



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

RE: 0525-041 - Barnard

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

Site Information:

Customer Info: Scott Rosenboom Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: High Springs State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
Address:
City: State:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.8
Wind Code: ASCE 7-22 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 84 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T38149843	A01	8/8/25	23	T38149865	E05	8/8/25
2	T38149844	A02	8/8/25	24	T38149866	E06	8/8/25
3	T38149845	A03	8/8/25	25	T38149867	E07	8/8/25
4	T38149846	A04	8/8/25	26	T38149868	E08	8/8/25
5	T38149847	A05	8/8/25	27	T38149869	F02	8/8/25
6	T38149848	A06	8/8/25	28	T38149870	F03	8/8/25
7	T38149849	B01	8/8/25	29	T38149871	F04	8/8/25
8	T38149850	B02	8/8/25	30	T38149872	F05	8/8/25
9	T38149851	B03	8/8/25	31	T38149873	F06	8/8/25
10	T38149852	B04	8/8/25	32	T38149874	F07	8/8/25
11	T38149853	B05	8/8/25	33	T38149875	F08	8/8/25
12	T38149854	B06	8/8/25	34	T38149876	F09	8/8/25
13	T38149855	C01	8/8/25	35	T38149877	F10	8/8/25
14	T38149856	C02	8/8/25	36	T38149878	F11	8/8/25
15	T38149857	CJ01	8/8/25	37	T38149879	G01	8/8/25
16	T38149858	CJ02	8/8/25	38	T38149880	G02	8/8/25
17	T38149859	D01	8/8/25	39	T38149881	G03	8/8/25
18	T38149860	D02	8/8/25	40	T38149882	H01	8/8/25
19	T38149861	E01	8/8/25	41	T38149883	H02	8/8/25
20	T38149862	E02	8/8/25	42	T38149884	H03	8/8/25
21	T38149863	E03	8/8/25	43	T38149885	H04	8/8/25
22	T38149864	E04	8/8/25	44	T38149886	J02	8/8/25



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Universal Engineering Science

Joaquin Velez
Examiner-License No.

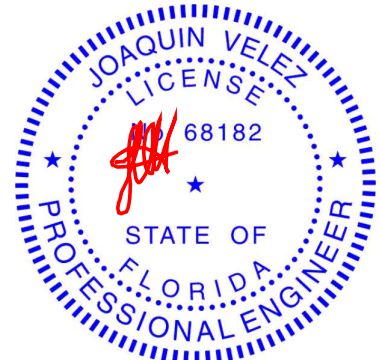
PX2707

09/10/2025

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Mayo Truss Company, Inc..

Truss Design Engineer's Name: Velez, Joaquin
My license renewal date for the state of Florida is February 28, 2027.

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:

August 8, 2025

RE: 0525-041 - Barnard

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

Site Information:

Customer Info: Scott Rosenboom Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: High Springs State: FL

No.	Seal#	Truss Name	Date
45	T38149887	J03	8/8/25
46	T38149888	J04	8/8/25
47	T38149889	J05	8/8/25
48	T38149890	J06	8/8/25
49	T38149891	J07	8/8/25
50	T38149892	J08	8/8/25
51	T38149893	J09	8/8/25
52	T38149894	J10	8/8/25
53	T38149895	J11	8/8/25
54	T38149896	J12	8/8/25
55	T38149897	K01	8/8/25
56	T38149898	K02	8/8/25
57	T38149899	K03	8/8/25
58	T38149900	L01	8/8/25
59	T38149901	L02	8/8/25
60	T38149902	L03	8/8/25
61	T38149903	M01	8/8/25
62	T38149904	M02	8/8/25
63	T38149905	M03	8/8/25
64	T38149906	M04	8/8/25
65	T38149907	M05	8/8/25
66	T38149908	M06	8/8/25
67	T38149909	M07	8/8/25
68	T38149910	N01	8/8/25
69	T38149911	N02	8/8/25
70	T38149912	P01	8/8/25
71	T38149913	P02	8/8/25
72	T38149914	PB01	8/8/25
73	T38149915	PB02	8/8/25
74	T38149916	PB06	8/8/25
75	T38149917	PB07	8/8/25
76	T38149918	PB08	8/8/25
77	T38149919	PB09	8/8/25
78	T38149920	PB10	8/8/25
79	T38149921	PB11	8/8/25
80	T38149922	PB12	8/8/25
81	T38149923	PB13	8/8/25
82	T38149924	PB14	8/8/25
83	T38149925	PB15	8/8/25
84	T38149926	T01	8/8/25



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Lawrence Powell

PX2707

09/10/2025

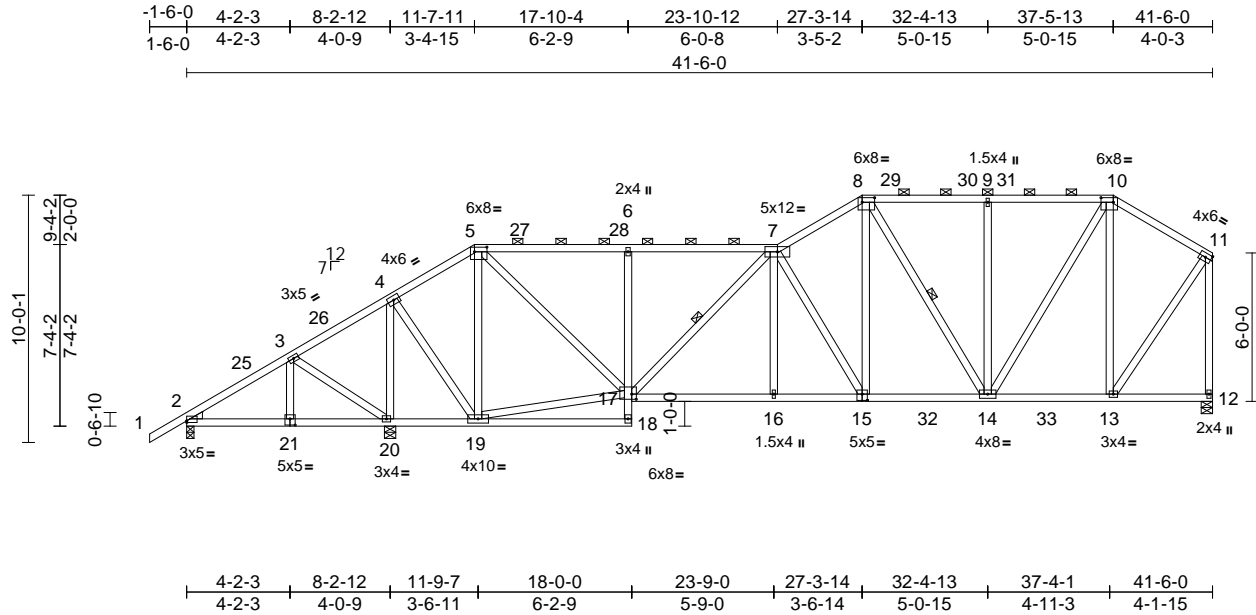
Examiner-License No.

Job 0525-041	Truss A01	Truss Type Piggyback Base	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149843
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:19
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Page: 1



Scale = 1:93.2

Plate Offsets (X, Y): [2:Edge,0-0-13], [5:0-6-0,0-2-4], [8:0-6-0,0-2-4], [10:0-6-0,0-2-4], [15:0-2-8,0-3-0], [17:0-2-4,0-2-8], [21:0-2-8,0-3-0]

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	0.66	Vert(LL)	-0.12	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.22	16-17	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 309 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.2
 - WEDGE Left: 2x4 SP No.3
- BRACING**
- TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-10 max.): 5-7, 8-10.
 - BOT CHORD Rigid ceiling directly applied.
 - WEBS 1 Row at midpt 7-17, 8-14
- REACTIONS**
- (size) 2=0-3-8, 12=0-5-8, 20=0-5-8
 - Max Horiz 2=233 (LC 11)
 - Max Uplift 2=97 (LC 13), 20=93 (LC 12)
 - Max Grav 2=51 (LC 26), 12=1373 (LC 21), 20=2339 (LC 20)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/45, 2-3=-88/528, 3-4=-166/861, 4-5=-348/85, 5-6=-1290/121, 6-7=-1298/118, 7-8=-1579/158, 8-9=-1135/153, 9-10=-1135/153, 10-11=-797/142, 11-12=-1322/80
 - BOT CHORD 2-20=-472/171, 19-20=-725/120, 18-19=-1/57, 17-18=0/120, 6-17=-414/103, 16-17=-139/1774, 14-16=-141/1770, 13-14=-95/629, 12-13=-78/91
 - WEBS 4-19=-46/1582, 5-19=-1152/127, 17-19=-95/222, 5-17=-54/1479, 7-17=-626/20, 7-16=0/201, 7-15=-830/61, 8-15=-8/891, 8-14=-405/15, 9-14=-340/88, 10-14=-42/981, 10-13=-690/122, 11-13=-64/1072, 3-21=-61/191, 3-20=-399/158, 4-20=-2036/156

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-7-13, Zone1 2-7-13 to 11-7-11, Zone2 11-7-11 to 17-6-2, Zone1 17-6-2 to 27-3-14, Zone2 27-3-14 to 33-2-5, Zone1 33-2-5 to 37-5-13, Zone3 37-5-13 to 41-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed; C-C for member 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 97 lb uplift at joint 2 and 93 lb uplift at joint 20.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

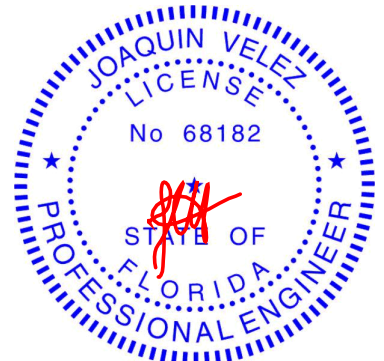
LOAD CASE(S) Standard



Review for Code Compliance
 Universal Engineering Science

Joaquin Velez
 Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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)

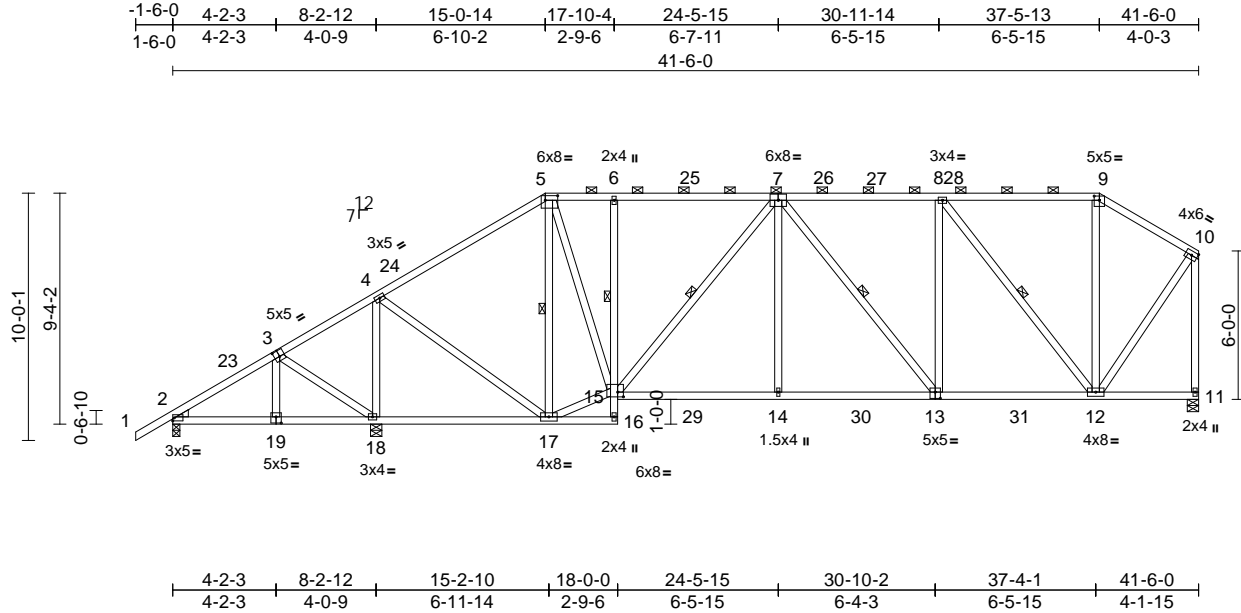
MiTek®
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss A02	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149844
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:21
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Page: 1



Scale = 1:93.2
Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-4], [9:0-2-8,0-2-1], [13:0-2-8,0-3-0], [15:0-2-12,0-2-4], [19:0-2-8,0-3-0]

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	0.75	Vert(LL)	-0.12	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-0.22	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								Weight: 300 lb FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-3 max.): 5-9.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 6-15
WEBS 1 Row at midpt 5-17, 7-15, 8-12, 7-13

REACTIONS (size) 2=0-3-8, 11=0-5-8, 18=0-5-8
Max Horiz 2=233 (LC 11)
Max Uplift 2=-90 (LC 12), 18=-87 (LC 12)
Max Grav 2=229 (LC 23), 11=1458 (LC 18), 18=2158 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-144/479, 4-5=-1012/118, 5-6=-1139/125, 6-8=-1364/131, 8-9=-708/130, 9-10=-851/128, 10-11=-1419/64
BOT CHORD 2-18=-241/197, 17-18=-390/93, 16-17=-84/13, 15-16=-7/0, 6-15=-304/69, 14-15=-109/1544, 12-14=-109/1544, 11-12=-81/91
WEBS 3-18=-300/138, 4-18=-1809/171, 4-17=-21/1355, 5-17=-893/115, 15-17=-58/907, 5-15=-29/1156, 7-15=-589/8, 8-12=-1086/29, 9-12=0/181, 10-12=-52/1154, 7-14=0/377, 7-13=-295/5, 8-13=0/511, 3-19=-77/147

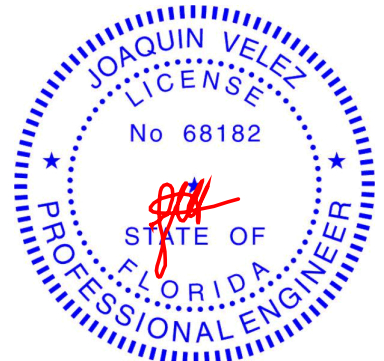
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-7-13, Zone1 2-7-13 to 15-0-14, Zone2 15-0-14 to 20-11-5, Zone1 20-11-5 to 37-5-13, Zone3 37-5-13 to 41-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 90 lb uplift at joint 2 and 87 lb uplift at joint 18.
 - 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.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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 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)

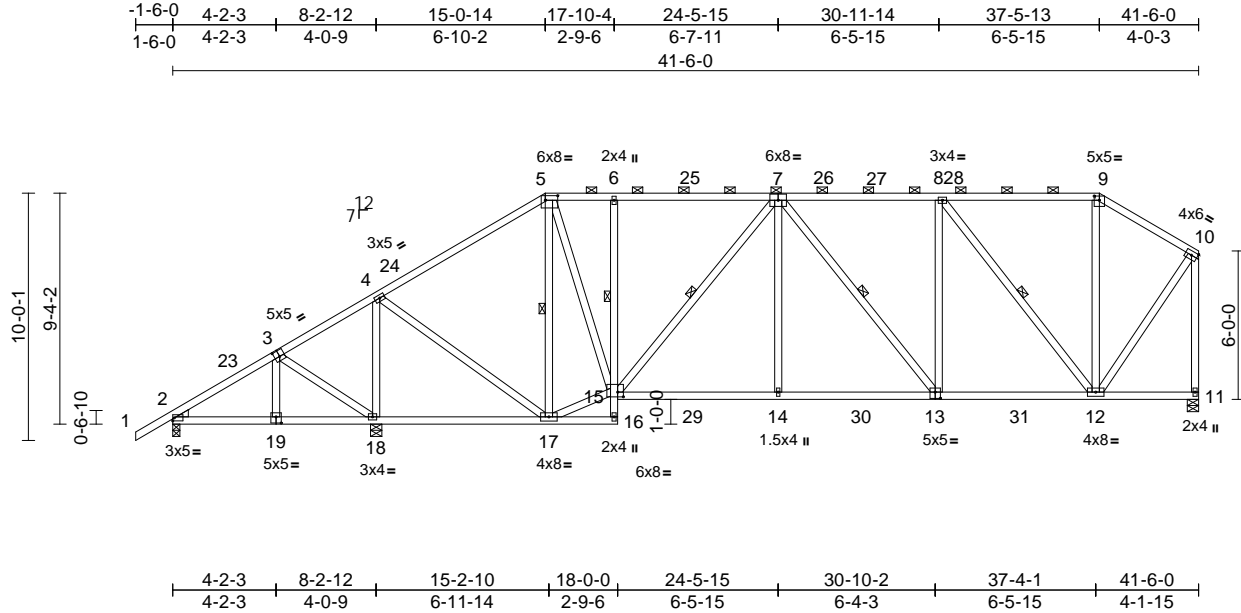
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss A03	Truss Type Piggyback Base	Qty 4	Ply 1	Barnard Job Reference (optional)	T38149845
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:93.2

Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-4], [9:0-2-8,0-2-1], [13:0-2-8,0-3-0], [15:0-2-12,0-2-4], [19:0-2-8,0-3-0]

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	0.75	Vert(LL)	-0.12	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-0.22	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								
											Weight: 300 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-3 max.): 5-9.
BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt 6-15
WEBS 1 Row at midpt 5-17, 7-15, 8-12, 7-13

REACTIONS (size)
2=0-3-8, 11=0-5-8, 18=0-5-8
Max Horiz 2=233 (LC 11)
Max Uplift 2=-90 (LC 12), 18=-87 (LC 12)
Max Grav 2=229 (LC 26), 11=1458 (LC 21), 18=2158 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-144/478, 4-5=-1012/118, 5-6=-1139/125, 6-8=-1364/131, 8-9=-708/130, 9-10=-851/128, 10-11=-1419/64
BOT CHORD 2-18=-241/197, 17-18=-390/93, 16-17=-84/13, 15-16=-8/0, 6-15=-304/68, 14-15=-109/1544, 12-14=-109/1544, 11-12=-81/91
WEBS 3-18=-300/138, 4-18=-1809/171, 4-17=-21/1355, 5-17=-893/115, 15-17=-58/907, 5-15=-29/1156, 7-15=-589/8, 8-12=-1086/29, 9-12=0/181, 10-12=-52/1154, 7-14=0/377, 7-13=-295/5, 8-13=0/511, 3-19=-77/147

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-7-13, Zone1 2-7-13 to 15-0-14, Zone2 15-0-14 to 20-11-5, Zone1 20-11-5 to 37-5-13, Zone3 37-5-13 to 41-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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.
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- 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 90 lb uplift at joint 2 and 87 lb uplift at joint 18.
- 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.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

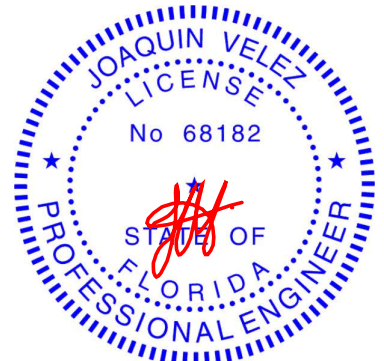
LOAD CASE(S) Standard

Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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 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)

MiTek®

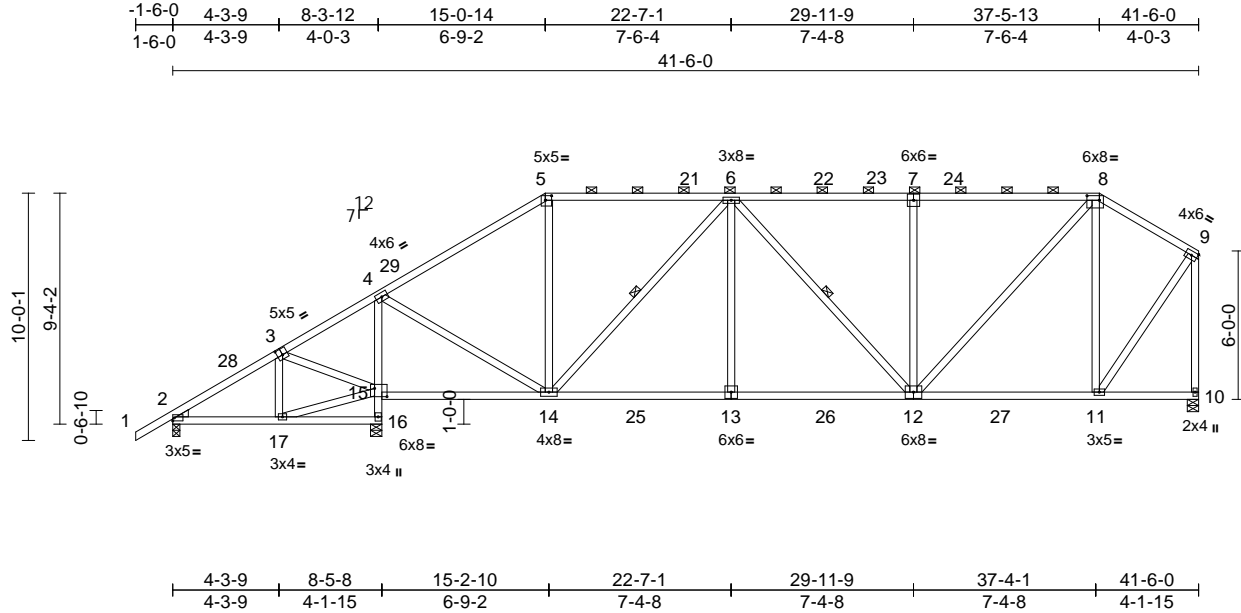
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss A04	Truss Type Piggyback Base	Qty 8	Ply 1	Barnard Job Reference (optional)	T38149846
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:21
ID: PpV_yDg6JWXWV_5WNd71Llz9f3Q-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:93.2

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

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	0.78	Vert(LL)	-0.12	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.69	Vert(CT)	-0.20	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 277 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-5 max.): 5-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-14, 6-12

REACTIONS
(size) 2=0-3-8, 10=0-5-8, 16=0-5-8
Max Horiz 2=233 (LC 11)
Max Uplift 2=96 (LC 12), 16=81 (LC 12)
Max Grav 2=286 (LC 26), 10=1480 (LC 21), 16=2094 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-6=941/126, 6-8=1436/136, 8-9=869/129, 9-10=1452/60, 1-2=0/45, 2-4=128/458, 4-5=1173/113
BOT CHORD 2-17=234/205, 16-17=47/0, 15-16=2058/204, 4-15=1792/154, 14-15=375/97, 11-14=107/1543, 10-11=82/91
WEBS 4-14=7/1411, 5-14=0/261, 6-14=881/20, 6-13=0/416, 6-12=161/5, 7-12=470/107, 8-12=25/1100, 8-11=709/130, 9-11=52/1190, 3-17=52/173, 15-17=159/125, 3-15=379/143

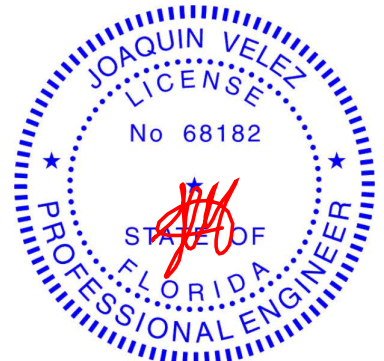
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-7-13, Zone1 2-7-13 to 15-0-14, Zone2 15-0-14 to 20-11-5, Zone1 20-11-5 to 37-5-13, Zone3 37-5-13 to 41-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 96 lb uplift at joint 2 and 81 lb uplift at joint 16.
 - 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.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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 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.sbcscomponents.com)

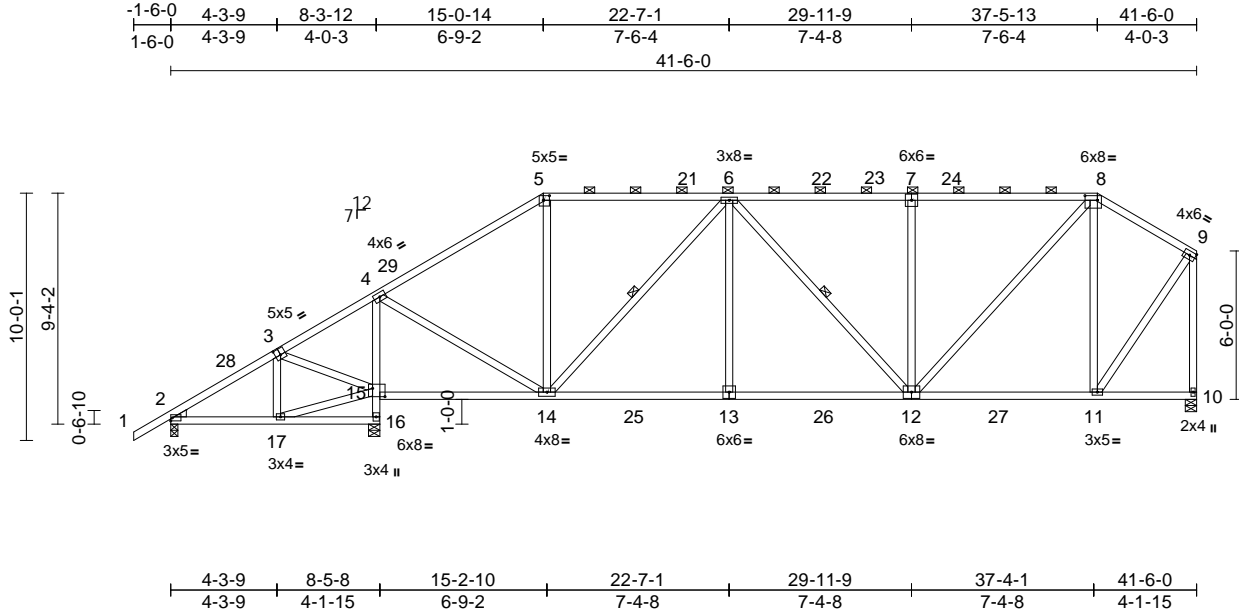
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss A05	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149847
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:22
ID:unWLBRSZVMJJ5RdNQxeJq3z9ex8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:93.2

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

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	0.78	Vert(LL)	-0.12	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.69	Vert(CT)	-0.20	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 277 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-5 max.): 5-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-14, 6-12

REACTIONS
(size) 2=0-3-8, 10=0-5-8, 16=0-5-8
Max Horiz 2=233 (LC 11)
Max Uplift 2=96 (LC 12), 16=81 (LC 12)
Max Grav 2=286 (LC 23), 10=1480 (LC 18), 16=2094 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-6=940/126, 6-8=1436/136, 8-9=869/129, 9-10=1452/60, 1-2=0/45, 2-4=128/458, 4-5=1173/113
BOT CHORD 2-17=234/205, 16-17=47/0, 15-16=2058/204, 4-15=1792/154, 14-15=375/97, 11-14=107/1543, 10-11=82/91
WEBS 4-14=7/1411, 5-14=0/261, 6-14=881/20, 6-13=0/416, 6-12=161/5, 7-12=470/107, 8-12=25/1100, 8-11=709/130, 9-11=52/1190, 3-17=52/173, 15-17=159/125, 3-15=379/143

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

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-7-13, Zone1 2-7-13 to 15-0-14, Zone2 15-0-14 to 20-11-5, Zone1 20-11-5 to 37-5-13, Zone3 37-5-13 to 41-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 2 and 81 lb uplift at joint 16.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

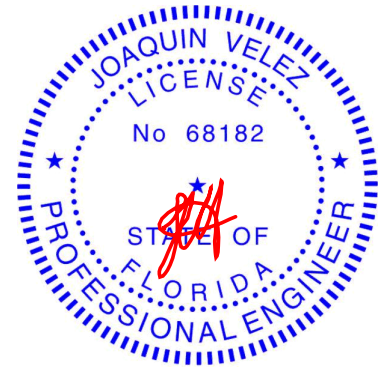
LOAD CASE(S) Standard

Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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MiTek®

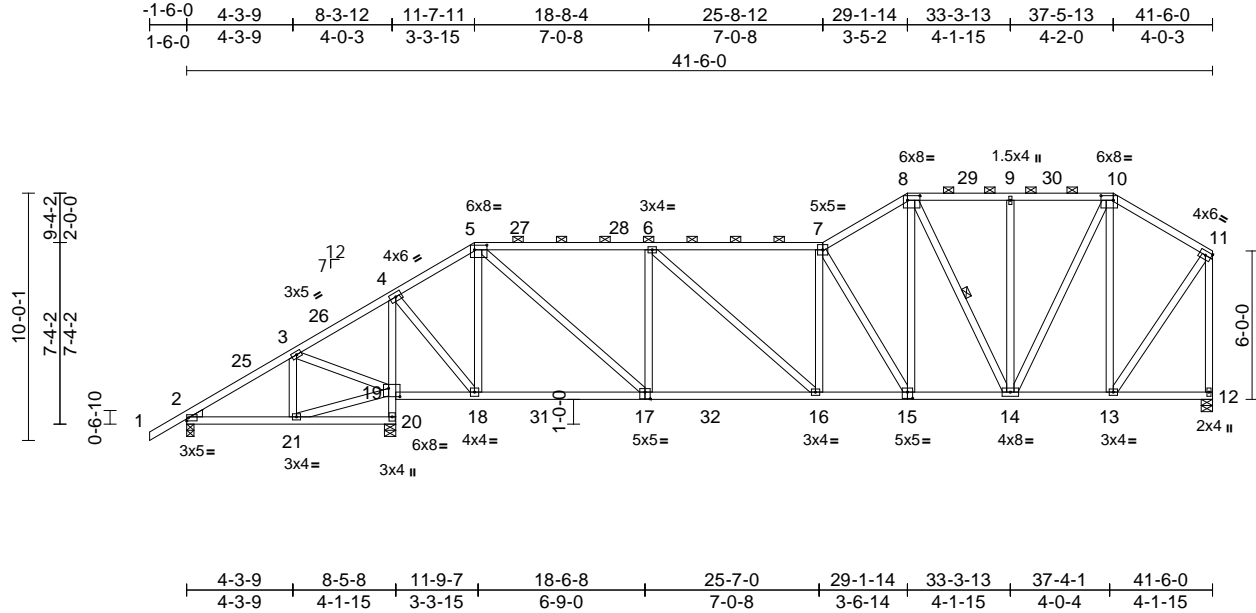
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss A06	Truss Type Piggyback Base	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149848
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:22
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Page: 1



Scale = 1:93.2

Plate Offsets (X, Y): [5:0-6-0,0-2-4], [8:0-6-0,0-2-4], [10:0-6-0,0-2-4], [15:0-2-8,0-3-0], [17:0-2-8,0-3-4], [19:0-5-8,0-4-0]

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	0.65	Vert(LL)	-0.14	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.63	Vert(CT)	-0.27	16-17	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.04	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 302 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-12 max.): 5-7, 8-10.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-14

REACTIONS
(size) 2=0-3-8, 12=0-5-8, 20=0-5-8
Max Horiz 2=233 (LC 11)
Max Uplift 2=98 (LC 12), 20=79 (LC 12)
Max Grav 2=164 (LC 26), 12=1360 (LC 21), 20=2230 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-85/329, 3-4=-139/797, 4-5=-567/96, 5-6=-1528/137, 6-7=-1840/147, 7-8=-1553/169, 8-9=-1059/158, 9-10=-1059/158, 10-11=-787/147, 11-12=-1304/87
BOT CHORD 2-21=-286/192, 20-21=-31/0, 19-20=-2197/234, 4-19=-2044/140, 18-19=-692/112, 16-18=-133/1566, 14-16=-141/1865, 13-14=-96/617, 12-13=-78/91
WEBS 4-18=-37/1619, 5-18=-983/100, 5-17=-49/1460, 6-17=-725/121, 6-16=-9/396, 7-16=-136/75, 7-15=-1100/76, 8-15=-30/1060, 10-14=-43/986, 10-13=-720/118, 11-13=-65/1052, 3-21=-44/227, 19-21=-268/13, 3-19=-498/153, 9-14=-276/75, 8-14=-563/20

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-7-13, Zone1 2-7-13 to 11-7-11, Zone2 11-7-11 to 17-6-2, Zone1 17-6-2 to 29-1-14, Zone2 29-1-14 to 35-0-5, Zone1 35-0-5 to 37-5-13, Zone3 37-5-13 to 41-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for member 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 98 lb uplift at joint 2 and 79 lb uplift at joint 20.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

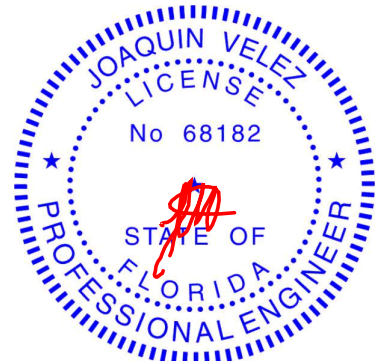
LOAD CASE(S) Standard

Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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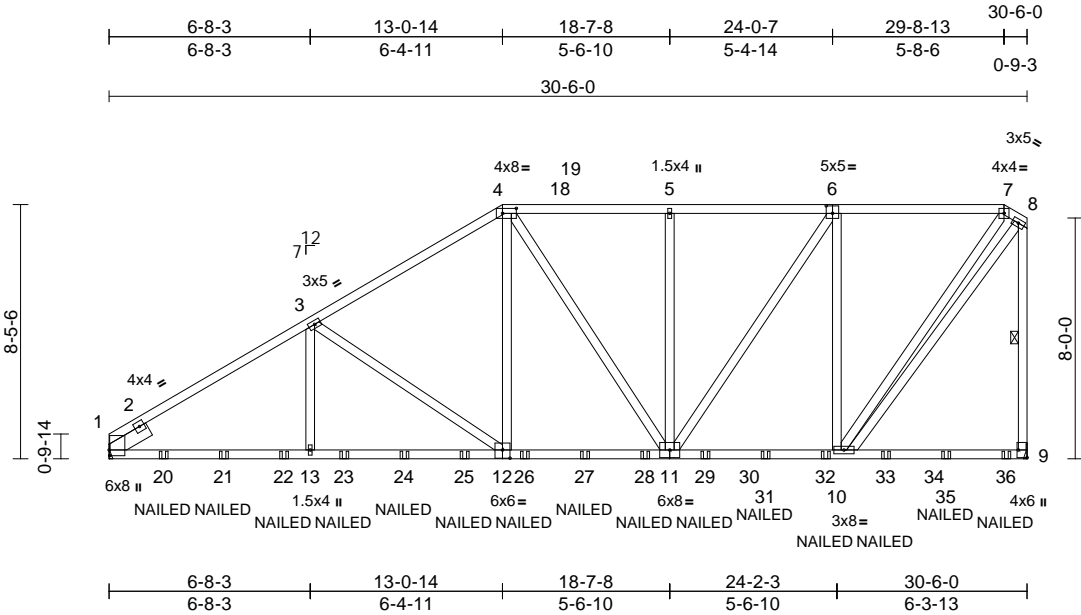
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss B01	Truss Type Hip Girder	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149849
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:23
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Page: 1



Scale = 1:76.6

Plate Offsets (X, Y): [1:0-2-4,0-0-4], [4:0-5-8,0-2-0], [6:0-2-8,0-3-0], [9:Edge,0-3-8], [12:0-3-0,0-3-4]

