

RE: 3883097-106

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer: DREAM FINDERS Project Name: 3883097-106
Lot/Block: 210 Model: 2235 B 150
Address: 200 EAGLESTON LANE Subdivision: LAKEWOOD RANCH BUNGALOW WALK AT WATERSIDE
City: Sarasota State: FL

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

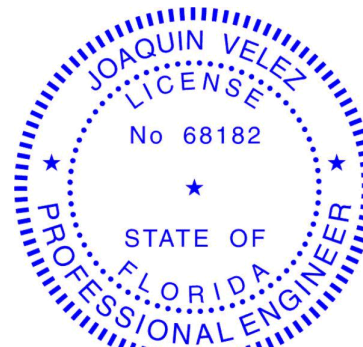
Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-22 Wind Speed: 150 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 19 individual, dated Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T33010616	A01	2/21/2024
2	T33010617	A02	2/21/2024
3	T33010618	A03	2/21/2024
4	T33010619	B01	2/21/2024
5	T33010620	B02	2/21/2024
6	T33010621	E01	2/21/2024
7	T33010622	E02	2/21/2024
8	T33010623	E03	2/21/2024
9	T33010624	E04	2/21/2024
10	T33010625	FG01	2/21/2024
11	T33010626	FG02	2/21/2024
12	T33010627	FT01	2/21/2024
13	T33010628	FT02	2/21/2024
14	T33010629	FT03	2/21/2024
15	T33010630	FT05	2/21/2024
16	T33010631	FT07	2/21/2024
17	T33010632	G01	2/21/2024
18	T33010633	G02	2/21/2024
19	T33010634	G03	2/21/2024

This item has been digitally signed and sealed by Velez, Joaquin on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc under my direct supervision
based on the parameters provided by Builders FirstSource (Plant City, FL).
Truss Design Engineer's Name: Velez, Joaquin
My license renewal date for the state of Florida is February 28, 2025.
Florida COA: 6634

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

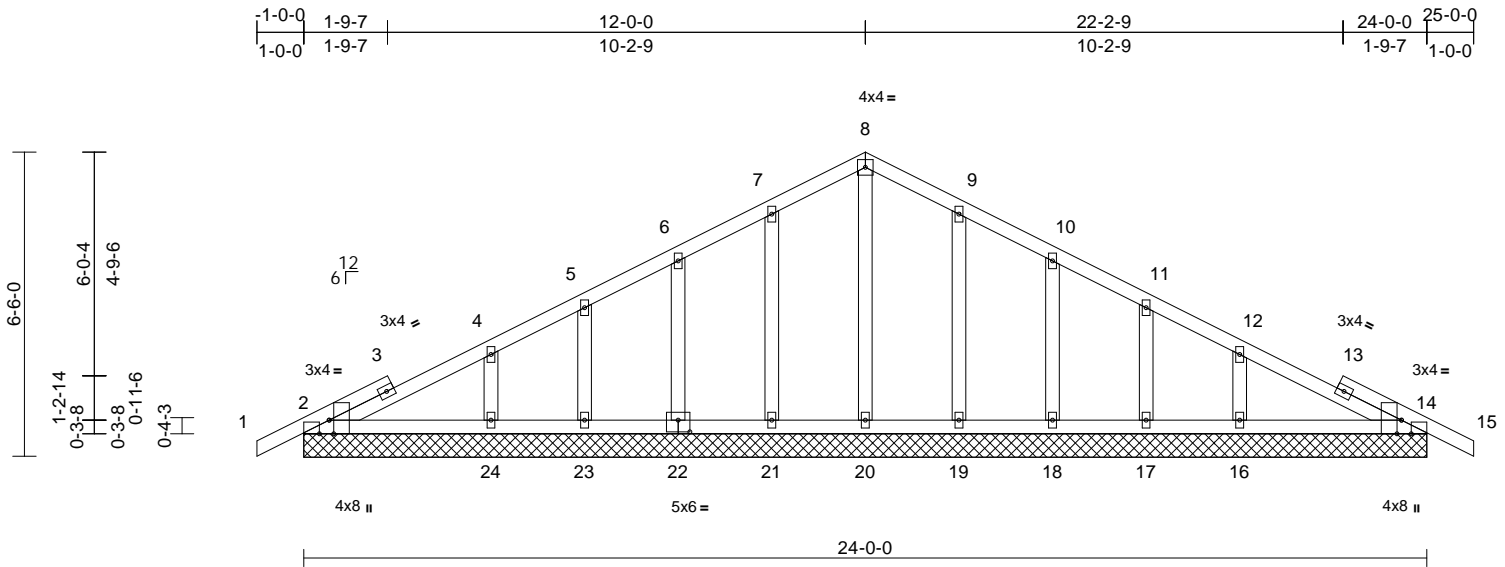
February 21, 2024

Job 3883097-106	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T33010616
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:12
ID:2WAJKDHmFNIEEnBnFKqwaWdy7U_K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJc7f

Page: 1



Scale = 1:49.2

Plate Offsets (X, Y): [2:0-3-8,Edge], [2:0-2-8,Edge], [14:0-3-8,Edge], [14:0-2-8,Edge], [22:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 127 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size)
2=24-0-0, 14=24-0-0, 16=24-0-0, 17=24-0-0, 18=24-0-0, 19=24-0-0, 20=24-0-0, 21=24-0-0, 22=24-0-0, 23=24-0-0, 24=24-0-0, 25=24-0-0, 28=24-0-0
Max Horiz 2=-193 (LC 8), 25=-193 (LC 8)
Max Uplift 2=-117 (LC 10), 14=-117 (LC 10), 16=-152 (LC 10), 17=-73 (LC 10), 18=-103 (LC 10), 19=-94 (LC 10), 21=-94 (LC 10), 22=-103 (LC 10), 23=-73 (LC 10), 24=-152 (LC 10), 25=-117 (LC 10), 28=-117 (LC 10)
Max Grav 2=179 (LC 21), 14=179 (LC 22), 16=284 (LC 16), 17=99 (LC 16), 18=164 (LC 16), 19=157 (LC 16), 20=169 (LC 15), 21=159 (LC 15), 22=163 (LC 15), 23=102 (LC 15), 24=279 (LC 21), 25=179 (LC 21), 28=179 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-4=-118/152, 4-5=-94/117, 5-6=-71/116, 6-7=-52/218, 7-8=-70/316, 8-9=-70/316, 9-10=-39/218, 10-11=-7/116, 11-12=-18/49, 12-14=-118/94, 14-15=0/24

BOT CHORD 2-24=-70/236, 23-24=-70/236, 21-23=-70/236, 20-21=-70/236, 19-20=-70/236, 18-19=-70/236, 17-18=-70/236, 16-17=-70/236, 14-16=-70/236
WEBS 8-20=-129/0, 7-21=-121/201, 6-22=-116/212, 5-23=-86/172, 4-24=-183/287, 9-19=-119/201, 10-18=-117/212, 11-17=-84/172, 12-16=-187/287

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TC DL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2.

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 2, 117 lb uplift at joint 14, 94 lb uplift at joint 21, 103 lb uplift at joint 22, 73 lb uplift at joint 23, 152 lb uplift at joint 24, 94 lb uplift at joint 19, 103 lb uplift at joint 18, 73 lb uplift at joint 17, 152 lb uplift at joint 16, 117 lb uplift at joint 2 and 117 lb uplift at joint 14.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2023 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 the 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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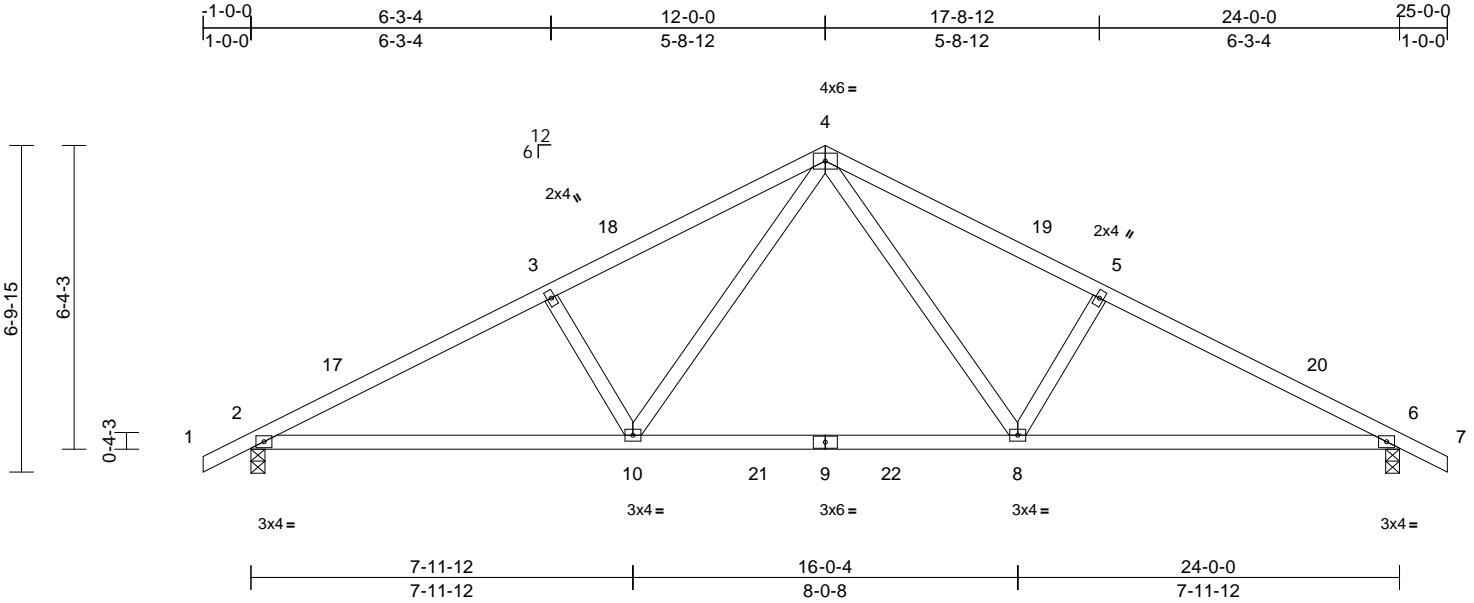
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss A02	Truss Type Common	Qty 21	Ply 1	Job Reference (optional) T33010617
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

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Page: 1



Scale = 1:48.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.52	Vert(LL)	-0.15	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.76	Vert(CT)	-0.24	8-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 110 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 4-1-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-11-8 oc bracing.

