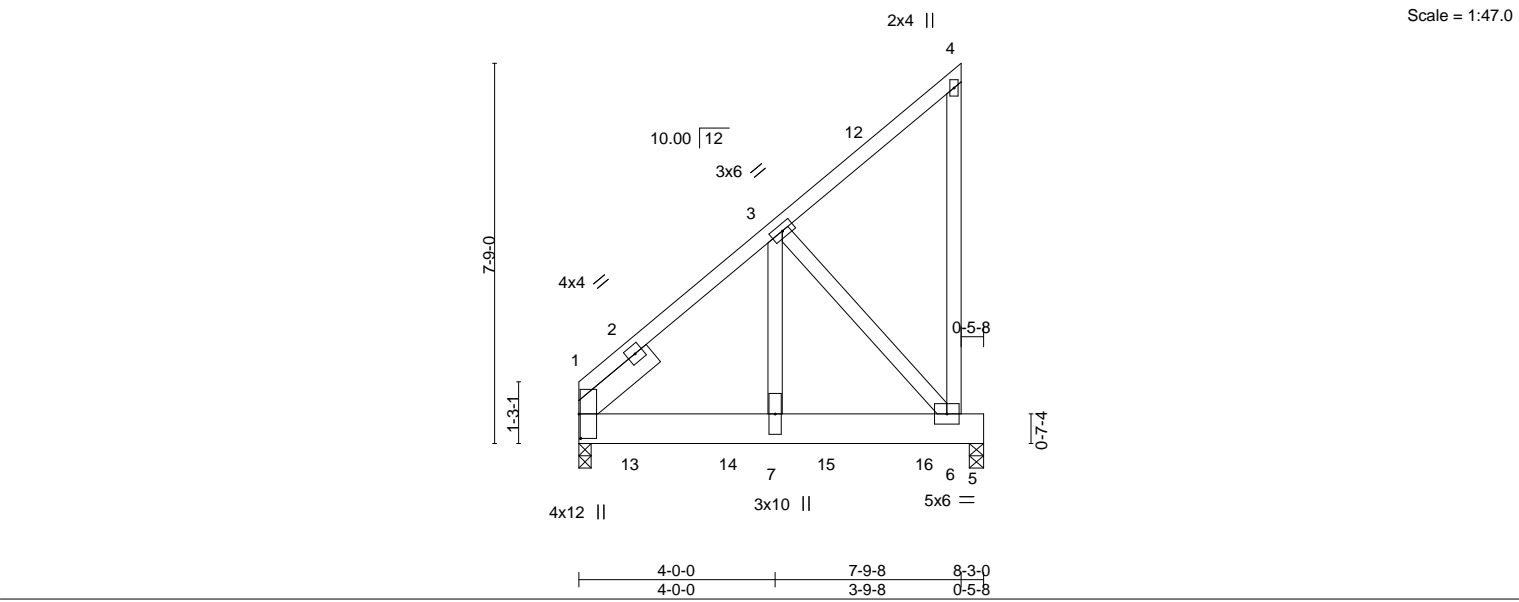
Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017831
3363903	T15	Roof Special Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:26 2023 Page 1

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4-0-0 7-9-8 8-3-0  
4-0-0 3-9-8 0-5-8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	-0.02	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	-0.03				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.00				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
										Weight: 137 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x8 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-8		

**REACTIONS.** (size) 1=0-3-0, 5=0-3-8  
Max Horz 1=218(LC 23)  
Max Uplift 1=-414(LC 8), 5=-586(LC 8)  
Max Grav 1=2230(LC 2), 5=2181(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1681/305  
BOT CHORD 1-7=-379/1252, 6-7=-379/1252  
WEBS 3-7=-532/2307, 3-6=-1868/565

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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) 1=414, 5=586.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 978 lb down and 227 lb up at 1-0-4, 978 lb down and 227 lb up at 3-0-4, and 978 lb down and 227 lb up at 5-0-4, and 978 lb down and 227 lb up at 7-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 5-8=-20

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

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017831
3363903	T15	Roof Special Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:26 2023 Page 2  
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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 13=-886(B) 14=-886(B) 15=-886(B) 16=-886(B)

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017832
3363903	T16	Monopitch	8	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:27 2023 Page 1

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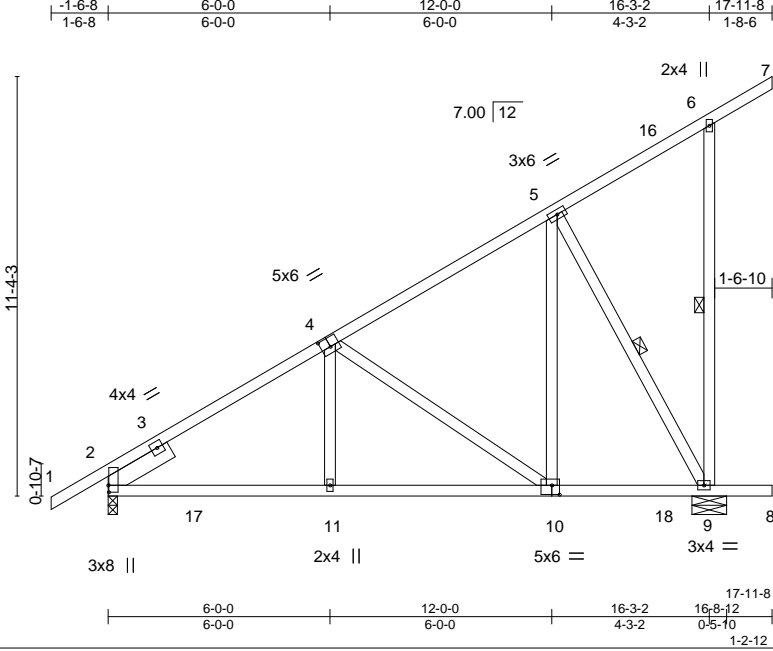


Plate Offsets (X,Y)--		[2:0-2-4,0-0-3], [4:0-3-0,0-3-0], [10:0-2-8,0-3-0]			
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.29	in (loc) l/defl L/d	GRIP
TCDL 7.0	Lumber DOL	1.25	BC 0.31	Vert(LL) 0.05 10-11 >999 240	MT20 244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Vert(CT) -0.07 10-11 >999 180	
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.01 9 n/a n/a	
				Weight: 119 lb FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-3-14 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-9, 6-9
SLIDER Left 2x6 SP No.2 1-11-8	

**REACTIONS.** (size) 2=0-3-0, 9=0-11-4  
Max Horz 2=407(LC 12)  
Max Uplift 2=-83(LC 12), 9=-344(LC 12)  
Max Grav 2=682(LC 1), 9=730(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-736/437, 4-5=-386/153  
BOT CHORD 2-11=-616/588, 10-11=-620/589, 9-10=-267/263  
WEBS 4-11=-252/233, 4-10=-392/423, 5-10=-468/374, 5-9=-535/544

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 17-11-8 zone; end vertical left exposed; porch left 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) 2 except (jt=lb) 9=344.

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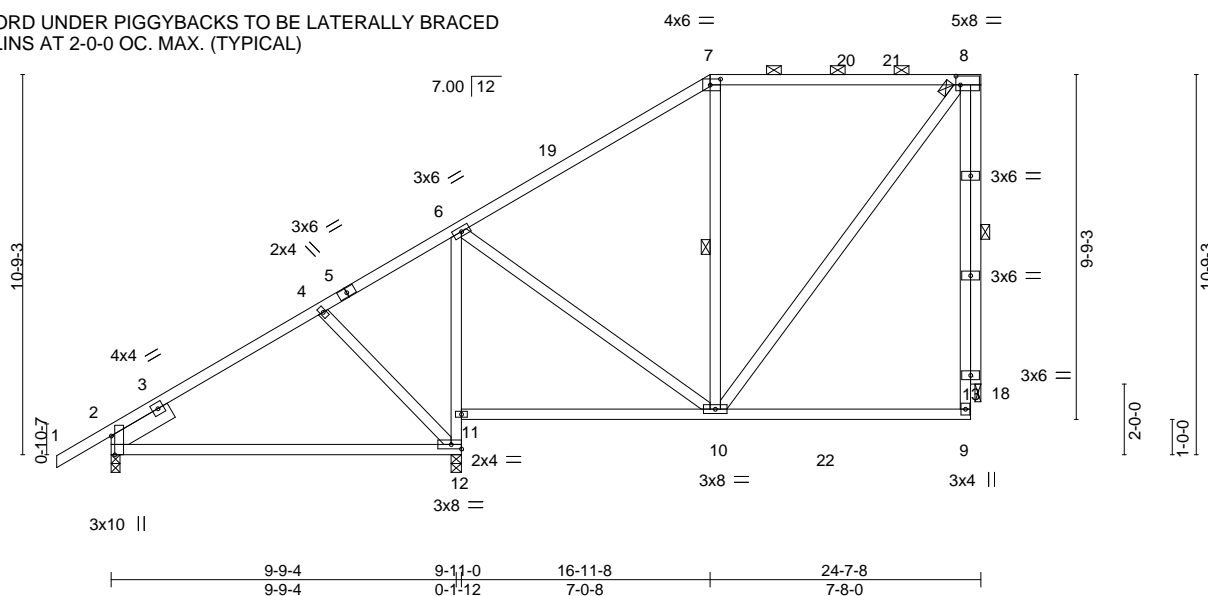
Philip J. O'Regan PE No.58126  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023



Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:28 2023 Page 1  
 ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-z1g4GcmnO80?fyDVSy1gUFVUOAn8Sww0vQULJuzcgQT  
 -1-6-8 6-0-0 9-11-0 16-11-8 24-7-8  
 1-6-8 6-0-0 3-11-0 7-0-8 7-8-0

Scale = 1:65.2



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD	2x4 SP No.2 *Except* 6-12: 2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt
OTHERS	2x4 SP No.3		7-10, 8-18
SLIDER	Left 2x6 SP No.2 1-11-8		

**REACTIONS.** (size) 2=0-3-0, 12=0-3-8, 18=0-2-0  
 Max Horz 2=392(LC 12)  
 Max Uplift 2=-16(LC 12), 12=-344(LC 12), 18=-159(LC 12)  
 Max Grav 2=579(LC 19), 12=898(LC 19), 18=667(LC 2)

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

TOP CHORD 2-4=-791/0, 4-6=-314/0, 6-7=-452/52, 7-8=-316/101  
BOT CHORD 2-12=-208/419, 11-12=-537/231, 6-11=-474/252, 10-11=-105/256  
WEBS 4-12=-286/177, 8-10=-154/467, 8-18=-668/159

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDEL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 16-11-8, Exterior(2R) 16-11-8 to 21-2-7, Interior(1) 21-2-7 to 24-2-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 18.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 12=344, 18=159.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10, 2023

9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE IMMEDIATELY PRIOR TO FABRICATION.**

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

**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. - ROYSTER RES.	T30017834
3363903	T18	Piggyback Base	7	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:30 2023 Page 1

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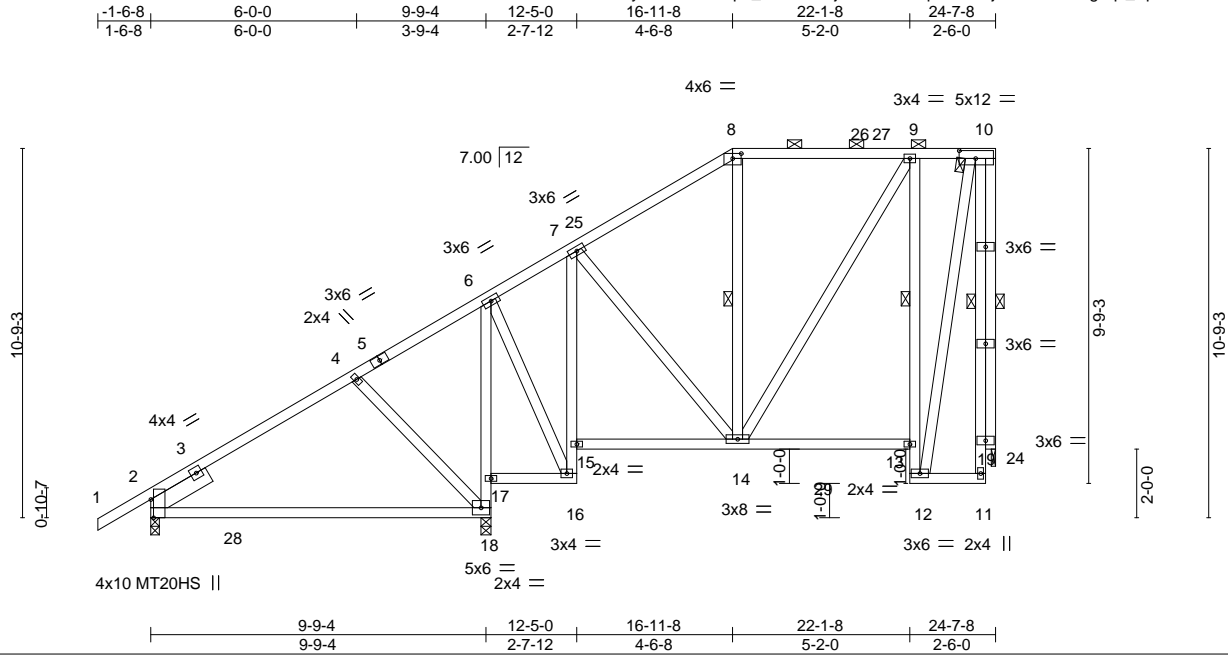


