RE: 3524715
Summit/HM #139

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: 3524715
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 67 individual, dated Truss Design Drawings and 0 Additional Drawings.

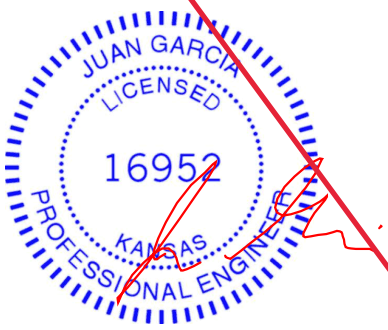
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I53508621	A1	8/5/2022	21	I53508641	CJ8	8/5/2022
2	I53508622	A2	8/5/2022	22	I53508642	CJ9	8/5/2022
3	I53508623	A3	8/5/2022	23	I53508643	D1	8/5/2022
4	I53508624	A4	8/5/2022	24	I53508644	D2	8/5/2022
5	I53508625	A5	8/5/2022	25	I53508645	E1	8/5/2022
6	I53508626	A6	8/5/2022	26	I53508646	E2	8/5/2022
7	I53508627	A7	8/5/2022	27	I53508647	E3	8/5/2022
8	I53508628	A8	8/5/2022	28	I53508648	E4	8/5/2022
9	I53508629	A9	8/5/2022	29	I53508649	F1	8/5/2022
10	I53508630	B1	8/5/2022	30	I53508650	F2	8/5/2022
11	I53508631	B1A	8/5/2022	31	I53508651	F3	8/5/2022
12	I53508632	B2	8/5/2022	32	I53508652	F4	8/5/2022
13	I53508633	B3	8/5/2022	33	I53508653	J1	8/5/2022
14	I53508634	CJ1	8/5/2022	34	I53508654	J2	8/5/2022
15	I53508635	CJ2	8/5/2022	35	I53508655	J3	8/5/2022
16	I53508636	CJ3	8/5/2022	36	I53508656	J4	8/5/2022
17	I53508637	CJ4	8/5/2022	37	I53508657	J5	8/5/2022
18	I53508638	CJ5	8/5/2022	38	I53508658	J6	8/5/2022
19	I53508639	CJ6	8/5/2022	39	I53508659	J7	8/5/2022
20	I53508640	CJ7	8/5/2022	40	I53508660	J8	8/5/2022

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

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2024.

Kansas COA: E-943



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

August 05, 2022

Garcia, Juan

RE: 3524715 - Summit/HM #139

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name: 3524715
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I53508661	J9	8/5/2022
42	I53508662	J10	8/5/2022
43	I53508663	J11	8/5/2022
44	I53508664	J12	8/5/2022
45	I53508665	J13	8/5/2022
46	I53508666	J14	8/5/2022
47	I53508667	J15	8/5/2022
48	I53508668	J16	8/5/2022
49	I53508669	J17	8/5/2022
50	I53508670	J18	8/5/2022
51	I53508671	J19	8/5/2022
52	I53508672	J20	8/5/2022
53	I53508673	J21	8/5/2022
54	I53508674	J22	8/5/2022
55	I53508675	J23	8/5/2022
56	I53508676	J24	8/5/2022
57	I53508677	J25	8/5/2022
58	I53508678	J26	8/5/2022
59	I53508679	J27	8/5/2022
60	I53508680	J28	8/5/2022
61	I53508681	L1	8/5/2022
62	I53508682	LG1	8/5/2022
63	I53508683	LG2	8/5/2022
64	I53508684	LG3	8/5/2022
65	I53508685	V1	8/5/2022
66	I53508686	V2	8/5/2022
67	I53508687	V3	8/5/2022

MiTek®

RE: 3524715
Summit/HM #139

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: 3524715
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16
Wind Speed: 115 mph
Roof Load: 45.0 psf
Floor Load: N/A psf

This package includes 67 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I53508621	A1	8/5/2022	21	I53508641	CJ8	8/5/2022
2	I53508622	A2	8/5/2022	22	I53508642	CJ9	8/5/2022
3	I53508623	A3	8/5/2022	23	I53508643	D1	8/5/2022
4	I53508624	A4	8/5/2022	24	I53508644	D2	8/5/2022
5	I53508625	A5	8/5/2022	25	I53508645	E1	8/5/2022
6	I53508626	A6	8/5/2022	26	I53508646	E2	8/5/2022
7	I53508627	A7	8/5/2022	27	I53508647	E3	8/5/2022
8	I53508628	A8	8/5/2022	28	I53508648	E4	8/5/2022
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11	I53508631	B1A	8/5/2022	31	I53508651	F3	8/5/2022
12	I53508632	B2	8/5/2022	32	I53508652	F4	8/5/2022
13	I53508633	B3	8/5/2022	33	I53508653	J1	8/5/2022
14	I53508634	CJ1	8/5/2022	34	I53508654	J2	8/5/2022
15	I53508635	CJ2	8/5/2022	35	I53508655	J3	8/5/2022
16	I53508636	CJ3	8/5/2022	36	I53508656	J4	8/5/2022
17	I53508637	CJ4	8/5/2022	37	I53508657	J5	8/5/2022
18	I53508638	CJ5	8/5/2022	38	I53508658	J6	8/5/2022
19	I53508639	CJ6	8/5/2022	39	I53508659	J7	8/5/2022
20	I53508640	CJ7	8/5/2022	40	I53508660	J8	8/5/2022

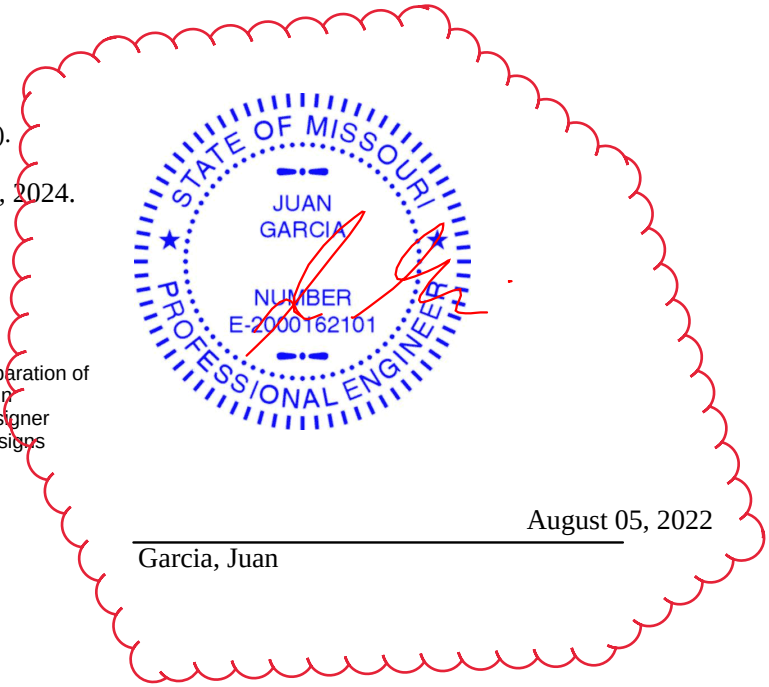
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2024.

Missouri COA: 001193

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



August 05, 2022
Garcia, Juan

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

RE: 3524715 - Summit/HM #139

Site Information:

Project Customer: Project Name: 3524715
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I53508661	J9	8/5/2022
42	I53508662	J10	8/5/2022
43	I53508663	J11	8/5/2022
44	I53508664	J12	8/5/2022
45	I53508665	J13	8/5/2022
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52	I53508672	J20	8/5/2022
53	I53508673	J21	8/5/2022
54	I53508674	J22	8/5/2022
55	I53508675	J23	8/5/2022
56	I53508676	J24	8/5/2022
57	I53508677	J25	8/5/2022
58	I53508678	J26	8/5/2022
59	I53508679	J27	8/5/2022
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63	I53508683	LG2	8/5/2022
64	I53508684	LG3	8/5/2022
65	I53508685	V1	8/5/2022
66	I53508686	V2	8/5/2022
67	I53508687	V3	8/5/2022

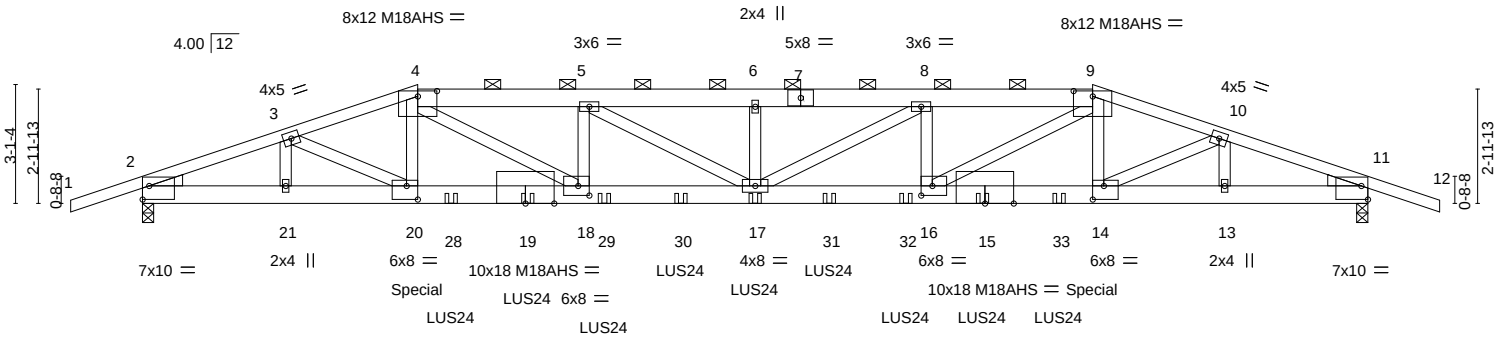
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A1	Hip Girder	1	1	I53508621

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:23 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-ikEf3TSgioV9259UcWne?Q4F4ecJ3Fq?6K5uFUyqxbc

1-10-8	3-8-14	7-2-4	11-6-4	16-0-0	20-5-12	24-9-12	28-3-2	32-0-0	33-10-8
1-10-8	3-8-14	3-5-6	4-4-0	4-5-12	4-5-12	4-4-0	3-5-6	3-8-14	1-10-8

Scale = 1:60.2



3-8-14	7-2-4	11-6-4	16-0-0	20-5-12	24-9-12	28-3-2	32-0-0
3-8-14	3-5-6	4-4-0	4-5-12	4-5-12	4-4-0	3-5-6	3-8-14

Plate Offsets (X,Y)-- [2:Edge,0-4-4], [4:0-6-0,0-1-11], [9:0-6-0,0-1-11], [11:Edge,0-4-4], [14:0-3-8,0-4-4], [16:0-3-8,0-3-0], [18:0-3-8,0-3-0], [20:0-3-8,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.59	17	>654	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-1.05	17	>365	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 174 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E *Except* 4-7,7-9: 2x6 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E *Except* 15-19: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-13 oc purlins, except 2-0-0 oc purlins (2-4-1 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 6-3-10 oc bracing.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=45(LC 25)
Max Uplift 2=-790(LC 4), 11=-790(LC 5)
Max Grav 2=3398(LC 1), 11=3398(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7148/1577, 3-4=-8415/1909, 4-5=-10926/2522, 5-6=-11885/2732, 6-8=-11885/2732, 8-9=-10926/2522, 9-10=-8415/1910, 10-11=-7148/1578
BOT CHORD 2-21=-1466/6701, 20-21=-1466/6701, 18-20=-1762/7978, 17-18=-2452/10919, 16-17=-2421/10919, 14-16=-1717/7978, 13-14=-1422/6702, 11-13=-1422/6702
WEBS 3-21=-902/250, 3-20=-362/1573, 4-20=-122/682, 4-18=-847/3525, 5-18=-1162/314, 5-17=-325/1180, 6-17=-343/115, 8-17=-326/1179, 8-16=-1162/314, 9-16=-847/3524, 9-14=-122/682, 10-14=-363/1573, 10-13=-902/250

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=790, 11=790.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 8-0-12 from the left end to 23-11-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 547 lb down and 132 lb up at 7-2-4, and 547 lb down and 132 lb up at 24-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) 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

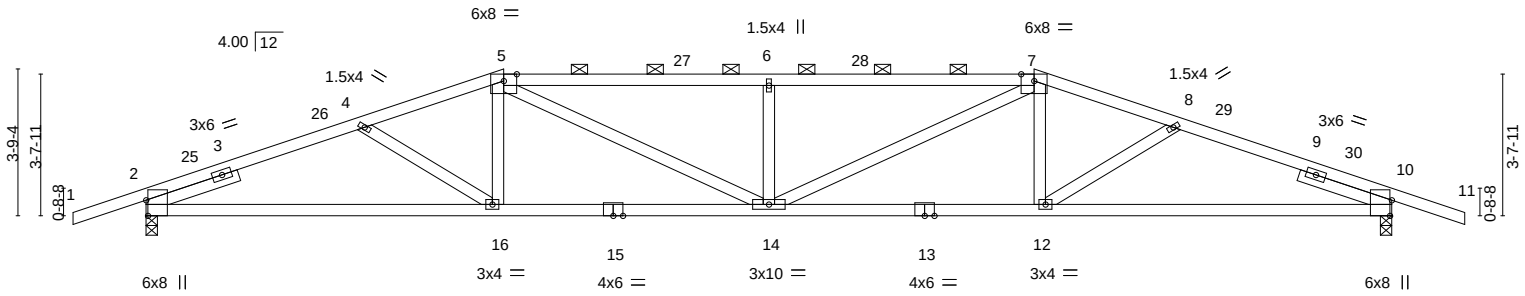
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-9=-70, 9-12=-70, 22-25=-20
   Concentrated Loads (lb)
   Vert: 19=-284(B) 20=-547(B) 17=-284(B) 14=-547(B) 15=-284(B) 28=-284(B) 29=-284(B) 30=-284(B) 31=-284(B) 32=-284(B) 33=-284(B)

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A4	Hip	1	1	I53508622

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:25 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-e7MPU9TxDQltHPJtjwp64r9dnRHXXJCIaea?KNyqxba

1-10-8	5-7-6	9-2-4	16-0-0	22-9-12	26-4-10	32-0-0	33-10-8
1-10-8	5-7-6	3-6-15	6-9-12	6-9-12	3-6-15	5-7-6	1-10-8

Scale = 1:59.2



9-2-4	16-0-0	22-9-12	32-0-0
9-2-4	6-9-12	6-9-12	9-2-4

Plate Offsets (X,Y)-- [2:0-4-13,Edge], [10:0-4-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.31	14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.56	12-14	>692	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.14	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 121 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-7: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-2-8 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-56(LC 13)
Max Uplift 2=-313(LC 8), 10=-313(LC 9)
Max Grav 2=1571(LC 1), 10=1571(LC 1)

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

TOP CHORD	2-4=-3016/623, 4-5=-2941/587, 5-6=-3516/725, 6-7=-3516/724, 7-8=-2941/587, 8-10=-3016/623
BOT CHORD	2-16=-508/2789, 14-16=-442/2792, 12-14=-450/2792, 10-12=-517/2789
WEBS	5-16=0/261, 5-14=-197/947, 6-14=-574/195, 7-14=-197/947, 7-12=0/261

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-3-14, Interior(1) 1-3-14 to 9-2-4, Exterior(2R) 9-2-4 to 13-8-9, Interior(1) 13-8-9 to 22-9-12, Exterior(2R) 22-9-12 to 27-4-1, Interior(1) 27-4-1 to 33-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=313, 10=313.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

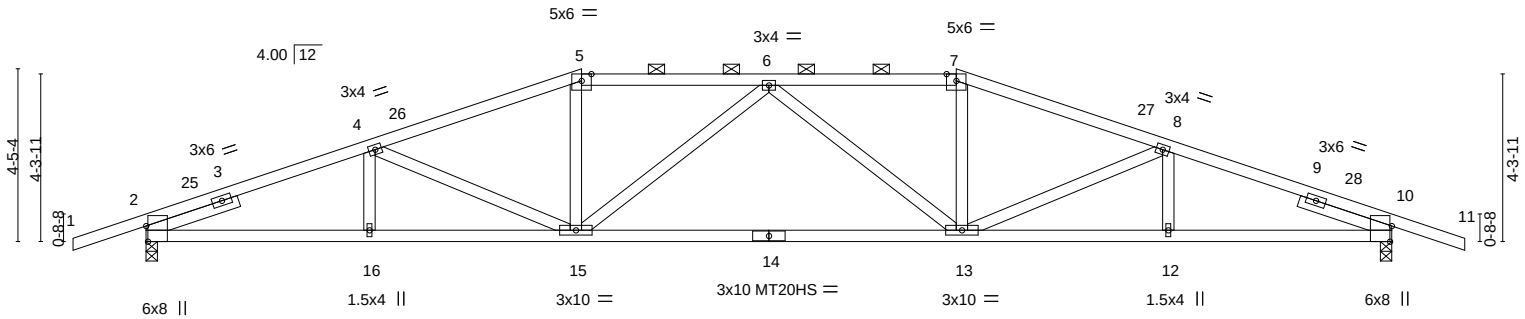
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A9	Hip	1	1	I53508623

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:26 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-6JwniVUZ_jtkvYu3HeKLd2ioOrefGkoRoIKYspyqxbZ

1-10-8	5-8-14	11-2-4	16-0-0	20-9-12	26-3-2	32-0-0	33-10-8
1-10-8	5-8-14	5-5-6	4-9-12	4-9-12	5-5-6	5-8-14	1-10-8

Scale = 1:59.2



5-8-14	11-2-4	20-9-12	26-3-2	32-0-0
5-8-14	5-5-6	9-7-8	5-5-6	5-8-14

Plate Offsets (X,Y)-- [2:0-4-13,Edge], [10:0-4-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.27	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.64	13-15	>605	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.14	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 125 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-5-3 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-67(LC 17)
Max Uplift 2=-305(LC 8), 10=-305(LC 9)
Max Grav 2=1571(LC 1), 10=1571(LC 1)

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

TOP CHORD	2-4=-3035/617, 4-5=-2789/576, 5-6=-2605/575, 6-7=-2605/575, 7-8=-2789/576, 8-10=-3035/617
BOT CHORD	2-16=-506/2817, 15-16=-506/2817, 13-15=-496/2841, 12-13=-515/2817, 10-12=-515/2817
WEBS	4-15=-258/131, 5-15=-37/478, 6-15=-471/148, 6-13=-471/148, 7-13=-37/478, 8-13=-258/132

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-3-14, Interior(1) 1-3-14 to 11-2-4, Exterior(2R) 11-2-4 to 16-0-0, Interior(1) 16-0-0 to 20-9-12, Exterior(2R) 20-9-12 to 25-4-1, Interior(1) 25-4-1 to 33-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=305, 10=305.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

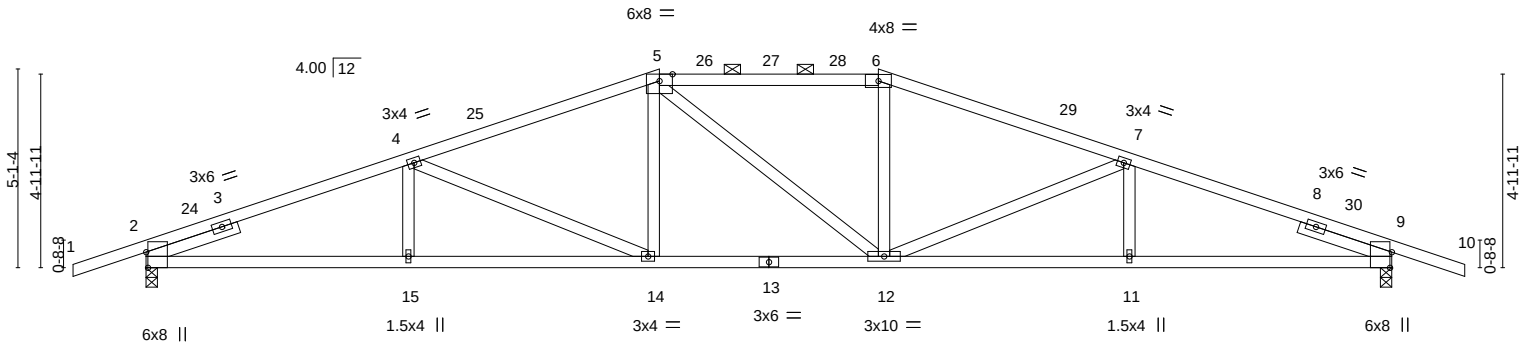
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A4	Hip	1	1	I53508624

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:27 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-aVUAvrVBl1?bXiTGrLra9GExZF0g?AUb1y35OGyqxbY

Job Reference (optional)

1-10-8	6-8-14	13-2-4	18-9-12	25-3-2	32-0-0	33-10-8
1-10-8	6-8-14	6-5-6	5-7-8	6-5-6	6-8-14	1-10-8

