



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

RE: 3205301 - MURTAGH RES

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: Cornerstone Dev. Project Name: Murtagh Res. Model: Samuel Gable
Lot/Block: N/A Subdivision: N/A
Address: TBD Old Country Club Rd., 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
Wind Code: ASCE 7-16
Roof Load: 37.0 psf

Design Program: MiTek 20/20 8.5
Wind Speed: 130 mph
Floor Load: N/A psf

This package includes 32 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	T27981835	CJ01	6/14/22	23	T27981857	T12	6/14/22
2	T27981836	CJ02	6/14/22	24	T27981858	T13	6/14/22
3	T27981837	CJ03	6/14/22	25	T27981859	T14	6/14/22
4	T27981838	CJ04	6/14/22	26	T27981860	T15	6/14/22
5	T27981839	CJ05	6/14/22	27	T27981861	T16	6/14/22
6	T27981840	CJ06	6/14/22	28	T27981862	T17	6/14/22
7	T27981841	EJ01	6/14/22	29	T27981863	T18	6/14/22
8	T27981842	EJ02	6/14/22	30	T27981864	T19	6/14/22
9	T27981843	HJ01	6/14/22	31	T27981865	T20	6/14/22
10	T27981844	HJ02	6/14/22	32	T27981866	T21	6/14/22
11	T27981845	T02	6/14/22				
12	T27981846	T02G	6/14/22				
13	T27981847	T03	6/14/22				
14	T27981848	T04	6/14/22				
15	T27981849	T04G	6/14/22				
16	T27981850	T05	6/14/22				
17	T27981851	T06	6/14/22				
18	T27981852	T07	6/14/22				
19	T27981853	T08	6/14/22				
20	T27981854	T09	6/14/22				
21	T27981855	T10	6/14/22				
22	T27981856	T11	6/14/22				



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

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

My license renewal date for the state of Florida is February 28, 2023.



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

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

June 14, 2022

O'Regan, Philip

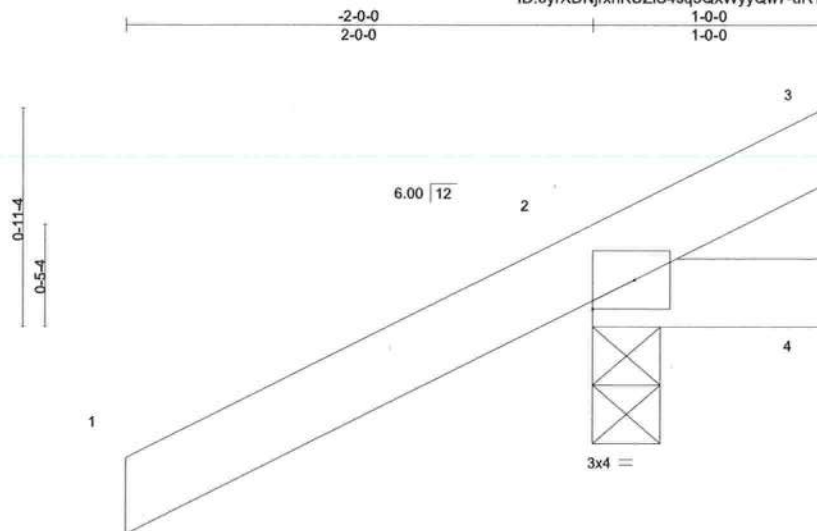
1 of 1

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981835
3205301	CJ01	Jack-Open	2	1		

Job Reference (optional)

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:34 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-uRTwRZeZxe9aSfovHnv91JzblC7dc7Qw3?fj5Qz6n47



Scale = 1:9.5



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.25	Vert(LL)	0.00	7	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.07	Vert(CT)	0.00	7	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=45(LC 12)
Max Uplift 3=-28(LC 1), 2=-95(LC 12), 4=-45(LC 1)
Max Grav 3=14(LC 8), 2=254(LC 1), 4=27(LC 16)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; 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) 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 28 lb uplift at joint 3, 95 lb uplift at joint 2 and 45 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

June 14,2022



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

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



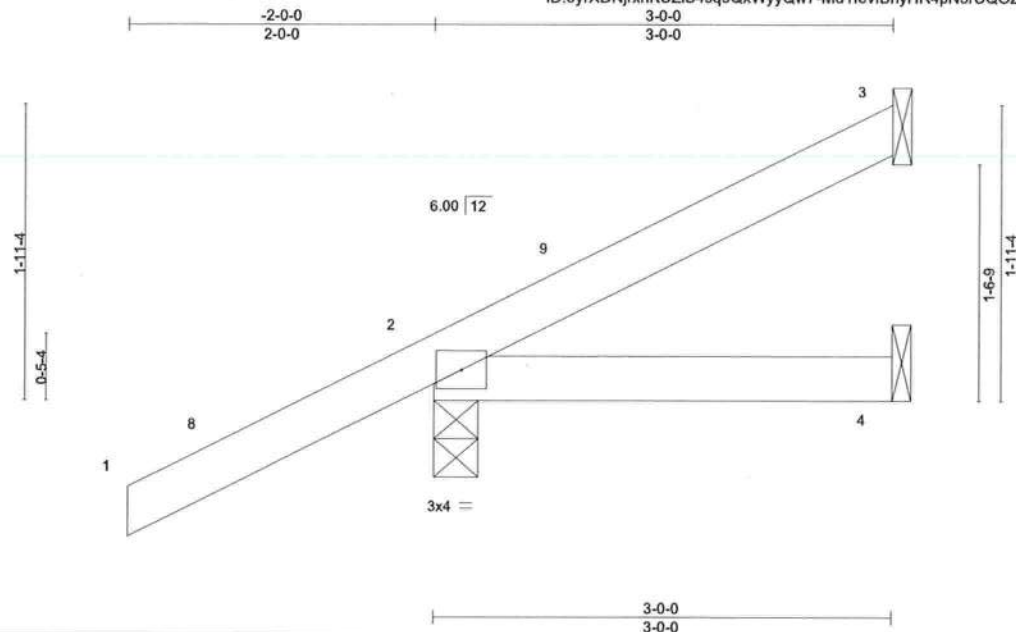
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981836
3205301	CJ02	Jack-Open	2	1		

Job Reference (optional)

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:35 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-Md1levfBhyHR4pN5rUQOZWWI50TqLag4lffPGdtz6n46



Scale = 1:14.6

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 0.25	Vert(LL)	-0.00	4-7	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.07	Vert(CT)	-0.01	4-7	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=78(LC 12)
Max Uplift 3=-32(LC 12), 2=-71(LC 12)
Max Grav 3=53(LC 1), 2=253(LC 1), 4=48(LC 3)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 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) 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 32 lb uplift at joint 3 and 71 lb uplift at joint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 14,2022

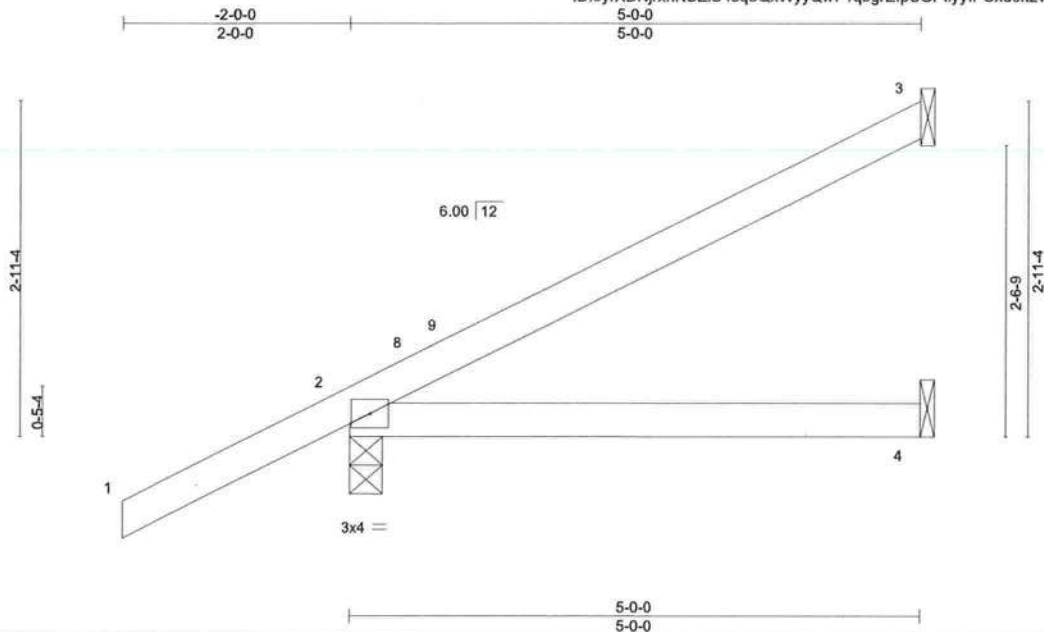
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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	MURTAGH RES	
3205301	CJ03	Jack-Open	2	1		T27981837
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,						8,530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:36 2022 Page 1
						Job Reference (optional)

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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 0.26	Vert(LL)	-0.02	4-7	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.23	Vert(CT)	-0.05	4-7	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
									Weight: 19 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=111(LC 12)
Max Uplift 3=-63(LC 12), 2=-75(LC 12)
Max Grav 3=109(LC 1), 2=313(LC 1), 4=87(LC 3)

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

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 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) 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 63 lb uplift at joint 3 and 75 lb uplift at joint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

June 14,2022

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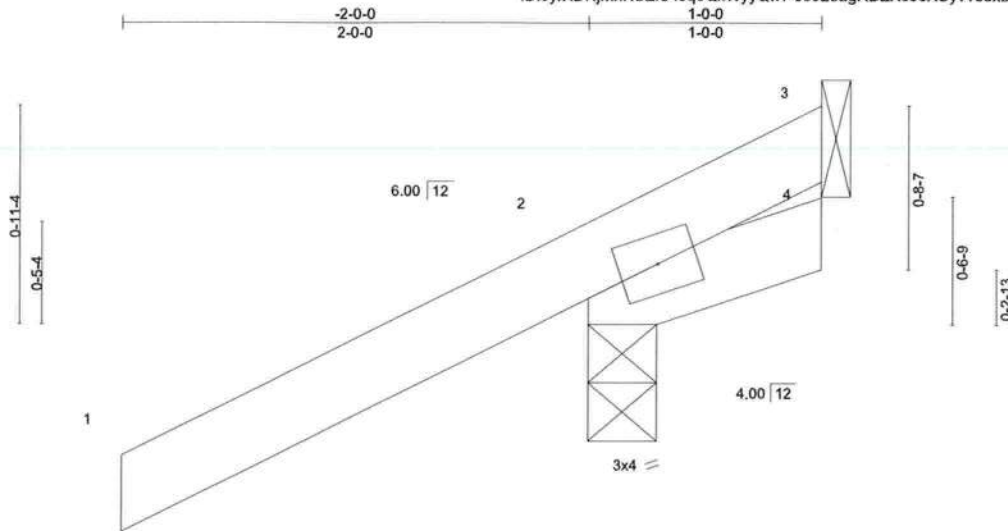


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	
3205301	CJ04	Jack-Open	2	1		T27981838

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:37 2022 Page 1
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Scale = 1:9.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.25	Vert(LL)	0.00	7	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.03	Vert(CT)	0.00	7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP					Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8
Max Horz 2=45(LC 12)
Max Uplift 3=73(LC 1), 2=91(LC 12)
Max Grav 3=37(LC 16), 2=254(LC 1)

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

NOTES- (8)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; 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) 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) Bearing at joint(s) 2 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 capable of withstanding 73 lb uplift at joint 3 and 91 lb uplift at joint 2.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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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

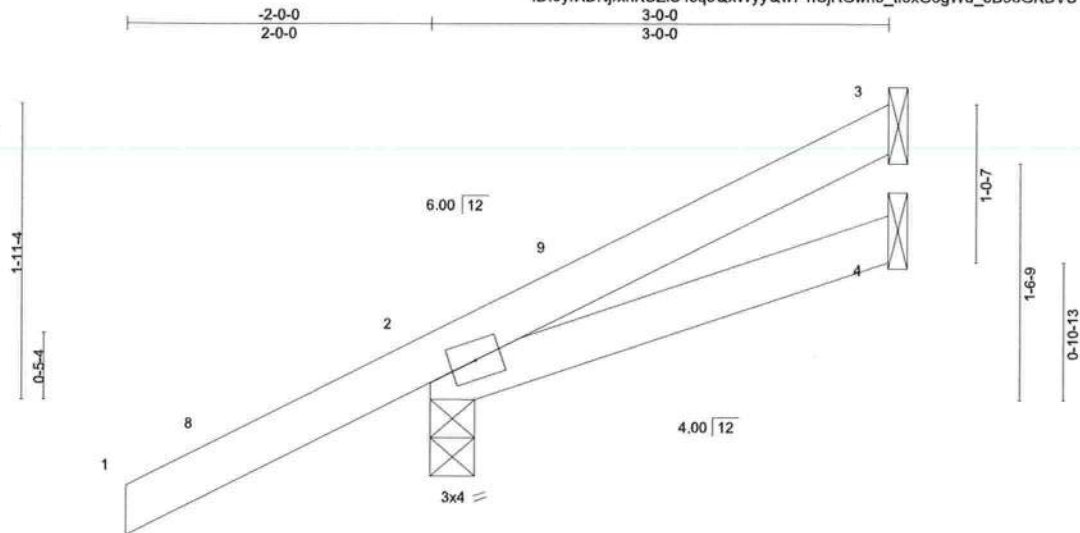


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	
3205301	CJ05	Jack-Open	2	1		T27981839

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:38 2022 Page 1
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Scale = 1:14.6

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 0.25	Vert(LL)	-0.00	4-7	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.07	Vert(CT)	-0.01	4-7	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 13 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=78(LC 12)
Max Uplift 3=31(LC 12), 2=-69(LC 12)
Max Grav 3=51(LC 1), 2=253(LC 1), 4=47(LC 3)

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

NOTES- (8)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 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) 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) Bearing at joint(s) 2 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 capable of withstanding 31 lb uplift at joint 3 and 69 lb uplift at joint 2.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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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