REACTIONS

(size) 2=0-3-8, 6=0-3-8
Max Horiz 2=203 (LC 9)
Max Uplift 2=-484 (LC 10), 6=-484 (LC 10)
Max Grav 2=1044 (LC 15), 6=1044 (LC 16)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/24, 2-3=-1702/975, 3-4=-1587/976, 4-5=-1587/976, 5-6=-1702/975, 6-7=0/24
BOT CHORD 2-10=-689/1625, 8-10=-328/1029, 6-8=-689/1499
WEBS 4-8=-303/760, 5-8=-353/391, 4-10=-303/759, 3-10=-353/391

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0, Zone1 2-0-0 to 7-9-1, Zone2 7-9-1 to 16-2-15, Zone1 16-2-15 to 22-0-0, Zone3 22-0-0 to 25-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 484 lb uplift at joint 2 and 484 lb uplift at joint 6.

LOAD CASE(S) Standard

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

Date: February 21, 2024

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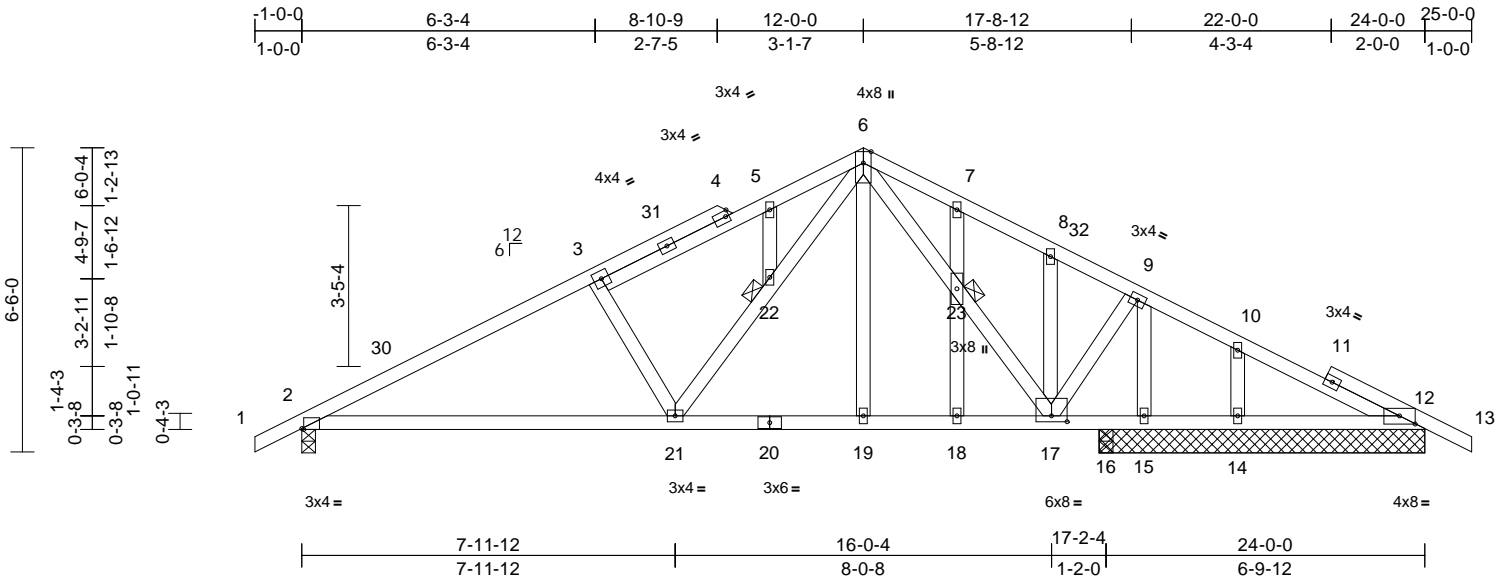
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss A03	Truss Type Common Structural Gable	Qty 1	Ply 1	Job Reference (optional) T33010618
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

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Page: 1



Scale = 1:49.2
 Plate Offsets (X, Y): [2:0-0-8,Edge], [12:0-4-0,0-2-1], [17:0-4-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.45	Vert(LL)	-0.09	21-26	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.20	21-26	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.02	16	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 143 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-2 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS
 1 Brace at Jt(s): 22, 23

REACTIONS (size) 2=0-3-8, 12=6-11-8, 14=6-11-8, 15=6-11-8, 16=0-3-8, 27=6-11-8
 Max Horiz 2=192 (LC 9)
 Max Uplift 2=-363 (LC 10), 12=-84 (LC 10), 14=-150 (LC 10), 15=-284 (LC 10), 16=-86 (LC 10), 27=-84 (LC 10)
 Max Grav 2=681 (LC 1), 12=131 (LC 22), 14=281 (LC 16), 15=655 (LC 1), 16=184 (LC 1), 27=131 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/24, 2-3=-977/623, 3-5=-826/600, 5-6=-765/644, 6-7=-217/348, 7-8=-226/305, 8-9=-190/210, 9-10=-98/259, 10-12=-187/283, 12-13=0/24
 BOT CHORD 2-21=-377/892, 19-21=-28/420, 18-19=-28/419, 17-18=-28/419, 16-17=-177/264, 15-16=-177/264, 14-15=-219/297, 12-14=-219/297
 WEBS 9-17=-354/594, 21-22=-284/530, 6-22=-347/564, 3-21=-306/331, 6-23=-450/170, 17-23=-452/181, 6-19=0/95, 5-22=-41/78, 7-23=-34/77, 18-23=-16/64, 8-17=-165/197, 9-15=-760/503, 10-14=-183/181

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0, Zone1 2-0-0 to 7-10-2, Zone2 7-10-2 to 16-3-15, Zone1 16-3-15 to 22-0-0, Zone3 22-0-0 to 25-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 363 lb uplift at joint 2, 84 lb uplift at joint 12, 284 lb uplift at joint 15, 150 lb uplift at joint 14, 86 lb uplift at joint 16 and 84 lb uplift at joint 12.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 Date:

February 21, 2024

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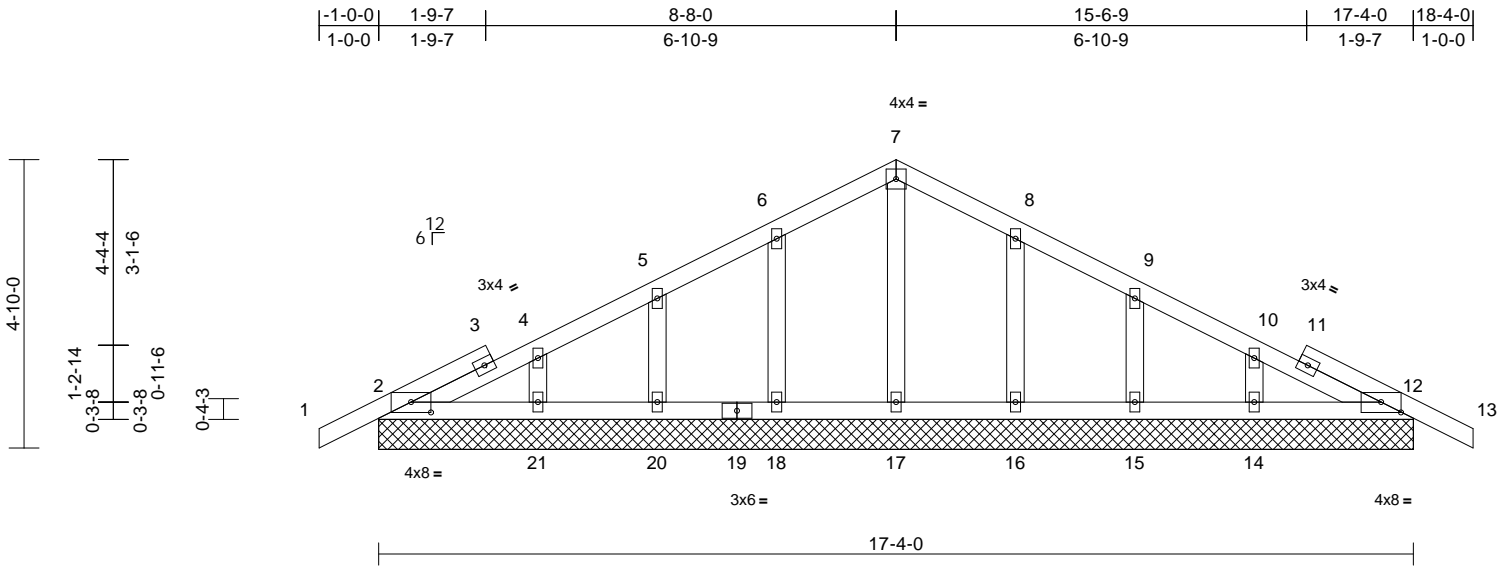
MiTek®
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 3883097-106	Truss B01	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T33010619
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

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Page: 1



Scale = 1:38.6

Plate Offsets (X, Y): [2:0-4-0,0-2-1], [12:0-4-0,0-2-1]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	22	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 84 lb	FT = 20%

