

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

RE: 3499167 -

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: ASSIST 2 BUILD / JAX
Lot/Block: 636
Address: 636 SE BAYA DR, .
City: Lake City

Project Name: ID-014432 COKER 3 BR SOG
Subdivision: N/A
State: FL

Model: ID-014432 COKER 3 BR SO

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: 40.0 psf

Design Program: MiTek 20/20 8.6
Wind Speed: 180 mph
Floor Load: N/A psf

This package includes 21 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.

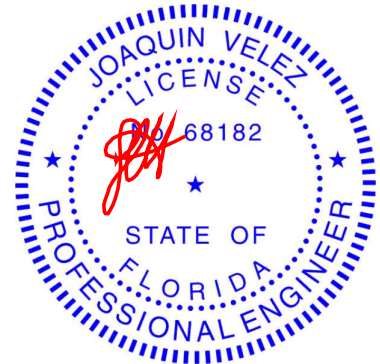
No.	Seal#	Truss Name	Date
1	T30634468	A01	5/24/23
2	T30634469	A01A	5/24/23
3	T30634470	A02	5/24/23
4	T30634471	A02A	5/24/23
5	T30634472	A03	5/24/23
6	T30634473	A04	5/24/23
7	T30634474	A05	5/24/23
8	T30634475	A06	5/24/23
9	T30634476	A07	5/24/23
10	T30634477	A08	5/24/23
11	T30634478	A09	5/24/23
12	T30634479	A10	5/24/23
13	T30634480	C1	5/24/23
14	T30634481	C3	5/24/23
15	T30634482	C3A	5/24/23
16	T30634483	C5	5/24/23
17	T30634484	C5A	5/24/23
18	T30634485	E7	5/24/23
19	T30634486	E7A	5/24/23
20	T30634487	H7	5/24/23
21	T30634488	H7A	5/24/23

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

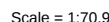
My license renewal date for the state of Florida is February 28, 2025.

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.



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

May 24,2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
3499167	A01	Hip Girder	1	1	T30634468
Job Reference (optional)					

- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 293 lb down and 278 lb up at 7-0-0, 82 lb down and 144 lb up at 9-0-12, 82 lb down and 144 lb up at 11-0-12, 82 lb down and 144 lb up at 13-0-12, 82 lb down and 144 lb up at 15-0-12, 82 lb down and 144 lb up at 17-0-12, 82 lb down and 144 lb up at 19-0-12, 82 lb down and 144 lb up at 21-0-12, 82 lb down and 144 lb up at 21-5-4, 82 lb down and 144 lb up at 23-5-4, 82 lb down and 144 lb up at 25-5-4, 82 lb down and 144 lb up at 27-5-4, 82 lb down and 144 lb up at 29-5-4, 82 lb down and 144 lb up at 31-5-4, and 82 lb down and 144 lb up at 33-5-4, and 293 lb down and 278 lb up at 35-6-0 on top chord, and 211 lb down and 154 lb up at 7-0-0, 37 lb down and 121 lb up at 9-0-12, 37 lb down and 121 lb up at 11-0-12, 37 lb down and 104 lb up at 13-0-12, 37 lb down and 67 lb up at 15-0-12, 37 lb down and 67 lb up at 17-0-12, 37 lb down and 67 lb up at 19-0-12, 37 lb down and 67 lb up at 21-0-12, 37 lb down and 67 lb up at 21-5-4, 37 lb down and 67 lb up at 23-5-4, 37 lb down and 67 lb up at 25-5-4, 37 lb down and 67 lb up at 27-5-4, 37 lb down and 104 lb up at 29-5-4, 37 lb down and 121 lb up at 31-5-4, and 37 lb down and 121 lb up at 33-5-4, and 211 lb down and 154 lb up at 35-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-7=-60, 7-9=-60, 20-23=-20
Concentrated Loads (lb)
Vert: 3=-111 (B), 5=-113 (B), 7=-111 (B), 18=16 (B), 11=16 (B), 26=-56 (B), 27=-56 (B), 29=-56 (B), 30=-56 (B), 31=-56 (B), 33=-56 (B), 34=-56 (B), 36=-56 (B), 37=-56 (B), 38=-56 (B), 40=-56 (B), 41=-56 (B), 42=-19 (B), 43=-19 (B), 44=-19 (B), 45=-19 (B), 46=-19 (B), 47=-19 (B), 48=-19 (B), 49=-19 (B), 50=-19 (B), 51=-19 (B), 52=-19 (B), 53=-19 (B), 54=-19 (B), 55=-19 (B)

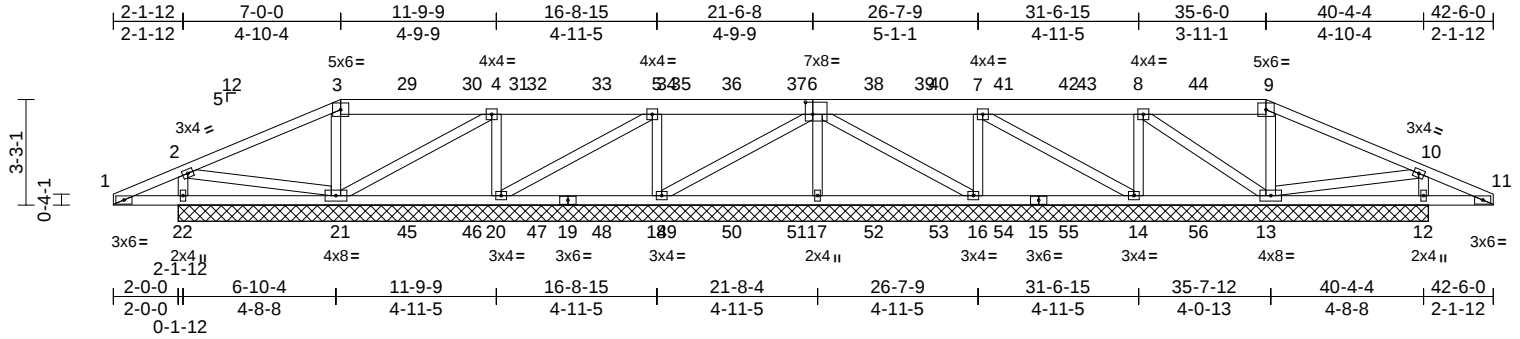
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	A01A	Hip Girder	1	2	T30634469

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:47

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Scale = 1:71

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

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	0.15	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.14	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.09	Horiz(TL)	0.00	12	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MSH							Weight: 481 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-6,6-9:2x6 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 6-0-0 oc bracing.

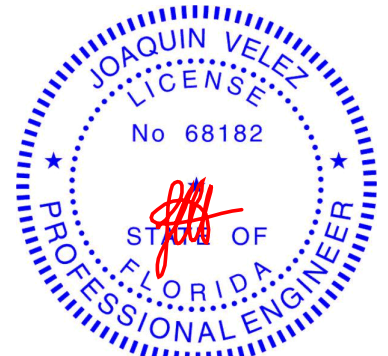
REACTIONS (size)
12=38-6-0, 13=38-6-0, 14=38-6-0,
16=38-6-0, 17=38-6-0, 18=38-6-0,
20=38-6-0, 21=38-6-0, 22=38-6-0
Max Horiz 22=-133 (LC 6)
Max Uplift 12=-268 (LC 30), 13=-862 (LC 8),
14=-809 (LC 5), 16=-909 (LC 8),
17=-957 (LC 5), 18=-885 (LC 8),
20=-911 (LC 4), 21=-935 (LC 8),
22=-395 (LC 30)
Max Grav 12=363 (LC 25), 13=520 (LC 14),
14=536 (LC 17), 16=607 (LC 18),
17=584 (LC 18), 18=588 (LC 17),
20=610 (LC 18), 21=557 (LC 13),
22=362 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-185/100, 2-3=-49/85, 3-4=-24/64,
4-5=-19/127, 5-7=-52/184, 7-8=-46/134,
8-9=-48/92, 9-10=-52/91, 10-11=-156/94
BOT CHORD 1-22=-47/164, 21-22=-142/203,
20-21=-37/109, 18-20=-12/72, 17-18=-98/97,
16-17=-66/77, 14-16=-4/70, 13-14=-10/103,
12-13=-41/138, 11-12=-41/138

WEBS
3-21=-441/591, 9-13=-402/531,
2-22=-295/418, 2-21=-105/84,
10-12=-290/343, 10-13=-91/107,
4-21=-61/93, 4-20=-453/629, 5-20=-38/65,
5-18=-407/578, 6-18=-74/132,
6-17=-426/619, 6-16=-47/98, 7-16=-437/623,
7-14=-27/54, 8-14=-395/553, 8-13=-41/82

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web 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=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 935 lb uplift at joint 21, 862 lb uplift at joint 13, 395 lb uplift at joint 22, 268 lb uplift at joint 12, 911 lb uplift at joint 20, 885 lb uplift at joint 18, 957 lb uplift at joint 17, 909 lb uplift at joint 16 and 809 lb uplift at joint 14.
- N/A



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

May 24,2023

Continued on page 2

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
3499167	A01A	Hip Girder	1	2	T30634469
			Job Reference (optional)		

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 288 lb down and 285 lb up at 7-0-0, 82 lb down and 144 lb up at 9-0-12, 82 lb down and 144 lb up at 11-0-12, 82 lb down and 144 lb up at 13-0-12, 82 lb down and 144 lb up at 15-0-12, 82 lb down and 144 lb up at 17-0-12, 82 lb down and 144 lb up at 19-0-12, 82 lb down and 144 lb up at 21-0-12, 82 lb down and 144 lb up at 21-5-4, 82 lb down and 144 lb up at 23-5-4, 82 lb down and 144 lb up at 25-5-4, 82 lb down and 144 lb up at 27-5-4, 82 lb down and 144 lb up at 29-5-4, 82 lb down and 144 lb up at 31-5-4, and 82 lb down and 144 lb up at 33-5-4, and 288 lb down and 285 lb up at 35-6-0 on top chord, and 27 lb down and 276 lb up at 7-0-0, 37 lb down and 121 lb up at 9-0-12, 37 lb down and 121 lb up at 11-0-12, 37 lb down and 121 lb up at 13-0-12, 37 lb down and 121 lb up at 15-0-12, 37 lb down and 121 lb up at 17-0-12, 37 lb down and 121 lb up at 19-0-12, 37 lb down and 121 lb up at 21-0-12, 37 lb down and 121 lb up at 21-5-4, 37 lb down and 121 lb up at 23-5-4, 37 lb down and 121 lb up at 25-5-4, 37 lb down and 121 lb up at 27-5-4, 37 lb down and 121 lb up at 29-5-4, 37 lb down and 121 lb up at 31-5-4, and 37 lb down and 121 lb up at 33-5-4, and 27 lb down and 276 lb up at 35-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