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	0.89	Vert(LL)	0.18	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.93	Vert(CT)	-0.28	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 436 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 1-12:2x4 SP No.1
 WEBS 2x4 SP No.2
 SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
 TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 8-9

REACTIONS
 (size) 1= Mechanical, 9= Mechanical
 Max Horiz 1=236 (LC 7)
 Max Uplift 1=-947 (LC 8), 9=-1036 (LC 8)
 Max Grav 1=3563 (LC 13), 9=3797 (LC 13)

FORCES
 (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-3=-5275/1450, 3-4=-4074/1164, 4-5=-3321/990, 5-7=-3321/990, 7-8=-2024/607, 8-9=-3198/873
 BOT CHORD 1-13=-1285/4526, 10-13=-1285/4526, 9-10=-67/94
 WEBS 3-13=-313/1030, 3-12=-1233/395, 4-12=-568/1921, 4-11=-278/77, 5-11=-334/72, 6-11=-477/1747, 6-10=-1768/473, 7-10=-447/1242, 8-10=-782/2673

NOTES
 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 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 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15 B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed, end vertical 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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 947 lb uplift at joint 1 and 1036 lb uplift at joint 9.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

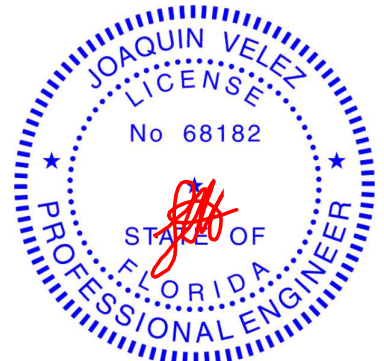
LOAD CASE(S) Standard
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-4=-60, 4-7=-60, 7-8=-60, 9-14=-20
 Concentrated Loads (lb)
 Vert: 20=-236 (B), 21=-236 (B), 22=-236 (B), 23=-236 (B), 24=-236 (B), 25=-236 (B), 26=-236 (B), 27=-236 (B), 28=-236 (B), 29=-236 (B), 31=-236 (B), 32=-236 (B), 33=-236 (B), 35=-236 (B), 36=-241 (B)

Review for Code Compliance
 Universal Engineering Science



Joaquin Velez
 Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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 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)

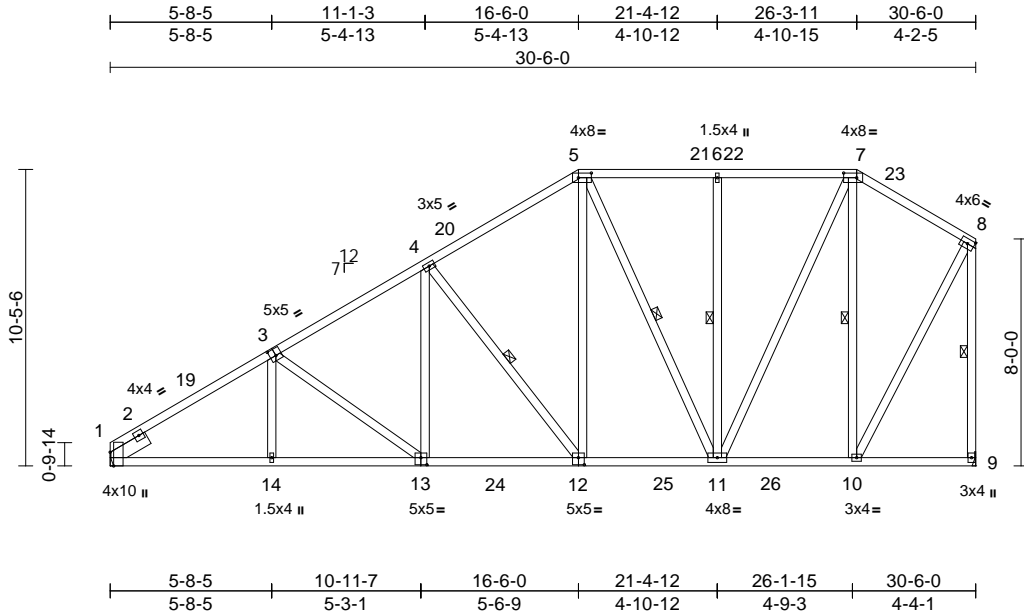
MiTek®
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss B02	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149850
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:23
ID:DelY1PraoP1yRT2Cnpjn38z9eta-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:81.2

Plate Offsets (X, Y): [1:0-5-13,Edge], [3:0-2-8,0-3-0], [5:0-5-8,0-2-0], [7:0-5-8,0-2-0], [12:0-2-8,0-3-0], [13:0-2-8,0-3-0]

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	0.67	Vert(LL)	-0.10	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.81	Vert(CT)	-0.19	13-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 237 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-12, 7-10, 8-9, 6-11, 5-11

REACTIONS (size) 1= Mechanical, 9= Mechanical
Max Horiz 1=271 (LC 11)
Max Uplift 9=-3 (LC 12)
Max Grav 1=1401 (LC 17), 9=1399 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-2058/120, 4-5=-1318/160, 5-6=-892/164, 6-7=-892/164, 7-8=-680/170, 8-9=-1334/92
BOT CHORD 1-14=-307/1806, 11-14=-266/1803, 10-11=-116/536, 9-10=-106/119
WEBS 4-12=-685/83, 5-12=-2764, 7-11=-68/941, 7-10=-770/158, 8-10=-87/1095, 3-14=0/160, 3-13=-303/61, 4-13=0/427, 6-11=-323/73, 5-11=-435/56

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-10, Zone1 3-0-10 to 16-6-0, Zone2 16-6-0 to 20-9-12, Zone1 20-9-12 to 26-3-11, Zone3 26-3-11 to 30-4-4 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
- 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 9.
- 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

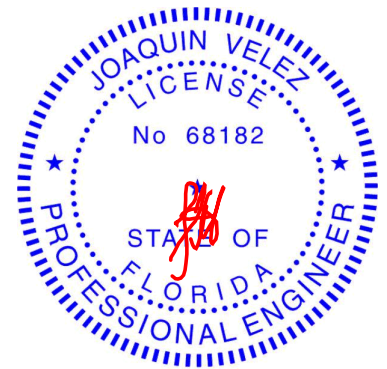
Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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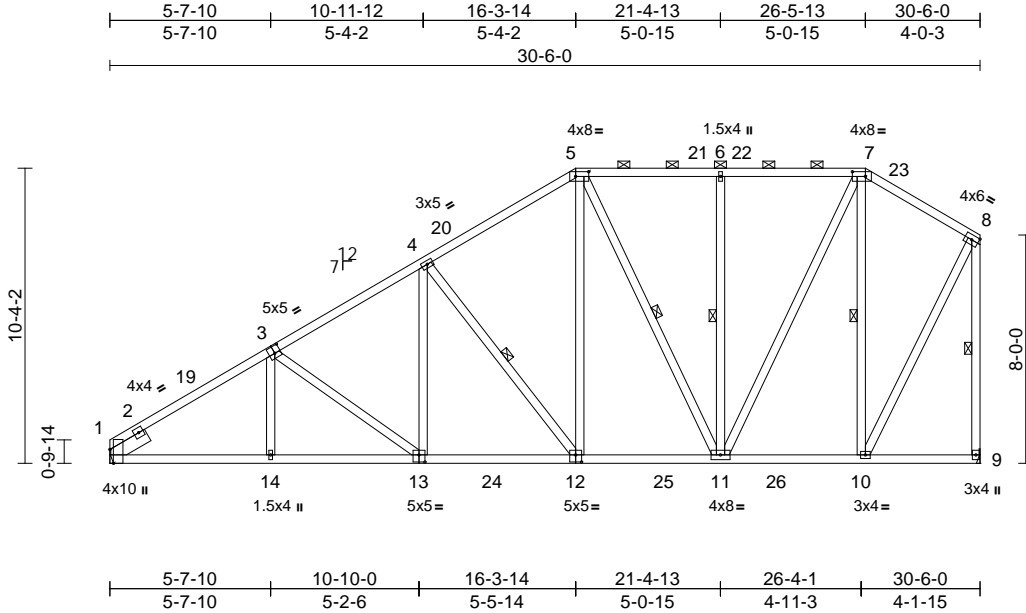
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss B03	Truss Type Piggyback Base	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149851
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:24
 ID:OITiL9_UCnQPGAOJwdQM0Tz9etP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcD0i7J4zJC?f

Page: 1



Scale = 1:80.8

Plate Offsets (X, Y): [1:0-5-13,Edge], [3:0-2-8,0-3-0], [5:0-5-8,0-2-0], [7:0-5-8,0-2-0], [12:0-2-8,0-3-0], [13:0-2-8,0-3-0]

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	0.67	Vert(LL)	-0.10	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.81	Vert(CT)	-0.19	13-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								
											Weight: 236 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2
 SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
 TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 4-12, 5-11, 6-11, 7-10, 8-9

REACTIONS (size) 1= Mechanical, 9= Mechanical
 Max Horiz 1=269 (LC 11)
 Max Uplift 9=3 (LC 12)
 Max Grav 1=1401 (LC 17), 9=1400 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-4=-2060/119, 4-5=-1333/159, 5-6=-903/162, 6-7=-903/162, 7-8=-665/170, 8-9=-1339/90
 BOT CHORD 1-14=-306/1805, 11-14=-267/1803, 10-11=-115/523, 9-10=-107/119
 WEBS 4-12=-675/82, 5-12=-1/758, 5-11=-426/55, 6-11=-336/76, 7-11=-68/961, 7-10=-788/160, 8-10=-88/1105, 3-14=0/156, 3-13=-295/61, 4-13=0/419

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-10, Zone1 3-0-10 to 16-3-14, Zone2 16-3-14 to 20-7-10, Zone1 20-7-10 to 26-5-13, Zone3 26-5-13 to 30-4-4 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 p 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 9.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing is applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

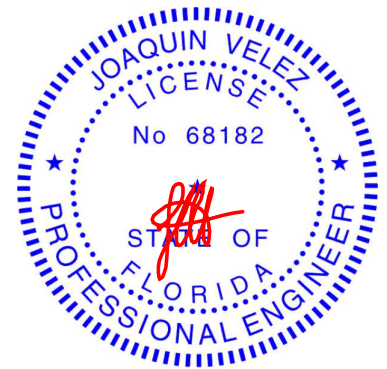
LOAD CASE(S) Standard



Review for Code Compliance
 Universal Engineering Science

Joaquin Velez
 Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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 Chesterfield, MO 63017
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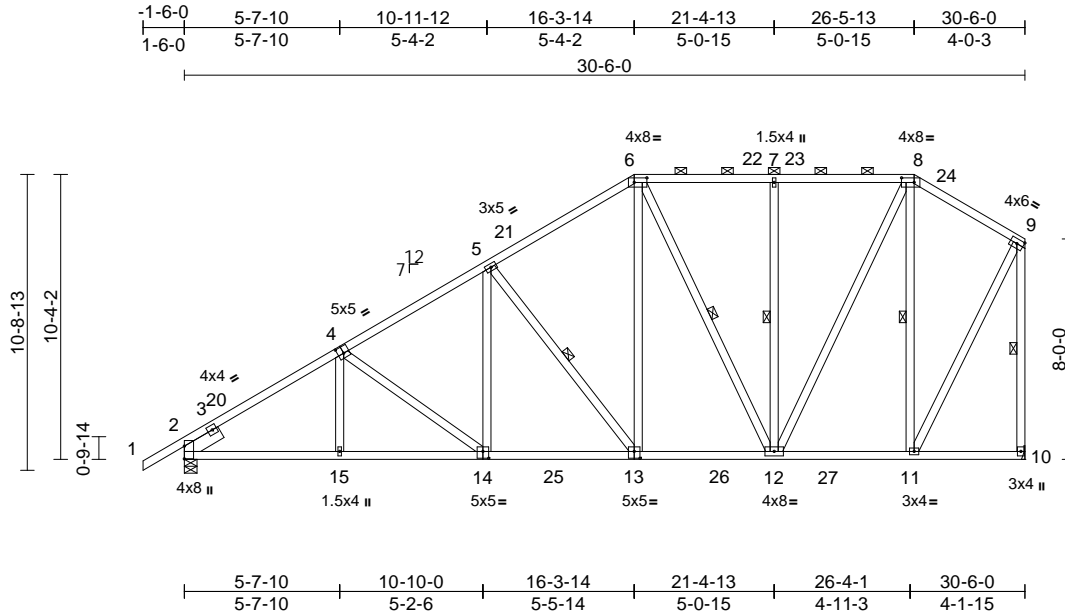
Job 0525-041	Truss B04	Truss Type Piggyback Base	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149852
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:24

Page: 1

ID:POEoS?mPRdCon5ANqPghHz9OsY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f



Scale = 1:83.6

Plate Offsets (X, Y): [2:Edge,0-0-0], [4:0-2-8,0-3-0], [6:0-5-8,0-2-0], [8:0-5-8,0-2-0], [13:0-2-8,0-3-0], [14:0-2-8,0-3-0]

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	0.71	Vert(LL)	-0.11	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.20	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								Weight: 238 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-13, 6-12, 7-12, 8-11, 9-10

REACTIONS (size) 2=0-5-8, 10= Mechanical
Max Horiz 2=280 (LC 11)
Max Uplift 2=-32 (LC 12), 10=-2 (LC 12)
Max Grav 2=1483 (LC 17), 10=1398 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-5=-2043/112, 5-6=-1330/156, 6-7=-901/161, 7-8=-901/161, 8-9=-664/169, 9-10=-1337/89
BOT CHORD 2-15=-300/1789, 12-15=-265/1787, 11-12=-115/523, 10-11=-107/119
WEBS 5-13=-671/82, 6-13=0/755, 6-12=-423/55, 7-12=-336/76, 8-12=-68/959, 8-11=-786/160, 9-11=-88/1103, 4-15=0/154, 4-14=-281/56, 5-14=0/413

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-10, Zone1 1-6-10 to 16-3-14, Zone2 16-3-14 to 20-7-10, Zone1 20-7-10 to 26-5-13, Zone3 26-5-13 to 30-4-4 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 p 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 2 and 2 lb uplift at joint 10.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

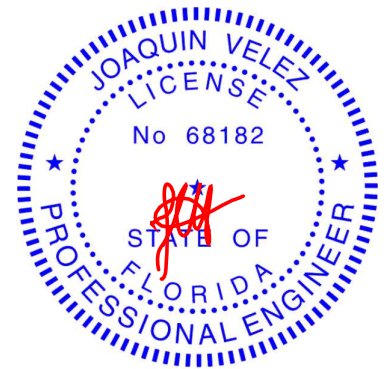
LOAD CASE(S) Standard



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Universal Engineering Science

Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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MiTek®

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

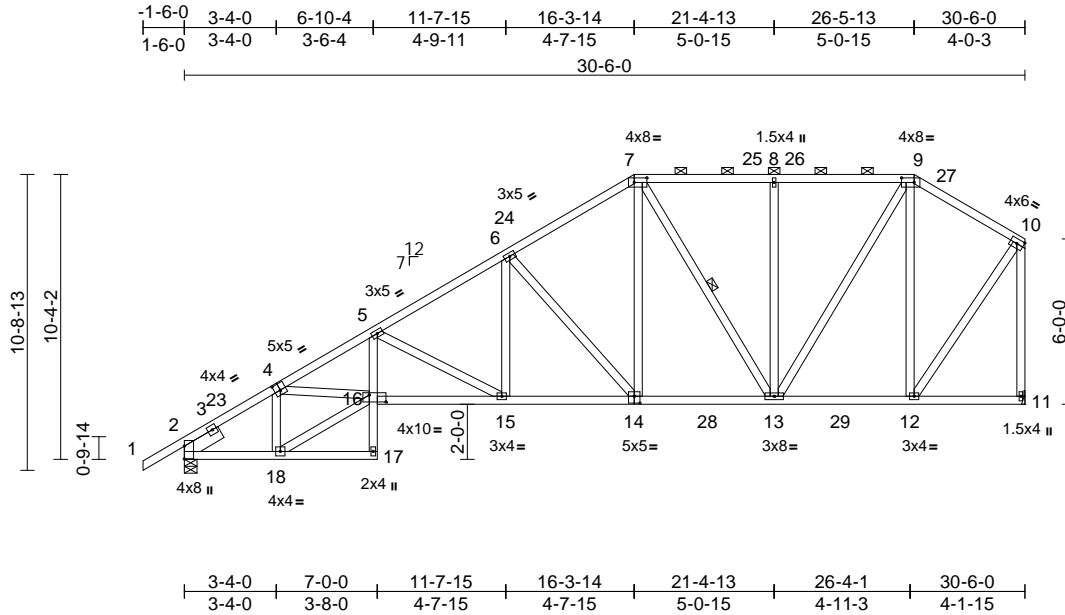
Job 0525-041	Truss B05	Truss Type Piggyback Base	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149853
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:24

Page: 1

ID:zATT7Vb04emdP5hO7JT7JPVz9Ope-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwKRCDoi7J4zJC?f



Scale = 1:83.6

Plate Offsets (X, Y): [2:Edge,0-0-0], [4:0-2-8,0-3-0], [7:0-5-8,0-2-0], [9:0-5-8,0-2-0], [14:0-2-8,0-3-0], [16:0-7-4,0-3-0]

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	0.63	Vert(LL)	-0.16	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.30	15-16	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.14	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 227 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-5-10 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-13

REACTIONS
(size) 2=0-5-8, 11= Mechanical
Max Horiz 2=237 (LC 11)
Max Uplift 2=-31 (LC 12), 11=-3 (LC 12)
Max Grav 2=1456 (LC 17), 11=1373 (LC 17)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-5=-3590/220, 5-6=-2277/111, 6-7=-1602/129, 7-8=-1111/135, 8-9=-1111/135, 9-10=-764/132, 10-11=-1313/98
BOT CHORD 2-18=-245/1678, 17-18=-8/78, 16-17=0/103, 5-16=-90/1052, 15-16=-406/3213, 13-15=-251/1988, 12-13=-104/625, 11-12=-79/91
WEBS 6-14=-926/119, 7-14=-31/892, 7-13=-422/57, 8-13=-336/76, 9-13=-71/987, 9-12=-693/136, 10-12=-79/1078, 4-18=-1026/183, 4-16=-155/1477, 16-18=-283/1900, 6-15=-14/749, 5-15=-1380/174

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-10, Zone1 1-6-10 to 16-3-14, Zone2 16-3-14 to 20-7-10, Zone1 20-7-10 to 26-5-13, Zone3 26-5-13 to 30-4-4 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 p 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 2 and 3 lb uplift at joint 11.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

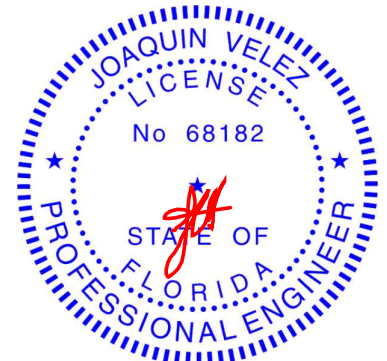
LOAD CASE(S) Standard



Review for Code Compliance
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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:

August 8, 2025

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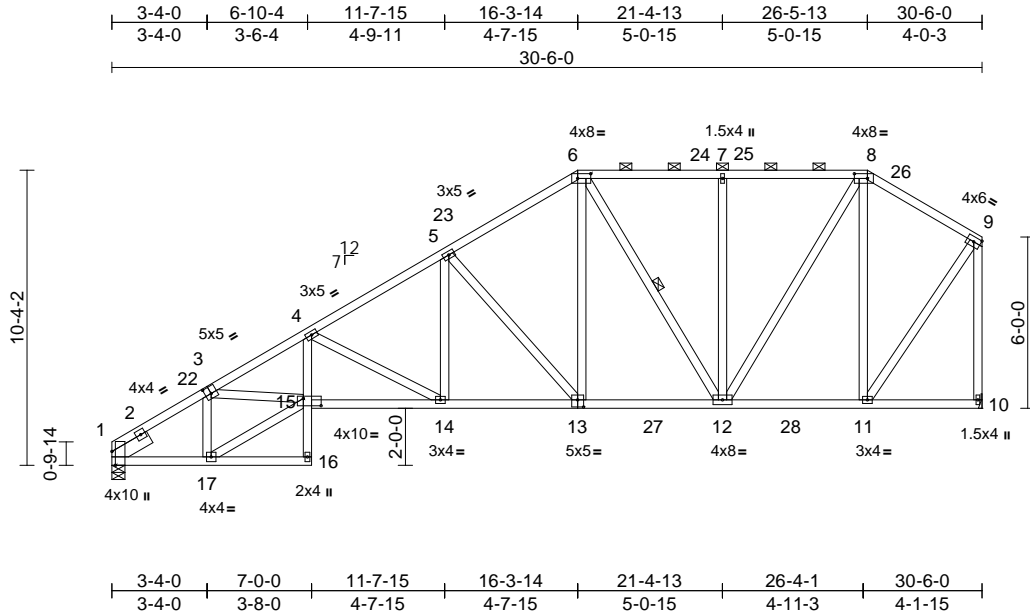
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss B06	Truss Type Piggyback Base	Qty 3	Ply 1	Barnard Job Reference (optional)	T38149854
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:25
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Page: 1



Scale = 1:80.8

Plate Offsets (X, Y): [1:0-5-13,Edge], [3:0-2-8,0-3-0], [6:0-5-8,0-2-0], [8:0-5-8,0-2-0], [13:0-2-8,0-3-0], [15:0-7-8,0-3-0]

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	0.63	Vert(LL)	-0.16	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.30	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.14	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 224 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-5-9 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-12

REACTIONS
(size) 1=0-5-8, 10= Mechanical
Max Horiz 1=226 (LC 11)
Max Uplift 10=4 (LC 12)
Max Grav 1=1374 (LC 17), 10=1375 (LC 17)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-3612/223, 4-5=-2285/112, 5-6=-1606/133, 6-7=-1113/137, 7-8=-1113/137, 8-9=-764/133, 9-10=-1315/98
BOT CHORD 1-17=-248/1704, 16-17=-8/78, 15-16=0/101, 4-15=-92/1068, 14-15=-408/3232, 12-14=-252/1995, 11-12=-104/626, 10-11=-79/91
WEBS 5-13=-931/120, 6-13=-32/896, 6-12=-424/57, 7-12=-336/76, 8-12=-71/989, 8-11=-695/136, 9-11=-80/1080, 3-17=-1032/184, 3-15=-154/1468, 15-17=-287/1931, 5-14=-15/755, 4-14=-1393/175

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-10, Zone1 3-0-10 to 16-3-14, Zone2 16-3-14 to 20-7-10, Zone1 20-7-10 to 26-5-13, Zone3 26-5-13 to 30-4-4 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 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 BC DL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 10.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



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Universal Engineering Science

Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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Job 0525-041	Truss C01	Truss Type Attic Supported Gable	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149855
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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LOAD CASE(S) Standard



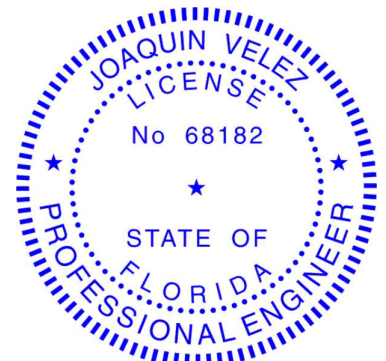
Review for Code Compliance
Universal Engineering Science

Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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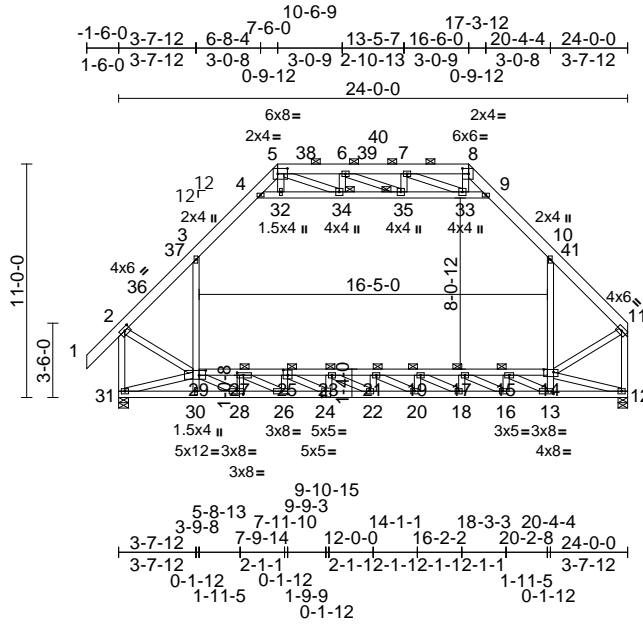
Job 0525-041	Truss C02	Truss Type Attic	Qty 13	Ply 1	Barnard Job Reference (optional)	T38149856
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Plate Offsets (X, Y): [2:0-3-0,0-1-12], [5:0-5-8,0-3-0], [8:0-3-8,0-3-0], [13:0-3-8,0-1-8], [14:0-5-8,0-1-8], [24:0-2-4,0-3-4], [25:0-2-8,0-3-0], [26:0-3-8,0-1-8], [27:0-3-8,0-1-8], [28:0-3-8,0-1-8], [29:0-3-12,0-2-12]

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	0.46	Vert(LL)	-0.25	21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.72	Vert(CT)	-0.41	21-23	>691	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS	Attic		-0.18	14-29	>999	360	Weight: 251 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-8:2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 24-12:2x4 SP No.1
WEBS 2x4 SP No.2
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-8.
BOT CHORD Rigid ceiling directly applied.
JOINTS
1 Brace at Jt(s): 25, 34, 35, 27, 21, 19, 17, 15

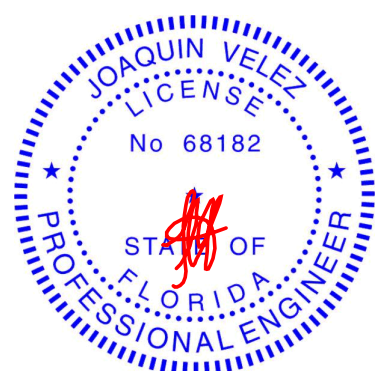
WEBS
29-30=0/148, 3-29=0/859, 13-14=0/1124, 10-14=-4/843, 4-32=-1442/0, 32-34=-1432/0, 34-35=-1202/0, 33-35=-1199/0, 9-33=-1514/0, 5-32=0/80, 8-33=0/280, 5-34=-43/538, 6-34=-184/34, 6-35=-42/48, 7-35=0/43, 7-33=-568/40, 28-29=0/1983, 27-28=-918/0, 26-27=0/1461, 25-26=-626/0, 24-25=0/808, 23-24=-364/0, 22-23=-122/22, 21-22=-123/42, 20-21=-326/19, 19-20: 18-19=-869/0, 17-18=0/442, 16-17=-1111/11, 15-16=0/638, 13-15=-2207/0, 29-31=-150/640, 12-14=-218/856, 11-14=0/1190, 2-29=0/1148

- Ceiling dead load (5.0 psf) on member(s). 3-4, 9-10, 4-32, 32-34, 34-35, 33-35, 9-33; Wall dead load (5.0psf) on member(s).3-29, 10-14
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-29, 25-27, 23-25, 21-23, 19-21, 17-19, 15-17, 14-15
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

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Universal Engineering Science
Signature: [Signature]
Date: 09/10/2025
PX2707

REACTIONS (size) 12=0-5-8, 31=0-5-8
Max Horiz 31=266 (LC 11)
Max Grav 12=1732 (LC 19), 31=1820 (LC 38)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-1621/0, 3-4=-1050/1, 4-5=-407/249, 5-6=-599/328, 6-7=-595/325, 7-8=-150/617, 8-9=-371/299, 9-10=-1061/1, 10-11=-1636/0, 2-31=-1946/0, 11-12=-1939/0
BOT CHORD 30-31=-783/389, 28-30=-825/380, 26-28=-15/1382, 22-26=0/3316, 20-22=0/3592, 18-20=0/3341, 16-18=0/2563, 13-16=0/1327, 12-13=-797/197, 27-29=-363/296, 23-27=-2391/0, 21-23=-2717/0, 19-21=-2467/0, 17-19=-1689/0, 15-17=-480/275, 14-15=0/1880

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 7-6-0, Zone2 7-6-0 to 11-8-15, Zone1 11-8-15 to 16-6-0, Zone2 16-6-0 to 20-8-15, Zone1 20-8-15 to 23-10-4 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 3x4 (=) MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



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

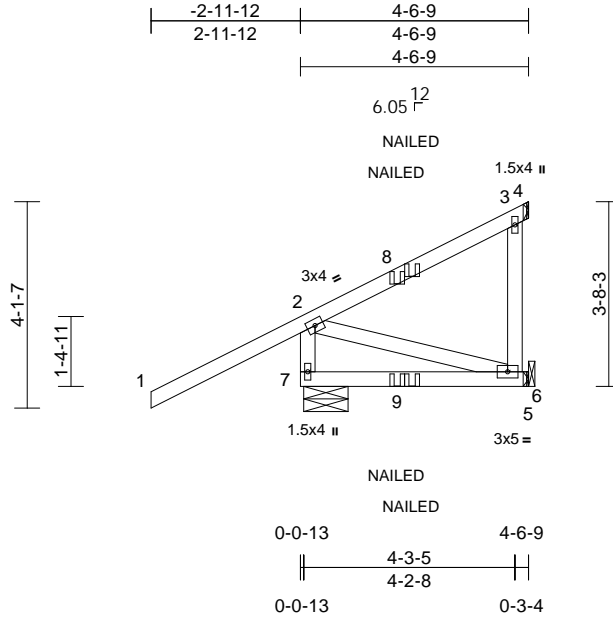
August 8, 2025

Job 0525-041	Truss CJ01	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149857
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:45.9

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	0.77	Vert(LL)	-0.02	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.22	Vert(CT)	-0.03	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 6= Mechanical, 7=0-10-10
Max Horiz 7=117 (LC 5)
Max Uplift 6=-56 (LC 5), 7=-136 (LC 8)
Max Grav 6=124 (LC 13), 7=401 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-7=-362/135, 1-2=0/84, 2-3=-110/52, 3-4=-2/0, 3-6=-61/40
BOT CHORD 6-7=-113/56, 5-6=0/0
WEBS 2-6=-47/93

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 7 and 56 lb uplift at joint 6.
- 8) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) 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: 1-2=-60, 2-3=-60, 3-4=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 8=36 (B), 9=3 (F)



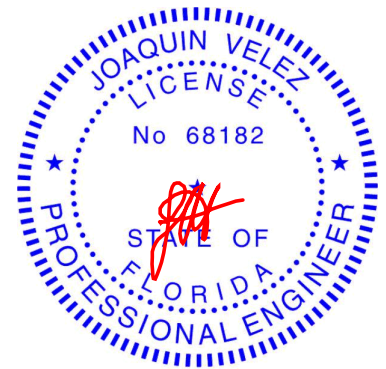
Review for Code Compliance
Universal Engineering Science

Lawrence Powell

PX2707

09/10/2025

Examiner-License No.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

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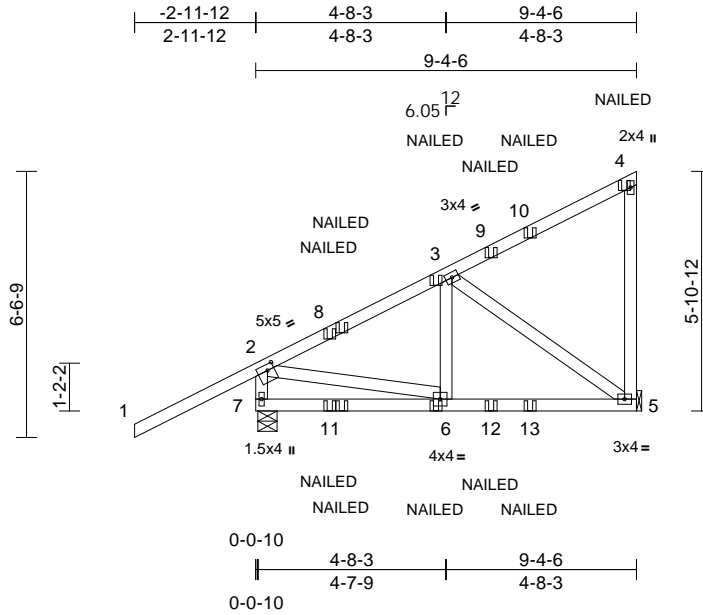
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss CJ02	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149858
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:27
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Page: 1



Scale = 1:56.7

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

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	0.77	Vert(LL)	-0.02	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.28	Vert(CT)	-0.03	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 62 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 5= Mechanical, 7=0-5-11
Max Horiz 7=184 (LC 5)
Max Uplift 5=-303 (LC 5), 7=-236 (LC 8)
Max Grav 5=615 (LC 13), 7=624 (LC 14)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-574/240, 1-2=0/84, 2-3=-556/188, 3-4=-187/106, 4-5=-276/182
BOT CHORD 6-7=-202/109, 5-6=-202/409
WEBS 2-6=-139/536, 3-6=0/188, 3-5=-491/231

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical 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.
- 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.
- Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 7 and 303 lb uplift at joint 5.
- "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1
Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-4=-60, 5-7=-20
Concentrated Loads (lb)
Vert: 4=-71 (B), 6=6 (B), 8=35 (B), 9=-46 (F), 10=5 (B), 11=1 (F), 12=-31 (F), 13=-6 (B)

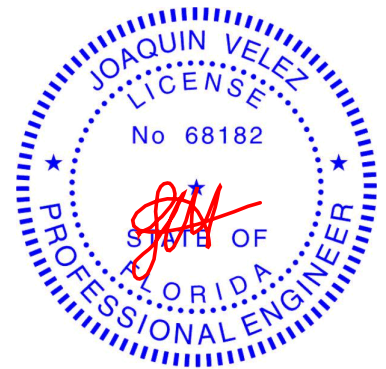


Review for Code Compliance
Universal Engineering Science

Joaquin Velez
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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)

MiTek®

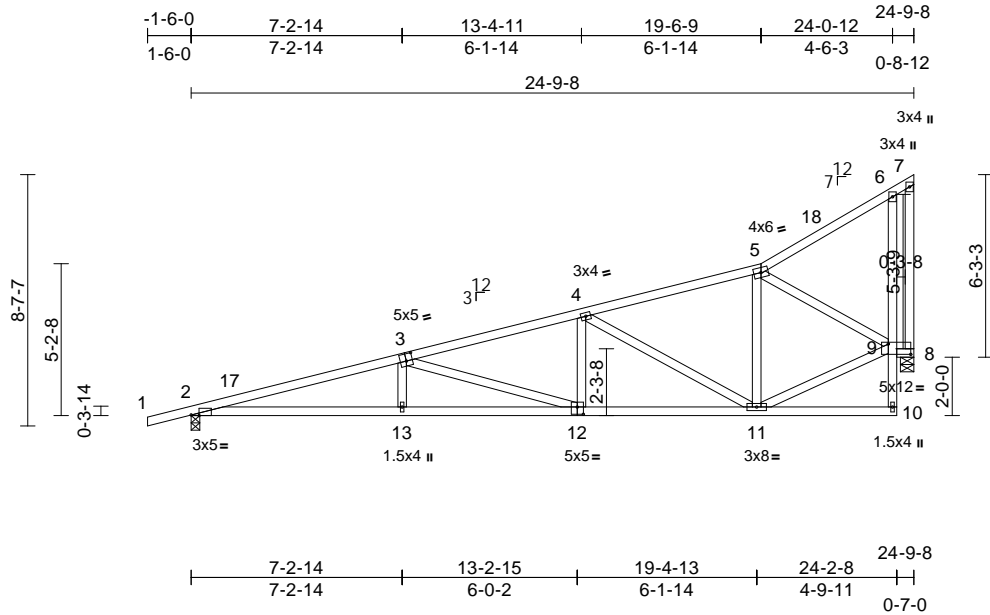
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss D01	Truss Type Roof Special	Qty 14	Ply 1	Barnard Job Reference (optional)	T38149859
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:27
ID:NxCzFYyouCayenOqp6ZKCQz8zzF-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRcDOI7J4zJC?f

Page: 1



Scale = 1:79

Plate Offsets (X, Y): [2:0-3-4,Edge], [3:0-2-8,0-3-0], [8:0-9-4,0-4-4], [12:0-2-8,0-3-0]

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	0.65	Vert(LL)	-0.17	13-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.87	Vert(CT)	-0.35	13-16	>842	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								Weight: 145 lb FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-8, 8=0-5-8
Max Horiz 2=226 (LC 9)
Max Uplift 2=-144 (LC 12), 8=-120 (LC 12)
Max Grav 2=1079 (LC 1), 8=993 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-4=-2964/399, 4-5=-947/203, 5-6=-217/109, 6-7=-34/114, 7-8=-291/99
BOT CHORD 2-13=-459/2845, 11-13=-463/2836, 10-11=-23/108, 9-10=0/80, 6-9=-87/261, 8-9=-239/117
WEBS 4-11=-1128/177, 5-11=0/372, 9-11=-141/827, 5-9=-912/207, 3-13=0/267, 3-12=-1020/168, 4-12=0/475

- 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 120 lb uplift at joint 8 and 144 lb uplift at joint 2.
- 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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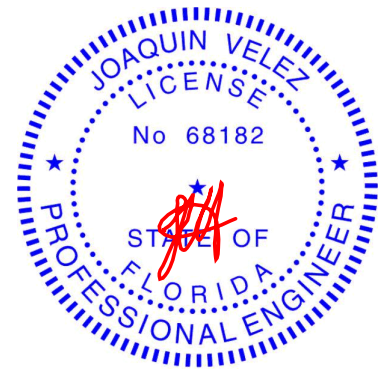
Lawrence Pennell
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PX2707

09/10/2025

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 24-7-12 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.