Scale = 1:59.2



6-8-14	13-2-4	18-9-12	25-3-2	32-0-0
6-8-14	6-5-6	5-7-8	6-5-6	6-8-14

Plate Offsets (X,Y)-- [2:0-4-13,Edge], [9:0-4-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.25	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.47	14-15	>816	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 124 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-2 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=78(LC 16)
Max Uplift 2=-295(LC 8), 9=-295(LC 9)
Max Grav 2=1571(LC 1), 9=1571(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3067/618, 4-5=-2579/563, 5-6=-2383/570, 6-7=-2579/563, 7-9=-3067/618
BOT CHORD 2-15=-501/2846, 14-15=-501/2846, 12-14=-380/2382, 11-12=-510/2846, 9-11=-510/2846
WEBS 4-14=-542/169, 5-14=-17/384, 6-12=-14/384, 7-12=-541/170

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-3-14, Interior(1) 1-3-14 to 13-2-4, Exterior(2R) 13-2-4 to 17-8-9, Interior(1) 17-8-9 to 18-9-12, Exterior(2R) 18-9-12 to 23-4-1, Interior(1) 23-4-1 to 33-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=295, 9=295.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

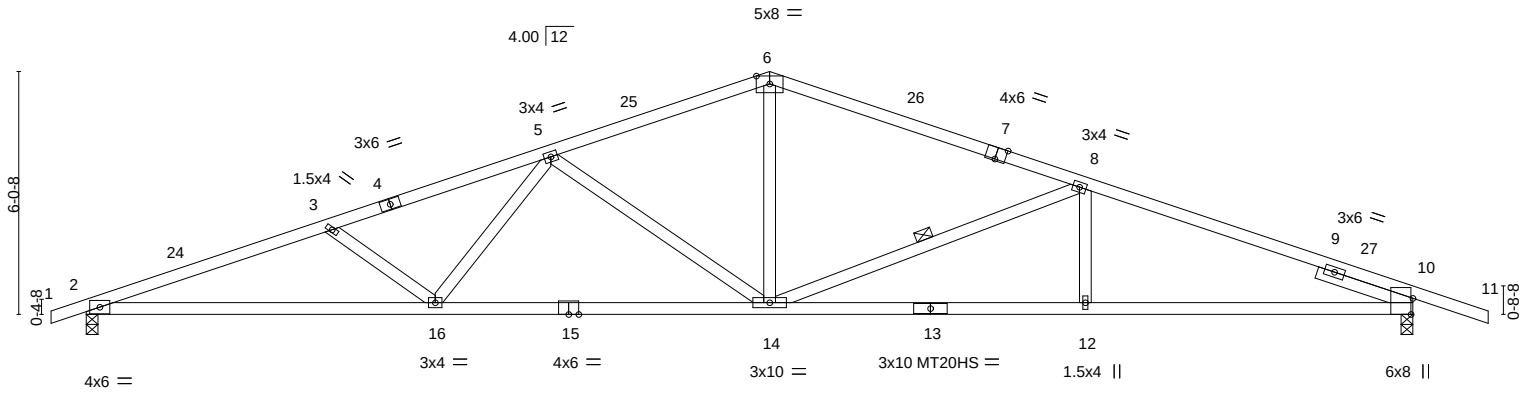
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A6	Common	3	1	I53508625

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:29 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-WucwKXWRHeFJm0deymu2FhKJS2gLT05tVGYCT8yqxbW

Job Reference (optional)

0-10-8	6-1-6	11-6-11	17-0-0	24-10-4	33-0-0	34-10-8
0-10-8	6-1-6	5-5-5	5-5-5	7-10-4	8-1-12	1-10-8

Scale = 1:57.3



8-8-3	17-0-0	24-10-4	33-0-0
8-8-3	8-3-13	7-10-4	8-1-12

Plate Offsets (X,Y)-- [7:0-3-0,Edge], [10:0-4-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.29	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.56	12-14	>703	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.16	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 119 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	6-7,7-11: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF 1650F 1.5E *Except*
	13-15: 2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-14

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=96(LC 12)
Max Uplift 2=-249(LC 8), 10=-282(LC 9)
Max Grav 2=1543(LC 1), 10=1619(LC 1)

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

TOP CHORD	2-3=-3776/669, 3-5=-3403/599, 5-6=-2355/483, 6-8=-2386/471, 8-10=-3186/570
BOT CHORD	2-16=-570/3531, 14-16=-422/2848, 12-14=-456/2954, 10-12=-456/2954
WEBS	3-16=-456/178, 5-16=-47/553, 5-14=-863/228, 6-14=-121/973, 8-14=-913/247, 8-12=0/274

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-2, Interior(1) 2-5-2 to 17-0-0, Exterior(2R) 17-0-0 to 20-3-10, Interior(1) 20-3-10 to 34-10-8 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
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=249, 10=282.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

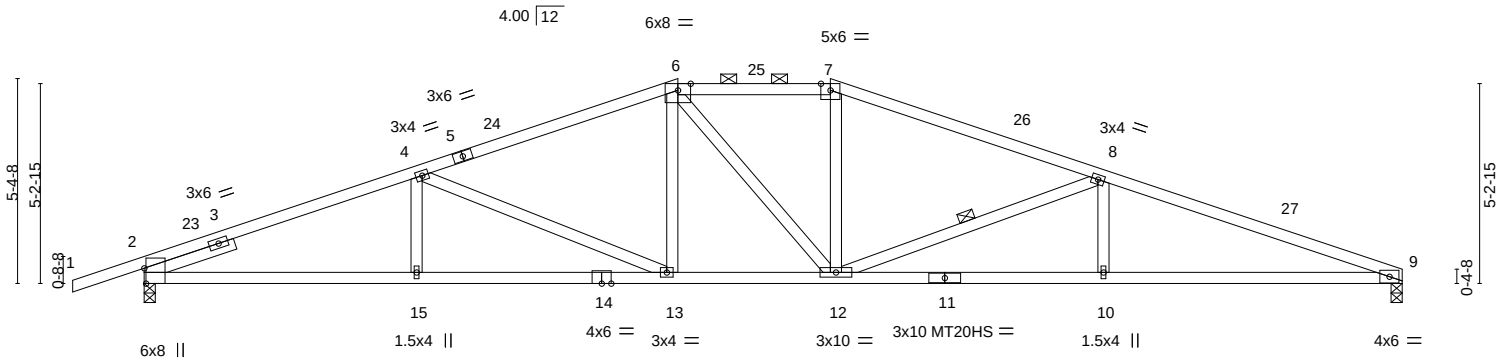
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A6	Hip	1	1	I53508626

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:30 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-?49IXtX32yNAOACrWUPHnusQJS1wCUv1jwIm?ayqxbV

Job Reference (optional)

	1-10-8	7-1-12	14-0-0	18-0-0	25-1-15	33-0-0
	1-10-8	7-1-12	6-10-4	4-0-0	7-1-15	7-10-1

Scale = 1:60.4



	7-1-12	14-0-0	18-0-0	25-1-15	33-0-0
	7-1-12	6-10-4	4-0-0	7-1-15	7-10-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.28	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.53	13-15	>746	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 122 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 1650F 1.5E *Except*
	11-14: 2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-5-8 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-12

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=89(LC 16)
Max Uplift 9=-229(LC 9), 2=-295(LC 8)
Max Grav 9=1481(LC 1), 2=1620(LC 1)

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

TOP CHORD	2-4=-3195/644, 4-6=-2630/580, 6-7=-2450/573, 7-8=-2675/578, 8-9=-3705/707
BOT CHORD	2-15=-549/2965, 13-15=-549/2965, 12-13=-412/2422, 10-12=-609/3449, 9-10=-609/3449
WEBS	4-13=-642/188, 6-13=-30/378, 6-12=-203/268, 7-12=-47/443, 8-12=-1072/259, 8-10=0/310

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-5-2, Interior(1) 1-5-2 to 14-0-0, Exterior(2E) 14-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-8-0, Interior(1) 22-8-0 to 33-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=229, 2=295.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

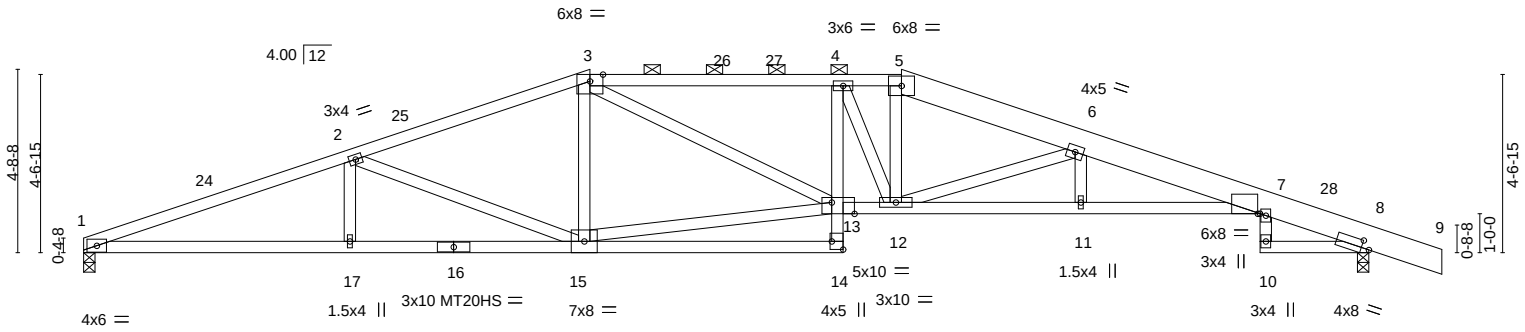
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A7	Hip	1	1	I53508627
Builders FirstSource (Valley Center),	Valley Center, KS - 67147,				Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:31 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-THjglCYipGV1?Kn14BwWK6Pd_sLZxuuAya2JX1yqxbU

6-10-1	13-0-0	19-6-0	21-0-0	25-7-4	30-2-8	33-0-0	34-10-8
6-10-1	6-1-15	6-6-0	1-6-0	4-7-4	4-7-4	2-9-8	1-10-8

Scale = 1:59.2



6-10-1	13-0-0	19-6-0	21-0-0	25-7-4	30-2-8	33-0-0
6-10-1	6-1-15	6-6-0	1-6-0	4-7-4	4-7-4	2-9-8

Plate Offsets (X,Y)-- [7:0-0-11,Edge], [8:0-2-7,0-2-5], [13:0-7-0,Edge], [14:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.44	12-13	>903	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.79	12-13	>501	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.35	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 160 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except* 5-9: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 7-13: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 8=0-3-8
Max Horz 1=-82(LC 17)
Max Uplift 1=-239(LC 8), 8=-306(LC 9)
Max Grav 1=1481(LC 1), 8=1620(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3763/742, 2-3=-2975/627, 3-4=-3587/788, 4-5=-3468/741, 5-6=-3675/749, 6-7=-5115/1003, 7-8=-570/154
BOT CHORD 1-17=-631/3511, 15-17=-631/3511, 14-15=-30/375, 12-13=-607/3586, 11-12=-905/5010, 7-11=-906/5011
WEBS 2-15=-820/224, 13-15=-423/2414, 3-13=-189/1038, 4-12=-429/124, 5-12=-200/1053, 6-12=-1688/366

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 13-0-0, Exterior(2R) 13-0-0 to 17-8-0, Interior(1) 17-8-0 to 21-0-0, Exterior(2R) 21-0-0 to 25-7-4, Interior(1) 25-7-4 to 34-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=239, 8=306.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

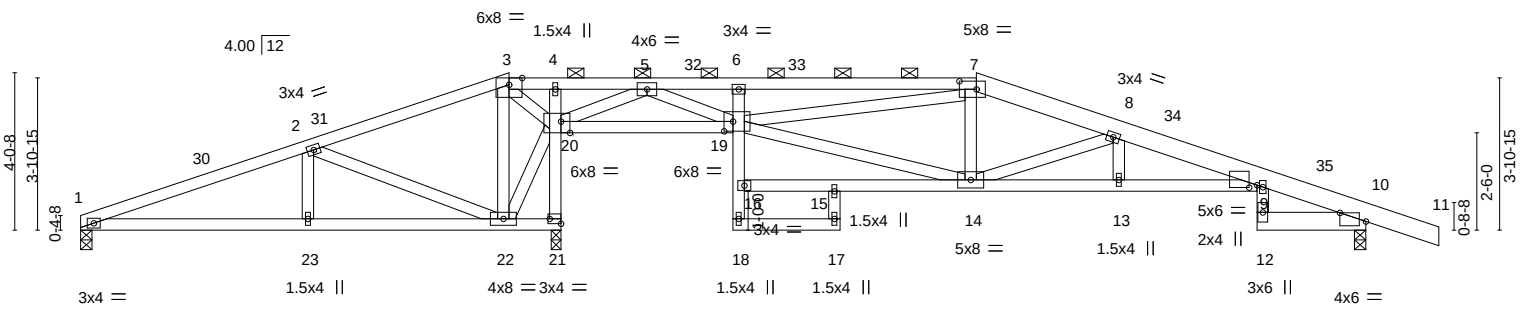
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A9	Hip	1	1	I53508628

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:33 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-PfrRAuZyLtlFdwPBcy_PXU_Pg3uPsoTPuXQcvyqxbS

5-10-1	11-0-0	12-4-0	14-6-8	16-9-0	19-6-0	23-0-0	26-7-14	30-2-8	33-0-0	34-10-8
5-10-1	5-1-15	1-4-0	2-2-8	2-2-8	2-9-0	3-6-0	3-7-14	3-6-10	2-9-8	1-10-8

Scale = 1:59.2



5-10-1	11-0-0	12-2-8	16-9-0	19-6-0	23-0-0	26-7-14	30-2-8	33-0-0
5-10-1	5-1-15	1-2-8	4-5-0	2-9-0	3-6-0	3-7-14	3-6-10	2-9-8

0-1-8

Plate Offsets (X,Y)-- [7:0-5-4,0-2-8], [9:0-2-7,0-0-12], [10:0-8-0,Edge], [19:0-2-12,0-3-0], [20:0-2-12,Edge], [21:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.25	9-13	>984	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.46	9-13	>540	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.11	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-11: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
9-16: 2x4 SPF 1650F 1.5E, 10-12: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (5-2-1 max.): 3-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 21=0-3-0, 10=0-3-8
Max Horz 1=-69(LC 17)
Max Uplift 1=-93(LC 12), 21=-283(LC 8), 10=-227(LC 9)
Max Grav 1=347(LC 25), 21=1885(LC 1), 10=930(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-441/298, 2-3=-32/682, 3-4=-414/2550, 4-5=-430/2578, 5-6=-988/222,
6-7=-1056/282, 7-8=-1437/331, 8-9=-2369/503, 9-10=-410/114
BOT CHORD 1-23=-260/387, 22-23=-260/387, 20-21=-1902/332, 19-20=-747/204, 6-19=-335/127,
13-14=-423/2334, 9-13=-423/2335, 9-12=-45/319
WEBS 2-22=-864/203, 3-22=-302/1450, 20-22=-1331/316, 3-20=-2707/569, 7-14=-12/260,
8-14=-1076/251, 5-20=-2026/414, 5-19=-301/1830, 14-19=-191/1252, 7-19=-338/114

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-3-10, Interior(1) 3-3-10 to 11-0-0, Exterior(2R) 11-0-0 to 15-8-0, Interior(1) 15-8-0 to 23-0-0, Exterior(2R) 23-0-0 to 27-8-0, Interior(1) 27-8-0 to 34-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 21=283, 10=227.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

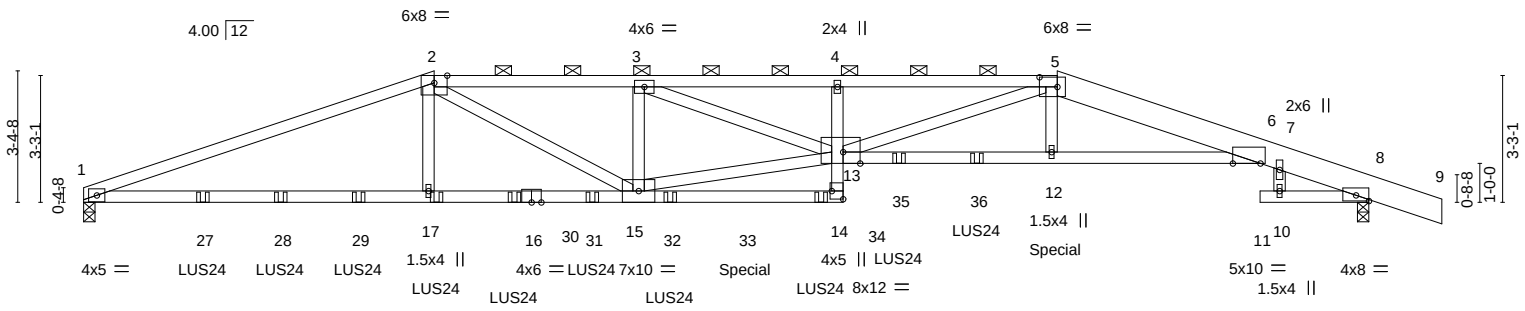
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	A9	HIP GIRDER	1	3	I53508629

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:35 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-L2zBbabCtU0SUx4oJ1?SUyaJFTjFtgtmtC0XgoyqxbQ

4-10-1	9-0-0	14-3-0	19-6-0	25-0-0	30-2-8	30-8-8	33-0-0	34-10-8
4-10-1	4-1-15	5-3-0	5-3-0	5-6-0	5-2-8	0-6-0	2-3-8	1-10-8

Scale = 1:59.2



4-10-1	9-0-0	14-3-0	19-6-0	25-0-0	30-2-8	30-8-8	33-0-0
4-10-1	4-1-15	5-3-0	5-3-0	5-6-0	5-2-8	0-6-0	2-3-8

Plate Offsets (X,Y)-- [5:0-5-8,0-3-0], [6:0-8-8,0-0-0], [8:Edge,0-1-12], [13:0-5-4,Edge], [14:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.58	12-13	>677	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-1.05	12-13	>378	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.33	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 440 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E *Except*
2-5: 2x4 SPF 1650F 1.5E, 5-9: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
1-16,6-13: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (5-10-6 max.): 2-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 8=0-3-8
Max Horz 1=-61(LC 34)
Max Uplift 1=-861(LC 4), 8=-887(LC 5)
Max Grav 1=3929(LC 1), 8=3771(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-10097/2277, 2-3=-11611/2705, 3-4=-16734/3852, 4-5=-17237/3967, 5-6=-14061/3192, 6-7=-1081/306, 7-8=-1209/318
BOT CHORD 1-17=-2118/9543, 15-17=-2106/9474, 14-15=-317/1410, 13-14=-129/614, 4-13=-289/167, 12-13=-3022/13777, 6-12=-2993/13640
WEBS 2-17=-252/1433, 2-15=-679/2691, 3-15=-2461/608, 13-15=-2379/10513, 3-13=-1216/5353, 5-13=-921/3835, 5-12=-390/1842, 7-10=-46/298

NOTES-

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=861, 8=887.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 3-10-8 oc max. starting at 3-0-12 from the left end to 22-11-4 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 323 lb down and 100 lb up at 17-0-0, and 989 lb down and 281 lb up at 24-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-5=-70, 5-9=-70, 14-18=-20, 13-21=-20, 11-24=-20
   Concentrated Loads (lb)
   Vert: 17=-323(F) 12=-989(F) 27=-379(F) 28=-323(F) 29=-323(F) 30=-323(F) 31=-323(F) 32=-323(F) 33=-323(F) 34=-323(F) 35=-323(F) 36=-323(F)

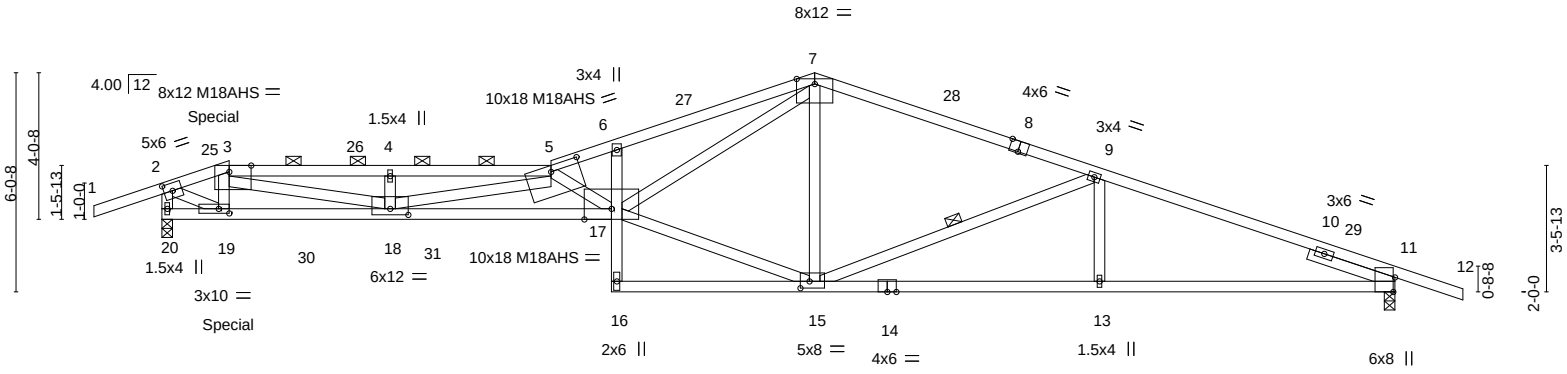
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	B4	Roof Special	1	1	I53508630