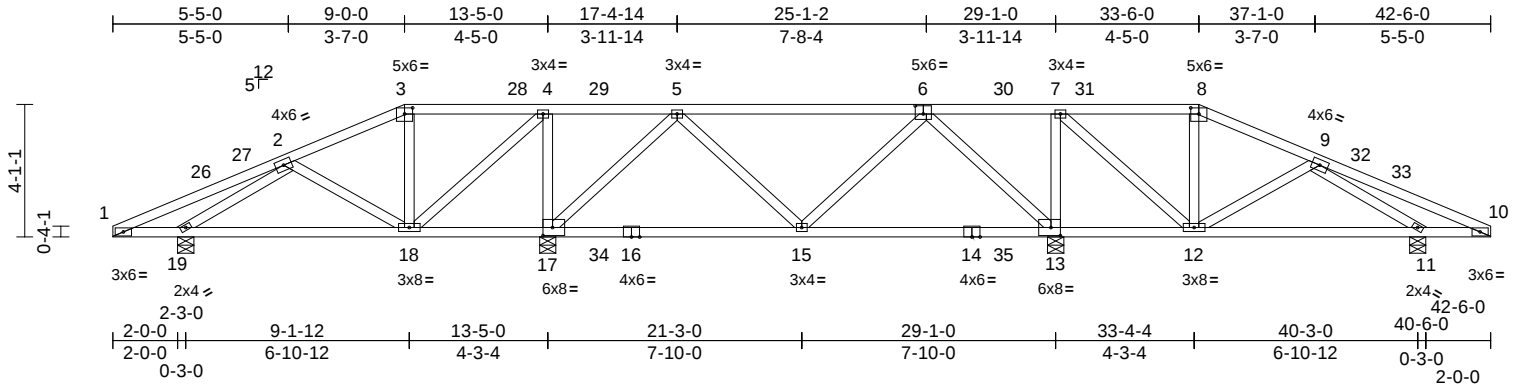
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (lb/ft)
- Vert: 1-3=-60, 3-9=-60, 9-11=-60, 23-26=-20
- Concentrated Loads (lb)
- Vert: 3=-113 (F), 6=-56 (F), 9=-113 (F), 21=16 (F), 13=16 (F), 17=-19 (F), 14=-19 (F), 8=-56 (F), 29=-56 (F), 30=-56 (F), 32=-56 (F), 33=-56 (F), 34=-56 (F), 36=-56 (F), 37=-56 (F), 38=-56 (F), 40=-56 (F), 41=-56 (F), 42=-56 (F), 44=-56 (F), 45=-19 (F), 46=-19 (F), 47=-19 (F), 48=-19 (F), 49=-19 (F), 50=-19 (F), 51=-19 (F), 52=-19 (F), 53=-19 (F), 54=-19 (F), 55=-19 (F), 56=-19 (F)

Job 3499167	Truss A02	Truss Type Hip	Qty 1	Ply 1	Job Reference (optional) T30634470
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Page: 1



Scale = 1:71.1

Plate Offsets (X, Y): [3:0-3-0,0-2-4], [6:0-3-0,0-3-0], [8:0-3-0,0-2-4], [13:0-3-8,0-3-0], [17:0-3-8,0-3-0]

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	0.58	Vert(LL)	0.31	15-17	>598	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.92	Vert(CT)	0.28	15-17	>675	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 221 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 16-14:2x4 SP No.1
WEBS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 11=0-6-0, 13=0-6-0, 17=0-6-0,
19=0-6-0
Max Horiz 19=172 (LC 11)
Max Uplift 11=-321 (LC 12), 13=-1340 (LC 12), 17=-1337 (LC 12), 19=-436 (LC 12)
Max Grav 11=518 (LC 1), 13=1198 (LC 22), 17=1200 (LC 21), 19=517 (LC 1)

FORCES

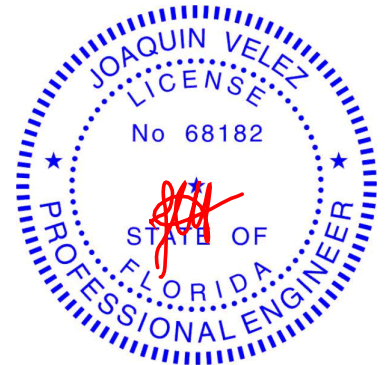
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-527/157, 2-3=-261/51, 3-4=-244/85, 4-5=-424/306, 5-7=-416/1238, 7-8=-255/102, 8-9=-298/68, 9-10=-527/157
BOT CHORD 1-19=-96/595, 18-19=-64/469, 17-18=-309/747, 15-17=-327/237, 13-15=-353/245, 12-13=-307/751, 11-12=-99/375, 10-11=-96/596
WEBS 2-18=-219/388, 3-18=-180/346, 7-12=-461/558, 8-12=-179/346, 9-12=-216/387, 2-19=-474/565, 9-11=-498/562, 4-17=-589/599, 4-18=-466/583, 7-13=-592/605, 5-17=-707/1482, 5-15=-817/244, 6-15=-796/237, 6-13=-709/1493

NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 9-0-0, Exterior(2R) 9-0-0 to 15-0-2, Interior (1) 15-0-2 to 33-6-0, Exterior(2R) 33-6-0 to 39-6-2, Interior (1) 39-6-2 to 42-6-0 zone; cantilever left and right exposed ; porch exposed 13-5-0 to 29-1-0 ; 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 436 lb uplift at joint 19, 321 lb uplift at joint 11, 1337 lb uplift at joint 17 and 1340 lb uplift at joint 13.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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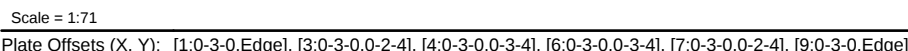
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



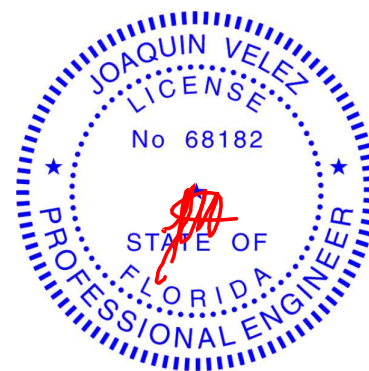
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Chesterfield, MO 63017

Builders FirstSource (Plant City, FL), Plant City, FL - 33567, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:48 Page: 1
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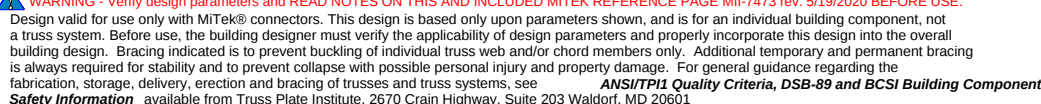
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1) Unbalanced roof live loads have been considered for this design.

LOAD CASE(S) Standard



May 24.2023



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Chesterfield, MO 63017

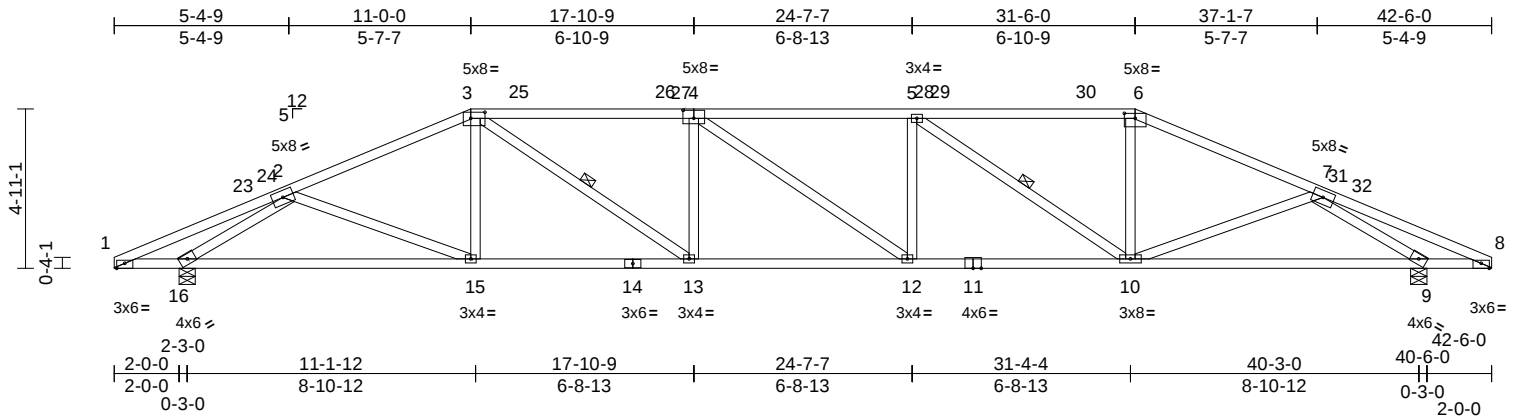
Job	Truss	Truss Type	Qty	Ply	
3499167	A03	Hip	2	1	T30634472
Job Reference (optional)					

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

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Scale = 1:71.1

Plate Offsets (X, Y): [1:0-3-0,Edge], [3:0-5-4,0-2-4], [4:0-4-0,0-3-0], [6:0-4-0,0-1-13], [8:0-3-0,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	0.80	Vert(LL)	0.45	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.50	12-13	>933	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 220 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.
WEBS 1 Row at midpt 3-13, 5-10

REACTIONS

(size) 9=0-6-0, 16=0-6-0
Max Horiz 16=210 (LC 11)
Max Uplift 9=-1234 (LC 12), 16=-1348 (LC 12)
Max Grav 9=1700 (LC 1), 16=1700 (LC 1)