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

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

REACTIONS (size) 2=17-4-0, 12=17-4-0, 14=17-4-0, 15=17-4-0, 16=17-4-0, 17=17-4-0, 18=17-4-0, 20=17-4-0, 21=17-4-0, 22=17-4-0
Max Horiz 2=-141 (LC 8)
Max Uplift 2=-122 (LC 10), 12=-121 (LC 10), 14=-92 (LC 10), 15=-97 (LC 10), 16=-98 (LC 10), 18=-97 (LC 10), 20=-99 (LC 10), 21=-89 (LC 10), 22=-121 (LC 10)
Max Grav 2=153 (LC 1), 12=152 (LC 1), 14=189 (LC 16), 15=141 (LC 16), 16=163 (LC 16), 17=136 (LC 15), 18=163 (LC 15), 20=145 (LC 15), 21=181 (LC 1), 22=152 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-4=-94/99, 4-5=-81/83, 5-6=-64/152, 6-7=-80/253, 7-8=-80/252, 8-9=-43/152, 9-10=-34/53, 10-12=-51/43, 12-13=0/24
BOT CHORD 2-21=-34/149, 20-21=-34/149, 18-20=-34/149, 17-18=-34/149, 16-17=-34/149, 15-16=-34/149, 14-15=-34/149, 12-14=-34/149
WEBS 7-17=-97/0, 6-18=-122/207, 5-20=-108/204, 4-21=-131/205, 8-16=-121/207, 9-15=-108/206, 10-14=-126/192

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TC DL=4.2psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 2, 121 lb uplift at joint 12, 97 lb uplift at joint 18, 99 lb uplift at joint 20, 89 lb uplift at joint 21, 98 lb uplift at joint 16, 97 lb uplift at joint 15, 92 lb uplift at joint 14 and 121 lb uplift at joint 12.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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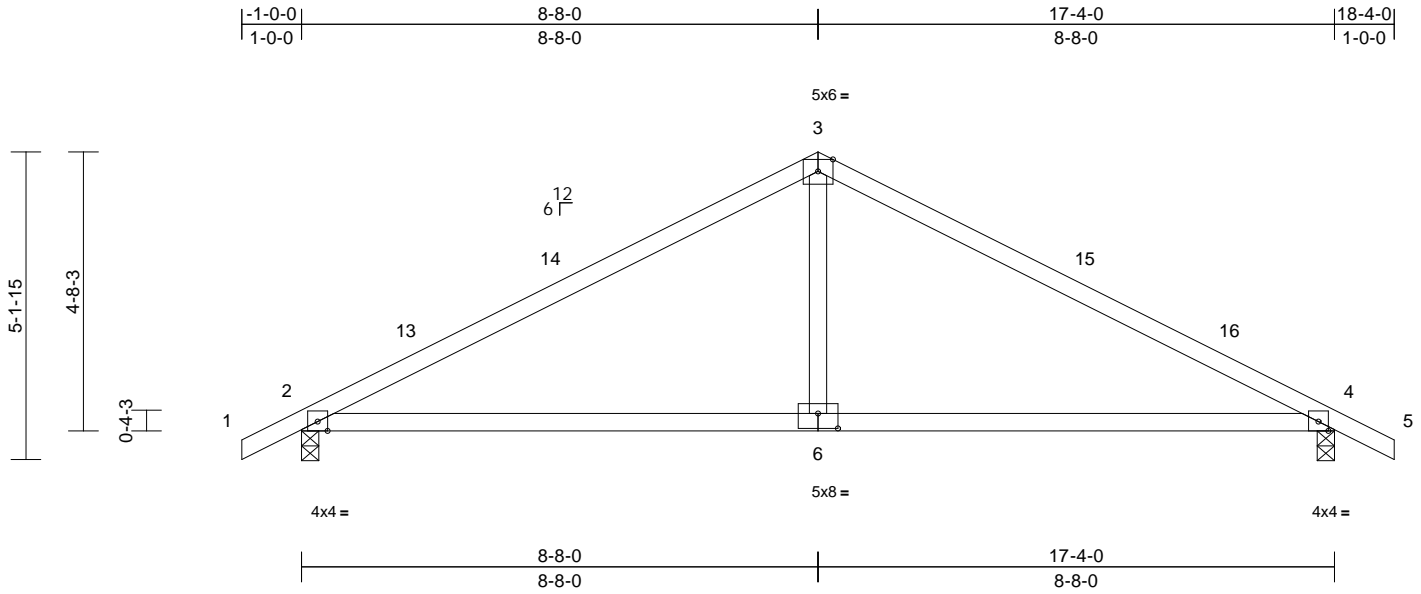
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss B02	Truss Type Common	Qty 2	Ply 1	Job Reference (optional) T33010620
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:15
ID:2nikv2UQFcupKobWEukZiDy7U_3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:38.7

Plate Offsets (X, Y): [6:0-4-0-0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.96	Vert(LL)	0.21	6-12	>977	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.33	6-12	>624	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 64 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.
- BOT CHORD Rigid ceiling directly applied or 7-5-2 oc bracing.

REACTIONS

- (size) 2=0-3-8, 4=0-3-8
- Max Horiz 2=-151 (LC 8)
- Max Uplift 2=-370 (LC 10), 4=-370 (LC 10)
- Max Grav 2=695 (LC 1), 4=695 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/24, 2-3=-924/633, 3-4=-924/633, 4-5=0/24
- BOT CHORD 2-4=-314/743
- WEBS 3-6=-17/405

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TC DL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0, Zone1 2-0-0 to 4-5-1, Zone2 4-5-1 to 12-10-15, Zone1 12-10-15 to 15-4-0, Zone3 15-4-0 to 18-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 370 lb uplift at joint 2 and 370 lb uplift at joint 4.

LOAD CASE(S) Standard

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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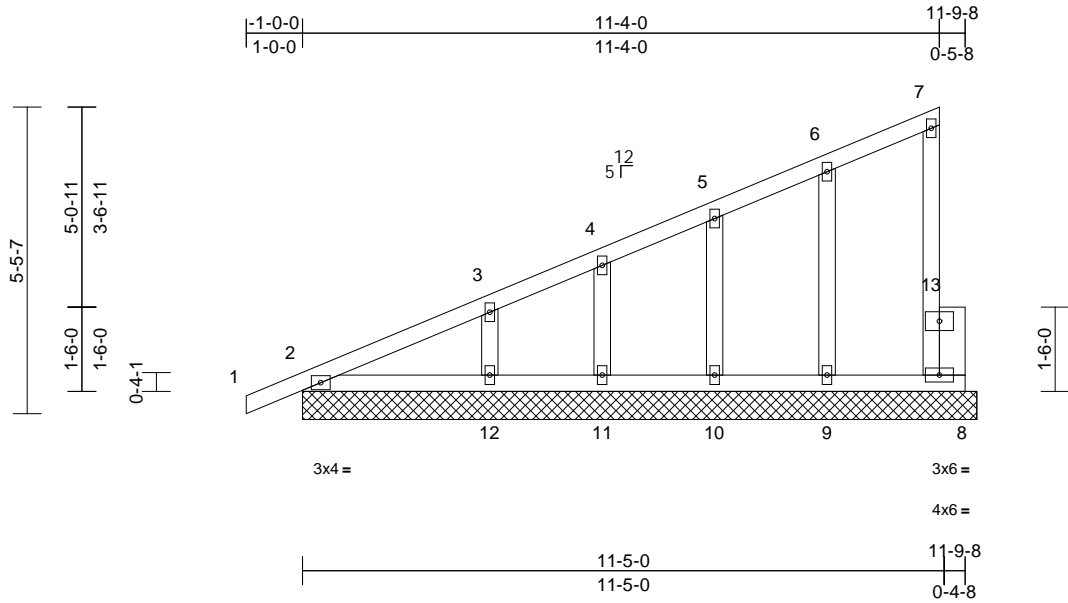
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss E01	Truss Type Half Hip Supported Gable	Qty 1	Ply 1	Job Reference (optional) T33010621
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:16
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Page: 1



Scale = 1:41

Plate Offsets (X, Y): [2:0-1-14,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.24	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 61 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2 P
- WEBS 2x4 SP No.3
- OTHERS 2x4 SP No.3 *Except* 13-8:2x6 SP No.2

BRACING

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

REACTIONS

- (size) 2=12-0-0, 8=12-0-0, 9=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 14=12-0-0
- Max Horiz 2=321 (LC 9), 14=321 (LC 9)
- Max Uplift 2=-83 (LC 10), 8=-48 (LC 7), 9=-114 (LC 10), 10=-79 (LC 10), 11=-77 (LC 10), 12=-125 (LC 10), 14=-83 (LC 10)
- Max Grav 2=167 (LC 1), 8=71 (LC 17), 9=156 (LC 1), 10=154 (LC 1), 11=116 (LC 1), 12=235 (LC 1), 14=167 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/21, 2-3=-281/319, 3-4=-184/264, 4-5=-159/241, 5-6=-143/208, 6-7=-118/163, 7-8=-87/57
- BOT CHORD 2-12=-119/212, 11-12=-119/212, 10-11=-119/212, 9-10=-119/212, 8-9=-119/212
- WEBS 6-9=-143/226, 5-10=-113/267, 4-11=-91/229, 3-12=-170/344

NOTES

- 1) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TC DL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Lumber designated with a "P" is pressure-treated with preservatives. Plate lateral resistance values have been reduced 20% where used in this lumber. Plates should be protected from corrosion per the recommendation of the treatment company. Borate or other suitable treatment may be used if it does not corrode the plates. If ACQ, CBA, or CA-B treated lumber is used, improved corrosion protection is required, and G185 galvanized plates may be used with this design. Incising factors have not been considered for this design. Building designer to verify suitability of this product for its intended use.
- 10) All bearings are assumed to be SP No.2 .

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 2, 48 lb uplift at joint 8, 114 lb uplift at joint 9, 79 lb uplift at joint 10, 77 lb uplift at joint 11, 125 lb uplift at joint 12 and 83 lb uplift at joint 2.