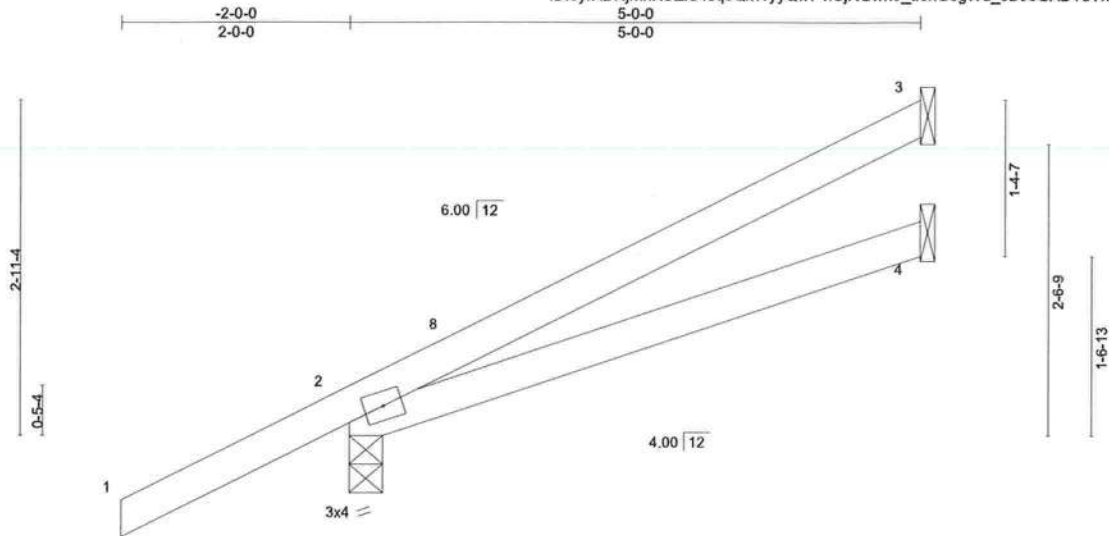


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981840
3205301	CJ06	Jack-Open	2	1		

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:38 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-nCjRGwh3_tf0xG6gWd_5B98GADT3YxPW_ddxEBz6n43



Scale = 1:19.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.26	Vert(LL)	0.03	4-7	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.23	Vert(CT)	-0.05	4-7	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 20 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=111(LC 12)
Max Uplift 3=63(LC 12), 2=73(LC 12)
Max Grav 3=108(LC 1), 2=313(LC 1), 4=86(LC 3)

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

NOTES- (8)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 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) 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) Bearing at joint(s) 2 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 capable of withstanding 63 lb uplift at joint 3 and 73 lb uplift at joint 2.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

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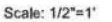
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



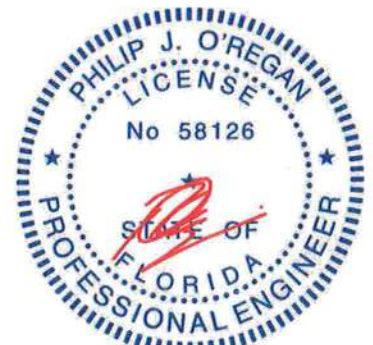
16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:39 2022 Page 1
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NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 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) 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 82 lb uplift at joint 3 and 84 lb uplift at joint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPJ 1 as referenced by the building code.



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Date:

June 14, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981842
3205301	EJ02	Jack-Partial	8	1		

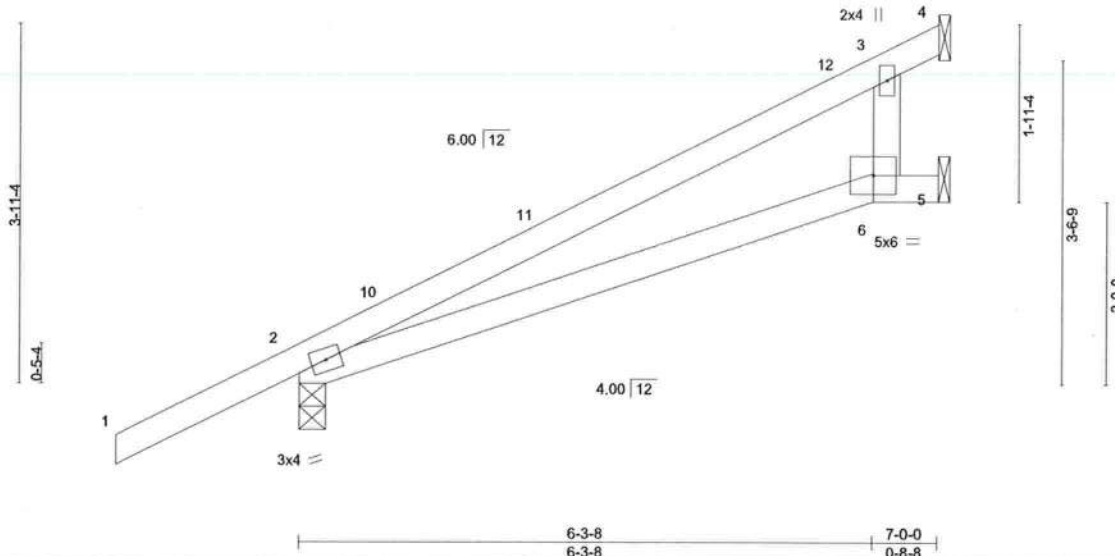
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:40 2022 Page 1

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-2-0-0 2-0-0 6-3-8 6-3-8 7-0-0 0-8-8

Scale = 1:24.3



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0		TC 0.63	Vert(LL)	0.11	6-9	>741	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25		BC 0.44	Vert(CT)	-0.19	6-9	>427	180		
BCLL 0.0 *	Lumber DOL 1.25		WB 0.05	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES		Matrix-MP						Weight: 28 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=140(LC 12)
Max Uplift 4=-82(LC 12), 2=-82(LC 12)
Max Grav 4=235(LC 1), 2=380(LC 1), 5=13(LC 3)

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

NOTES- (8)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 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) 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) Bearing at joint(s) 2 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 capable of withstanding 82 lb uplift at joint 4 and 82 lb uplift at joint 2.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

June 14, 2022

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

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

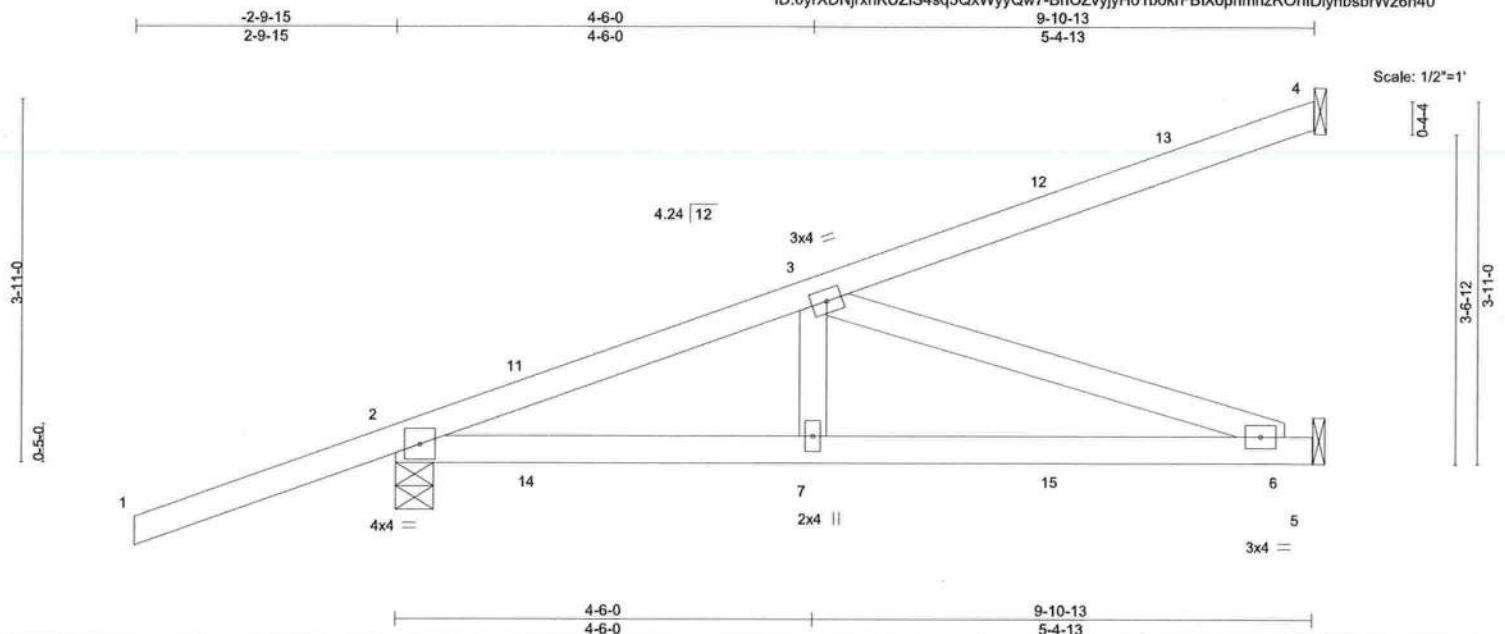


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 3205301	Truss HJ01	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	MURTAGH RES	T27981843
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:41 2022 Page 1
ID:0yrXDNjrxhKUZiS4sq5QxWyyQw7-BnOZvyjyHo1bokrFBIXopnmhzROhDiyhbsbrWz6n40



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 0.60	Vert(LL)	-0.06	6-7	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.61	Vert(CT)	-0.13	6-7	>925		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.35	Horz(CT)	-0.01	4	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 45 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-4-15, 5=Mechanical
Max Horz 2=156(LC 22)
Max Uplift 4=-76(LC 4), 2=-177(LC 4), 5=-45(LC 8)
Max Grav 4=152(LC 1), 2=465(LC 1), 5=267(LC 3)

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

TOP CHORD 2-3=-654/153
BOT CHORD 2-7=-188/564, 6-7=-188/564
WEBS 3-6=-594/198

NOTES- (9)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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 76 lb uplift at joint 4, 177 lb uplift at joint 2 and 45 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 104 lb up at 1-5-12, 54 lb down and 104 lb up at 1-5-12, 60 lb down and 34 lb up at 4-3-11, 60 lb down and 34 lb up at 4-3-11, and 41 lb down and 74 lb up at 7-1-10, and 41 lb down and 74 lb up at 7-1-10 on top chord, and 18 lb down and 73 lb up at 1-5-12, 18 lb down and 73 lb up at 1-5-12, 24 lb down and 3 lb up at 4-3-11, 24 lb down and 3 lb up at 4-3-11, and 42 lb down at 7-1-10, and 42 lb down at 7-1-10 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).
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

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: 7=6(F=3, B=3) 11=51(F=25, B=25) 12=-65(F=-33, B=-33) 14=68(F=34, B=34) 15=-47(F=-24, B=-24)



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 14, 2022

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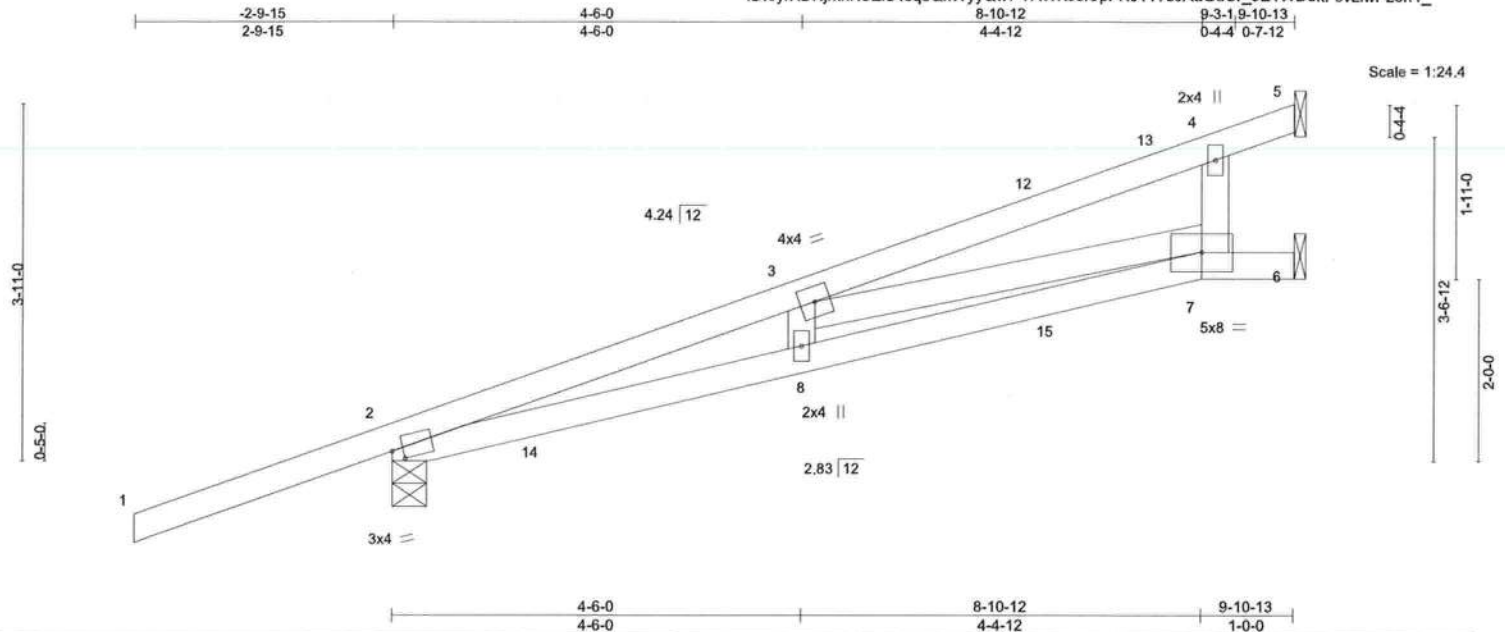
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981844
3205301	HJ02	Diagonal Hip Girder	1	1		
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,						Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:43 2022 Page 1
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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.82	Vert(LL)	-0.13	MT20	244/190		
TCDL	7.0	Lumber DOL	1.25	BC	0.78	Vert(CT)	-0.25				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.05				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 44 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 4-9-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-6-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 2=0-4-9, 6=Mechanical
Max Horz 2=156(LC 4)
Max Uplift 5=62(LC 8), 2=221(LC 4), 6=66(LC 8)
Max Grav 5=275(LC 1), 2=500(LC 1), 6=135(LC 1)

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

TOP CHORD 2-3=-1289/405
BOT CHORD 2-8=-465/1205, 7-8=-469/1225
WEBS 3-7=-1170/458

NOTES- (10)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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) Bearing at joint(s) 2 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 capable of withstanding 62 lb uplift at joint 5, 221 lb uplift at joint 2 and 66 lb uplift at joint 6.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 60 lb down and 33 lb up at 4-3-11, 60 lb down and 33 lb up at 4-3-11, and 41 lb down and 74 lb up at 7-1-10, and 41 lb down and 74 lb up at 7-1-10 on top chord, and 30 lb down and 101 lb up at 1-5-12, 30 lb down and 101 lb up at 1-5-12, 23 lb down and 2 lb up at 4-3-11, 23 lb down and 2 lb up at 4-3-11, and 41 lb down at 7-1-10, and 41 lb down at 7-1-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

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



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 14, 2022

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981844
3205301	HJ02	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:43 2022 Page 2
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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-5=-54, 7-9=-20, 6-7=-20

Concentrated Loads (lb)

Vert: 8=4(F=2, B=2) 12=-63(F=-32, B=-32) 14=79(F=40, B=40) 15=-49(F=-25, B=-25)