FORCES

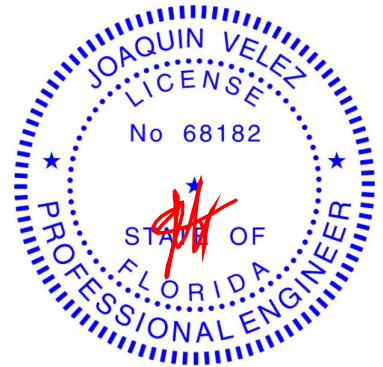
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-588/52, 2-3=-2571/2020,
3-5=-3167/2612, 5-6=-2386/1968,
6-7=-2571/2019, 7-8=-587/52
BOT CHORD 1-16=0/648, 15-16=-1547/2067,
13-15=-1566/2315, 12-13=-2212/3132,
10-12=-2224/3131, 9-10=-1535/2031,
8-9=0/647
WEBS 2-15=-151/443, 3-15=0/210, 3-13=-806/1067,
4-13=-468/522, 4-12=-104/103, 5-12=0/255,
5-10=-1051/795, 6-10=-306/611,
7-10=-151/443, 2-16=-2452/2551,
7-9=-2451/2550

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to
4-3-0, Interior (1) 4-3-0 to 11-0-0, Exterior(2R) 11-0-0 to
17-0-2, Interior (1) 17-0-2 to 31-6-0, Exterior(2R) 31-6-0
to 37-6-2, Interior (1) 37-6-2 to 42-6-0 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.
- 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
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 1348 lb uplift at
joint 16 and 1234 lb uplift at joint 9.
- This truss design requires that a minimum of 7/16"
structural wood sheathing be applied directly to the top
chord and 1/2" gypsum sheetrock be applied directly to
the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

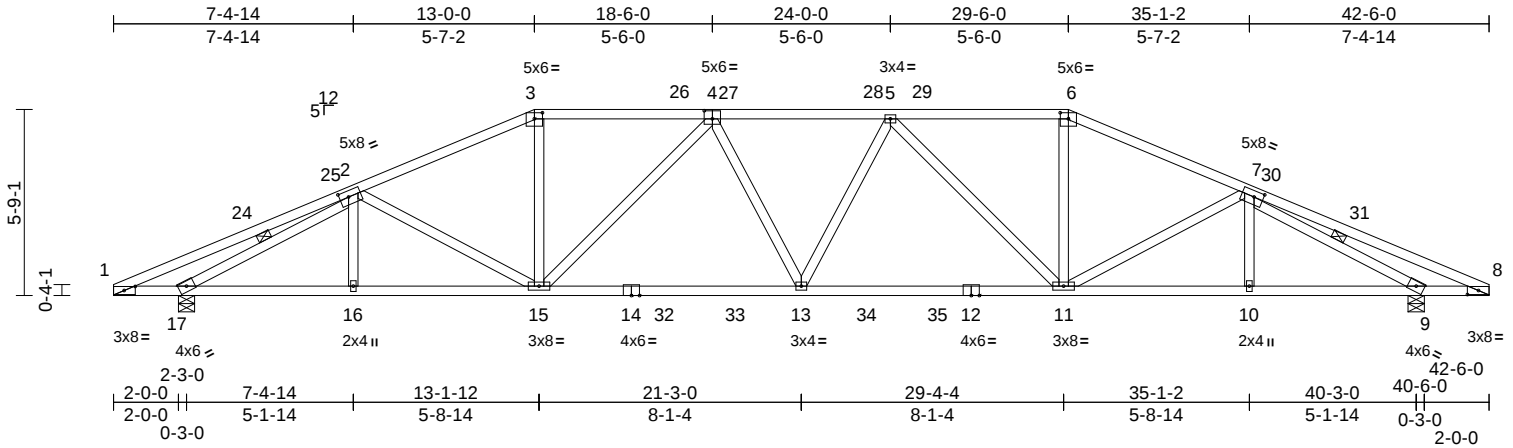
Job	Truss	Truss Type	Qty	Ply	
3499167	A04	Hip	2	1	T30634473
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:48

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Scale = 1:71.2

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

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	0.68	Vert(LL)	0.37	13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.51	11-13	>901	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 229 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 14-12:2x4 SP No.1
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-17, 7-9

REACTIONS

(size) 9=0-6-0, 17=0-6-0
Max Horiz 17=248 (LC 11)
Max Uplift 9=-1234 (LC 12), 17=-1346 (LC 12)
Max Grav 9=1892 (LC 18), 17=1892 (LC 17)

FORCES

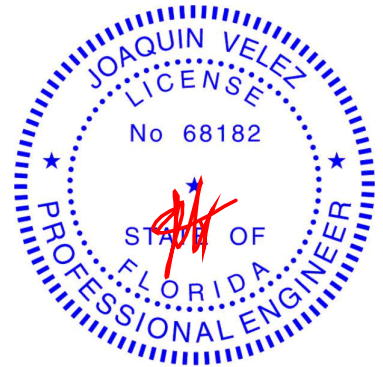
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-289/90, 2-3=-2800/2034, 3-5=-3057/2294, 5-6=-2565/1978, 6-7=-2800/2034, 7-8=-288/129
BOT CHORD 1-17=-10/363, 16-17=-1694/2818, 15-16=-1695/2817, 13-15=-1866/3053, 11-13=-1877/2987, 10-11=-1683/2632, 9-10=-1682/2633, 8-9=-15/363
WEBS 2-16=0/183, 2-15=-194/206, 3-15=-381/773, 4-15=-745/534, 4-13=-3/265, 5-13=-3/265, 5-11=-745/534, 6-11=-381/773, 7-11=-195/214, 7-10=0/183, 2-17=-2831/2282, 7-9=-2833/2282

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 13-0-0, Exterior(2R) 13-0-0 to 19-0-2, Interior (1) 19-0-2 to 29-6-0, Exterior(2R) 29-6-0 to 35-6-2, Interior (1) 35-6-2 to 42-6-0 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
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1346 lb uplift at joint 17 and 1234 lb uplift at joint 9.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

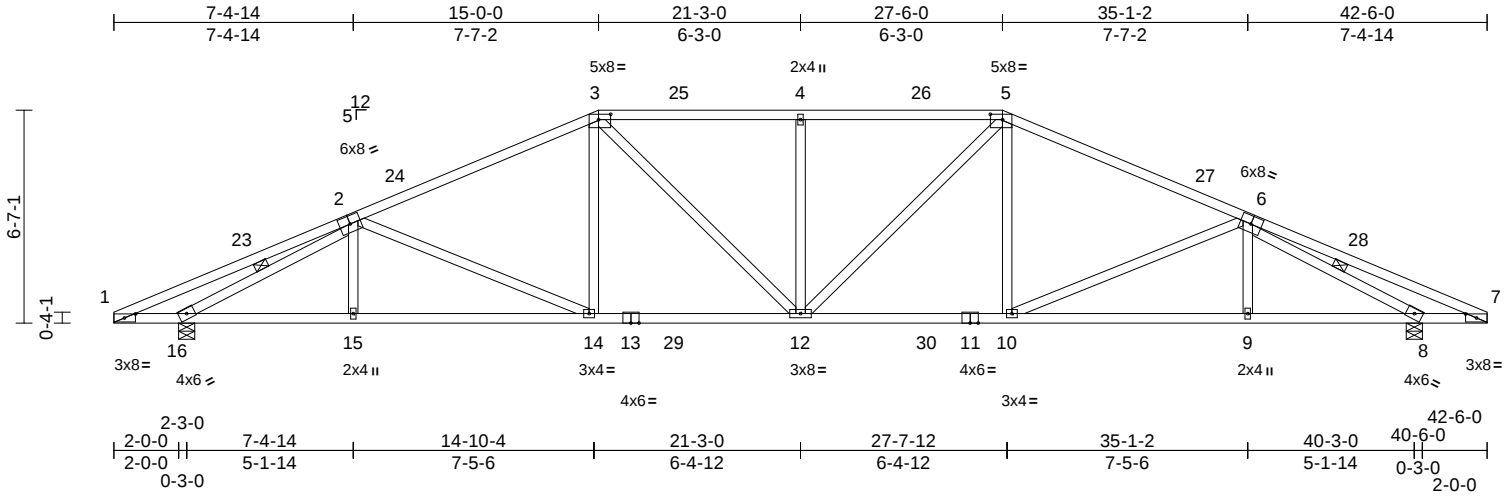
Job	Truss	Truss Type	Qty	Ply	
3499167	A05	Hip	2	1	T30634474
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:49

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Scale = 1:71.3

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

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	0.91	Vert(LL)	0.34	12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.41	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.16	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 232 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.
WEBS 1 Row at midpt 2-16, 6-8

REACTIONS

(size) 8=0-6-0, 16=0-6-0
Max Horiz 16=-286 (LC 10)
Max Uplift 8=-1234 (LC 12), 16=-1346 (LC 12)
Max Grav 8=1896 (LC 18), 16=1896 (LC 17)

FORCES

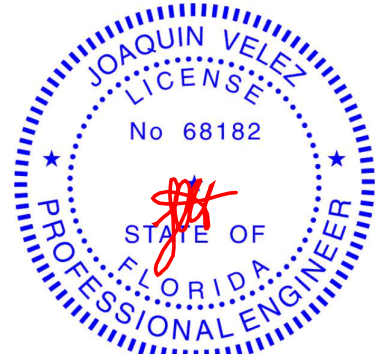
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-2697/1989, 3-4=-2667/2146,
4-5=-2667/2146, 5-7=-2697/1989
BOT CHORD 1-16=-5397, 15-16=-1741/2898,
14-15=-1735/2907, 12-14=-1447/2552,
10-12=-1435/2393, 9-10=-1723/2694,
8-9=-1730/2684, 7-8=-7/397
WEBS 2-15=0/247, 2-14=-372/313, 3-14=-44/436,
3-12=-297/522, 4-12=-395/474,
5-12=-297/521, 5-10=-51/437,
6-10=-373/335, 6-9=0/247, 2-16=-2965/2387,
6-8=-2967/2387

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.Opsf; h=25ft;
B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to
4-3-0, Interior (1) 4-3-0 to 15-0-0, Exterior(2R) 15-0-0 to
21-3-0, Interior (1) 21-3-0 to 27-6-0, Exterior(2R) 27-6-0
to 33-6-2, Interior (1) 33-6-2 to 42-6-0 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.
- 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 3-06-00 tall by 2-00-00 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 1346 lb uplift at joint 16 and 1234 lb uplift at joint 8.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