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6364
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 8, 2025

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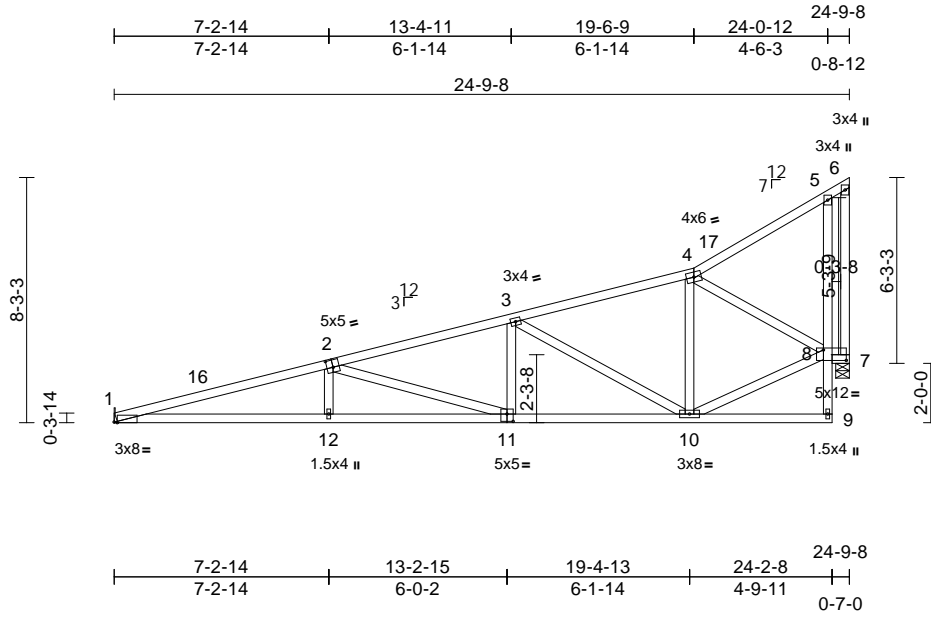
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss D02	Truss Type Jack-Closed	Qty 5	Ply 1	Barnard Job Reference (optional)	T38149860
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:27
ID:hMppzlv4CAx7SDphz9cYIzAHX5-RfC?PsB70Hq3NSgPqnl8w3uITxbGKWrCdoi7J4zJC?F

Page: 1



Scale = 1:77.7

Plate Offsets (X, Y): [1:0-1-4,Edge], [2:0-2-8,0-3-0], [7:0-9-4,0-4-4], [11:0-2-8,0-3-0]

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	0.68	Vert(LL)	-0.17	12-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.92	Vert(CT)	-0.36	12-15	>811	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								
											Weight: 143 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 1= Mechanical, 7=0-5-8
Max Horiz 1=222 (LC 9)
Max Uplift 1=-106 (LC 12), 7=-122 (LC 12)
Max Grav 1=986 (LC 23), 7=995 (LC 17)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-2995/452, 3-4=-949/208, 4-5=-217/109, 5-6=-31/114, 6-7=-292/100
BOT CHORD 1-12=-467/2879, 10-12=-471/2870, 9-10=-21/108, 8-9=0/80, 5-8=-89/262, 7-8=-239/118
WEBS 3-10=-1133/186, 4-10=0/372, 8-10=-148/831, 4-8=-915/212, 2-12=0/270, 2-11=-1047/197, 3-11=0/477

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 24-7-12 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
- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

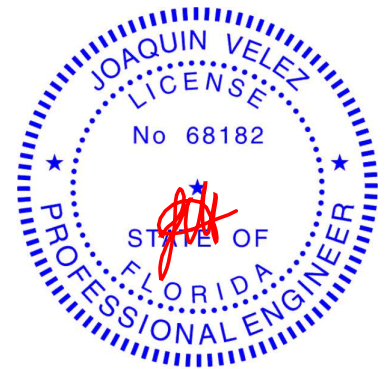
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 7 and 106 lb uplift at joint 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

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Lawrence Pennell
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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.sbccomponents.com)

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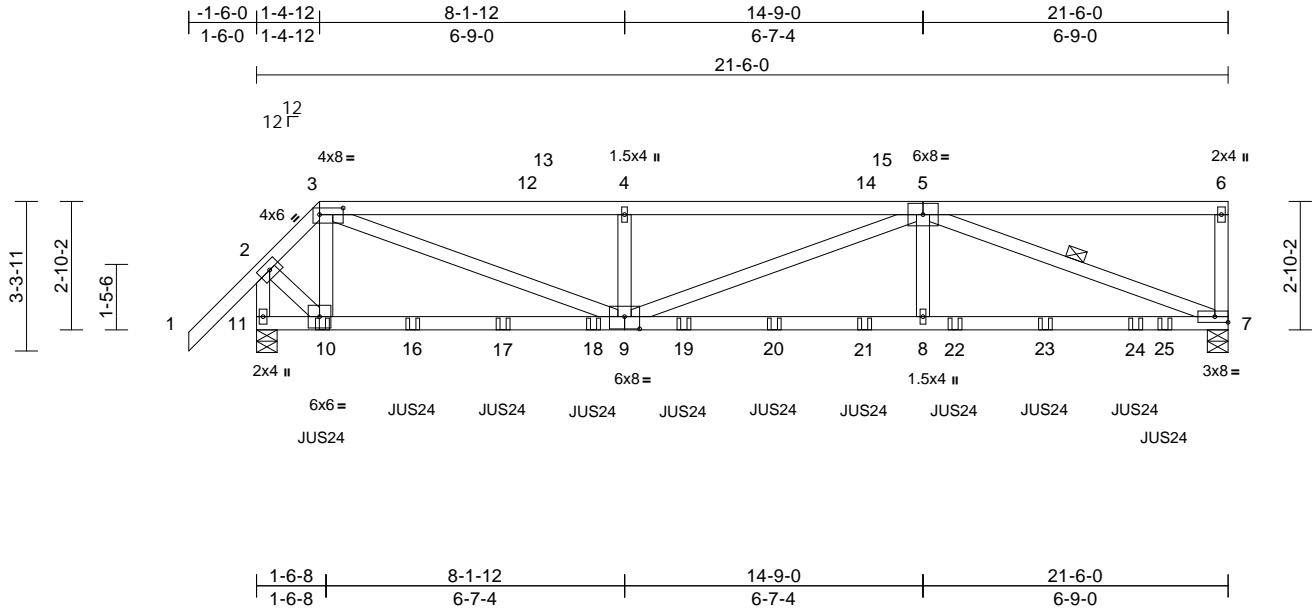
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss E01	Truss Type Half Hip Girder	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149861
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:27
ID:PeUEXh0RsR?q1vOVmpcB5Hz8zwb-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:51

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [9:0-4-0,0-3-4]

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)	-0.18	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.36	7-8	>707	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 231 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 9-7:2x4 SP SS
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 10-11.
WEBS 1 Row at midpt 5-7

REACTIONS
(size) 7=0-5-8, 11=0-5-8
Max Horiz 11=95 (LC 5)
Max Grav 7=2998 (LC 20), 11=2876 (LC 1)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-2369/0, 3-4=-5888/0, 4-6=-5888/0, 6-7=-194/36, 2-11=-3356/0
BOT CHORD 10-11=-139/12, 8-10=0/5542, 7-8=0/5542
WEBS 3-10=-167/121, 3-9=0/4527, 4-9=-411/90, 5-9=0/371, 5-8=0/1521, 5-7=-5703/0, 2-10=0/2343

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical 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 comp
- 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 20.0 psf on the bottom chord in all areas where a rectangular 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Use MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-5-8 from the left end to 20-1-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

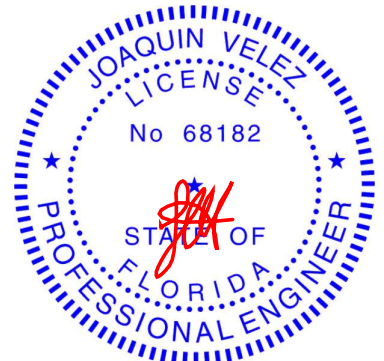
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-60, 3-6=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 10=-371 (B), 16=-371 (B), 17=-371 (B), 18=-371 (B), 19=-371 (B), 20=-371 (B), 21=-371 (B), 22=-371 (B), 23=-371 (B), 24=-371 (B), 25=-371 (B)

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Date:

August 8, 2025

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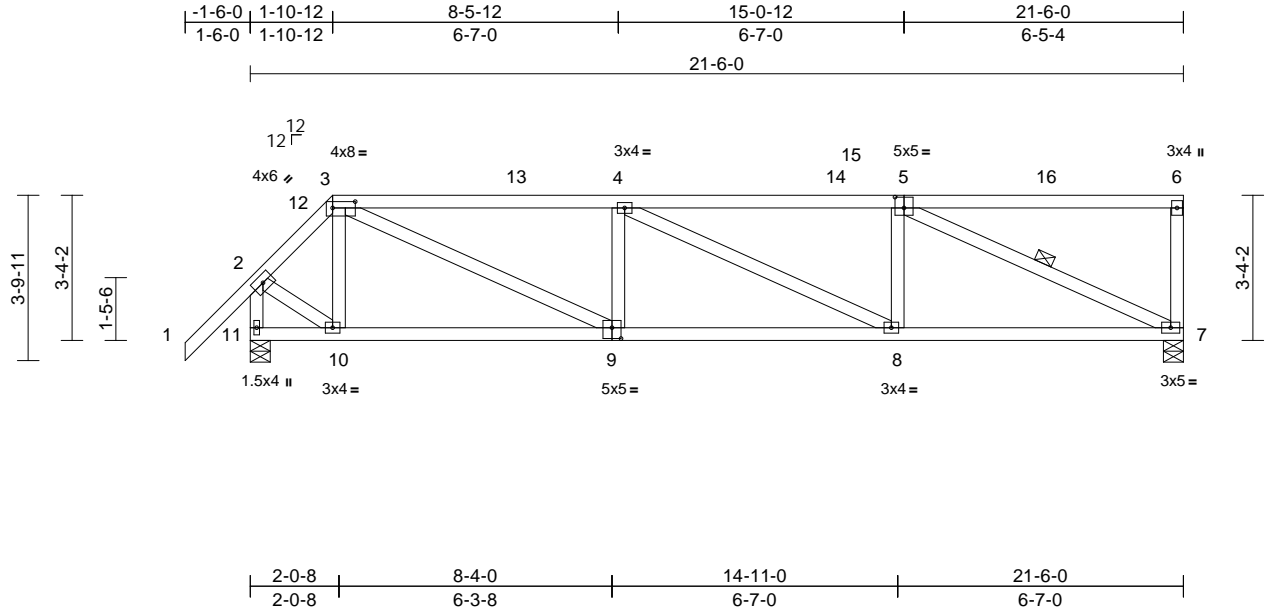
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss E02	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149862
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:28
ID:9D48qQ7LEoucqQgVNI9LizA3VU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:53.1

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0]

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	0.39	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.15	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 120 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-7

REACTIONS (size) 7=0-5-8, 11=0-5-8
Max Horiz 11=110 (LC 9)
Max Uplift 7=-9 (LC 9), 11=-39 (LC 12)
Max Grav 7=845 (LC 1), 11=951 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-700/24, 3-4=-1464/29,
4-6=-1320/47, 6-7=-171/44, 2-11=-966/56
BOT CHORD 10-11=-144/87, 8-10=-85/1480, 7-8=-36/1310
WEBS 3-10=-243/51, 5-7=-1399/9, 2-10=0/655,
4-9=-339/80, 3-9=-3/1089, 4-8=-177/27,
5-8=0/327

- 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 9 lb uplift at joint 7 and 39 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.

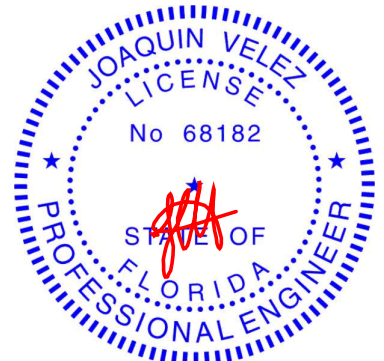
LOAD CASE(S) Standard



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MiTek®
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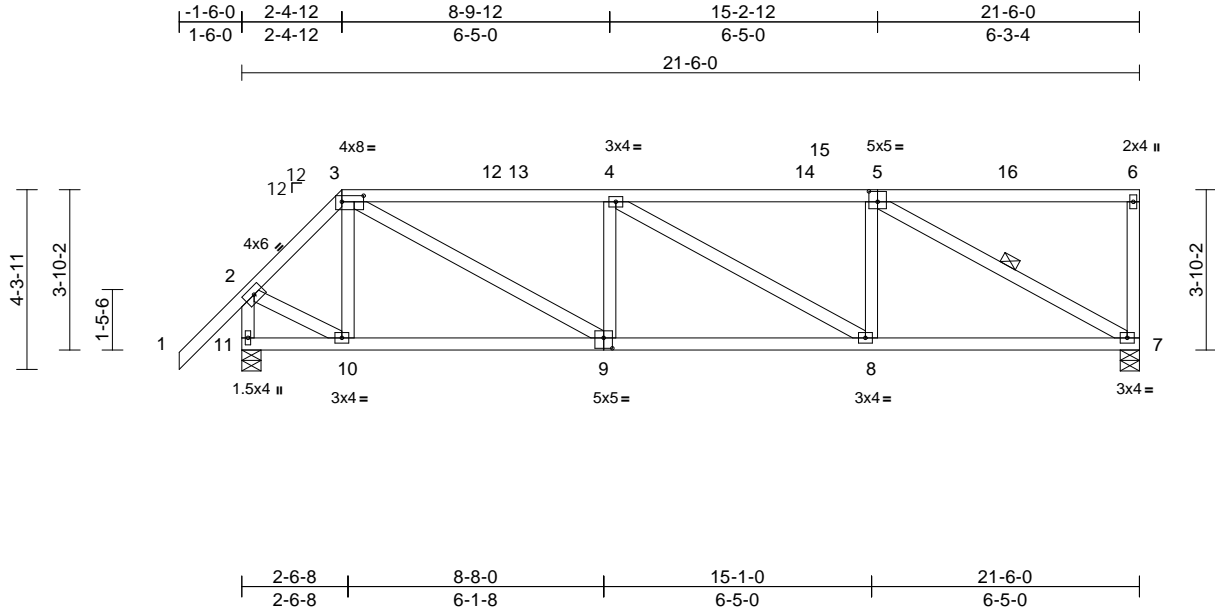
Job 0525-041	Truss E03	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149863
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:28

Page: 1

ID:wZAW9DMLFulZ31Cz2R1gOzA3VM-RfC?PsB70Hq3NSgPqnl8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:55.2

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0]

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	0.46	Vert(LL)	-0.05	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.11	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 124 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 10-11.
 WEBS 1 Row at midpt 5-7

REACTIONS

(size) 7=0-5-8, 11=0-5-8
 Max Horiz 11=125 (LC 9)
 Max Uplift 7=-10 (LC 9), 11=-38 (LC 12)
 Max Grav 7=845 (LC 1), 11=951 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/70, 2-3=-760/28, 3-4=-1275/36,
 4-6=-1119/57, 6-7=-161/42, 2-11=-949/43
 BOT CHORD 10-11=-164/148, 8-10=-93/1288,
 7-8=-45/1109
 WEBS 3-10=-176/47, 5-7=-1248/10, 2-10=0/612,
 4-9=-317/78, 3-9=-3/896, 4-8=-194/23,
 5-8=0/340

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)
 Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft;
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
 MWFRS (directional) and C-C Zone1 -1-6-0 to 2-4-12,
 Zone2 2-4-12 to 6-7-11, Zone1 6-7-11 to 21-4-4 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

- 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 7 and 38 lb uplift at joint 11.

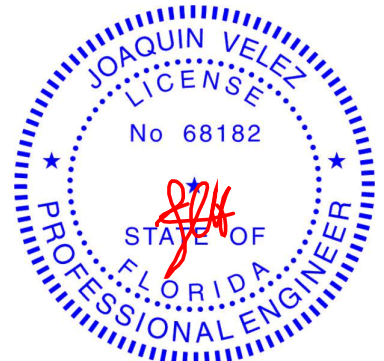
LOAD CASE(S) Standard



Review for Code Compliance
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PX2707 09/10/2025



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

August 8, 2025

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.sbcscomponents.com)

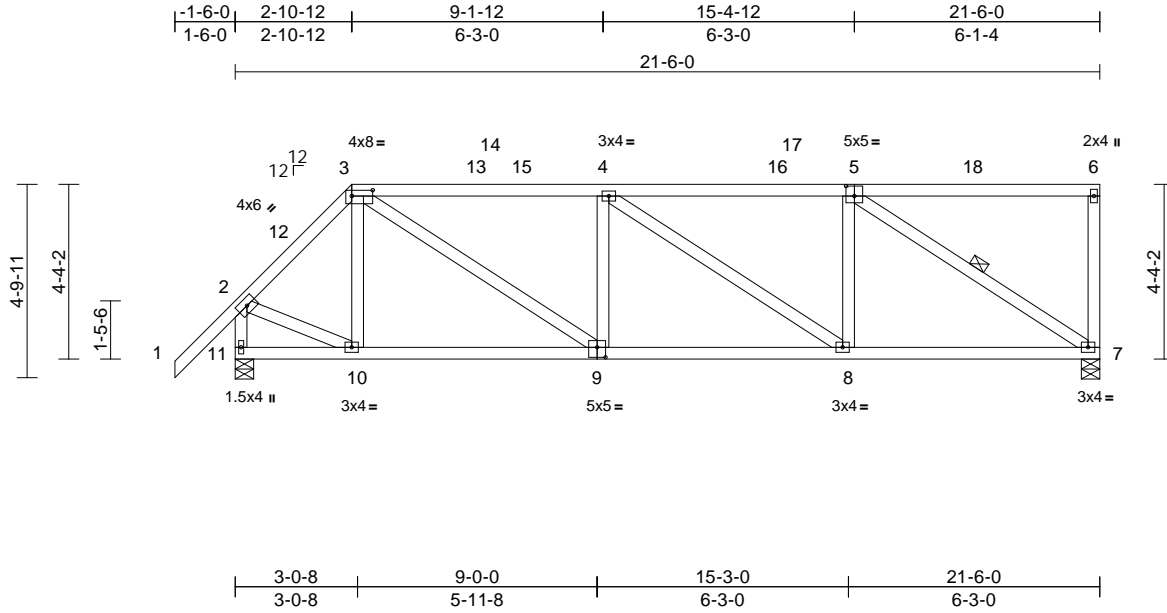
MiTek®
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss E04	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149864
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:28
ID:h2BBuKNTivcWHekRkav_4zA3VE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:57.3

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0]

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	0.44	Vert(LL)	-0.04	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.09	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 128 lb	FT = 20%

- LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
- BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-10-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 10-11.
- WEBS**
1 Row at midpt 5-7
- REACTIONS** (size)
7=0-5-8, 11=0-5-8
Max Horiz 11=140 (LC 9)
Max Uplift 7=-14 (LC 9), 11=-38 (LC 12)
Max Grav 7=845 (LC 1), 11=951 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-795/31, 3-4=-1128/42,
4-6=-964/65, 6-7=-155/41, 2-11=-937/69
BOT CHORD 10-11=-198/145, 8-10=-112/1138,
7-8=-56/955
WEBS 3-10=-132/48, 5-7=-1127/16, 2-10=0/594,
4-9=-290/76, 3-9=-2/745, 4-8=-209/29,
5-8=0/348

- 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 14 lb uplift at joint 7 and 38 lb uplift at joint 11.

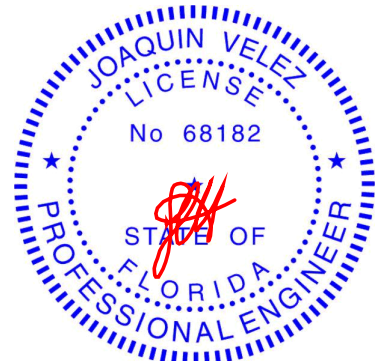
LOAD CASE(S) Standard



Review for Code Compliance
Universal Engineering Science

Lawrence Pennell
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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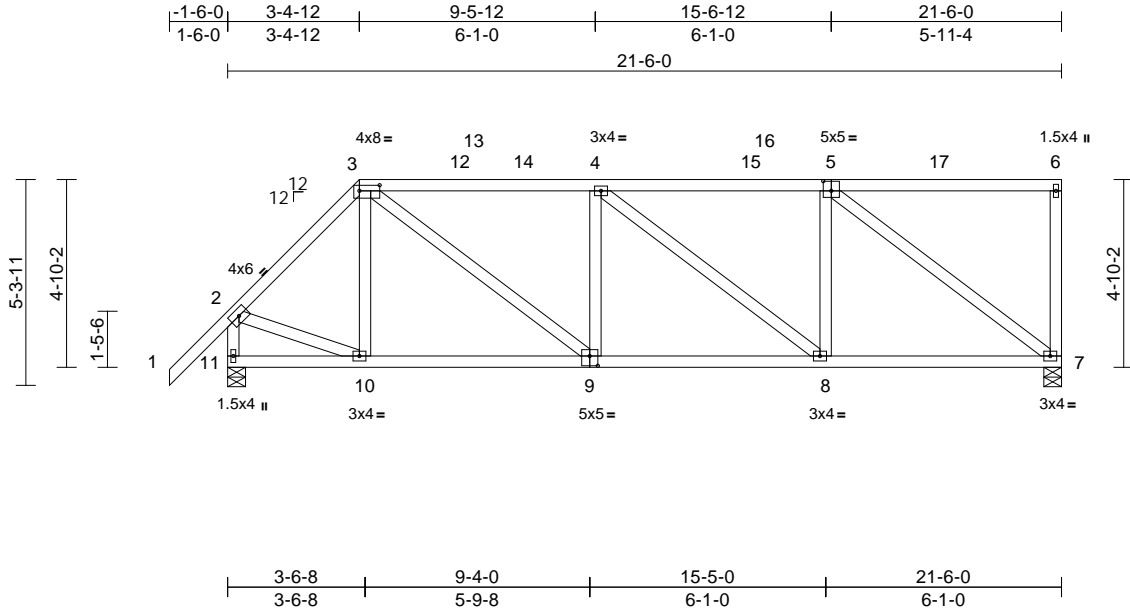
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss E05	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149865
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:29
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Page: 1



Scale = 1:59.4

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0]

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	0.41	Vert(LL)	-0.04	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.08	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 133 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.2
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins, except end verticals.
 - BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11.
- REACTIONS** (size) 7=0-5-8, 11=0-5-8
 Max Horiz 11=155 (LC 11)
 Max Uplift 7=-17 (LC 9), 11=-38 (LC 12)
 Max Grav 7=845 (LC 1), 11=951 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/70, 2-3=-821/34, 3-4=-1011/47, 4-6=-842/73, 6-7=-150/39, 2-11=-927/53
 - BOT CHORD 10-11=-214/231, 8-10=-119/1019, 7-8=-64/834
 - WEBS 3-10=-96/55, 5-7=-1037/20, 2-10=0/573, 4-9=-263/75, 3-9=-4/628, 4-8=-223/30, 5-8=0/357

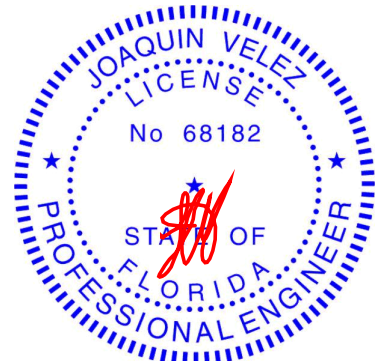
- 4) Provide adequate drainage to prevent water ponding.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at 7 and 38 lb uplift at joint 11.
- LOAD CASE(S)** Standard



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Lawrence Powell
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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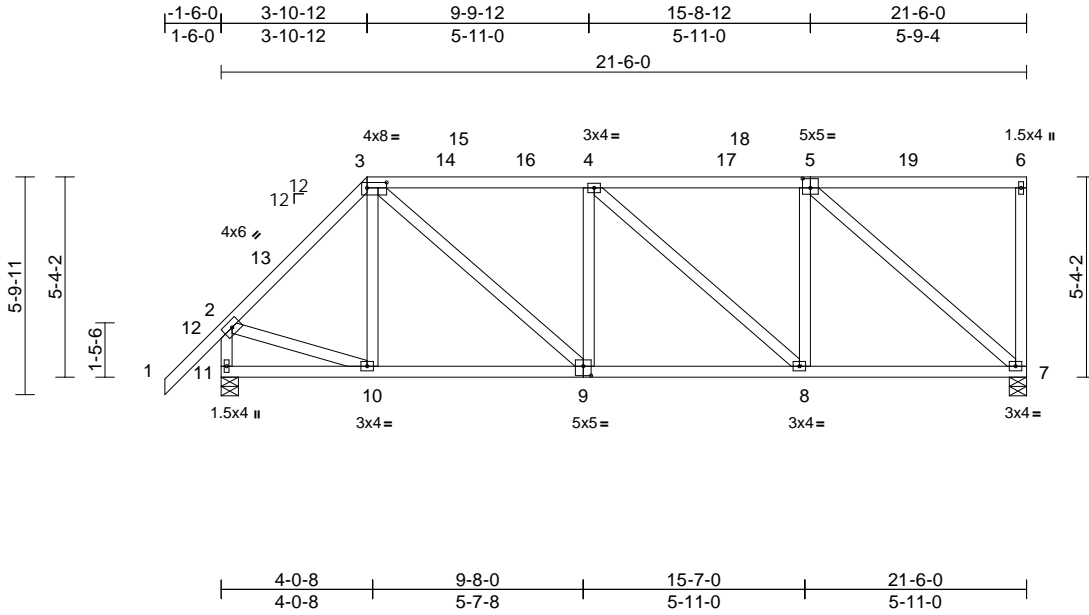
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss E06	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149866
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:29
ID:poK6wLUXPIYmaH7EiyJy0pzA3V1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?

Page: 1



Scale = 1:61.5

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0]

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	0.39	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.07	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								Weight: 138 lb FT = 20%

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

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-6-15 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-5-8, 11=0-5-8
 Max Horiz 11=171 (LC 9)
 Max Uplift 7=-20 (LC 9), 11=-37 (LC 12)
 Max Grav 7=845 (LC 1), 11=951 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/70, 2-3=-838/37, 3-4=-915/53, 4-6=-744/81, 6-7=-145/37, 2-11=-919/80
 BOT CHORD 10-11=-256/208, 8-10=-139/922, 7-8=-75/736
 WEBS 3-10=-65/80, 5-7=-970/30, 2-10=0/548, 4-9=-236/74, 3-9=-4/533, 4-8=-235/38, 5-8=0/365

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 3-10-12, Zone2 3-10-12 to 8-1-11, Zone1 8-1-11 to 21-4-4 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.
 - Provide adequate drainage to prevent water ponding.

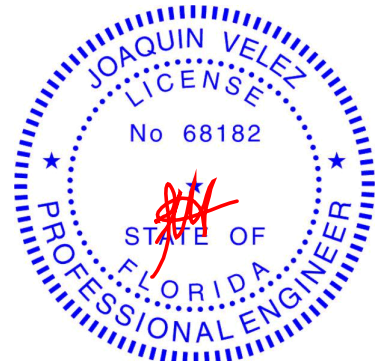
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 7 and 37 lb uplift at joint 11.
- LOAD CASE(S)** Standard



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PX2707 09/10/2025



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

August 8, 2025

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

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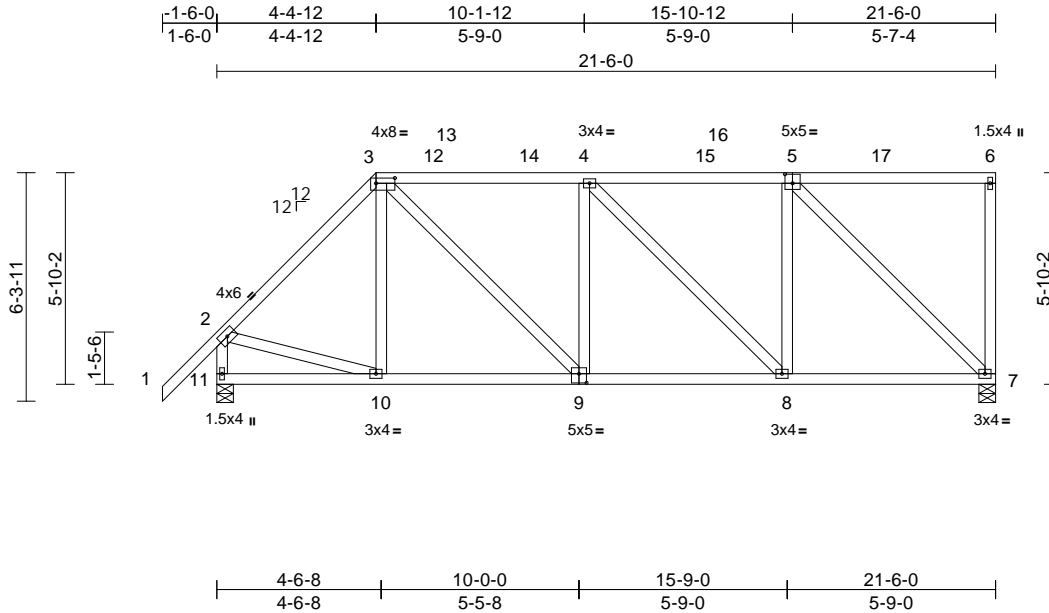
MiTek®
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss E07	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149867
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:29
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Page: 1



Scale = 1:63.6

Plate Offsets (X, Y): [3:0-6-4,0-1-12], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0]

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	0.37	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.02	7	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.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 7=0-5-8, 11=0-5-8
Max Horiz 11=186 (LC 9)
Max Uplift 7=-24 (LC 9), 11=-37 (LC 12)
Max Grav 7=845 (LC 1), 11=951 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-851/40, 3-4=-835/59, 4-6=-664/89, 6-7=-140/35, 2-11=-913/63
BOT CHORD 10-11=-268/325, 8-10=-142/840, 7-8=-80/656
WEBS 3-10=-38/103, 5-7=-918/32, 2-10=0/520, 4-9=-209/74, 3-9=-9/455, 4-8=-250/39, 5-8=0/373

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 -1-6-0 to 4-4-12, Zone2 4-4-12 to 8-7-11, Zone1 8-7-11 to 21-4-4 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.
- 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 24 lb uplift at joint 7 and 37 lb uplift at joint 11.