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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

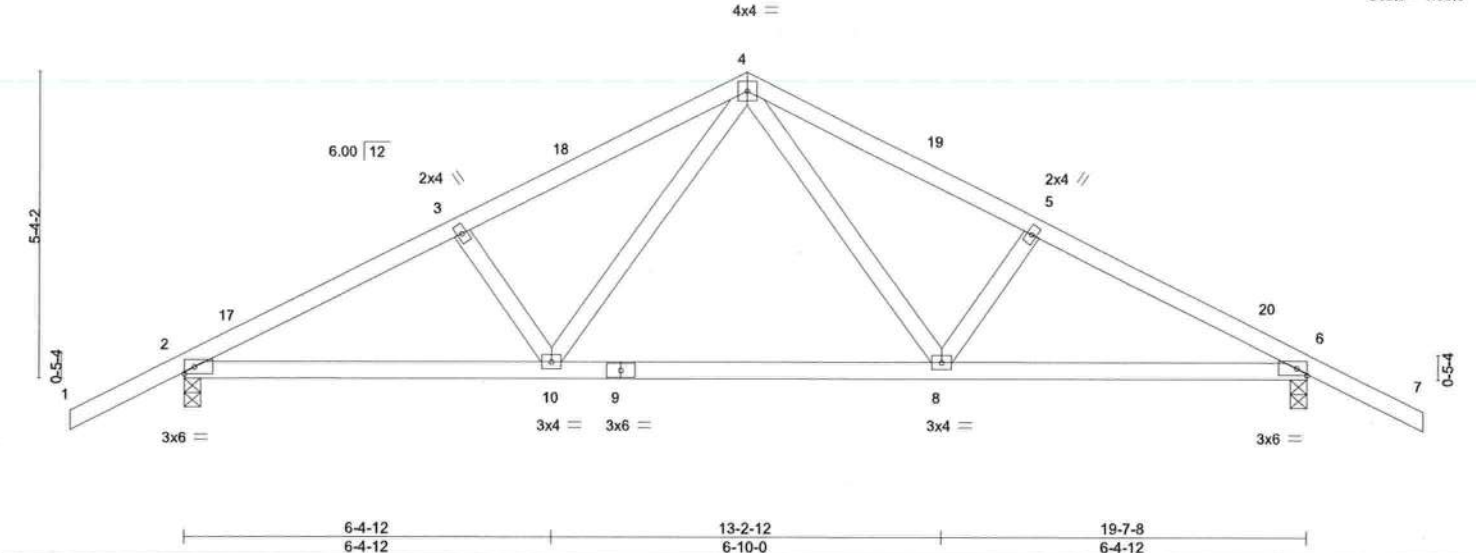


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	
3205301	T02	Common	3	1		T27981845
Job Reference (optional)						

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:44 2022 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	Vert(LL)	-0.18 8-10	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.97	Vert(CT)	-0.35 8-10	>665	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.25	Horz(CT)	0.04 6	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS						
	Code FBC2020/TPI2014						Weight: 94 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-10-10 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS.	(size)
2=0-3-8, 6=0-3-8	
Max Horz 2=85(LC 16)	
Max Uplift 2=-236(LC 12), 6=-236(LC 13)	
Max Grav 2=1039(LC 1), 6=1039(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1688/472, 3-4=-1558/475, 4-5=-1558/475, 5-6=-1688/472
BOT CHORD	2-10=-325/1452, 8-10=-167/980, 6-8=-344/1452
WEBS	4-8=-181/653, 4-10=-182/653

- NOTES-** (8)
- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-9-12, Exterior(2R) 9-9-12 to 12-9-12, Interior(1) 12-9-12 to 21-7-8 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 236 lb uplift at joint 2 and 236 lb uplift at joint 6.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
 - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

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, 10-11=-20, 8-10=-80(F=-60), 8-14=-20	



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 14,2022

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981846
3205301	T02G	Common Supported Gable	1	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:45 2022 Page 1

ID:0yrXDNjrxhKUZiS4sq5QxWyyQw7-4Ye4kJmSL1X0HL80QbckzdwTm2unh6PYbDqozlz6n3y

-2-0-0	9-9-12	19-7-8	21-7-8
2-0-0	9-9-12	9-9-12	2-0-0

Scale = 1:39.1

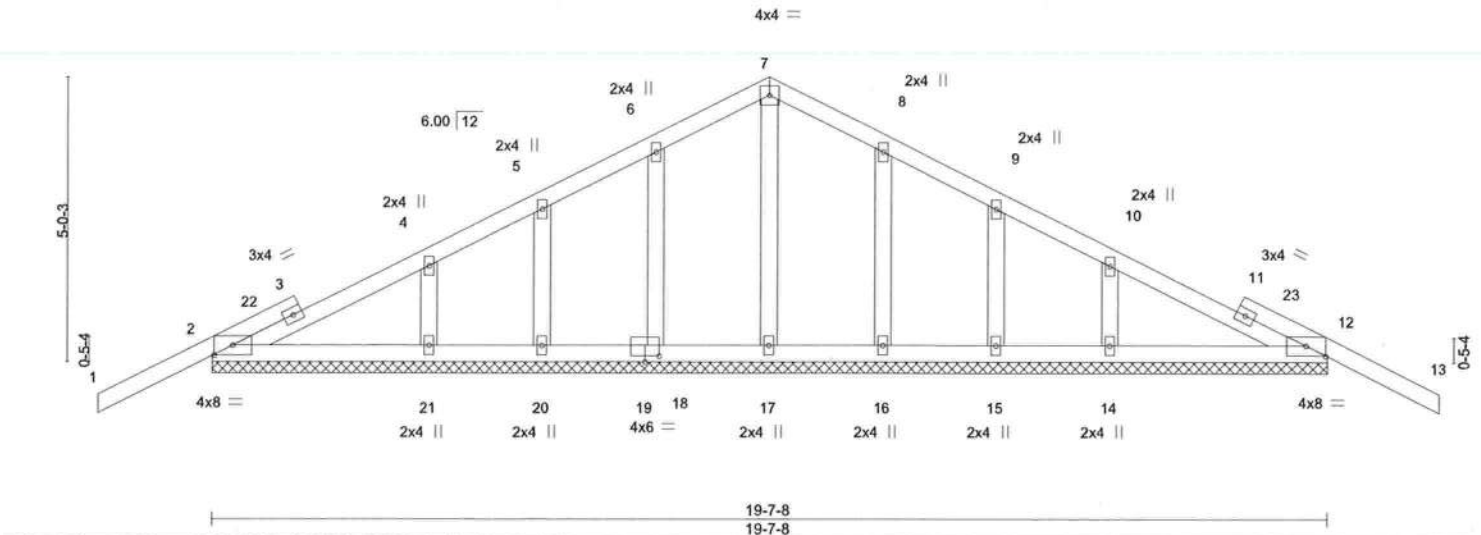


Plate Offsets (X,Y)-- [2:0-4-0,0-2-1], [12:0-4-0,0-2-1], [19:0-3-0,0-1-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.	DEFL. in (loc) l/defl L/d			PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.25		TC 0.23	Vert(LL) -0.01	13	n/r	120	MT20
TCDL 7.0		Lumber DOL 1.25		BC 0.09	Vert(CT) -0.02	13	n/r	120	
BCLL 0.0 *		Rep Stress Incr YES		WB 0.05	Horz(CT) 0.00	12	n/a	n/a	
BCDL 10.0		Code FBC2020/TPI2014		Matrix-S					
								Weight: 101 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 19-7-8.
(lb) - Max Horz 2=81(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 18, 20, 21, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 17, 18, 20, 21, 16, 15, 14 except 2=258(LC 23), 12=258(LC 24)

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

NOTES- (10)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 9-9-12, Corner(3R) 9-9-12 to 12-9-12, Exterior(2N) 12-9-12 to 21-7-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 18, 20, 21, 16, 15, 14.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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June 14,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981847
3205301	T03	Common	7	1		

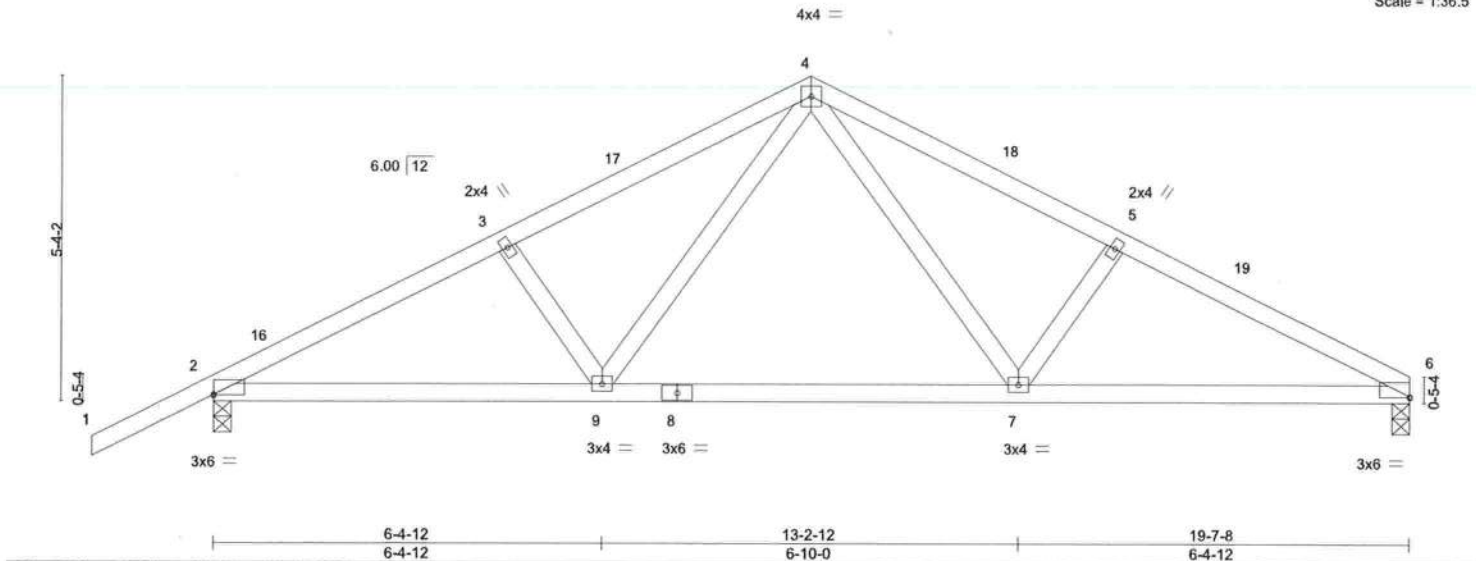
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:46 2022 Page 1

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-2-0-0 4-9-15 9-9-12 14-9-9 19-7-8
2-0-0 4-9-15 4-11-13 4-11-13 4-9-15

Scale = 1:36.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.42	Vert(LL)	-0.17	7-9	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.97	Vert(CT)	-0.35	7-9	>676	180	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.26	Horz(CT)	0.04	6	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						
								Weight: 91 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 4-2-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-3-2 oc bracing.

REACTIONS.

(size) 6=0-3-8, 2=0-3-8
Max Horz 2=99(LC 16)
Max Uplift 6=-193(LC 13), 2=-237(LC 12)
Max Grav 6=926(LC 1), 2=1045(LC 1)

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

TOP CHORD 2-3=-1699/485, 3-4=-1569/488, 4-5=-1591/503, 5-6=-1723/500
BOT CHORD 2-9=-389/1462, 7-9=-212/992, 6-7=-395/1490
WEBS 4-7=-195/683, 4-9=-178/652

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-9-12, Exterior(2R) 9-9-12 to 12-9-12, Interior(1) 12-9-12 to 19-7-8 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) 6=193, 2=237.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

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, 9-13=-20, 7-9=-80(F=-60), 7-10=-20



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Date:

June 14,2022



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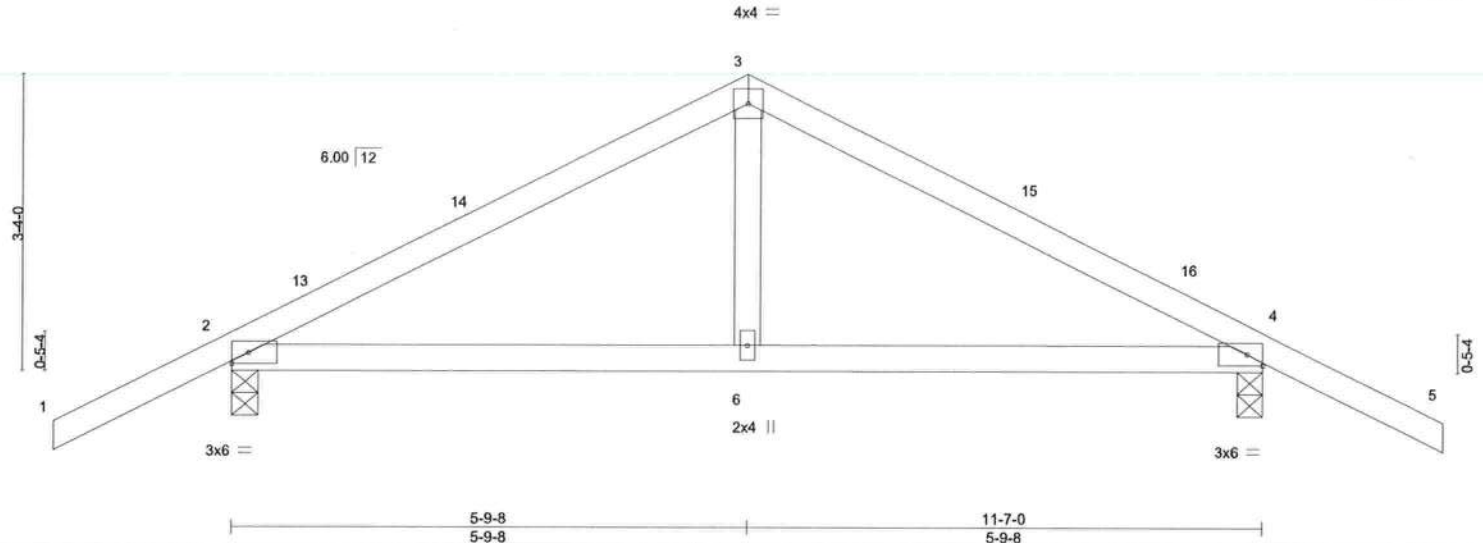
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T04	COMMON	3	1	T27981848

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:47 2022 Page 1
ID:0yrXDNjrxhKUZiS4sq5QxWyyQw7-0xlq9?oJteokWfIPY0eC220s4sVZ9?8r3XJv2Az6n3w
11-7-0 13-7-0
5-9-8 2-0-0