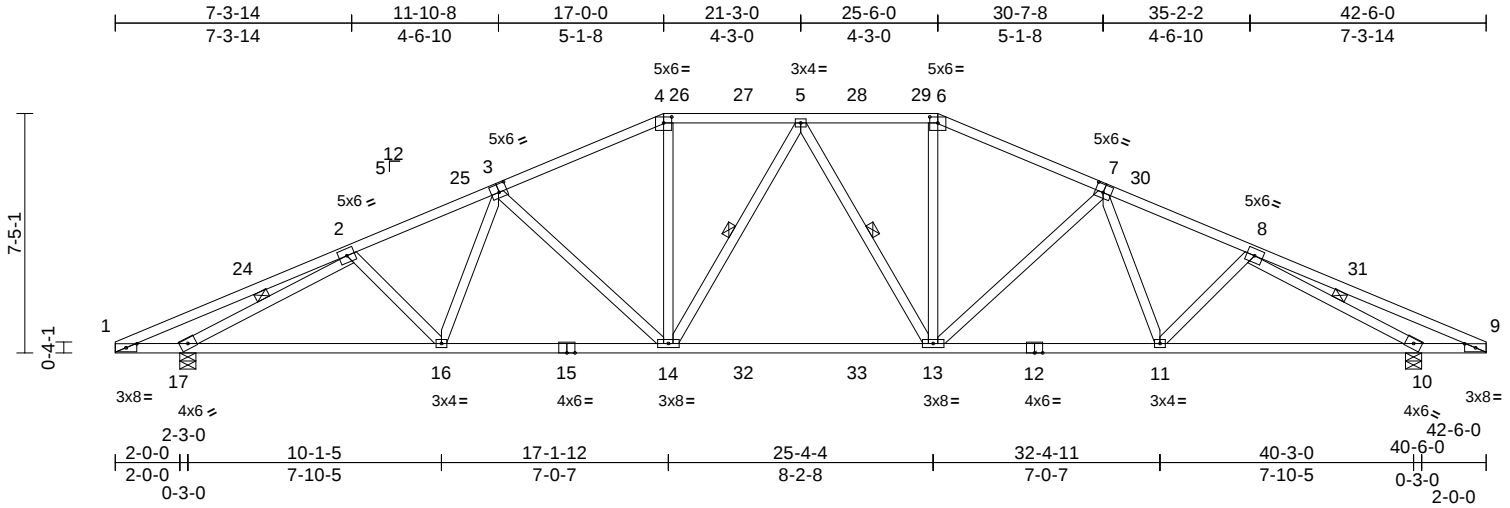
Job	Truss	Truss Type	Qty	Ply	
3499167	A06	Hip	2	1	T30634475
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:49

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Scale = 1:71.4

Plate Offsets (X, Y): [1:0-4-2,0-1-8], [3:0-3-0,0-3-0], [4:0-3-0,0-2-4], [6:0-3-0,0-2-4], [7:0-3-0,0-3-0], [9:0-4-2,0-1-8]

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	0.60	0.31	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.53	13-14	>867		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.15	10	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS						Weight: 240 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.
WEBS 1 Row at midpt 5-14, 5-13, 2-17, 8-10

REACTIONS

(size) 10=0-6-0, 17=0-6-0
Max Horiz 17=-324 (LC 10)
Max Uplift 10=-1234 (LC 12), 17=-1346 (LC 12)
Max Grav 10=1881 (LC 18), 17=1881 (LC 17)

FORCES

(lb) - Maximum Compression/Maximum Tension

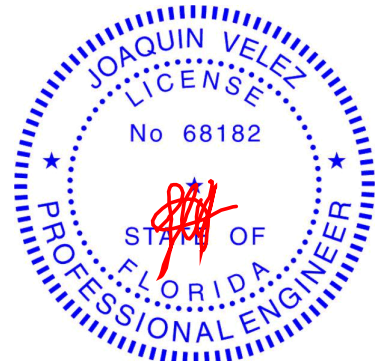
TOP CHORD 1-2=-351/62, 2-4=-2893/2087, 4-5=-2240/1891, 5-6=-2240/1891, 6-8=-2893/2088, 8-9=-351/62
BOT CHORD 1-17=-3/472, 16-17=-1697/2795, 14-16=-1631/2739, 13-14=-1389/2357, 11-13=-1620/2512, 10-11=-1685/2552, 9-10=-7/472
WEBS 2-16=-46/205, 3-16=-9/227, 3-14=-524/455, 4-14=-375/686, 5-14=-290/225, 5-13=-290/225, 6-13=-374/686, 7-13=-525/455, 7-11=-21/226, 8-11=-45/206, 2-17=-2685/2437, 8-10=-2686/2436

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 17-0-0, Exterior(2R) 17-0-0 to 23-0-2, Interior (1) 23-0-2 to 25-6-0, Exterior(2R) 25-6-0 to 31-6-2, Interior (1) 31-6-2 to 42-6-0 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.
- 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 3-06-00 tall by 2-00-00 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 1346 lb uplift at joint 17 and 1234 lb uplift at joint 10.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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



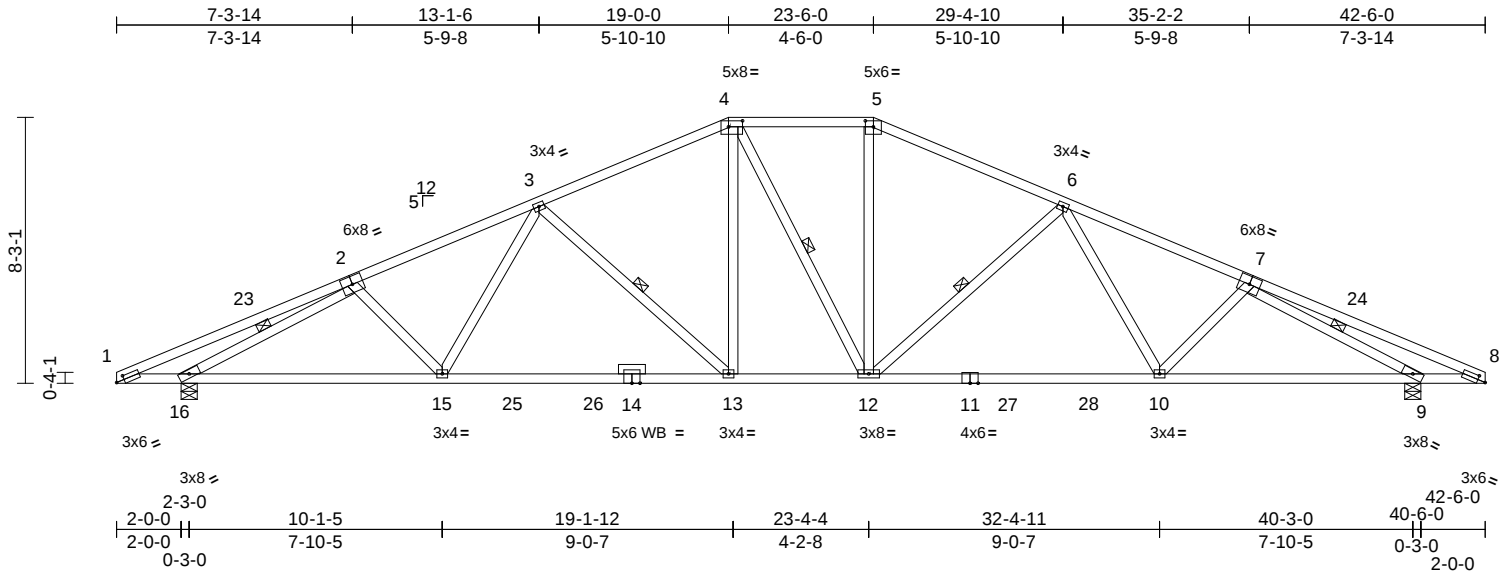
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	A07	Hip	2	1	T30634476

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

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Page: 1



Scale = 1:71.6

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

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	0.67	Vert(LL)	-0.32	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.59	13-15	>780	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 239 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1 *Except* 14-11:2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-13, 4-12, 6-12, 2-16, 7-9

REACTIONS

(size)	9=0-6-0, 16=0-6-0
Max Horiz	16=362 (LC 10)
Max Uplift	9=-1237 (LC 12), 16=-1237 (LC 12)
Max Grav	9=1966 (LC 18), 16=1966 (LC 17)

FORCES

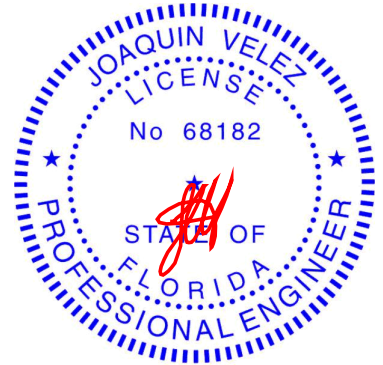
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-3=-2911/2122, 3-4=-2291/1878, 4-5=-2071/1839, 5-6=-2292/1878, 6-8=-2911/2122
BOT CHORD	1-16=-1/157, 15-16=-1768/2841, 13-15=-1624/2669, 12-13=-1189/2179, 10-12=-1613/2446, 9-10=-1757/2571, 8-9=-1/157
WEBS	2-15=-58/234, 3-15=-44/371, 3-13=-680/597, 4-13=-331/698, 4-12=-254/256, 5-12=-341/623, 6-12=-679/596, 6-10=-43/370, 7-10=-58/234, 2-16=-2857/2139, 7-9=-2857/2139

NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 19-0-0, Exterior(2E) 19-0-0 to 23-6-0, Exterior(2R) 23-6-0 to 29-4-10, Interior (1) 29-4-10 to 42-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 3-06-00 tall by 2-00-00 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 1237 lb uplift at joint 16 and 1237 lb uplift at joint 9.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