LOAD CASE(S) Standard



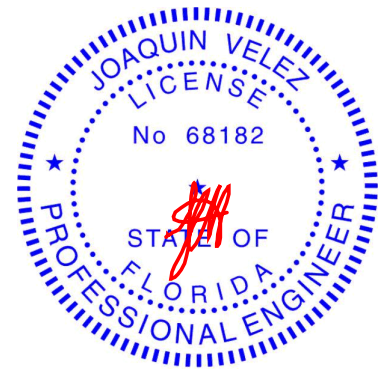
Review for Code Compliance
Universal Engineering Science

Lawrence Powell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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MiTek®

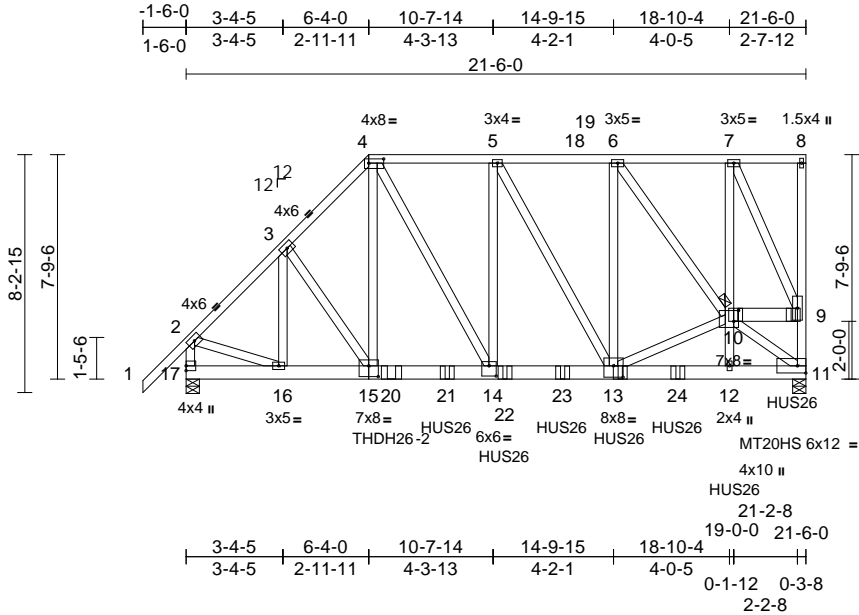
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss E08	Truss Type Half Hip Girder	Qty 1	Ply 3	Barnard Job Reference (optional)	T38149868
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:29
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Page: 1



Scale = 1:79.9
Plate Offsets (X, Y): [4:0-6-4,0-1-12], [10:0-2-0,0-4-8], [13:0-4-0,0-4-12], [14:0-3-0,0-4-4], [15:0-4-0,0-4-8]

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	0.20	Vert(LL)	-0.06	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.73	Vert(CT)	-0.12	14-15	>999	180	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								Weight: 655 lb FT = 20%

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

JOINTS
1 Brace at Jt(s): 10

REACTIONS (size) 11=0-5-8, 17=0-5-8
Max Horiz 17=242 (LC 5)
Max Uplift 11=-376 (LC 5), 17=-762 (LC 8)
Max Grav 11=8851 (LC 13), 17=6290 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD
1-2=0/70, 2-3=-6233/762, 3-4=-7428/1003,
4-5=-6326/628, 5-6=-5270/404,
6-7=-1992/157, 7-8=-63/47, 9-11=-5927/235,
8-9=-63/19, 2-17=-6062/748

BOT CHORD
16-17=-253/305, 14-16=-759/5232,
13-14=-642/6361, 12-13=-185/3607,
11-12=-188/3571, 9-10=-172/2069

WEBS
4-15=-838/3121, 2-16=-453/4401,
3-15=-262/1526, 3-16=-2256/349,
10-12=0/839, 7-10=-218/4252,
6-10=-5393/404, 5-14=-374/1719,
4-14=0/2412, 5-13=-2199/482,
6-13=-267/4047, 10-13=-244/1857,
10-11=-4644/241, 7-9=-4870/276

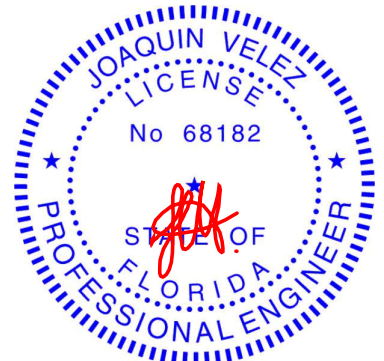
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed, end vertical 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.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 376 lb uplift at joint 11 and 762 lb uplift at joint 17.
- Use MiTek THDH26-2 (With 22-16d nails into Girder & 8-16d nails into Truss) or equivalent at 7-1-8 from the left end to connect truss(es) to front face of bottom chord.
- Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-0-12 from the left end to 21-0-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Concentrated Loads (lb)
Vert: 9=-1214 (F), 10=-1212 (F), 13=-1192 (F), 20=-3044 (F), 21=-1194 (F), 22=2170 (F), 23=-6194 (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:

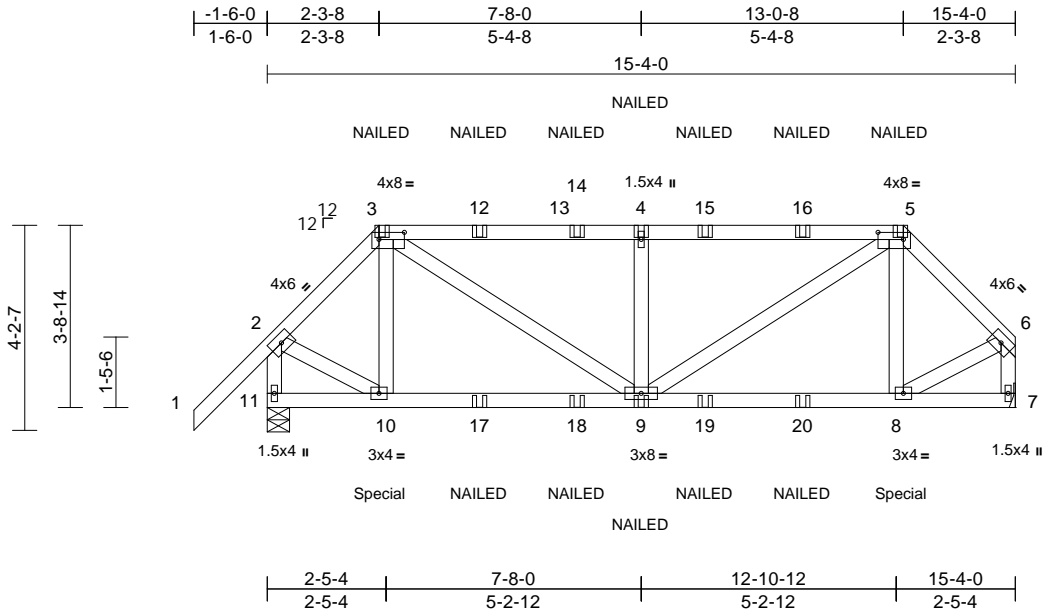
August 8, 2025

Job 0525-041	Truss F02	Truss Type Hip Girder	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149869
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:30
ID:2yCmSn9y17V7UJpTKq?apz8zwP-RfC?PsB70Hq3NSgPqnL8w3UlTxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:47.2

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

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	0.33	Vert(LL)	-0.01	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	-0.04	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 187 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 7= Mechanical, 11=0-5-8
Max Horiz 11=102 (LC 7)
Max Uplift 7=124 (LC 8), 11=166 (LC 8)
Max Grav 7=1065 (LC 14), 11=1166 (LC 13)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-6=975/134, 3-4=1329/169, 4-5=1329/169, 1-2=0/70, 2-3=965/143, 6-7=1067/123, 2-11=1171/167
BOT CHORD 10-11=98/61, 9-10=105/679, 8-9=84/670, 7-8=11/10
WEBS 5-8=121/62, 5-9=79/814, 4-9=647/197, 3-9=76/827, 3-10=131/59, 6-8=90/763, 2-10=77/791

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 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 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCdL=6.0psf; BCdL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional); cantilever left and right exposed ;
end vertical 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 comp
- 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 20.0 psf 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 7 and 166 lb uplift at joint 11.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 146 lb down and 53 lb up at 2-3-8, and 146 lb down and 53 lb up at 12-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

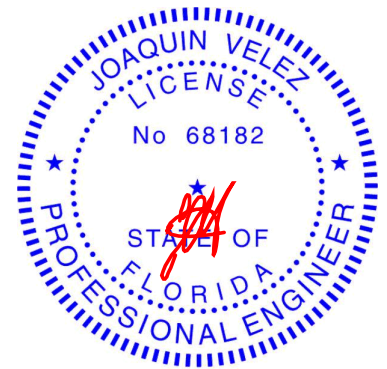
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 5-6=-60, 3-5=-60, 1-2=-60, 2-3=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 5=-74 (B), 3=-74 (B), 8=-103 (B), 4=-74 (B), 9=-38 (B), 10=-103 (B), 12=-74 (B), 14=-74 (B), 15=-74 (B), 16=-74 (B), 17=-38 (B), 18=-38 (B), 19=-38 (B), 20=-38 (B)

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PX2707 09/10/2025



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

August 8, 2025

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 ANSITPI 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.sbscomponents.com)

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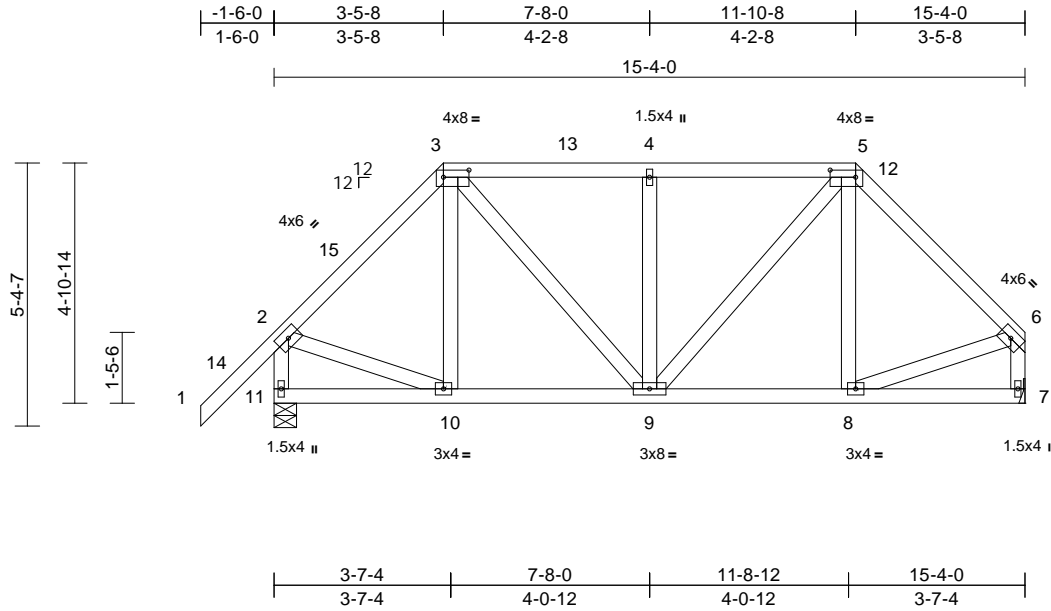
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F03	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149870
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:30
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Page: 1



Scale = 1:47

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

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	0.21	Vert(LL)	-0.01	9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.02	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								
											Weight: 103 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 7= Mechanical, 11=0-5-8
Max Horiz 11=127 (LC 11)
Max Uplift 11=40 (LC 12)
Max Grav 7=596 (LC 1), 11=706 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-6=-567/59, 3-4=-510/82, 4-5=-510/82, 1-2=0/70, 2-3=-563/62, 6-7=-565/53, 2-11=-675/116
BOT CHORD 10-11=-107/114, 9-10=-21/347, 8-9=0/349, 7-8=-34/43
WEBS 5-8=-35/72, 3-10=-41/70, 6-8=0/335, 2-10=0/358, 4-9=-290/60, 3-9=-22/274, 5-9=-26/264

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 3-5-8, Zone2 3-5-8 to 7-8-0, Zone1 7-8-0 to 11-10-8, Zone3 11-10-8 to 15-2-4 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.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 11.

LOAD CASE(S) Standard



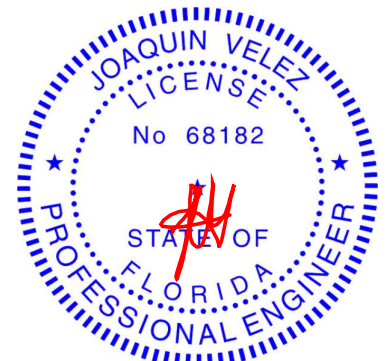
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Joaquin Velez

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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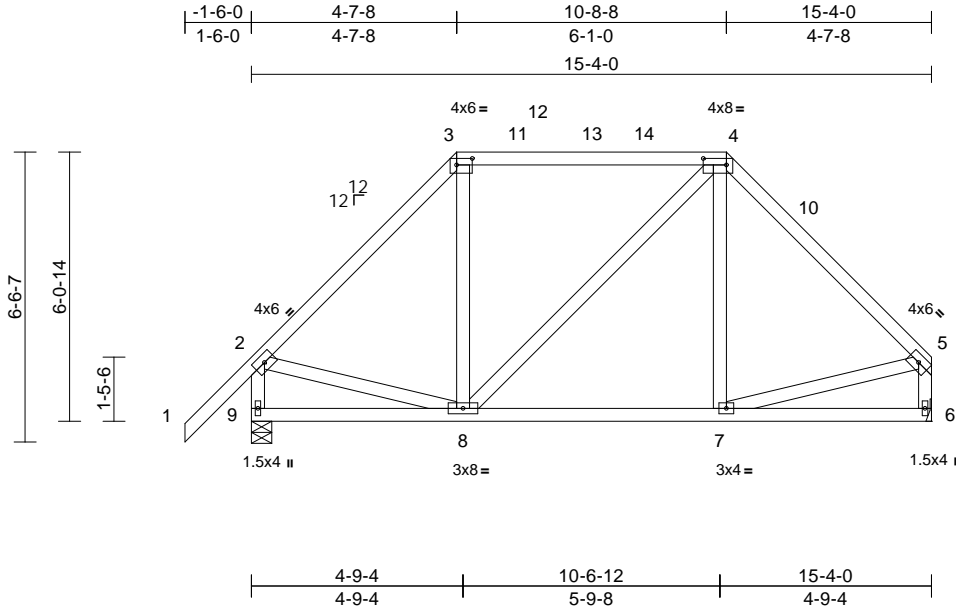
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F04	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149871
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:30
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Page: 1



Scale = 1:52
Plate Offsets (X, Y): [3:0-4-4,0-1-12], [4:0-6-4,0-1-12]

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	0.49	Vert(LL)	-0.02	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.05	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 100 lb	FT = 20%

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

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

REACTIONS (size) 6= Mechanical, 9=0-5-8
Max Horiz 9=151 (LC 11)
Max Uplift 9=40 (LC 12)
Max Grav 6=596 (LC 1), 9=706 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 4-5=-586/64, 3-4=-344/84, 1-2=0/70, 2-3=-585/69, 5-6=-557/55, 2-9=-667/100
BOT CHORD 8-9=-129/167, 7-8=0/351, 6-7=-50/62
WEBS 4-7=0/163, 4-8=-62/56, 3-8=0/164, 5-7=0/305, 2-8=0/326

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 -1-6-0 to 4-7-8, Zone2 4-7-8 to 8-10-7, Zone1 8-10-7 to 10-8-8, Zone3 10-8-8 to 15-2-4 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.
 - 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 9.

LOAD CASE(S) Standard

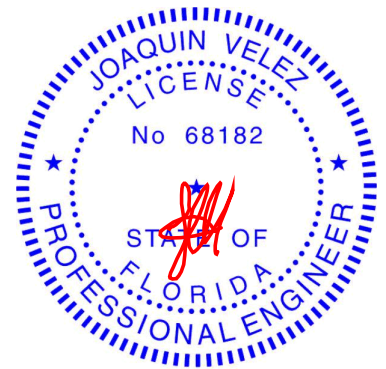


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09/10/2025



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

August 8, 2025

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

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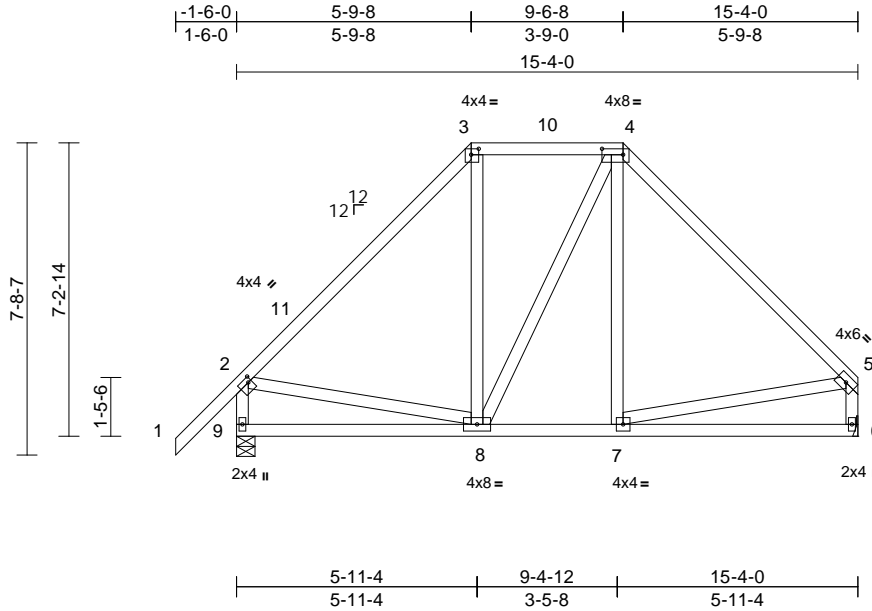
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F05	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149872
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:31
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Page: 1



Scale = 1:56.9

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

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	0.42	Vert(LL)	-0.03	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.07	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 107 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 6= Mechanical, 9=0-5-8
Max Horiz 9=175 (LC 11)
Max Uplift 9=40 (LC 12)
Max Grav 6=596 (LC 1), 9=706 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 4-5=-576/73, 3-4=-316/101, 1-2=0/70, 2-3=-581/78, 5-6=-539/51, 2-9=-648/131
BOT CHORD 8-9=-145/247, 7-8=0/320, 6-7=-50/110
WEBS 4-7=0/151, 4-8=-80/76, 3-8=0/158, 5-7=0/243, 2-8=-1/246

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 5-9-8, Zone3 5-9-8 to 9-6-8, Zone1 9-6-8 to 15-2-4 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.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 9.

LOAD CASE(S) Standard



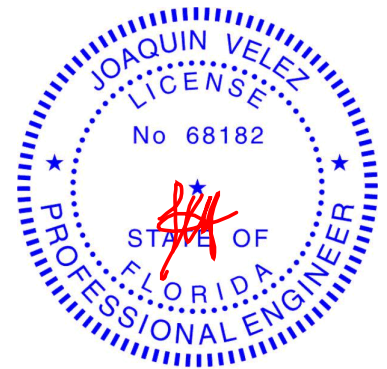
Review for Code Compliance
Universal Engineering Science

Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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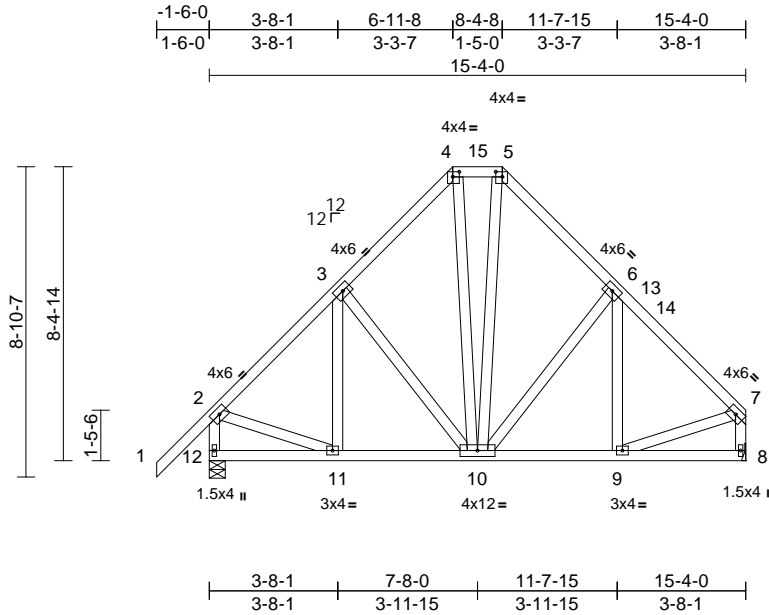
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F06	Truss Type Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149873
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:31
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Page: 1



Scale = 1:65.8

Plate Offsets (X, Y): [4:0-2-4,0-1-12], [5:0-2-4,0-1-12]

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	0.18	Vert(LL)	-0.01	10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.02	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 125 lb	FT = 20%

LUMBER

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

BRACING

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

- REACTIONS** (size) 8= Mechanical, 12=0-5-8
 Max Horiz 12=200 (LC 11)
 Max Uplift 12=40 (LC 12)
 Max Grav 8=596 (LC 1), 12=706 (LC 1)

- FORCES** (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 5-6=-460/113, 6-7=-570/50, 4-5=-278/111, 1-2=0/70, 2-3=-565/55, 3-4=-458/114, 7-8=-563/45, 2-12=-673/89

- BOT CHORD 11-12=-176/183, 10-11=-27/402, 9-10=0/356, 8-9=-31/42

- WEBS 7-9=0/341, 2-11=0/363, 3-10=-166/78, 6-10=-183/98, 3-11=-44/69, 6-9=-38/71, 4-10=-39/162, 5-10=-49/167

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 -1-6-0 to 6-11-8, Zone3 6-11-8 to 8-4-8, Zone2 8-4-8 to 12-7-7, Zone1 12-7-7 to 15-2-4 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.

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss bearing plate capable of withstanding 40 lb uplift at 12.

LOAD CASE(S) Standard

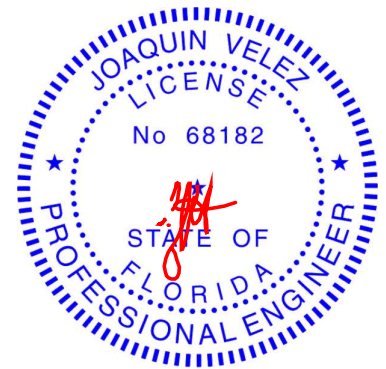


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Universal Engineering Science

Lawrence Powell
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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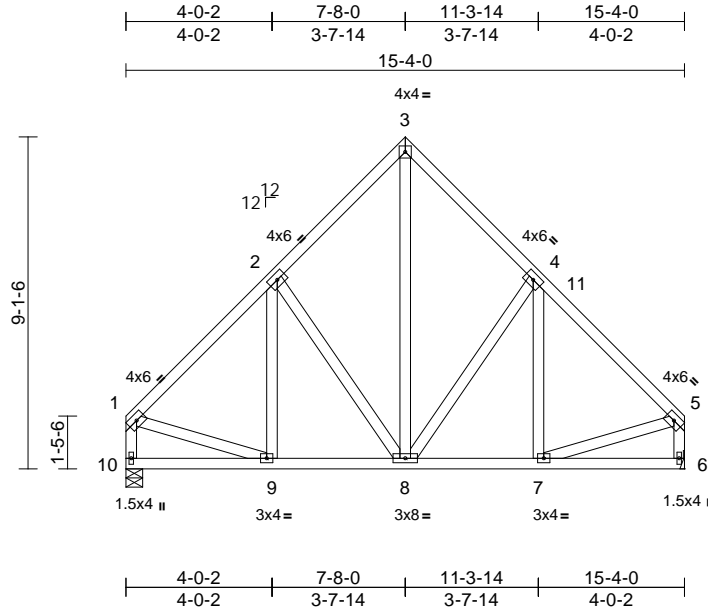
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F07	Truss Type Common	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149874
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:31
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Page: 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	0.17	Vert(LL)	-0.01	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.02	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.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) 6= Mechanical, 10=0-5-8
Max Horiz 10=192 (LC 10)
Max Grav 6=602 (LC 1), 10=602 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 3-4=-461/158, 4-5=-581/79, 1-2=-581/96, 2-3=-461/179, 5-6=-564/81, 1-10=-564/83
BOT CHORD 9-10=-172/207, 8-9=-22/420, 7-8=0/359, 6-7=-43/54
WEBS 5-7=0/334, 1-9=-5/334, 2-9=-25/84, 2-8=-210/105, 3-8=-157/383, 4-8=-210/144, 4-7=-25/84

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 0-1-12 to 7-8-0, Zone2 7-8-0 to 11-10-15, Zone1 11-10-15 to 15-2-4 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
 - 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.

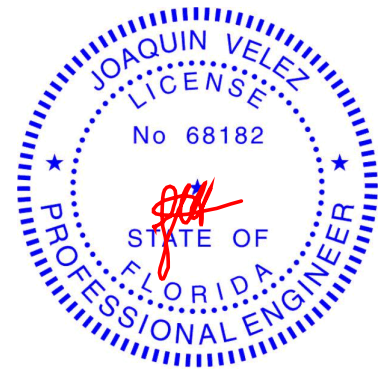
LOAD CASE(S) Standard



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Universal Engineering Science

Lawrence Pennell
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PX2707 09/10/2025



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

August 8, 2025

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

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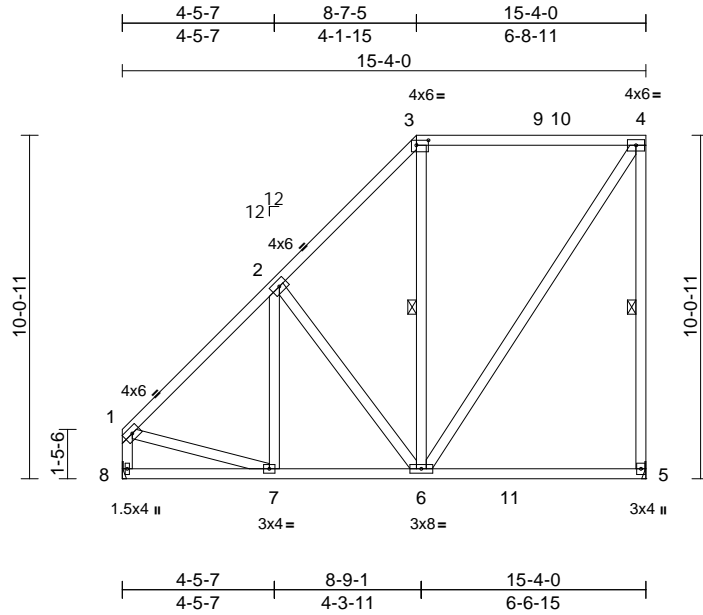
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F08	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149875
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:31
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Page: 1



Scale = 1:67.5

Plate Offsets (X, Y): [3:0-4-4,0-1-12]

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	0.69	Vert(LL)	-0.09	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.15	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 122 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8'-10-5 oc bracing.

WEBS 1 Row at midpt 4-5, 3-6

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Horiz 8=291 (LC 9)
Max Uplift 5=-90 (LC 9)
Max Grav 5=760 (LC 17), 8=681 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-649/85, 2-3=-505/174, 3-4=-332/163, 4-5=-618/229, 1-8=-603/71

BOT CHORD 7-8=-443/494, 6-7=-290/573, 5-6=-127/146

WEBS 2-6=-279/147, 3-6=-117/141, 4-6=-191/551, 1-7=0/383, 2-7=-11/90

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 0-1-12 to 8-7-5, Zone2 8-7-5 to 12-10-4, Zone1 12-10-4 to 15-2-4 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.
- 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'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at 5.

LOAD CASE(S) Standard



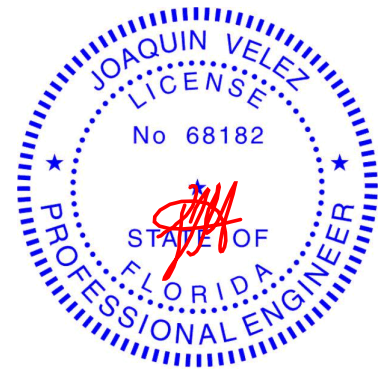
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Universal Engineering Science

Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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

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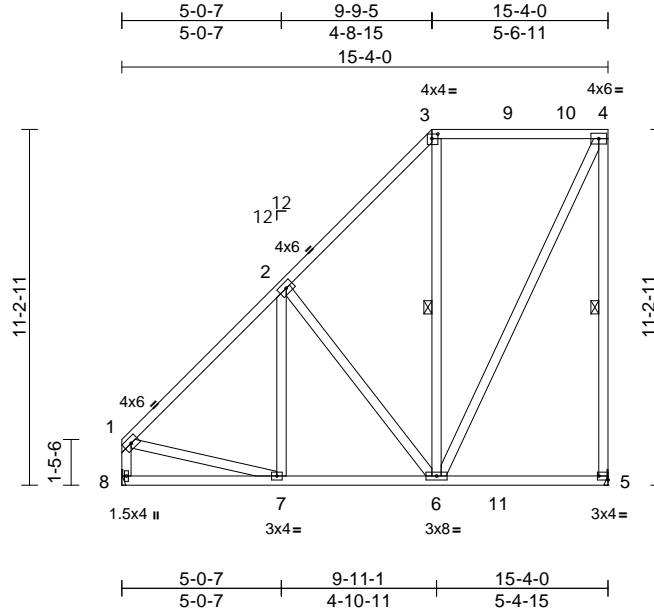
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F09	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149876
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:32
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Page: 1



Scale = 1:72.7

Plate Offsets (X, Y): [3:0-2-4,0-1-12], [5:Edge,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	0.93	Vert(LL)	-0.05	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.30	Vert(CT)	-0.07	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 130 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.2
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 - BOT CHORD Rigid ceiling directly applied or 8-4-5 oc bracing.
 - WEBS 1 Row at midpt 4-5, 3-6
- REACTIONS** (size) 5= Mechanical, 8= Mechanical
- Max Horiz 8=326 (LC 9)
 - Max Uplift 5=-108 (LC 9)
 - Max Grav 5=771 (LC 17), 8=694 (LC 18)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-673/86, 2-3=-475/188, 3-4=-311/176, 4-5=-653/249, 1-8=-612/70
 - BOT CHORD 7-8=-496/555, 6-7=-301/584, 5-6=-145/162
 - WEBS 2-6=-349/165, 3-6=-164/168, 4-6=-221/588, 1-7=0/385, 2-7=0/145

- 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift.

LOAD CASE(S) Standard

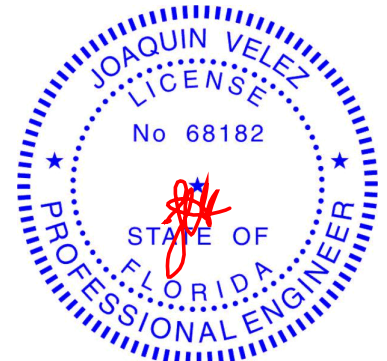


Review for Code Compliance
Universal Engineering Science

Joaquin Velez

PX2707 09/10/2025

Examiner-License No.



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

August 8, 2025

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

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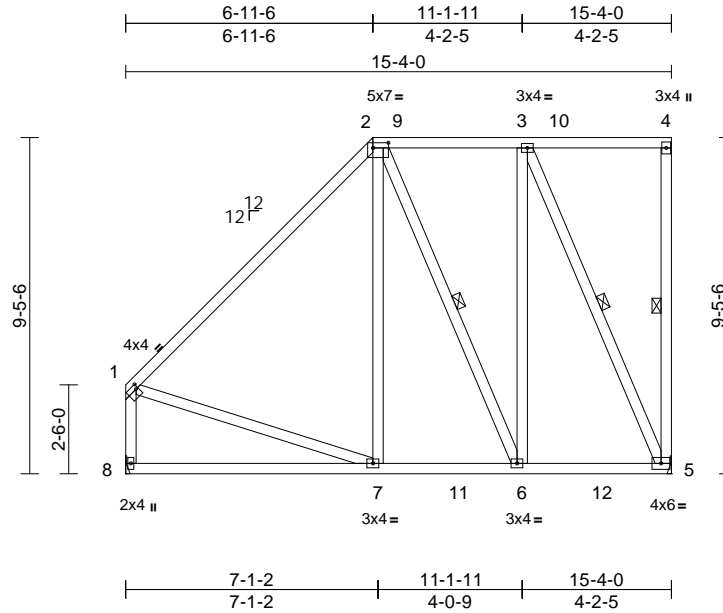
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F10	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149877
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:64.7

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

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	0.65	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.36	Vert(CT)	-0.13	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 132 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-9-15 oc bracing.

WEBS 1 Row at midpt 4-5, 3-5, 2-6

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Horiz 8=270 (LC 11)
Max Uplift 5=-84 (LC 9)
Max Grav 5=743 (LC 17), 8=692 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-592/112, 2-3=-289/152, 3-4=-130/139, 4-5=-113/60, 1-8=-579/96

BOT CHORD 7-8=-430/495, 6-7=-220/442, 5-6=-157/324

WEBS 2-7=0/230, 3-5=-635/175, 1-7=-58/305, 3-6=-68/371, 2-6=-285/151

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 0-1-12 to 6-11-6, Zone2 6-11-6 to 11-1-11, Zone1 11-1-11 to 15-2-4 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.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at 5.

LOAD CASE(S) Standard

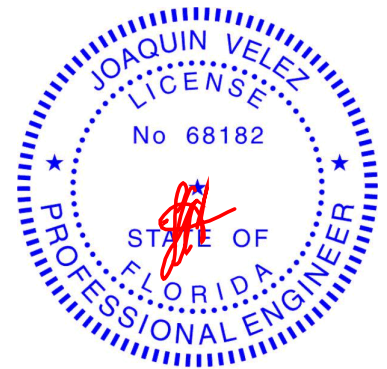


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Joaquin Velez
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09/10/2025



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

August 8, 2025

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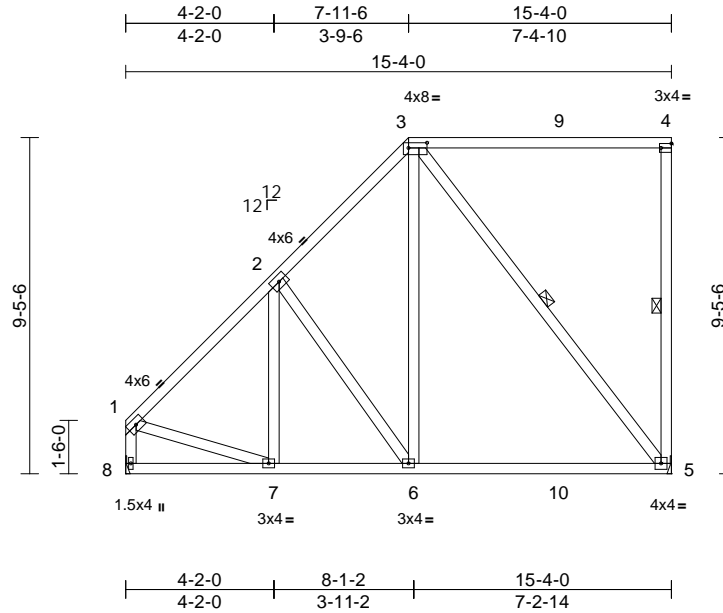
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss F11	Truss Type Half Hip	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149878
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:32
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Page: 1



Scale = 1:64.7
Plate Offsets (X, Y): [3:0-6-4,0-1-12], [4:Edge,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	0.73	Vert(LL)	-0.13	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.20	5-6	>881	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								Weight: 118 lb FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-1-12 oc bracing.
WEBS 1 Row at midpt 4-5, 3-5

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Horiz 8=273 (LC 9)
Max Uplift 5=-82 (LC 9)
Max Grav 5=742 (LC 17), 8=687 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-642/85, 2-3=-536/167, 3-4=-138/141, 4-5=-213/79, 1-8=610/72
BOT CHORD 7-8=-416/462, 6-7=-282/559, 5-6=-199/424
WEBS 3-6=-23/448, 3-5=-559/179, 1-7=0/387, 2-6=-235/139, 2-7=-36/51

- 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift a 5.
- LOAD CASE(S)** Standard

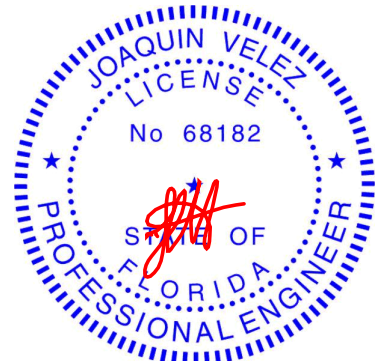


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Lawrence Powell
Examiner-License No.

PX2707 09/10/2025

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 0-1-12 to 7-11-6, Zone2 7-11-6 to 12-2-4, Zone1 12-2-4 to 15-2-4 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.
 - Provide adequate drainage to prevent water ponding.