Scale = 1:25.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.31	Vert(LL)	-0.02	6-12	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.33	Vert(CT)	-0.05	6-12	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	4	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						
								Weight: 48 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=56(LC 12)
Max Uplift 2=-127(LC 12), 4=-127(LC 13)
Max Grav 2=537(LC 1), 4=537(LC 1)

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

TOP CHORD 2-3=-547/204, 3-4=-547/204
BOT CHORD 2-6=-55/428, 4-6=-55/428
WEBS 3-6=0/253

NOTES- (7)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 5-9-8, Exterior(2R) 5-9-8 to 8-9-8, Interior(1) 8-9-8 to 13-7-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=127, 4=127.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

June 14,2022



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

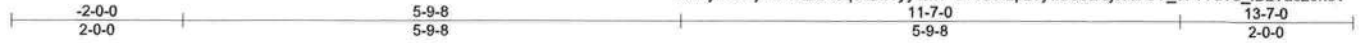


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T04G	GABLE	1	1	T27981849

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:48 2022 Page 1
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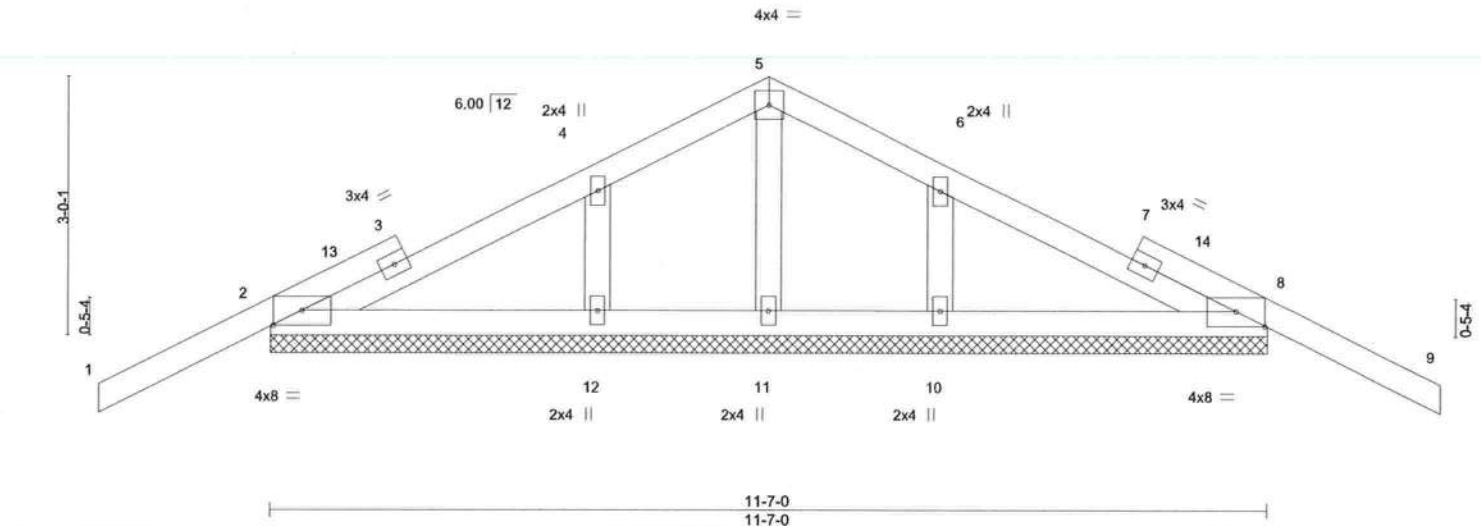


Plate Offsets (X,Y)--		[2:0-4-0,0-2-1], [8:0-4-0,0-2-1]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	Vert(LL)	-0.01	9	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	Vert(CT)	-0.02	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S						Weight: 55 lb	FT = 20%

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

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

REACTIONS. All bearings 11-7-0.
(lb) - Max Horz 2=52(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10
Max Grav All reactions 250 lb or less at joint(s) 11, 12, 10 except 2=253(LC 23), 8=253(LC 24)

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

NOTES- (10)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 5-9-8, Corner(3R) 5-9-8 to 8-9-8, Exterior(2N) 8-9-8 to 13-7-0 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.
- 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, 8, 12, 10.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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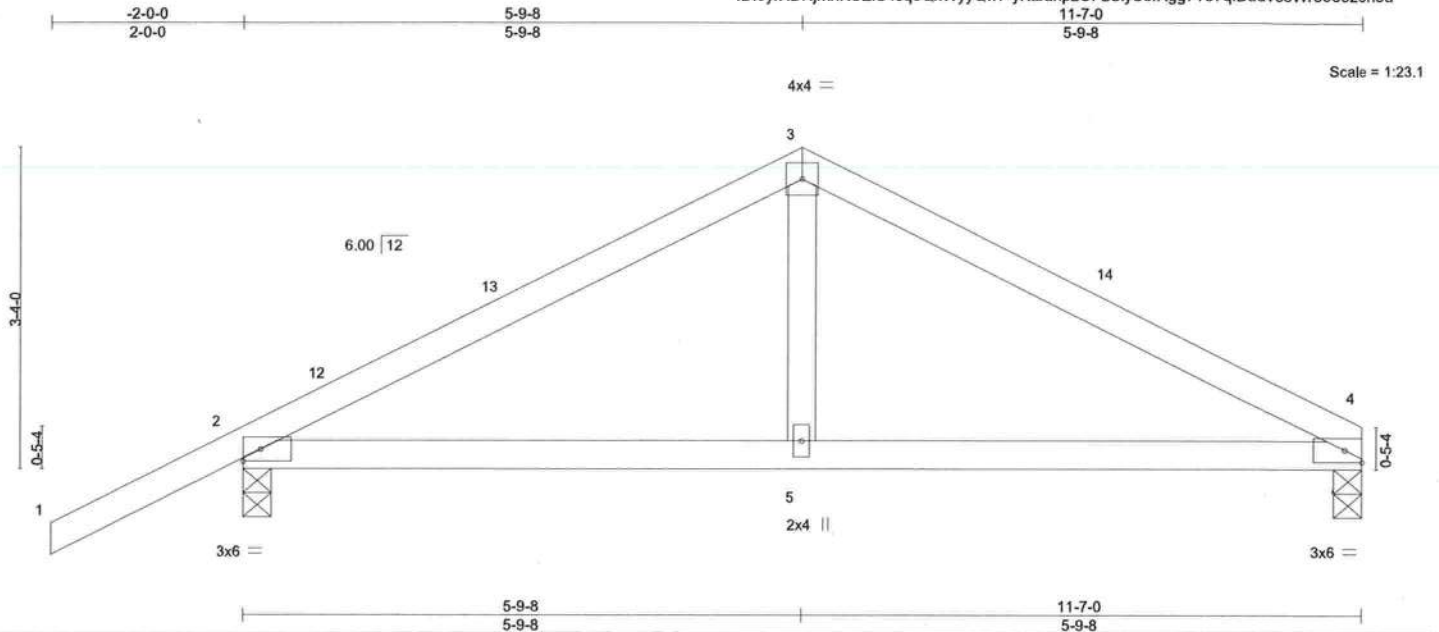


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981850
3205301	T05	Common	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:49 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-yKtbahpzOF2SlySolRgg7T57qfBudvc8Wro063z6n3u



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.34	Vert(LL) -0.04 5-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.10	Vert(CT) -0.07 5-8 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.00 4 n/a n/a		
	Code FBC2020/TPI2014			Weight: 44 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 2=0-3-8
Max Horz 2=70(LC 12)
Max Uplift 4=-82(LC 13), 2=-128(LC 12)
Max Grav 4=419(LC 1), 2=546(LC 1)

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

TOP CHORD 2-3=-574/225, 3-4=-570/236
BOT CHORD 2-5=-136/453, 4-5=-136/453
WEBS 3-5=-2/256

NOTES- (7)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 5-9-8, Exterior(2R) 5-9-8 to 8-9-8, Interior(1) 8-9-8 to 11-7-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=128.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T06	Half Hip Girder	1	1	T27981851

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:51 2022 Page 1
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Scale: 1/4"=1'

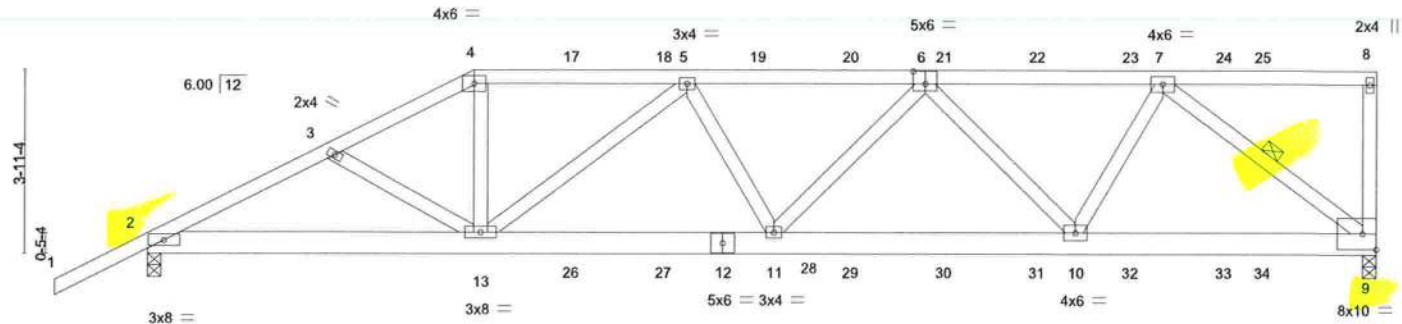


Plate Offsets (X,Y)--	[6:0-3-0,0-3-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.64	Vert(LL)	-0.16 11-13	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.82	Vert(CT)	-0.31 11-13	>998	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.67	Horz(CT)	0.09 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 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-4-1 oc bracing.
WEBS 1 Row at midpt 7-9

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=146(LC 8)
Max Uplift 9=-575(LC 5), 2=-506(LC 8)
Max Grav 9=2257(LC 1), 2=1952(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3654/929, 3-4=-3499/890, 4-5=-3152/826, 5-6=-3888/965, 6-7=-2856/692, 8-9=-289/143
BOT CHORD 2-13=-901/3221, 11-13=-1020/3871, 10-11=-952/3620, 9-10=-599/2238
WEBS 4-13=-179/1115, 5-13=-923/301, 6-11=-52/451, 6-10=-1135/392, 7-10=-209/1341, 7-9=-2828/758

- NOTES-** (9)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=575, 2=506.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 183 lb down and 170 lb up at 7-0-0, 107 lb down and 87 lb up at 9-0-12, 107 lb down and 87 lb up at 11-0-12, 107 lb down and 87 lb up at 13-0-12, 107 lb down and 87 lb up at 15-0-12, 107 lb down and 83 lb up at 17-0-12, 107 lb down and 87 lb up at 19-0-12, 107 lb down and 87 lb up at 21-0-12, 107 lb down and 87 lb up at 23-0-12, and 107 lb down and 87 lb up at 23-10-12, and 126 lb down and 85 lb up at 26-2-4 on top chord, and 296 lb down and 72 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-12, 85 lb down at 17-0-12, 85 lb down at 19-0-12, 85 lb down at 21-0-12, 85 lb down at 23-0-12, and 85 lb down at 23-10-12, and 99 lb down at 26-2-4 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).
 - 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

Continued on page 2



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

June 14,2022



16023 Swingley Ridge Rd
Chesterfield, MO 63017

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITK 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

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T06	Half Hip Girder	1	1	T27981851

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:51 2022 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-8=-54, 9-14=-20

Concentrated Loads (lb)

Vert: 4=-183(F) 8=-126(F) 9=-67(F) 13=-282(F) 17=-107(F) 18=-107(F) 19=-107(F) 20=-107(F) 21=-107(F) 22=-107(F) 23=-107(F) 24=-107(F) 25=-107(F)
26=-60(F) 27=-60(F) 28=-60(F) 29=-60(F) 30=-60(F) 31=-60(F) 32=-60(F) 33=-60(F) 34=-60(F)

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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 Wadsworth, MD 20601



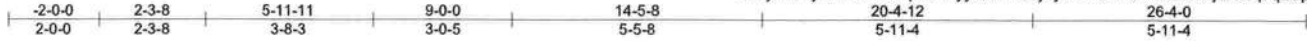
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T07	Half Hip	1	1	T27981852

Job Reference (optional)

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:52 2022 Page 1
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Scale: 1/4"=1'

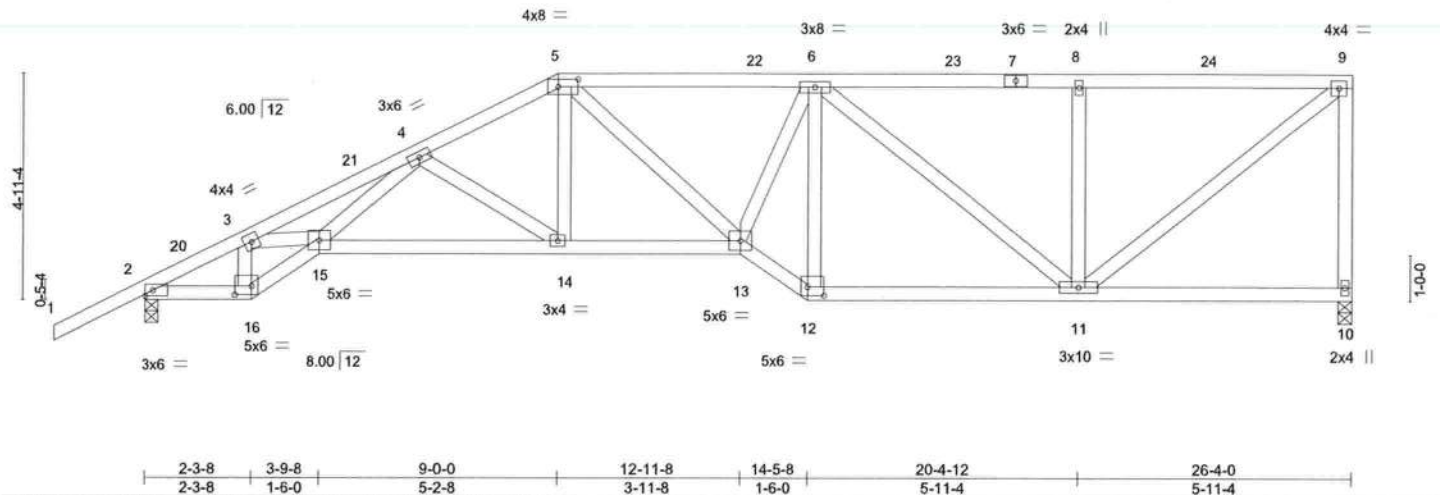


Plate Offsets (X,Y)--		[5:0-5-4,0-2-0], [12:0-4-4,0-2-4], [16:0-4-4,0-2-4]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	I/defl	L/d	PLATES GRIP
TCLL 20.0		Plate Grip DOL 1.25		TC 0.42		Vert(LL) -0.13 14	>999	240	MT20 244/190
TCDL 7.0		Lumber DOL 1.25		BC 0.58		Vert(CT) -0.25 14-15	>999	180	
BCLL 0.0 *		Rep Stress Incr YES		WB 0.58		Horz(CT) 0.12 10	n/a	n/a	
BCDL 10.0		Code FBC2020/TPI2014		Matrix-MS					Weight: 156 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 2-11-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-8-4 oc bracing.