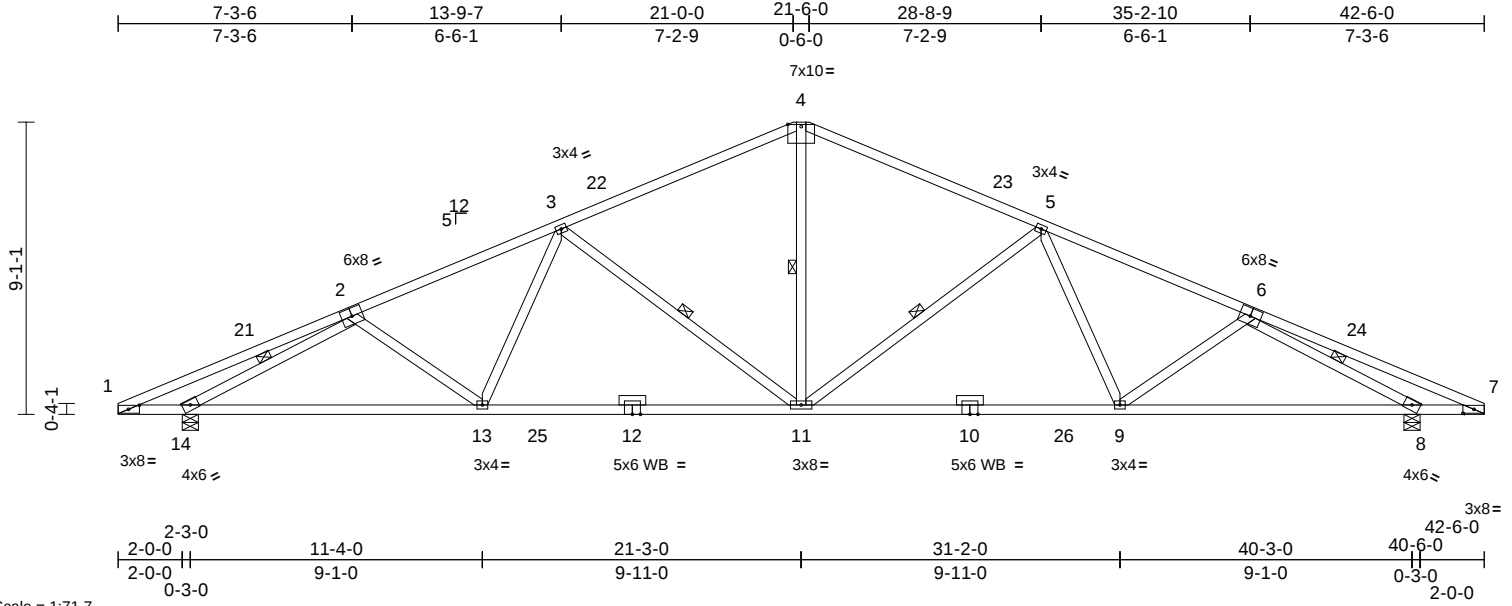
Job	Truss	Truss Type	Qty	Ply	
3499167	A08	Hip	2	1	T30634477
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:50

Page: 1

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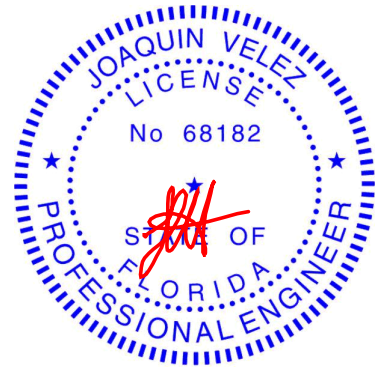
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Plate Offsets (X, Y): [1:0-4-2,0-1-8], [7:0-4-2,0-1-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.80	Vert(LL)	0.32 11-13	>999	240
TCDL	10.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.57 11-13	>808	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.13 8	n/a	n/a
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS					
Weight: 225 lb FT = 20%									

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-11, 5-11, 3-11, 2-14, 6-8
REACTIONS	
(size)	8=0-6-0, 14=0-6-0
Max Horiz	14=-403 (LC 10)
Max Uplift	8=-1234 (LC 12), 14=-1346 (LC 12)
Max Grav	8=1887 (LC 19), 14=1887 (LC 20)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-3=-2874/1945, 3-4=-2159/1669, 4-5=-2161/1670, 5-7=-2875/1945
BOT CHORD	1-14=0/502, 13-14=-1622/2856, 11-13=-1473/2676, 9-11=-1462/2457, 8-9=-1623/2556, 7-8=0/502
WEBS	4-11=-700/1225, 5-11=-863/685, 5-9=-21/407, 6-9=-92/262, 3-11=-866/688, 3-13=-10/407, 2-13=-93/248, 2-14=-2705/2425, 6-8=-2704/2424

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 21-2-10, Exterior(2R) 21-2-10 to 27-2-12, Interior (1) 27-2-12 to 42-6-0 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 3-06-00 tall by 2-00-00 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 1346 lb uplift at joint 14 and 1234 lb uplift at joint 8.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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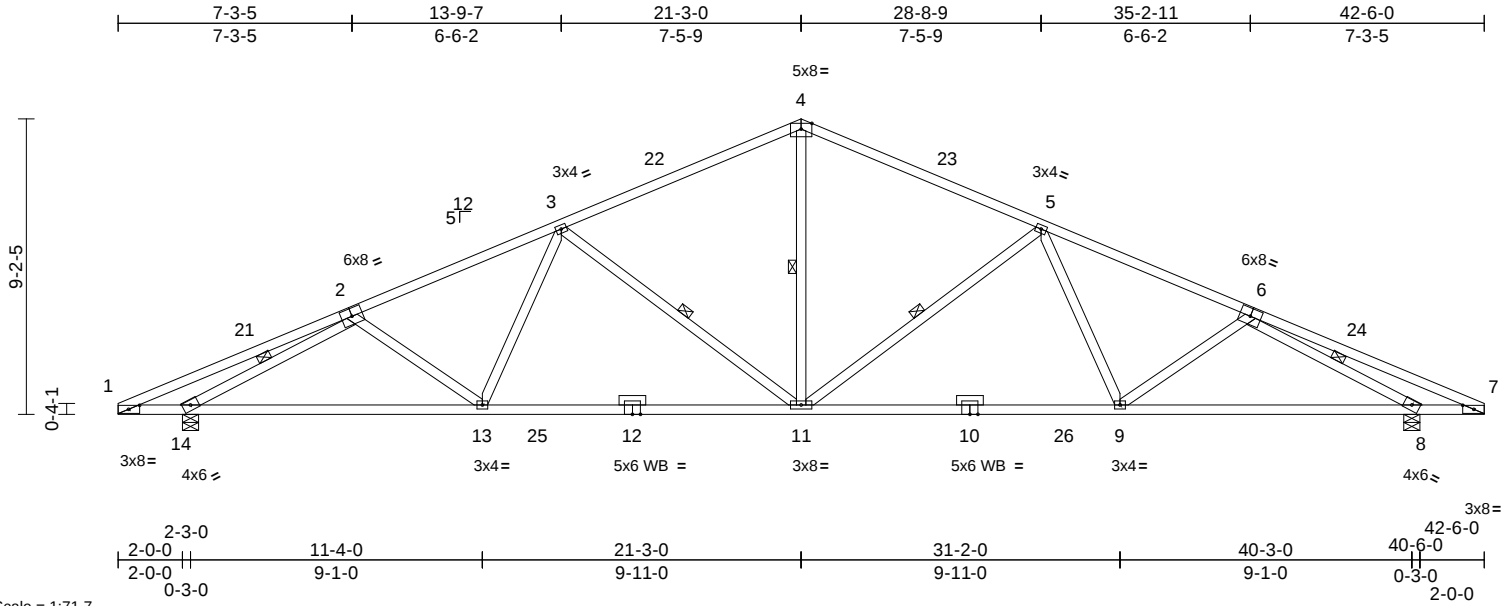
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	A09	Common	4	1	T30634478

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:50
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Page: 1



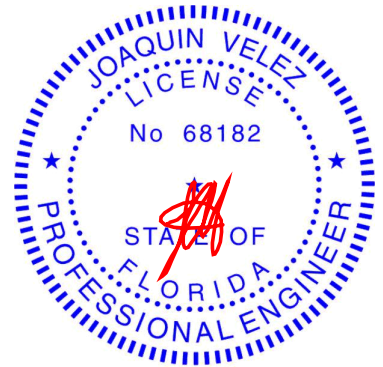
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Plate Offsets (X, Y): [1:0-4-2,0-1-8], [7:0-4-2,0-1-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.84	Vert(LL)	0.32 11-13	>999	240
TCDL	10.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.57 11-13	>808	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.13 8	n/a	n/a
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS					
					Weight: 225 lb FT = 20%				

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-11, 5-11, 3-11, 2-14, 6-8
REACTIONS	
(size)	8=0-6-0, 14=0-6-0
Max Horiz	14=404 (LC 11)
Max Uplift	8=-1234 (LC 12), 14=-1346 (LC 12)
Max Grav	8=1887 (LC 19), 14=1887 (LC 20)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-3=-2875/1996, 3-4=-2158/1725, 4-5=-2158/1725, 5-7=-2875/1996
BOT CHORD	1-14=0/500, 13-14=-1665/2857, 11-13=-1525/2677, 9-11=-1496/2457, 8-9=-1637/2555, 7-8=0/500
WEBS	4-11=-706/1231, 5-11=-869/688, 5-9=-21/407, 6-9=-93/262, 3-11=-868/688, 3-13=-9/407, 2-13=-92/247, 2-14=-2705/2470, 6-8=-2705/2470

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior (1) 25-6-0 to 42-6-0 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 3-06-00 tall by 2-00-00 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 1346 lb uplift at joint 14 and 1234 lb uplift at joint 8.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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