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

August 8, 2025

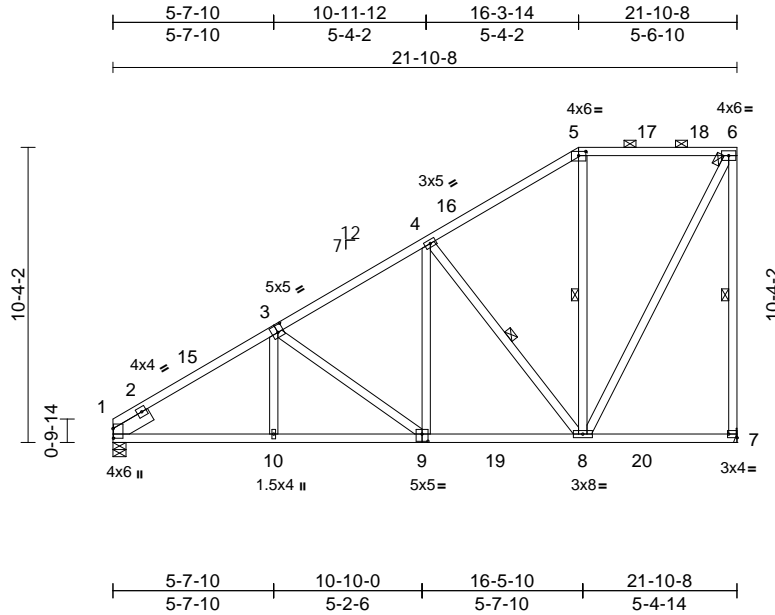
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 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)</p>	<p>16023 Swingley Ridge Rd. Chesterfield, MO 63017 314.434.1200 / MiTek-US.com</p>
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Job 0525-041	Truss G01	Truss Type Piggyback Base	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149879
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:32
ID:dtLo6eNbcstZepU4WzKEAzBHS?-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:80.8

Plate Offsets (X, Y): [1:0-4-1,0-0-4], [3:0-2-8,0-3-0], [5:0-3-0,0-1-12], [7:Edge,0-1-8], [9:0-2-8,0-3-0]

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	0.64	Vert(LL)	-0.05	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.10	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								Weight: 155 lb FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.2
 - SLIDER Left 2x6 SP No.2 -- 1-6-0

- BRACING**
- TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
 - BOT CHORD Rigid ceiling directly applied.

- REACTIONS**
- WEBS 1 Row at midpt 6-7, 4-8, 5-8
 - (size) 1=0-5-8, 7= Mechanical
 - Max Horiz 1=298 (LC 11)
 - Max Uplift 7=-39 (LC 9)
 - Max Grav 1=986 (LC 17), 7=1059 (LC 17)

- FORCES**
- (lb) - Maximum Compression/Maximum Tension
 - TOP CHORD 1-4=-1357/108, 4-5=-590/149, 5-6=-438/152, 6-7=-942/138
 - BOT CHORD 1-10=-352/1211, 8-10=-268/1208, 7-8=-134/151
 - WEBS 4-8=-690/85, 5-8=-117/153, 6-8=-135/927, 3-10=0/183, 3-9=-383/72, 4-9=0/460

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 16-3-14, Zone2 16-3-14 to 20-6-13, Zone1 20-6-13 to 21-8-12 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.

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss bearing plate capable of withstanding 39 lb uplift at 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

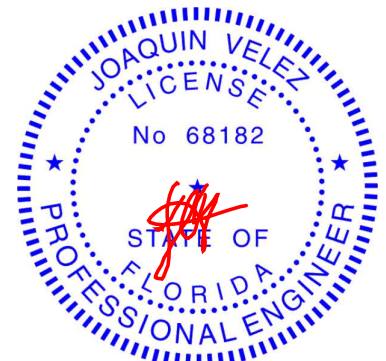
LOAD CASE(S) Standard



Review for Code Compliance
Universal Engineering Science

Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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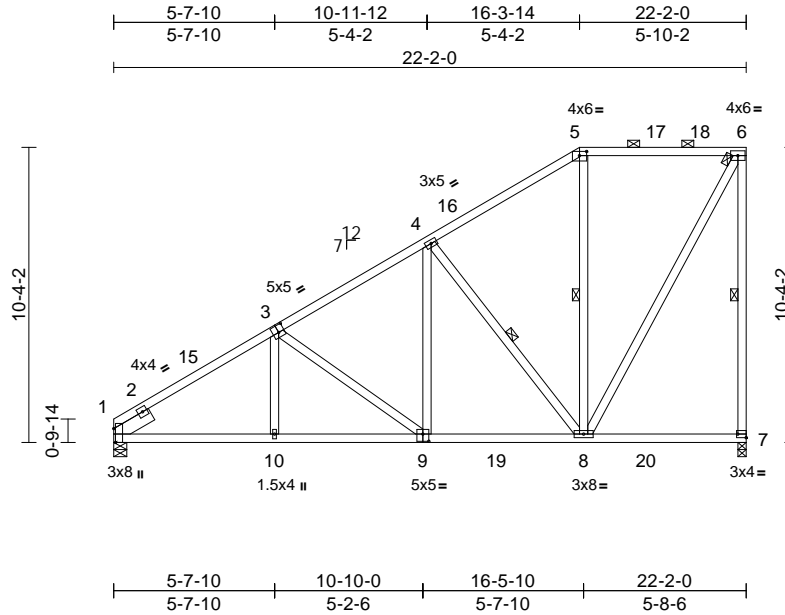
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss G02	Truss Type Piggyback Base	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149880
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:33
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Page: 1



Scale = 1:80.8

Plate Offsets (X, Y): [1:0-5-13,Edge], [3:0-2-8,0-3-0], [5:0-3-0,0-1-12], [7:Edge,0-1-8], [9:0-2-8,0-3-0]

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	0.65	Vert(LL)	-0.05	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.10	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								
											Weight: 156 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.2
 - SLIDER Left 2x6 SP No.2 -- 1-6-0

- BRACING**
- TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
 - BOT CHORD Rigid ceiling directly applied.
 - WEBS 1 Row at midpt 6-7, 4-8, 5-8

- REACTIONS**
- (size) 1=0-5-8, 7=0-3-8
 - Max Horiz 1=298 (LC 11)
 - Max Uplift 7=-39 (LC 9)
 - Max Grav 1=1000 (LC 17), 7=1073 (LC 17)

- FORCES**
- (lb) - Maximum Compression/Maximum Tension
 - TOP CHORD 1-4=-1381/108, 4-5=-613/149, 5-6=-459/152, 6-7=-949/140
 - BOT CHORD 1-10=-353/1231, 8-10=-270/1228, 7-8=-133/150
 - WEBS 4-8=-686/85, 5-8=-116/153, 6-8=-134/937, 3-10=0/183, 3-9=-381/72, 4-9=0/457

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 16-3-14, Zone2 16-3-14 to 20-6-13, Zone1 20-6-13 to 22-0-4 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.

- 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 39 lb uplift at 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

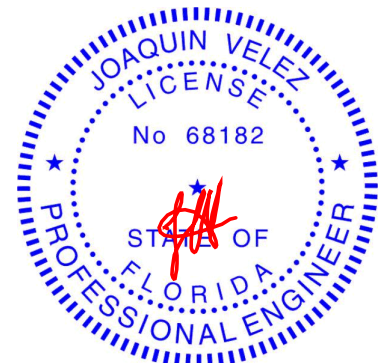
LOAD CASE(S) Standard

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PX2707 09/10/2025



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

August 8, 2025

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

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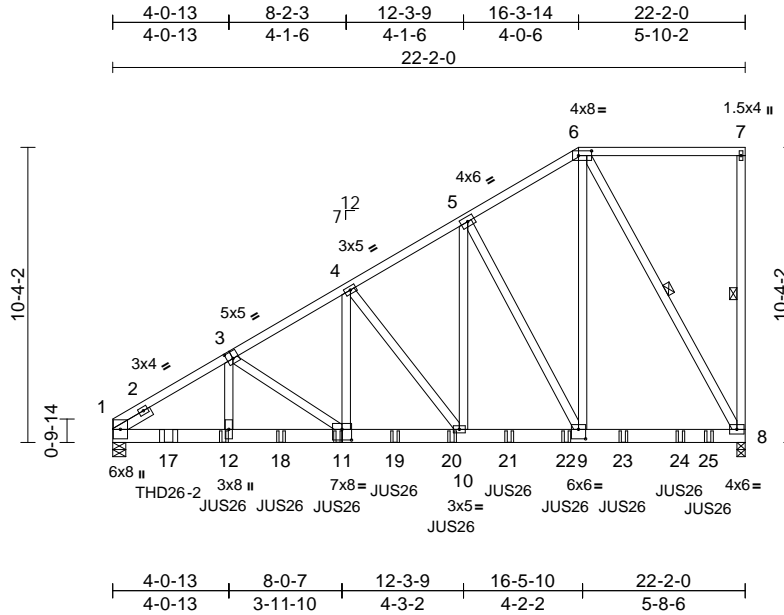
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss G03	Truss Type Piggyback Base Girder	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149881
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:80.8
Plate Offsets (X, Y): [1:0-4-5,0-0-3], [3:0-2-8,0-3-0], [6:0-5-8,0-2-0], [9:0-3-0,0-4-0], [11:0-4-0,0-4-8]

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	0.51	Vert(LL)	-0.09	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.94	Vert(CT)	-0.18	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								Weight: 372 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 6-8

REACTIONS
(size) 1=0-5-8, 8=0-3-8
Max Horiz 1=296 (LC 7)
Max Grav 1=4243 (LC 13), 8=4864 (LC 13)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-5975/0, 4-5=-3638/0, 5-6=-2378/0, 6-7=-114/96, 7-8=-169/47
BOT CHORD 1-12=0/5144, 10-12=0/5121, 9-10=0/3162, 8-9=0/2095
WEBS 6-9=0/4479, 6-8=-4134/0, 5-9=-2480/0, 3-12=0/946, 3-11=-891/19, 4-11=0/1993, 4-10=-1975/0, 5-10=0/2641

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical 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 load 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.
- Use MiTek THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 1-11-8 from the left end to connect truss(es) to front face of bottom chord.
- Use MiTek JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 3-10-12 from the left end to 20-10-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

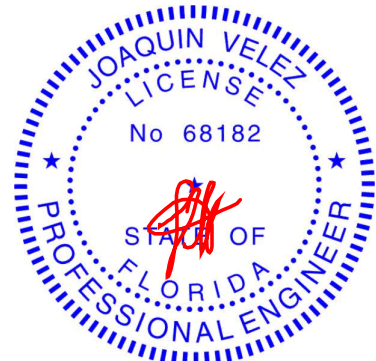
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Examiner-License No.

PX2707 09/10/2025



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

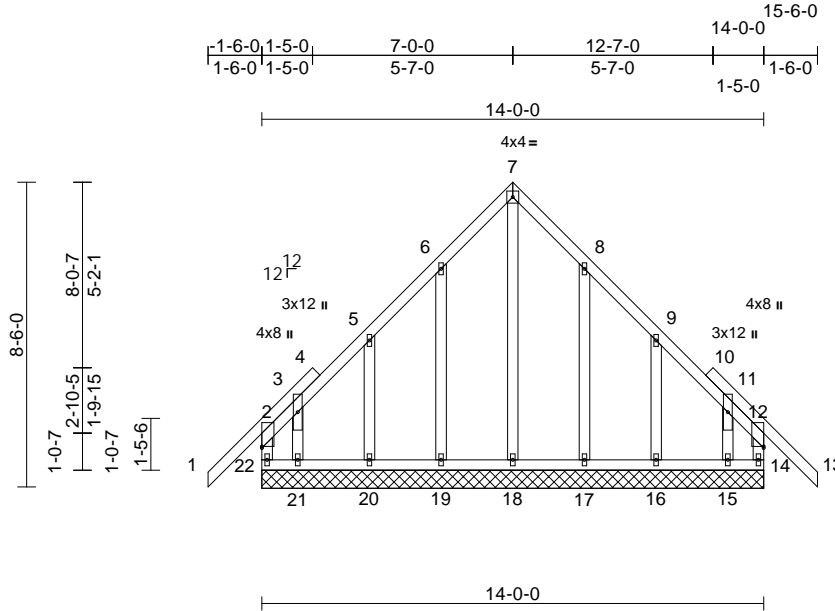
August 8, 2025

Job 0525-041	Truss H01	Truss Type Common Supported Gable	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149882
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:33
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Page: 1



Scale = 1:64.3

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	0.19	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.00	14	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR						Weight: 108 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 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 6-0-0 oc bracing.

REACTIONS (size) 14=14-0-0, 15=14-0-0, 16=14-0-0, 17=14-0-0, 18=14-0-0, 19=14-0-0, 20=14-0-0, 21=14-0-0, 22=14-0-0
Max Horiz 22=198 (LC 10)
Max Uplift 14=86 (LC 9), 15=92 (LC 8), 16=47 (LC 12), 17=42 (LC 12), 19=42 (LC 12), 20=47 (LC 12), 21=102 (LC 9), 22=103 (LC 8)
Max Grav 14=234 (LC 17), 15=175 (LC 11), 16=168 (LC 18), 17=188 (LC 18), 18=257 (LC 12), 19=189 (LC 17), 20=167 (LC 17), 21=193 (LC 10), 22=257 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-22=210/116, 1-2=0/65, 2-3=142/131, 3-5=95/96, 5-6=97/183, 6-7=171/289, 7-8=171/289, 8-9=97/183, 9-11=75/81, 11-12=120/105, 12-13=0/65, 12-14=193/113
BOT CHORD 21-22=99/113, 20-21=99/113, 19-20=99/113, 18-19=99/113, 17-18=99/113, 16-17=99/113, 15-16=99/113, 14-15=99/113
WEBS 7-18=337/131, 6-19=149/125, 5-20=145/137, 3-21=167/105, 8-17=148/125, 9-16=145/137, 11-15=167/104

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

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone2 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/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 1.5x4 (||) 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 22, 86 lb uplift at joint 14, 42 lb uplift at joint 19, 47 lb uplift at joint 20, 102 lb uplift at joint 21, 42 lb uplift at joint 17, 47 lb uplift at joint 16 and 92 lb uplift at joint 15.

LOAD CASE(S) Standard

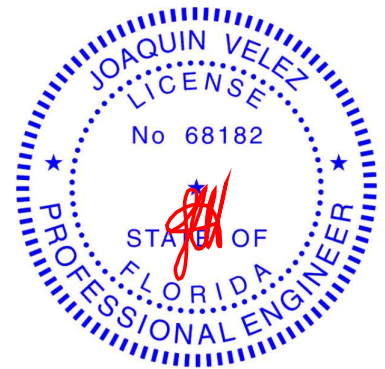
Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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 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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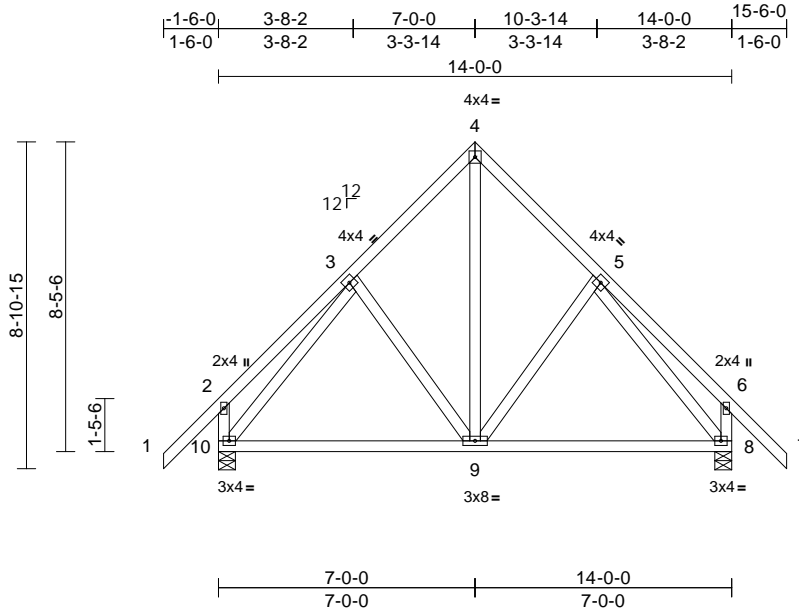
Job 0525-041	Truss H02	Truss Type Common	Qty 2	Ply 1	Barnard	T38149883
Job Reference (optional)						

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:34

Page: 1

ID:a_26g9xYNgSPhp1FgLP1uWzA3GE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCdoi7J4zJC7f



Scale = 1:62.9

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	0.18	Vert(LL)	-0.04	8-9	>999	240	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.09	8-9	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	8	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							
Weight: 104 lb											FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 8=0-5-8, 10=0-5-8
 Max Horiz 10=-213 (LC 10)
 Max Uplift 8=-40 (LC 12), 10=-40 (LC 2)
 Max Grav 8=647 (LC 1), 10=647 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/70, 2-3=-176/128, 3-4=-415/128, 4-5=-415/128, 5-6=-176/128, 6-7=0/70, 2-10=-254/144, 6-8=-254/144
 BOT CHORD 9-10=-9/362, 8-9=0/298
 WEBS 4-9=-105/386, 3-10=-439/0, 5-8=-439/0, 3-9=-153/130, 5-9=-153/130

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone 1 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 10 and 40 lb uplift at joint 8.

LOAD CASE(S) Standard



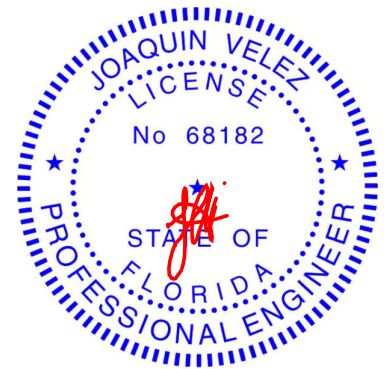
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Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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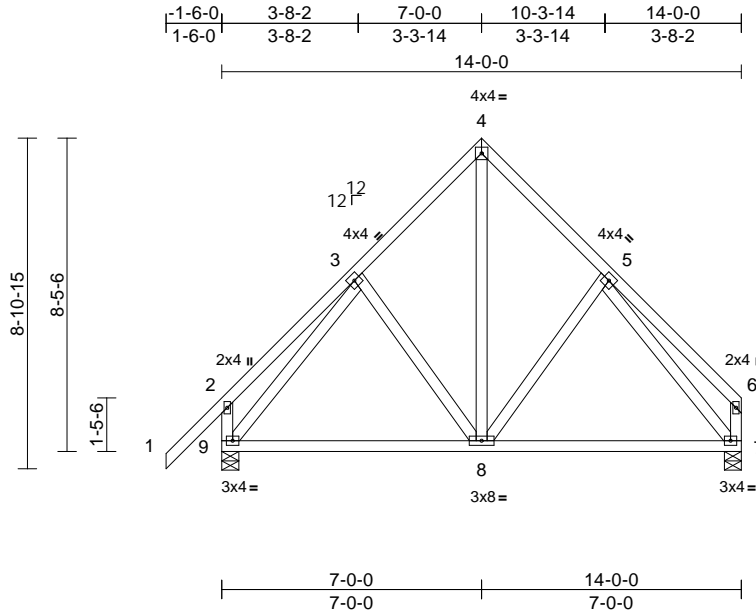
16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss H03	Truss Type Common	Qty 1	Ply 1	Barnard	T38149884
Job Reference (optional)						

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:34
ID:qi5WZE2CGR_7HCDzikT8mQzA3G5-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 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	0.18	Vert(LL)	-0.05	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.09	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								
											Weight: 101 lb	FT = 20%

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

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

REACTIONS (size) 7=0-5-8, 9=0-5-8
Max Horiz 9=199 (LC 11)
Max Uplift 9=40 (LC 12)
Max Grav 7=542 (LC 1), 9=653 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-176/129, 3-4=-422/129, 4-5=-424/130, 5-6=-178/97, 2-9=-255/144, 6-7=-179/82
BOT CHORD 8-9=-35/349, 7-8=-28/301
WEBS 4-8=-110/395, 3-9=-446/0, 5-7=-416/30, 3-8=-153/130, 5-8=-156/133

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone 1 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 9.

LOAD CASE(S) Standard



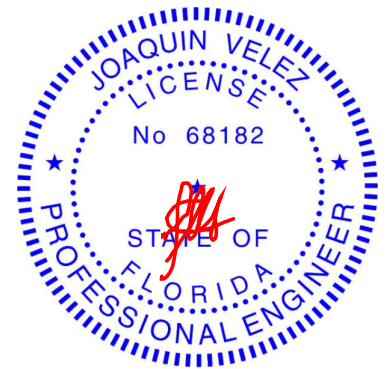
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Universal Engineering Science

Lawrence Pennell

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09/10/2025

Examiner-License No.



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

August 8, 2025

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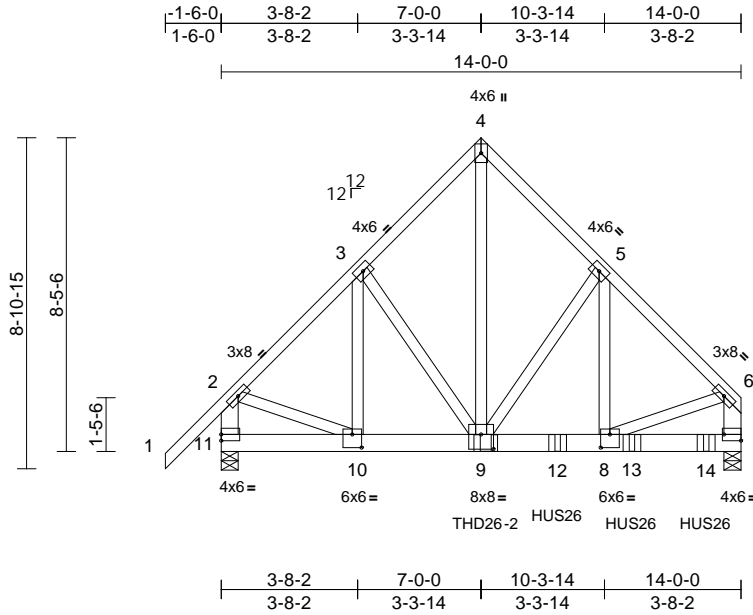
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss H04	Truss Type Common Girder	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149885
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:34
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Page: 1



Scale = 1:62.1

Plate Offsets (X, Y): [7:Edge,0-2-0], [8:0-3-0,0-4-4], [9:0-4-0,0-4-12], [10:0-3-0,0-4-4]

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	0.23	Vert(LL)	-0.04	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.07	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 242 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 11-2,7-6:2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-5-8, 11=0-5-8
Max Horiz 11=199 (LC 7)
Max Uplift 11=311 (LC 8)
Max Grav 7=5589 (LC 13), 11=3187 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-3148/322, 3-4=-3482/400, 4-5=-3481/401, 5-6=-4524/0, 2-11=-3099/333, 6-7=-4231/0
BOT CHORD 10-11=-131/240, 9-10=-223/2243, 8-9=0/3162, 7-8=0/419
WEBS 2-10=-167/2204, 6-8=0/2921, 3-10=-784/64, 3-9=-83/513, 4-9=-512/4647, 5-9=-1288/0, 5-8=0/1612

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical 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 load 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 psf 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 311 lb uplift at joint 11.
- Use MiTek THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 7-1-8 from the left end to connect truss(es) to back face of bottom chord.
- Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 9-0-12 from the left end to 13-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

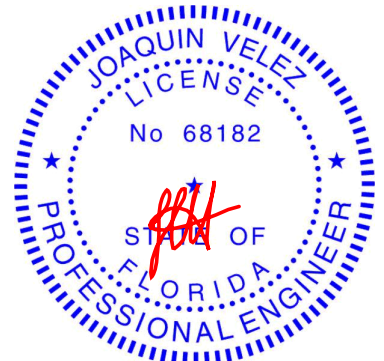
- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-4=-60, 4-6=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 9=-2892 (B), 12=-1194 (B), 13=-1194 (B), 14=-1197 (B)

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Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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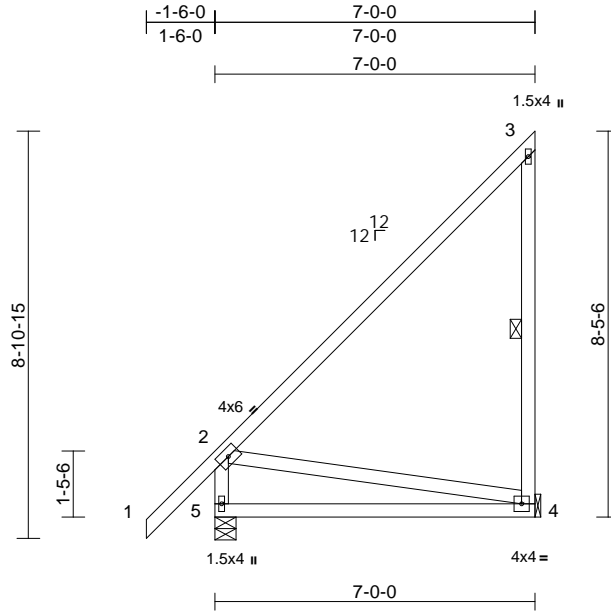
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J02	Truss Type Jack-Closed	Qty 15	Ply 1	Barnard Job Reference (optional)	T38149886
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:34
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Page: 1



Scale = 1:50.4

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	0.99	Vert(LL)	-0.12	4-5	>663	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.24	4-5	>331	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 51 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-1-8 oc bracing.
WEBS 1 Row at midpt 3-4

REACTIONS

(size) 4= Mechanical, 5=0-5-8
Max Horiz 5=258 (LC 9)
Max Uplift 4=-121 (LC 9), 5=-21 (LC 12)
Max Grav 4=323 (LC 17), 5=395 (LC 18)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-328/139, 1-2=0/70, 2-3=-310/301, 3-4=-353/281
BOT CHORD 4-5=-484/345
WEBS 2-4=-263/415

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 5 and 121 lb uplift at joint 4.

LOAD CASE(S) Standard



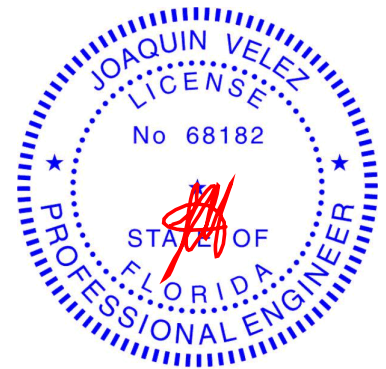
Review for Code Compliance
Universal Engineering Science

Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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MiTek®

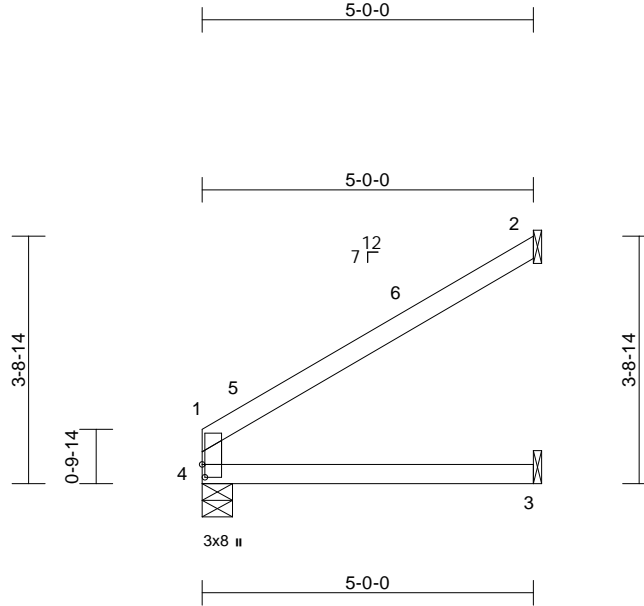
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J03	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149887
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:34
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Page: 1



Scale = 1:34.8

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

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	0.32	Vert(LL)	0.03	3-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	-0.05	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/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.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2= Mechanical, 3= Mechanical, 4=0-5-8
Max Horiz 4=78 (LC 12)
Max Uplift 2=44 (LC 12)
Max Grav 2=134 (LC 1), 3=90 (LC 3), 4=192 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-4=-153/73, 1-2=-98/55
BOT CHORD 3-4=0/0

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-1-12 to 3-1-12, Zone1 3-1-12 to 4-11-4 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
- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2.
- 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



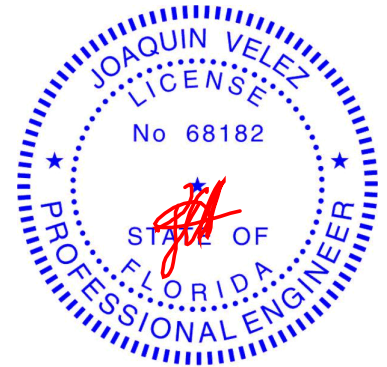
Review for Code Compliance
Universal Engineering Science

Joaquin Velez

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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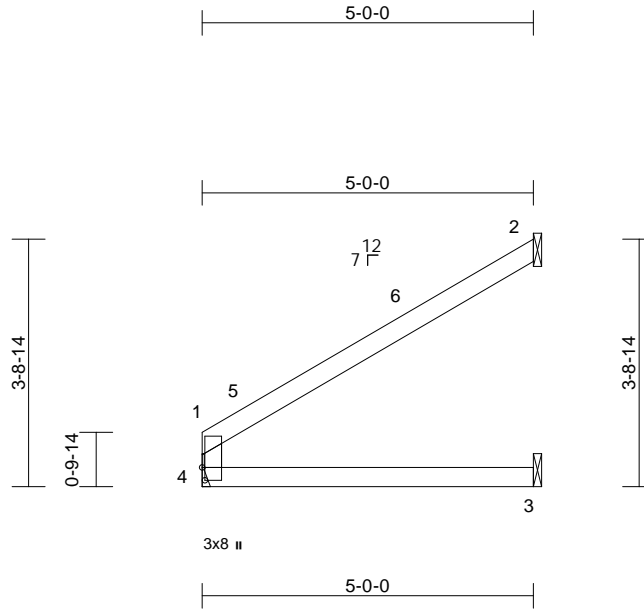
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J04	Truss Type Jack-Open	Qty 5	Ply 1	Barnard Job Reference (optional)	T38149888
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:35
ID:FT3UPysPPJyeMBqYtj_OJEzA30r-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:34.8

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

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	0.32	Vert(LL)	0.03	3-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	-0.05	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/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.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4= Mechanical
Max Horiz 4=78 (LC 12)
Max Uplift 2=44 (LC 12)
Max Grav 2=134 (LC 1), 3=90 (LC 3), 4=192 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-4=-153/73, 1-2=-98/55
BOT CHORD 3-4=0/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-1-12 to 3-1-12, Zone1 3-1-12 to 4-11-4 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.

- Refer to girder(s) for truss to truss connections.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2.
- 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



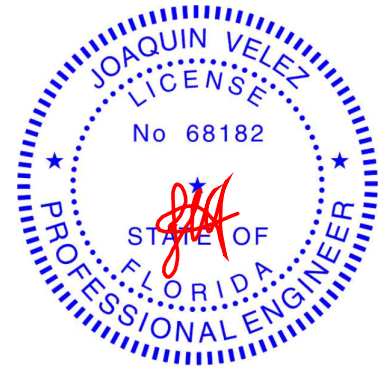
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Universal Engineering Science

Joaquin Velez

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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

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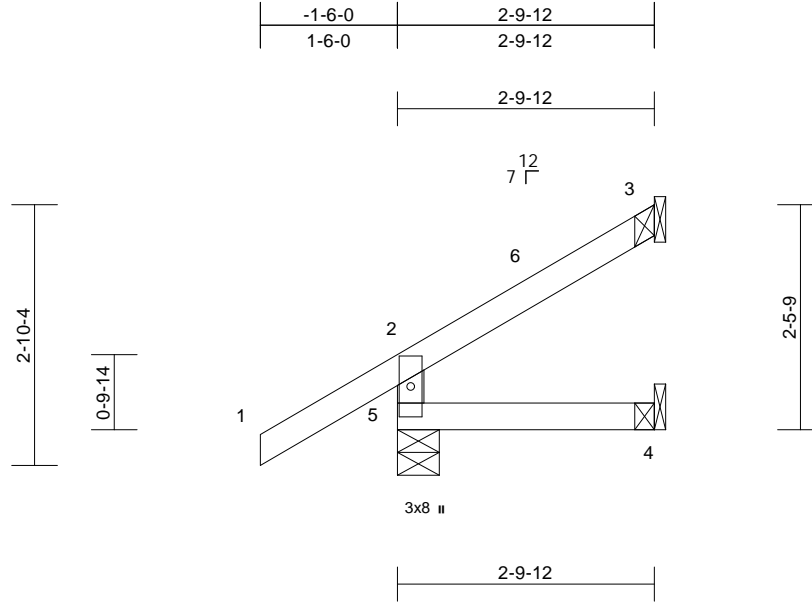
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J05	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149889
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:35
ID:4vyAEq8r?NrNdj5zk2uPl5zA30U-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f

Page: 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	0.20	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 12 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=83 (LC 12)
Max Uplift 3=-19 (LC 12), 5=-31 (LC 12)
Max Grav 3=56 (LC 17), 4=46 (LC 3), 5=234 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-201/163, 1-2=0/50, 2-3=-52/28
BOT CHORD 4-5=0/0

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 2-9-0 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
 - 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 5 and 19 lb uplift at joint 3.
- LOAD CASE(S)** Standard



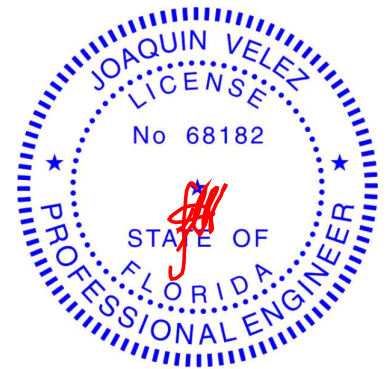
Review for Code Compliance
Universal Engineering Science

Lawrence Powell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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

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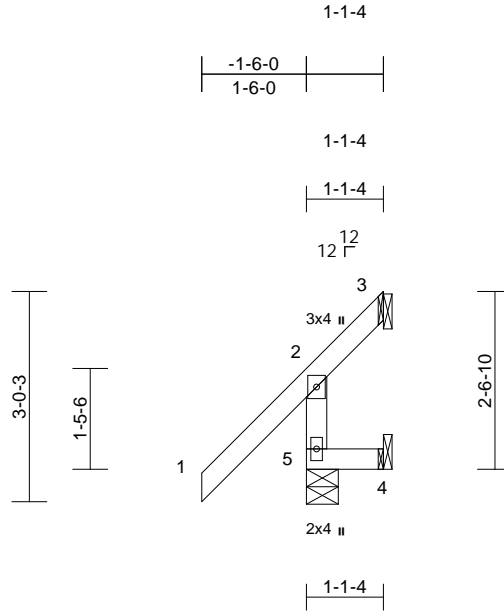
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J06	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149890
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:35
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Page: 1



Scale = 1:33

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	0.36	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.12	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%

LUMBER

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

- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 4 and 38 lb uplift at joint 3.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=107 (LC 12)
Max Uplift 3=-38 (LC 1), 4=-44 (LC 12)
Max Grav 3=10 (LC 8), 4=27 (LC 10), 5=222 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-194/178, 1-2=0/70, 2-3=-67/28
BOT CHORD 4-5=0/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; 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
- 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.