REACTIONS.

(size) 10=0-3-8, 2=0-3-8
Max Horz 2=179(LC 12)
Max Uplift 10=-236(LC 9), 2=-257(LC 12)
Max Grav 10=965(LC 1), 2=1081(LC 1)

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

TOP CHORD 2-3=-1692/363, 3-4=-3222/806, 4-5=-1788/435, 5-6=-1706/409, 6-8=-985/237, 8-9=-985/237, 9-10=-913/249
BOT CHORD 2-16=-446/1461, 15-16=-491/1627, 14-15=-596/2064, 13-14=-411/1583, 12-13=-390/1613, 11-12=-330/1375
WEBS 3-16=-937/299, 3-15=-394/1520, 4-15=-284/1105, 4-14=-600/227, 5-14=-97/460, 6-13=-219/865, 6-12=-799/233, 6-11=-500/185, 8-11=-335/156, 9-11=-298/1241

NOTES- (7)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 26-2-4 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=236, 2=257.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022



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

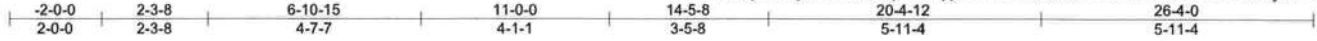


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981853
3205301	T08	Half Hip	1	1		

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:53 2022 Page 1
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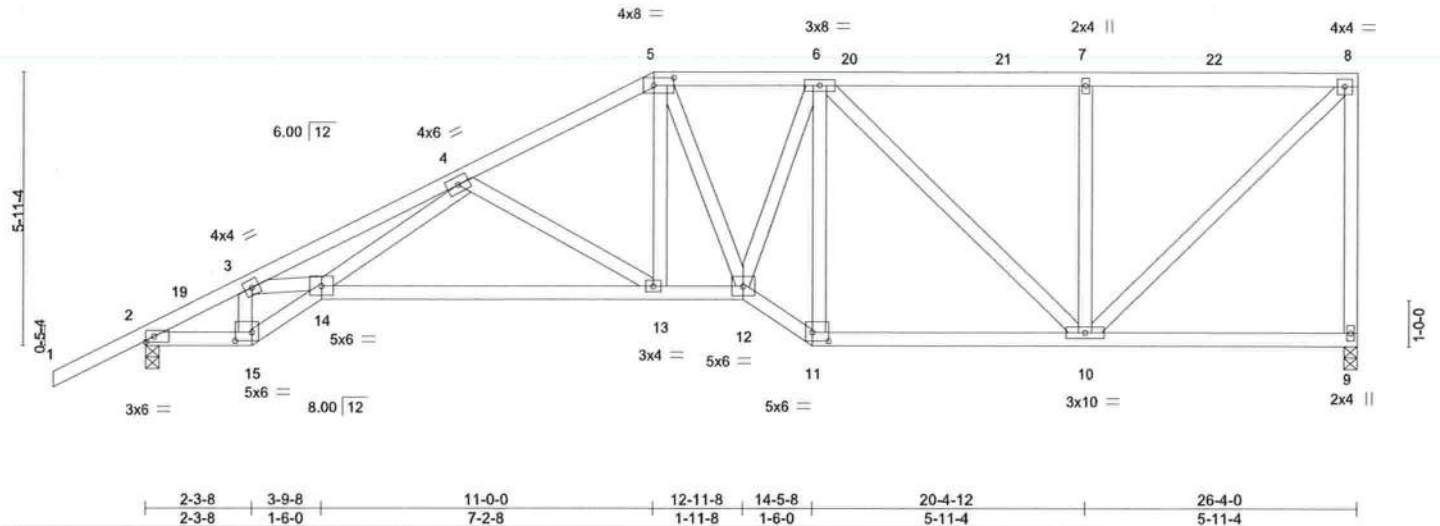


Plate Offsets (X,Y)--		[5:0-5-4,0-2-0], [11:0-4-4,0-2-4], [15:0-4-4,0-2-4]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.60	Vert(LL)	-0.14 13-14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.33 13-14	>961	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.12 9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 169 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 9=0-3-8, 2=0-3-8
Max Horz 2=213(LC 12)
Max Uplift 9=230(LC 9), 2=255(LC 12)
Max Grav 9=965(LC 1), 2=1081(LC 1)

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

TOP CHORD 2-3=-1697/365, 3-4=-3237/828, 4-5=-1551/375, 5-6=-1343/357, 6-7=-813/190,
7-8=-813/190, 8-9=-914/243
BOT CHORD 2-15=-483/1468, 14-15=-531/1643, 13-14=-594/1900, 12-13=-361/1348, 11-12=-345/1314,
10-11=-290/1123
WEBS 3-15=-963/321, 3-14=-404/1524, 4-14=-329/1260, 4-13=-658/273, 5-13=-98/535,
6-12=-216/705, 6-11=-625/210, 6-10=-433/170, 7-10=-350/163, 8-10=-261/1119

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 26-2-4 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=230, 2=255.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981854
3205301	T09	Hip	1	1		

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:55 2022 Page 1
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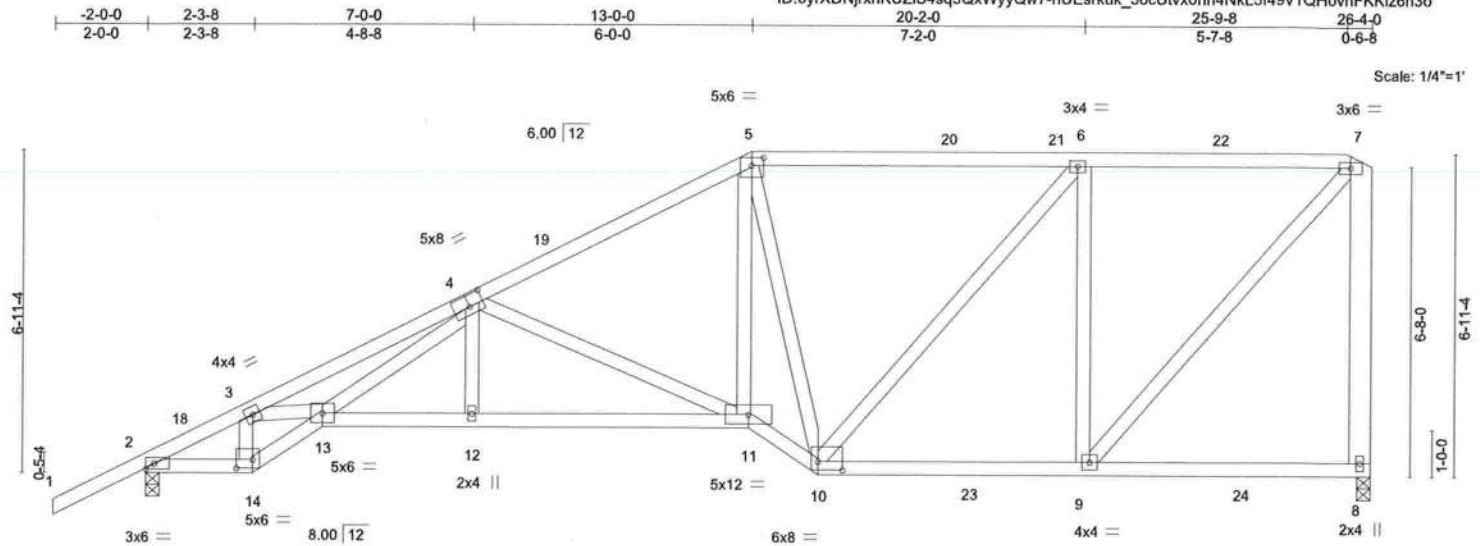


Plate Offsets (X,Y)-	[4:0-3-12,0-3-0], [5:0-3-0,0-2-0], [10:0-6-4,0-2-4], [14:0-4-4,0-2-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.53	Vert(LL)	-0.18 11-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.68	Vert(CT)	-0.32 11-12	>969	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.14 8	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
WEBS 2x4 SP No.3 "Except"
7-8: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-5-13 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=246(LC 12)
Max Uplift 2=250(LC 12), 8=223(LC 9)
Max Grav 2=1134(LC 2), 8=1091(LC 2)

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

TOP CHORD 2-3=1837/349, 3-4=-3443/850, 4-5=-1445/326, 5-6=-1018/255, 6-7=-789/169, 7-8=970/237
BOT CHORD 2-14=-499/1590, 13-14=-550/1767, 12-13=-626/2124, 11-12=-624/2135, 10-11=-390/1475, 9-10=-169/789
WEBS 3-14=-951/330, 3-13=-446/1597, 4-13=-360/1219, 4-11=-977/320, 5-11=-312/1292, 5-10=-965/335, 6-10=-133/355, 6-9=-653/232, 7-9=-254/1160, 4-12=0/251

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-15, Interior(1) 17-2-15 to 26-1-4 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=250, 8=223.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
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Date:

June 14,2022

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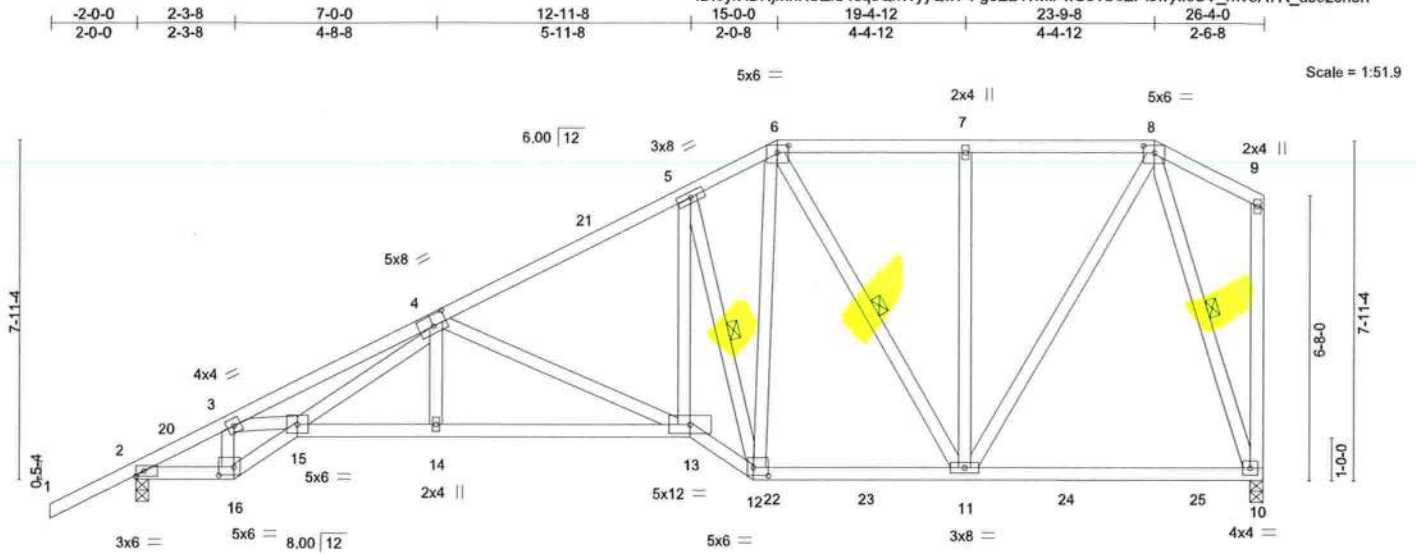


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T10	Hip	1	1	T27981855

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:56 2022 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.69	Vert(LL) -0.19 13-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.76	Vert(CT) -0.34 13-14 >924 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.15 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 194 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-5-9 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-12, 6-11, 8-10

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=257(LC 12)
Max Uplift 2=247(LC 12), 10=193(LC 12)
Max Grav 2=1144(LC 2), 10=1092(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1856/345, 3-4=-3480/849, 4-5=-1471/322, 5-6=-1093/291, 6-7=-742/180, 7-8=-742/180
BOT CHORD 2-16=-507/1607, 15-16=-558/1786, 14-15=-629/2148, 13-14=-628/2159, 12-13=-415/1565, 11-12=-227/901, 10-11=-63/296
WEBS 3-16=-962/336, 3-15=-448/1614, 4-15=-366/1230, 4-14=0/252, 4-13=-975/312, 5-13=-319/1345, 5-12=-1431/441, 6-12=-195/650, 6-11=-330/142, 7-11=-273/128, 8-11=-194/900, 8-10=-952/213

- NOTES-** (8)
- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 2-0-0 to 1-0-0, Interior(1) 1-0-0 to 15-0-0, Exterior(2R) 15-0-0 to 19-4-12, Interior(1) 19-4-12 to 23-9-8, Exterior(2E) 23-9-8 to 26-2-4 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=247, 10=193.
 - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

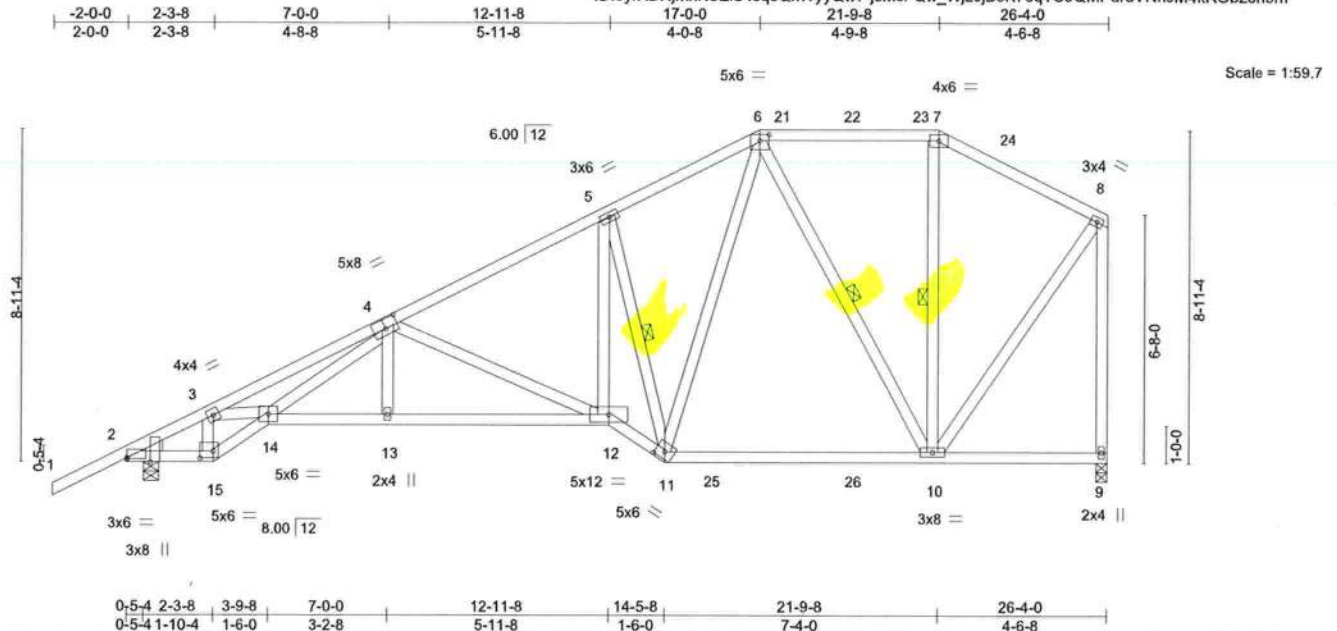
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T11	Hip	1	1	T27981856

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:57 2022 Page 1
ID:0yrXDNjrxhKUZiS4sq5QxWyyQw7-jsMcFQw_Wj2Jb3K76qYS9QMPurdVNHJM4kRObz6n3m



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.89	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.67	Vert(LL) -0.17 10-11 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.67	Vert(CT) -0.30 12-13 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.13 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 187 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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-7-7 oc bracing.
WEBS 1 Row at midpt 5-11, 6-10, 7-10

REACTIONS.