Plate Offsets (X,Y)--		[2:0-6-7,Edge], [8:0-3-0,0-1-12], [10:0-5-12,0-2-12]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	0.40 18-22	>290	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.56 18-22	>210	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.12 24	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 210 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 9-12: 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-8

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-10.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
 1 Row at midpt 9-13  
 WEBS 1 Row at midpt 10-19, 8-14, 10-24

#### REACTIONS.

(size) 2=0-3-0, 18=0-3-8, 24=0-1-8  
 Max Horz 2=392(LC 12)  
 Max Uplift 2=-36(LC 9), 18=-426(LC 12), 24=-146(LC 9)  
 Max Grav 2=426(LC 2), 18=1077(LC 19), 24=560(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-993/859, 7-8=-358/51, 8-9=-263/81  
 BOT CHORD 12-13=-447/146, 9-13=-402/169  
 WEBS 4-18=-339/218, 17-18=-744/285, 6-17=-700/292, 10-12=-161/562, 15-16=-425/173,  
 7-15=-365/184, 6-16=-183/520, 10-24=-561/146

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 16-11-8, Exterior(2R) 16-11-8 to 21-2-7, Interior(1) 21-2-7 to 24-2-4 zone; end vertical left exposed; porch left 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 24.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 18=426, 24=146.
- 10) 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:

March 10,2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



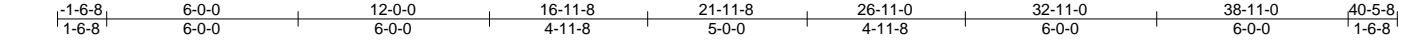
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017835
3363903	T19	Piggyback Base	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:32 2023 Page 1

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Scale = 1:72.2

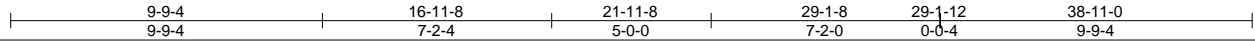
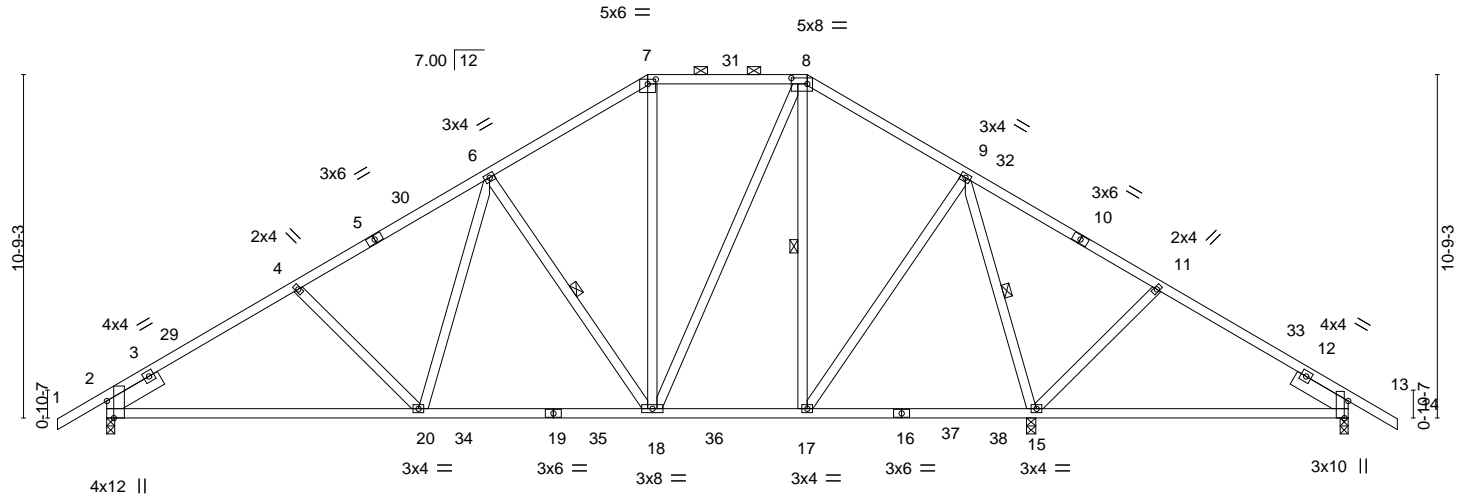


Plate Offsets (X,Y)-- [2:0-6-7,Edge], [7:0-3-0,0-1-12], [8:0-6-0,0-2-4], [13:0-6-7,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.94	Vert(LL) -0.15 15-27 >783 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.46	Vert(CT) -0.31 15-27 >381 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 15 n/a n/a		
	Code FBC2020/TPI2014			Weight: 250 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

#### REACTIONS.

(size) 2=0-3-0, 15=0-3-8, 13=0-3-0  
 Max Horz 2=-254(LC 10)  
 Max Uplift 2=-295(LC 12), 15=-309(LC 13), 13=-140(LC 13)  
 Max Grav 2=1312(LC 19), 15=1644(LC 2), 13=527(LC 20)

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

TOP CHORD 2-4=-1703/392, 4-6=-1542/368, 6-7=-1023/308, 7-8=-830/302, 8-9=-805/261, 11-13=-692/124  
 BOT CHORD 2-20=-399/1584, 18-20=-236/1275, 17-18=-52/676, 15-17=0/354, 13-15=-5/280  
 WEBS 6-20=-87/512, 6-18=-672/277, 7-18=-72/327, 8-18=-185/541, 8-17=-323/149, 9-17=-143/608, 9-15=-1124/282, 11-15=-355/220

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 2-4-3, Interior(1) 2-4-3 to 16-11-8, Exterior(2E) 16-11-8 to 21-11-8, Exterior(2R) 21-11-8 to 27-5-9, Interior(1) 27-5-9 to 40-5-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=295, 15=309, 13=140.
- 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:

March 10,2023

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

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017836
3363903	T19G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:36 2023 Page 1
1-6-8,	6-0-0	ID:y4QiaC6?UfPp4_P2xWz6BjzxAPb-kZ96xLsoWb1tdBq1wdAYpxqwRPagKQ4BlgQmbQzcgQL
1-6-8	6-0-0	21-4-9
	6-0-0	26-11-0
		5-6-7
		3-10-2
		6-0-0
		32-11-0
		38-11-0
		40-5-8
		1-6-8

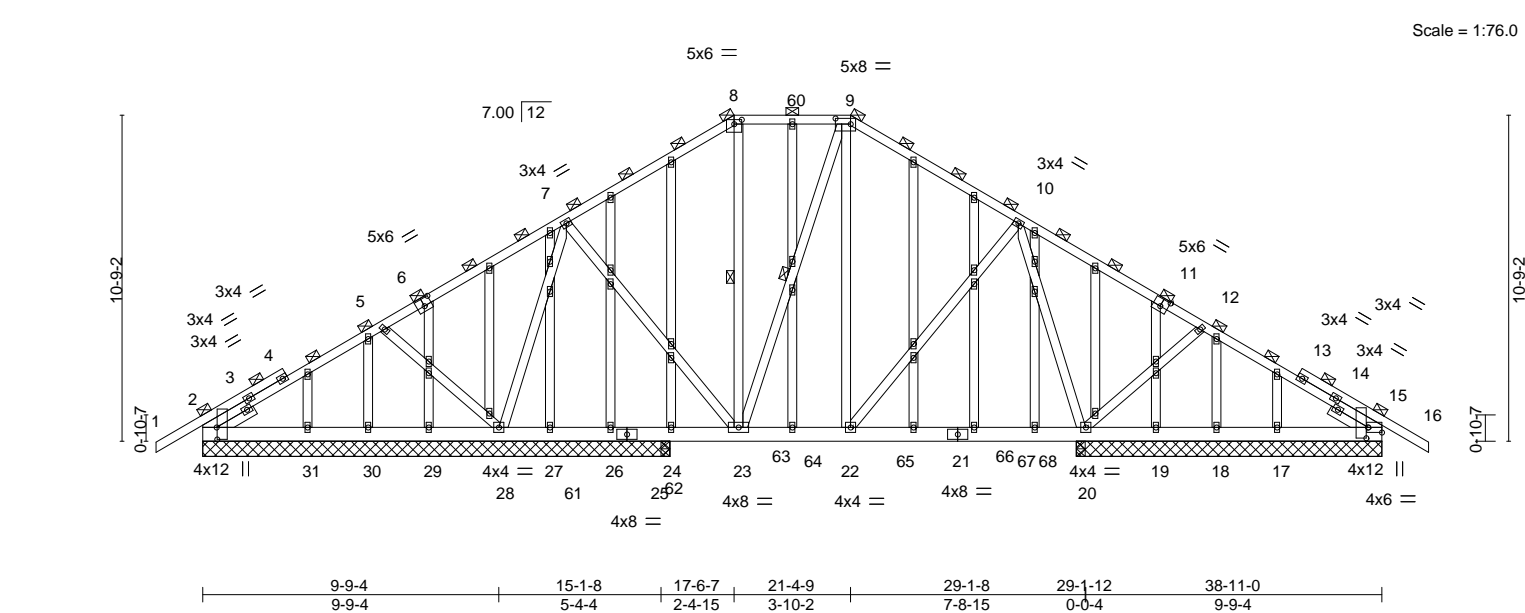


Plate Offsets (X,Y)--										[2:0-4-12,0-0-4], [6:0-3-0,0-3-0], [8:0-3-0,0-1-12], [9:0-6-0,0-2-4], [11:0-3-0,0-3-0], [15:0-4-4,0-0-12], [15:Edge,0-2-0]									
LOADING (psf)		SPACING- 2-0-0			CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP						
TCLL	20.0	Plate Grip DOL 1.25			TC	0.43	Vert(LL)	-0.04	20-22	>999	240	MT20	244/190						
TCDL	7.0	Lumber DOL 1.25			BC	0.37	Vert(CT)	-0.08	20-22	>999	180								
BCLL	0.0 *	Rep Stress Incr NO			WB	0.91	Horz(CT)	0.01	15	n/a	n/a								
BCDL	10.0	Code FBC2020/TPI2014			Matrix-MS						Weight: 407 lb		FT = 20%						

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.).
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-23, 9-23
OTHERS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-4-11, Right 2x4 SP No.3 1-4-11	

REACTIONS.	All bearings 15-5-0 except (jt=length) 20=10-1-0, 20=10-1-0, 15=10-1-0, 19=10-1-0, 18=10-1-0, 17=10-1-0, 24=0-3-8, 24=0-3-8.
(lb) - Max Horz 2=254(LC 7)	
Max Uplift	All uplift 100 lb or less at joint(s) 2, 26, 27, 30, 31, 18, 17, 24 except 28=408(LC 8), 20=486(LC 9), 15=111(LC 28), 19=154(LC 22)
Max Grav	All reactions 250 lb or less at joint(s) 26, 27, 29, 30, 31, 19, 18, 17, 24 except 2=382(LC 19), 28=940(LC 1), 20=1439(LC 34), 20=1358(LC 1), 15=358(LC 20), 24=268(LC 2)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-5=-309/103, 7-8=-469/254, 8-9=-329/240, 9-10=-531/264, 12-15=-267/74
BOT CHORD	2-31=-140/277, 30-31=-140/276, 29-30=-140/276, 28-29=-140/276, 27-28=-123/279, 26-27=-123/279, 24-26=-123/279, 23-24=-123/279, 22-23=-112/456
WEBS	5-28=-294/208, 7-28=-757/298, 10-22=-109/339, 10-20=-873/307, 12-20=-295/208

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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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) Provide adequate drainage to prevent water ponding.	
6) All plates are 2x4 MT20 unless otherwise indicated.	
7) Gable studs spaced at 2-0-0 oc.	
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
9) * 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.	
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 26, 27, 30, 31, 18, 17, 24 except (jt=lb) 28=408, 20=486, 15=111, 19=154.	
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.	
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down and 49 lb up at 17-0-12, 68 lb down and 49 lb up at 19-0-12, 68 lb down and 49 lb up at 21-0-12, 68 lb down and 49 lb up at 23-0-12, and 68 lb down and 49 lb up at 25-0-12, and 68 lb down and 49 lb up at 27-0-12 on bottom chord. The design/selection of such connection	
Continued on page 2, responsibility of others.	