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:38 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-mdeKDcd59PO1LPpN_9Y96aCqWhlq43lCZAEBH7yqxbN

Job Reference (optional)

1-10-8	6-3-8	10-8-12	12-4-12	18-0-0	25-10-4	34-0-0	35-10-8
1-10-8	4-5-4	4-5-4	1-8-0	5-7-4	7-10-4	8-1-12	1-10-8

Scale: 3/16"=1'



1-10-4	6-3-8	10-8-12	12-4-12	18-0-0	25-10-4	34-0-0
1-10-4	4-5-4	4-5-4	1-8-0	5-7-4	7-10-4	8-1-12

Plate Offsets (X,Y)-- [2:0-2-14,0-2-8], [3:0-7-4,Edge], [5:0-9-8,0-2-0], [8:0-3-0,Edge], [11:0-4-13,Edge], [15:0-3-0,0-2-4], [18:0-6-0,0-2-0], [19:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.80	17	>511	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-1.43	17-18	>284	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.26	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 1-3: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 17-20: 2x4 SP 2400F 2.0E, 11-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except* 7-17,5-18,3-18: 2x4 SPF 1650F 1.5E
SLIDER	Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 9-15

REACTIONS. (size) 20=0-3-8, 11=0-3-8
Max Horz 20=-129(LC 13)
Max Uplift 20=-306(LC 8), 11=-288(LC 9)
Max Grav 20=1634(LC 1), 11=1652(LC 1)

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

TOP CHORD	2-3=-1960/352, 3-4=-6205/1091, 4-5=-6205/1091, 5-6=-6524/1139, 6-7=-6304/1175, 7-9=-2485/508, 9-11=-3274/597, 2-20=-1659/387
BOT CHORD	18-19=-259/1956, 17-18=-1381/8544, 13-15=-481/3036, 11-13=-481/3036
WEBS	3-19=-779/152, 5-17=-2949/550, 15-17=-290/2233, 7-17=-770/4454, 7-15=-309/112, 9-15=-912/244, 9-13=0/281, 2-19=-380/2120, 4-18=-474/142, 5-18=-2519/510, 3-18=-783/4412

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 1-10-4, Exterior(2E) 1-10-4 to 5-3-1, Interior(1) 5-3-1 to 18-0-0, Exterior(2R) 18-0-0 to 21-4-13, Interior(1) 21-4-13 to 35-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=306, 11=288.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 167 lb up at 1-10-4 on top chord, and 25 lb down and 32 lb up at 1-10-4, 22 lb down and 31 lb up at 1-11-0, and 22 lb down and 31 lb up at 3-11-0, and 22 lb down and 31 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) 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=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-7=-70, 7-12=-70, 17-20=-20, 16-21=-20
   Concentrated Loads (lb)
   Vert: 3=33(F)

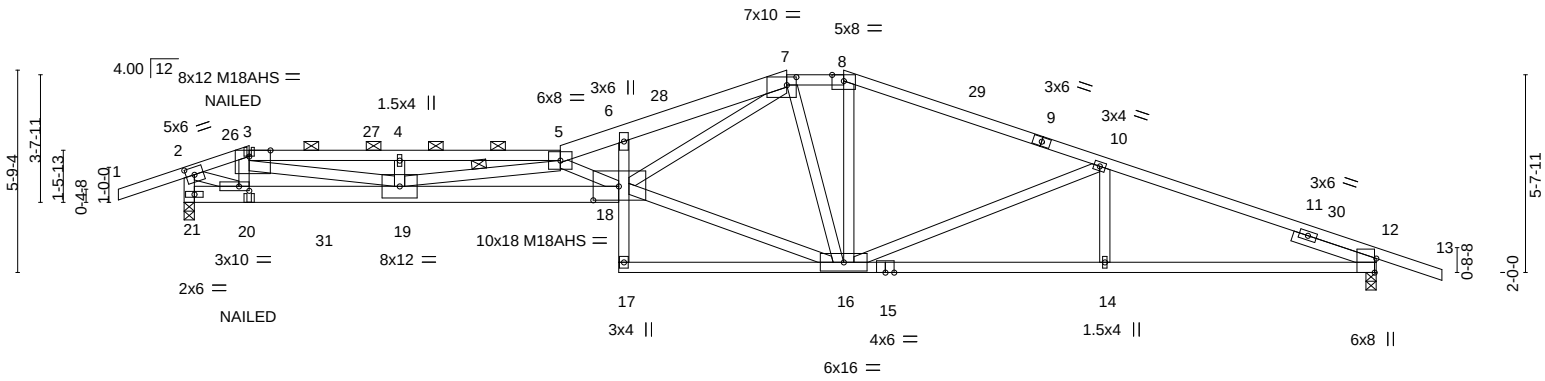
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	B04	Roof Special	1	1	I53508631

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:40 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-i?m4eHfLh1elbizm6aadB?H8iURlYvuV0UjIL?yqxbL

1-10-8	1-10-4	6-1-12	10-8-12	12-4-12	17-2-4	18-9-12	26-3-2	34-0-0	35-10-8
1-10-8	1-10-4	4-3-8	4-7-0	1-8-0	4-9-8	1-7-8	7-5-6	7-8-14	1-10-8

Scale = 1:65.7



1-10-4	6-1-12	10-8-12	12-4-12	17-2-4	18-9-12	26-3-2	34-0-0
1-10-4	4-3-8	4-7-0	1-8-0	4-9-8	1-7-8	7-5-6	7-8-14

Plate Offsets (X,Y)-- [2:0-2-14,0-2-8], [3:0-7-4,Edge], [7:0-3-4,0-2-12], [12:0-4-13,Edge], [18:0-8-12,0-4-12], [20:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.76	17	>537	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-1.36	17	>299	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.24	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 156 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 3-5,9-13: 2x4 SPF 1650F 1.5E, 5-7: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 18-21: 2x6 SPF 2100F 1.8E, 12-15: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except* 7-18: 2x4 SPF 1650F 1.5E
SLIDER	Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-5, 7-8.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-19

REACTIONS. (size) 12=0-3-8, 21=0-3-8
Max Horz 21=-125(LC 13)
Max Uplift 12=-293(LC 9), 21=-311(LC 8)
Max Grav 12=1652(LC 1), 21=1634(LC 1)

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

TOP CHORD	2-3=-2275/418, 3-4=-6176/1118, 4-5=-6174/1116, 5-6=-6932/1266, 6-7=-6721/1294, 7-8=-2391/539, 8-10=-2592/540, 10-12=-3277/606, 2-21=-1753/409
BOT CHORD	19-20=-292/2232, 18-19=-1608/9407, 14-16=-492/3040, 12-14=-492/3040
WEBS	3-20=-541/110, 5-18=-3411/650, 8-16=-43/488, 10-16=-787/223, 10-14=0/258, 2-20=-434/2323, 4-19=-404/130, 3-19=-727/4085, 7-16=-919/174, 5-19=-3379/674, 16-18=-367/2559, 7-18=-818/4563

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 1-10-4, Exterior(2E) 1-10-4 to 5-3-1, Interior(1) 5-3-1 to 17-2-4, Exterior(2E) 17-2-4 to 18-9-12, Exterior(2R) 18-9-12 to 22-2-9, Interior(1) 22-2-9 to 35-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 18 = 16%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=293, 21=311.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
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16952
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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 22 lb down and 31 lb up at 3-11-0, and 22 lb down and 31 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
14) 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=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-7=-70, 7-8=-70, 8-13=-70, 18-21=-20, 17-22=-20
   Concentrated Loads (lb)
   Vert: 3=33(B)

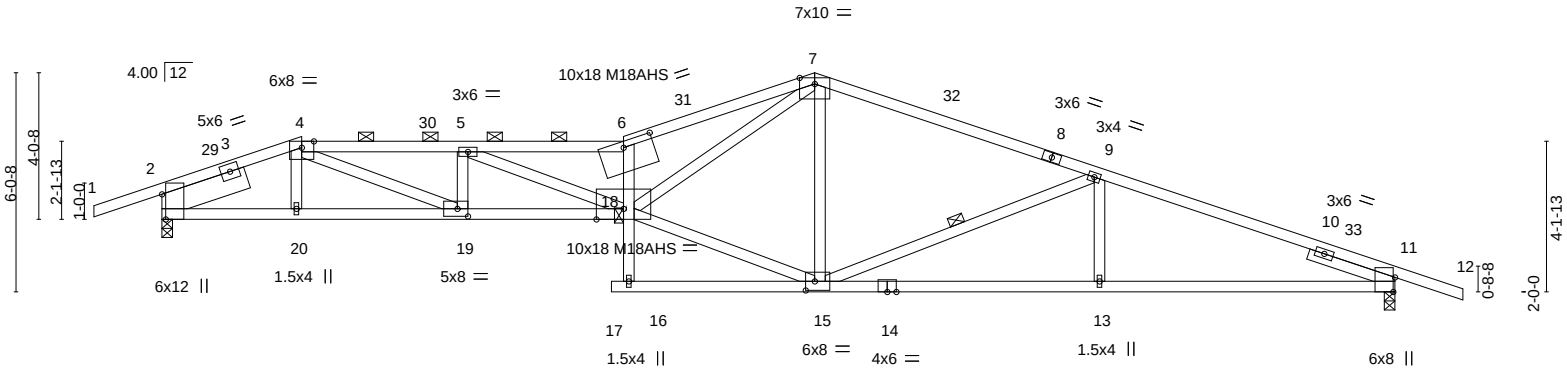
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	B2	Roof Special	2	1	I53508632

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:42 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-eOur3zgbDeuTq068D?d6GQMUCI4h0t4oUnCOQuyqxbJ

1-10-8	3-10-4	8-1-8	8-3-8	12-4-12	12-8-12	18-0-0	25-10-4	34-0-0	35-10-8
1-10-8	3-10-4	4-3-4	0-2-0	4-1-4	0-4-0	5-3-4	7-10-4	8-1-12	1-10-8

Scale: 3/16"=1'



3-10-4	8-3-8	12-4-12	18-0-0	25-10-4	34-0-0
3-10-4	4-5-4	4-1-4	5-7-4	7-10-4	8-1-12

Plate Offsets (X,Y)-- [2:0-8-5,Edge], [6:0-9-12,0-2-0], [11:0-4-13,Edge], [15:0-3-0,0-3-0], [19:0-3-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.65	17	>632	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-1.16	17	>351	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 145 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF 1650F 1.5E *Except* 14-17: 2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 7-18: 2x4 SPF 1650F 1.5E
SLIDER	Left 2x8 SP 2400F 2.0E 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-14 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-16, 9-15

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-142(LC 13)
Max Uplift 2=-297(LC 8), 11=-282(LC 9)
Max Grav 2=1665(LC 1), 11=1664(LC 1)

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

TOP CHORD	2-4=-2763/501, 4-5=-5191/936, 5-6=-6300/1124, 6-7=-6559/1205, 7-9=-2529/510, 9-11=-3303/603
BOT CHORD	2-20=-326/2531, 19-20=-330/2540, 18-19=-787/5188, 13-15=-487/3063, 11-13=-487/3063
WEBS	6-18=-2298/472, 7-15=-344/113, 9-15=-894/240, 9-13=0/275, 15-18=-312/2349, 7-18=-786/4713, 5-19=-1025/241, 4-19=-504/2885, 5-18=-217/1203

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 3-10-4, Exterior(2R) 3-10-4 to 7-3-1, Interior(1) 7-3-1 to 18-0-0, Exterior(2R) 18-0-0 to 21-4-13, Interior(1) 21-4-13 to 35-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=297, 11=282.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

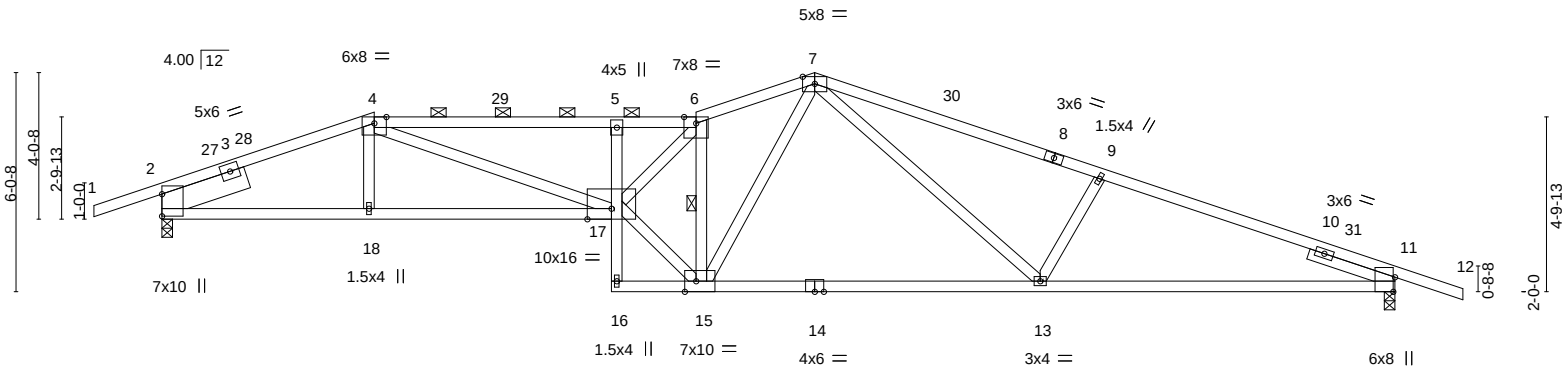
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	B9	Roof Special	1	1	I53508633

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:44 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-an0bUfirlF8B3KGXLQfaLrSrA5o1UlZ5x5hVVmyqxbH

Job Reference (optional)

1-10-8	5-10-4	12-4-12	14-8-12	18-0-0	25-10-4	34-0-0	35-10-8
1-10-8	5-10-4	6-6-8	2-4-0	3-3-4	7-10-4	8-1-12	1-10-8

Scale: 3/16"=1'



5-10-4	12-4-12	14-8-12	24-2-10	34-0-0
5-10-4	6-6-8	2-4-0	9-5-14	9-9-6

Plate Offsets (X,Y)-- [2:Edge,0-0-0], [11:0-4-13,Edge], [15:0-3-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.41	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.82	13-15	>495	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 152 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E *Except*
	6-7: 2x4 SPF No.2, 7-8,8-12: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF No.2 *Except*
	2-17: 2x4 SP 2400F 2.0E, 11-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Left 2x8 SP 2400F 2.0E 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-7-15 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-15

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-142(LC 13)
Max Uplift 2=-299(LC 8), 11=-281(LC 9)
Max Grav 2=1661(LC 1), 11=1661(LC 1)

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

TOP CHORD	2-4=-2987/552, 4-5=-4870/919, 5-6=-4746/897, 6-7=-2916/623, 7-9=-3088/620, 9-11=-3299/625
BOT CHORD	2-18=-367/2755, 17-18=-371/2756, 5-17=-615/187, 13-15=-325/2265, 11-13=-508/3061
WEBS	4-17=-410/2264, 15-17=-507/3645, 6-17=-475/2930, 6-15=-3093/549, 7-15=-179/1045, 7-13=-160/864, 9-13=-479/219

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-6-5, Interior(1) 1-6-5 to 5-10-4, Exterior(2R) 5-10-4 to 9-3-1, Interior(1) 9-3-1 to 18-0-0, Exterior(2R) 18-0-0 to 21-4-13, Interior(1) 21-4-13 to 35-10-8 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=299, 11=281.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
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16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

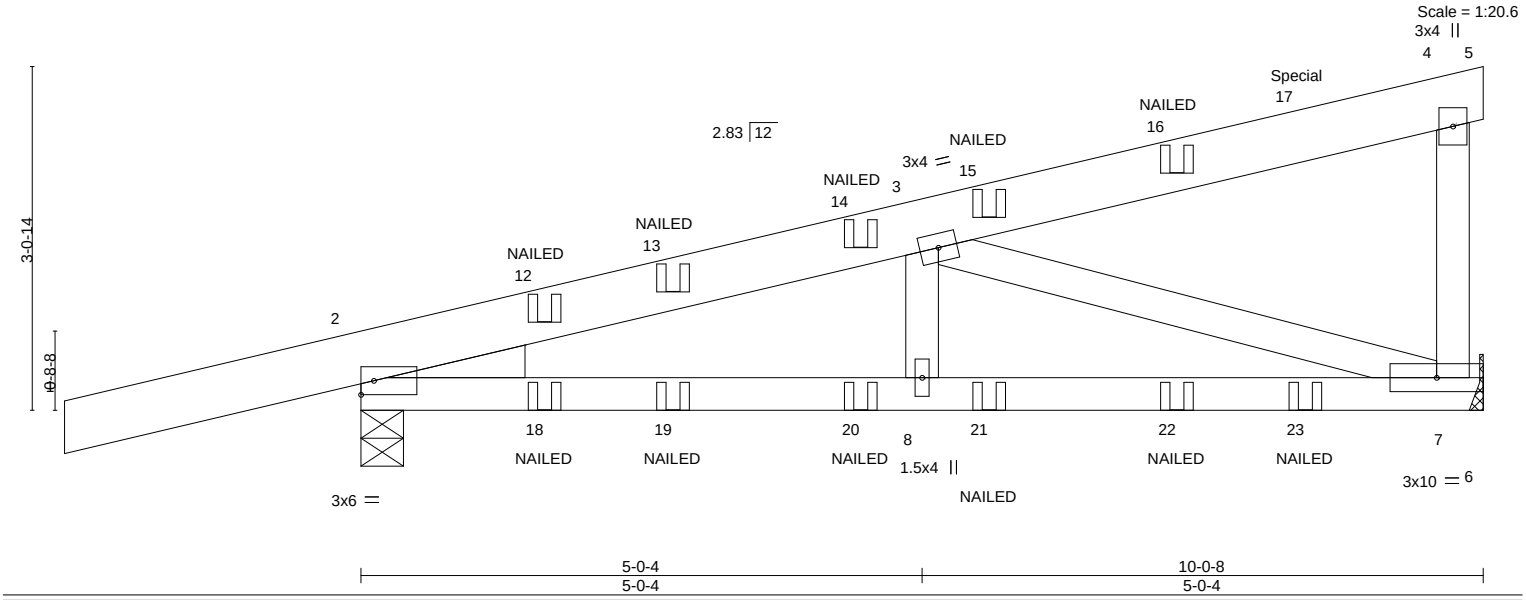
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C01	Diagonal Hip Girder	2	1	I53508634

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:45 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-2zZzh?jUWZG2hTrju7Apu3_8MVGRDL4EAlR21DyqxbG

Job Reference (optional)

2-7-13 5-0-4 10-0-8
2-7-13 5-0-4 5-0-4



5-0-4 10-0-8
5-0-4 5-0-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) 2=0-4-9, 7=Mechanical
Max Horz 2=97(LC 7)
Max Uplift 2=-191(LC 4), 7=-103(LC 8)
Max Grav 2=617(LC 1), 7=575(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-797/136
BOT CHORD 2-8=-154/731, 7-8=-154/731
WEBS 3-7=-704/168

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=191, 7=103.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 87 lb up at 8-5-6 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 6-9=-20
Concentrated Loads (lb)
Vert: 12=49(F) 15=-6(B) 16=-45(F) 17=-76(B) 18=32(F) 19=6(B) 20=7(F) 21=-12(B) 22=-29(F) 23=-41(B)

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V12	Diagonal Hip Girder	1	1	I53508635
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:46 2022 Page 1
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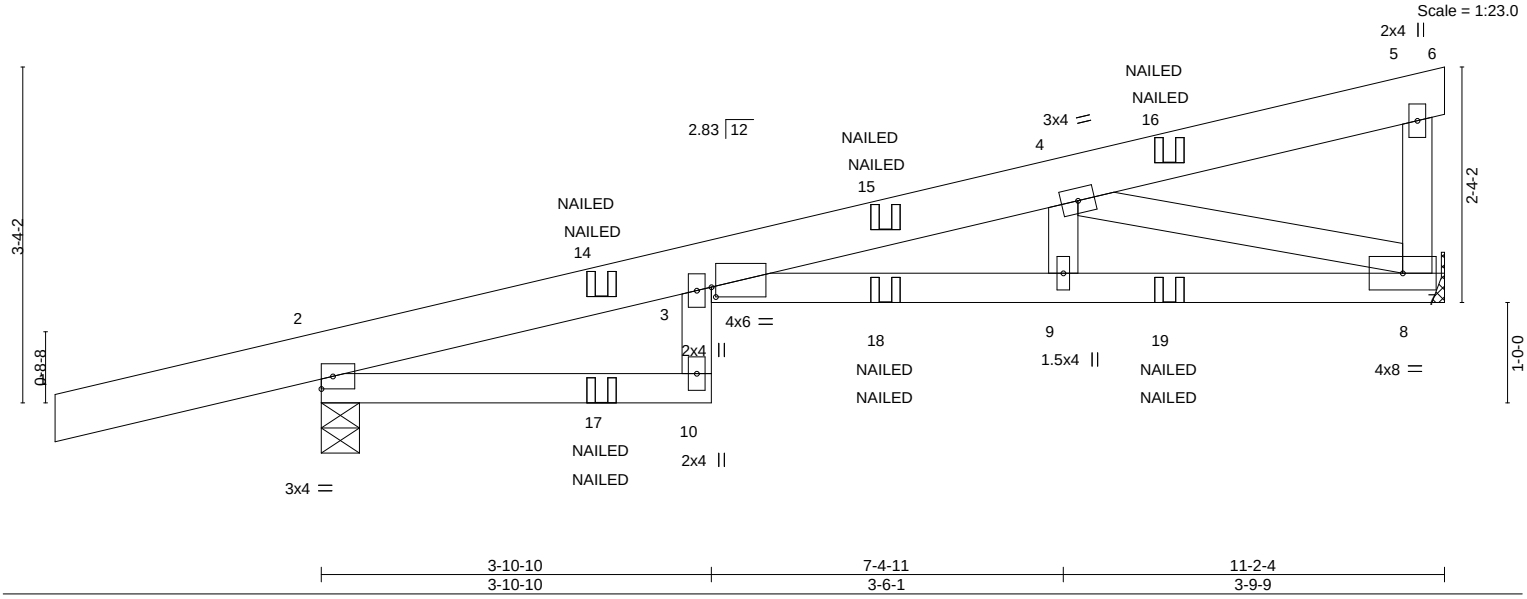

Plate Offsets (X,Y)-- [3:0-0-8,0-1-3]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.22	3-9	>595	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.41	3-9	>320	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.17	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-10-14 oc bracing.