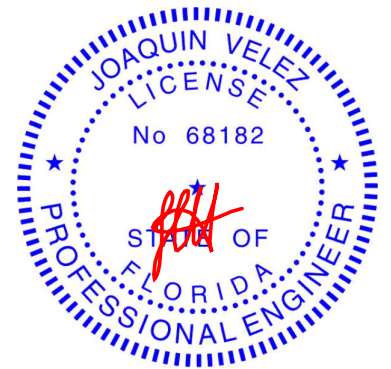
Review for Code Compliance
Universal Engineering Science

Joaquin Velez

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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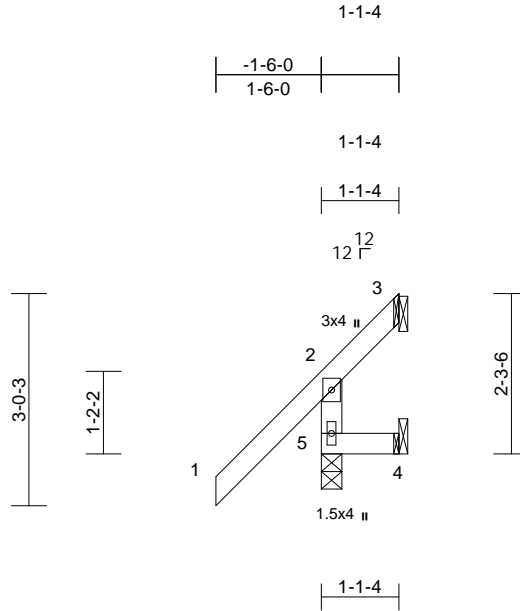
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J07	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149891
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:35
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Page: 1



Scale = 1:32.8

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	0.26	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=120 (LC 12)
Max Uplift 3=-36 (LC 1), 4=-33 (LC 12), 5=-8 (LC 12)
Max Grav 3=12 (LC 10), 4=26 (LC 10), 5=222 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-191/132, 1-2=0/70, 2-3=-65/56
BOT CHORD 4-5=0/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone1 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 5, 33 lb uplift at joint 4 and 36 lb uplift at joint 3.

LOAD CASE(S) Standard



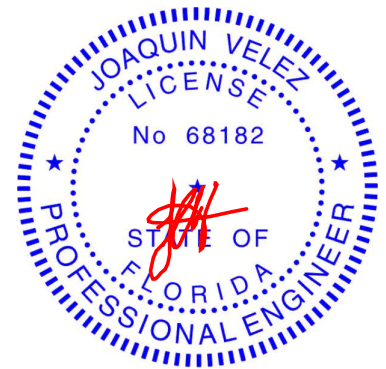
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Universal Engineering Science

Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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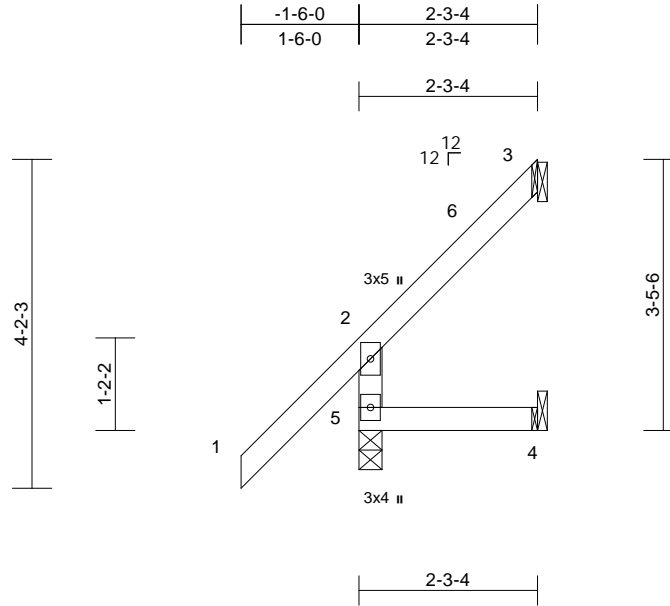
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J08	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149892
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:35
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Page: 1



Scale = 1:29.3

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	0.36	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.17	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 13 lb	FT = 20%

LUMBER

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

- 6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 3 and 16 lb uplift at joint 4.

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

LOAD CASE(S) Standard

REACTIONS

(size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=157 (LC 12)
Max Uplift 3=-54 (LC 12), 4=-16 (LC 12)
Max Grav 3=65 (LC 17), 4=36 (LC 10), 5=221 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-190/141, 1-2=0/70, 2-3=-95/62
BOT CHORD 4-5=0/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 2-2-8 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.



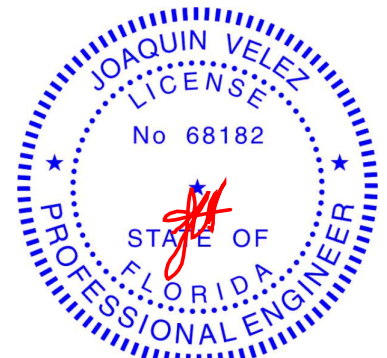
Review for Code Compliance
Universal Engineering Science

Lawrence Powell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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.sbcscomponents.com)

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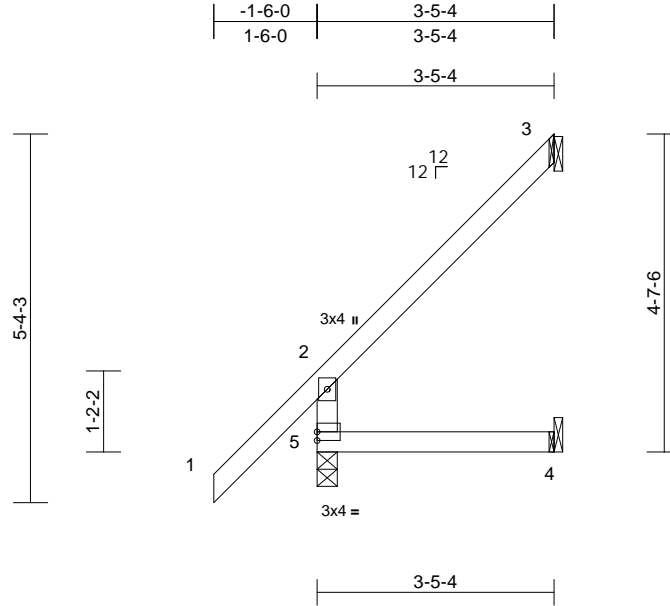
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J09	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149893
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:35
ID:I086NVlg?Mo8XnhuvquJJzA2IV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f

Page: 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	0.27	Vert(LL)	0.02	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.28	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 17 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=196 (LC 12)
Max Uplift 3=-86 (LC 12), 4=-11 (LC 12)
Max Grav 3=117 (LC 17), 4=60 (LC 3), 5=253 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-218/75, 1-2=0/70, 2-3=-129/112
BOT CHORD 4-5=0/0

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone1 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
 - 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 3 and 11 lb uplift at joint 4.
- LOAD CASE(S)** Standard



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09/10/2025

Examiner-License No.



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

August 8, 2025

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

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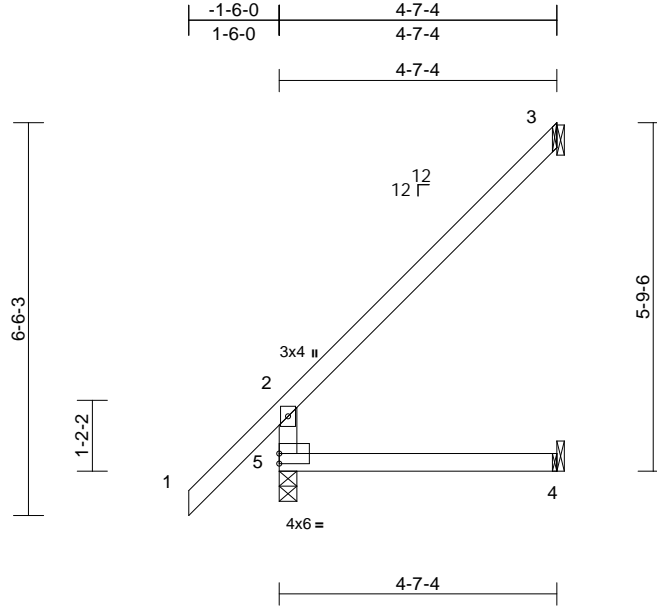
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J10	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149894
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:36
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Page: 1



Scale = 1:38.2

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	0.47	Vert(LL)	0.05	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.06	4-5	>870	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.07	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=234 (LC 12)
Max Uplift 3=-115 (LC 12), 4=-9 (LC 12)
Max Grav 3=163 (LC 17), 4=83 (LC 3), 5=293 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-252/71, 1-2=0/70, 2-3=-171/145
BOT CHORD 4-5=0/0

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone1 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
 - 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 3 and 9 lb uplift at joint 4.
- LOAD CASE(S)** Standard



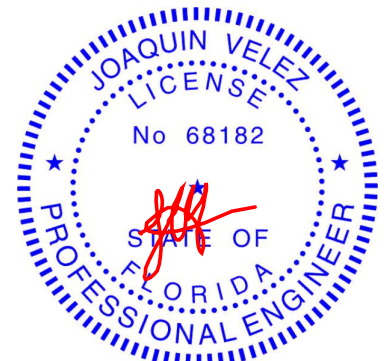
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Universal Engineering Science

Lawrence Powell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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

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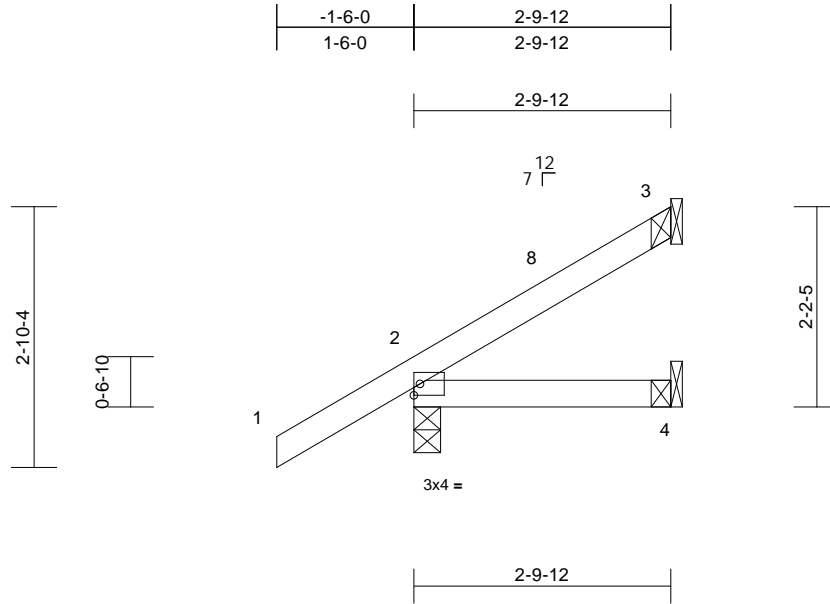
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J11	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149895
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 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	0.16	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	0.00	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 12 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 2-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=85 (LC 12)
Max Uplift 2=-42 (LC 12), 3=-32 (LC 12)
Max Grav 2=225 (LC 1), 3=74 (LC 17), 4=48 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-204/122
BOT CHORD 2-4=-98/57

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 3 and 42 lb uplift at joint 2.
LOAD CASE(S) Standard

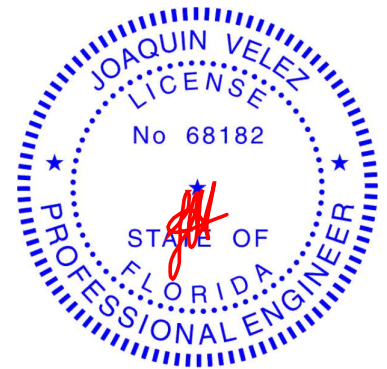


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09/10/2025



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

August 8, 2025

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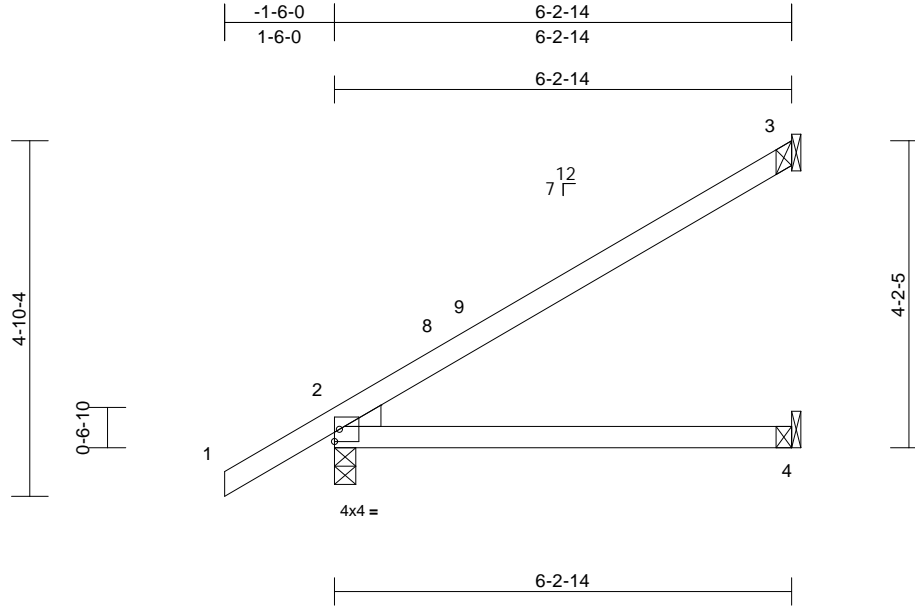
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss J12	Truss Type Jack-Open	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149896
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:36
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Page: 1



Scale = 1:31.5

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)	0.07	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.14	4-7	>540	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 24 lb	FT = 20%

LUMBER

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

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

BRACING

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

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=152 (LC 12)
Max Uplift 2=-31 (LC 12), 3=-83 (LC 12)
Max Grav 2=348 (LC 1), 3=190 (LC 17), 4=112 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/45, 2-3=-373/207
BOT CHORD 2-4=-390/197

NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 6-2-2 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
- 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 83 lb uplift at joint 3 and 31 lb uplift at joint 2.



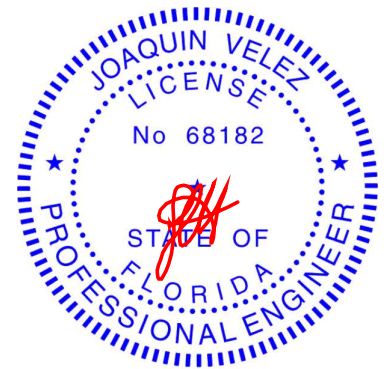
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09/10/2025

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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:

August 8, 2025

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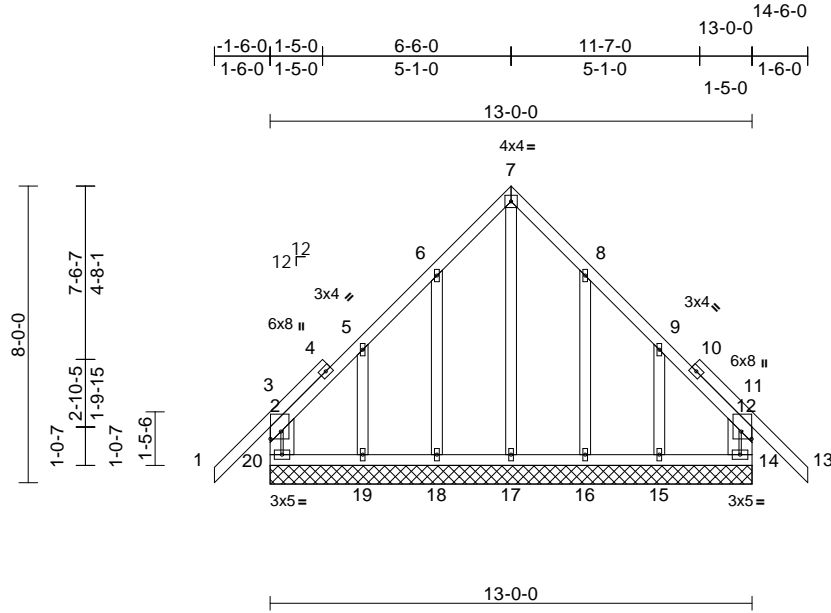
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss K01	Truss Type Common Supported Gable	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149897
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:36
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Page: 1



Scale = 1:62.1

Plate Offsets (X, Y): [3:0-2-6,0-3-6], [11:0-2-6,0-3-6]

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 99 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
 - BOT CHORD 2x4 SP No.2
 - WEBS 2x4 SP No.2
 - OTHERS 2x4 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)
- 14=13-0-0, 15=13-0-0, 16=13-0-0, 17=13-0-0, 18=13-0-0, 19=13-0-0, 20=13-0-0
 - Max Horiz 20=188 (LC 11)
 - Max Uplift 14=44 (LC 12), 15=62 (LC 12), 16=41 (LC 12), 18=41 (LC 12), 19=62 (LC 12), 20=44 (LC 12)
 - Max Grav 14=222 (LC 1), 15=197 (LC 18), 16=182 (LC 18), 17=216 (LC 12), 18=181 (LC 17), 19=203 (LC 17), 20=236 (LC 18)

- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 2-20=-257/299, 1-2=0/65, 2-3=-109/178, 3-5=-124/110, 5-6=-85/170, 6-7=-147/280, 7-8=-146/273, 8-9=-88/151, 9-11=-104/84, 11-12=-101/216, 12-13=0/65, 12-14=-244/371
 - BOT CHORD 19-20=-88/148, 18-19=-88/148, 17-18=-88/148, 16-17=-88/148, 15-16=-88/148, 14-15=-88/148
 - WEBS 7-17=-314/105, 6-18=-147/131, 5-19=-153/169, 3-20=-231/214, 8-16=-147/153, 9-15=-152/202, 11-14=-265/174

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

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone2 -1-6-0 to 6-6-0, Zone3 6-6-0 to 14-6-0 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 1.5x4 (II) 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 20, 44 lb uplift at joint 14, 41 lb uplift at joint 18, 62 lb uplift at joint 19, 41 lb uplift at joint 16 and 62 lb uplift at joint 15.

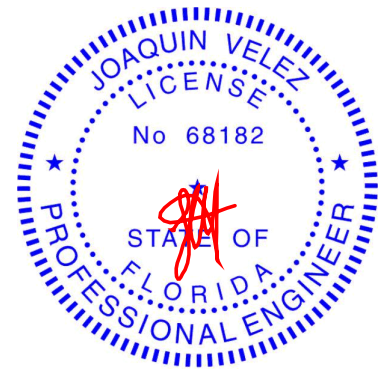
LOAD CASE(S) Standard

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 Universal Engineering Science



Joaquin Velez
 Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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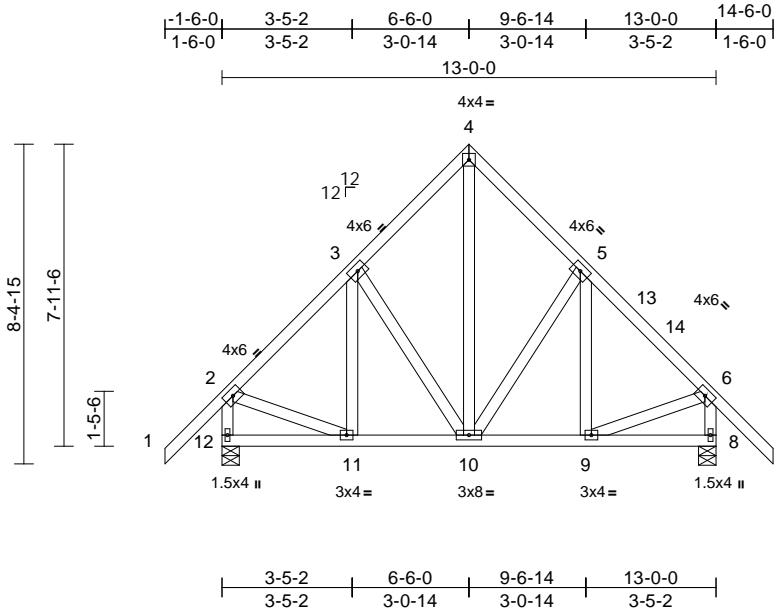
16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss K02	Truss Type Common	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149898
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:36
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Page: 1



Scale = 1:60.6

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	0.26	Vert(LL)	-0.01	10	>999	240	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	-0.01	9-10	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	8	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 105 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 8=0-5-8, 12=0-5-8
Max Horiz 12=-202 (LC 10)
Max Uplift 8=-40 (LC 12), 12=-40 (LC 12)
Max Grav 8=607 (LC 1), 12=607 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/70, 2-3=-455/109, 3-4=-363/176, 4-5=-363/160, 5-6=-455/91, 6-7=0/70, 2-12=-576/158, 6-8=-576/169
BOT CHORD 11-12=-179/189, 10-11=0/342, 9-10=0/286, 8-9=-12/45
WEBS 2-11=0/292, 6-9=0/294, 3-11=-38/60, 3-10=-158/104, 4-10=-152/312, 5-10=-158/142, 5-9=-38/60

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone1 -1-6-0 to 6-6-0, Zone2 6-6-0 to 10-8-15, Zone1 10-8-15 to 14-6-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 12 and 40 lb uplift at joint 8.

LOAD CASE(S) Standard

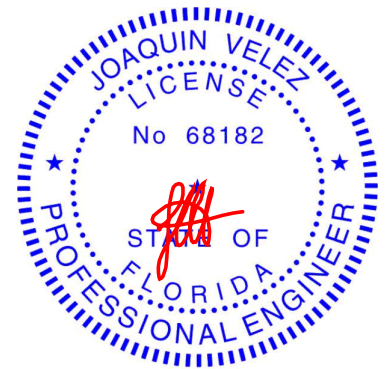


Review for Code Compliance
Universal Engineering Science

Lawrence Powell

PX2707 09/10/2025

Examiner-License No.



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 8, 2025

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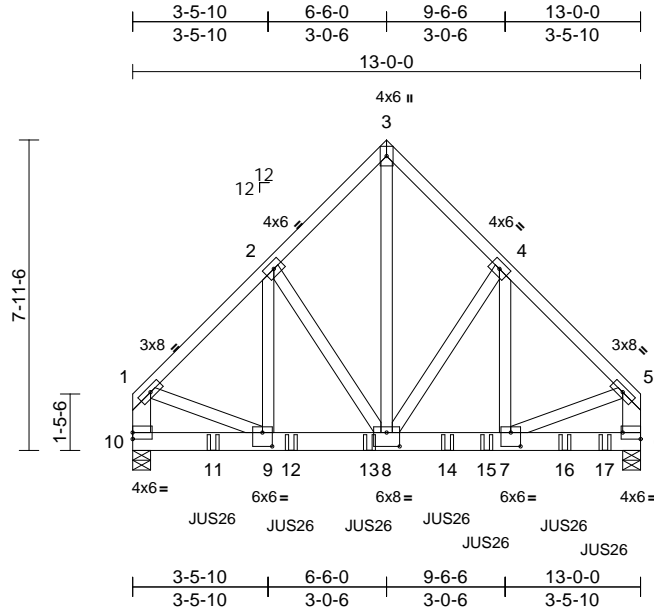
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss K03	Truss Type Common Girder	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149899
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:37
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Page: 1



Scale = 1:59

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

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	0.20	Vert(LL)	-0.04	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.63	Vert(CT)	-0.07	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.01	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 2x6 SP No.2
 - WEBS 2x4 SP No.2 *Except* 10-1,6-5:2x6 SP No.2
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.
 - BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 6=0-5-8, 10=0-5-8
 Max Horiz 10=166 (LC 6)
 Max Grav 6=2780 (LC 13), 10=2272 (LC 14)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-2103/0, 2-3=-1730/0, 3-4=-1734/0, 4-5=-2309/0, 1-10=-2023/0, 5-6=-2209/0
 - BOT CHORD 9-10=-82/264, 8-9=0/1517, 7-8=0/1603, 6-7=0/197
 - WEBS 1-9=0/1403, 5-7=0/1512, 2-9=0/504, 2-8=-498/0, 3-8=0/2210, 4-8=-748/0, 4-7=0/827

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust)
 Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical 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.
 - 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.
- Use MiTek JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 12-1-1 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

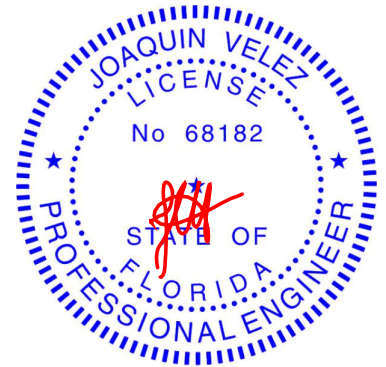
- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-3=-60, 3-5=-60, 6-10=-20
 Concentrated Loads (lb)
 Vert: 11=-582 (B), 12=-582 (B), 13=-582 (B), 14=-582 (B), 15=-602 (B), 16=-367 (B), 17=-370 (B)

Review for Code Compliance
 Universal Engineering Science



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PX2707 09/10/2025



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 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

August 8, 2025

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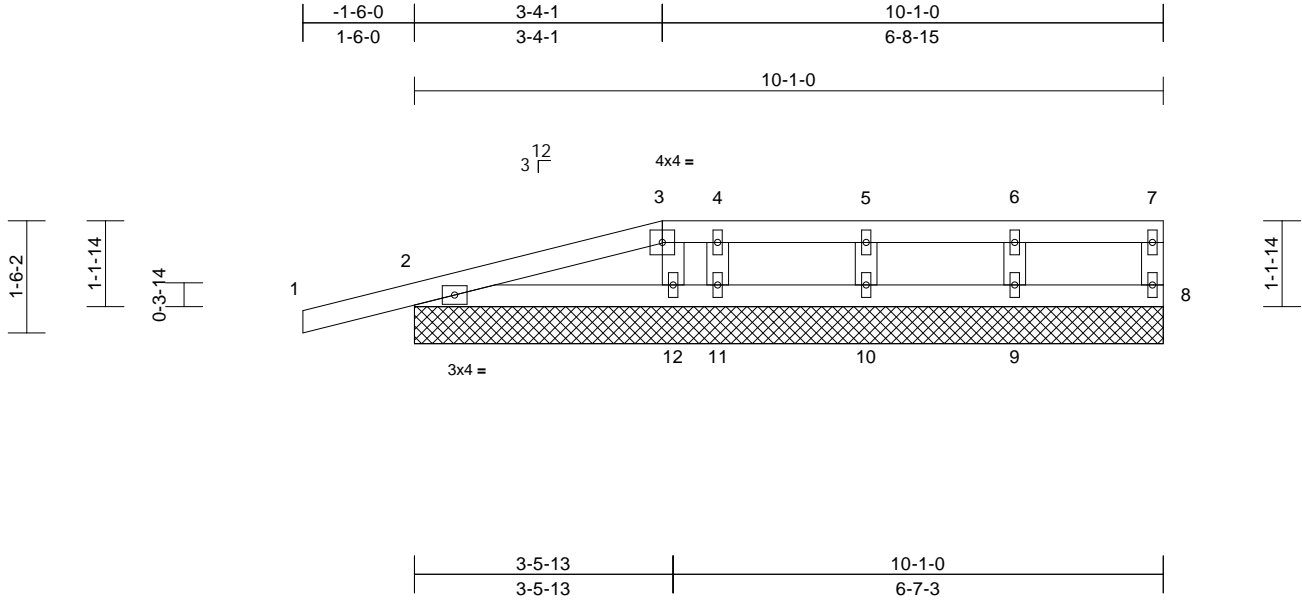
16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss M01	Truss Type Half Hip Supported Gable	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149903
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:38
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Page: 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	0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	n/a	-	n/a		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	8	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS						Weight: 37 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size)
2=10-1-0, 8=10-1-0, 9=10-1-0,
10=10-1-0, 11=10-1-0, 12=10-1-0
Max Horiz 2=29 (LC 11)
Max Uplift 2=-48 (LC 12), 8=-2 (LC 9), 9=-4 (LC 9), 10=-4 (LC 9), 11=-24 (LC 8)
Max Grav 2=236 (LC 1), 8=64 (LC 24), 9=163 (LC 24), 10=169 (LC 23), 11=71 (LC 24), 12=221 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-50/24, 3-4=-20/25, 4-5=-20/25, 5-6=-20/25, 6-7=-20/25, 7-8=-48/49
BOT CHORD 2-12=-34/55, 11-12=-16/20, 10-11=-16/20, 9-10=-16/20, 8-9=-16/20
WEBS 6-9=-123/121, 5-10=-125/124, 4-11=-78/71, 3-12=-122/107

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 (II) 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 psf 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 48 lb uplift at joint 2, 2 lb uplift at joint 8, 4 lb uplift at joint 9, 4 lb uplift at joint 10, 24 lb uplift at joint 11 and 48 lb uplift at joint 2.
- 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

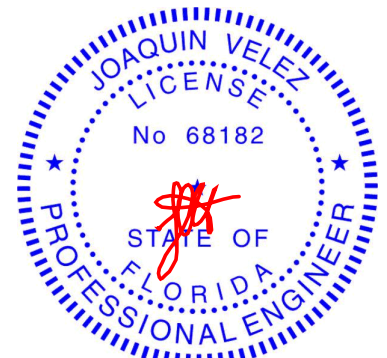


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Examiner-License No.

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09/10/2025



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Date:

August 8, 2025

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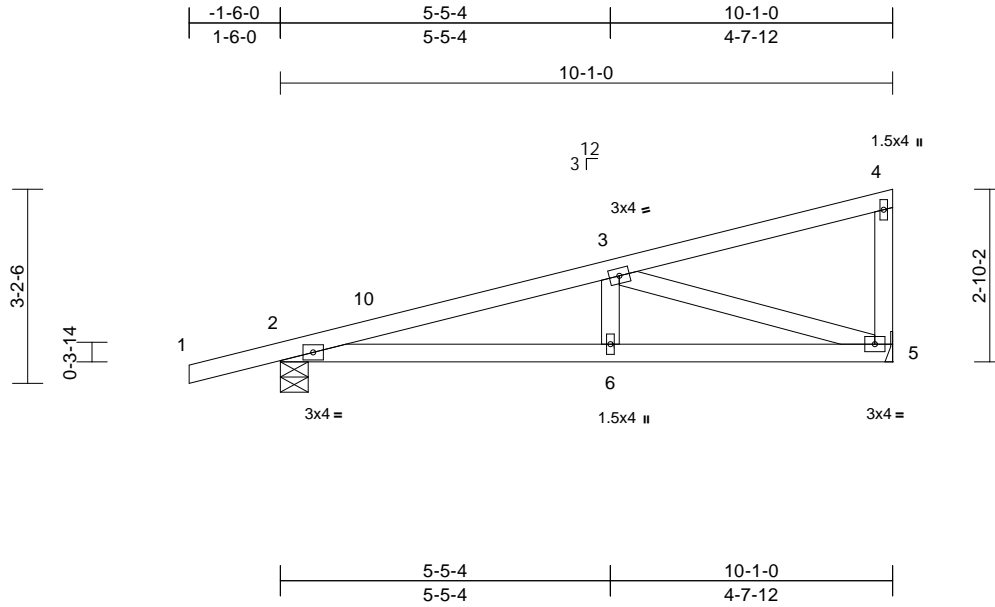
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss M02	Truss Type Jack-Closed	Qty 11	Ply 1	Barnard Job Reference (optional)	T38149904
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 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	0.22	Vert(LL)	-0.03	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.07	6-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 44 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-5-8, 5= Mechanical
Max Horiz 2=76 (LC 11)
Max Uplift 2=-38 (LC 12)
Max Grav 2=494 (LC 1), 5=391 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-846/149, 3-4=-79/34, 4-5=-111/96
BOT CHORD 2-6=-272/804, 5-6=-272/804
WEBS 3-6=0/213, 3-5=-810/242

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 2.
- 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

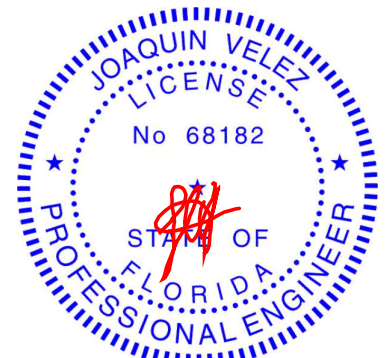


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Joaquin Velez
Examiner-License No.

PX2707 09/10/2025

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 9-11-4 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.
 - Refer to girder(s) for truss to truss connections.



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MiTek Inc. DBA MiTek USA FL Cert 6634
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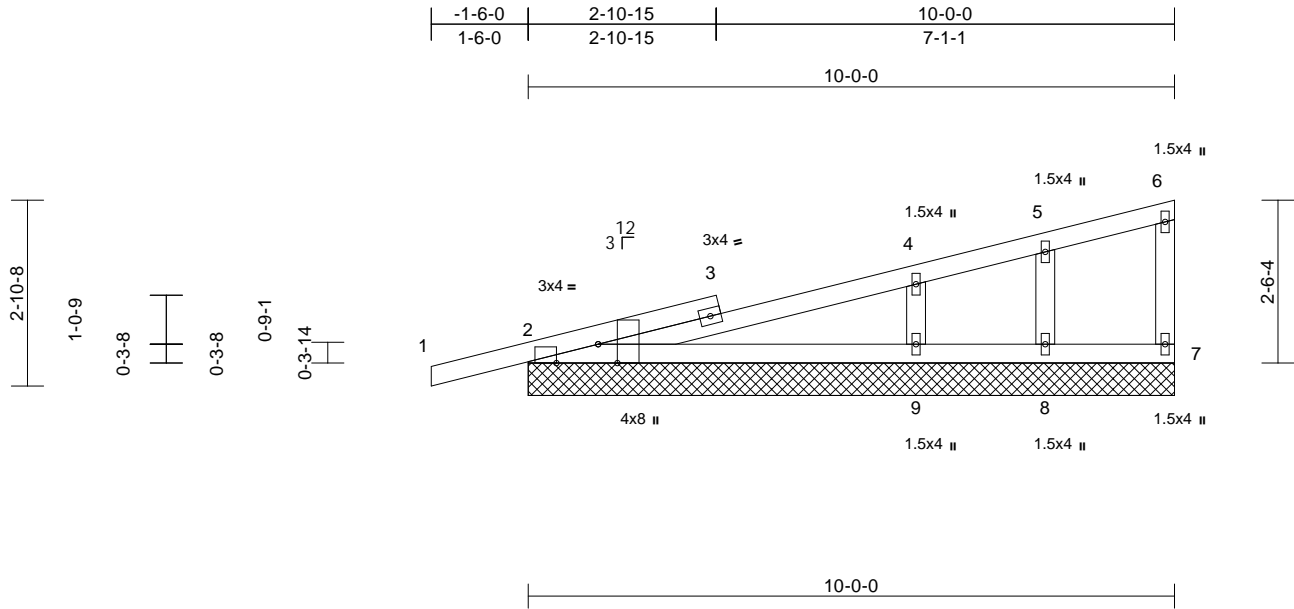
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss M03	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149905
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:39
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Page: 1



Scale = 1:35.6

Plate Offsets (X, Y): [2:0-3-8,Edge], [2:0-7-12,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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 42 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=10-0-0, 7=10-0-0, 8=10-0-0, 9=10-0-0
Max Horiz 2=67 (LC 11)
Max Uplift 2=-61 (LC 12), 7=-4 (LC 9), 8=-7 (LC 11), 9=-55 (LC 12)
Max Grav 2=302 (LC 23), 7=92 (LC 23), 8=2 (LC 1), 9=482 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-7=-63/73, 1-2=0/22, 2-4=-146/81, 4-5=-58/28, 5-6=-43/41
BOT CHORD 2-9=-39/50, 8-9=-39/50, 7-8=-39/50
WEBS 5-8=-34/81, 4-9=-308/310

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Partially 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2, 4 lb uplift at joint 7, 7 lb uplift at joint 8, 55 lb uplift at joint 9 and 61 lb uplift at joint 2.
- 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.