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<p><b>MiTek</b></p> <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>		

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017836
3363903	T19G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc.
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Page 2

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**NOTES-**

13) 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: 1-8=-54, 8-9=-54, 9-16=-54, 2-15=-20

Concentrated Loads (lb)

Vert: 22=-68(B) 21=-68(B) 63=-68(B) 64=-68(B) 65=-68(B) 67=-68(B)

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017837
3363903	T20	Piggyback Base	3	1	Job Reference (optional)	

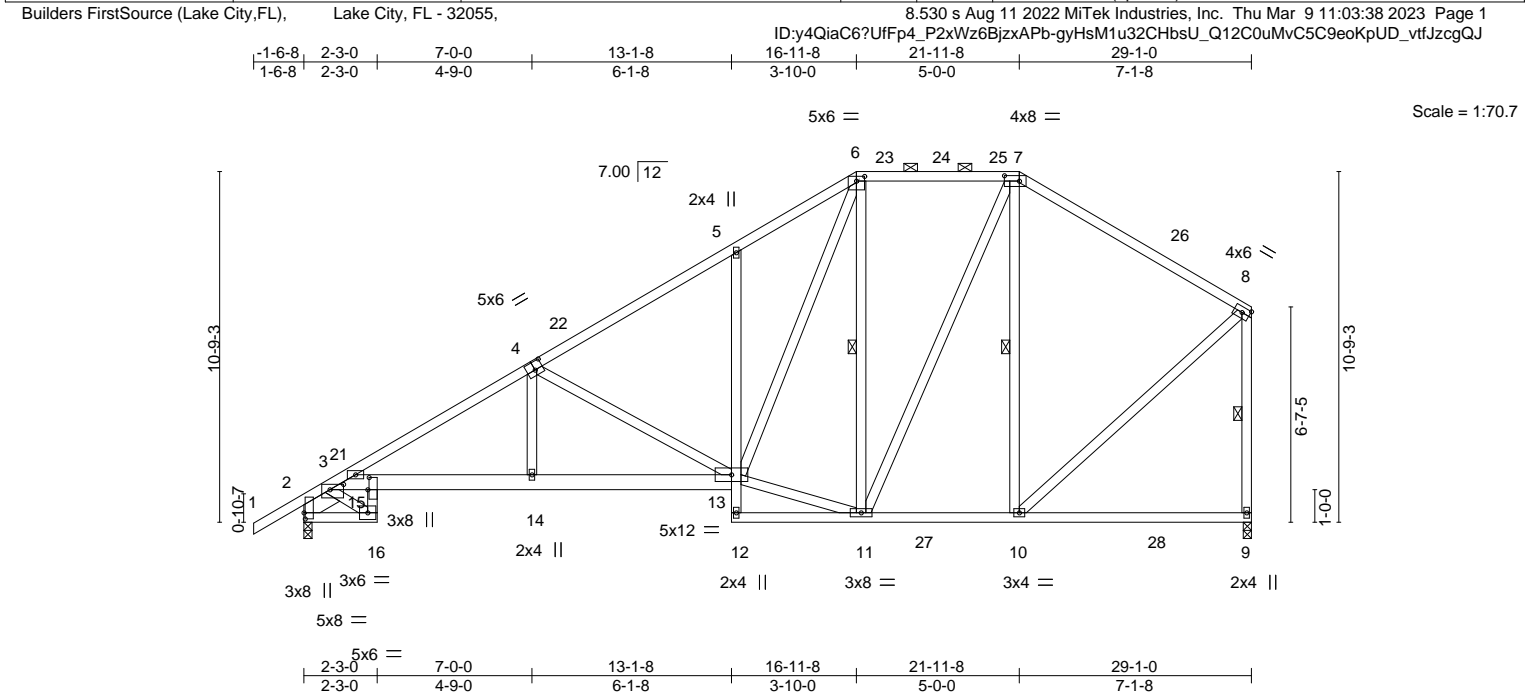


Plate Offsets (X,Y)--		[2:0-2-4,0-0-7], [3:0-5-0,0-1-15], [4:0-3-0,0-3-0], [6:0-3-0,0-1-12], [7:0-5-8,0-2-0], [15:0-4-8,0-0-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0		Plate Grip DOL	1.25	TC 0.67		Vert(LL)	-0.12 14-15	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.78		Vert(CT)	-0.21 14-15	>999	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.90		Horz(CT)	0.12 9	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014		Matrix-MS						Weight: 230 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	2x4 SP No.2 *Except"	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
	15-16,5-12: 2x4 SP No.3, 3-13: 2x6 SP M 26		8-9-10 oc bracing: 2-16
WEBS	2x4 SP No.3		7-10-1 oc bracing: 15-16.
SLIDER	Left 2x6 SP No.2 1-1-9	WEBS	1 Row at midpt 6-11, 7-10, 8-9
<b>REACTIONS.</b>	(size) 2=0-3-0, 9=0-3-0		
	Max Horz 2=307(LC 12)		
	Max Uplift 2=-290(LC 12), 9=-240(LC 12)		
	Max Grav 2=1303(LC 19), 9=1213(LC 2)		
<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	3-18=-490/89, 3-4=-2310/571, 4-5=-1449/372, 5-6=-1452/490, 6-7=-793/294, 7-8=-811/217, 8-9=-1069/258		
BOT CHORD	2-16=-453/1077, 15-16=-483/1181, 3-15=-651/2007, 14-15=-681/2067, 13-14=-680/2063, 5-13=-295/212, 10-11=-130/631		
WEBS	4-14=-90/538, 4-13=-928/358, 11-13=-169/745, 6-13=-415/1142, 6-11=-484/237, 7-11=-186/464, 7-10=-352/159, 8-10=-172/822, 3-16=-1433/604		

- 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 16-11-8, Exterior(2R) 16-11-8 to 21-2-7, Interior(1) 21-2-7 to 21-11-8, Exterior(2R) 21-11-8 to 26-2-7, Interior(1) 26-2-7 to 28-11-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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=290, 9=240.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017838
3363903	T21	Piggyback Base	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:39 2023 Page 1

ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-88rEaNUhpWPSUeZcbmjFRZSRocVnXo9dReeQCZcgQI  
 1-6-8 2-3-0 7-0-0 13-1-8 16-11-8 23-0-4 29-1-0  
 1-6-8 2-3-0 4-9-0 6-1-8 3-10-0 6-0-12 6-0-12

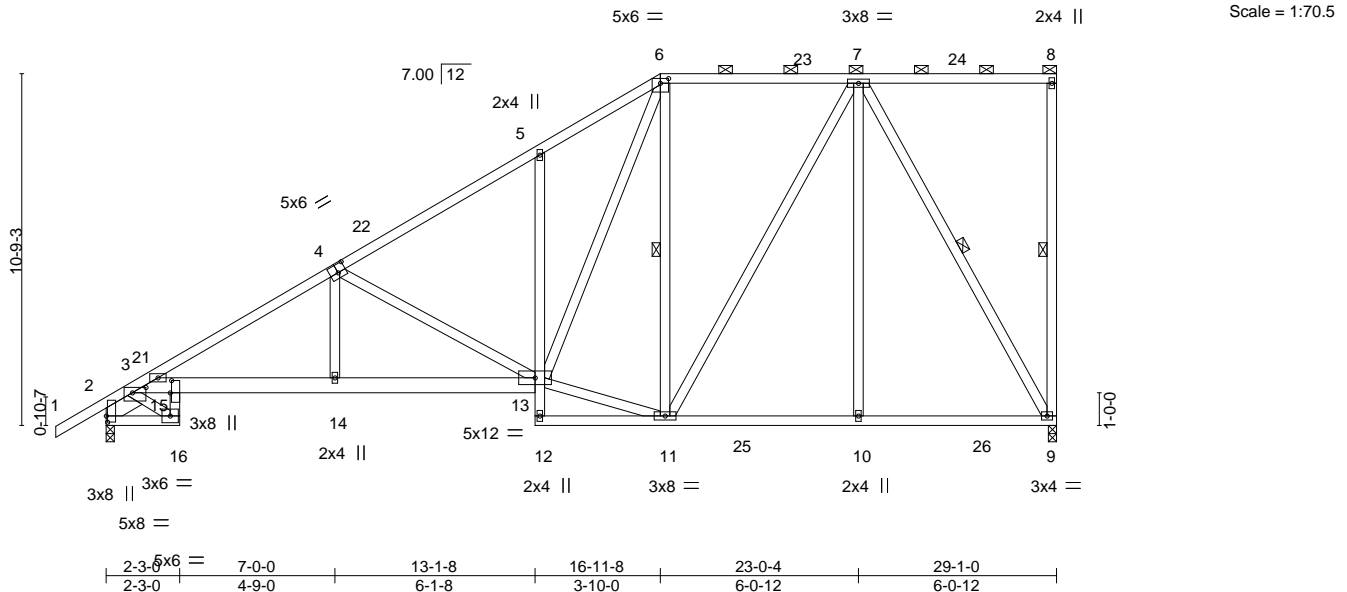


Plate Offsets (X,Y)-- [2:0-2-4,0-0-7], [3:0-5-0,0-1-15], [4:0-3-0,0-3-0], [6:0-3-0,0-1-12], [15:0-4-8,0-0-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25		TC 0.44	Vert(LL) 0.13	14-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25		BC 0.79	Vert(CT) -0.21	14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.89	Horz(CT) 0.13	9	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 239 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 15-16,5-12: 2x4 SP No.3, 3-13: 2x6 SP M 26  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-1-9

#### REACTIONS.

(size) 9=0-3-0, 2=0-3-0  
 Max Horz 2=392(LC 12)  
 Max Uplift 9=307(LC 12), 2=280(LC 12)  
 Max Grav 9=1230(LC 2), 2=1310(LC 19)

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

TOP CHORD 3-18=-491/91, 3-4=-2312/584, 4-5=-1458/365, 5-6=-1459/480, 6-7=-811/279  
 BOT CHORD 2-16=-523/1054, 15-16=-561/1155, 3-15=-745/1978, 14-15=-778/2037, 13-14=-777/2034,  
 5-13=-292/205, 10-11=-168/585, 9-10=-168/585  
 WEBS 4-14=-108/531, 4-13=-921/379, 11-13=-233/756, 6-13=-436/1120, 6-11=-474/290,  
 7-11=-224/537, 7-10=0/382, 7-9=-1179/342, 3-16=-1402/699

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 16-11-8, Exterior(2R) 16-11-8 to 21-2-7, Interior(1) 21-2-7 to 28-11-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=307, 2=280.
- 7) 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:

March 10,2023

**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. - ROYSTER RES.	T30017839
3363903	T22	Piggyback Base	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc.
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Page 1
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-1-6-8  
1-6-8

6-0-0  
6-0-0

12-0-0  
6-0-0

16-11-8  
4-11-8

23-0-4  
6-0-12

29-1-0  
6-0-12

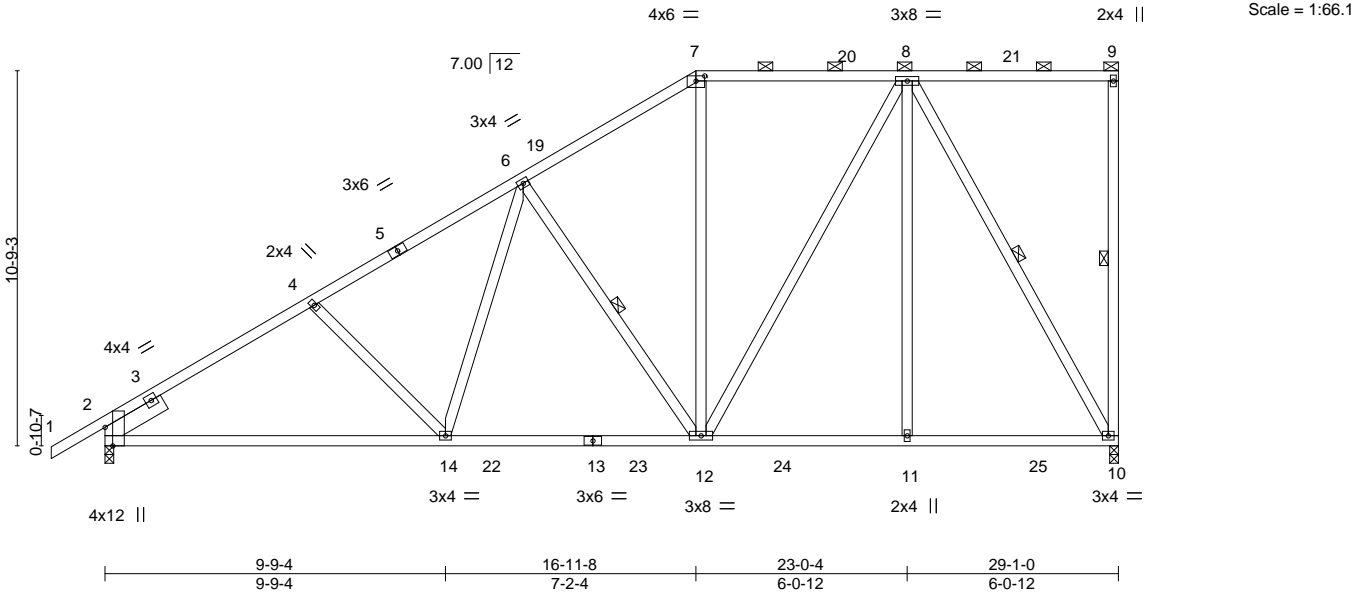


Plate Offsets (X,Y)-- [2:0-6-7,Edge], [7:0-3-0,0-1-12]							
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	in (loc)	I/defl
TCDL	7.0	Lumber DOL	1.25	BC	0.94	12-14	>999
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.87	14-17	>999
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		10	n/a
						<b>PLATES</b>	
						<b>GRIP</b>	
						MT20	
						244/190	
						Weight: 210 lb	
						FT = 20%	