REACTIONS. (size) 8=Mechanical, 2=0-4-9
Max Horz 2=90(LC 5)
Max Uplift 8=-154(LC 8), 2=-227(LC 4)
Max Grav 8=694(LC 1), 2=779(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1695/407
BOT CHORD 3-9=-427/1701, 8-9=-426/1699
WEBS 4-8=-1726/450

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=154, 2=227.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-6=-20, 10-11=-20, 3-7=-20
Concentrated Loads (lb)
Vert: 15=-12(F=-6, B=-6) 16=-109(F=-54, B=-54) 17=12(F=6, B=6) 18=-63(F=-32, B=-32) 19=-123(F=-61, B=-61)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C02	Diagonal Hip Girder	1	1	I53508636

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:47 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-?Mhk6hkk2AWmwn?60YCHzU3W9J0ahJHXd3w955yqxbE

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2-7-13 2-8-7

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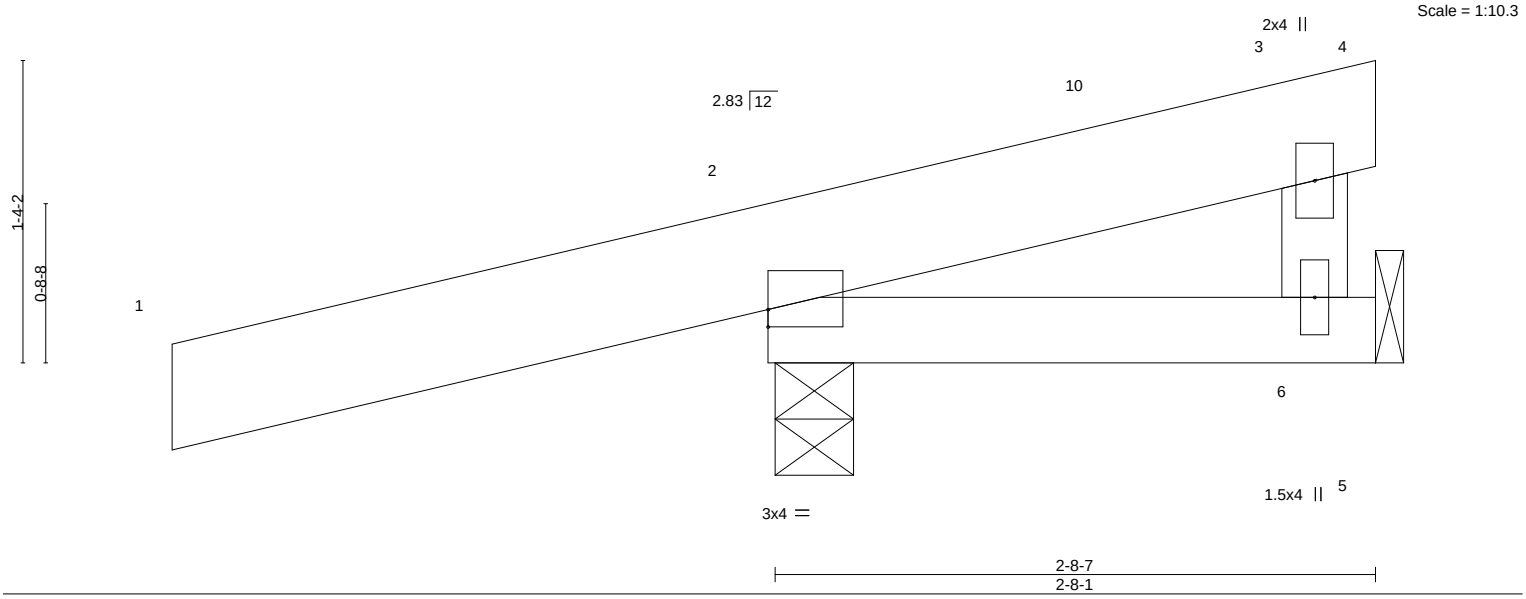

Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.00	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 14 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-4-3
Max Horz 2=43(LC 11)
Max Uplift 6=-1(LC 9), 2=-167(LC 8)
Max Grav 6=61(LC 3), 2=396(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-7-13 to 1-7-1, Exterior(2R) 1-7-1 to 2-8-7 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=167.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

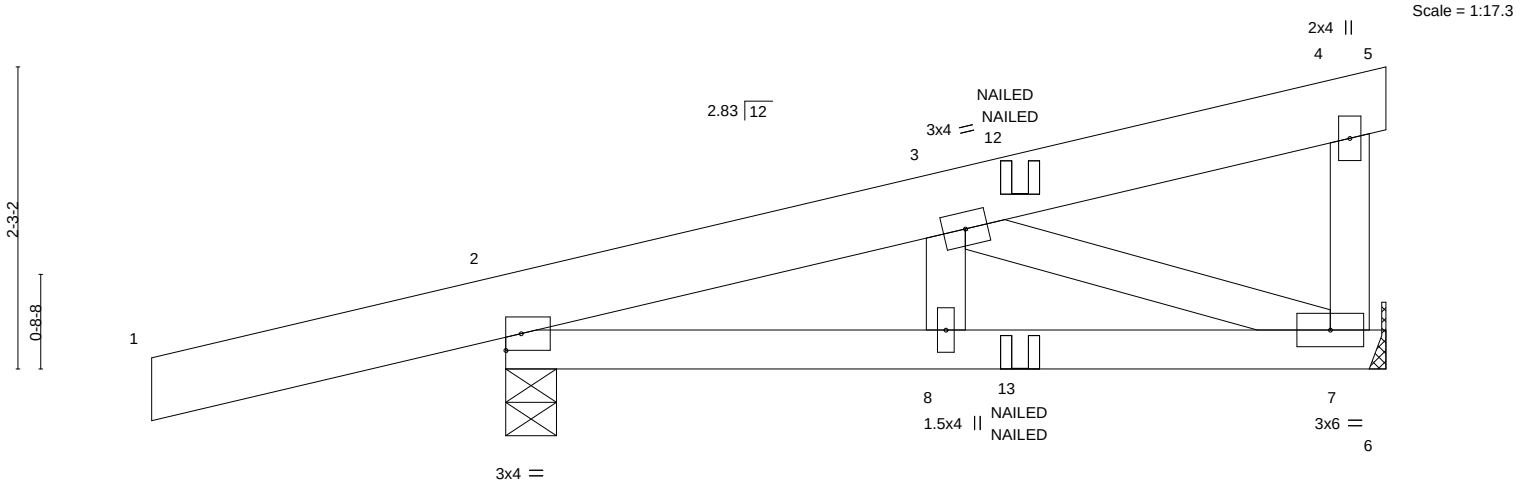
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C04	Diagonal Hip Girder	2	1	I53508637

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:48 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-TYF6J0lMpUecYxaIaGkWWhchvjKFQmfgsjfjeYyqxbD

2-7-13 (2-7-13) | 3-3-9 (3-3-9) | 6-7-2 (3-3-9)

Scale = 1:17.3



3-3-9 (3-3-9) | 6-7-2 (3-3-9)

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.01	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 2=0-4-9, 7=Mechanical
Max Horz 2=78(LC 7)
Max Uplift 2=-164(LC 4), 7=-49(LC 8)
Max Grav 2=508(LC 1), 7=256(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-311/36
BOT CHORD 2-8=-36/261, 7-8=-36/261
WEBS 3-7=-278/55

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=164.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 6-9=-20
Concentrated Loads (lb)
Vert: 13=2(F=1, B=1)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C15	Diagonal Hip Girder	1	1	I53508638

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:49 2022 Page 1
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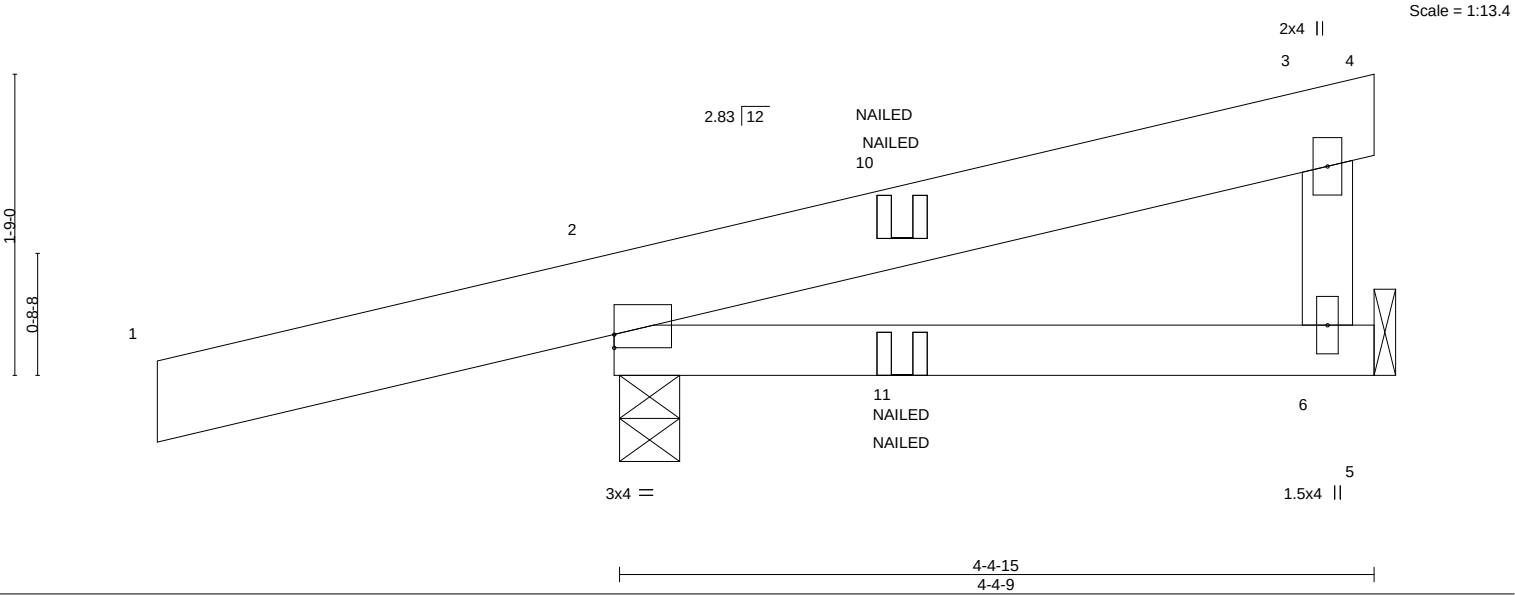

4-4-15 4-4-9

Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.01	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.01	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-4-3
Max Horz 2=58(LC 7)
Max Uplift 6=-24(LC 8), 2=-158(LC 4)
Max Grav 6=117(LC 37), 2=388(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=158.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 10=48(B) 11=24(F=-8, B=32)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

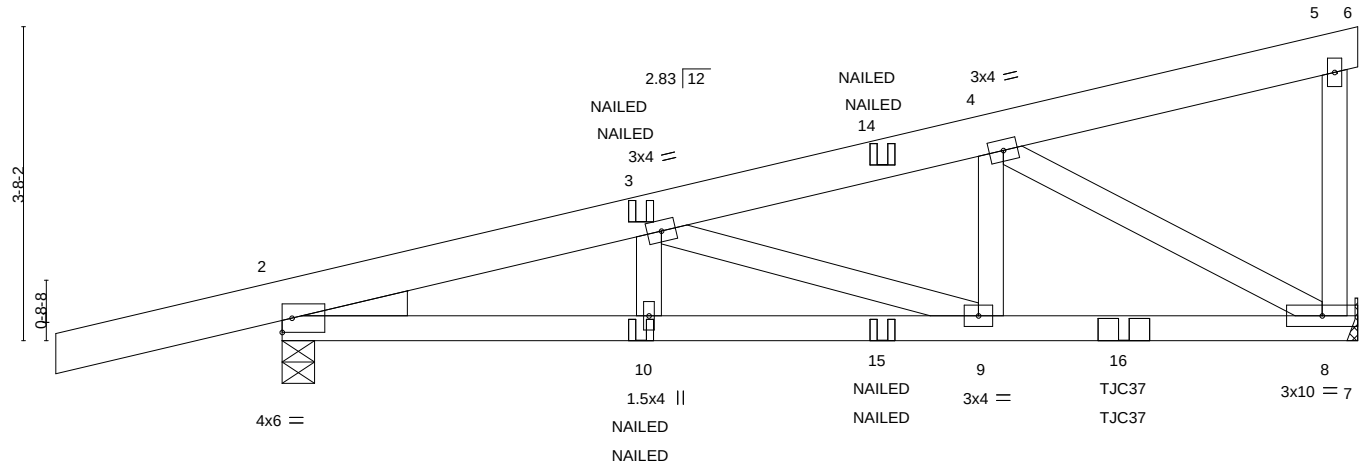
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C10	Diagonal Hip Girder	1	1	I53508639

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:50 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-PxNskincL5vKnFkhhhm_b6hycWrouXuzK18piQyqxbB

	2-7-13	4-3-9	8-3-11	12-7-4
	2-7-13	4-3-9	4-0-1	4-3-9

2x4 || Scale = 1:27.0



	4-3-9	8-3-11	12-7-4
	4-3-9	4-0-1	4-3-9

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.12	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 60 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-9, 8=Mechanical
Max Horz 2=114(LC 7)
Max Uplift 2=-232(LC 4), 8=-189(LC 8)
Max Grav 2=923(LC 1), 8=1042(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1501/243, 3-4=-1348/243
BOT CHORD 2-10=-260/1397, 9-10=-260/1397, 8-9=-236/1296
WEBS 4-9=-71/579, 4-8=-1429/281

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=232, 8=189.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Use Simpson Strong-Tie TJC37 (6 nail, 30-90) or equivalent at 9-10-6 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
7) Use Simpson Strong-Tie TJC37 (6 nail 90-150) or equivalent at 9-10-6 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
8) Fill all nail holes where hanger is in contact with lumber.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 7-11=-20
Concentrated Loads (lb)
Vert: 10=-1(F=-1, B=-1) 14=-78(F=-39, B=-39) 15=-54(F=-27, B=-27) 16=-526(F=-263, B=-263)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C07	Jack-Open	1	1	I53508640

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:51 2022 Page 1
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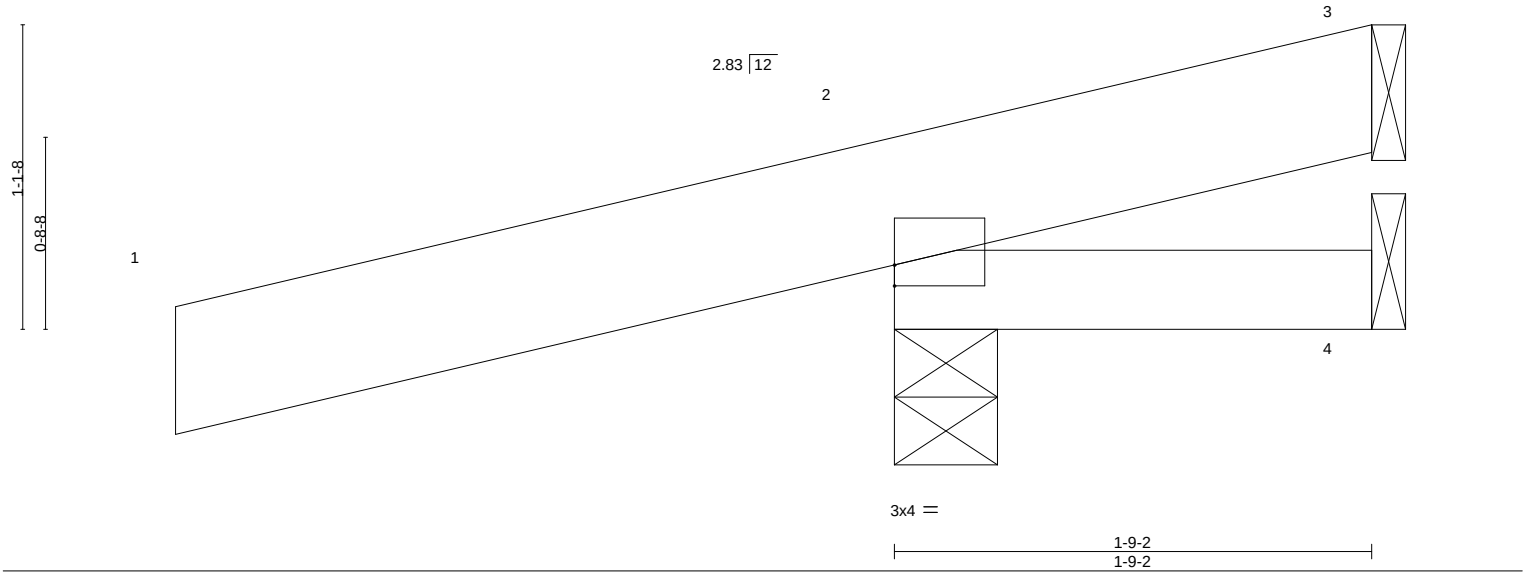

1-9-2 / 1-9-2

Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	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 IRC2018/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-9-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=46(LC 8)
Max Uplift 3=-50(LC 1), 2=-181(LC 8), 4=-12(LC 1)
Max Grav 3=36(LC 8), 2=405(LC 1), 4=19(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=181.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C08	Diagonal Hip Girder	1	1	I53508641

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:52 2022 Page 1
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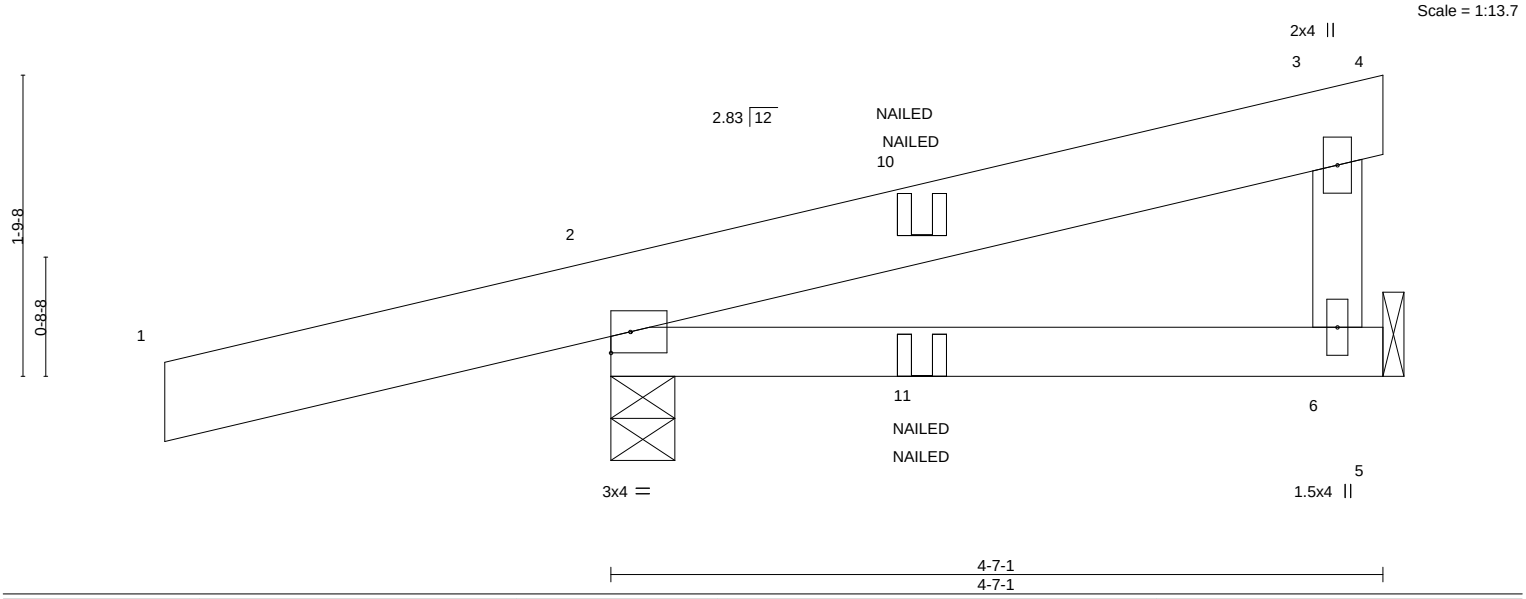
-2-7-13 2-7-13 | 4-7-1 4-7-1