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



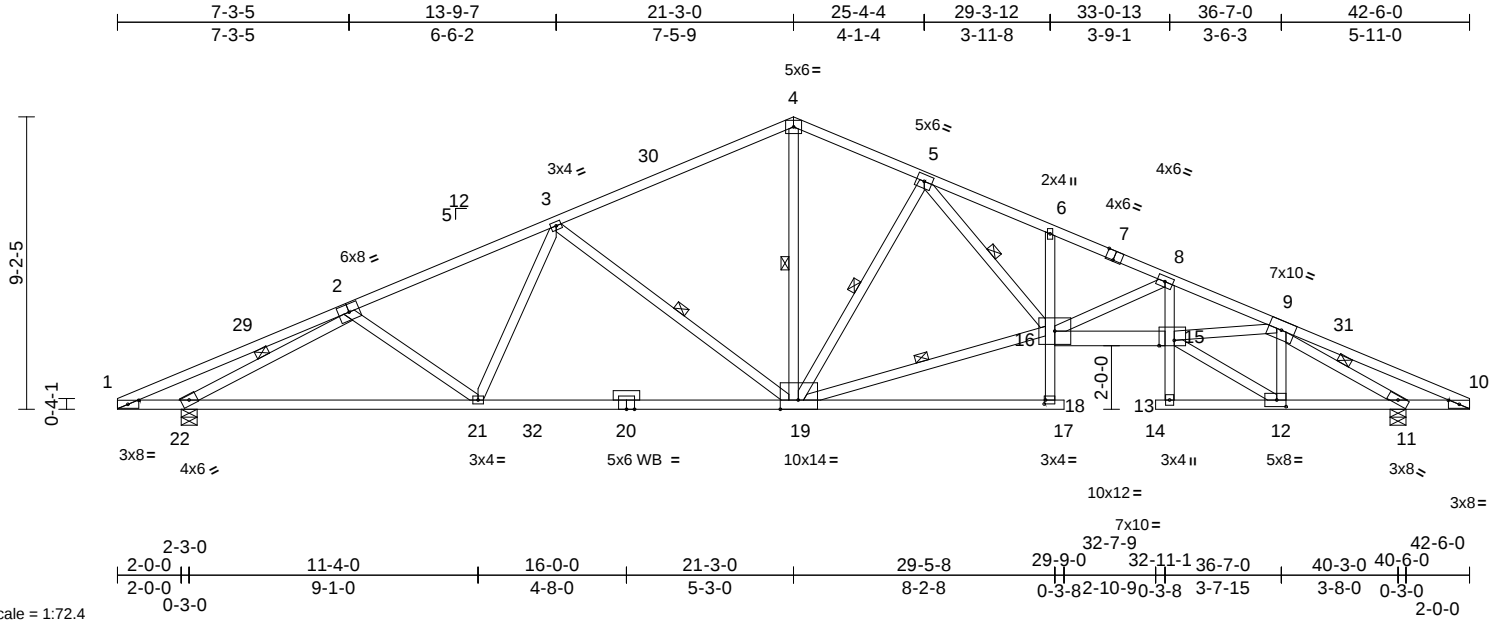
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
3499167	A10	Roof Special	1	1	T30634479
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:51
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Page: 1



Scale = 1:72.4

Plate Offsets (X, Y): [1:0-4-2,0-1-8], [7:0-3-0,Edge], [10:0-4-2,0-1-8], [12:0-3-8,0-2-8], [15:0-5-12,Edge], [18:0-0-8,0-1-8], [19:0-6-12,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	0.87	0.59	17	>788	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.97	-0.84	19-21	>549	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	0.33	11	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS						Weight: 260 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1 *Except* 18-6:2x4 SP No.3, 16-15:2x6 SP No.2, 8-13,14-10:2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 9-15:2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 16-18, 13-15
WEBS	1 Row at midpt 3-19, 4-19, 5-19, 16-19, 5-16, 2-22, 9-11

REACTIONS	(size) 11=0-6-0, 22=0-6-0
	Max Horiz 22=404 (LC 11)
	Max Uplift 11=-1227 (LC 12), 22=-1343 (LC 12)
	Max Grav 11=1881 (LC 19), 22=1879 (LC 20)

FORCES

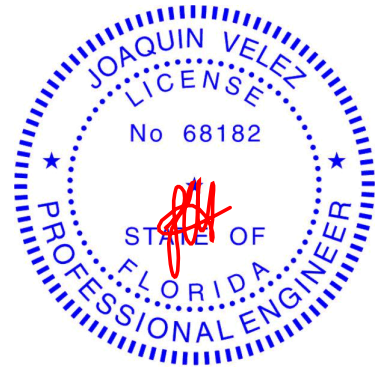
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-3=-2865/1985, 3-4=-2113/1696, 4-5=-2104/1754, 5-6=-4235/3045, 6-8=-4264/2923, 8-9=-5962/3854, 9-10=-315/73
BOT CHORD	1-22=0/498, 21-22=-1657/2847, 19-21=-1520/2661, 18-19=-47/153, 17-18=0/0, 16-18=0/154, 6-16=-256/341, 15-16=-3313/5509, 13-15=-20/120, 8-15=-689/1342, 13-14=0/0, 12-13=-113/177, 11-12=-1456/2421, 10-11=-16/418
WEBS	2-21=-92/243, 3-21=-6/426, 3-19=-891/706, 4-19=-833/1274, 5-19=-1391/1054, 16-19=-1445/2437, 5-16=-1389/2271, 8-16=-1866/1141, 9-15=-1815/3021, 2-22=-2709/2454, 9-12=-1376/992, 12-15=-1624/2693, 9-11=-2784/2185

NOTES

- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 4-3-0, Interior (1) 4-3-0 to 21-3-0, Exterior(2R) 21-3-0 to 25-4-4, Interior (1) 25-4-4 to 42-6-0 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 3-06-00 tall by 2-00-00 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 1343 lb uplift at joint 22 and 1227 lb uplift at joint 11.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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

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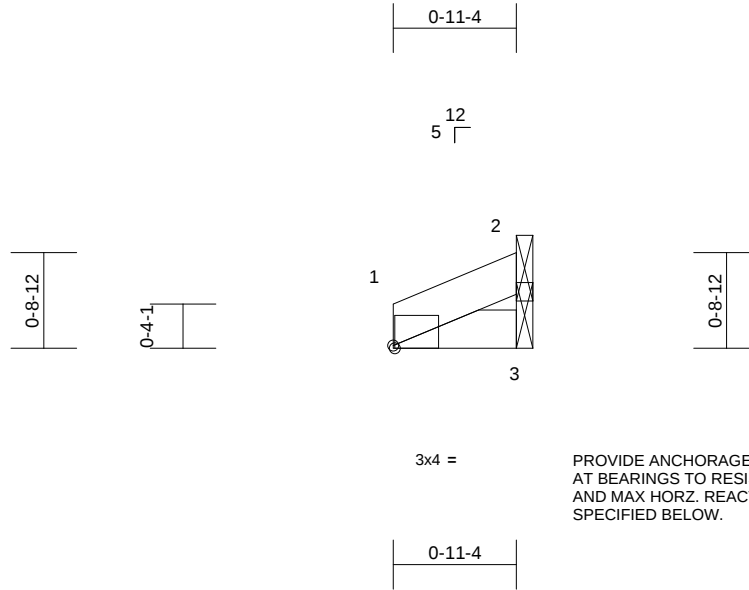
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
3499167	C1	Jack-Open	8	1	T30634480
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:51
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Page: 1



3x4 = PROVIDE ANCHORAGE, DESIGNED BY OTHERS,
AT BEARINGS TO RESIST MAX. UPLIFT
AND MAX HORZ. REACTIONS
SPECIFIED BELOW.

Scale = 1:17.5

Plate Offsets (X, Y): [1:0-0-2,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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 3 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
0-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
bracing.

REACTIONS (size) 2= Mechanical, 3= Mechanical
Max Horiz 2=-99 (LC 12), 3=129 (LC 12)
Max Uplift 3=-104 (LC 12)
Max Grav 3=74 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=-301/75
BOT CHORD 1-3=-82/393

NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 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
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 104 lb uplift at
joint 3.



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

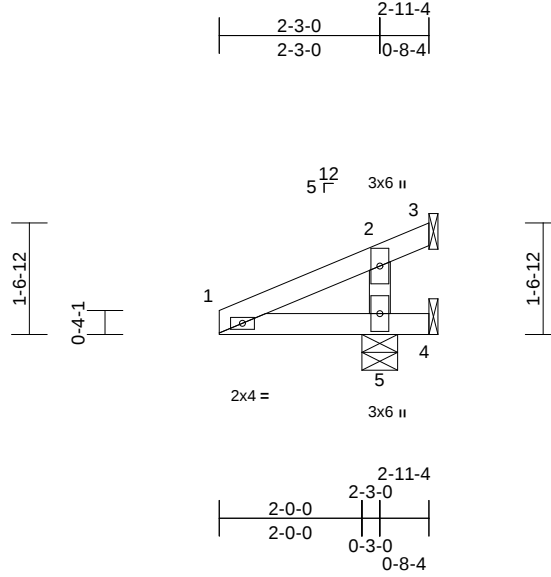
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	C3	Jack-Open	4	1	T30634481

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:51

Page: 1

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Scale = 1:32.3

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	0.56	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.05	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 3, 163 lb uplift at joint 4 and 632 lb uplift at joint 5.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

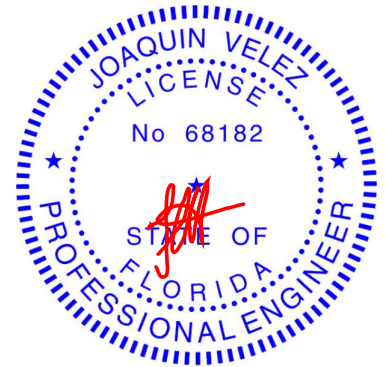
REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-6-0
Max Horiz 5=94 (LC 12)
Max Uplift 3=-136 (LC 1), 4=-163 (LC 1), 5=-632 (LC 12)
Max Grav 3=148 (LC 12), 4=195 (LC 12), 5=529 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-195/60, 2-3=-67/196
BOT CHORD 1-5=-84/209, 4-5=0/0
WEBS 2-5=-272/1001

NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.



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

May 24, 2023

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

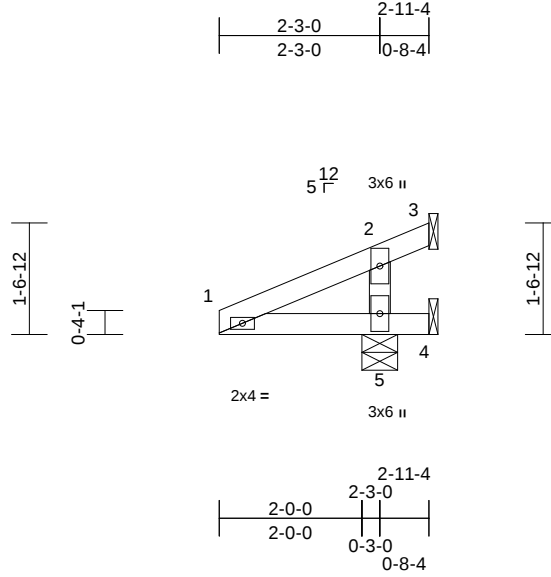
Job	Truss	Truss Type	Qty	Ply	
3499167	C3A	Jack-Open	4	1	T30634482
Job Reference (optional)					

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:52

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Scale = 1:32.3

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	0.56	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.05	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 3, 163 lb uplift at joint 4 and 649 lb uplift at joint 5.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

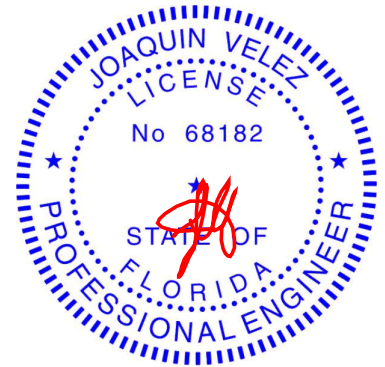
REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-6-0
Max Horiz 5=94 (LC 12)
Max Uplift 3=-136 (LC 1), 4=-163 (LC 1), 5=-649 (LC 12)
Max Grav 3=147 (LC 12), 4=178 (LC 12), 5=529 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-195/61, 2-3=-67/195
BOT CHORD 1-5=-84/209, 4-5=0/0
WEBS 2-5=-272/997

NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust) Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left exposed ; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.