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

**REACTIONS.** (size) 10=0-3-0, 2=0-3-0  
Max Horz 2=392(LC 12)  
Max Uplift 10=-307(LC 12), 2=-280(LC 12)  
Max Grav 10=1251(LC 2), 2=1325(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1727/365, 4-6=-1570/343, 6-7=-1036/280, 7-8=-842/278  
BOT CHORD 2-14=-598/1517, 12-14=-433/1207, 11-12=-168/596, 10-11=-168/596  
WEBS 6-14=-92/508, 6-12=-665/276, 7-12=-6/311, 8-12=-224/579, 8-11=0/363, 8-10=-1199/341

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior(1) 1-5-8 to 16-11-8, Exterior(2R) 16-11-8 to 21-2-7, Interior(1) 21-2-7 to 28-11-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=307, 2=280.
  - 7) 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  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

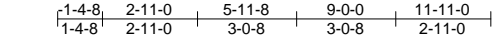


Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017840
3363903	T23	Roof Special	3	1	Job Reference (optional)	

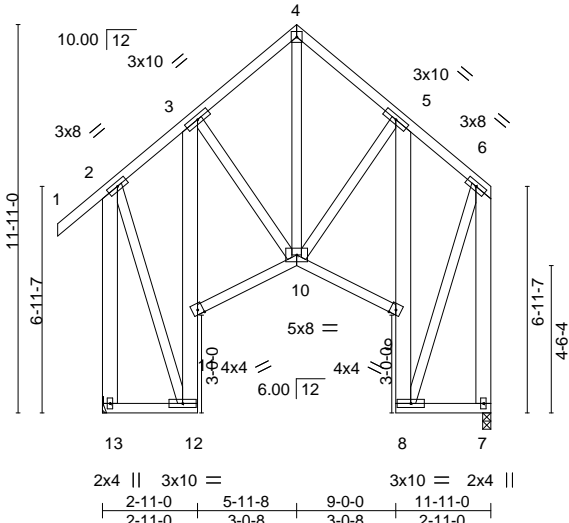
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:42 2023 Page 1

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Scale = 1:70.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL) 0.08	10-11	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.55	Vert(CT) -0.08	10-11	>999	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.34	Horz(CT) -0.39	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS					Weight: 164 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 3-12,5-8: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-13,6-7: 2x6 SP No.2	

**REACTIONS.** (size) 13=Mechanical, 7=0-3-0  
Max Horz 13=367(LC 9)  
Max Uplift 13=-123(LC 12), 7=-116(LC 13)  
Max Grav 13=531(LC 20), 7=466(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-284/256, 3-4=-421/364, 4-5=-423/374, 2-13=-515/242, 6-7=-475/326  
BOT CHORD 12-13=-334/291, 11-12=-394/194, 3-11=-251/27, 10-11=-436/499, 9-10=-261/356,  
8-9=-271/207, 5-9=-418/353  
WEBS 4-10=-361/404, 2-12=-118/364, 6-8=-244/359

- 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 5-11-8, Exterior(2R) 5-11-8 to 9-2-12, Interior(1) 9-2-12 to 11-8-4 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=123, 7=116.

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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:

March 10,2023



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017841
3363903	T23G	Roof Special Structural Gable	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:44 2023 Page 1  
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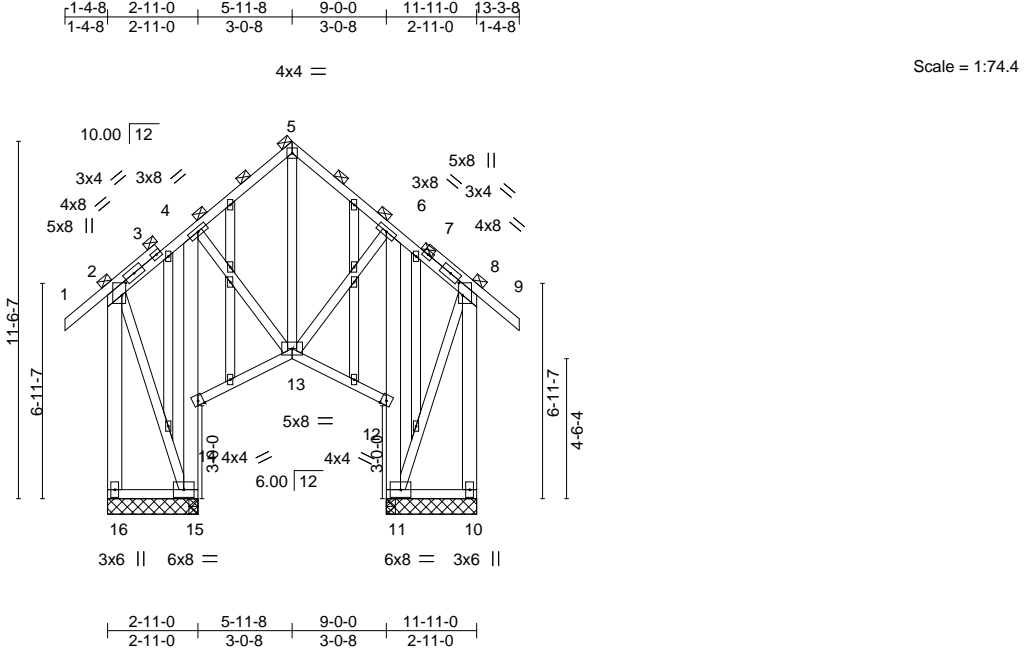


Plate Offsets (X,Y)--		[2:0-4-12,0-1-8], [8:0-4-12,0-1-8]													
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>				<b>PLATES</b>		<b>GRIP</b>			
TCLL	20.0	2-0-0		TC 0.29		in (loc)		l/defl		MT20		244/190			
TCDL	7.0	Plate Grip DOL 1.25		BC 0.14		Vert(LL) -0.00 13-14		>999							
BCLL	0.0 *	Lumber DOL 1.25		WB 0.64		Vert(CT) -0.01 13-14		>999							
BCDL	10.0	Rep Stress Incr YES		Matrix-MS		Horz(CT) -0.07 10		n/a							
		Code FBC2020/TPI2014								Weight: 202 lb		FT = 20%			

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	2-0-0 oc purlins (6-0-0 max.), except end verticals.
BOT CHORD	2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3 *Except*		
OTHERS	2-16,8-10: 2x6 SP No.2		
	2x4 SP No.3		

<b>REACTIONS.</b>			
All bearings 2-11-0.			
(lb) - Max Horz 16=-362(LC 10)			
Max Uplift All uplift 100 lb or less at joint(s) except 16=-769(LC 8), 12=-107(LC 13), 11=-123(LC 11), 10=-264(LC 8), 15=-691(LC 11)			
Max Grav All reactions 250 lb or less at joint(s) 11, 11 except 16=908(LC 11), 12=339(LC 19), 10=402(LC 20), 15=824(LC 10), 15=316(LC 1)			

<b>FORCES.</b>			
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	2-4=-265/315, 4-5=-238/275, 5-6=-237/266, 6-8=-306/362, 2-16=-848/891, 8-10=-481/516		
BOT CHORD	15-16=-327/302, 14-15=-290/52, 4-14=-276/96, 6-12=-415/201		
WEBS	6-13=-155/251, 2-15=-705/749		

- 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 5-11-8, Exterior(2R) 5-11-8 to 9-2-12, Interior(1) 9-2-12 to 13-3-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - N/A
  - 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.
  - Bearing at joint(s) 12 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 769 lb uplift at joint 16, 107 lb uplift at joint 12, 123 lb uplift at joint 11, 264 lb uplift at joint 10 and 691 lb uplift at joint 15.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

March 10,2023

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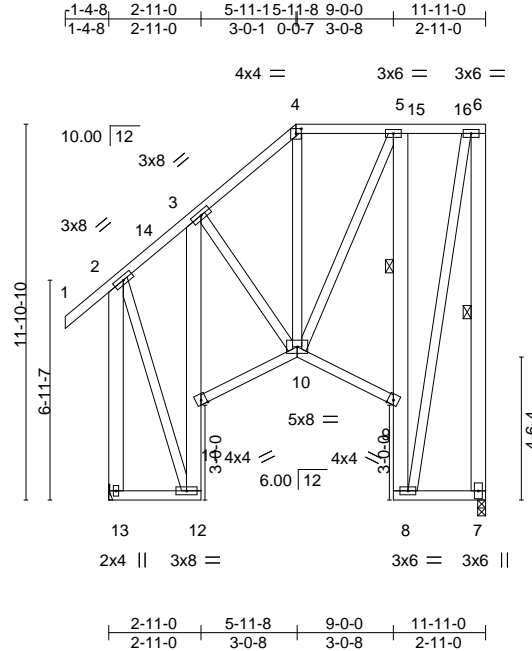
16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017842
3363903	T24	Half Hip	1	1	Job Reference (optional)	

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

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Scale = 1:72.9

Plate Offsets (X,Y)-- [4:0-2-0,0-1-13]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.23	Vert(LL)	0.06 10-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.50	Vert(CT)	-0.05 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(CT)	-0.27 7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 188 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 3-12,5-8: 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 6-7,2-13: 2x6 SP No.2

#### REACTIONS.

(size) 7=0-3-0, 13=Mechanical  
 Max Horz 13=252(LC 9)  
 Max Uplift 7=-236(LC 9), 13=-23(LC 12)  
 Max Grav 7=415(LC 1), 13=516(LC 1)

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

TOP CHORD 3-4=-301/285, 4-5=-236/266, 6-7=-431/414, 2-13=-514/119  
 BOT CHORD 12-13=-353/206, 11-12=-308/118, 3-11=-250/72, 10-11=-458/345, 8-9=-310/329,  
 5-9=-353/412  
 WEBS 5-10=-404/321, 6-8=-359/372, 2-12=-36/267

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 5-11-1, Exterior(2R) 5-11-1 to 10-1-15, Interior(1) 10-1-15 to 11-8-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 7 and 23 lb uplift at joint 13.