LOAD CASE(S) Standard

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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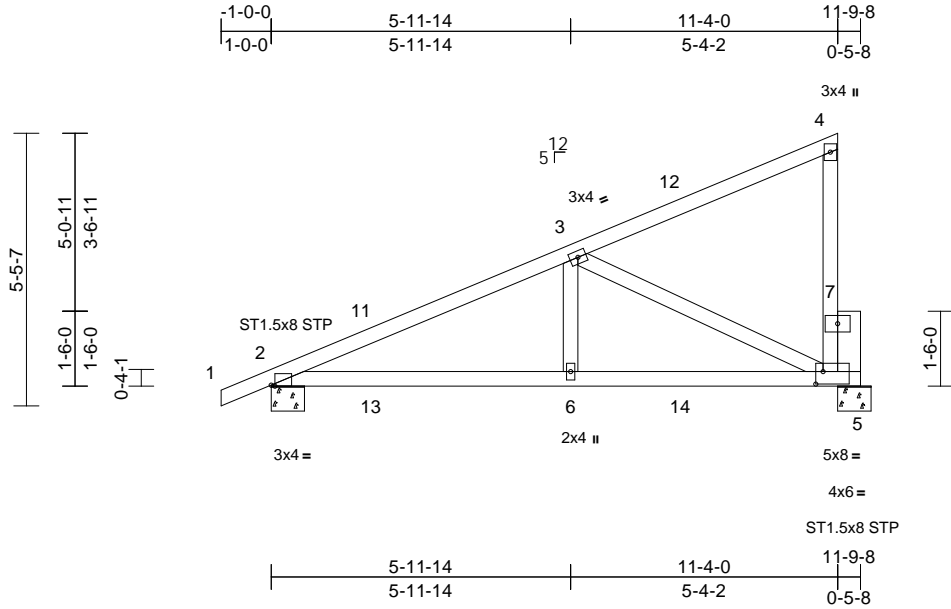
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss E02	Truss Type Half Hip	Qty 3	Ply 1	Job Reference (optional)	T33010622
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:16
ID:pAtLzmPbwt6GZP3_BPjIDsy7U4c-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:46.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.71	Vert(LL)	0.15	6-10	>934	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	0.12	6-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	-0.02	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 58 lb	FT = 20%

LUMBER

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

BRACING

- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 4-10-4 oc bracing.

REACTIONS

- (size) 2=0-8-0, 5=0-8-0
- Max Horiz 2=321 (LC 9)
- Max Uplift 2=-474 (LC 10), 5=-414 (LC 10)
- Max Grav 2=476 (LC 1), 5=409 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/21, 2-3=-642/1312, 3-4=-156/155, 4-5=-157/111
- BOT CHORD 2-6=-1132/562, 5-6=-1132/562
- WEBS 3-6=-647/256, 3-5=-606/1395

NOTES

- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0, Zone1 2-0-0 to 8-2-4, Zone3 8-2-4 to 11-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 474 lb uplift at joint 2 and 414 lb uplift at joint 5.

LOAD CASE(S) Standard

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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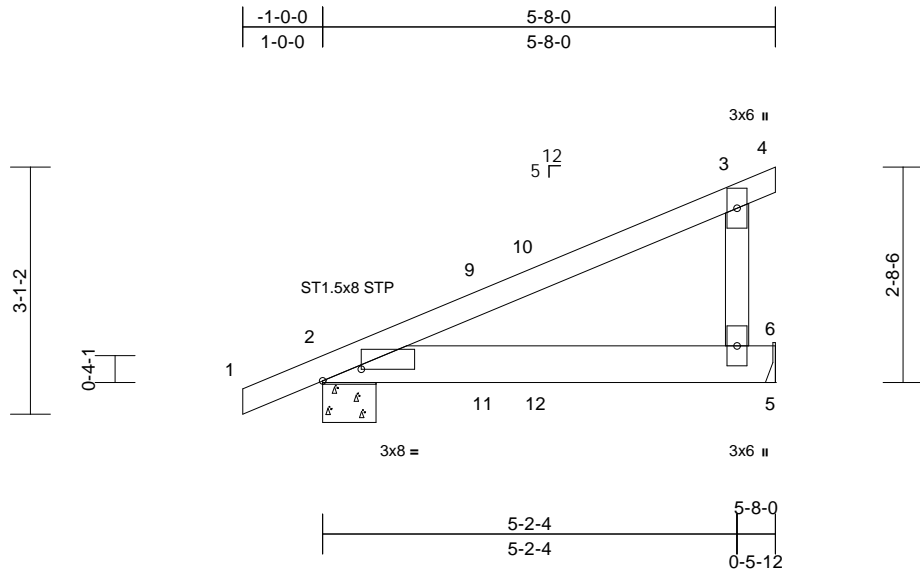
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss E03	Truss Type Monopitch	Qty 8	Ply 1	Job Reference (optional) T33010623
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:16
ID:Ahk496t3kr0kOXUz5vSJ4y7U4?RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:28.8

Plate Offsets (X, Y): [2:0-5-13,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	0.15	6-8	>446	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	0.14	6-8	>484	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 27 lb	FT = 20%

LUMBER

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

- 6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 272 lb uplift at joint 2 and 221 lb uplift at joint 5.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 2=0-8-0, 5= Mechanical
Max Horiz 2=168 (LC 7)
Max Uplift 2=-272 (LC 10), 5=-221 (LC 10)
Max Grav 2=266 (LC 1), 5=206 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/21, 2-3=-252/180, 3-4=-10/0, 3-6=-150/479
BOT CHORD 2-6=-50/104, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-22; Vult=150mph (3-second gust)
Vasd=116mph; TC DL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0,
Zone1 2-0-0 to 2-8-0, Zone3 2-8-0 to 5-8-0 zone;
cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Bearings are assumed to be: Joint 2 SP No.2 .

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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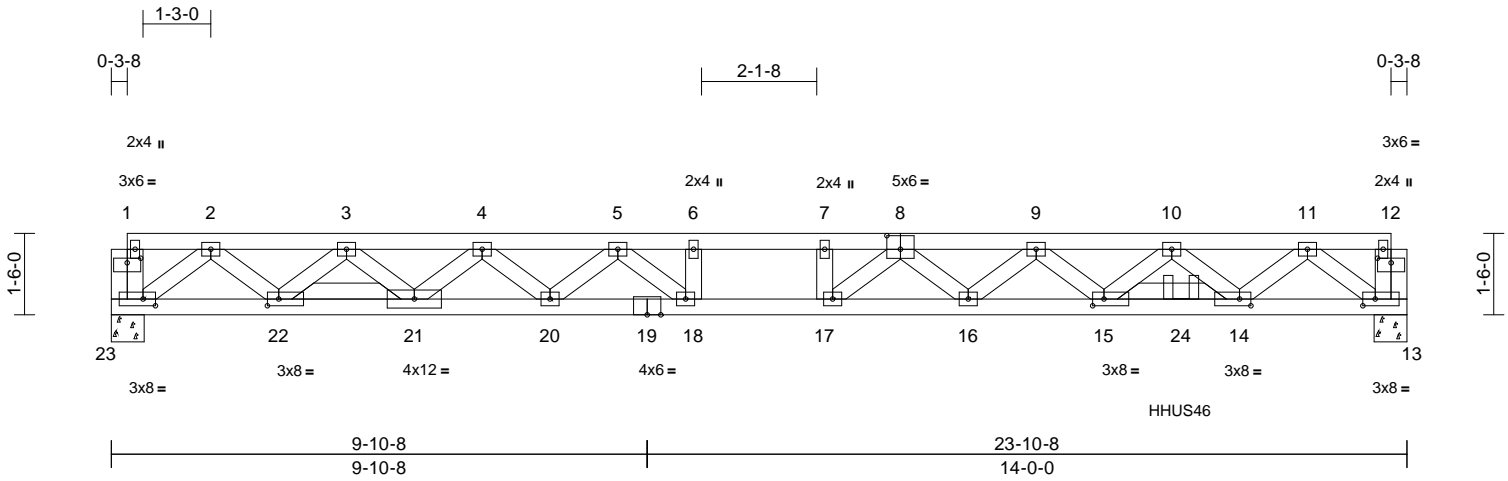
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss FG01	Truss Type Floor Girder	Qty 1	Ply 2	Job Reference (optional) T33010625
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:17
ID:PrfDEMsmk?Q2JwepT3SINly7UHT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?

Page: 1



Scale = 1:42.5

Plate Offsets (X, Y): [1:0-3-0,0-1-0], [8:0-3-0,0-3-0], [12:0-3-0,0-1-0], [13:0-2-12,0-1-8], [14:0-2-8,0-1-8], [15:0-2-8,0-1-8], [22:0-2-8,0-1-8], [23:0-2-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.34	17-18	>830	480
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.47	17-18	>592	360
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.07	13	n/a	n/a
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MS						
										Weight: 243 lb FT = 11%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 19-13:2x4 SP No.1
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 13=0-7-4, 23=0-7-4

Max Grav 13=1403 (LC 1), 23=1305 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-23=-101/0, 12-13=-104/0, 1-2=-60/0, 2-3=-2560/0, 3-4=-4317/0, 4-5=-5525/0, 5-6=-6245/0, 6-7=-6245/0, 7-9=-6245/0, 9-10=-4569/0, 10-11=-2783/0, 11-12=-64/0
 BOT CHORD 22-23=0/1536, 21-22=0/3582, 20-21=0/5046, 18-20=0/5961, 17-18=0/6245, 16-17=0/6062, 15-16=0/5249, 14-15=0/3818, 13-14=0/1660
 WEBS 11-13=-2028/0, 2-23=-1875/0, 11-14=0/1561, 2-22=0/1424, 10-14=-1440/0, 3-22=-1421/0, 10-15=0/1044, 3-21=0/1022, 9-15=-947/0, 4-21=-1015/0, 9-16=0/601, 4-20=0/666, 8-16=-554/0, 5-20=-631/0, 8-17=-262/704, 5-18=-128/835, 6-18=-380/0, 7-17=-324/41

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 1-0-0 oc.
 Bottom chords connected as follows: 2x4 - 1 row at 1-0-0 oc.
 Web connected as follows: 2x4 - 1 row at 1-0-0 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 floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- The Fabrication Tolerance at joint 19 = 11%
- Bearings are assumed to be: Joint 23 SP No.2, Joint 13 SP No.1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Use Simpson Strong-Tie HHUS46 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 19-8-9 from the left end to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Overhang applied to ply: 1(Front)

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 13-23=-10, 1-12=-100
 Concentrated Loads (lb)
 Vert: 24=-147 (F)

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Joaquin Velez PE No.68182
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017

Date:

February 21, 2024

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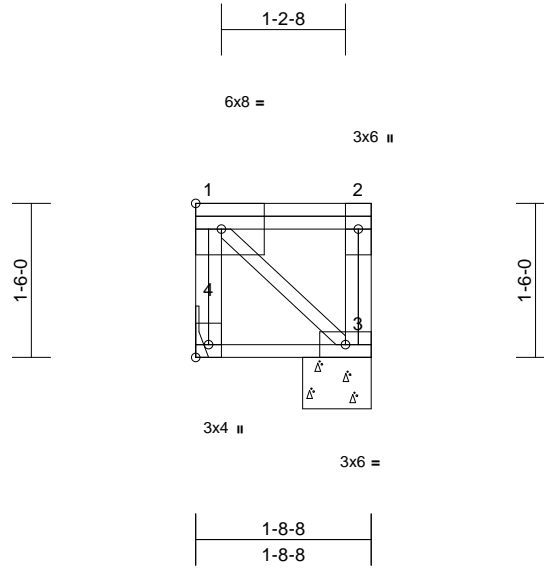
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 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 3883097-106	Truss FG02	Truss Type Floor	Qty 1	Ply 1	Job Reference (optional) T33010626
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:17
ID:xf5q10RkzhlBim3cwLx3q5y7UHU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwCdoi7J4zJC?f

Page: 1



Scale = 1:22.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	0.00	3-4	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 17 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=0-8-0, 4= Mechanical
Max Grav 3=153 (LC 1), 4=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-4=-146/0, 2-3=-146/0, 1-2=0/0
BOT CHORD 3-4=0/0
WEBS 1-3=0/0

NOTES

- Bearings are assumed to be: , Joint 3 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 3-4=-10, 1-2=-200

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

Date:

February 21,2024

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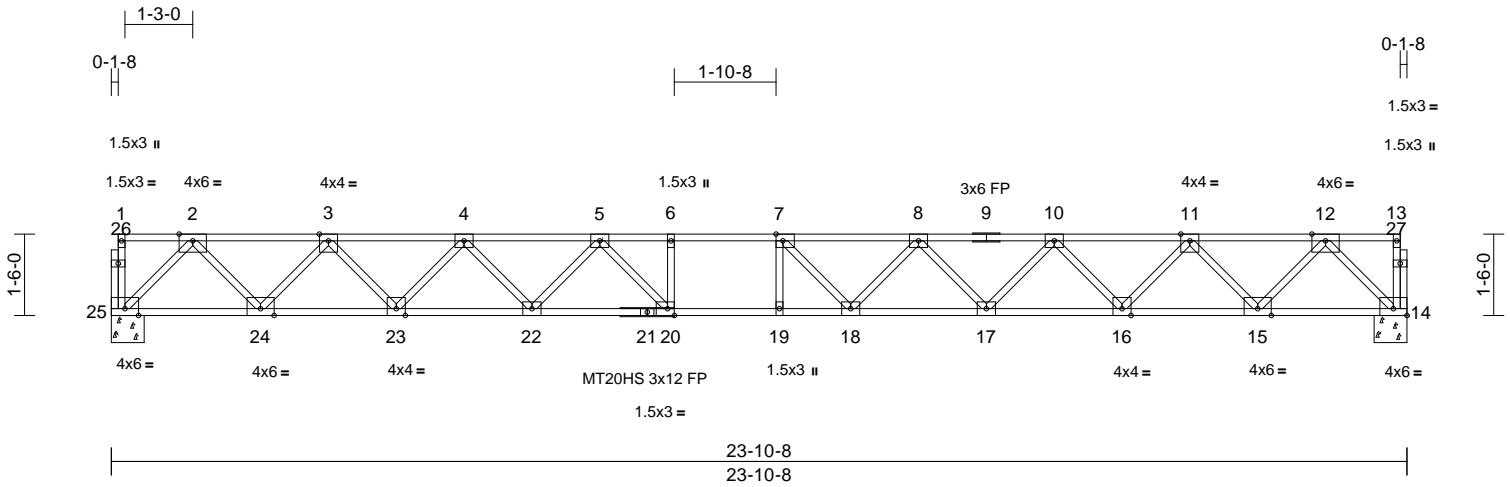
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Chesterfield, MO 63017
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Job 3883097-106	Truss FT01	Truss Type Floor	Qty 13	Ply 1	Job Reference (optional) T33010627
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:18
ID:Lhj6WQ3HGAAoU?BfbKto4Yy7UHZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCD0i7J4zJC?f

Page: 1



Scale = 1:42.5

Plate Offsets (X, Y): [7:0-1-8,Edge], [14:Edge,0-1-8], [20:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.49	18-19	>578	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.67	18-19	>421	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.11	14	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MS								Weight: 126 lb FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP 2850F 2.0E or 2x4 SP M 31(flat)
Except 9-13:2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except* 21-14:2x4 SP 2850F 2.0E or 2x4 SP M 31(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

- The Fabrication Tolerance at joint 21 = 11%
- Bearings are assumed to be: Joint 25 SP No.1 , Joint 14 SP 2850F 2.0E or M 31 .
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 20-22.

LOAD CASE(S) Standard

REACTIONS (size) 14=0-7-4, 25=0-7-4
Max Grav 14=1293 (LC 1), 25=1293 (LC 1)


FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-37/0, 13-14=-37/0, 1-2=-2/0, 2-3=-2180/0, 3-4=-3770/0, 4-5=-4838/0, 5-6=-5535/0, 6-7=-5535/0, 7-8=-5430/0, 8-10=-4852/0, 10-11=-3766/0, 11-12=-2181/0, 12-13=-2/0
BOT CHORD 24-25=0/1245, 23-24=0/3090, 22-23=0/4423, 20-22=0/5249, 19-20=0/5535, 18-19=0/5535, 17-18=0/5268, 16-17=0/4418, 15-16=0/3091, 14-15=0/1245
WEBS 12-14=-1758/0, 2-25=-1758/0, 12-15=0/1391, 2-24=0/1390, 11-15=-1353/0, 3-24=-1353/0, 11-16=0/1003, 3-23=0/1010, 10-16=-970/0, 4-23=-971/0, 10-17=0/646, 4-22=0/617, 8-17=-619/0, 5-22=-616/0, 8-18=-38/467, 5-20=-117/791, 7-18=-566/264, 6-20=-366/0, 7-19=-244/165

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are MT20 unless otherwise indicated.
 - All plates are 3x4 MT20 unless otherwise indicated.

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Chesterfield, MO 63017
Date:

February 21, 2024

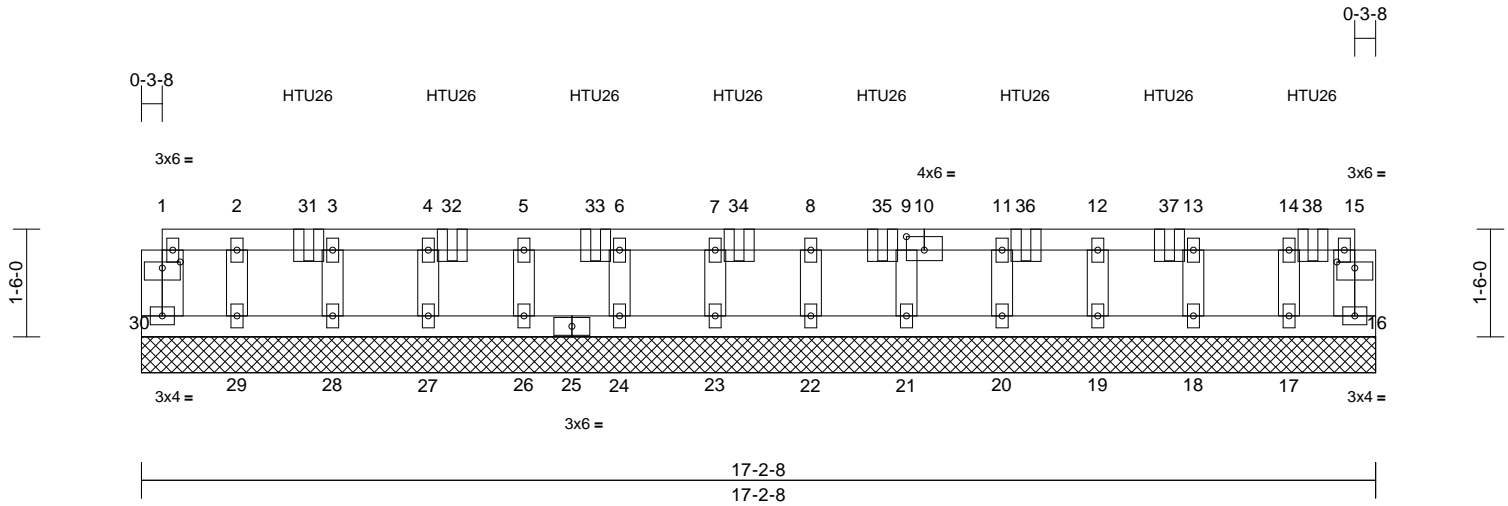
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Job 3883097-106	Truss FT02	Truss Type Floor Supported Gable	Qty 1	Ply 1	Job Reference (optional) T33010628
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:18
ID:GWs1tzCIHQzPVRGE0X3Ay7UDw-RfC?PsB70Hq3NSgPqL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:32.1

Plate Offsets (X, Y): [1:0-3-0,0-1-0], [10:0-3-0,0-2-4], [15:0-3-0,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	16	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 72 lb	FT = 11%