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

May 24,2023

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

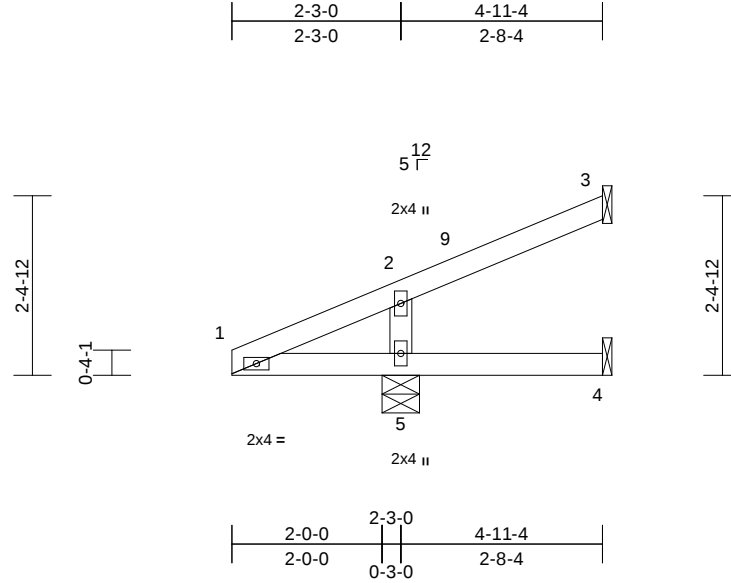
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	C5	Jack-Open	4	1	T30634483

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

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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	0.57	Vert(LL)	-0.02	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.07	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 17 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-6-0
Max Horiz 5=160 (LC 12)
Max Uplift 3=-68 (LC 12), 4=-8 (LC 1), 5=-374 (LC 12)
Max Grav 3=55 (LC 17), 4=37 (LC 12), 5=362 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

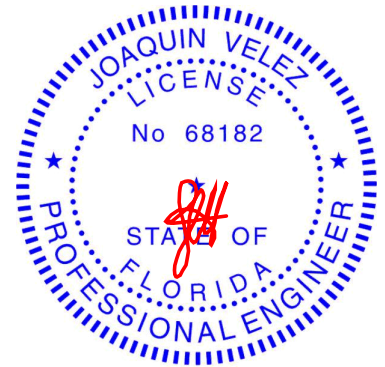
TOP CHORD 1-2=-357/127, 2-3=-62/43
BOT CHORD 1-5=-143/341, 4-5=0/0
WEBS 2-5=-264/767

NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-10-8 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 68 lb uplift at joint 3, 8 lb uplift at joint 4 and 374 lb uplift at joint 5.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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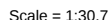
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



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Chesterfield, MO 63017

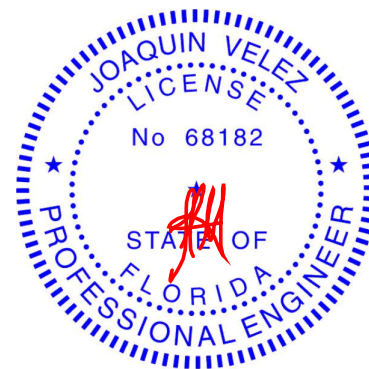
Builders FirstSource (Plant City, FL), Plant City, FL - 33567, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:52 Page: 1
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LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
REACTIONS	
(size)	3= Mechanical, 4= Mechanical, 5=0-6-0
Max Horiz	5=160 (LC 12)
Max Uplift	3=-74 (LC 12), 4=-59 (LC 15), 5=-446 (LC 12)
Max Grav	3=51 (LC 17), 4=21 (LC 3), 5=362 (LC 1)
FORCES	
(lb) -	Maximum Compression/Maximum Tension
TOP CHORD	1-2=-337/132, 2-3=-70/41
BOT CHORD	1-5=-143/341, 4-5=0/0
WEBS	2-5=-284/707

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 3, 59 lb uplift at joint 4 and 446 lb uplift at joint 5.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



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

May 24, 2023



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



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Chesterfield, MO 63017

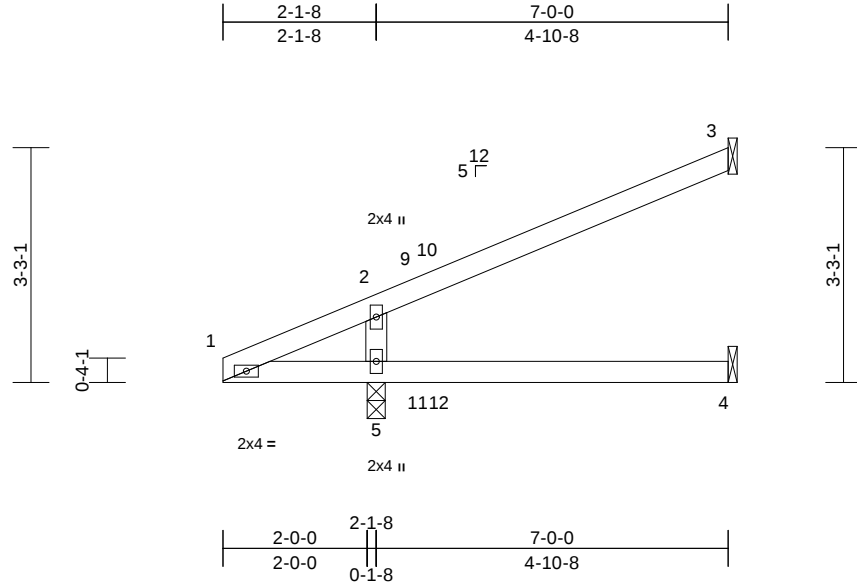
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	E7	Jack-Open	8	1	T30634485

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Scale = 1:31.9

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	0.85	Vert(LL)	0.18	4-5	>321	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	0.17	4-5	>340	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	-0.09	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 23 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.

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-0
Max Horiz 5=227 (LC 12)
Max Uplift 3=-185 (LC 12), 4=-109 (LC 9),
5=-493 (LC 12)
Max Grav 3=116 (LC 1), 4=77 (LC 3), 5=400
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

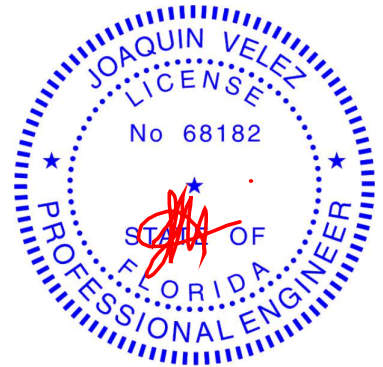
TOP CHORD 1-2=-409/215, 2-3=-173/73
BOT CHORD 1-5=-184/415, 4-5=0/0
WEBS 2-5=-456/675

NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to
3-0-0, Interior (1) 3-0-0 to 6-11-4 zone; cantilever left
exposed ; porch left exposed;C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 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 at joint(s) 5.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 185 lb uplift at
joint 3, 109 lb uplift at joint 4 and 493 lb uplift at joint 5.
- 8) This truss design requires that a minimum of 7/16"
structural wood sheathing be applied directly to the top
chord and 1/2" gypsum sheetrock be applied directly to
the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

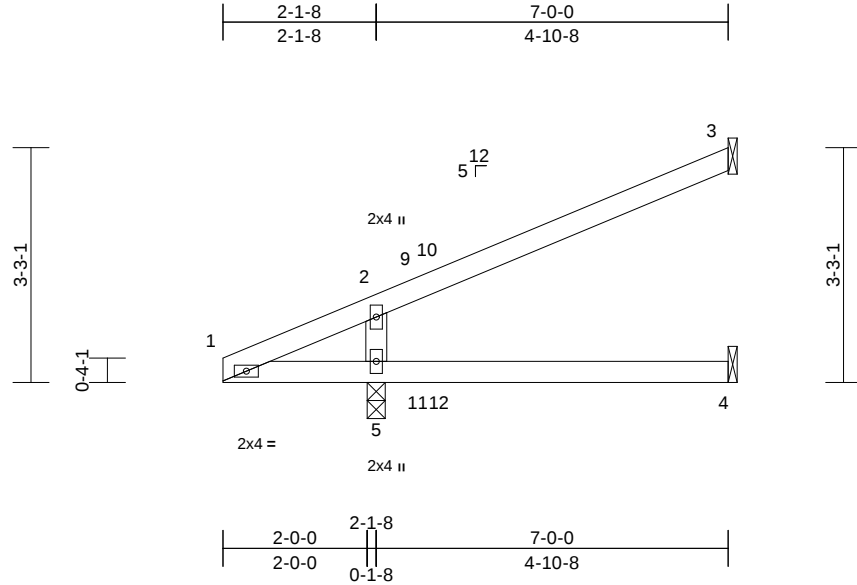
Job	Truss	Truss Type	Qty	Ply	
3499167	E7A	Jack-Open	24	1	T30634486
Job Reference (optional)					

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

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Scale = 1:31.9

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	0.85	Vert(LL)	0.18	4-5	>321	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	0.17	4-5	>340	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	-0.09	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 23 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.

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-0
Max Horiz 5=227 (LC 12)
Max Uplift 3=-185 (LC 12), 4=-109 (LC 9),
5=-493 (LC 12)
Max Grav 3=116 (LC 1), 4=77 (LC 3), 5=400 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

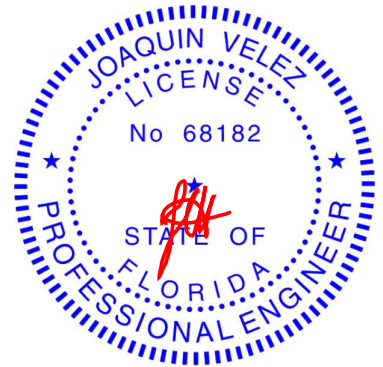
TOP CHORD 1-2=-409/215, 2-3=-173/73
BOT CHORD 1-5=-184/415, 4-5=0/0
WEBS 2-5=-456/675

NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional) and C-C Exterior(2E) 0-0-0 to
3-0-0, Interior (1) 3-0-0 to 6-11-4 zone; cantilever left
exposed ; porch left exposed;C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 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 at joint(s) 5.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 185 lb uplift at
joint 3, 109 lb uplift at joint 4 and 493 lb uplift at joint 5.
- 8) This truss design requires that a minimum of 7/16"
structural wood sheathing be applied directly to the top
chord and 1/2" gypsum sheetrock be applied directly to
the bottom chord.