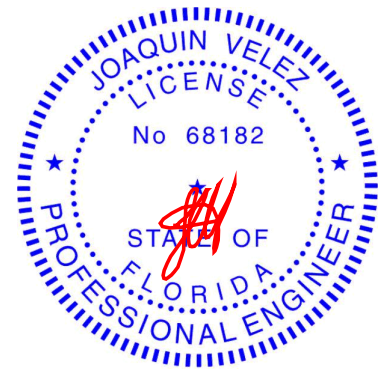
LOAD CASE(S) Standard

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Signature
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PX2707 09/10/2025



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

August 8, 2025

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

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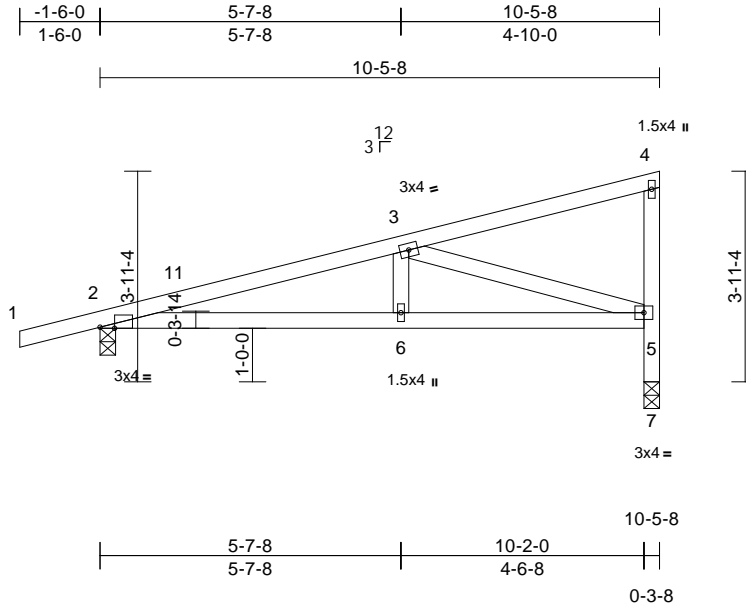
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss M04	Truss Type Monopitch	Qty 3	Ply 1	Barnard Job Reference (optional)	T38149906
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:39
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Page: 1



Scale = 1:43.1

Plate Offsets (X, Y): [2:0-3-4,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	0.27	Vert(LL)	-0.04	6-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.37	Vert(CT)	-0.08	6-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 47 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=99 (LC 12)
Max Uplift 2=-76 (LC 12), 7=-56 (LC 12)
Max Grav 2=509 (LC 1), 7=406 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-891/232, 3-4=-64/5,
5-7=-406/148, 4-5=-114/81
BOT CHORD 2-6=-309/847, 5-6=-309/847
WEBS 3-6=0/225, 3-5=-860/315

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 10-3-12 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 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.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at 2 and 56 lb uplift at joint 7.

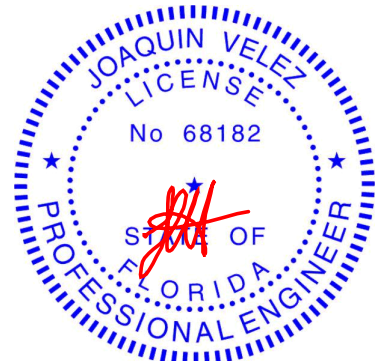
LOAD CASE(S) Standard



Review for Code Compliance
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PX2707 09/10/2025



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

August 8, 2025

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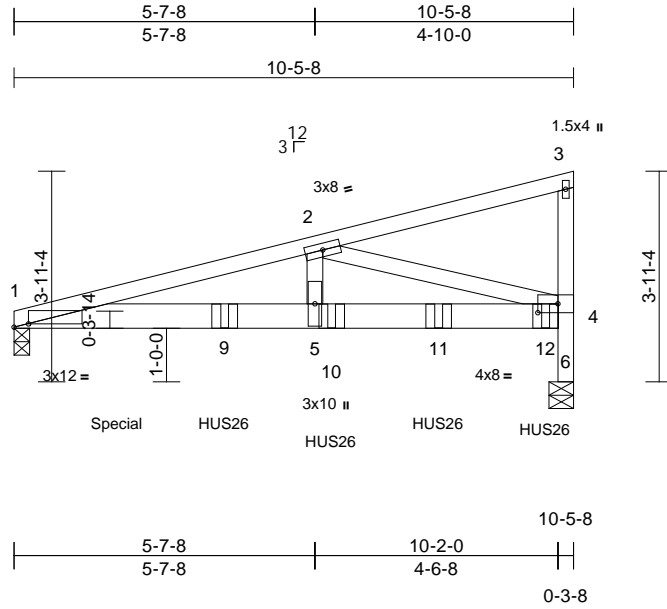
Job 0525-041	Truss M05	Truss Type Monopitch Girder	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149907
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:39

Page: 1

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Scale = 1:43.1

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

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	0.49	Vert(LL)	-0.09	5-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.17	5-8	>715	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 107 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-3-8, 6=0-5-8
 Max Horiz 1=110 (LC 7)
 Max Uplift 1=300 (LC 8), 6=381 (LC 8)
 Max Grav 1=2503 (LC 1), 6=3146 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-6066/734, 2-3=-208/41, 4-6=-3146/381, 3-4=-108/46
 BOT CHORD 1-5=-656/5880, 4-5=-656/5880
 WEBS 2-5=-266/2753, 2-4=-5949/742

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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.

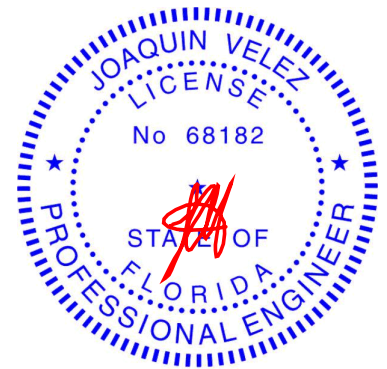
- Wind: ASCE 7-22; Vult=130mph (3-second gust)
 Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss comp
 - 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.
 - Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 300 lb uplift at joint 1 and 381 lb uplift at joint 6.
 - Use MiTek HUS26 (With 14-16d nails into Girder & 4-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 3-11-4 from the left end to 9-11-4 to connect truss(es) to front face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 966 lb down and 118 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (lb/ft)
 Vert: 1-3=-60, 1-4=-20
 Concentrated Loads (lb)
 Vert: 8=-966 (F), 9=-966 (F), 10=-966 (F), 11=-966 (F), 12=-972 (F)

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 Universal Engineering Science



Joaquin Velez
 Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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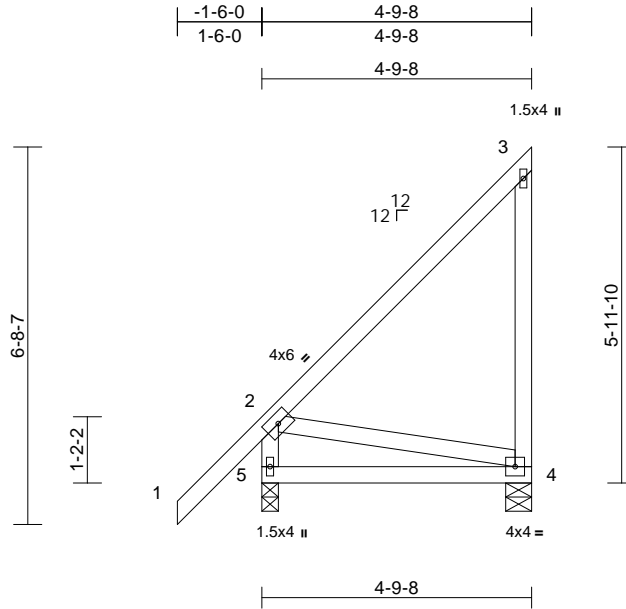
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 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss M06	Truss Type Monopitch	Qty 4	Ply 1	Barnard Job Reference (optional)	T38149908
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:40.9

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	0.55	Vert(LL)	-0.02	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	-0.05	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 36 lb	FT = 20%

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 4 and 53 lb uplift at joint 5.

LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-11-11 oc bracing.

REACTIONS (size) 4=0-5-8, 5=0-3-8
Max Horiz 5=184 (LC 9)
Max Uplift 4=-107 (LC 9), 5=-53 (LC 2)
Max Grav 4=226 (LC 17), 5=313 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/70, 2-3=-235/210, 3-4=-268/247, 2-5=-268/165
BOT CHORD 4-5=-424/229
WEBS 2-4=-196/402

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone1 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
 - 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



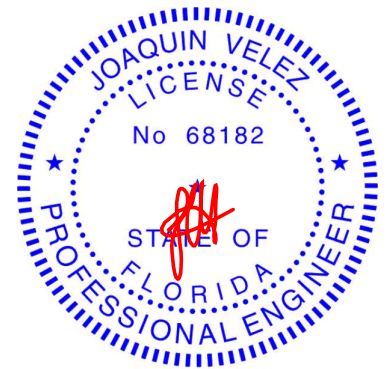
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Lawrence Pennell

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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:

August 8, 2025

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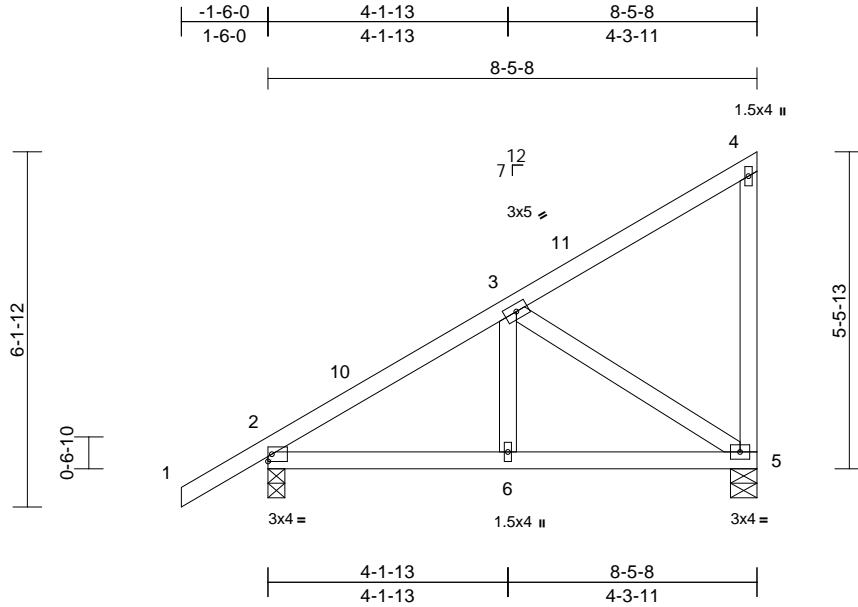
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss M07	Truss Type Monopitch	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149909
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:39.9

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	0.23	Vert(LL)	-0.01	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.18	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 48 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS

(size) 2=0-3-8, 5=0-5-8
Max Horiz 2=162 (LC 11)
Max Uplift 2=-34 (LC 12), 5=-19 (LC 9)
Max Grav 2=431 (LC 1), 5=329 (LC 17)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/45, 2-3=-399/64, 3-4=-139/107, 4-5=-120/136
BOT CHORD 2-6=-278/351, 5-6=-206/351
WEBS 3-5=-351/182, 3-6=0/186

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 8-3-12 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
- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 2 and 19 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



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09/10/2025



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

August 8, 2025

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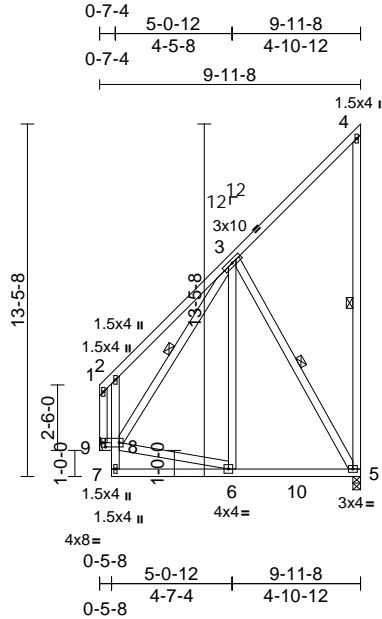
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss N01	Truss Type Jack-Closed	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149910
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:87.9

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

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	0.27	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.24	Vert(CT)	-0.04	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 107 lb	FT = 20%

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 4-5, 3-8, 3-5

REACTIONS (size) 5=0-3-8, 9= Mechanical
Max Horiz 9=276 (LC 12)
Max Uplift 5=-175 (LC 12)
Max Grav 5=552 (LC 17), 9=440 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-9=-174/55, 1-2=-141/47, 2-3=-217/143,
3-4=-122/93, 4-5=-144/100

BOT CHORD 8-9=-341/309, 7-8=0/74, 2-8=-240/261,
6-7=-14/74, 5-6=-116/203

WEBS 3-8=-386/224, 3-5=-400/228, 3-6=0/246,
6-8=-105/145

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFERS (directional) and C-C Zone1 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFERS 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 5.

LOAD CASE(S) Standard



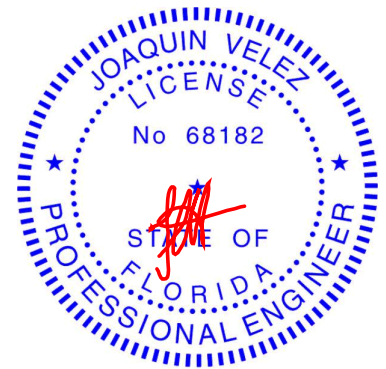
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Universal Engineering Science

Lawrence Pennell

PX2707

09/10/2025

Examiner-License No.



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

August 8, 2025

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

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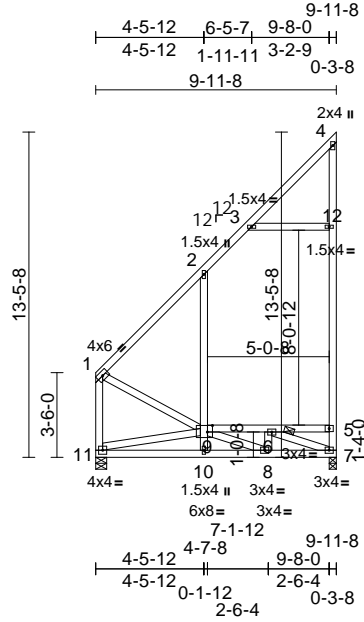
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss N02	Truss Type Roof Special	Qty 5	Ply 1	Barnard Job Reference (optional)	T38149911
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:40
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Page: 1



Scale = 1:95.4

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

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	0.47	Vert(LL)	0.06	10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.09	10-11	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Attic	-0.02	5-9	>999	360	Weight: 105 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 11-1:2x4 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-10-9 oc bracing.

JOINTS
1 Brace at Jt(s): 6

REACTIONS (size) 7=0-3-8, 11=0-5-8
Max Horiz 11=383 (LC 11)
Max Uplift 7=114 (LC 9)
Max Grav 7=929 (LC 18), 11=658 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-567/484, 2-3=-286/180, 3-4=-174/205,
5-7=-374/168, 5-12=-286/162,
4-12=-250/184, 1-11=-608/454
BOT CHORD 10-11=-1377/2215, 8-10=-1418/2260,
7-8=-540/1264, 6-9=-1208/424, 5-6=-258/308
WEBS 9-10=0/145, 2-9=-520/364, 3-12=-209/197,
9-11=-1667/753, 8-9=-1147/950,
6-8=-356/505, 6-7=-1462/732, 1-9=-477/576

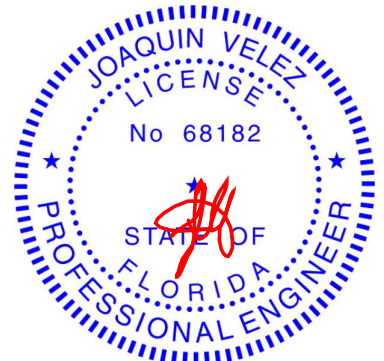
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Ceiling dead load (10.0 psf) on member(s). 2-3, 3-12
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-9
 - Provide mechanical connection (by others) of truss bearing plate capable of withstanding 114 lb uplift at joint 7.
 - Attic room checked for L/360 deflection.
- 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:

August 8, 2025

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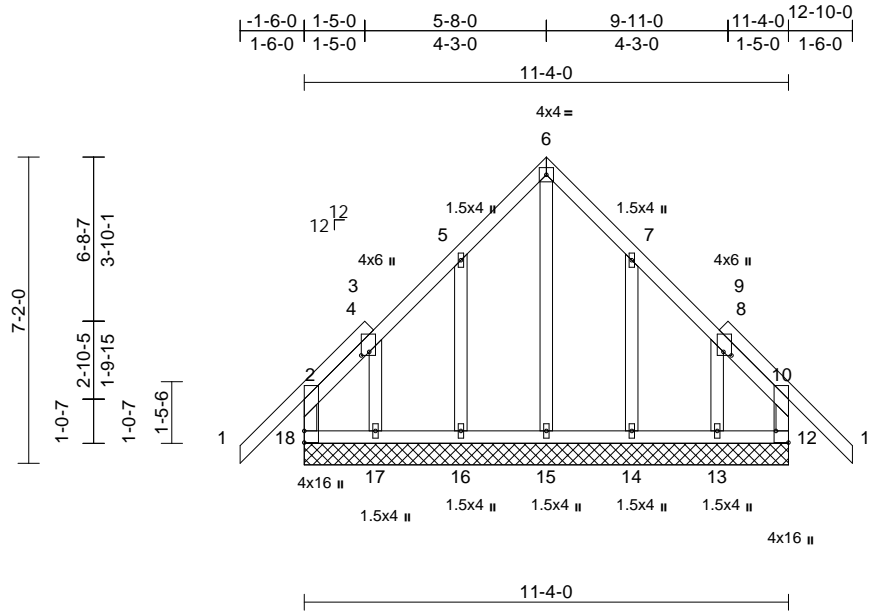
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss P01	Truss Type Common Supported Gable	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149912
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:53.9

Plate Offsets (X, Y): [3:0-1-0,0-2-4], [9:0-1-0,0-2-4], [12:Edge,0-3-8]

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MR							Weight: 84 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 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 6-0-0 oc bracing.

REACTIONS (size)
12=11-4-0, 13=11-4-0, 14=11-4-0, 15=11-4-0, 16=11-4-0, 17=11-4-0, 18=11-4-0
Max Horiz 18=170 (LC 11)
Max Uplift 12=69 (LC 12), 13=56 (LC 8), 14=42 (LC 12), 16=42 (LC 12), 17=59 (LC 9), 18=69 (LC 12)
Max Grav 12=197 (LC 17), 13=159 (LC 18), 14=185 (LC 18), 15=224 (LC 12), 16=185 (LC 17), 17=164 (LC 17), 18=209 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-18=-179/159, 1-2=0/65, 2-3=-107/93, 3-5=-105/144, 5-6=-131/283, 6-7=-131/291, 7-9=-108/172, 9-10=95/93, 10-11=0/65, 10-12=-179/180
BOT CHORD 17-18=-87/81, 16-17=-87/81, 15-16=-87/81, 14-15=-87/81, 13-14=-87/81, 12-13=-87/81
WEBS 6-15=-325/83, 5-16=-148/173, 3-17=-126/157, 7-14=-148/146, 9-13=-125/125

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

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 5-8-0, Zone2 5-8-0 to 12-10-0 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.
- 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 18, 69 lb uplift at joint 12, 42 lb uplift at joint 16, 59 lb uplift at joint 17, 42 lb uplift at joint 14 and 56 lb uplift at joint 13.

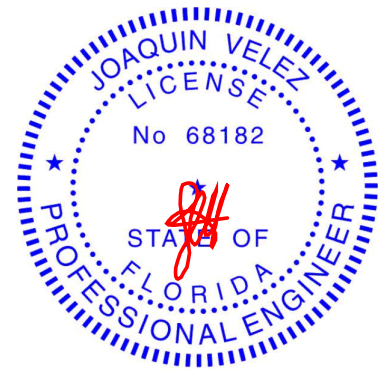
LOAD CASE(S) Standard

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Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK 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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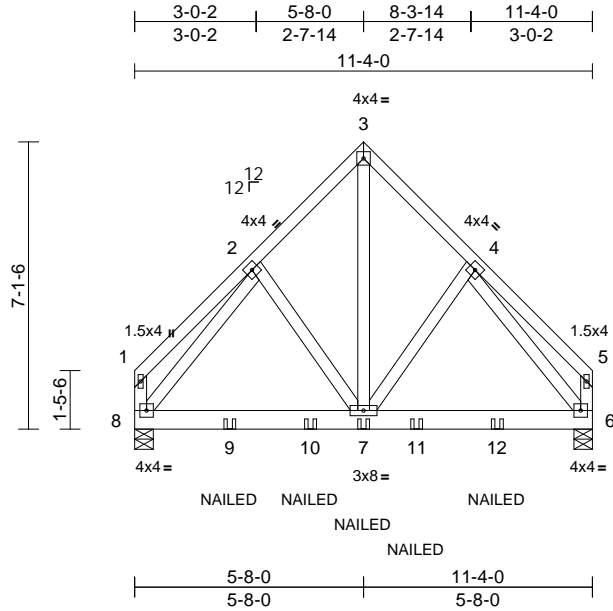
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss P02	Truss Type Common Girder	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149913
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:57.1

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	0.18	Vert(LL)	-0.02	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.01	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 2x6 SP No.2
WEBS 2x4 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) 6=0-5-8, 8=0-5-8
Max Horiz 8=148 (LC 7)
Max Grav 6=871 (LC 1), 8=871 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-203/39, 2-3=-724/0, 3-4=-724/0, 4-5=-203/39, 1-8=-188/31, 5-6=-188/31
BOT CHORD 7-8=0/499, 6-7=0/472
WEBS 3-7=0/771, 2-8=-651/0, 4-6=-651/0, 2-7=-52/120, 4-7=-52/120

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-172 (B), 9=-172 (B), 10=-172 (B), 11=-172 (B), 12=-172 (B)



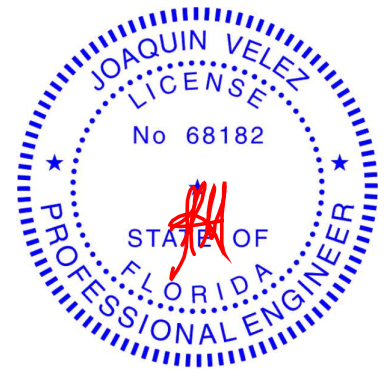
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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 8, 2025

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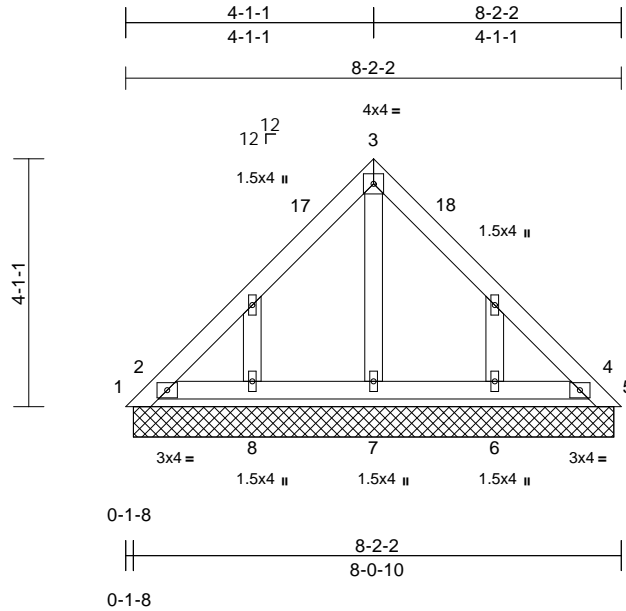
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB01	Truss Type Piggyback	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149914
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:38

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	10.0	Lumber DOL	1.25	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 37 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size)

1=7-11-2, 2=7-11-2, 4=7-11-2, 5=7-11-2, 6=7-11-2, 7=7-11-2, 8=7-11-2
Max Horiz 1=-81 (LC 10)
Max Uplift 1=-235 (LC 17), 2=-98 (LC 12), 6=-33 (LC 12), 8=-9 (LC 12)
Max Grav 1=104 (LC 9), 2=431 (LC 17), 5=143 (LC 1), 6=179 (LC 18), 7=68 (LC 3), 8=95 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-167/227, 2-3=-195/98, 3-4=-192/74, 4-5=-99/15
BOT CHORD 2-8=-33/101, 7-8=-17/101, 6-7=-17/101, 4-6=-33/121

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-7-7 to 3-7-7, Zone1 3-7-7 to 4-6-0, Zone3 4-6-0 to 8-4-9 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.
- 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.
- Bearing at joint(s) 2, 4, 1, 5, 2 considers parallel to value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss bearing plate capable of withstanding 98 lb uplift at joint 2, 9 lb uplift at joint 8, 33 lb uplift at joint 6, 235 lb uplift at joint 1 and 98 lb uplift at joint 2.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

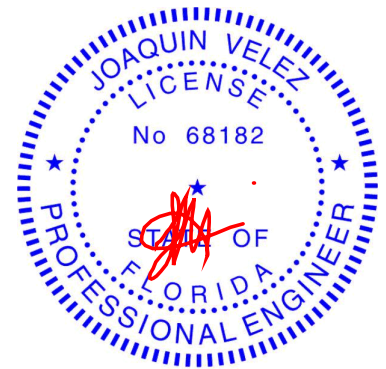


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Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6304
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

August 8, 2025

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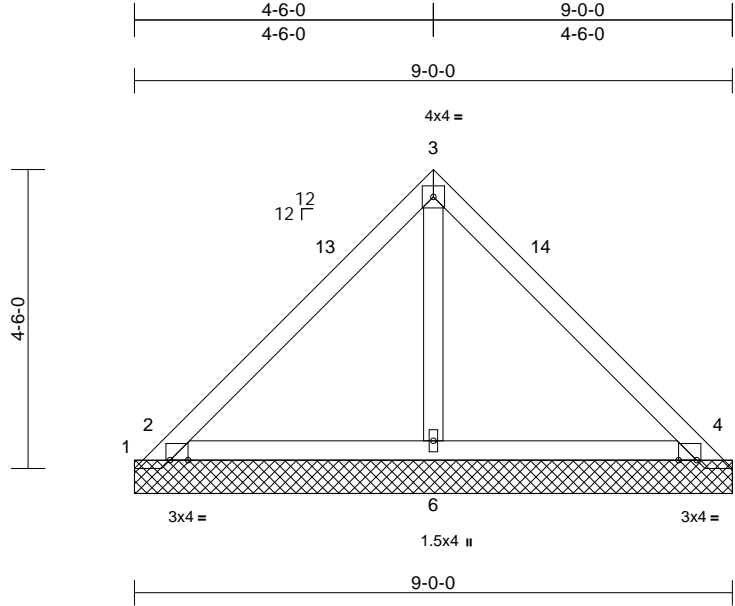
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB02	Truss Type Piggyback	Qty 13	Ply 1	Barnard Job Reference (optional)	T38149915
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:41
ID:1FA?yP35UmoXyL3lo9ID2zBMoY-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:34.7

Plate Offsets (X, Y): [2:0-3-4,Edge], [4:0-3-4,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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.31	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 36 lb	FT = 20%

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

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

REACTIONS (size) 1=9-0-0, 2=9-0-0, 4=9-0-0, 5=9-0-0, 6=9-0-0
Max Horiz 1=90 (LC 10)
Max Uplift 1=434 (LC 17), 2=117 (LC 9), 6=19 (LC 12)
Max Grav 1=129 (LC 9), 2=585 (LC 17), 5=102 (LC 1), 6=454 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-236/373, 2-3=-259/209, 3-4=-145/156, 4-5=-70/7
BOT CHORD 2-6=-132/194, 4-6=-119/194
WEBS 3-6=-308/182

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-2-8 to 3-2-8, Zone1 3-2-8 to 4-6-0, Zone3 4-6-0 to 8-9-8 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 117 lb uplift at joint 2, 434 lb uplift at joint 1, 19 lb uplift at joint 6 and 117 lb uplift at joint 2.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

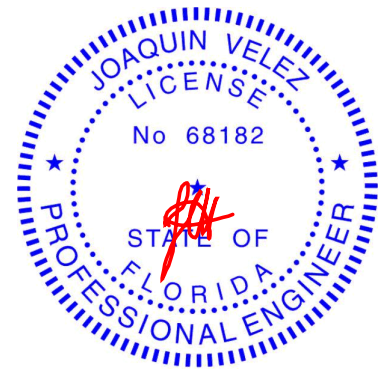
LOAD CASE(S) Standard

Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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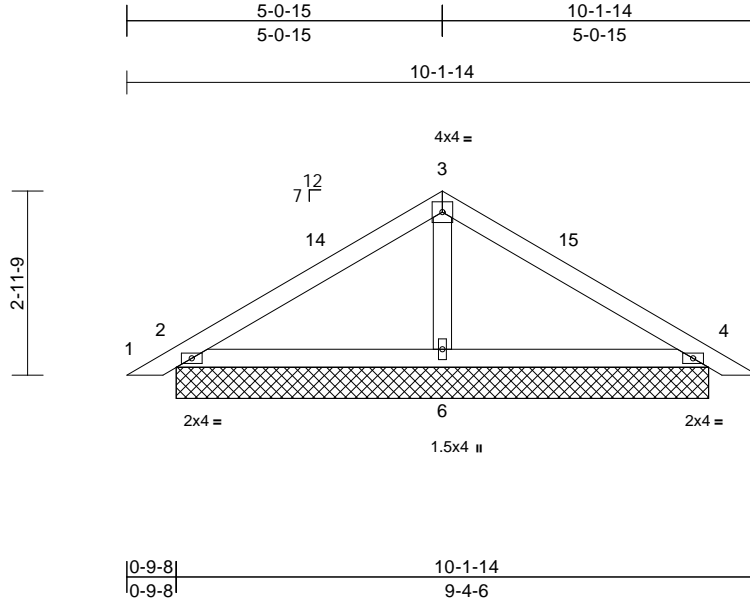
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB06	Truss Type Piggyback	Qty 9	Ply 1	Barnard Job Reference (optional)	T38149916
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:41
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Page: 1



Scale = 1:37.1

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	0.16	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	0.03	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 34 lb	FT = 20%

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

- BRACING**
- TOP CHORD Structural wood sheathing directly applied.
 - BOT CHORD Rigid ceiling directly applied.

- REACTIONS** (size) 2=8-6-14, 4=8-6-14, 6=8-6-14
- Max Horiz 2=-48 (LC 10)
 - Max Uplift 2=-22 (LC 12), 4=-22 (LC 12)
 - Max Grav 2=199 (LC 1), 4=199 (LC 1), 6=349 (LC 1)

- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/15, 2-3=-97/70, 3-4=-97/75, 4-5=0/15
 - BOT CHORD 2-6=-8/59, 4-6=-11/57
 - WEBS 3-6=-204/69

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8, Zone1 3-3-8 to 5-0-15, Zone2 5-0-15 to 9-4-6, Zone1 9-4-6 to 9-10-7 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.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 22 lb uplift at joint 2, 22 lb uplift at joint 4, 22 lb uplift at joint 2 and 22 lb uplift at joint 4.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

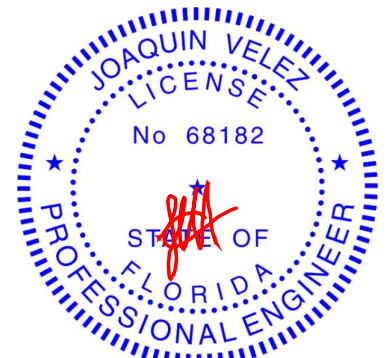
LOAD CASE(S) Standard



Review for Code Compliance
Universal Engineering Science

Lawrence Pennell
Examiner-License No.

PX2707 09/10/2025



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

August 8, 2025

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

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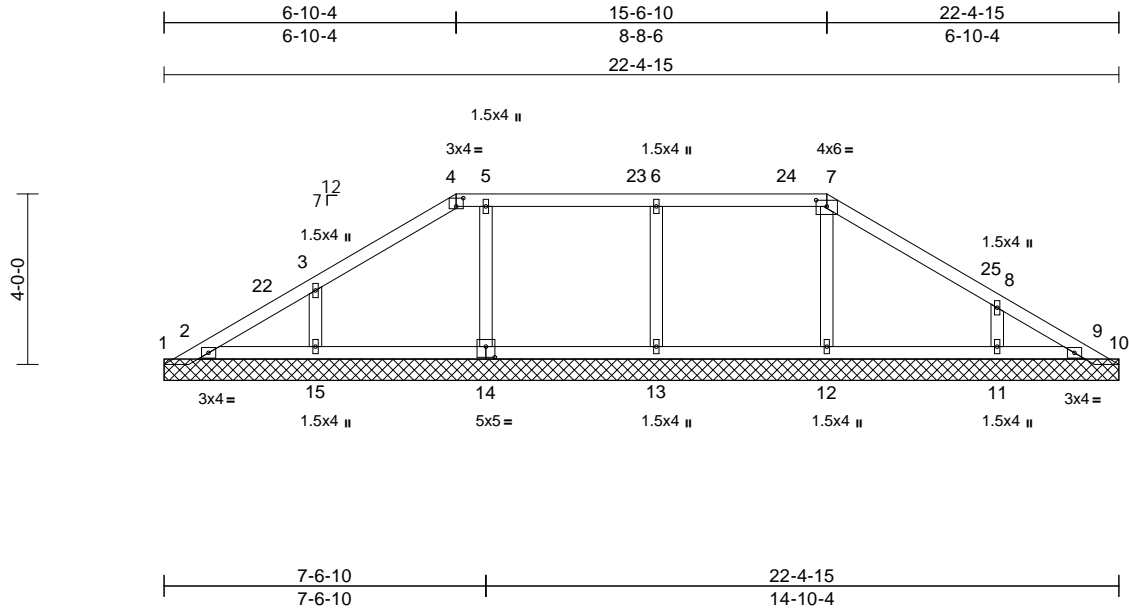
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB07	Truss Type Piggyback	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149917
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:54.1

Plate Offsets (X, Y): [4:0-2-0,0-2-5], [7:0-3-0,0-1-12], [14:0-2-8,0-3-0]

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 86 lb	FT = 20%

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

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

REACTIONS (size)
1=22-4-15, 2=22-4-15, 9=22-4-15,
10=22-4-15, 11=22-4-15,
12=22-4-15, 13=22-4-15,
14=22-4-15, 15=22-4-15
Max Horiz 1=66 (LC 11)
Max Uplift 1=60 (LC 17), 10=3 (LC 12),
11=34 (LC 12), 13=1 (LC 8),
15=24 (LC 12)
Max Grav 1=22 (LC 11), 2=204 (LC 17), 9=80
(LC 17), 10=25 (LC 18), 11=287
(LC 24), 12=310 (LC 24), 13=337
(LC 24), 14=303 (LC 1), 15=284
(LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=67/97, 2-3=73/31, 3-4=104/61,
4-5=53/71, 5-6=53/71, 6-7=53/71,
7-8=108/61, 8-9=62/45, 9-10=-11/11
BOT CHORD 2-15=-20/58, 13-15=-20/58, 12-13=-20/58,
11-12=-20/58, 9-11=-20/58
WEBS 7-12=-227/39, 6-13=-258/62, 5-14=-221/41,
3-15=-208/86, 8-11=-221/98

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

- Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 0-3-8 to 3-6-10,
Zone1 3-6-10 to 6-10-4, Zone2 6-10-4 to 11-1-3, Zone1
11-1-3 to 15-6-10, Zone2 15-6-10 to 19-6-10, Zone1
19-6-10 to 22-1-7 zone; cantilever left and right
exposed ; end vertical left and right exposed;C-C for
members and forces & MWFRS for reactions show
Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI-1
- Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 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 60 lb uplift at joint
1, 3 lb uplift at joint 10, 1 lb uplift at joint 13, 24 lb uplift at
joint 15 and 34 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.
- See Standard Industry Piggyback Truss Connection
Detail for Connection to base truss as applicable, or
consult qualified building designer.