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

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

REACTIONS (size)
16=17-2-8, 17=17-2-8, 18=17-2-8, 19=17-2-8, 20=17-2-8, 21=17-2-8, 22=17-2-8, 23=17-2-8, 24=17-2-8, 26=17-2-8, 27=17-2-8, 28=17-2-8, 29=17-2-8, 30=17-2-8
Max Uplift 16=72 (LC 6), 17=127 (LC 6), 18=143 (LC 6), 19=115 (LC 6), 20=139 (LC 6), 21=139 (LC 6), 22=115 (LC 6), 23=139 (LC 6), 24=139 (LC 6), 26=116 (LC 6), 27=136 (LC 6), 28=155 (LC 6), 29=43 (LC 6)
Max Grav 16=89 (LC 4), 17=211 (LC 4), 18=238 (LC 4), 19=213 (LC 4), 20=231 (LC 4), 21=231 (LC 4), 22=215 (LC 4), 23=231 (LC 4), 24=231 (LC 4), 26=215 (LC 4), 27=228 (LC 4), 28=244 (LC 4), 29=159 (LC 1), 30=45 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-30=-40/2, 15-16=-89/80, 1-2=-5/3, 2-3=-5/3, 3-4=-5/3, 4-5=-5/3, 5-6=-5/3, 6-7=-5/3, 7-8=-5/3, 8-9=-5/3, 9-11=-5/3, 11-12=-5/3, 12-13=-5/3, 13-14=-5/3, 14-15=-5/3

BOT CHORD 29-30=-3/5, 28-29=-3/5, 27-28=-3/5, 26-27=-3/5, 24-26=-3/5, 23-24=-3/5, 22-23=-3/5, 21-22=-3/5, 20-21=-3/5, 19-20=-3/5, 18-19=-3/5, 17-18=-3/5, 16-17=-3/5
WEBS 2-29=-147/56, 3-28=-230/162, 4-27=-215/144, 5-26=-202/124, 6-24=-217/147, 7-23=-218/147, 8-22=-201/123, 9-21=-217/147, 11-20=-218/147, 12-19=-200/122, 13-18=-225/153, 14-17=-194/127

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 2x4 MT20 unless otherwise indicated.
3) The Fabrication Tolerance at joint 25 = 11%, joint 10 = 11%
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) Lumber designated with a "P" is pressure-treated with preservatives. Plate lateral resistance values have been reduced 20% where used in this lumber. Plates should be protected from corrosion per the recommendation of the treatment company. Borate or other suitable treatment may be used if it does not corrode the plates. If ACQ, CBA, or CA-B treated lumber is used, improved corrosion protection is required, and G185 galvanized plates may be used with this design. Incising factors have not been considered for this design. Building designer to verify suitability of this product for its intended use.
8) All bearings are assumed to be SP No.2.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 16, 43 lb uplift at joint 29, 155 lb uplift at joint 28, 136 lb uplift at joint 27, 116 lb uplift at joint 26, 139 lb uplift at joint 24, 139 lb uplift at joint 23, 115 lb uplift at joint 22, 139 lb uplift at joint 21, 139 lb uplift at joint 20, 115 lb uplift at joint 19, 143 lb uplift at joint 18 and 127 lb uplift at joint 17.
10) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
11) Use Simpson Strong-Tie HTU26 (10-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-4-0 from the left end to 16-4-0 to connect truss(es) to front face of top chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	T33010628
3883097-106	FT02	Floor Supported Gable	1	1	Job Reference (optional)

Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:18
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Page: 2

Uniform Loads (lb/ft)

Vert: 16-30=-10, 1-15=-100

Concentrated Loads (lb)

Vert: 31=-75 (F), 32=-75 (F), 33=-75 (F), 34=-75 (F),
 35=-75 (F), 36=-75 (F), 37=-75 (F), 38=-79 (F)

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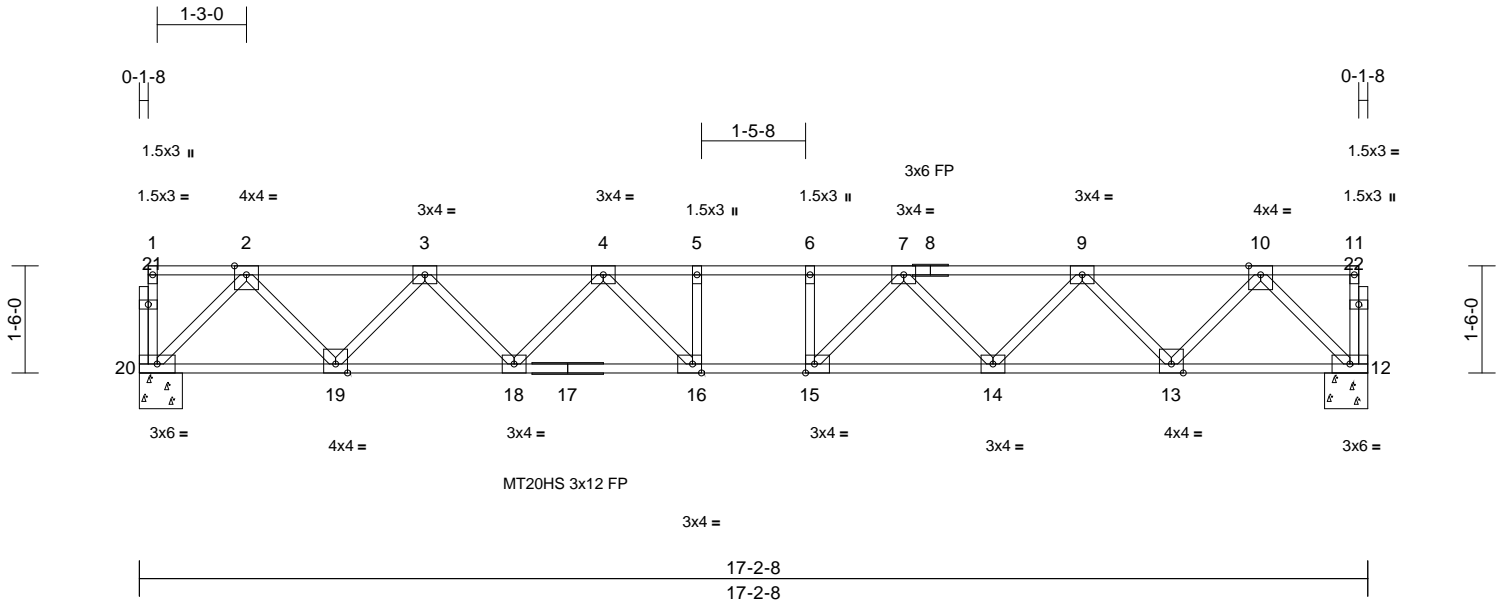
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Job 3883097-106	Truss FT03	Truss Type Floor	Qty 3	Ply 1	Job Reference (optional) T33010629
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:18
ID:1WICQ4tRPlkXpVRImYR0hy7UEK-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.3

Plate Offsets (X, Y): [15:0-1-8,Edge], [16:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.16	15-16	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.22	15-16	>906	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	12	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 93 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 12=0-7-4, 20=0-7-4

Max Grav 12=926 (LC 1), 20=926 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-20=-38/0, 11-12=-38/0, 1-2=-2/0, 2-3=-1484/0, 3-4=-2400/0, 4-5=-2855/0, 5-6=-2855/0, 6-7=-2855/0, 7-9=-2400/0, 9-10=-1484/0, 10-11=-2/0
- BOT CHORD 19-20=0/879, 18-19=0/2063, 16-18=0/2715, 15-16=0/2855, 14-15=0/2715, 13-14=0/2063, 12-13=0/879
- WEBS 10-12=-1240/0, 2-20=-1240/0, 10-13=0/900, 2-19=0/900, 9-13=-862/0, 3-19=-862/0, 9-14=0/501, 3-18=0/501, 7-14=-467/0, 4-18=-467/0, 7-15=-101/468, 4-16=-101/468, 5-16=-241/15, 6-15=-241/15

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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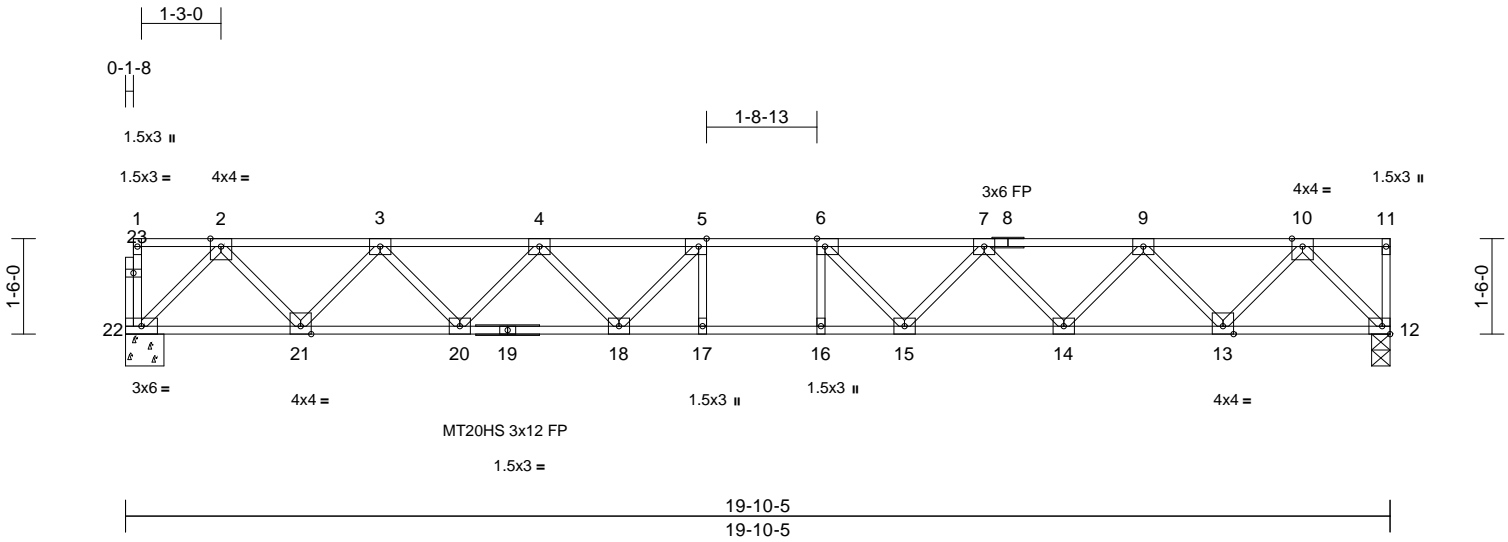
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss FT05	Truss Type Floor	Qty 8	Ply 1	Job Reference (optional) T33010630
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:18
ID:j4GrgRzO3jIARHG0sWisTy7UFV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:36.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.27	16-17	>860	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.38	16-17	>624	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.08	12	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 105 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP No.2(flat) *Except* 19-12:2x4 SP No.1(flat)
 WEBS 2x4 SP No.3(flat)
 OTHERS 2x4 SP No.3(flat)

- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 12=0-3-8, 22=0-7-4
 Max Grav 12=1082 (LC 1), 22=1076 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-22=-37/0, 11-12=-36/0, 1-2=-2/0, 2-3=-1767/0, 3-4=-2960/0, 4-5=-3642/0, 5-6=-3855/0, 6-7=-3631/0, 7-9=-2937/0, 9-10=-1731/0, 10-11=0/0
 BOT CHORD 21-22=0/1029, 20-21=0/2479, 18-20=0/3420, 17-18=0/3855, 16-17=0/3855, 15-16=0/3855, 14-15=0/3402, 13-14=0/2449, 12-13=0/987
 WEBS 10-12=-1429/0, 2-22=-1453/0, 10-13=0/1106, 2-21=0/1097, 9-13=-1068/0, 3-21=-1059/0, 9-14=0/725, 3-20=0/716, 7-14=-691/0, 4-20=-683/0, 7-15=0/458, 4-18=0/452, 6-15=-585/67, 5-18=-574/78, 5-17=-192/216, 6-16=-187/221

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x4 MT20 unless otherwise indicated.
- 4) The Fabrication Tolerance at joint 19 = 11%
- 5) Bearings are assumed to be: Joint 22 SP No.2, Joint 12 SP No.1.

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Joaquin Velez PE No.68182
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017

Date: February 21, 2024

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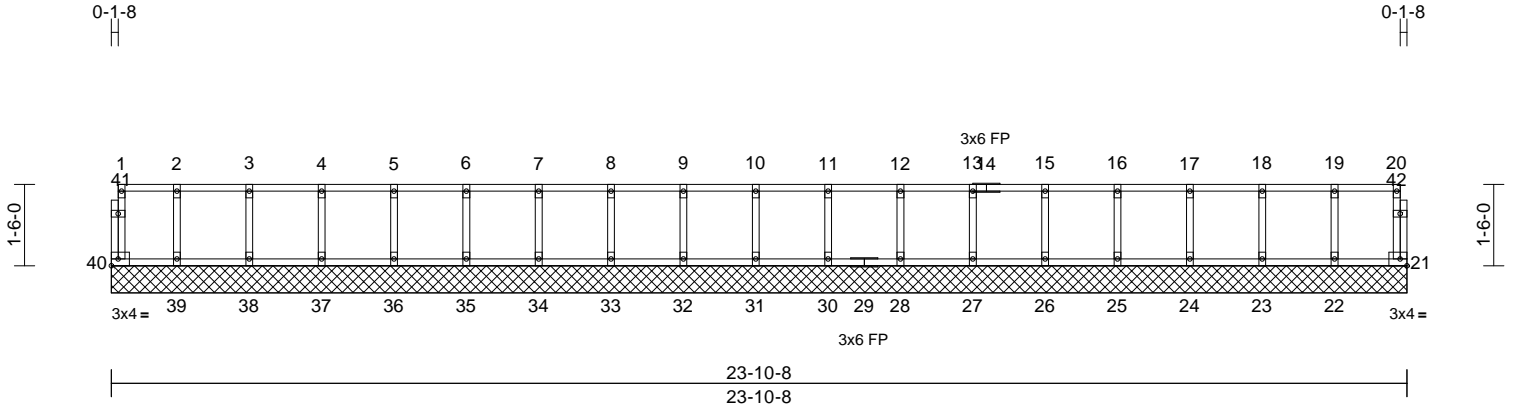
16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 3883097-106	Truss FT07	Truss Type Floor Supported Gable	Qty 1	Ply 1	Job Reference (optional) T33010631
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:19
ID:wSiByPQ_aaF?i3HR?v8uAy7Ulp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:42.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 109 lb	FT = 20%F, 11%E

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

BOT CHORD	
	39-40=0/7, 38-39=0/7, 37-38=0/7, 36-37=0/7, 35-36=0/7, 34-35=0/7, 33-34=0/7, 32-33=0/7, 31-32=0/7, 30-31=0/7, 28-30=0/7, 27-28=0/7, 26-27=0/7, 25-26=0/7, 24-25=0/7, 23-24=0/7, 22-23=0/7, 21-22=0/7

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

WEBS	
	19-22=-131/0, 18-23=-134/0, 17-24=-133/0, 16-25=-133/0, 15-26=-133/0, 13-27=-133/0, 12-28=-133/0, 11-30=-133/0, 10-31=-133/0, 9-32=-133/0, 8-33=-133/0, 7-34=-133/0, 6-35=-133/0, 5-36=-133/0, 4-37=-133/0, 3-38=-136/0, 2-39=-124/0

REACTIONS (size)	
	21=23-10-8, 22=23-10-8, 23=23-10-8, 24=23-10-8, 25=23-10-8, 26=23-10-8, 27=23-10-8, 28=23-10-8, 30=23-10-8, 31=23-10-8, 32=23-10-8, 33=23-10-8, 34=23-10-8, 35=23-10-8, 36=23-10-8, 37=23-10-8, 38=23-10-8, 39=23-10-8, 40=23-10-8
Max Grav	21=55 (LC 1), 22=144 (LC 1), 23=147 (LC 1), 24=146 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=146 (LC 1), 38=150 (LC 1), 39=135 (LC 1), 40=49 (LC 1)

- NOTES**
- All plates are 1.5x3 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - Lumber designated with a "P" is pressure-treated with preservatives. Plate lateral resistance values have been reduced 20% where used in this lumber. Plates should be protected from corrosion per the recommendation of the treatment company. Borate or other suitable treatment may be used if it does not corrode the plates. If ACQ, CBA, or CA-B treated lumber is used, improved corrosion protection is required, and G185 galvanized plates may be used with this design. Incising factors have not been considered for this design. Building designer to verify suitability of this product for its intended use.
 - All bearings are assumed to be SP No.2.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-40=-43/0, 20-21=-50/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0, 8-9=-7/0, 9-10=-7/0, 10-11=-7/0, 11-12=-7/0, 12-13=-7/0, 13-15=-7/0, 15-16=-7/0, 16-17=-7/0, 17-18=-7/0, 18-19=-7/0, 19-20=-7/0

LOAD CASE(S) Standard

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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

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Chesterfield, MO 63017
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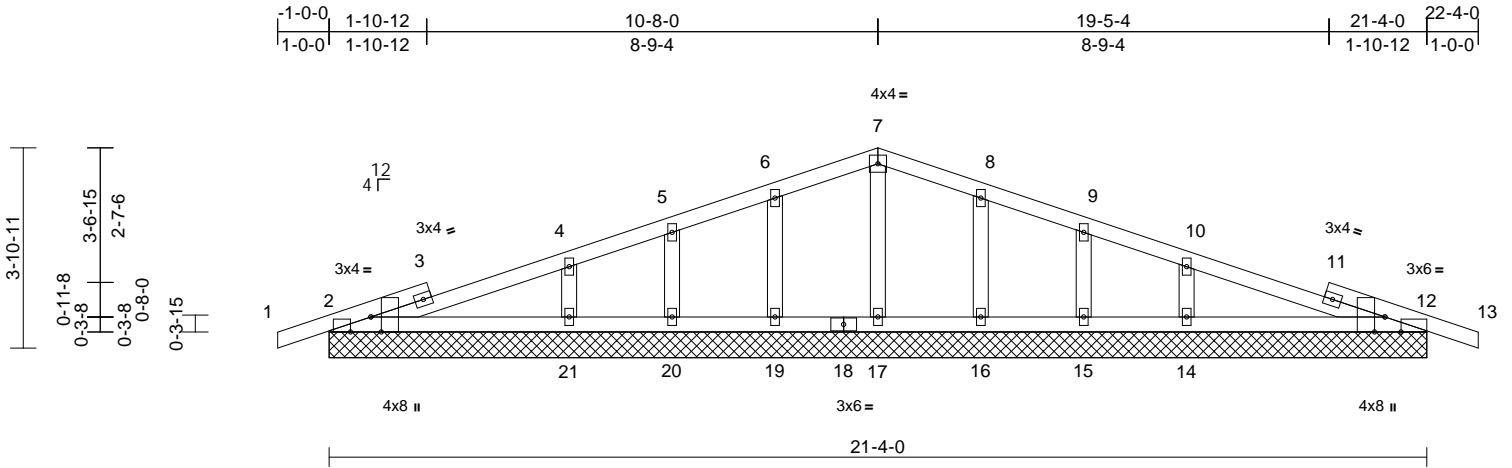
Job 3883097-106	Truss G01	Truss Type Common Supported Gable	Qty 2	Ply 1	Job Reference (optional) T33010632
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:19

Page: 1

ID:OyyDgG0jmrQwYe2x?ZpP2Cy7UJK-RfC?PsB70Hq3NSgPqnL8w3uITXbGkWRCDoi7J4zJC?f



Scale = 1:44.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 92 lb	FT = 20%

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

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

REACTIONS (size) 2=21-4-0, 12=21-4-0, 14=21-4-0, 15=21-4-0, 16=21-4-0, 17=21-4-0, 19=21-4-0, 20=21-4-0, 21=21-4-0, 22=21-4-0, 25=21-4-0
Max Horiz 2=-71 (LC 8), 25=-71 (LC 8)
Max Uplift 2=-140 (LC 10), 12=-140 (LC 10), 14=-163 (LC 10), 15=-43 (LC 10), 16=-95 (LC 10), 19=-95 (LC 10), 20=-43 (LC 10), 21=-163 (LC 10), 22=-140 (LC 10), 25=-140 (LC 10)
Max Grav 2=192 (LC 21), 12=192 (LC 22), 14=336 (LC 22), 15=60 (LC 1), 16=180 (LC 22), 17=165 (LC 1), 19=180 (LC 21), 20=60 (LC 1), 21=336 (LC 21), 22=192 (LC 22), 25=192 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-4=-125/110, 4-5=-11/83, 5-6=0/94, 6-7=-5/177, 7-8=-5/177, 8-9=0/92, 9-10=0/66, 10-12=-125/98, 12-13=0/17
BOT CHORD 2-21=-75/206, 20-21=-75/206, 19-20=-75/206, 17-19=-75/206, 16-17=-75/206, 15-16=-75/206, 14-15=-75/206, 12-14=-75/206
WEBS 7-17=-131/72, 6-19=-128/252, 5-20=-63/166, 4-21=-208/371, 8-16=-128/252, 9-15=-63/166, 10-14=-208/371

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TC DL=4.2psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Lumber designated with a "P" is pressure-treated with preservatives. Plate lateral resistance values have been reduced 20% where used in this lumber. Plates should be protected from corrosion per the recommendation of the treatment company. Borate or other suitable treatment may be used if it does not corrode the plates. If ACQ, CBA, or CA-B treated lumber is used, improved corrosion protection is required, and G185 galvanized plates may be used with this design. Incising factors have not been considered for this design. Building designer to verify suitability of this product for its intended use.
- All bearings are assumed to be SP No.2.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 12, 140 lb uplift at joint 2, 95 lb uplift at joint 19, 43 lb uplift at joint 20, 163 lb uplift at joint 21, 95 lb uplift at joint 16, 43 lb uplift at joint 15, 163 lb uplift at joint 14, 140 lb uplift at joint 12 and 140 lb uplift at joint 2.