Scale = 1:13.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	0.02	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	0.03	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 20 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF 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) 6=Mechanical, 2=0-4-9
Max Horz 2=60(LC 7)
Max Uplift 6=-31(LC 21), 2=-151(LC 4)
Max Grav 6=119(LC 37), 2=354(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=151.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 10=86(F=43, B=43) 11=59(F=30, B=30)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	C09	Jack-Open	2	1	I53508642

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:53 2022 Page 1
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2-7-13
2-5-15
2-5-15

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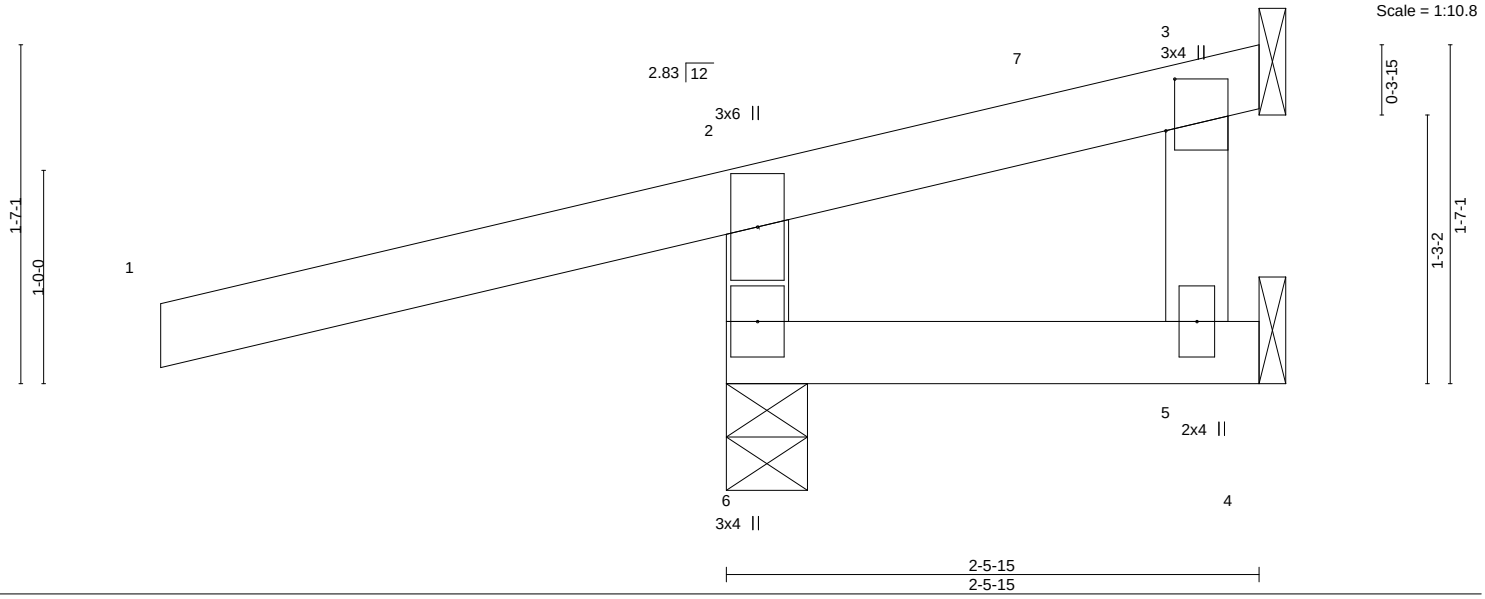

2-5-15
2-5-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-4-9, 5=Mechanical, 3=Mechanical
Max Horz 6=37(LC 11)
Max Uplift 6=-177(LC 8), 5=-17(LC 25), 3=-68(LC 25)
Max Grav 6=421(LC 1), 5=40(LC 3), 3=18(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-361/340

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-7-13 to 1-7-1, Exterior(2R) 1-7-1 to 2-2-7 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3 except (jt=lb) 6=177.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	01	Hip Girder	1	1	I53508643

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:54 2022 Page 1
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	1-10-8	4-9-0	8-9-0	13-6-0	15-4-8
	1-10-8	4-9-0	4-0-0	4-9-0	1-10-8

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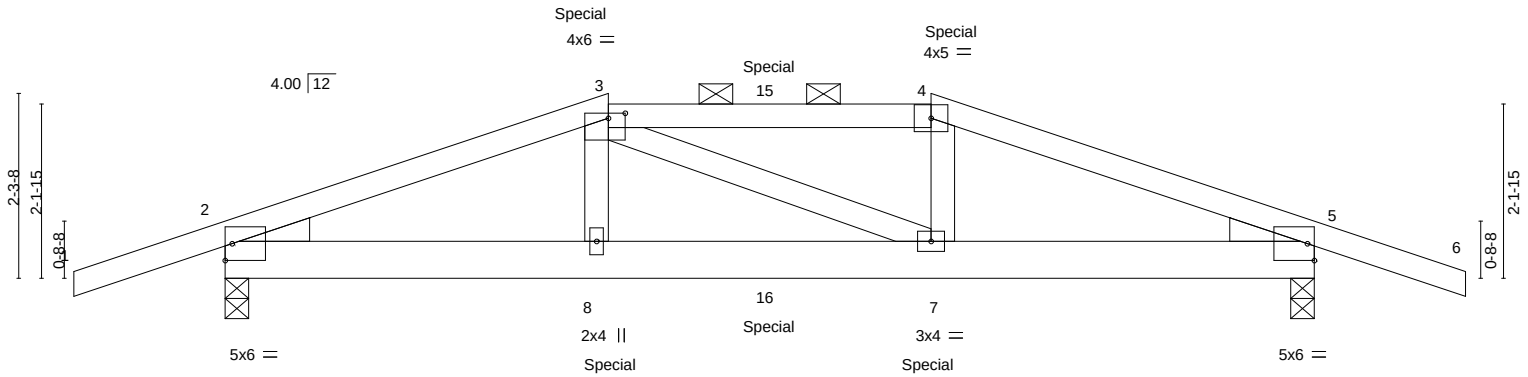

	4-9-0	8-9-0	13-6-0
	4-9-0	4-0-0	4-9-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.08	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.14	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-12 oc purlins, except
2-0-0 oc purlins (3-9-5 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=-36(LC 5)
Max Uplift 2=-260(LC 4), 5=-260(LC 5)
Max Grav 2=1108(LC 1), 5=1108(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1988/371, 3-4=-1810/369, 4-5=-1980/369
BOT CHORD 2-8=-319/1836, 7-8=-320/1817, 5-7=-305/1828
WEBS 3-8=0/300, 4-7=0/297

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=260, 5=260.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 62 lb up at 4-9-0, and 62 lb down and 54 lb up at 6-9-0, and 85 lb down and 62 lb up at 8-9-0 on top chord, and 260 lb down and 77 lb up at 4-9-0, and 40 lb down at 6-9-0, and 260 lb down and 77 lb up at 8-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20

STATE OF MISSOURI
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August 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-62(F) 4=-62(F) 8=-260(F) 7=-260(F) 15=-62(F) 16=-33(F)

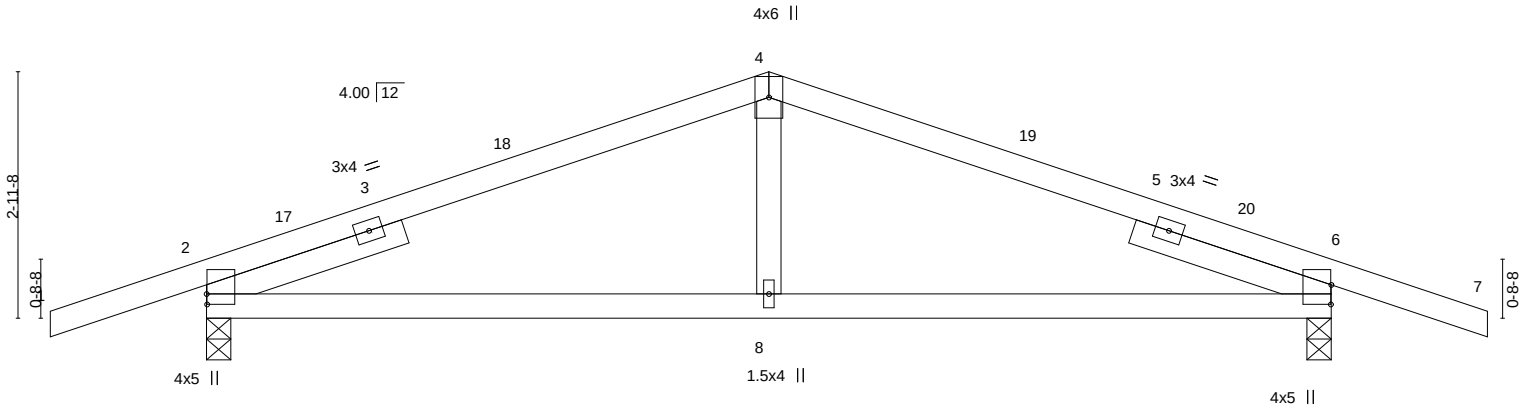
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J02	Common	2	1	I53508644

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:24:55 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-muAlnQrl9eXdu0ceUEM9IAPrGXgPZwKiTJsaNeyqxb6

Job Reference (optional)

1-10-8 6-9-0 13-6-0 15-4-8
1-10-8 6-9-0 6-9-0 1-10-8

Scale = 1:27.7



6-9-0 13-6-0
6-9-0 6-9-0

Plate Offsets (X,Y)-- [2:0-1-8,0-0-1], [6:0-2-13,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.05	8-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.08	8-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 45 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-46(LC 13)
Max Uplift 2=-160(LC 8), 6=-160(LC 9)
Max Grav 2=739(LC 1), 6=739(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-862/264, 4-6=-862/264
BOT CHORD 2-8=-148/813, 6-8=-148/813
WEBS 4-8=0/264

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-9-0, Exterior(2R) 6-9-0 to 9-9-0, Interior(1) 9-9-0 to 15-4-8 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=160, 6=160.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3534715	E4	Hip Girder	1	2	I53508645

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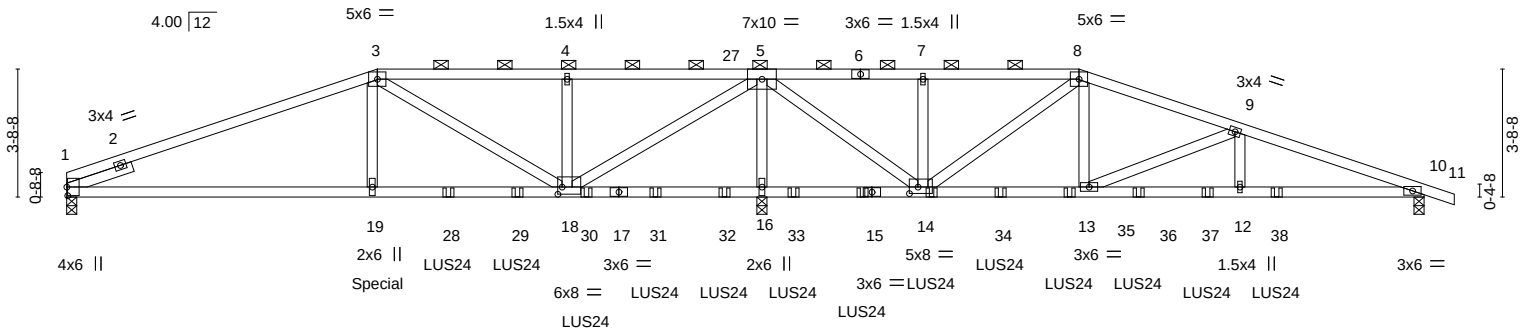
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-iHIWC5s?hFnL7Jm1bfOdNbU2_LDb1gD?xdLhSWyqxb4

4-7-12	9-0-0	14-6-0	20-1-12	24-9-12	29-4-0	33-11-15	39-4-0	40-2-8
4-7-12	4-4-4	5-6-0	5-7-12	4-8-0	4-6-4	4-7-15	5-4-1	0-10-8

Scale = 1:66.8



4-7-12	9-0-0	14-6-0	20-1-12	24-9-12	29-4-0	33-11-15	39-4-0
4-7-12	4-4-4	5-6-0	5-7-12	4-8-0	4-6-4	4-7-15	5-4-1

Plate Offsets (X,Y)-- [1:0-3-0,0-0-5], [14:0-3-0,0-2-4], [18:0-1-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.15	18-19	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.26	18-19	>937	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.03	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 296 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
15-17: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
5-8-5 oc bracing: 16-18
5-9-15 oc bracing: 14-16.

REACTIONS. (size) 1=0-3-8, 16=0-3-8, 10=0-3-8
Max Horz 1=-69(LC 9)
Max Uplift 1=-318(LC 8), 16=-1580(LC 5), 10=-329(LC 5)
Max Grav 1=1453(LC 21), 16=7028(LC 1), 10=1516(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-3098/731, 3-4=-797/328, 4-5=-797/328, 5-7=-265/560, 7-8=-265/560, 8-9=-1737/456, 9-10=-3615/799
BOT CHORD 1-19=-649/2850, 18-19=-635/2774, 16-18=-4254/972, 14-16=-4254/972, 13-14=-305/1523, 12-13=-705/3395, 10-12=-705/3395
WEBS 3-19=-316/1786, 3-18=-2397/469, 4-18=-423/144, 5-18=-1216/5498, 5-16=-5915/1359, 5-14=-1022/4577, 7-14=-308/128, 8-14=-2484/516, 8-13=-335/1692, 9-13=-1951/417, 9-12=-142/989

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 0-2-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=318, 16=1580, 10=329.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 11-0-12 from the left end to 35-0-12 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

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August 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

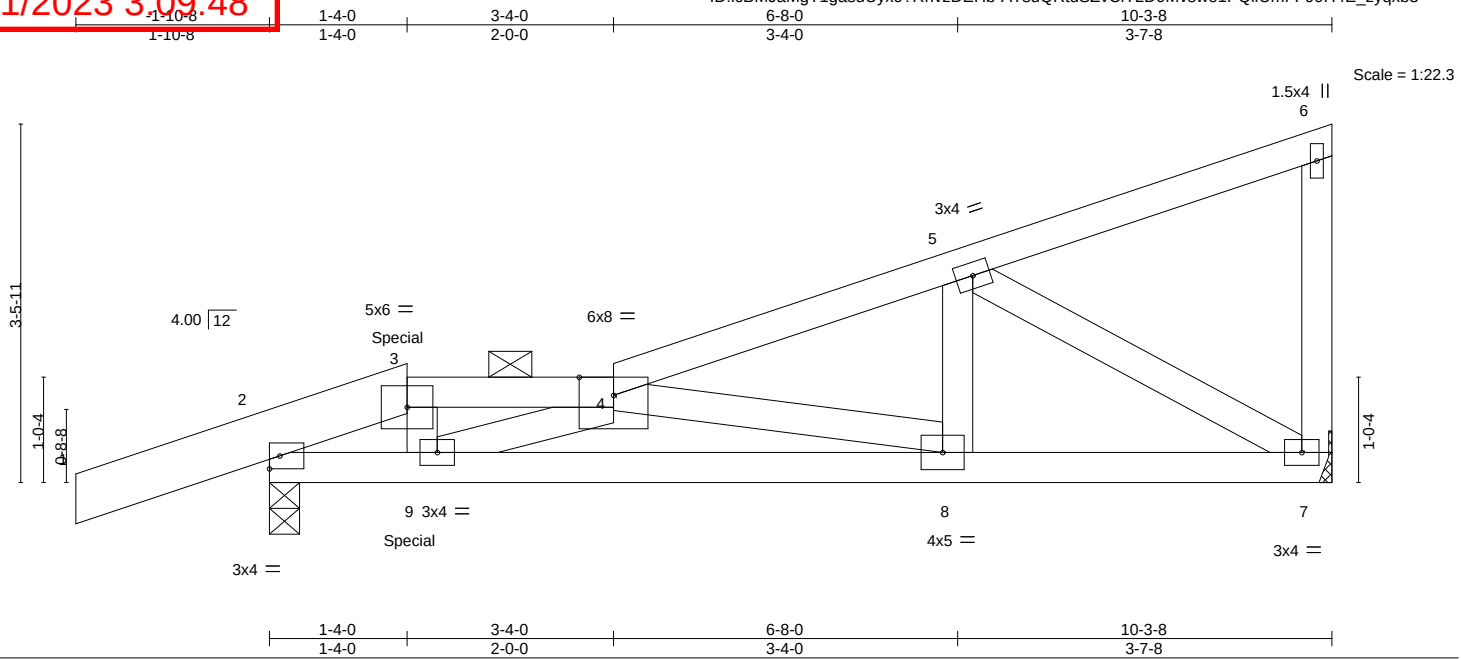
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1383 lb down and 328 lb up at 9-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-8=-70, 8-11=-70, 20-24=-20
   Concentrated Loads (lb)
   Vert: 19=-1383(F) 14=-370(F) 15=-370(F) 28=-370(F) 29=-370(F) 30=-370(F) 31=-370(F) 32=-370(F) 33=-370(F) 34=-370(F) 35=-370(F) 36=-365(F) 37=-365(F) 38=-552(F)

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	F9	Roof Special Girder	1	1	I53508646

Job Reference (optional)



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.03	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.06	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 44 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=132(LC 7)
Max Uplift 7=-84(LC 8), 2=-123(LC 4)
Max Grav 7=435(LC 1), 2=538(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-642/22, 3-4=-603/26, 4-5=-611/84
BOT CHORD 2-9=-78/494, 8-9=-192/1056, 7-8=-84/555
WEBS 3-9=-13/282, 4-8=-514/110, 5-8=0/264, 5-7=-626/126, 4-9=-658/212

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=123.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 139 lb down and 262 lb up at 1-4-0 on top chord, and 41 lb down and 44 lb up at 1-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=71(F)

August 5,2022

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16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	F8	Roof Special	1	1	I53508647

Job Reference (optional)

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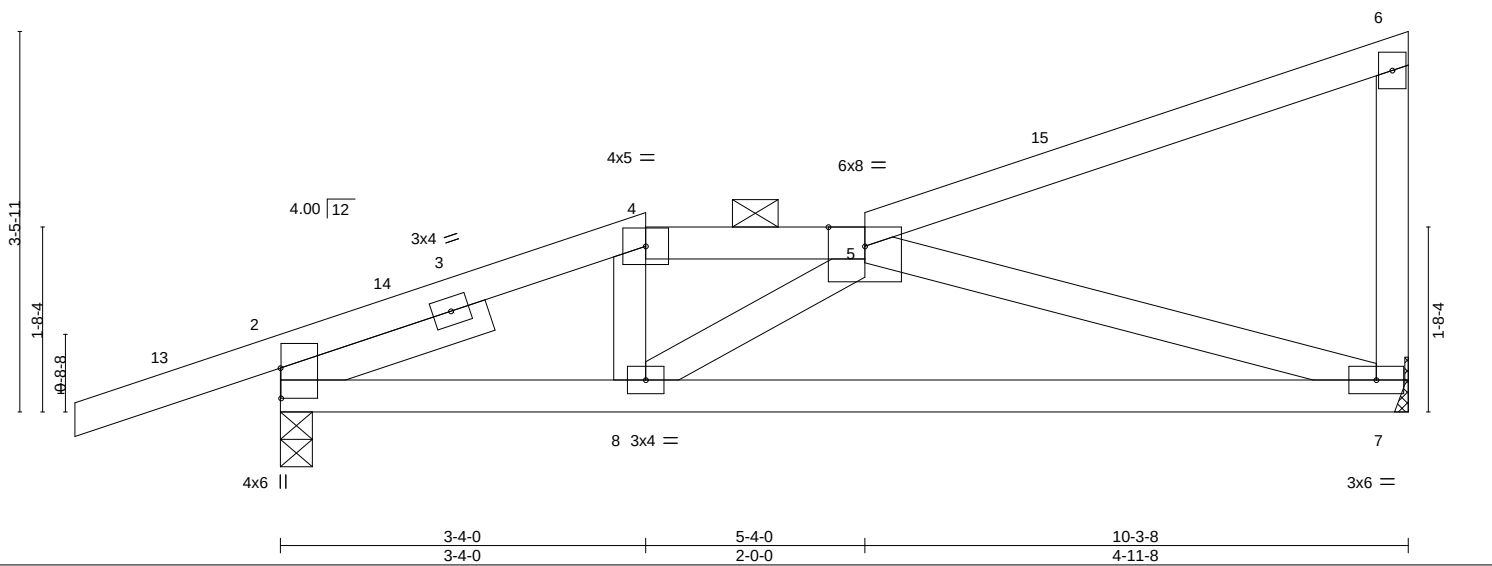