LOAD CASE(S) Standard



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

May 24,2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

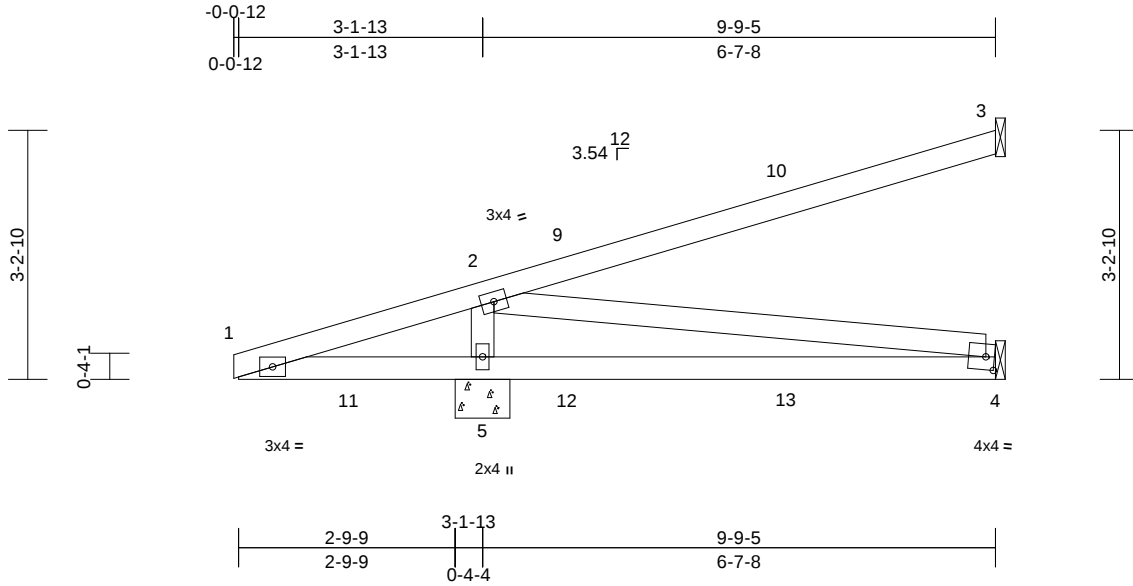
Job 3499167	Truss H7	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Job Reference (optional) T30634487
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Builders FirstSource (Plant City, FL), Plant City, FL - 33567,

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Scale = 1:29.8

Plate Offsets (X, Y): [4:0-1-5,0-2-0]

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	0.74	Vert(LL)	-0.24	4-5	>328	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.63	Vert(CT)	-0.24	4-5	>337	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MSH							Weight: 40 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-8-8
Max Horiz 5=225 (LC 8)
Max Uplift 3=-198 (LC 8), 4=-75 (LC 17), 5=-806 (LC 8)
Max Grav 3=171 (LC 13), 4=202 (LC 22), 5=833 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-914/615, 2-3=-244/66
BOT CHORD 1-5=-558/927, 4-5=-558/702
WEBS 2-5=-494/583, 2-4=-710/564

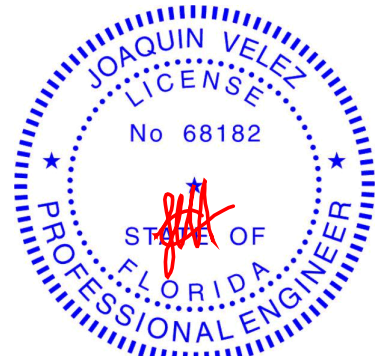
NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional); cantilever left exposed; Lumber
DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 198 lb uplift at joint 3, 806 lb uplift at joint 5 and 75 lb uplift at joint 4.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 247 lb down and 221 lb up at 4-2-15, 247 lb down and 221 lb up at 4-2-15, and 146 lb down and 7 lb up at 7-0-14, and 146 lb down and 7 lb up at 7-0-14 on top chord, and 46 lb down and 121 lb up at 1-5-0, 46 lb down and 121 lb up at 1-5-0, 186 lb down and 191 lb up at 4-2-15, 186 lb down and 191 lb up at 4-2-15, and 31 lb down and 15 lb up at 7-0-14, and 31 lb down and 15 lb up at 7-0-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 9=194 (F=97, B=97), 11=-91 (F=-46, B=-46), 12=218 (F=109, B=109)



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

May 24,2023

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

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

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

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



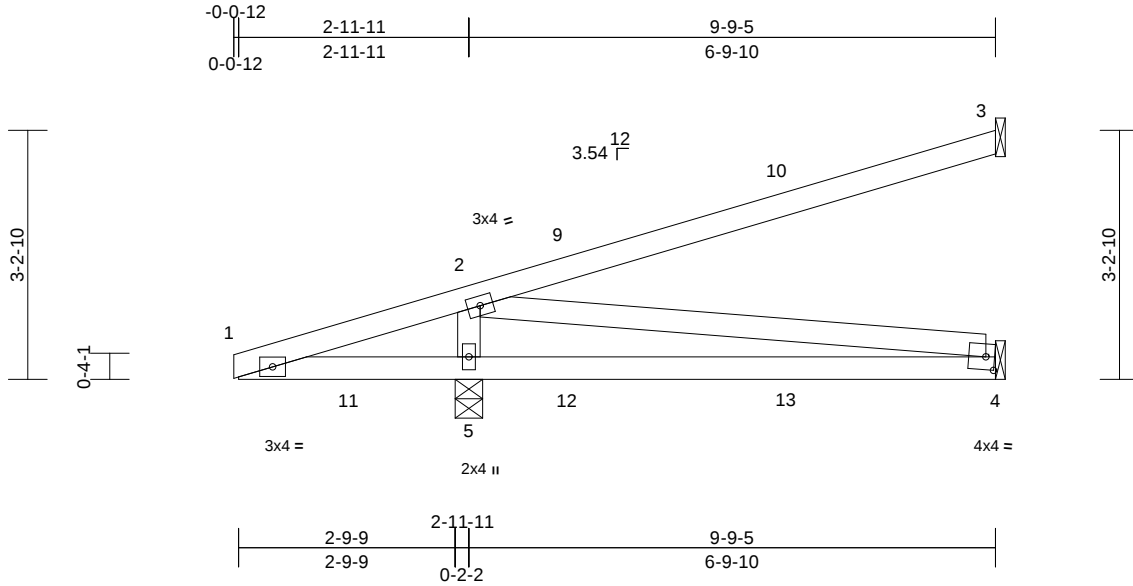
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
3499167	H7A	Diagonal Hip Girder	2	1	T30634488

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue May 23 14:35:53
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Page: 1



Scale = 1:29.8

Plate Offsets (X, Y): [4:0-1-6,0-2-0]

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	0.77	Vert(LL)	0.14	4-5	>566	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	0.18	4-5	>460	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MSH							Weight: 41 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 5-10-6 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-4
Max Horiz 5=225 (LC 8)
Max Uplift 3=-206 (LC 8), 4=-138 (LC 9), 5=-877 (LC 8)
Max Grav 3=169 (LC 13), 4=46 (LC 3), 5=718 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-748/642, 2-3=-242/66
BOT CHORD 1-5=-589/780, 4-5=-589/555
WEBS 2-5=-565/458, 2-4=-560/594

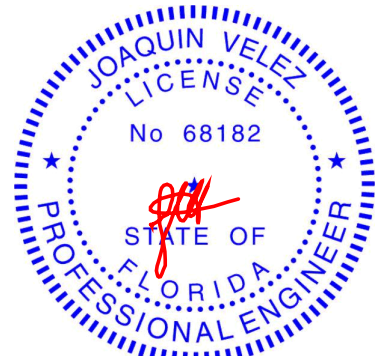
NOTES

- 1) Wind: ASCE 7-16; Vult=180mph (3-second gust)
Vasd=139mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed;
MWFRS (directional); cantilever left exposed ; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 206 lb uplift at joint 3, 877 lb uplift at joint 5 and 138 lb uplift at joint 4.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 246 lb down and 221 lb up at 4-2-15, 246 lb down and 221 lb up at 4-2-15, and 141 lb down and 8 lb up at 7-0-14, and 141 lb down and 8 lb up at 7-0-14 on top chord, and 46 lb down and 121 lb up at 1-5-0, 46 lb down and 121 lb up at 1-5-0, 238 lb down and 191 lb up at 4-2-15, 238 lb down and 191 lb up at 4-2-15, and 15 lb up at 7-0-14, and 15 lb up at 7-0-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 9=194 (F=97, B=97), 11=-91 (F=-46, B=-46), 12=218 (F=109, B=109)



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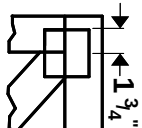
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



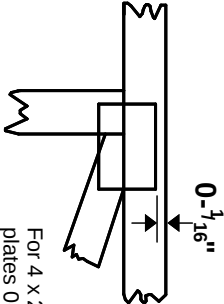
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " from outside edge of truss.

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

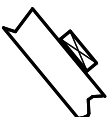
*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

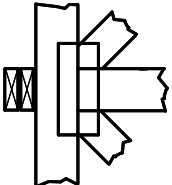
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



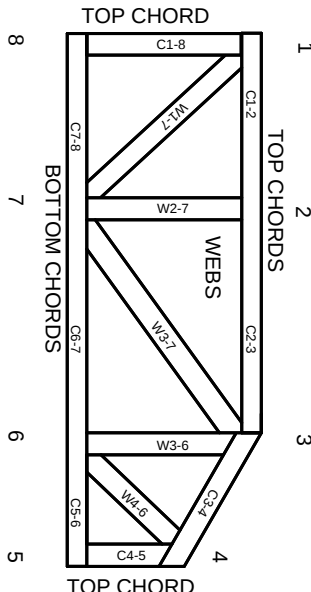
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.