(size) 9=0-3-8, 2=0-4-15
Max Horz 2=271(LC 12)
Max Uplift 9=193(LC 12), 2=247(LC 12)
Max Grav 9=1049(LC 2), 2=1164(LC 2)

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

TOP CHORD 2-3=-1463/256, 3-4=-3020/748, 4-5=-1423/304, 5-6=-1079/285, 6-7=-482/151, 7-8=-579/141, 8-9=-1007/223
BOT CHORD 2-15=-432/1219, 14-15=-475/1345, 13-14=-605/2002, 12-13=-603/2013, 11-12=-417/1481, 10-11=-178/713
WEBS 3-15=-825/311, 3-14=-444/1575, 4-14=-300/884, 4-12=-862/286, 5-12=-316/1223, 5-11=-1349/460, 6-11=-205/745, 6-10=-505/187, 8-10=-152/827

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 0-11-5, Interior(1) 0-11-5 to 17-0-0, Exterior(2R) 17-0-0 to 21-2-15, Interior(1) 21-2-15 to 21-9-8, Exterior(2E) 21-9-8 to 26-2-4 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=193, 2=247.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
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June 14,2022

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

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



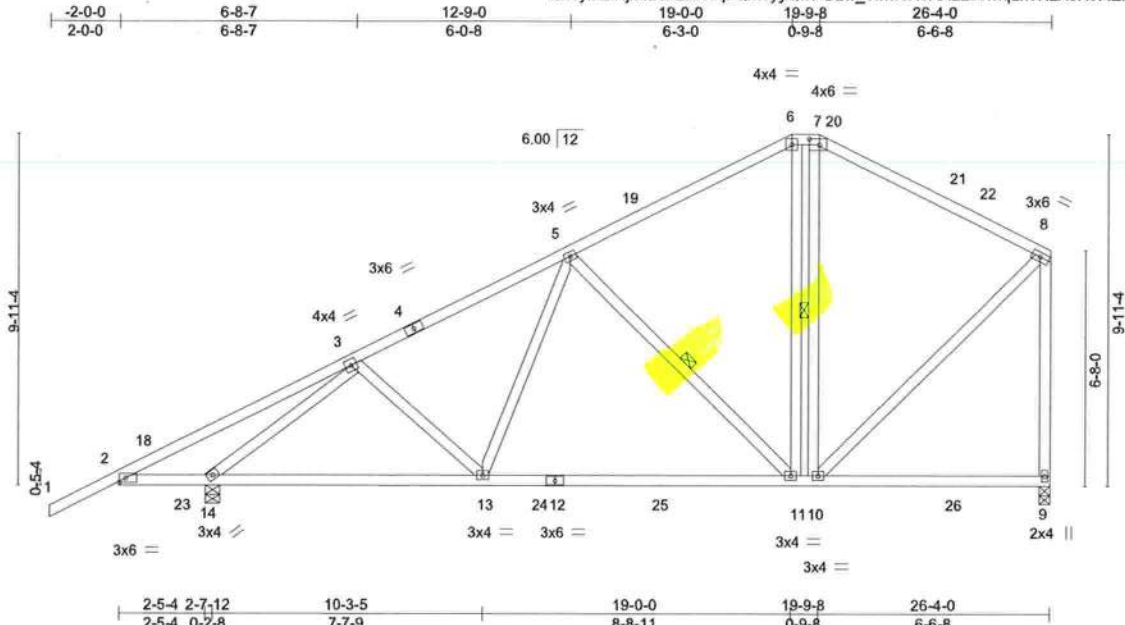
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T12	Hip	1	1	T27981857

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:39:58 2022 Page 1

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Scale = 1:62.8

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.84	Vert(LL)	-0.24 11-13	MT20	244/190		
TCDL	7.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.40 11-13				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.02 9				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 175 lb FT = 20%			

LUMBER-

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

REACTIONS.

(size) 14=0-4-15, 9=0-3-8
Max Horz 14=285(LC 12)
Max Uplift 14=-262(LC 12), 9=-178(LC 12)
Max Grav 14=1271(LC 2), 9=977(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-435/528, 3-5=-1121/206, 5-6=-636/153, 6-7=-508/171, 7-8=-627/162, 8-9=-871/202
BOT CHORD 2-14=-406/480, 13-14=-346/877, 11-13=-263/848, 10-11=-105/508
WEBS 5-13=-21/333, 5-11=-500/224, 6-11=-69/289, 3-14=-1544/530, 8-10=-146/696

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 19-0-0, Exterior(2E) 19-0-0 to 19-9-8, Exterior(2R) 19-9-8 to 24-0-7, Interior(1) 24-0-7 to 26-2-4 zone; cantilever 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) 14=262, 9=178.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

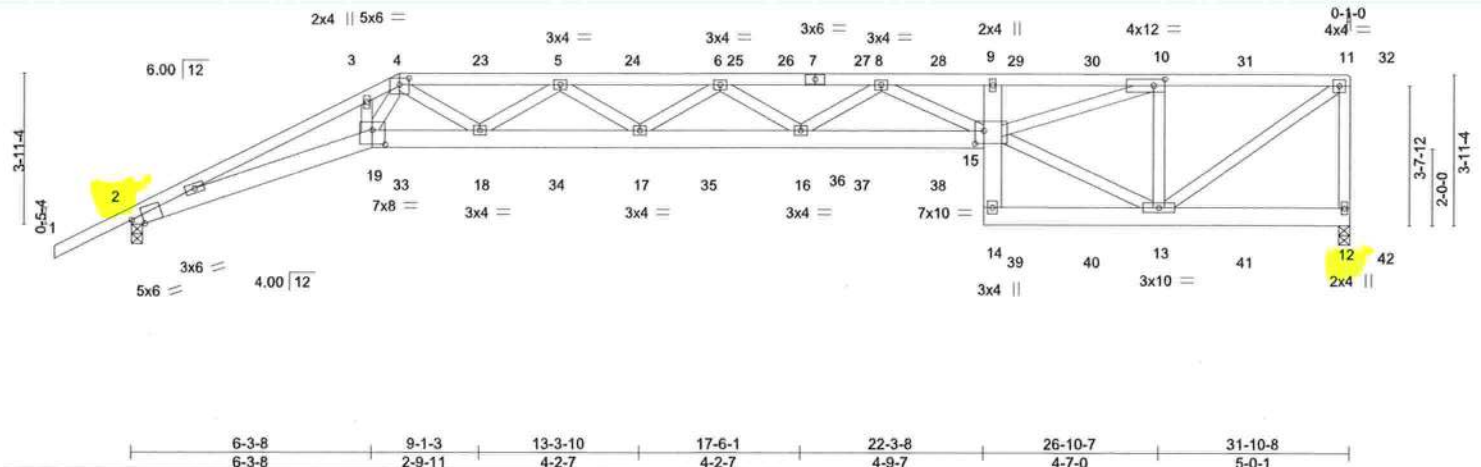
Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981858
3205301	T13	HALF HIP GIRDER	1	3		

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:03 2022 Page 1
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-2-0-0	6-3-8	7-0-0	11-2-6	15-4-13	19-7-5	22-3-8	26-10-7	31-9-8	31-10-8
2-0-0	6-3-8	0-8-8	4-2-7	4-2-6	4-2-8	2-8-3	4-7-0	4-11-1	0-1-0

Scale = 1:58.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.67	Vert(LL)	-0.51 16-17	>752	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.88	Vert(CT)	-0.98 16-17	>387	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.90	Horz(CT)	0.49 12	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS					Weight: 585 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-8, 2=0-3-8
Max Horz 2=146(LC 8)
Max Uplift 12=710(LC 5), 2=685(LC 8)
Max Grav 12=2617(LC 1), 2=2450(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-11482/3319, 3-4=-11243/3308, 4-5=-10701/3061, 5-6=-12569/3552, 6-8=-12739/3574, 8-9=-10647/2964, 9-10=-9696/2717, 10-11=-3046/833, 11-12=-2465/731
BOT CHORD 2-19=-3147/10659, 18-19=-2599/8941, 17-18=-3445/12036, 16-17=-3719/13075, 15-16=-3466/12259, 9-15=-323/164, 13-14=-254/927
WEBS 3-19=-202/551, 4-19=-977/3068, 4-18=-635/2223, 5-18=-1696/525, 5-17=-146/693, 6-17=-660/222, 6-16=-419/222, 8-16=-175/602, 8-15=-1830/604, 13-15=-638/2332, 10-15=-2002/7066, 10-13=-3019/973, 11-13=-1017/3731

- NOTES-** (12)
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-5-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; 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.
 - 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.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=710, 2=685.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
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June 14,2022

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981858
3205301	T13	HALF HIP GIRDER	1	3	Job Reference (optional)	

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:03 2022 Page 2
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NOTES- (12)

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 426 lb down and 156 lb up at 7-0-0, 181 lb down and 87 lb up at 9-0-12, 181 lb down and 87 lb up at 11-0-12, 181 lb down and 87 lb up at 13-0-12, 181 lb down and 87 lb up at 15-0-12, 181 lb down and 87 lb up at 17-0-12, 181 lb down and 82 lb up at 19-0-12, 181 lb down and 87 lb up at 21-0-12, 107 lb down and 87 lb up at 23-0-12, 107 lb down and 87 lb up at 25-0-12, 107 lb down and 87 lb up at 27-0-12, and 107 lb down and 87 lb up at 29-0-12, and 125 lb down and 85 lb up at 31-4-12 on top chord, and 107 lb down and 90 lb up at 7-0-0, 0 lb down at 9-0-12, 0 lb down at 11-0-12, 0 lb down at 13-0-12, 0 lb down at 15-0-12, 0 lb down at 17-0-12, 0 lb down at 19-0-12, 0 lb down at 21-0-12, 85 lb down at 23-0-12, 85 lb down at 25-0-12, 85 lb down at 27-0-12, and 85 lb down at 29-0-12, and 99 lb down at 31-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-11=-54, 19-20=-20, 15-19=-20, 12-14=-20

Concentrated Loads (lb)

Vert: 4=-379(B) 5=-181(B) 10=-107(B) 13=-60(B) 23=-181(B) 24=-181(B) 25=-181(B) 26=-181(B) 27=-181(B) 28=-181(B) 29=-107(B) 30=-107(B) 31=-107(B) 32=-125(B) 33=-107(B) 39=-60(B) 40=-60(B) 41=-60(B) 42=-67(B)



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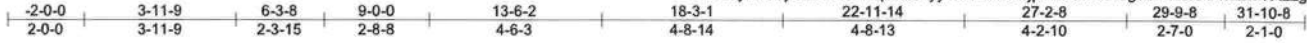
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T14	Hip	1	1	T27981859

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:04 2022 Page 1

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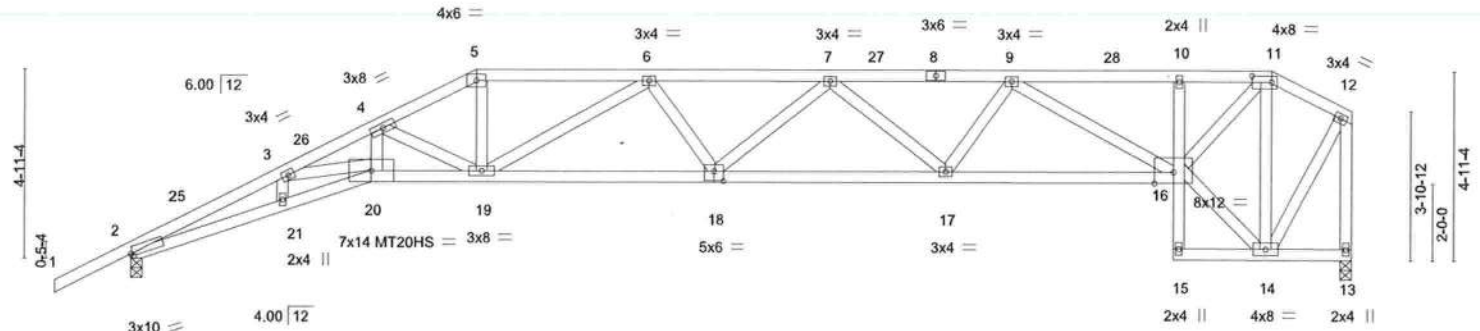


Plate Offsets (X,Y)--	3-11-9	6-3-8	9-0-0	15-2-13	21-3-4	27-2-8	29-9-8	31-10-8
	3-11-9	2-3-15	2-8-8	6-2-13	6-0-7	5-11-4	2-7-0	2-1-0

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.98	Vert(LL) -0.42 18-19 >911 240	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.25	WB 0.68	Vert(CT) -0.80 18-19 >478 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.52 13 n/a n/a		
	Code FBC2020/TPI2014			Weight: 182 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-1-12 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 2=0-3-8, 13=0-3-8
 Max Horz 2=161(LC 12)
 Max Uplift 2=-299(LC 12), 13=-247(LC 8)
 Max Grav 2=1285(LC 1), 13=1171(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-4508/1102, 3-4=-5050/1237, 4-5=-3173/750, 5-6=-2886/702, 6-7=-3485/814,
 7-9=-3092/732, 9-10=-1703/413, 10-11=-1665/406, 11-12=-572/132, 12-13=-1144/249
 BOT CHORD 2-21=-1105/4096, 20-21=-1130/4192, 19-20=-1115/4363, 18-19=-814/3436,
 17-18=-831/3436, 16-17=-686/2814
 WEBS 3-20=-162/579, 4-20=-369/1429, 4-19=-1725/498, 5-19=-250/1221, 6-19=-741/246,
 7-17=-460/199, 9-17=-110/514, 9-16=-1303/331, 14-16=-118/561, 11-16=-437/1795,
 11-14=-1172/286, 12-14=-216/963, 3-21=-265/99