Plate Offsets (X,Y)-- [2:0-3-5,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.07	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.14	7-8	>883	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 42 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=131(LC 11)
Max Uplift 7=-88(LC 12), 2=-149(LC 8)
Max Grav 7=444(LC 1), 2=600(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-713/132, 4-5=-635/148
BOT CHORD 2-8=-287/653, 7-8=-316/768
WEBS 5-7=-754/287

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-4-0, Exterior(2E) 3-4-0 to 5-4-0, Interior(1) 5-4-0 to 10-1-12 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
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=149.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	F4	Half Hip Girder	1	1	I53508648

Job Reference (optional)

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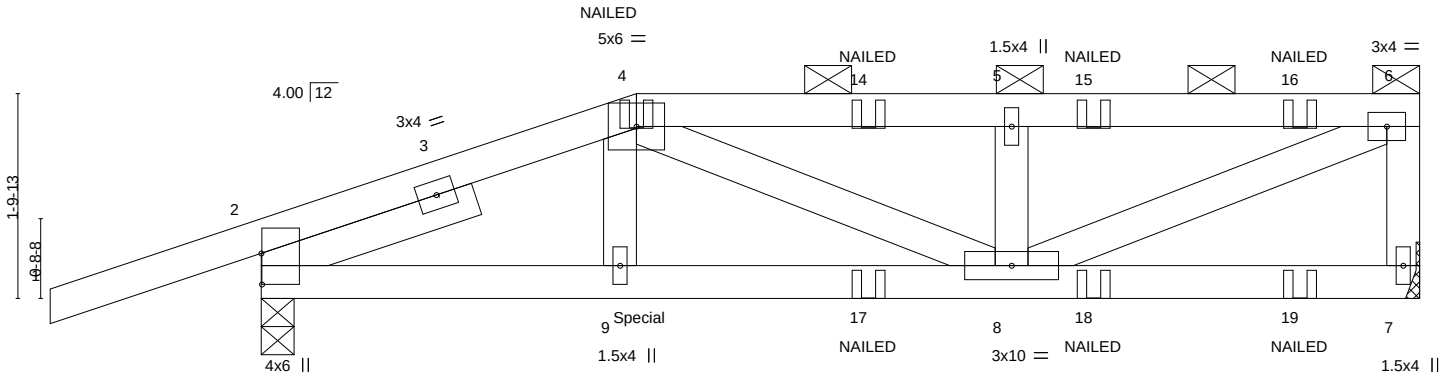
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-a2X02TvWlUHmcx3oqUTZYRfuEyjTzbPbsFJvbHyqxb0

1-10-8 3-4-0 6-8-0 10-3-8
1-10-8 3-4-0 3-4-0 3-7-8

Scale = 1:20.5



3-4-0 6-8-0 10-3-8
3-4-0 3-4-0 3-7-8

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

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.04	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 40 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=67(LC 7)
Max Uplift 7=-102(LC 5), 2=-179(LC 4)
Max Grav 7=518(LC 1), 2=676(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-841/165, 4-5=-837/175, 5-6=-837/175, 6-7=-471/115
BOT CHORD 2-9=-168/769, 8-9=-170/760
WEBS 5-8=-293/114, 6-8=-175/871

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=102, 2=179.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down and 44 lb up at 3-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) 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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 9=-78(B) 4=-9(B) 14=-9(B) 15=-9(B) 16=-12(B) 17=-10(B) 18=-10(B) 19=-11(B)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

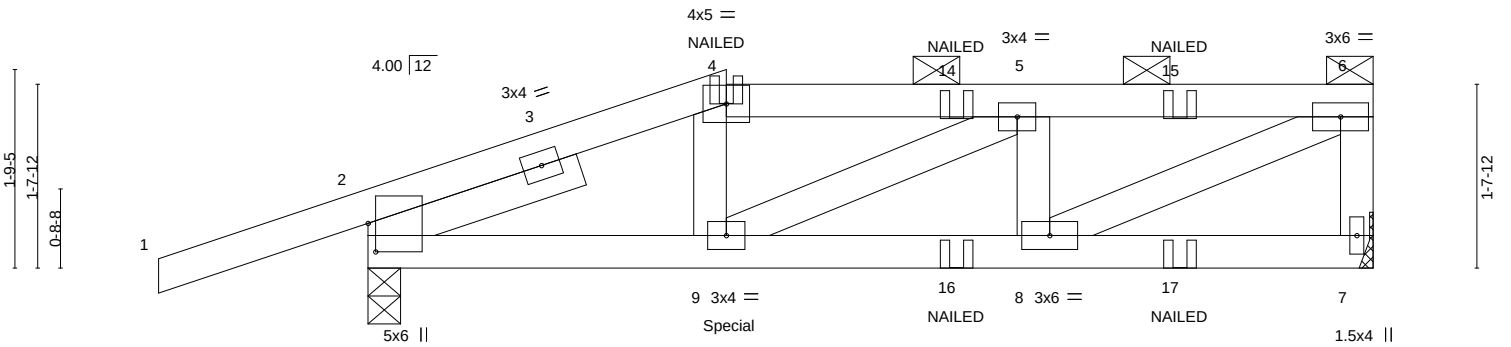
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	F4	Half Hip Girder	1	1	I53508649

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:02 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-3E5OFpw8WnPdD5e_OC_o4eB3_M1Mi23k4v2S7kyqxb?

	1-10-8	3-2-8	5-11-8	9-0-0
	1-10-8	3-2-8	2-9-0	3-0-8

Scale = 1:20.6



	3-2-8	5-11-8	9-0-0
	3-2-8	2-9-0	3-0-8

Plate Offsets (X,Y)-- [2:0-3-1,0-0-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.04	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 36 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-10 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=60(LC 7)
Max Uplift 7=-101(LC 5), 2=-183(LC 4)
Max Grav 7=572(LC 1), 2=707(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-927/168, 4-5=-850/166, 5-6=-927/175, 6-7=-535/113
BOT CHORD 2-9=-176/860, 8-9=-178/927
WEBS 5-8=-297/121, 6-8=-185/1024

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=101, 2=183.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 117 lb down and 40 lb up at 3-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) 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=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 4=-54(F) 9=-117(F) 14=-54(F) 15=-54(F) 16=-36(F) 17=-36(F)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	T9	Half Hip	1	1	I53508650

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:03 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-XRfnT9xmH5XUrEDAyvV1dskF2mSpRWvuJZo?gAyqxb_

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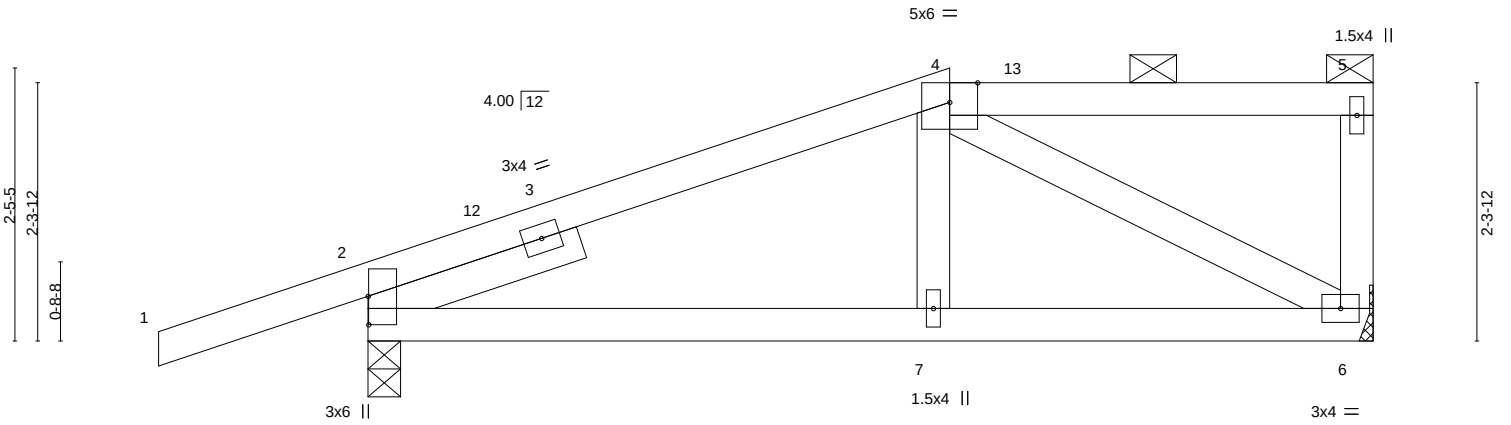
	1-10-8	5-2-8	3-9-8

Scale = 1:20.6



	5-2-8	9-0-0
	5-2-8	3-9-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.02	7-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	7-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 34 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=87(LC 11)
Max Uplift 2=-144(LC 8), 6=-69(LC 8)
Max Grav 2=544(LC 1), 6=385(LC 1)

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

TOP CHORD	2-4=-434/154
BOT CHORD	2-7=-223/414, 6-7=-223/406
WEBS	4-6=-467/232

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-2-8, Exterior(2E) 5-2-8 to 8-10-4 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=144.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
JUAN GARCIA
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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

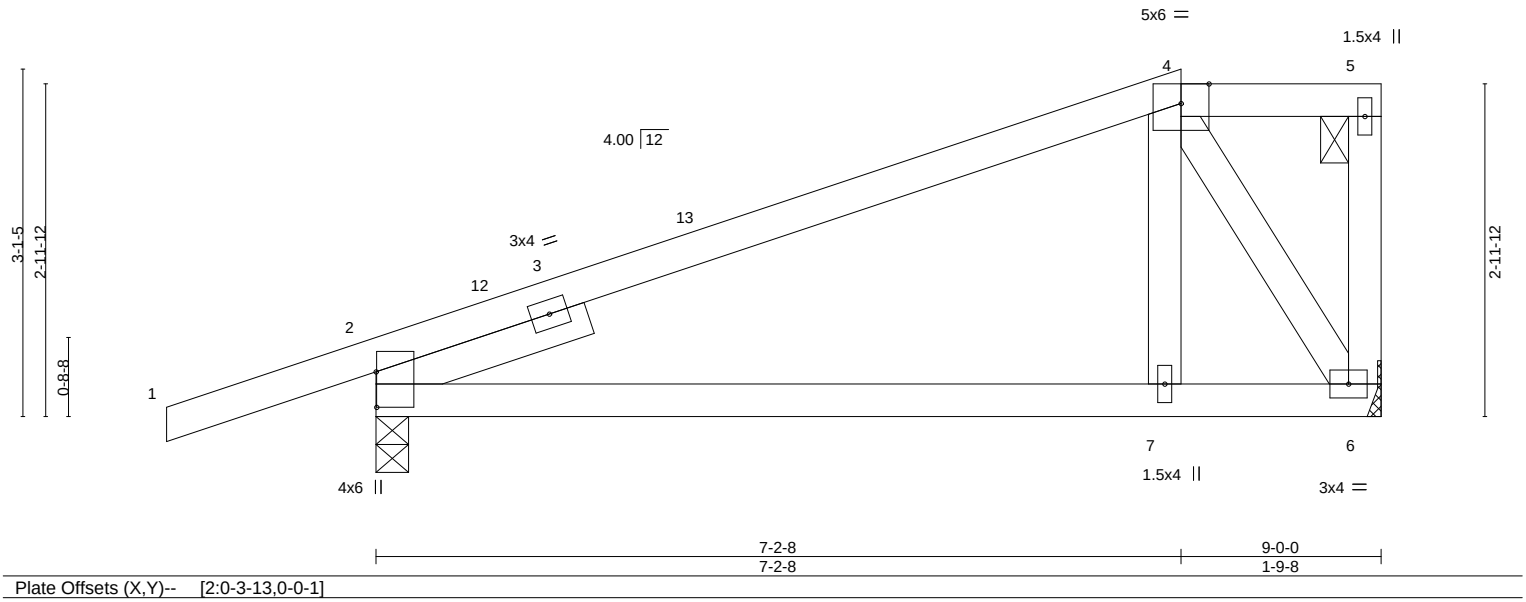
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	T9	Half Hip	1	1	I53508651

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:04 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-?dD9gVyO2PfLTOoNWd0G93HLo9kTA_11YDXZBcyqxaz

Job Reference (optional)

1-10-8 / 1-10-8 | 7-2-8 / 7-2-8 | 9-0-0 / 1-9-8

Scale = 1:20.6



7-2-8 / 7-2-8 | 9-0-0 / 1-9-8

Plate Offsets (X,Y)-- [2:0-3-13,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	0.07	7-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	7-10	>842	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 34 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=113(LC 11)
Max Uplift 2=-141(LC 8), 6=-72(LC 8)
Max Grav 2=544(LC 1), 6=385(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-294/156
BOT CHORD 2-7=-152/252
WEBS 4-7=-34/284, 4-6=-468/234

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-2-8, Exterior(2E) 7-2-8 to 8-10-4 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
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=141.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	F4	Jack-Partial	11	1	I53508652

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:05 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-TpnXury0oioC4YNZ3KXViHpOsZ0UvSoBmsH6j3yqxay

1-10-8 4-6-0 9-0-0
1-10-8 4-6-0 4-6-0

Scale = 1:22.7

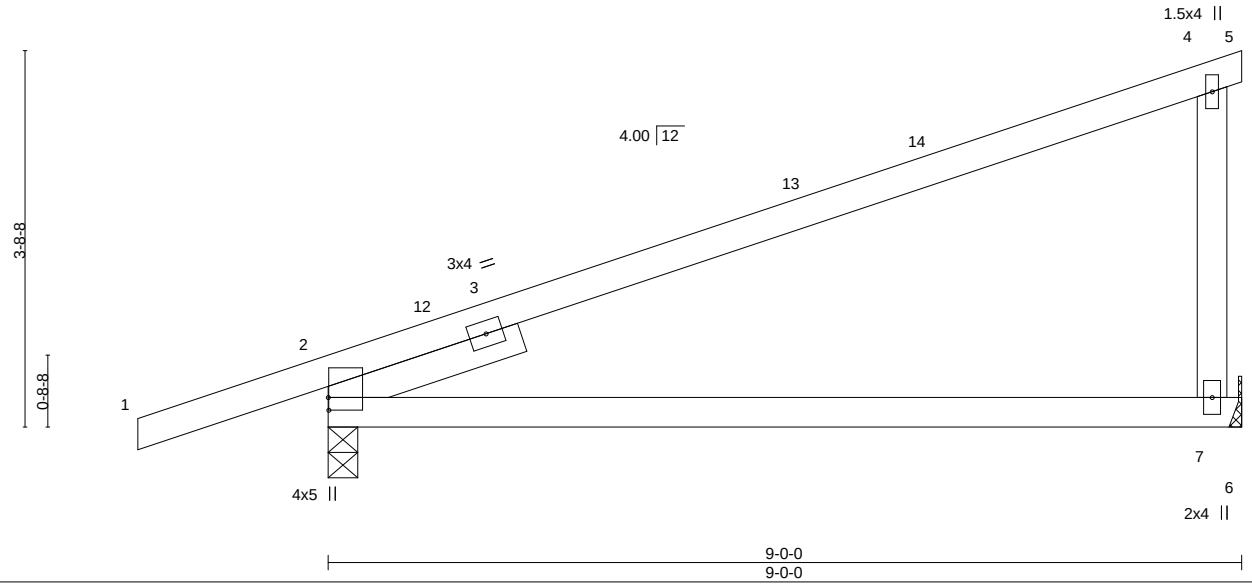


Plate Offsets (X,Y)-- [2:0-1-8,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.23	7-10	>455	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.51	7-10	>203	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.09	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 29 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=140(LC 8)
Max Uplift 2=-123(LC 8), 7=-91(LC 8)
Max Grav 2=537(LC 1), 7=390(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-563/68
WEBS 4-7=-279/215

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 9-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=123.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
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August 5,2022

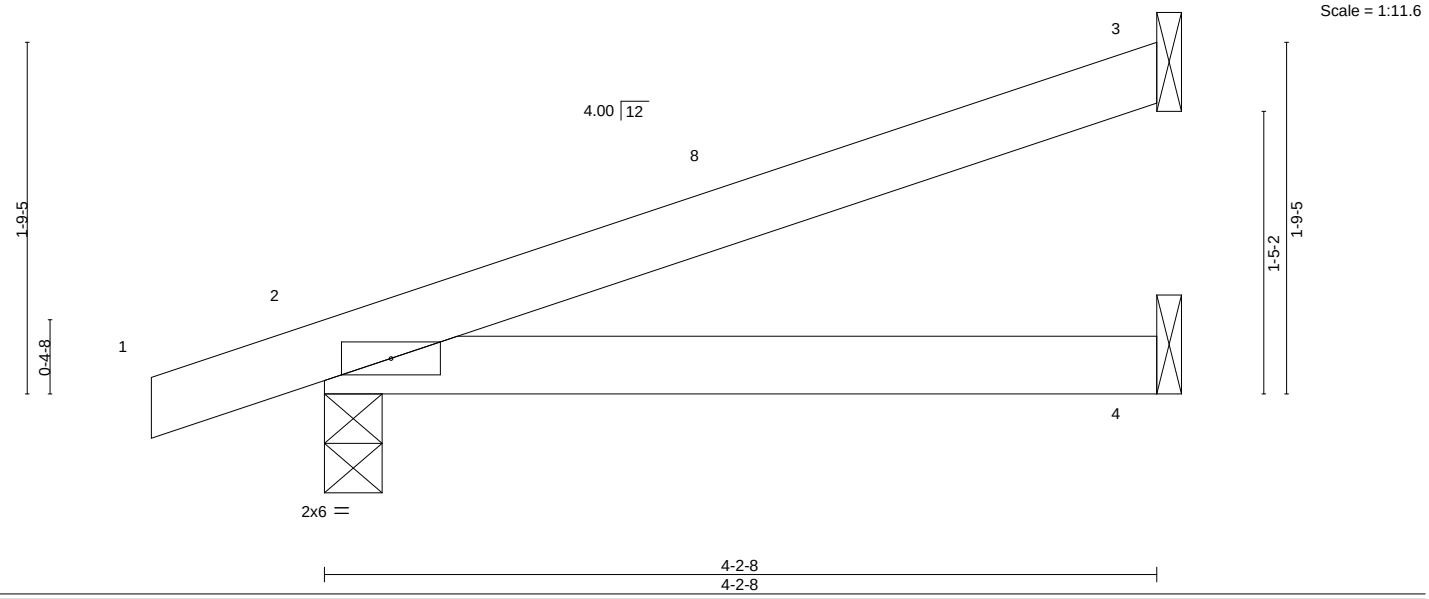
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J1	Jack-Open	3	1	I53508653

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:06 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-x0Lv5AzfZ0w3iiyld22kFUMlyzUgev_K?W0gFVyqxax

0-10-8 4-2-8
0-10-8 4-2-8

Scale = 1:11.6



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.02	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=65(LC 8)
Max Uplift 3=-45(LC 12), 2=-60(LC 8)
Max Grav 3=124(LC 1), 2=254(LC 1), 4=74(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-12 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