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March 10,2023

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

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



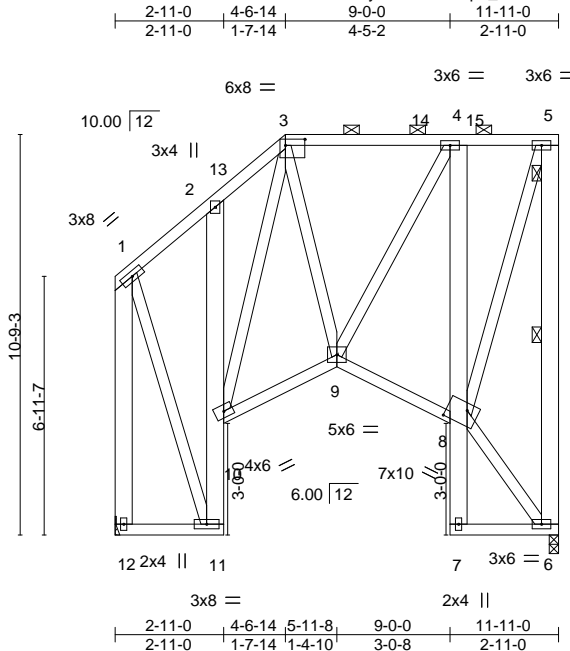
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017843
3363903	T25	Piggyback Base	1	1	Job Reference (optional)	

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

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Scale = 1:61.9

Plate Offsets (X,Y)-- [3:0-6-4,0-2-0], [8:0-6-4,0-4-12]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.21	Vert(LL)	0.04	9-10	>999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.04	9-10	>999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	-0.16	6	n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 179 lb FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 2-11,4-7: 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 5-6,1-12: 2x6 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 6-0-0 oc bracing: 10-11.  
 WEBS 1 Row at midpt 5-6

#### REACTIONS.

(size) 6=0-3-0, 12=Mechanical  
 Max Horz 12=-222(LC 10)  
 Max Uplift 6=-211(LC 9), 12=-43(LC 12)  
 Max Grav 6=424(LC 1), 12=424(LC 1)

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

TOP CHORD 2-3=-314/363, 5-6=-387/314, 1-12=-424/100  
 BOT CHORD 11-12=-277/171, 9-10=-309/291, 4-8=-353/364  
 WEBS 4-9=-291/252, 5-8=-304/362, 1-11=-74/273

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 4-6-14, Exterior(2R) 4-6-14 to 8-9-13, Interior(1) 8-9-13 to 11-8-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 6 and 43 lb uplift at joint 12.
- 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:

March 10,2023

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017844
3363903	T26	Monopitch Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:48 2023 Page 1

ID:y4QiaC6?UifP4\_P2xWz6BjzxAPb-NtueTS?KhHYA31lLd9OMITKxkEjx8xJyWXKP0kzcgQ9

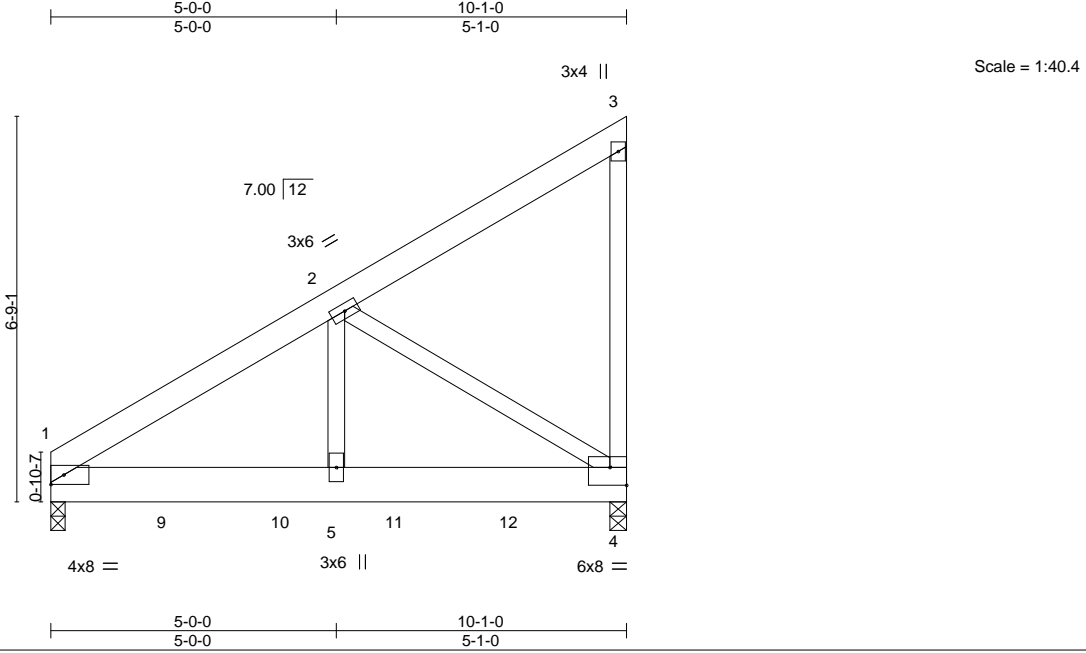


Plate Offsets (X,Y)--		[4:Edge,0-3-12]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	-0.02	5	>999	240	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.15	Vert(CT)	-0.04	5	>999	180	GRIP
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.01	4	n/a	n/a	244/190
BCDL	10.0	Code	FBC2020/TP12014	Matrix-MS							Weight: 159 lb
											FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x8 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

**REACTIONS.** (size) 1=0-3-0, 4=0-3-8  
Max Horz 1=213(LC 23)  
Max Uplift 1=-841(LC 8), 4=-913(LC 8)  
Max Grav 1=3320(LC 1), 4=3284(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-4056/942, 2-3=-694/329, 3-4=-914/320  
BOT CHORD 1-5=-883/3118, 4-5=-883/3118  
WEBS 2-5=-188/1325, 2-4=-3691/1045

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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 841 lb uplift at joint 1 and 913 lb uplift at joint 4.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 497 lb down and 143 lb up at 2-0-4, 497 lb down and 143 lb up at 4-0-4, and 496 lb down and 43 lb up at 6-0-4, and 404 lb down and 63 lb up at 8-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-454, 4-6=-20

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  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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March 10,2023

Continued on page 2

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017844
3363903	T26	Monopitch Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:48 2023 Page 2  
ID:y4QiaC6?UifP4\_P2xWz6BjzxAPb-NtueTS?KhHYA31lLd9OMITKxkEjx8xJyWxKP0kzcgQ9

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 9=-497(F) 10=-497(F) 11=-496(F) 12=-404(B)

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017845
3363903	T27	Common	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:49 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-r3S0gn0ySbg1hAKXAsvbrgsBhezdtUs6kB3yYAzcgQ8



4x4 =

Scale: 1/4"=1'

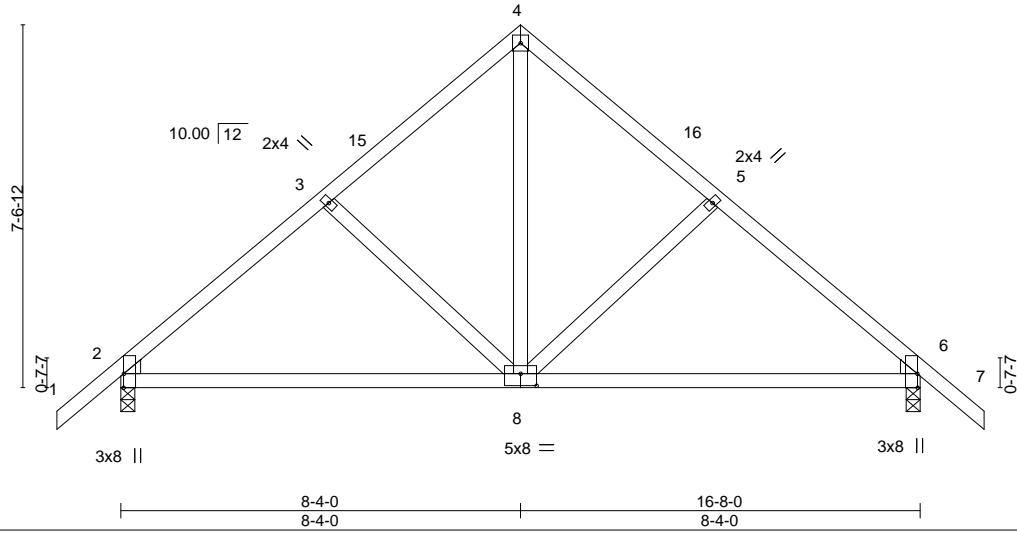


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-0-0,0-0-0], [6:0-3-8,Edge], [8:0-4-0,0-3-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0		Plate Grip DOL	1.25	TC 0.20		Vert(LL)	-0.07 8-11	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.57		Vert(CT)	-0.14 8-11	>999	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.17		Horz(CT)	0.01 6	n/a	n/a		
BCDL 10.0		Code	FBC2020/TPI2014	Matrix-MS						Weight: 90 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 , Right: 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=0-3-8, 6=0-3-8  
Max Horz 2=-189(LC 10)  
Max Uplift 2=-160(LC 12), 6=-160(LC 13)  
Max Grav 2=689(LC 1), 6=689(LC 1)

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

TOP CHORD 2-3=-714/190, 3-4=-559/196, 4-5=-559/196, 5-6=-714/190  
BOT CHORD 2-8=-142/558, 6-8=-66/504  
WEBS 4-8=-137/451

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 8-4-0, Exterior(2R) 8-4-0 to 11-4-0, Interior(1) 11-4-0 to 18-0-0 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 160 lb uplift at joint 2 and 160 lb uplift at joint 6.

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:

March 10,2023

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

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

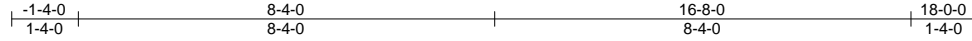


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017846
3363903	T27G	Common Supported Gable	1	1	Job Reference (optional)	

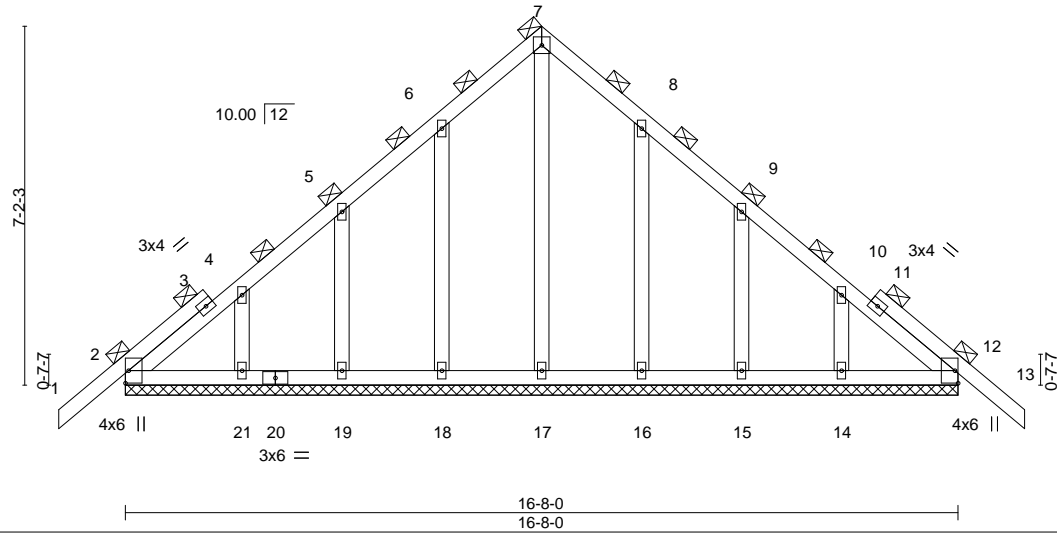
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:50 2023 Page 1  
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4x4 =

Scale = 1:46.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.12	Vert(LL)	-0.00	13	n/r	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.04	Vert(CT)	-0.01	13	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 108 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

All bearings 16-8-0.  
(lb) - Max Horz 2=-180(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 18, 19, 21, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 17, 18, 19, 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 8-4-0, Corner(3R) 8-4-0 to 11-4-0, Exterior(2N) 11-4-0 to 18-0-0 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, 18, 19, 21, 16, 15, 14.
- 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:

March 10,2023

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

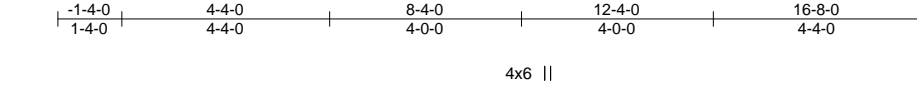


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017847
3363903	T28	Common Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:52 2023 Page 1  
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Scale: 1/4"=1'

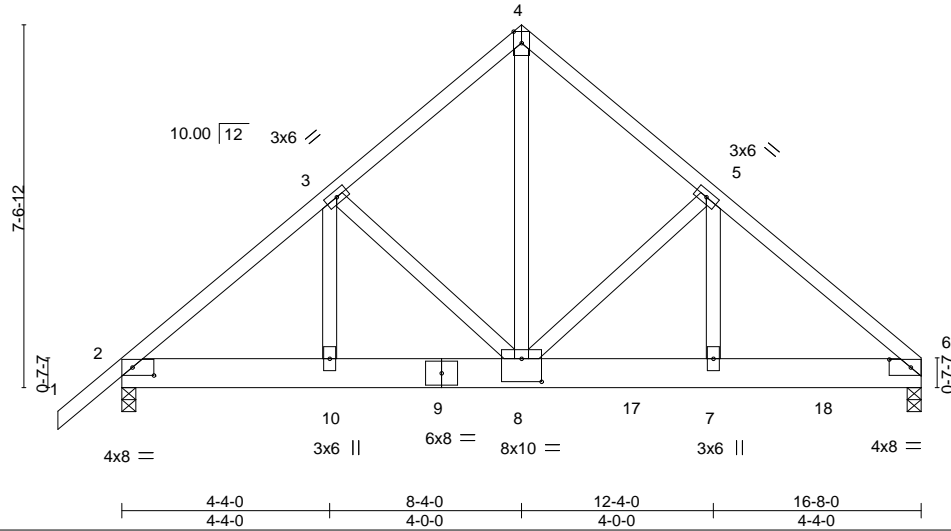


Plate Offsets (X,Y)-- [2:0-5-6,0-2-0], [3:0-0-0,0-0-0], [6:0-5-6,0-2-0], [8:0-5-0,0-5-12]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.17	Vert(LL) 0.05	8-10	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.20	Vert(CT) -0.08	8-10	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.69	Horz(CT) 0.01	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 243 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 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) 6=0-3-8, 2=0-3-8  
Max Horz 2=180(LC 24)  
Max Uplift 6=-977(LC 9), 2=-933(LC 8)  
Max Grav 6=3176(LC 1), 2=2586(LC 1)