NOTES- (10)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-6-2, Interior(1) 13-6-2 to 29-9-8, Exterior(2E) 29-9-8 to 31-8-12 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.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=299, 13=247.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



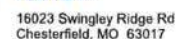
Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

June 14,2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-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

MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Scale = 1:57.8



Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981861
3205301	T16	Hip	1	1		

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:07 2022 Page 1

ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-QnzOMr1G9nJvwjFjD?usGr9TwFarrNnfe9zI0z6n3c



Scale = 1:72.0

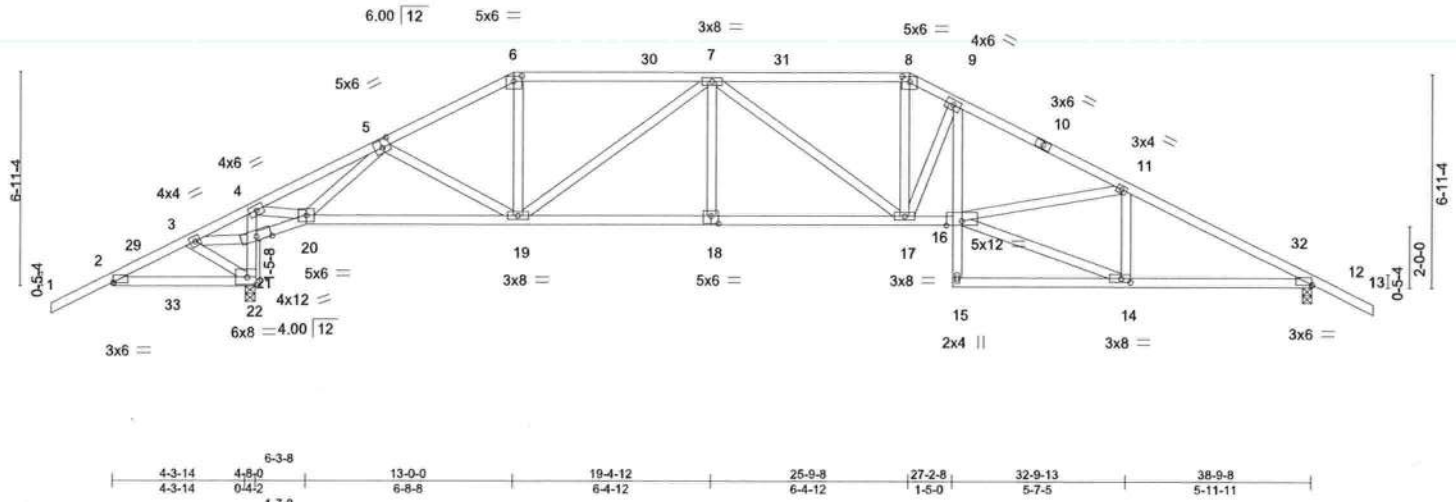


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [5:0-3-0,0-3-0], [6:0-3-0,0-2-0], [8:0-3-0,0-2-0], [12:0-0-0,0-0-3], [14:0-3-8,0-1-8], [18:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.47	Vert(LL)	-0.18	16	>999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.69	Vert(CT)	-0.34	17-18	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.91	Horz(CT)	0.19	12	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						
							Weight: 227 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
4-22,9-15; 2x4 SP No.3
WEBS 2x4 SP No.3

REACTIONS.

(size) 12=0-3-8, 22=0-3-12
Max Horz 22=108(LC 12)
Max Uplift 12=308(LC 13), 22=375(LC 12)
Max Grav 12=1340(LC 1), 22=1747(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=463/508, 3-4=1243/1346, 4-5=1063/179, 5-6=1789/325, 6-7=1567/319,
7-8=2113/449, 8-9=2352/488, 9-11=2806/539, 11-12=2249/473
BOT CHORD 2-22=421/467, 21-22=1921/793, 4-21=1519/404, 20-21=1294/1311, 19-20=225/1389,
18-19=299/2181, 17-18=299/2181, 16-17=292/2440, 9-16=138/793, 12-14=333/1947
WEBS 3-22=457/401, 3-21=1095/1130, 4-20=480/1910, 5-20=1060/789, 6-19=62/540,
7-19=798/213, 8-17=128/853, 9-17=871/226, 14-16=353/2017, 11-16=102/509,
11-14=638/166

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-15, Interior(1) 17-2-15 to 25-9-8, Exterior(2R) 25-9-8 to 30-0-7, Interior(1) 30-0-7 to 40-9-8 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=308, 22=375.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

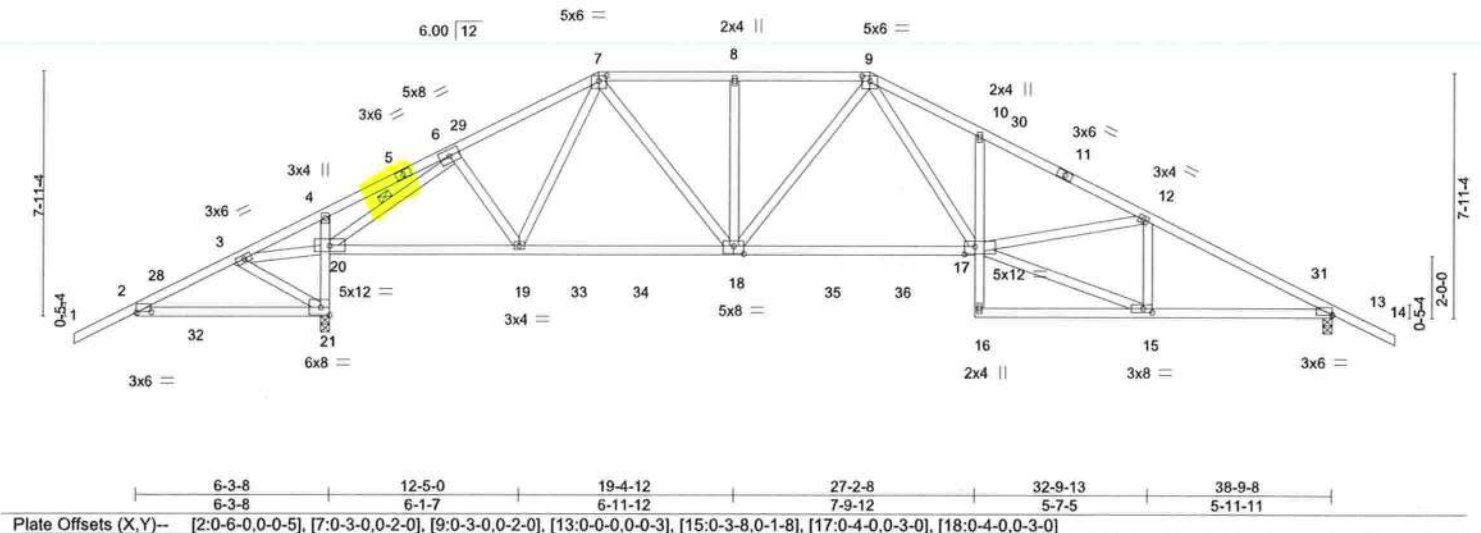
Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T17	Hip	1	1	T27981862

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:09 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-NA59nX3WhPZc91_eqd1MxhwSejuGJnh47ye4puz6n3a

-2-0-0	3-3-15	6-3-8	10-3-8	15-0-0	19-4-12	23-9-8	27-2-8	32-9-13	38-9-8	40-9-8
2-0-0	3-3-15	2-11-9	4-0-0	4-8-8	4-4-12	4-4-12	3-5-0	5-7-5	5-11-11	2-0-0

Scale = 1:72.0

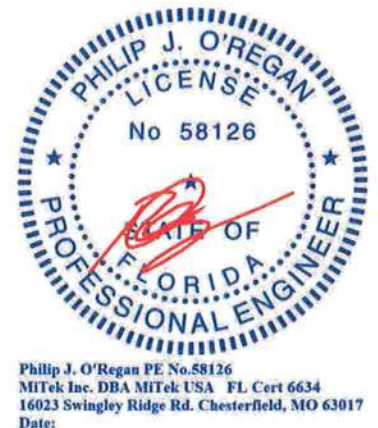


LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	244/190
TCCL 7.0	Plate Grip DOL 1.25	BC 0.87	Vert(LL) -0.27 17-18 >999 240		
BCCL 0.0 *	Lumber DOL 1.25	WB 0.79	Vert(CT) -0.49 17-18 >807 180		
BCCL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.08 13 n/a n/a		
	Code FBC2020/TPI2014			Weight: 228 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins.
BOT CHORD 2x4 SP No.2 *Except	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.3	6-0-0 oc bracing: 2-21
	3-3-0 oc bracing: 20-21.
	WEBS 1 Row at midpt 6-20
REACTIONS. (size) 13=0-3-8, 21=0-3-8	
Max Horz 21=123(LC 13)	
Max Uplift 13=295(LC 13), 21=391(LC 12)	
Max Grav 13=1342(LC 2), 21=1963(LC 2)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-526/581, 3-4=-1694/1841, 4-6=-1666/1826, 6-7=-1353/221, 7-8=-1688/306, 8-9=-1688/306, 9-10=-2724/561, 10-12=-2719/485, 12-13=-2268/445
BOT CHORD 2-21=-475/522, 20-21=-2111/910, 19-20=-98/937, 18-19=-98/1249, 17-18=-91/1715, 10-17=-260/153, 13-15=-307/1976
WEBS 3-21=-556/493, 3-20=-1567/1591, 6-20=-3097/1565, 6-19=-247/501, 7-19=-263/279, 7-18=-161/729, 8-18=-267/127, 9-17=-283/1279, 15-17=-320/2082, 12-17=-49/421, 12-15=-545/148

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCCL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 15-0-0, Exterior(2R) 15-0-0 to 19-4-12, Interior(1) 19-4-12 to 23-9-8, Exterior(2R) 23-9-8 to 28-0-7, Interior(1) 28-0-7 to 40-9-8 zone; cantilever 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 BCCL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=295, 21=391.
 - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T18	Hip	1	1	T27981863

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:10 2022 Page 1

ID:0yrXDNjrxhKUZiS4sq5QxWyyQw7-rMeX_148SihTnBZqOLZbUvTcv7FK2D?DLcNdMLz6n3Z

-2-0-0	3-3-15	6-3-8	11-1-14	17-0-0	21-9-8	27-2-8	32-9-13	38-9-8	40-9-8
2-0-0	3-3-15	2-11-9	4-10-6	5-10-2	4-9-8	5-5-0	5-7-5	5-11-11	2-0-0

Scale = 1:72.0

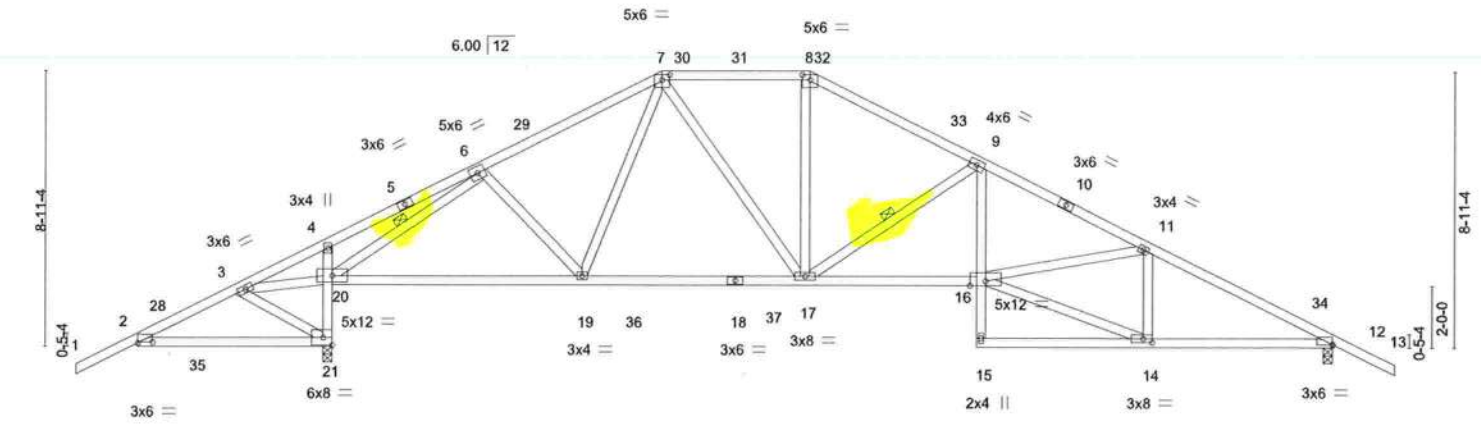


Plate Offsets (X,Y)--	6-3-8	14-4-14	21-9-8	27-2-8	32-9-13	38-9-8
	6-3-8	8-1-6	7-4-10	5-5-0	5-7-5	5-11-11

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.72	Vert(LL)	-0.19	17-19	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.82	Vert(CT)	-0.32	16-17	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.79	Horz(CT)	0.08	12	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS						
	Code FBC2020/TPI2014						Weight: 227 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
4-21,9-15: 2x4 SP No.3	6-0-0 oc bracing: 2-21
WEBS 2x4 SP No.3	3-2-4 oc bracing: 20-21.
	WEBS 1 Row at midpt 6-20, 9-17
REACTIONS. (size) 12=0-3-8, 21=0-3-8	
Max Horz 21=-137(LC 13)	
Max Uplift 12=-291(LC 13), 21=-387(LC 12)	
Max Grav 12=1330(LC 2), 21=1953(LC 2)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-527/582, 3-4=-1694/1832, 4-6=-1665/1804, 6-7=-1458/241, 7-8=-1474/315, 8-9=-1697/315, 9-11=-2751/486, 11-12=-2240/436
BOT CHORD 2-21=-476/523, 20-21=-2098/912, 4-20=-269/131, 19-20=-127/1069, 17-19=-75/1232, 16-17=-256/2435, 9-16=-99/869, 12-14=-299/1951
WEBS 3-21=-560/492, 3-20=-1555/1593, 6-20=-3118/1640, 6-19=-185/366, 7-17=-129/459, 8-17=-50/521, 9-17=-1170/307, 14-16=-313/2037, 11-16=-19/471, 11-14=-575/151

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 17-0-0, Exterior(2R) 17-0-0 to 21-2-15, Interior(1) 21-2-15 to 21-9-8, Exterior(2R) 21-9-8 to 26-0-7, Interior(1) 26-0-7 to 40-9-8 zone; cantilever 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) 12=291, 21=387.
 - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