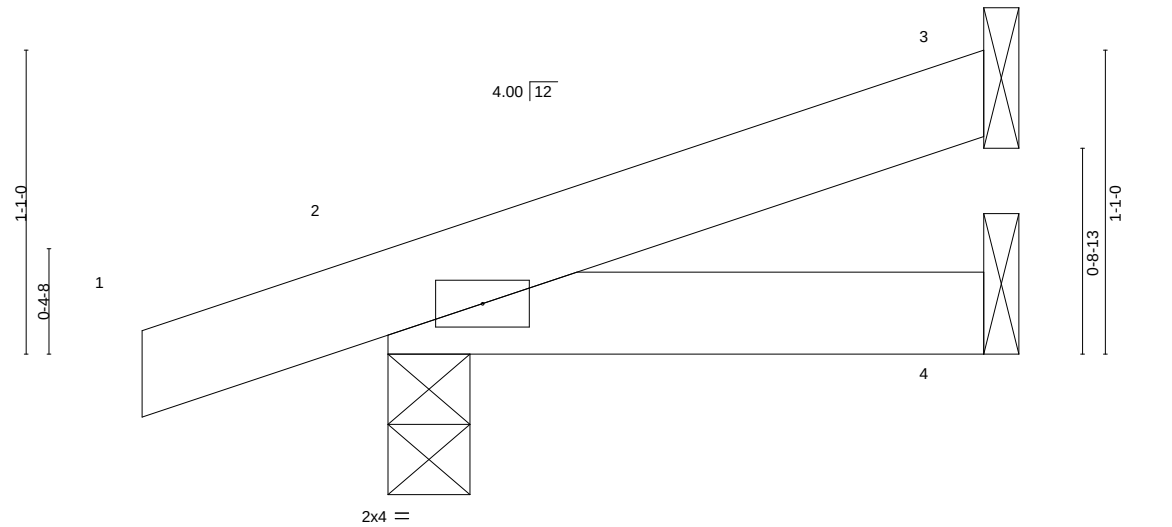
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J2	Jack-Open	1	1	I53508654

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:15 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-AkOJ_F4ISn2nH48UfRjr6OELBbawFzCf4Qie4Tyqxao

Job Reference (optional)

-0-10-8 / 0-10-8 | 2-1-7 / 2-1-7

Scale = 1:8.2



2-1-7 / 2-1-7

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 6 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=39(LC 8)
Max Uplift 3=-19(LC 12), 2=-51(LC 8)
Max Grav 3=53(LC 1), 2=167(LC 1), 4=35(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J2	Jack-Open	1	1	I53508655

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:23 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-xHsLf_AJZE3fFJl076sjR4ZebpI57bBqvge3M0yqxag

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1-1-7

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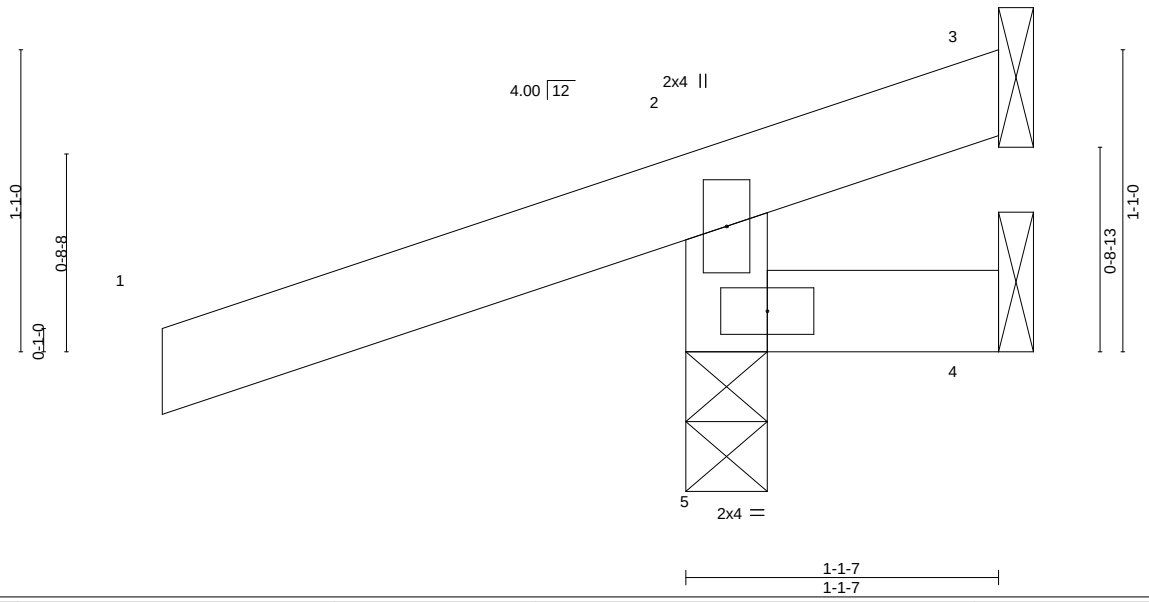

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 5 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-1-7 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 Horz 5=38(LC 8)
Max Uplift 3=-71(LC 1), 4=-34(LC 1), 5=-150(LC 8)
Max Grav 3=40(LC 8), 4=20(LC 8), 5=333(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-280/212

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=150.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J4	Jack-Closed	2	1	I53508656

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:24 2022 Page 1
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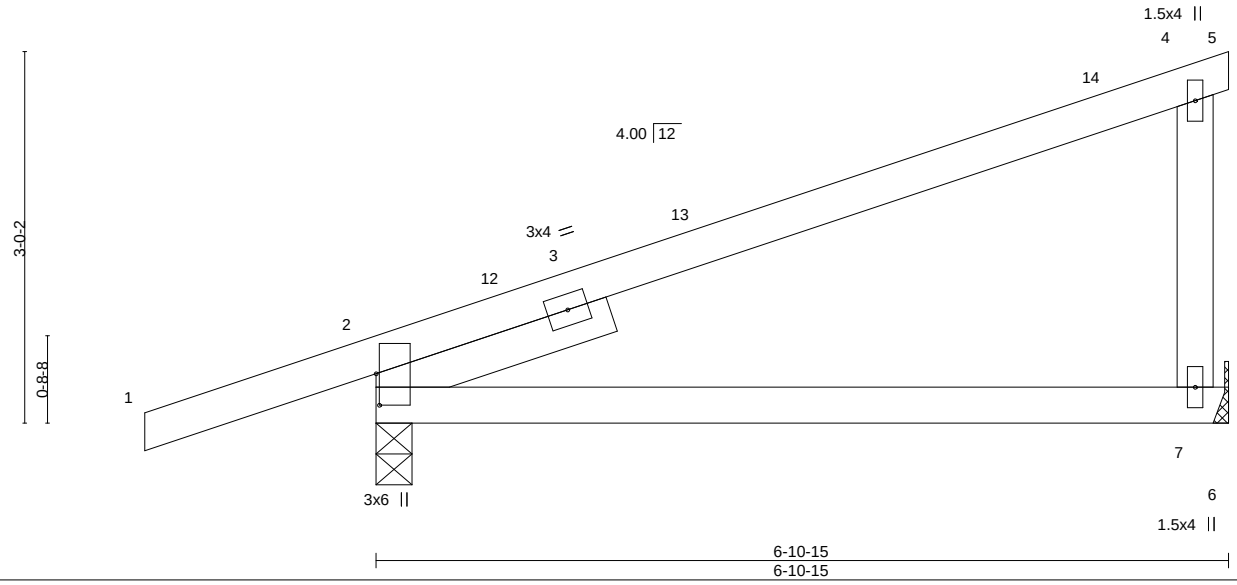

Plate Offsets (X,Y)-- [2:0-3-1,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	0.09	7-10	>866	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.17	7-10	>466	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=113(LC 11)
Max Uplift 7=-57(LC 8), 2=-123(LC 8)
Max Grav 7=291(LC 1), 2=448(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-334/78

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-10-15 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=123.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J5	Jack-Open	2	1	I53508657

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:25 2022 Page 1
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1-10-8 4-10-15

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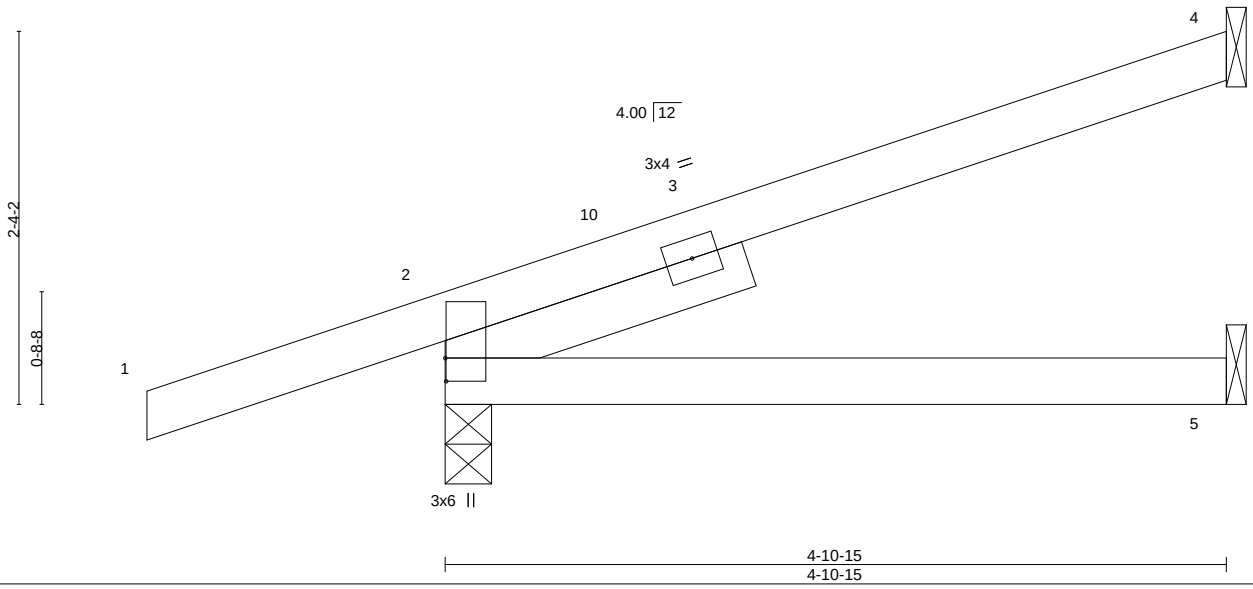

4-10-15
4-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.03	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.04	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=90(LC 8)
Max Uplift 4=-54(LC 12), 2=-106(LC 8)
Max Grav 4=138(LC 1), 2=375(LC 1), 5=83(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-10-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=106.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J6	Jack-Open	2	1	I53508658

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:26 2022 Page 1
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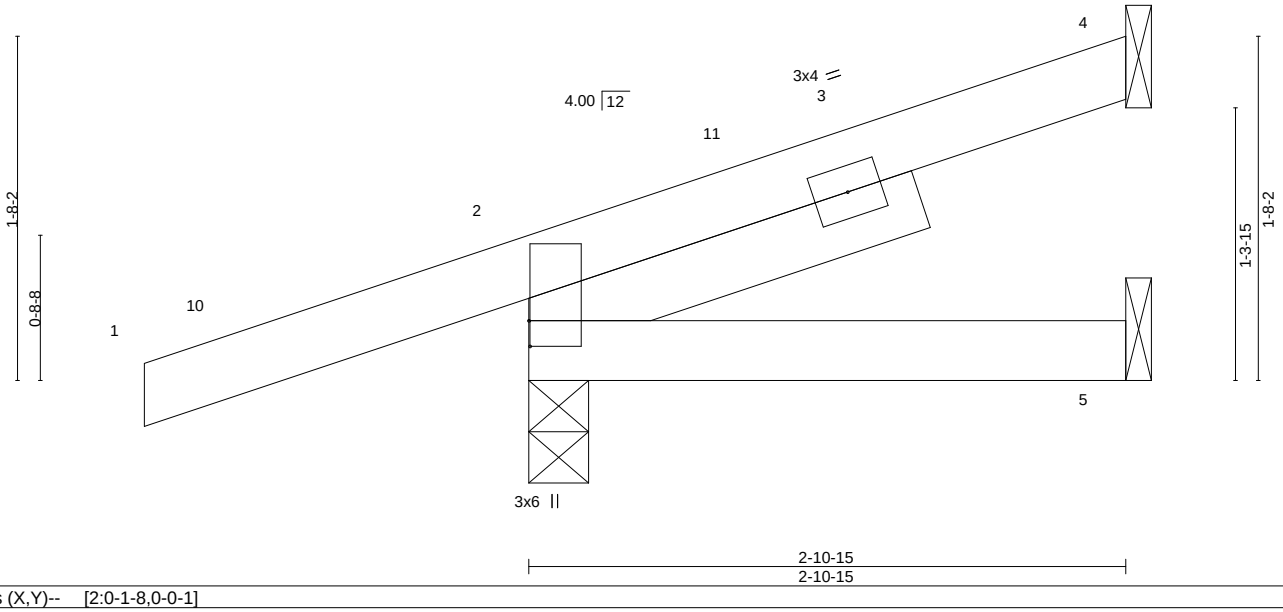

2-10-15 / 2-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.00	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=65(LC 8)
Max Uplift 4=-28(LC 12), 2=-103(LC 8)
Max Grav 4=62(LC 1), 2=303(LC 1), 5=43(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-10-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=103.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
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PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J7	Jack-Open	1	1	I53508659

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:27 2022 Page 1
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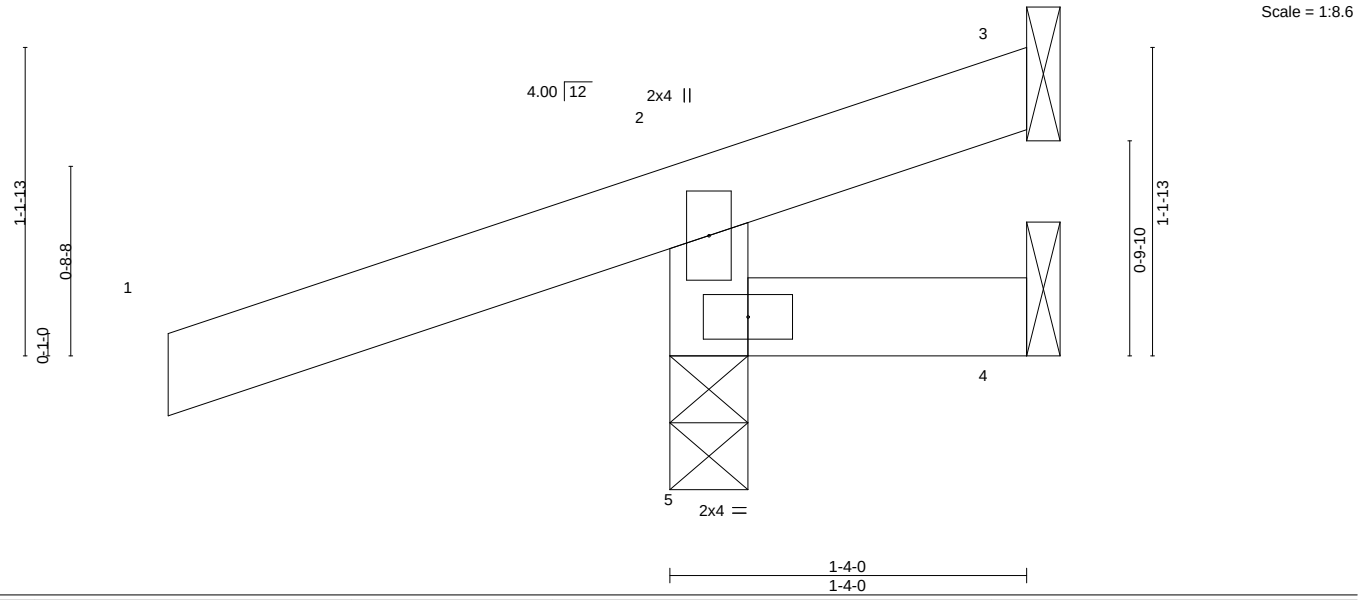

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-4-0 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 Horz 5=40(LC 8)
Max Uplift 3=-43(LC 1), 4=-26(LC 1), 5=-138(LC 8)
Max Grav 3=26(LC 8), 4=19(LC 8), 5=316(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-266/199

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=138.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J8	Jack-Open	4	1	I53508660

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:27 2022 Page 1
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-1-10-8 / 1-10-8 | 3-4-0 / 3-4-0

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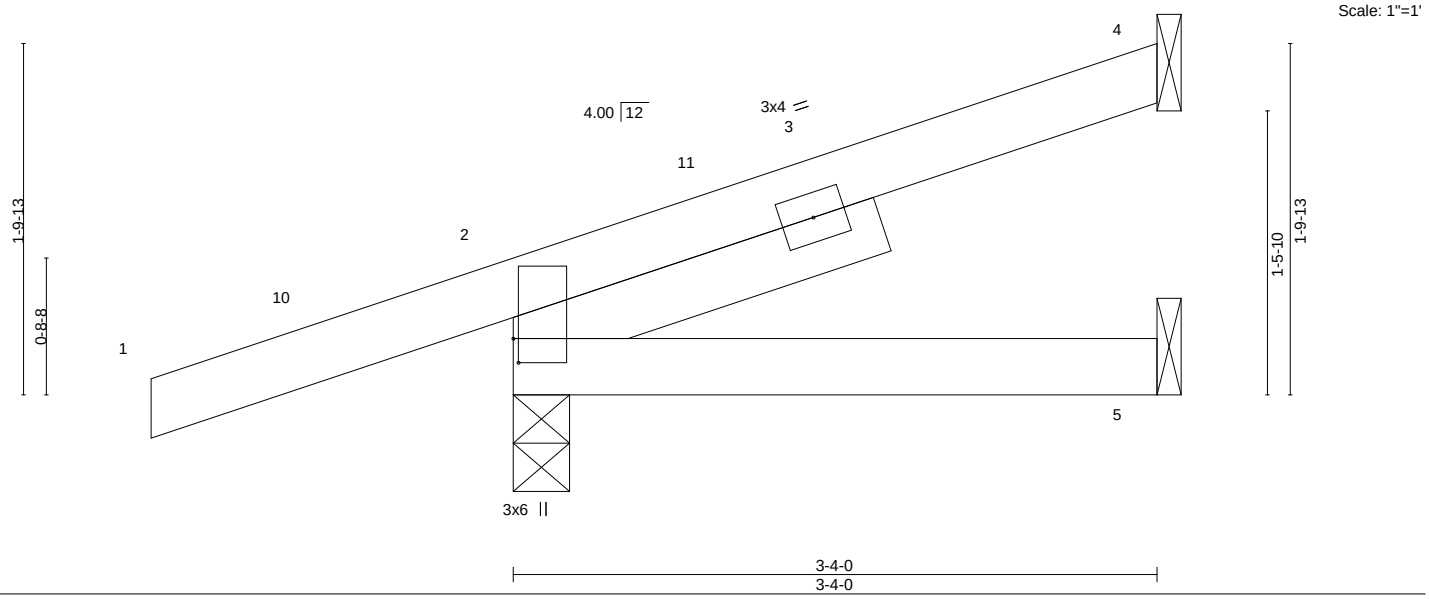

3-4-0 / 3-4-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.01	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 12 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=70(LC 8)
Max Uplift 4=-33(LC 12), 2=-103(LC 8)
Max Grav 4=79(LC 1), 2=316(LC 1), 5=52(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-3-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=103.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J9	Jack-Open	2	1	I53508661

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:28 2022 Page 1
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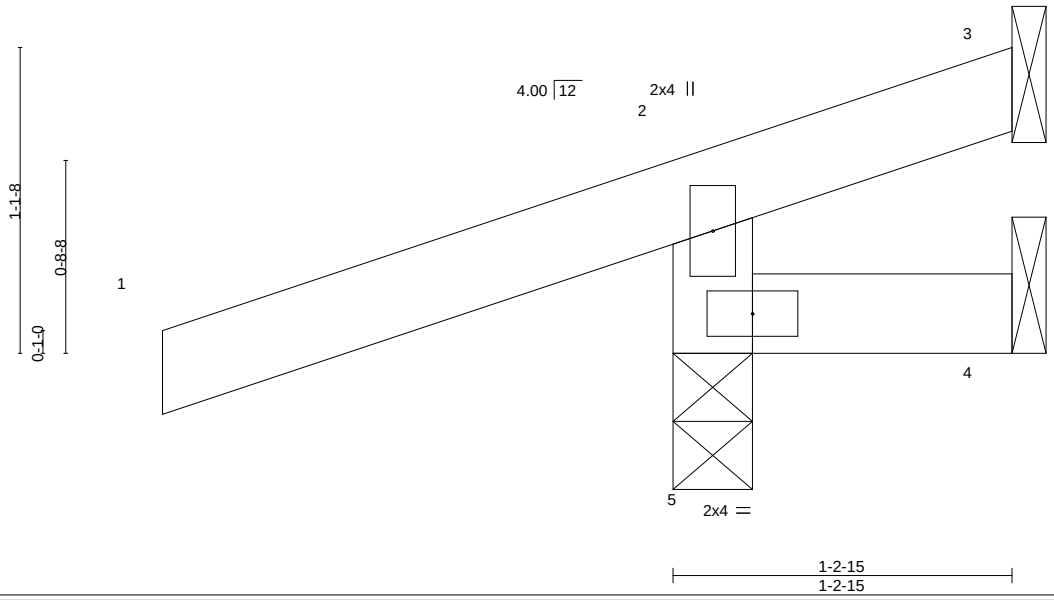
Scale = 1:8.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	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 IRC2018/TPI2014		Matrix-MR							Weight: 6 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-2-15 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 Horz 5=39(LC 8)
Max Uplift 3=-53(LC 1), 4=-29(LC 1), 5=-142(LC 8)
Max Grav 3=31(LC 8), 4=19(LC 8), 5=322(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-271/204