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

TOP CHORD 2-3=-3618/1350, 3-4=-3082/1161, 4-5=-3084/1161, 5-6=-4145/1301  
BOT CHORD 2-10=-1055/2720, 8-10=-1055/2720, 7-8=-949/3131, 6-7=-949/3131  
WEBS 4-8=-1377/3635, 5-8=-1123/346, 5-7=-221/1238, 3-8=-561/384, 3-10=-279/528

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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) 6=977, 2=933.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1607 lb down and 883 lb up at 6-7-4, 872 lb down and 241 lb up at 8-7-4, 771 lb down and 204 lb up at 10-7-4, and 771 lb down and 204 lb up at 12-7-4, and 544 lb down and 157 lb up at 14-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-6=-54, 11-14=-20

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Continued on page 2

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017847
3363903	T28	Common Girder	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:52 2023 Page 2  
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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 9=-1607(B) 8=-765(B) 7=-771(B) 17=-771(B) 18=-544

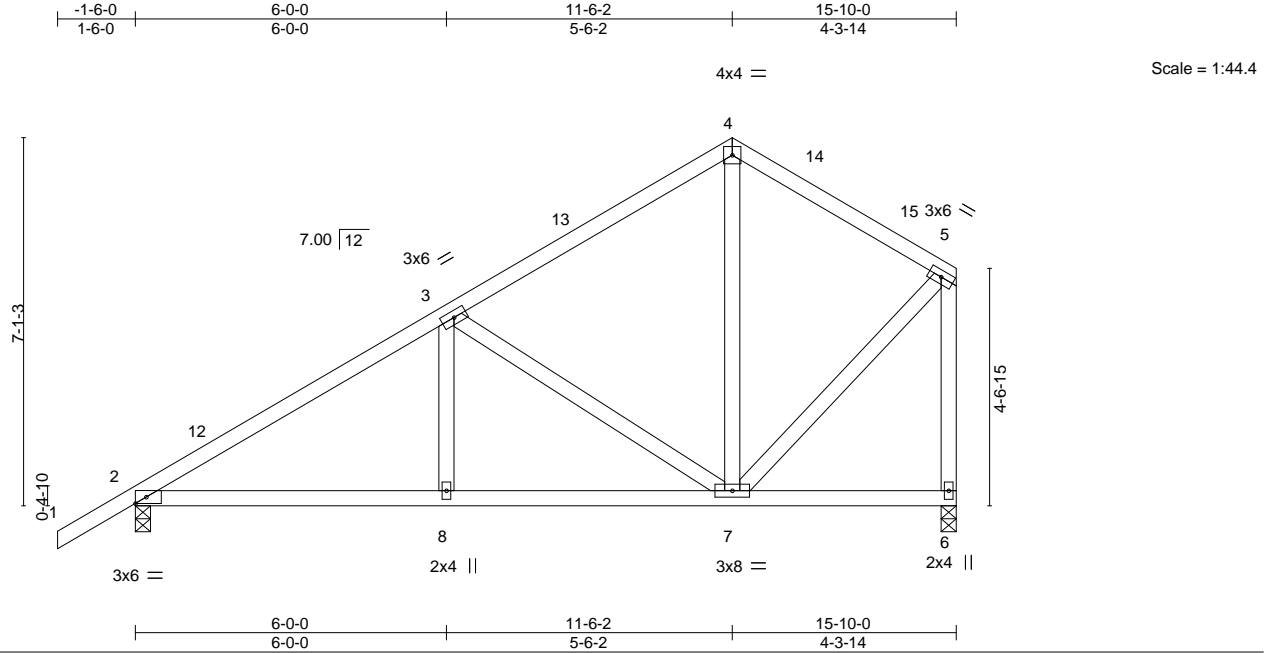




Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017849
3363903	T30	Common	4	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:54 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-C1FvjV45H7IJnyCVzPUMYka0BfkGYheruTnjENzcgQ3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	Vert(LL)	-0.03 8-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.34	Vert(CT)	-0.07 8-11	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.39	Horz(CT)	0.01 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 92 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 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=223(LC 12)  
Max Uplift 2=167(LC 12), 6=151(LC 12)  
Max Grav 2=665(LC 1), 6=577(LC 1)

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

TOP CHORD 2-3=-829/168, 3-4=-403/125, 4-5=-370/127, 5-6=-541/169  
BOT CHORD 2-8=-268/680, 7-8=-268/680  
WEBS 3-7=-485/225, 5-7=-111/386

#### 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=25ft; 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 11-6-2, Exterior(2R) 11-6-2 to 14-6-2, Interior(1) 14-6-2 to 15-8-4 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=167, 6=151.

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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:

March 10,2023

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:56 2023 Page 1  
ID:y4QiaC6?UjFp4\_P2xWz6BjzAPb-8QNq8B5LokY10FMt4qXEd9fM5TQS0d7LnGqIGzcgQ1



<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	2-0-0 oc purlins (6-0-0 max.), except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

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

TOP CHORD	2-4=-761/154, 4-5=-397/122, 5-6=-367/125, 6-7=-514/160
BOT CHORD	2-10=-244/629, 9-10=-244/629, 8-9=-244/629
WEBS	4-8=-417/196, 6-8=-102/365

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Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017851
3363903	T31	Common	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:57 2023 Page 1  
ID:y4QiaC6?UffP4\_P2xWz6BjzxAPb-ccx2LX6zZ2guePx4eX2T9MCWltk\_I2MHaR?NqizcgQ0

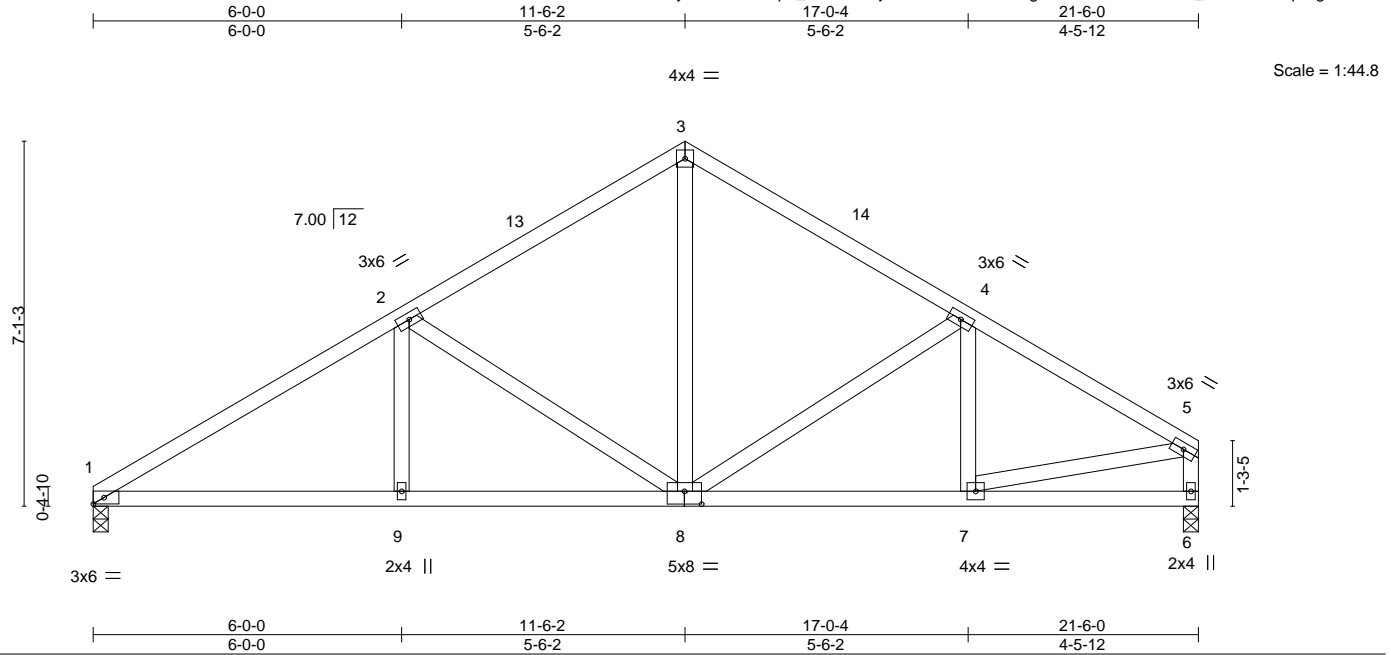


Plate Offsets (X,Y)--		[8:0-4-0,0-3-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0		Plate Grip DOL	1.25	TC 0.35		Vert(LL)	0.05 9-12	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.41		Vert(CT)	-0.09 9-12	>999	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.39		Horz(CT)	0.03 6	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014		Matrix-MS						Weight: 115 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 4-11-2 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 6=0-3-8  
Max Horz 1=155(LC 9)  
Max Uplift 1=184(LC 12), 6=173(LC 13)  
Max Grav 1=790(LC 1), 6=790(LC 1)

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

TOP CHORD 1-2=-1247/282, 2-3=-820/237, 3-4=-816/235, 4-5=-986/222, 5-6=-750/182  
BOT CHORD 1-9=-298/1021, 8-9=-298/1021, 7-8=-154/811  
WEBS 2-8=-487/232, 3-8=-112/477, 4-8=-254/165, 5-7=-143/776

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 11-6-2, Exterior(2R) 11-6-2 to 14-6-2, Interior(1) 14-6-2 to 21-4-4 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) 1=184, 6=173.

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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:

March 10,2023

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017852
3363903	T32	Half Hip Girder	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:03:59 2023 Page 2  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-Z?2omC8E5fwctj5Smy4xEnHmkgQjDwya2IUUvbzcgQ\_

LOAD CASE(S) Standard

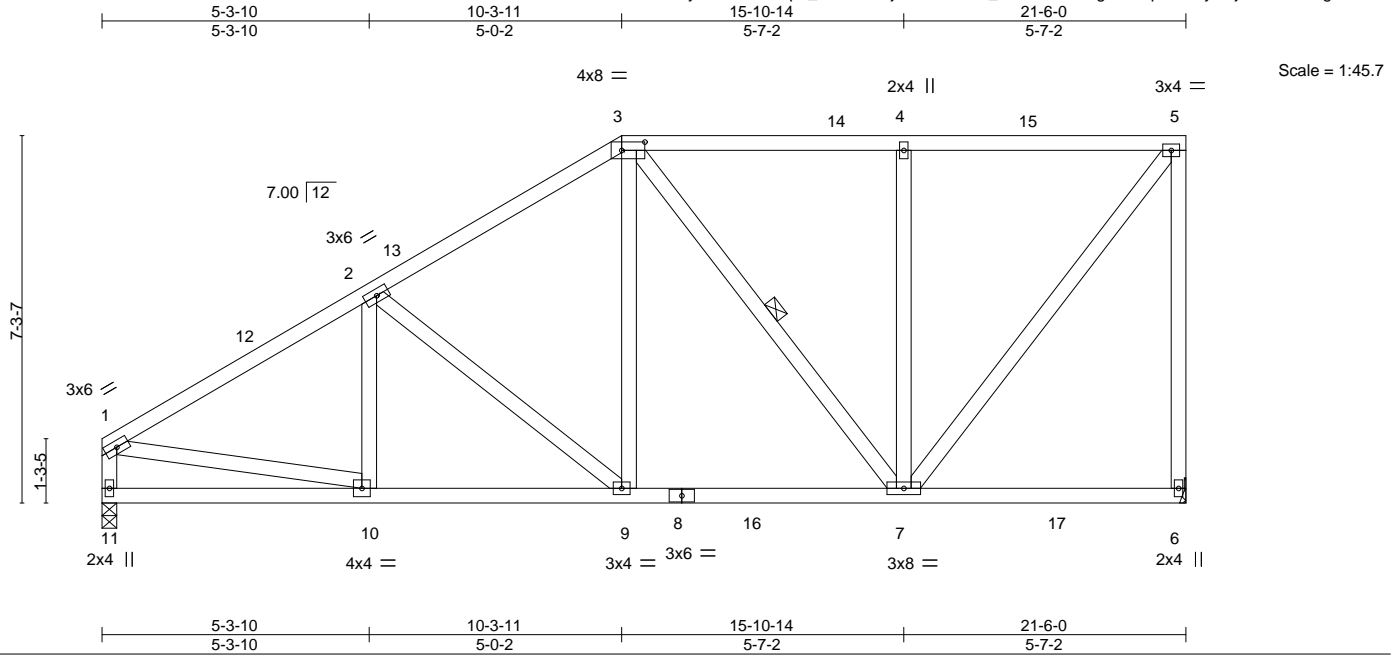
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)  
Vert: 1-4=-54, 4-7=-54, 8-14=-20
- Concentrated Loads (lb)  
Vert: 11=-140(F) 18=-18(F) 19=-18(F) 20=-18(F) 22=-18(F) 23=-18(F) 24=-18(F) 25=-209(F) 26=-209(F) 27=-209(F) 28=-209(F) 29=-140(F) 30=-140(F) 31=-140(F)  
32=-140(F) 33=-140(F)



Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017853
3363903	T33	Half Hip	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:04:00 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-1BcA\_Y9ssz2TVffJgbBn?qwT4n8yQdjGPE1Q1zcgPz



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.80	Vert(LL)	-0.04	MT20	244/190		
TCDL	7.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.07				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.01				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 145 lb		FT = 20%	

#### LUMBER-

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

#### REACTIONS.

(size) 6=Mechanical, 11=0-3-8  
Max Horz 11=218(LC 12)  
Max Uplift 6=221(LC 9), 11=184(LC 12)  
Max Grav 6=892(LC 2), 11=865(LC 19)

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

TOP CHORD 1-2=-1065/232, 2-3=-845/222, 3-4=-542/151, 4-5=-542/151, 5-6=-784/234,  
1-11=-780/197  
BOT CHORD 10-11=-250/164, 9-10=-361/912, 7-9=-232/683  
WEBS 2-9=-337/165, 3-9=-73/418, 3-7=-288/130, 4-7=-351/188, 5-7=-244/867, 1-10=-113/795

#### 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=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-3-11, Exterior(2R) 10-3-11 to 14-6-10, Interior(1) 14-6-10 to 21-4-4 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=221, 11=184.

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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:

March 10,2023

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



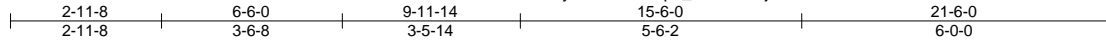
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017854
3363903	T34	Roof Special	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:04:01 2023 Page 1

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7x8 ||

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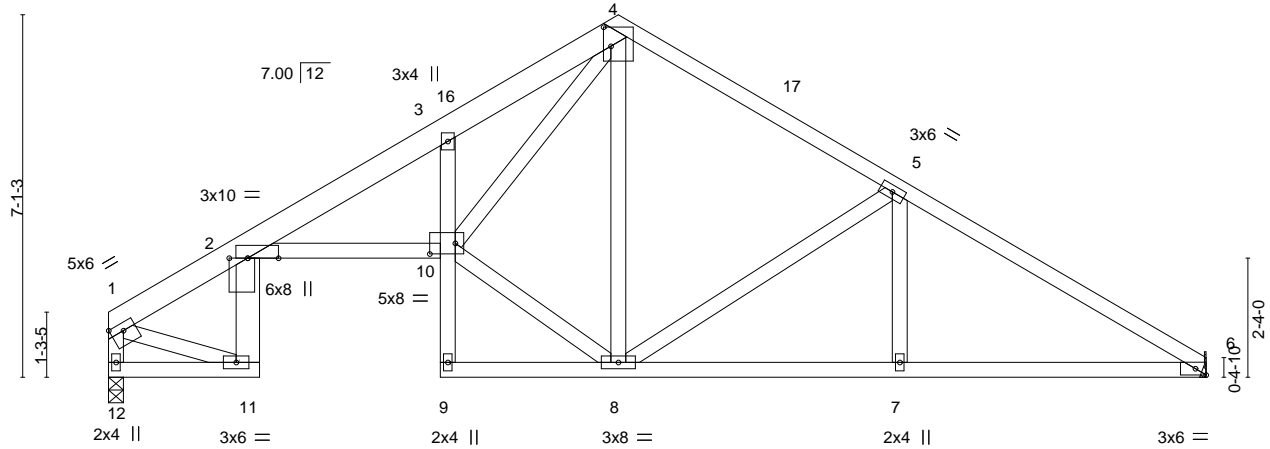


Plate Offsets (X,Y)-- [1:Edge,0-1-12], [2:0-7-4,0-0-0], [2:0-0-0,0-4-6], [4:0-4-8,0-1-12], [6:0-2-8,Edge], [10:0-6-0,0-2-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.54	Vert(LL)	-0.22	2-10	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.77	Vert(CT)	-0.42	2-10	>612	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.43	6	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 132 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP M 26 \*Except\*  
4-6: 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
2-11: 2x6 SP No.2, 2-10: 2x4 SP No.1, 3-9: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### REACTIONS.

(size) 6=Mechanical, 12=0-3-8  
Max Horz 12=-156(LC 8)  
Max Uplift 6=-184(LC 13), 12=-171(LC 12)  
Max Grav 6=791(LC 1), 12=794(LC 1)

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

TOP CHORD 1-2=-427/169, 2-3=-1838/416, 3-4=-1946/546, 4-5=-819/237, 5-6=-1249/282,  
1-12=-763/178  
BOT CHORD 11-12=-150/289, 2-10=-388/1726, 3-10=-694/293, 7-8=-176/1024, 6-7=-176/1024  
WEBS 8-10=-85/756, 4-10=-452/1630, 5-8=-491/230, 1-11=-319/165

#### 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=25ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-11-9, Exterior(2R) 9-11-9 to 12-11-9, Interior(1) 12-11-9 to 21-6-0 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.
- 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) 6=184, 12=171.

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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:

March 10,2023

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

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



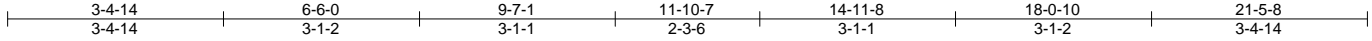
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017855
3363903	TFG01	ROOF TRUSS	1	3	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:04:03 2023 Page 1

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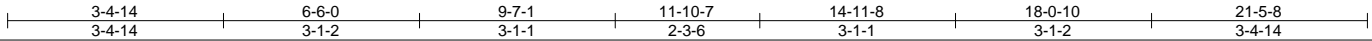
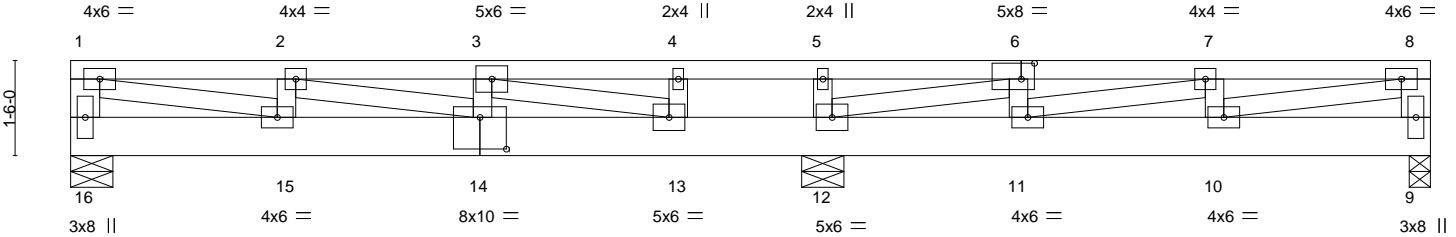


Plate Offsets (X,Y)-- [6:0-2-8,0-3-0], [14:0-5-0,0-6-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.23	Vert(LL) 0.09	14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.36	Vert(CT) -0.11	14	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.55	Horz(CT) 0.01	9	n/a	n/a		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS					Weight: 395 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP 2850F 2.0E or 2x4 SP M 31  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 "Except"  
 1-16,8-9: 2x6 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-13.

#### REACTIONS.

(size) 16=0-8-0, 9=0-4-0, 12=0-8-0  
 Max Uplift 16=-846(LC 8), 9=-614(LC 8), 12=-2138(LC 8)  
 Max Grav 16=2810(LC 1), 9=2039(LC 1), 12=7100(LC 1)

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

TOP CHORD 1-16=-2090/1379, 1-2=-4993/3232, 2-3=-5505/3562, 3-4=-508/782, 4-5=-508/782, 5-6=-508/782, 6-7=-1003/649, 7-8=-2915/1887, 8-9=-1457/969  
 BOT CHORD 15-16=-558/856, 14-15=-3232/4993, 13-14=-3547/5479, 12-13=-782/508, 11-12=-631/978, 10-11=-1887/2915, 9-10=-407/622  
 WEBS 1-15=-2817/4357, 2-15=-1552/1067, 2-14=-349/542, 3-14=-381/679, 3-13=-6614/4285, 4-13=-804/570, 5-12=-1653/1121, 6-12=-1857/1202, 6-11=-630/467, 7-11=-2020/1308, 7-10=-748/547, 8-10=-1559/2416

#### NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)  
 16=846, 9=614, 12=2138.

LOAD CASE(S) Standard

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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:

March 10,2023

Continued on page 2

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

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

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017855
3363903	TFG01	ROOF TRUSS	1	3	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:04:03 2023
Page 2
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-RmIJcaBk9uR2MKOE?o9uPdSajHoB9jM9yNSh1MzcgPw

**LOAD CASE(S)**
Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-8=-444, 9-16=-125(B=-105)


**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. - ROYSTER RES.	T30017856
3363903	TFG02	FLOOR	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:04:04 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-vyshpwCMwCZv\_UzQYWg7xr\_cfh4PuBkJB1CFZozcgPv

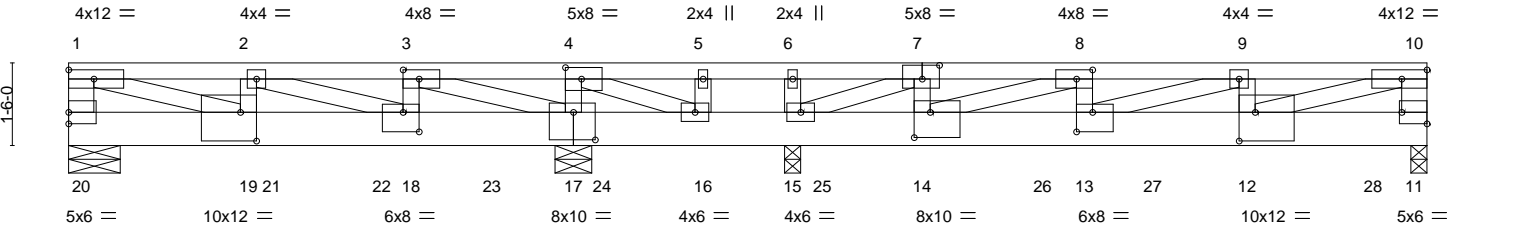


Plate Offsets (X,Y)--	[3:0-3-8,0-2-0], [4:0-3-8,0-2-8], [7:0-3-12,0-3-0], [8:0-3-8,0-2-0], [11:Edge,0-2-8], [12:0-3-8,0-6-4], [13:0-3-8,0-4-4], [14:0-3-8,0-5-8], [17:0-4-12,0-6-0], [18:0-3-8,0-4-4], [19:0-3-8,0-6-4]
-----------------------	---

<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 40.0	Plate Grip DOL	1.00	TC 0.79	Vert(LL)	-0.10 18-19	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.61	Vert(CT)	-0.13 18-19	>798	240		
BCLL 0.0	Rep Stress Incr	NO	WB 0.48	Horz(CT)	0.02 11	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 307 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.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17,15-16.
WEBS 2x4 SP 2850F 2.0E or 2x4 SP M 31 *Except* 1-20,10-11: 2x6 SP No.2	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 20=0-11-4, 17=0-8-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) except 20=4071(LC 5), 11=2664(LC 4), 17=6058(LC 3), 15=4579(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-20=2908/0, 1-2=8598/0, 2-3=4562/0, 3-4=0/3423, 4-5=0/3682, 5-6=0/3682, 6-7=0/3682, 7-8=1422/0, 8-9=4975/0, 9-10=4555/0, 10-11=1577/0  
BOT CHORD 19-20=0/974, 18-19=0/8598, 17-18=0/4562, 16-17=3423/0, 15-16=3682/0, 14-15=0/1422, 13-14=0/4975, 12-13=0/4555, 11-12=0/558  
WEBS 1-19=0/8068, 2-19=0/1521, 2-18=4312/0, 3-18=0/2588, 3-17=8451/0, 4-17=435/0, 4-16=324/116, 6-15=284/0, 7-15=5588/0, 7-14=0/2033, 8-14=3773/0, 8-13=0/1035, 9-13=0/445, 9-12=406/0, 10-12=0/4231