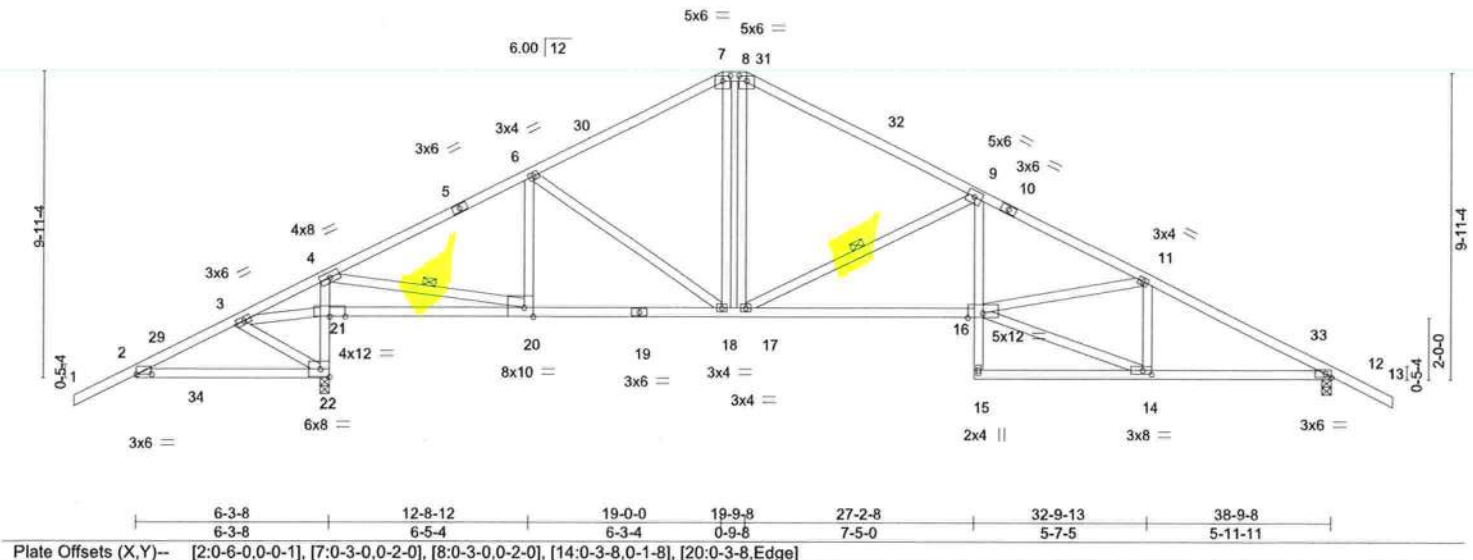
Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981864
3205301	T19	Hip	1	1		

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:12 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-nlmHPY5O_KxB0UIdVmb3ZKYz8xxrW4AWpwsKQDz6n3X

-2-0-0	3-3-15	6-3-8	12-8-12	19-0-0	19-9-8	27-2-8	32-9-13	38-9-8	40-9-8
2-0-0	3-3-15	2-11-9	6-5-4	6-3-4	0-9-8	7-5-0	5-7-5	5-11-11	2-0-0

Scale = 1:72.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.67	Vert(LL)	-0.18 16-17	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.81	Vert(CT)	-0.42 16-17	>934	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 1.00	Horz(CT)	0.08 12	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS						
	Code FBC2020/TPI2014						Weight: 232 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
4-22,9-15: 2x4 SP No.3
WEBS 2x4 SP No.3

REACTIONS.

(size) 12=0-3-8, 22=0-3-8
Max Horz 22=152(LC 12)
Max Uplift 12=287(LC 13), 22=383(LC 12)
Max Grav 12=1253(LC 1), 22=1834(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-527/583, 3-4=-1696/1837, 4-6=-1277/210, 6-7=-1300/278, 7-8=-1097/269,
8-9=-1321/251, 9-11=-2548/477, 11-12=-2059/425
BOT CHORD 2-22=-477/523, 21-22=-2028/900, 4-21=-2103/1066, 20-21=-1537/1609, 18-20=-144/1067,
17-18=-47/1097, 16-17=-263/2272, 9-16=-90/763, 12-14=-288/1776
WEBS 3-22=-556/496, 3-21=-1558/1591, 4-20=-1393/2631, 6-20=-376/308, 7-18=-127/429,
8-17=-64/426, 9-17=-1320/379, 14-16=-298/1865, 11-16=-21/459, 11-14=-575/144

NOTES- (8)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 19-0-0, Exterior(2E) 19-0-0 to 19-9-8, Exterior(2R) 19-9-8 to 24-0-7, Interior(1) 24-0-7 to 40-9-8 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=287, 22=383.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022



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Chesterfield, MO 63017

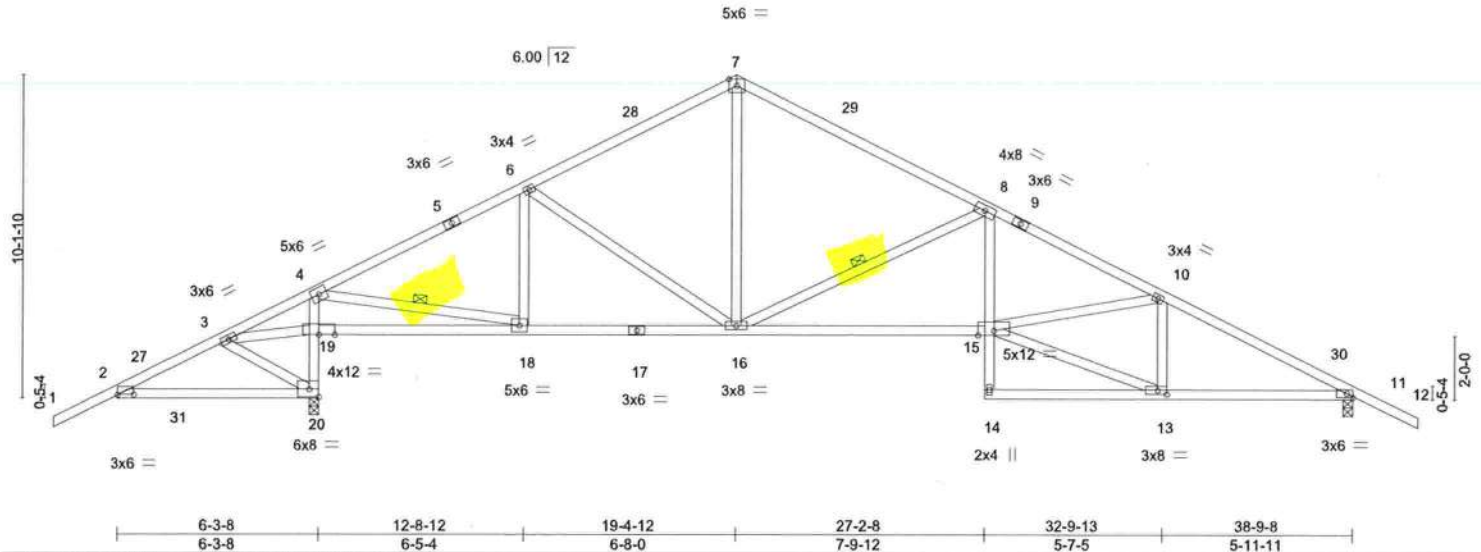
Job	Truss	Truss Type	Qty	Ply	MURTAGH RES
3205301	T20	Roof Special	1	1	T27981865

Job Reference (optional)

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

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon Jun 13 06:40:13 2022 Page 1
ID:0yrXDNjrxhKUZIS4sq5QxWyyQw7-FxKfcu60ld32eeHP3T6I6X58MKGxGb1g1acHygz6n3W

Scale = 1:69.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.82	Vert(LL) -0.17 15-16 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.71	Vert(CT) -0.40 15-16 >979 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.08 11 n/a n/a		
	Code FBC2020/TPI2014			Weight: 222 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
4-20, 8-14; 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
4-18; 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 3-3-14 oc bracing.
WEBS 1 Row at midpt 4-18, 8-16

REACTIONS.

(size) 11=0-3-8, 20=0-3-8
Max Horz 20=-154(LC 13)
Max Uplift 11=-287(LC 13), 20=-382(LC 12)
Max Grav 11=1253(LC 1), 20=1834(LC 1)

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

TOP CHORD 2-3=-527/583, 3-4=-1706/1840, 4-6=-1284/211, 6-7=-1289/275, 7-8=-1309/247,
8-10=-2547/474, 10-11=-2058/423
BOT CHORD 2-20=-477/523, 19-20=-2028/908, 4-19=-2108/1077, 18-19=-1550/1626, 16-18=-148/1074,
15-16=-263/2273, 8-15=-81/750, 11-13=-286/1775
WEBS 3-20=-561/494, 3-19=-1561/1604, 4-18=-1414/2652, 6-18=-361/303, 7-16=-96/726,
8-16=-1326/386, 13-15=-290/1858, 10-15=-23/460, 10-13=-572/141

NOTES- (7)

- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 19-4-12, Exterior(2R) 19-4-12 to 22-4-12, Interior(1) 22-4-12 to 40-9-8 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=287, 20=382.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	MURTAGH RES	T27981866
3205301	T21	Roof Special	3	1	Job Reference (optional)	

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

8.530 s Dec 6 2021 MITek Industries, Inc. Mon Jun 13 06:40:14 2022 Page 1
ID:0yrXDNjrhKUZiS4sq5QxWyyQw7-j7u2qE7fWxBvFosbdBdXeldJokgo_1ppGELrV6z6n3V



Scale = 1:69.7

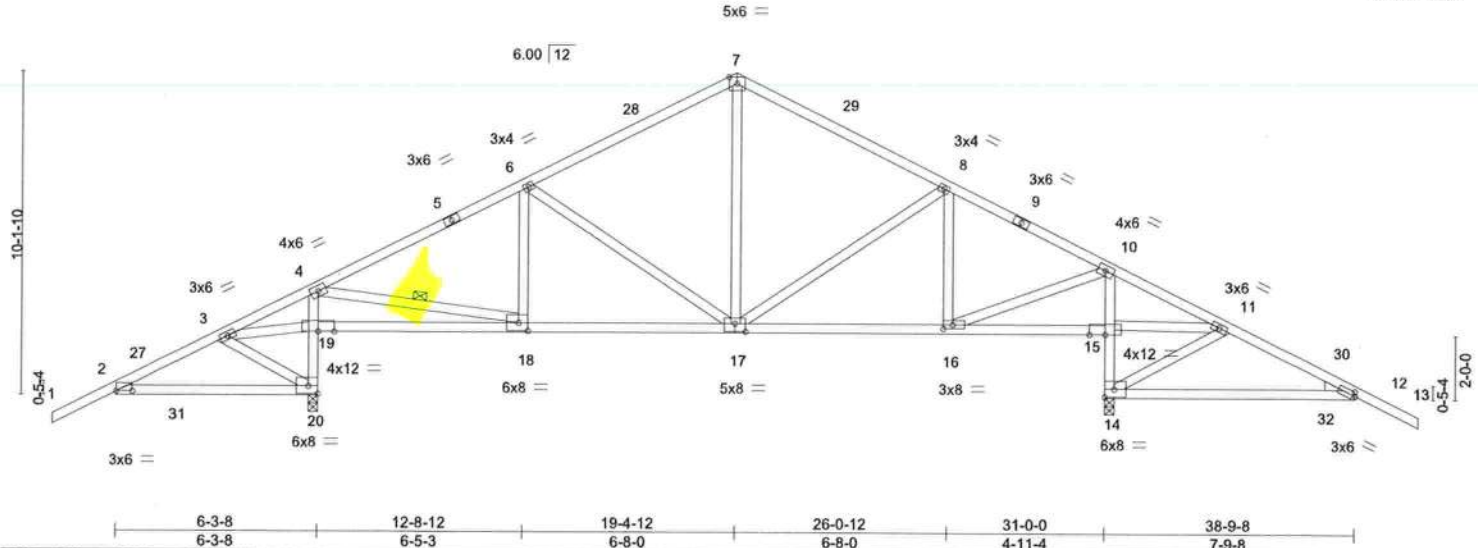


Plate Offsets (X,Y)-- [2:0-6-0,0-0-1], [12:0-0-14,0-1-8], [16:0-3-8,0-1-8], [17:0-4-0,0-3-0], [18:0-3-8,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	-0.05 16-17 >999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.11 16-17 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	-0.20 14 n/a n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS				Weight: 223 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
4-20,10-14: 2x4 SP No.3
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 3-7-14 oc bracing.
WEBS 1 Row at midpt 4-18

REACTIONS. (size) 14=0-3-8, 20=0-3-8
Max Horz 20=154(LC 12)
Max Uplift 14=-374(LC 13), 20=-344(LC 12)
Max Grav 14=1636(LC 1), 20=1451(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-527/583, 3-4=-1707/1843, 4-6=-661/148, 6-7=-558/155, 7-8=-556/176,
8-10=-421/96, 10-11=-1605/1783, 11-12=-580/639
BOT CHORD 2-20=-477/523, 19-20=-1646/799, 4-19=-1730/968, 18-19=-1556/1629, 17-18=-91/604,
16-17=0/556, 15-16=-1566/1575, 14-15=-1842/962, 10-15=-1806/984, 12-14=-513/567
WEBS 3-20=-561/496, 3-19=-1565/1606, 4-18=-1255/2103, 6-18=-253/276, 7-17=-29/274,
8-17=-271/220, 8-16=-556/415, 10-16=-1092/1927, 11-15=-1534/1582, 11-14=-667/562

- NOTES-** (7)
- 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=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 19-4-12, Exterior(2R) 19-4-12 to 22-4-12, Interior(1) 22-4-12 to 40-9-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=374, 20=344.
 - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

June 14,2022

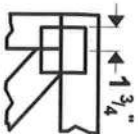
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



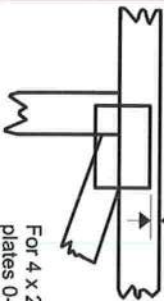
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



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

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

* Plate location details available in MITtek 20/20 software or upon request.

PLATE SIZE

4 X 4

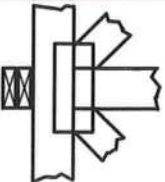
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

Industry Standards:

ANSI/TP1: National Design Specification for Metal

DSB-89: Plate Connected Wood Truss Construction.

BCSI: Design Standard for Bracing.

Building Component Safety Information.

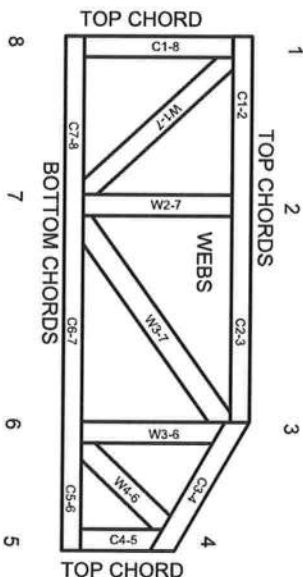
Guide to Good Practice for Handling.

Installing & Bracing of Metal Plate

Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988

ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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MITtek 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 1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
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 purfins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.