LOAD CASE(S) Standard

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

February 21, 2024

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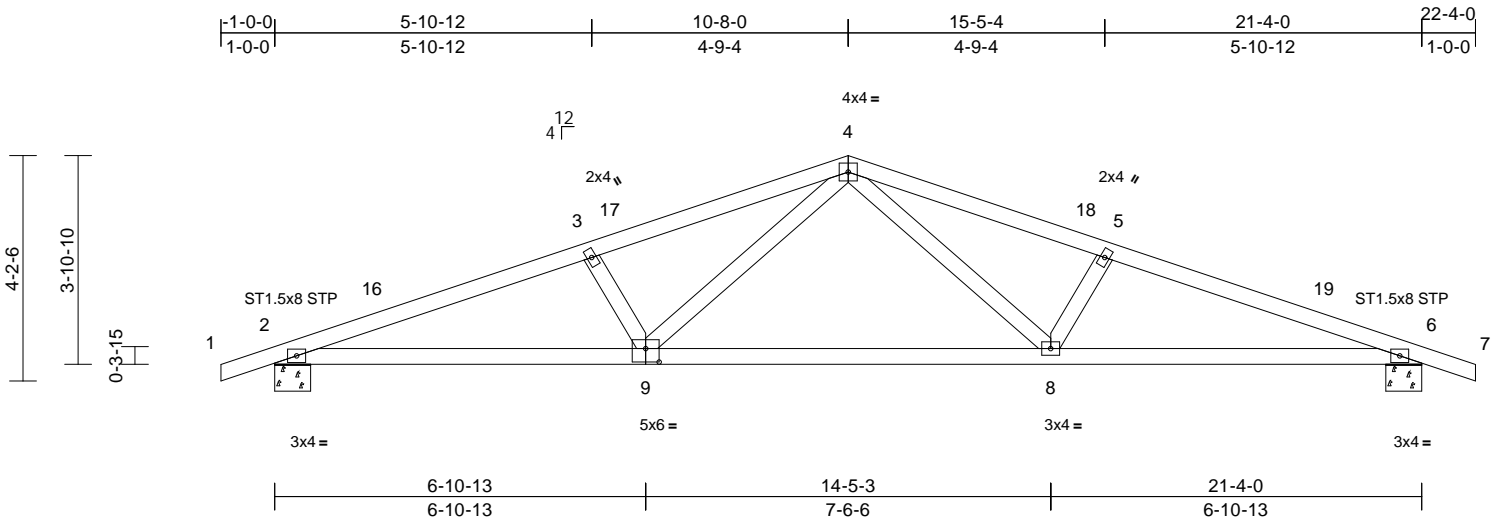
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss G02	Truss Type Common	Qty 10	Ply 1	Job Reference (optional) T33010633
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:20
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Page: 1



Scale = 1:42.9

Plate Offsets (X, Y): [2:0-2-14,0-0-2], [9:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	0.12	9-12	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-0.22	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 89 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-3-2 oc bracing.

REACTIONS

(size) 2=0-8-0, 6=0-8-0
Max Horiz 2=-77 (LC 8)
Max Uplift 2=-438 (LC 10), 6=-438 (LC 10)
Max Grav 2=843 (LC 1), 6=843 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-1875/1424, 3-4=-1744/1369,
4-5=-1744/1369, 5-6=-1875/1424, 6-7=0/17
BOT CHORD 2-8=-1207/1755, 6-8=-1207/1755
WEBS 3-9=-309/375, 4-9=-367/628, 4-8=-367/628,
5-8=-309/375

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0, Zone1 2-0-0 to 6-5-1, Zone2 6-5-1 to 14-10-15, Zone1 14-10-15 to 19-4-0, Zone3 19-4-0 to 22-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 438 lb uplift at joint 2 and 438 lb uplift at joint 6.

LOAD CASE(S) Standard

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16023 Swingley Ridge Rd.
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Date:

February 21, 2024

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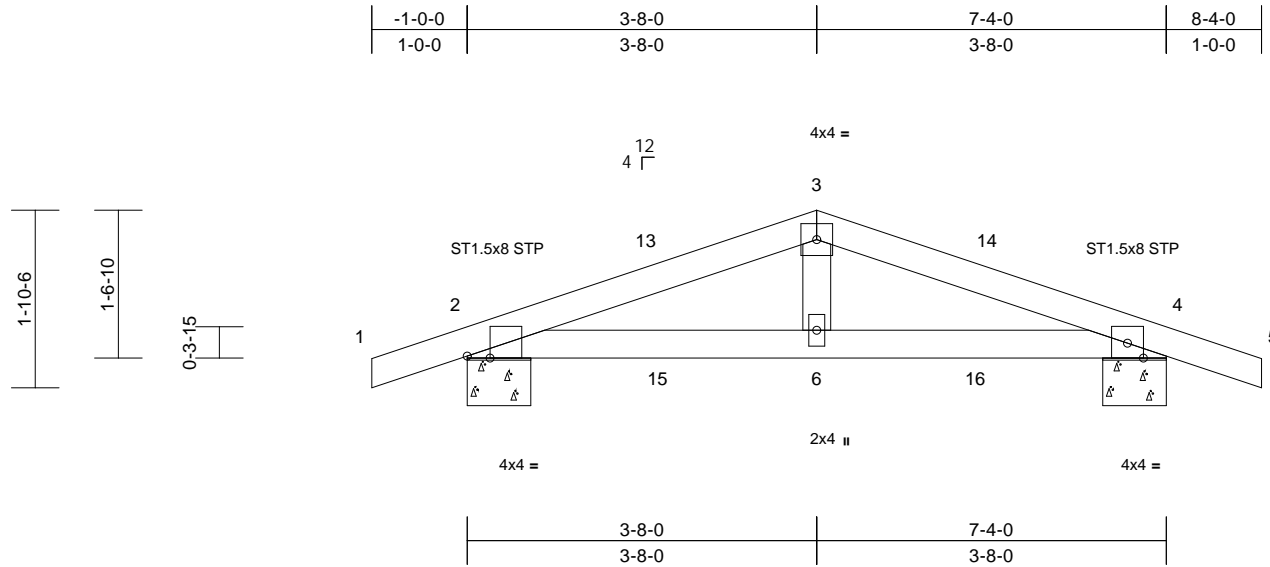
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 3883097-106	Truss G03	Truss Type Common	Qty 3	Ply 1	Job Reference (optional) T33010634
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 21 12:55:20
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Page: 1



Scale = 1:24.2

Plate Offsets (X, Y): [2:0-2-14,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	0.06	6-9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	0.06	6-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 27 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 4-0-3 oc bracing.

REACTIONS (size)

2=0-8-0, 4=0-8-0
Max Horiz 2=-31 (LC 8)
Max Uplift 2=-337 (LC 10), 4=-337 (LC 10)
Max Grav 2=325 (LC 1), 4=325 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-451/2024, 3-4=-451/2024, 4-5=0/17
BOT CHORD 2-6=-1719/409, 4-6=-1719/409
WEBS 3-6=-831/160

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-0-0 to 2-0-0, Zone2 2-0-0 to 5-4-0, Zone3 5-4-0 to 8-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 337 lb uplift at joint 2 and 337 lb uplift at joint 4.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 21, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

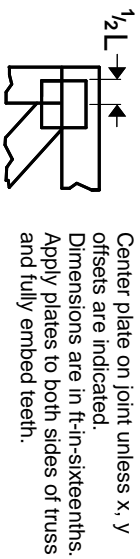
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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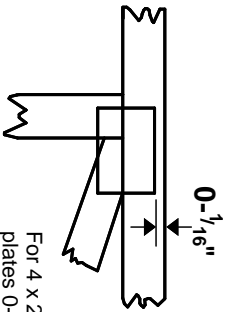
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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 software or upon request.

PLATE SIZE

4 X 4

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

LATERAL BRACING LOCATION



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

BEARING



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

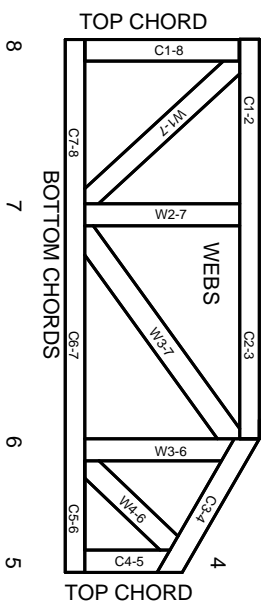
Industry Standards:

ANSI/TFP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



1 TOP CHORDS
2 JOINT ID
3 Joint ID
4 WEBS
5 BOTTOM CHORDS



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-1-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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MITtek Engineering Reference Sheet: Mill-7473 rev. 1/2/2023