LOAD CASE(S) Standard

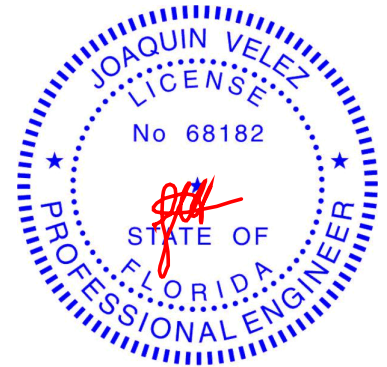
Review for Code Compliance
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Joaquin Velez
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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

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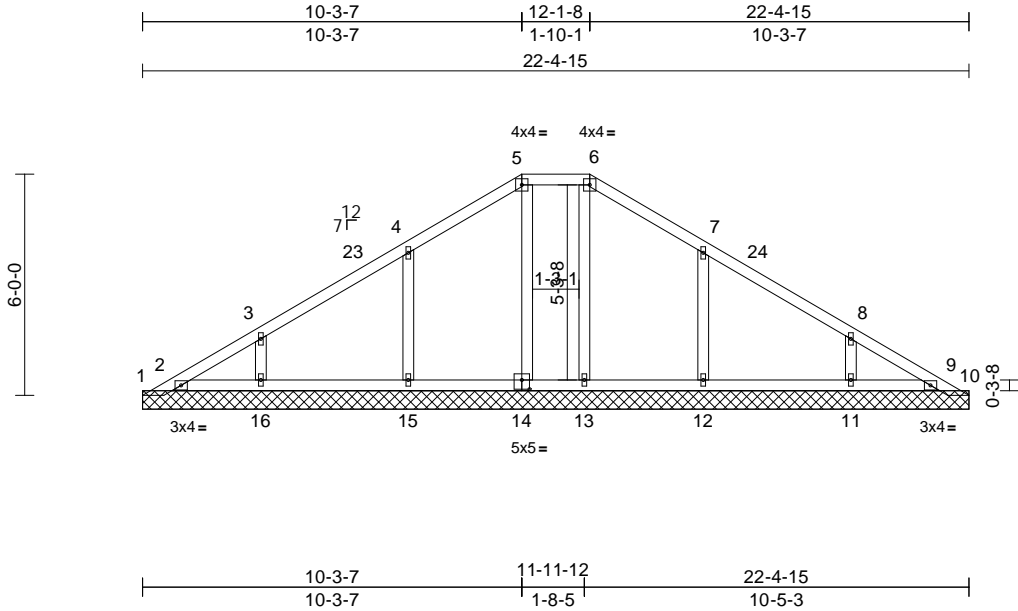
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB08	Truss Type Piggyback	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149918
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



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

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 99 lb	FT = 20%

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

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

REACTIONS (size)
1=22-4-15, 2=22-4-15, 9=22-4-15,
10=22-4-15, 11=22-4-15,
12=22-4-15, 13=22-4-15,
14=22-4-15, 15=22-4-15,
16=22-4-15
Max Horiz 1=-101 (LC 10)
Max Uplift 1=-58 (LC 10), 10=-6 (LC 16),
11=-29 (LC 12), 12=-31 (LC 12),
15=-32 (LC 12), 16=-28 (LC 12)
Max Grav 1=54 (LC 11), 2=154 (LC 17),
9=123 (LC 17), 10=1 (LC 12),
11=331 (LC 18), 12=391 (LC 18),
13=211 (LC 26), 14=218 (LC 17),
15=388 (LC 17), 16=333 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-114/127, 2-3=-79/83, 3-4=-102/76,
4-5=-83/102, 5-6=-66/100, 6-7=-76/101,
7-8=-80/45, 8-9=-42/45, 9-10=-2/21
BOT CHORD 2-16=-29/54, 15-16=-29/54, 13-15=-29/54,
12-13=-28/54, 11-12=-28/54, 9-11=-28/54
WEBS 4-15=-233/98, 3-16=-212/80, 7-12=-233/98,
8-11=-212/80, 5-14=-129/2, 6-13=-128/0

NOTES

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

- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-2-7, Zone1 3-2-7 to 10-3-7, Zone3 10-3-7 to 12-1-8, Zone2 12-1-8 to 16-4-7, Zone1 16-4-7 to 22-1-7 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
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI-1
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 1.5x4 (II) MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4'-0" oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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 BC DL = 10.0psf.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1, 6 lb uplift at joint 10, 32 lb uplift at joint 15, 28 lb uplift at joint 16, 31 lb uplift at joint 12 and 29 lb uplift at joint 11.
- 12) 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.

13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

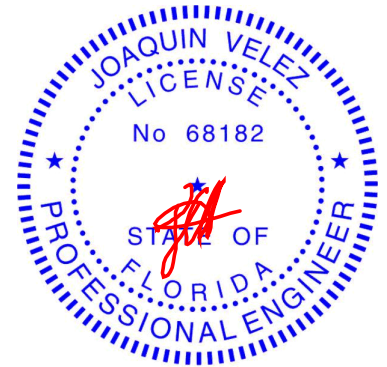
Review for Code Compliance
Universal Engineering Science



Joaquin Velez
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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

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MiTek®

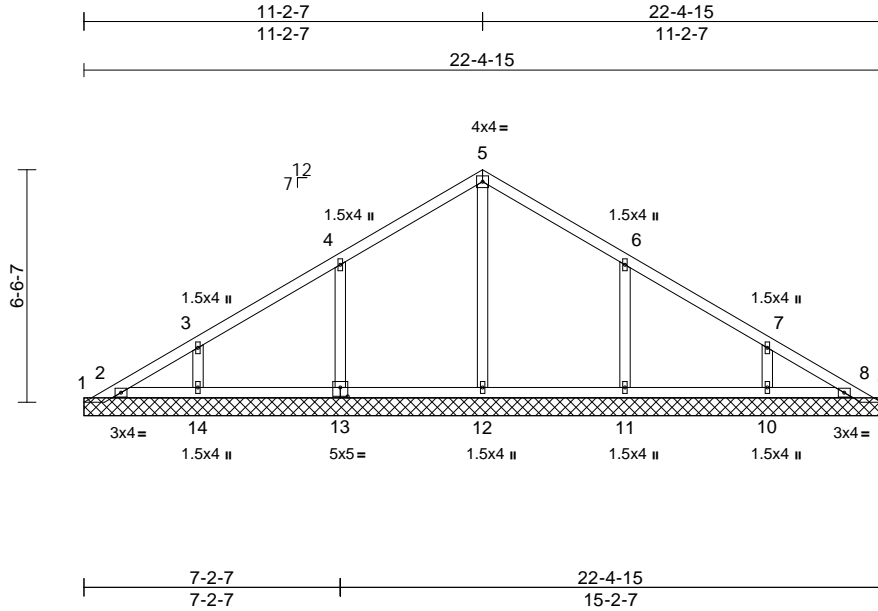
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB09	Truss Type Piggyback	Qty 6	Ply 1	Barnard Job Reference (optional)	T38149919
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:64.7

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

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 92 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

- (size) 1=22-4-15, 2=22-4-15, 8=22-4-15, 9=22-4-15, 10=22-4-15, 11=22-4-15, 12=22-4-15, 13=22-4-15, 14=22-4-15
- Max Horiz 1=110 (LC 11)
- Max Uplift 1=66 (LC 10), 9=11 (LC 18), 10=28 (LC 12), 11=35 (LC 12), 13=35 (LC 12), 14=27 (LC 12)
- Max Grav 1=59 (LC 11), 2=174 (LC 17), 8=137 (LC 17), 9=2 (LC 12), 10=319 (LC 18), 11=428 (LC 18), 12=381 (LC 17), 13=428 (LC 17), 14=319 (LC 17)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-123/139, 2-3=-89/82, 3-4=-118/70, 4-5=-105/109, 5-6=-99/108, 6-7=-88/44, 7-8=-57/39, 8-9=-4/24
- BOT CHORD 2-14=-28/61, 12-14=-28/61, 11-12=-28/61, 10-11=-28/61, 8-10=-28/61
- WEBS 5-12=-189/0, 4-13=-264/111, 3-14=-203/82, 6-11=-264/111, 7-10=-203/82

NOTES

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

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-2-7, Zone1 3-2-7 to 11-2-7, Zone2 11-2-7 to 15-2-7, Zone1 15-2-7 to 22-1-7 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 66 lb uplift at joint 1, 11 lb uplift at joint 9, 35 lb uplift at joint 13, 27 lb uplift at joint 14, 35 lb uplift at joint 11 and 28 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

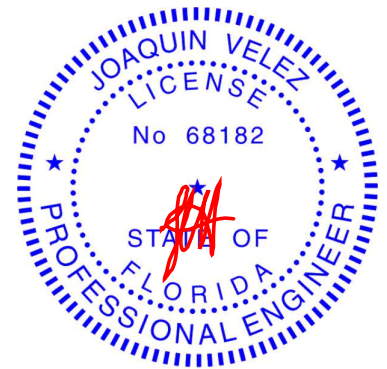


Review for Code Compliance
Universal Engineering Science

Joaquin Velez
Examiner-License No.

PX2707

09/10/2025



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

August 8, 2025

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/TPI-1 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.sbscomponents.com)

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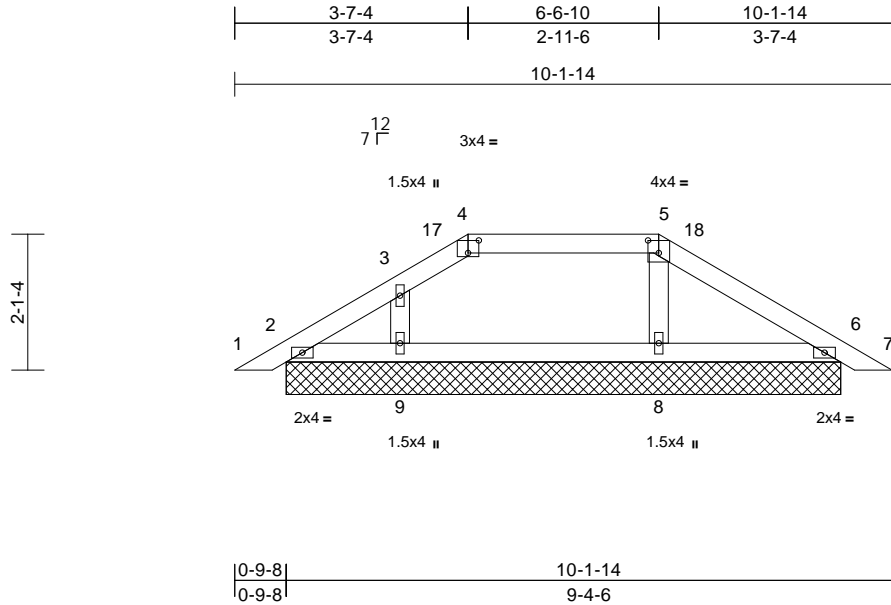
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB10	Truss Type Piggyback	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149920
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:42
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Page: 1



Scale = 1:35.6
Plate Offsets (X, Y): [4:0-2-0,0-2-5], [5:0-2-0,0-2-5]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 33 lb	FT = 20%

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

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

REACTIONS (size) 2=8-6-14, 6=8-6-14, 8=8-6-14, 9=8-6-14
Max Horiz 2=34 (LC 11)
Max Uplift 2=27 (LC 12), 6=27 (LC 12)
Max Grav 2=149 (LC 23), 6=194 (LC 1), 8=214 (LC 24), 9=202 (LC 23)

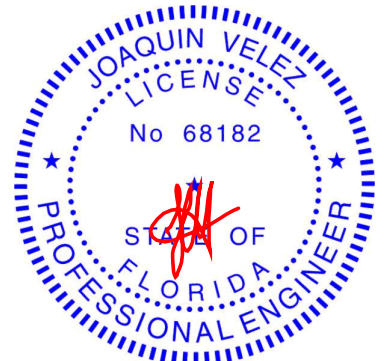
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-151/49, 3-4=-184/93, 4-5=-130/85, 5-6=-163/70, 6-7=0/15
BOT CHORD 2-9=-14/130, 8-9=-14/130, 6-8=-14/130
WEBS 5-8=-125/61, 3-9=-131/74

- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss bearing plate capable of withstanding 27 lb uplift at joint 2, 27 lb uplift at joint 6, 27 lb uplift at joint 2 and 27 lb uplift at joint 6.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8, Zone1 3-3-8 to 3-7-4, Zone3 3-7-4 to 9-10-7 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.

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Joaquin Velez
Examiner-License No. PX2707 09/10/2025



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

August 8, 2025

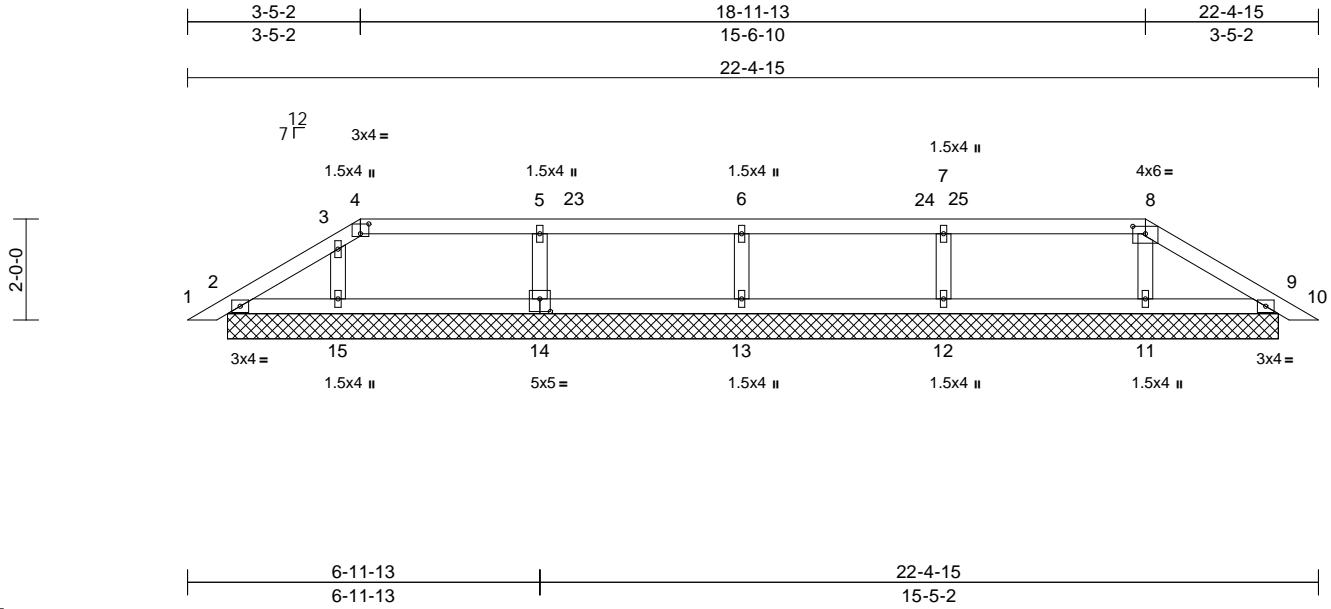
Job 0525-041	Truss PB11	Truss Type Piggyback	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149921
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:43

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Scale = 1:45.7

Plate Offsets (X, Y): [4:0-2-0,0-2-5], [8:0-3-0,0-1-12], [14:0-2-8,0-3-0]

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 75 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 2=20-9-14, 9=20-9-14, 11=20-9-14,
 12=20-9-14, 13=20-9-14,
 14=20-9-14, 15=20-9-14
 Max Horiz 2=32 (LC 11)
 Max Uplift 2=20 (LC 12), 9=20 (LC 12),
 12=6 (LC 9), 14=4 (LC 8)
 Max Grav 2=108 (LC 1), 9=132 (LC 24),
 11=259 (LC 1), 12=339 (LC 23),
 13=314 (LC 1), 14=334 (LC 24),
 15=249 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/15, 2-3=-48/21, 3-4=-88/43,
 4-5=-35/35, 5-6=-35/35, 6-7=-35/35,
 7-8=-35/35, 8-9=-55/23, 9-10=0/15
 BOT CHORD 2-15=-1/35, 13-15=-1/35, 12-13=-1/35,
 11-12=-1/35, 9-11=-1/35
 WEBS 8-11=-177/48, 7-12=-257/63, 6-13=-234/48,
 5-14=-250/63, 3-15=-178/50

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)
 Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
 MWFRS (directional) and C-C Zone3 0-3-8 to 3-5-2,
 Zone2 3-5-2 to 7-8-1, Zone1 7-8-1 to 18-11-13, Zone3
 18-11-13 to 22-1-7 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.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4'-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 20-9psf on the bottom chord in all areas where a rectangular 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 20 lb uplift at joint 2, 6 lb uplift at joint 12, 4 lb uplift at joint 14, 20 lb uplift at joint 9, 20 lb uplift at joint 2 and 20 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

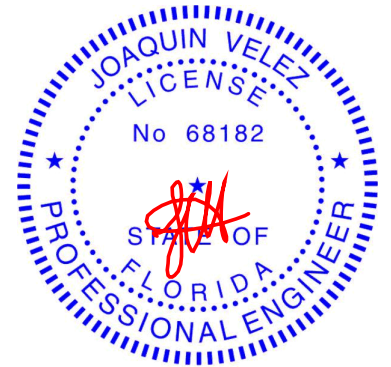
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PX2707

09/10/2025



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

August 8, 2025

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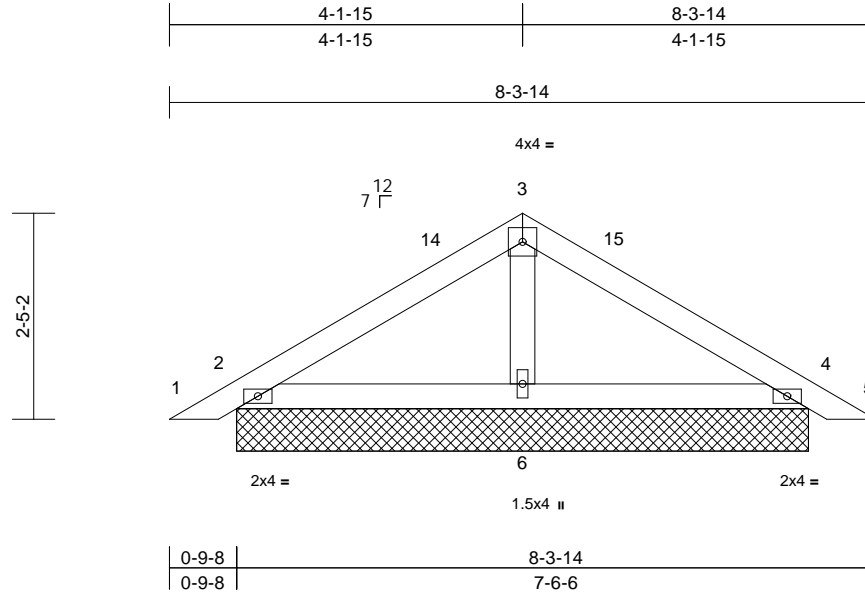
16023 Swingley Ridge Rd.
 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB12	Truss Type Piggyback	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149922
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:27.2

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.15	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 27 lb	FT = 20%

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

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

REACTIONS (size) 2=6-8-14, 4=6-8-14, 6=6-8-14
 Max Horiz 2=-39 (LC 10)
 Max Uplift 2=-22 (LC 12), 4=-22 (LC 12)
 Max Grav 2=169 (LC 1), 4=169 (LC 1), 6=262 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/15, 2-3=-82/72, 3-4=-82/65, 4-5=0/15
 BOT CHORD 2-6=-2/45, 4-6=-9/39
 WEBS 3-6=-127/41

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8, Zone1 3-3-8 to 4-1-15, Zone3 4-1-15 to 8-0-7 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 22 lb uplift at joint 2, 22 lb uplift at joint 4, 22 lb uplift at joint 2 and 22 lb uplift at joint 4.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

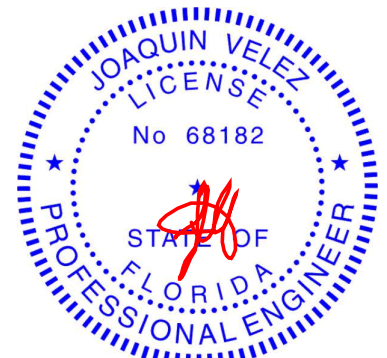
LOAD CASE(S) Standard

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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:

August 8, 2025

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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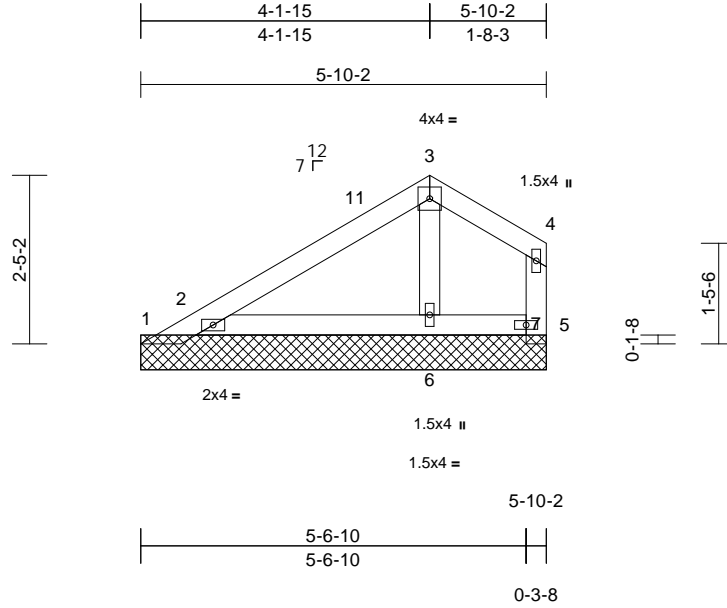
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 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB13	Truss Type Piggyback	Qty 1	Ply 2	Barnard Job Reference (optional)	T38149923
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:33.2

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	0.09	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.03	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS						Weight: 44 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=5-10-2, 2=5-10-2, 5=5-10-2, 6=5-10-2, 7=5-10-2
Max Horiz 1=56 (LC 11)
Max Uplift 1=-154 (LC 17), 2=-22 (LC 12), 5=-15 (LC 12)
Max Grav 1=29 (LC 9), 2=346 (LC 1), 5=52 (LC 18), 6=196 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-167/156, 2-3=-83/66, 3-4=-38/57, 5-7=0/0, 4-5=-52/68
BOT CHORD 2-6=-65/52, 5-6=-25/28
WEBS 3-6=-121/75

NOTES

- 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails 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 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8,
Zone1 3-3-8 to 4-1-15, Zone3 4-1-15 to 5-8-6 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 5, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2, 15 lb uplift at joint 5, 154 lb uplift at joint 1 and 22 lb uplift at joint 2.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

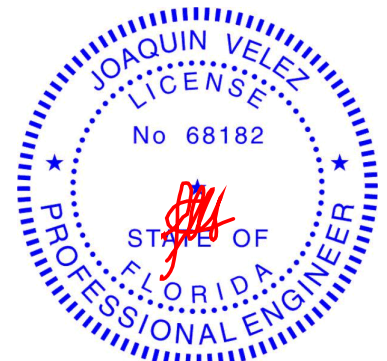


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Joaquin Velez
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PX2707

09/10/2025



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

August 8, 2025

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

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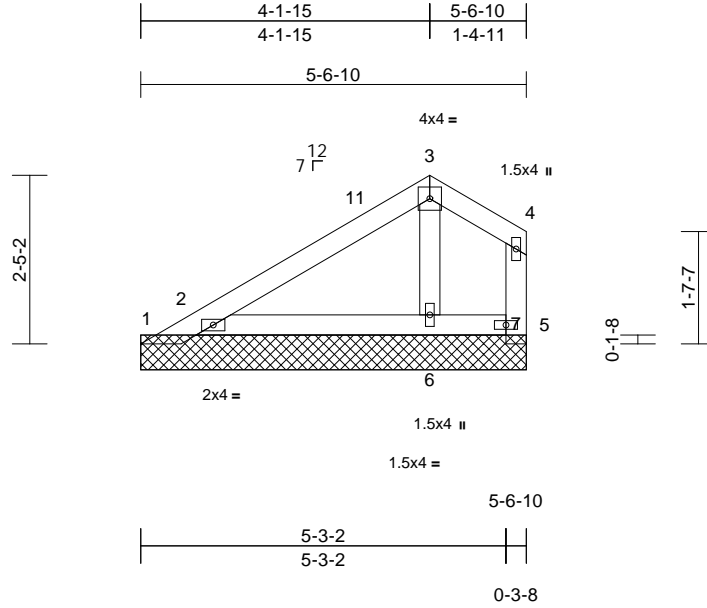
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB14	Truss Type Piggyback	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149924
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.83 S Jul 24 2025 Print: 8.830 S Jul 24 2025 MiTek Industries, Inc. Thu Aug 07 07:24:43
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Page: 1



Scale = 1:33.2

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	0.18	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.07	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS						Weight: 21 lb	FT = 20%

LUMBER

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

BRACING

- TOP CHORD Structural wood sheathing directly applied, except end verticals.
- BOT CHORD Rigid ceiling directly applied.

REACTIONS

- (size) 1=5-6-10, 2=5-6-10, 5=5-6-10, 6=5-6-10, 7=5-6-10
- Max Horiz 1=59 (LC 11)
- Max Uplift 1=-162 (LC 17), 2=-22 (LC 12), 5=-15 (LC 12)
- Max Grav 1=31 (LC 9), 2=355 (LC 1), 5=38 (LC 18), 6=187 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-2=-184/170, 2-3=-76/65, 3-4=-37/53, 5-7=0/0, 4-5=-45/59
- BOT CHORD 2-6=-58/47, 5-6=-28/30
- WEBS 3-6=-111/79

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8, Zone1 3-3-8 to 4-1-15, Zone3 4-1-15 to 5-4-14 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2, 5, 1, 7, 2 considers parallel to value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss bearing plate capable of withstanding 22 lb uplift at joint 2, 15 lb uplift at joint 5, 162 lb uplift at joint 1 and 22 lb uplift at joint 2.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

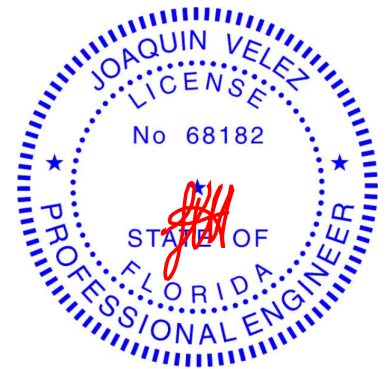
LOAD CASE(S) Standard



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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:

August 8, 2025

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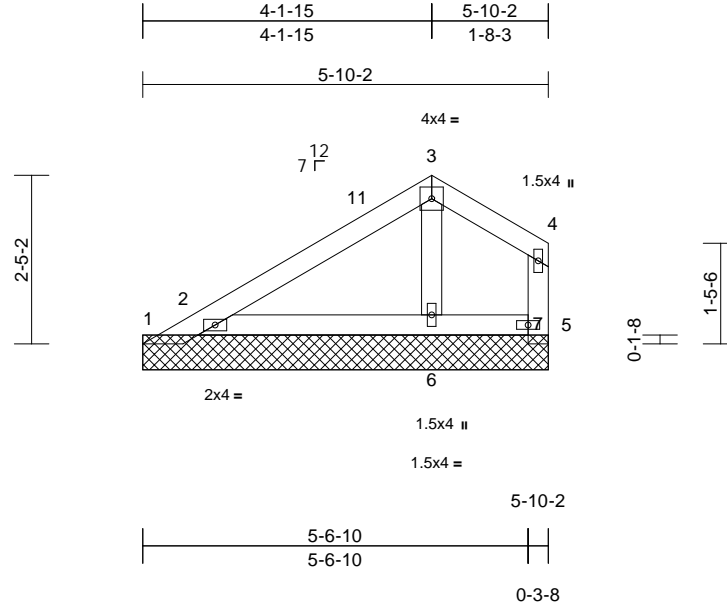
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0525-041	Truss PB15	Truss Type Piggyback	Qty 2	Ply 1	Barnard Job Reference (optional)	T38149925
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:33.2

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	0.18	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.07	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS						Weight: 22 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=5-10-2, 2=5-10-2, 5=5-10-2, 6=5-10-2, 7=5-10-2
Max Horiz 1=56 (LC 11)
Max Uplift 1=-163 (LC 17), 2=-23 (LC 12), 5=-15 (LC 12)
Max Grav 1=29 (LC 9), 2=356 (LC 1), 5=52 (LC 18), 6=194 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-170/160, 2-3=-71/62, 3-4=-38/57, 5-7=0/0, 4-5=-52/68
BOT CHORD 2-6=-57/47, 5-6=-25/28
WEBS 3-6=-120/74

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8, Zone1 3-3-8 to 4-1-15, Zone3 4-1-15 to 5-8-6 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 5, 7 considers parallel to grain using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss bearing plate capable of withstanding 23 lb uplift at joint 2, 15 lb uplift at joint 5, 163 lb uplift at joint 1 and 23 lb uplift at joint 2.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

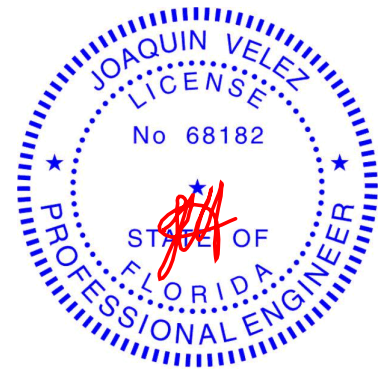
LOAD CASE(S) Standard



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PX2707 09/10/2025



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

August 8, 2025

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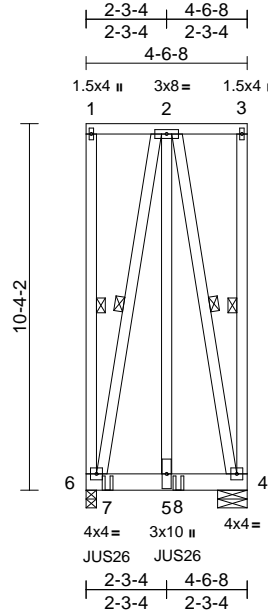
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job 0525-041	Truss T01	Truss Type Flat Girder	Qty 1	Ply 1	Barnard Job Reference (optional)	T38149926
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Scale = 1:65

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)	-0.01	5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.03	5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 89 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-6, 3-4, 2-4, 2-6

REACTIONS

(size) 4=0-10-0, 6=0-3-8
Max Uplift 4=-39 (LC 4), 6=-69 (LC 4)
Max Grav 4=863 (LC 13), 6=1520 (LC 13)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-59/12, 1-2=0/0, 2-3=0/0, 3-4=-59/12
BOT CHORD 5-6=-6/128, 4-5=-6/128
WEBS 2-4=-613/31, 2-5=-26/1091, 2-6=-613/31

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 6 and 39 lb uplift at joint 4.

- 8) Use MiTek JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 2-7-4 to connect truss(es) to front face of bottom chord.
- 9) Fill all nail holes where hanger is in contact with lumber.
- 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, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-855 (F), 8=-849 (F)



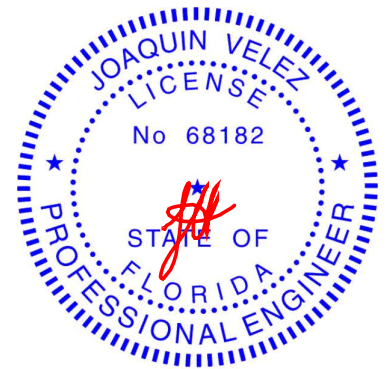
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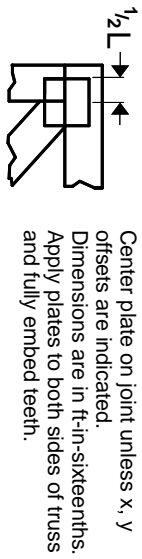
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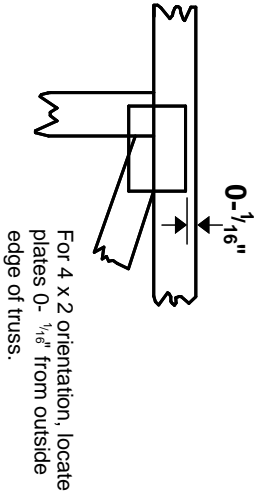
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Symbols

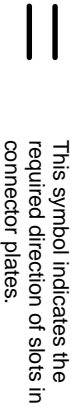
PLATE LOCATION AND ORIENTATION



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\"/>

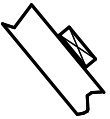


* Plate location details available in MITtek software or upon request.

PLATE SIZE

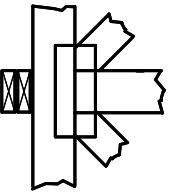
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

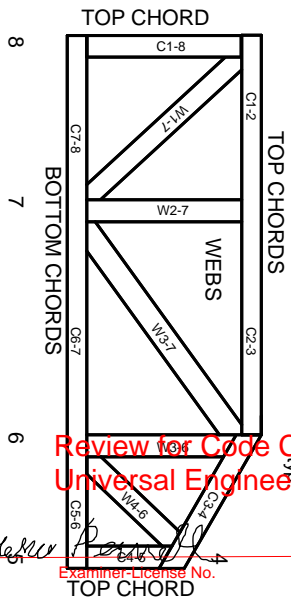


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/TP1: 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



JOINTS ARE GENERALLY NUMBERED/LETTERED 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-2-362, ESR-2-685, ESR-3-282
- ESR-4-722, ESL-1-388

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/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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

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 Torl 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.

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