**NOTES-**  
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-7-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-2-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.  
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.  
3) Unbalanced floor live loads have been considered for this design.  
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.  
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4861 lb down at 3-3-9, 876 lb down at 3-8-4, 876 lb down at 5-8-4, 876 lb down at 7-8-4, 876 lb down at 11-8-4, 876 lb down at 13-8-4, 876 lb down at 15-8-4, 864 lb down at 17-8-4, 864 lb down at 19-8-4, and 866 lb down at 21-8-4, and 866 lb down at 23-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 1-10=-100, 11-20=-10

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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:

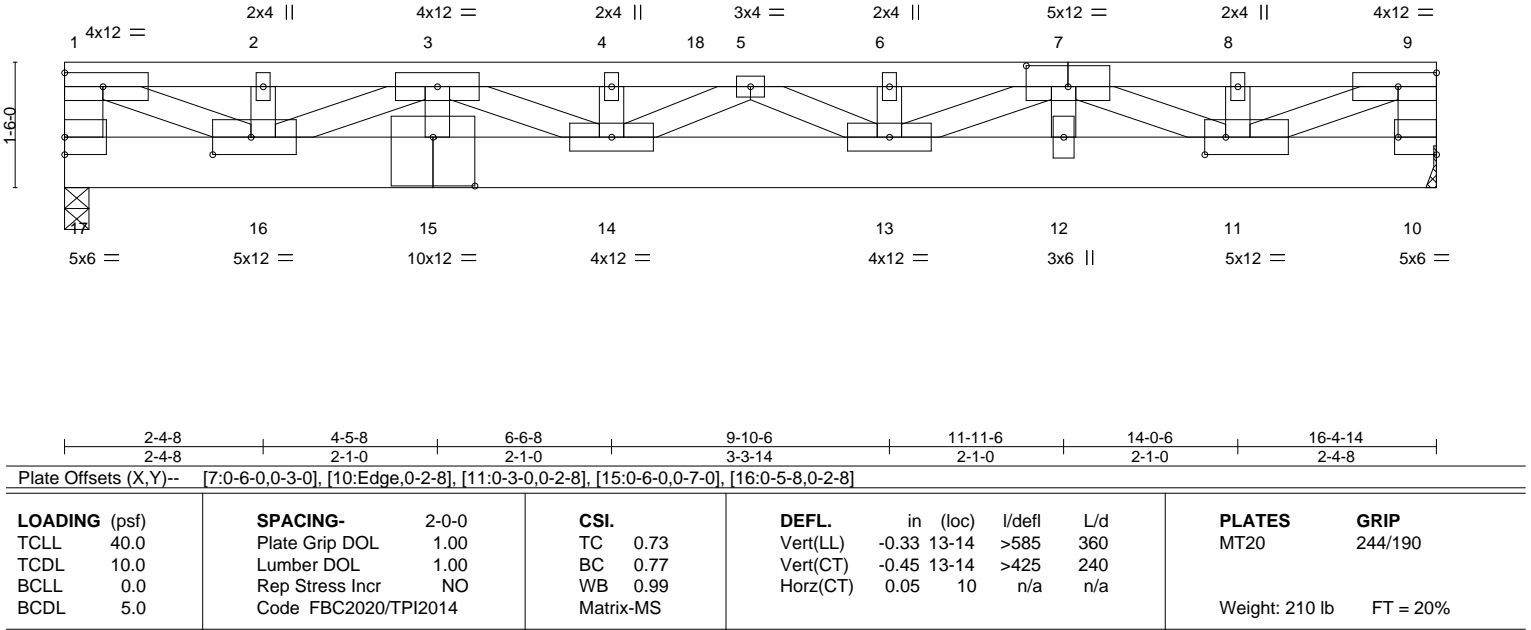
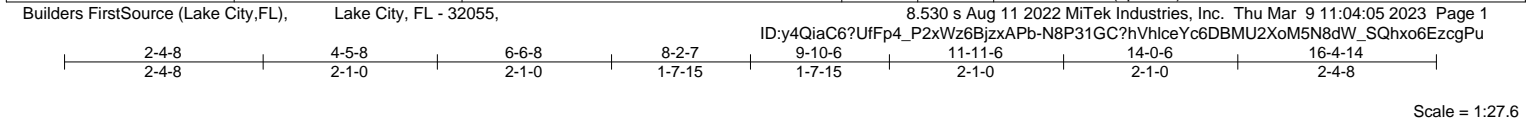
March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017856
3363903	TFG02	FLOOR	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Thu Mar 9 11:04:04 2023
Page 2
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LOAD CASE(S)
Standard
Concentrated Loads (lb)
Vert: 19=-4861(F) 16=-876(F) 14=-876(F) 12=-864(F) 21=-876(F) 22=-876(F) 23=-876(F) 24=-876(F) 25=-876(F) 26=-864(F) 27=-864(F) 28=-866(F)

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017857
3363903	TFG03	FLOOR	1	2	Job Reference (optional)	



<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2850F 2.0E or 2x4 SP M 31	TOP CHORD Structural wood sheathing directly applied or 3-2-4 oc purlins, except end verticals.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 "Except"	
1-17,9-10: 2x6 SP No.2	

**REACTIONS.** (size) 17=0-3-8, 10=Mechanical  
Max Grav 17=3648(LC 1), 10=4871(LC 1)

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

TOP CHORD 1-17=-2931/0, 1-2=-6022/0, 2-3=-6022/0, 3-4=-15576/0, 4-5=-15576/0, 5-6=-15686/0, 6-7=-15686/0, 7-8=-7286/0, 8-9=-7286/0, 9-10=-3857/0

BOT CHORD 16-17=0/715, 15-16=0/12134, 14-15=0/12100, 13-14=0/16606, 12-13=0/13480, 11-12=0/13447, 10-11=0/969

WEBS 1-16=0/5910, 2-16=-260/0, 3-16=-6848/0, 3-15=0/697, 3-14=0/3894, 4-14=-1747/0, 5-14=-1220/0, 5-13=-1089/0, 6-13=-870/0, 7-13=0/2459, 7-12=0/670, 7-11=-6939/0, 8-11=-1086/0, 9-11=0/7035

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-3-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 4-14 2x4 - 1 row at 0-2-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1740 lb down at 6-7-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)  
Vert: 1-18=-200, 9-18=-600(F=-400), 10-17=-10

Concentrated Loads (lb)  
Vert: 4=-1740(F)

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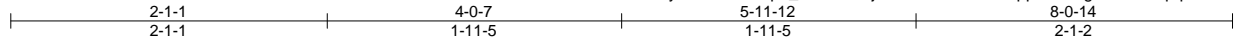
Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

March 10,2023

Job	Truss	Truss Type	Qty	Ply	IC CONST. - ROYSTER RES.	T30017858
3363903	TFG04	FLOOR	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Mar 9 11:04:06 2023 Page 1  
ID:y4QiaC6?UfFp4\_P2xWz6BjzxAPb-rLzREcDdSppcDo7ogwib1G40qVpLM1NcfKhMehzcgPt



Scale = 1:15.2

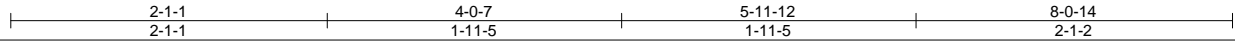
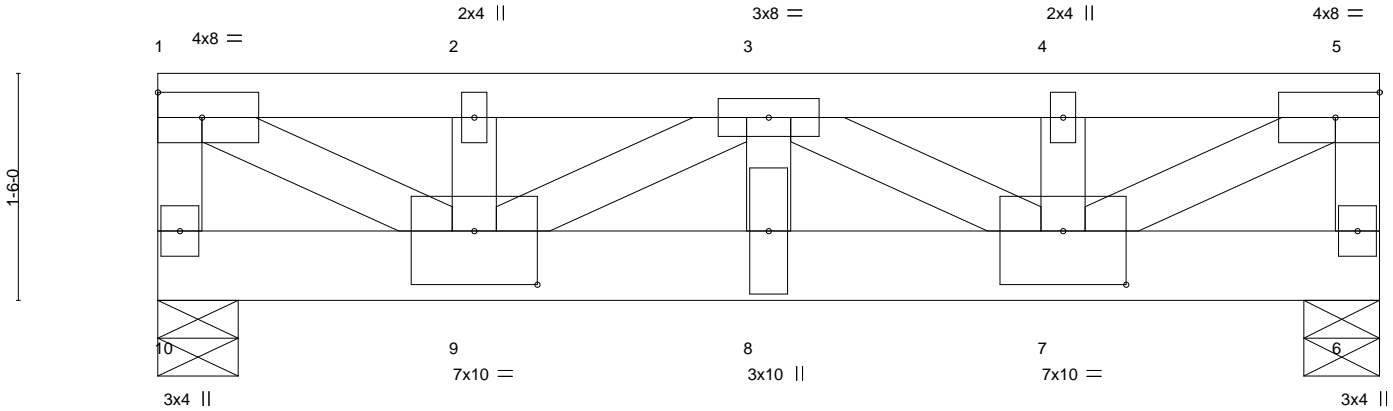


Plate Offsets (X,Y)-- [7:0-5-0,0-4-4], [9:0-5-0,0-4-4]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.56	Vert(LL)	-0.05	8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.39	Vert(CT)	-0.08	8	>999	240		
BCLL 0.0	Rep Stress Incr	NO	WB 0.73	Horz(CT)	0.01	6	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 94 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP M 26  
WEBS 2x4 SP No.3 "Except"  
1-9,3-9,3-7,5-7: 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-4-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 10=0-6-6, 6=0-6-0  
Max Grav 10=4519(LC 1), 6=3650(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-10=-3197/0, 1-2=-4761/0, 2-3=-4761/0, 3-4=-4761/0, 4-5=-4761/0, 5-6=-3197/0  
BOT CHORD 9-10=0/300, 8-9=0/6855, 7-8=0/6855, 6-7=0/300  
WEBS 1-9=0/5153, 2-9=-1092/0, 3-9=-2420/0, 3-8=0/1212, 3-7=-2420/0, 4-7=-1092/0, 5-7=0/5153

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 869 lb down at 0-1-12, 864 lb down at 2-2-10, and 864 lb down at 4-2-10, and 864 lb down at 6-2-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 1-5=-595, 6-10=-10  
Concentrated Loads (lb)  
Vert: 10=-869(F) 9=-864(F) 8=-864(F) 7=-864(F)

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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:

March 10,2023

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

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

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

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

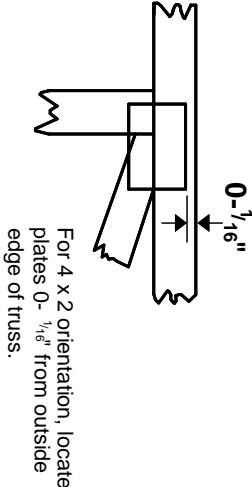
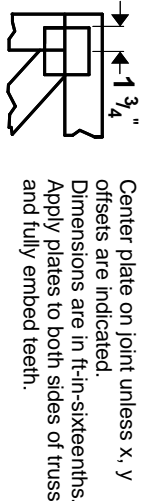


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



# Symbols

## PLATE LOCATION AND ORIENTATION



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

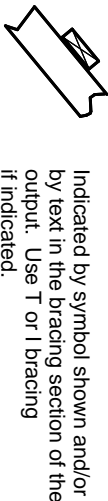
This symbol indicates the required direction of slots in connector plates.

## PLATE SIZE

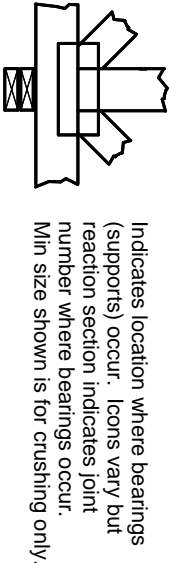
4 X 4

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

## LATERAL BRACING LOCATION

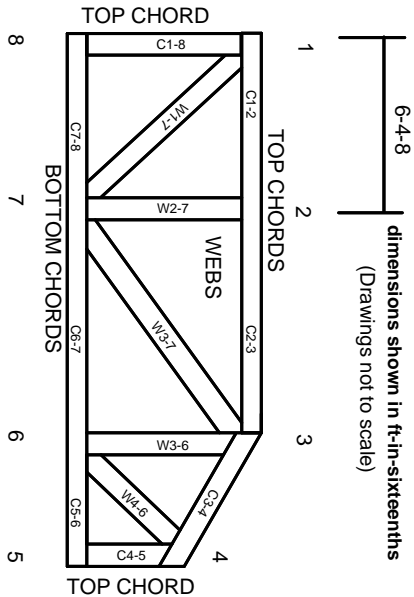


## BEARING



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