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=142.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J10	Jack-Partial	9	1	I53508662

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:06 2022 Page 1
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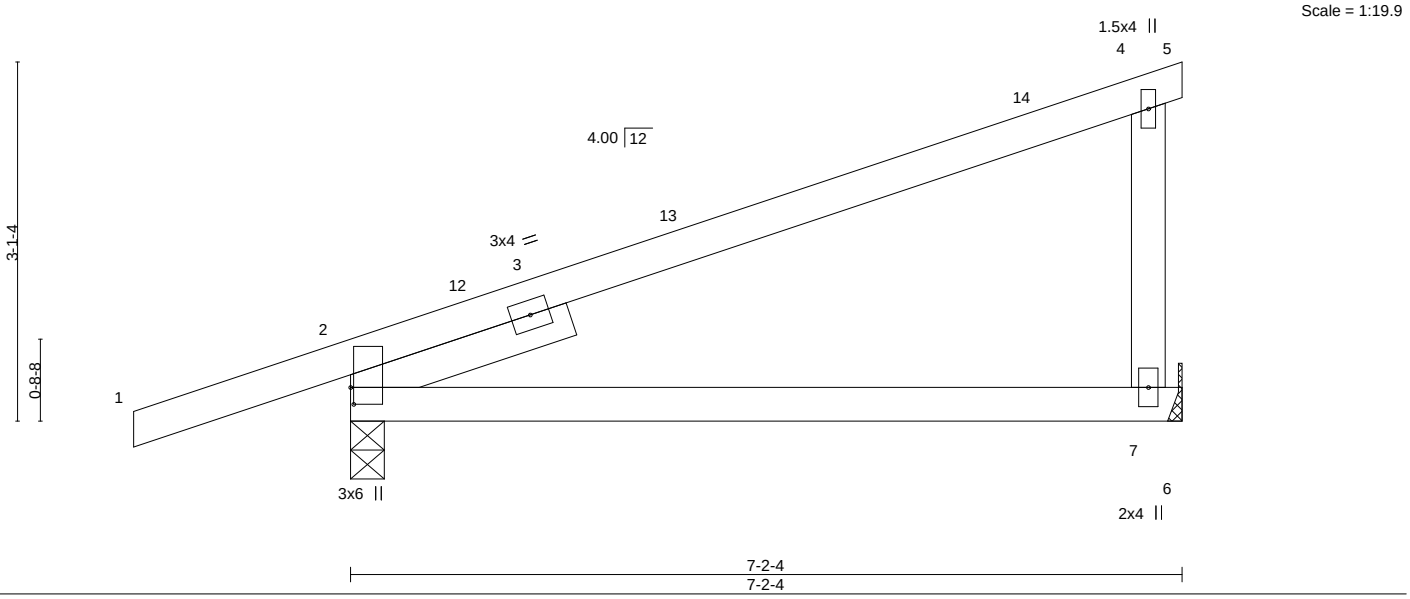


Plate Offsets (X,Y)-- [2:0-1-12,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	0.10	7-10	>819	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.20	7-10	>414	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.04	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 24 lb	FT = 20%

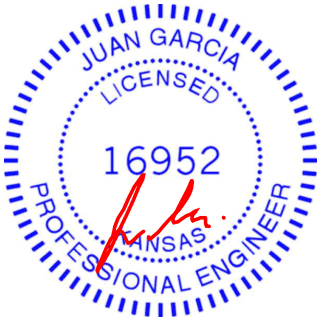
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=118(LC 8)
Max Uplift 2=-114(LC 8), 7=-71(LC 8)
Max Grav 2=459(LC 1), 7=304(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-359/52

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-2-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=114.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.



August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J11	Jack-Open	2	1	I53508663

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:07 2022 Page 1
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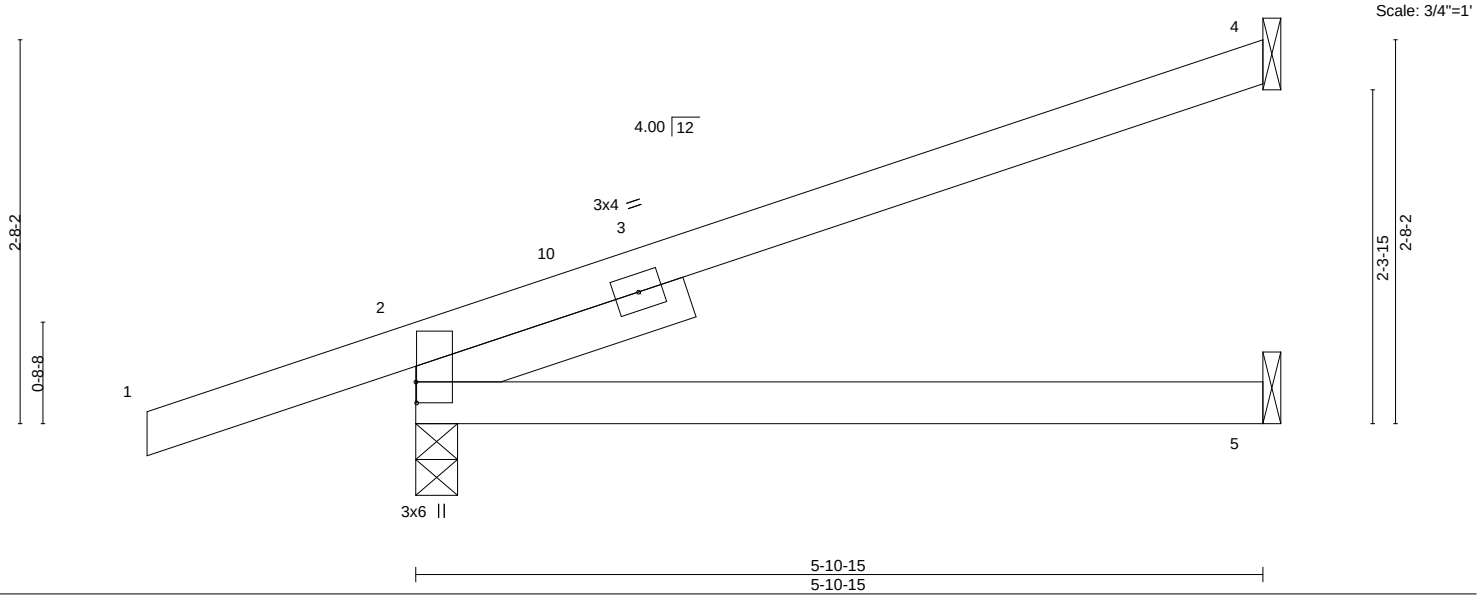
1-10-8 5-10-15
1-10-8 5-10-15

Scale: 3/4"=1'



5-10-15
5-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	0.06	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.10	5-8	>701	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=102(LC 8)
Max Uplift 4=-67(LC 12), 2=-110(LC 8)
Max Grav 4=173(LC 1), 2=415(LC 1), 5=101(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-263/43

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-10-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=110.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J12	Jack-Open	2	1	I53508664

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:08 2022 Page 1
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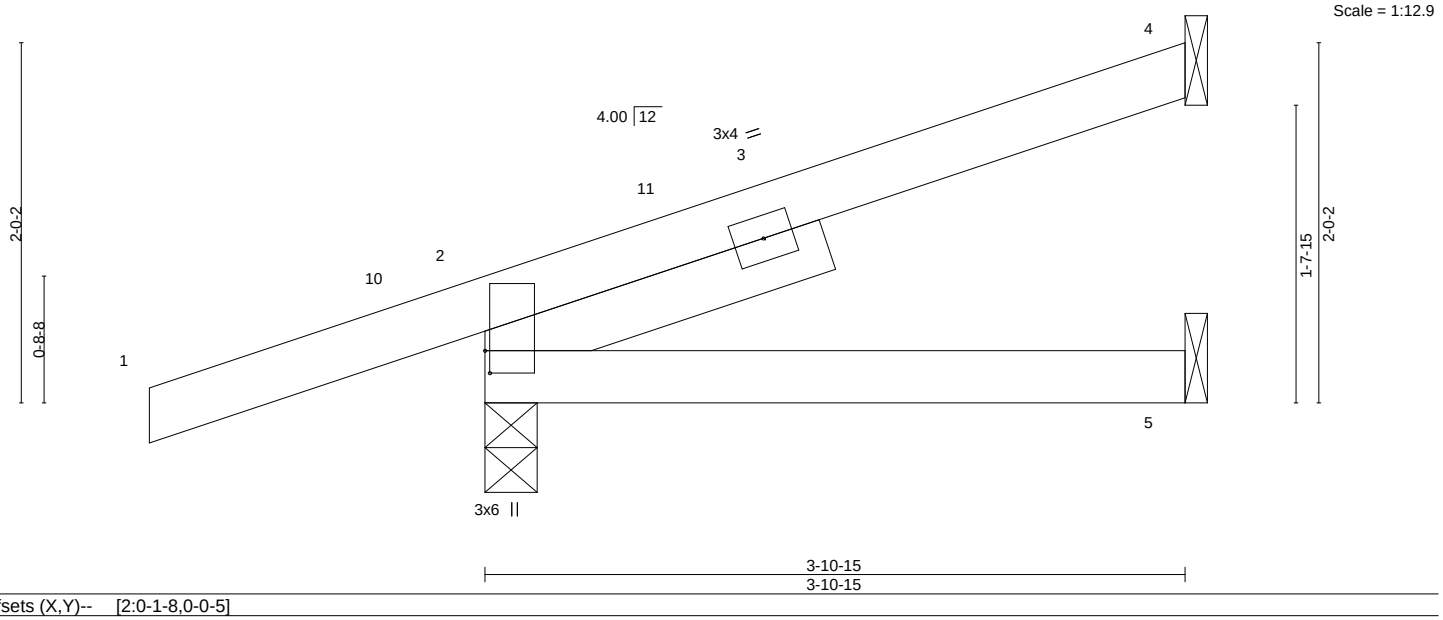

3-10-15 / 3-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 14 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=78(LC 8)
Max Uplift 4=-41(LC 12), 2=-103(LC 8)
Max Grav 4=101(LC 1), 2=336(LC 1), 5=64(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-10-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=103.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
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PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J18	Jack-Open	4	1	I53508665

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:09 2022 Page 1
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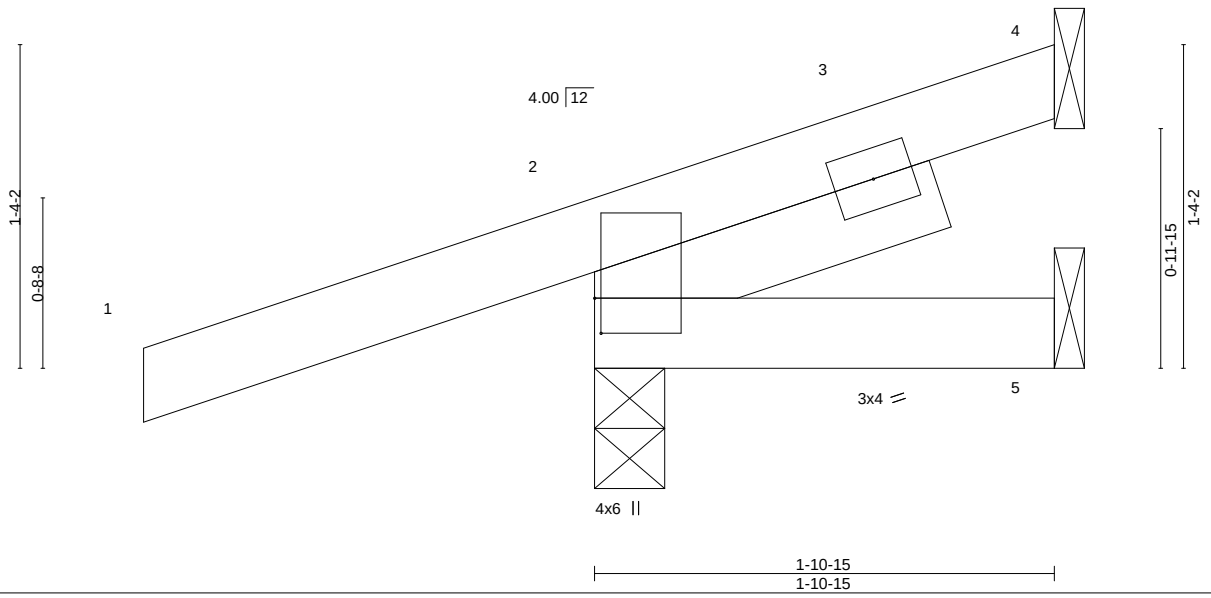

1-10-15 1-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.00	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 9 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=54(LC 8)
Max Uplift 4=-13(LC 12), 2=-108(LC 8)
Max Grav 4=18(LC 1), 2=282(LC 1), 5=24(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-13 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=108.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J14	Jack-Open	2	1	I53508666

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:10 2022 Page 1
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-1-10-8 5-1-3
1-10-8 5-1-3

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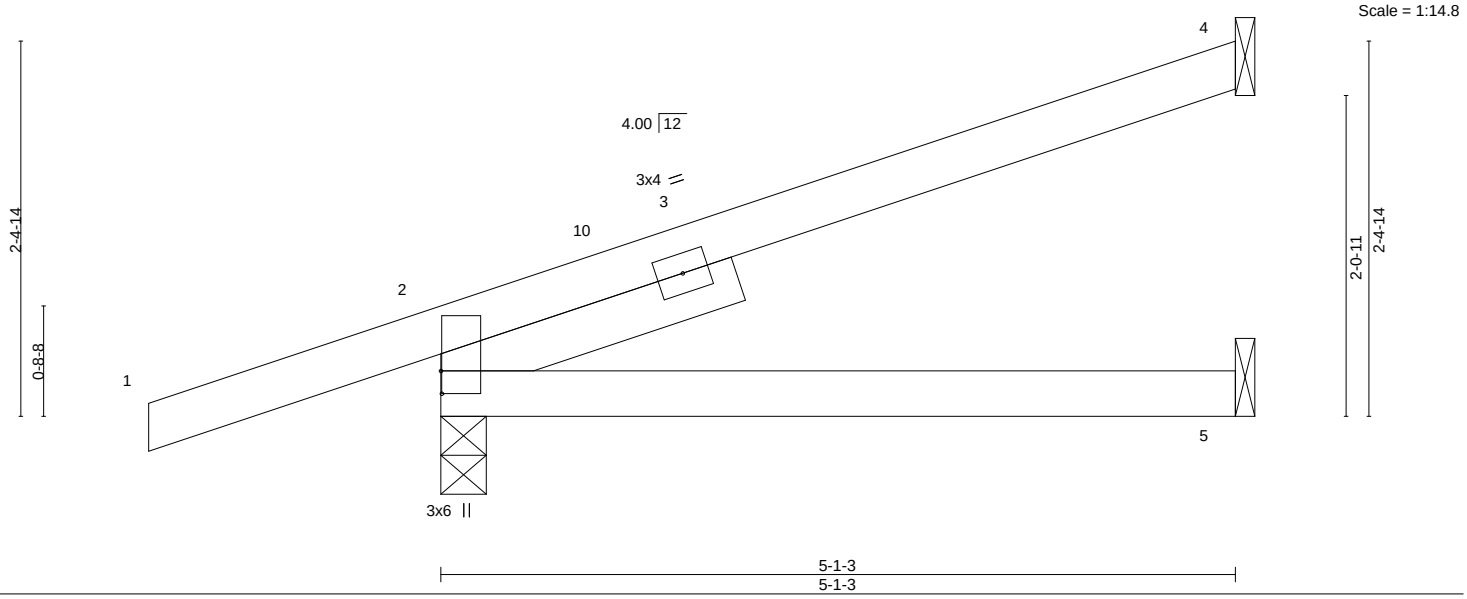

5-1-3
5-1-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.04	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=92(LC 8)
Max Uplift 4=-57(LC 12), 2=-107(LC 8)
Max Grav 4=144(LC 1), 2=382(LC 1), 5=86(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-0-7 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=107.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J15	Jack-Open	2	1	I53508667

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:11 2022 Page 1
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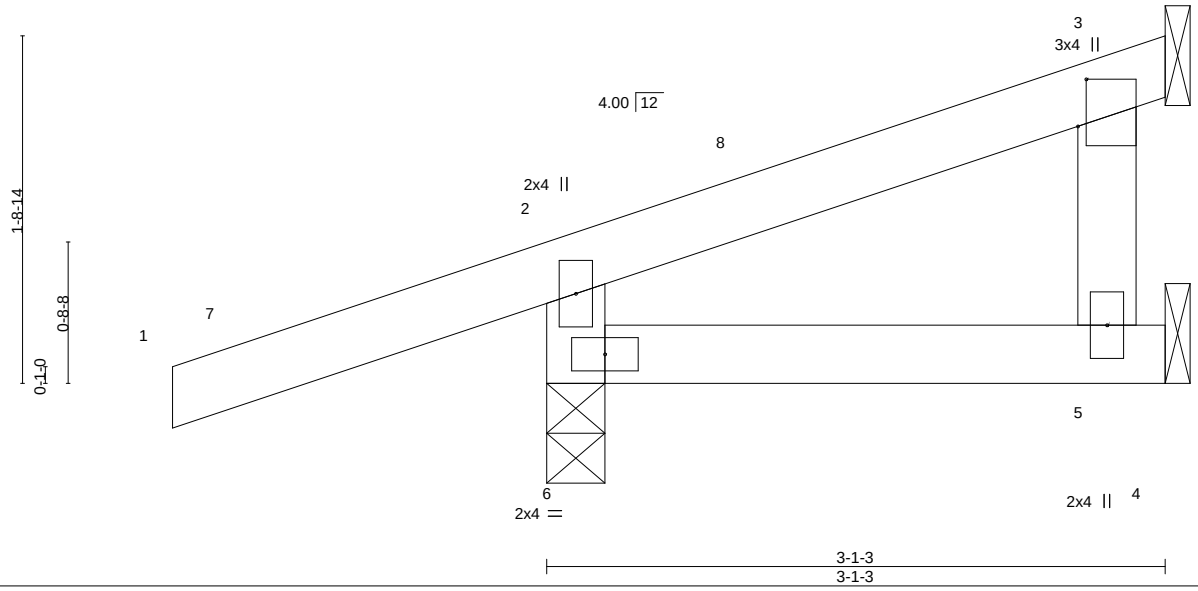

3-1-3 3-1-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	5-6	>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	IRC2018/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=59(LC 8)
Max Uplift 3=-27(LC 12), 6=-112(LC 8)
Max Grav 5=57(LC 3), 3=55(LC 1), 6=315(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-273/202

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-9-11 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=112.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
35247115	J16	Jack-Open	2	1	I53508668

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:11 2022 Page 1
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1-10-8 1-1-3

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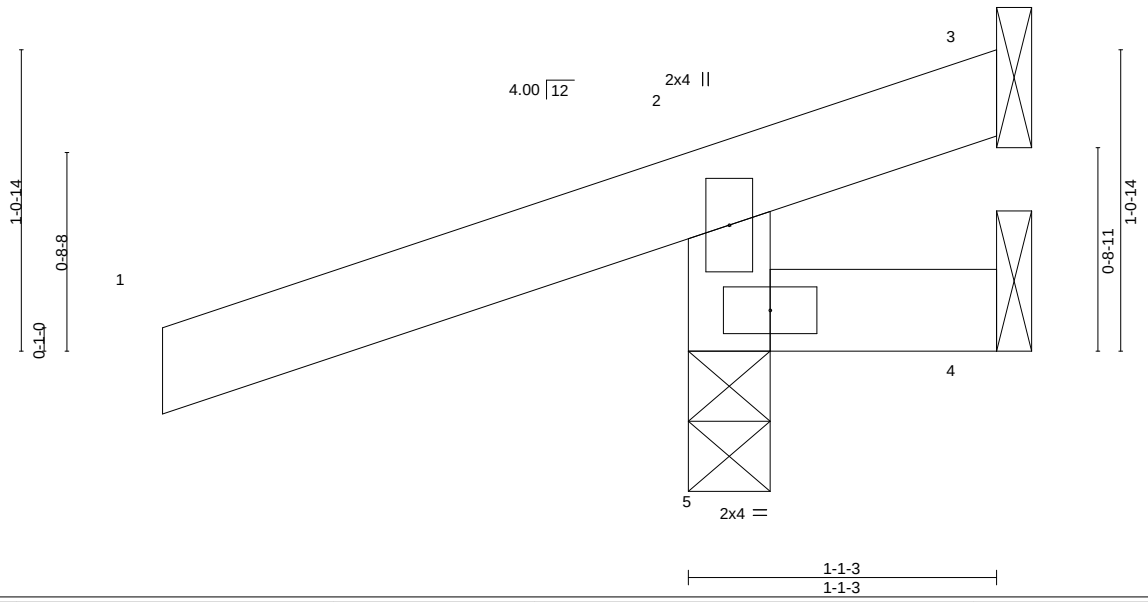

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 5 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-1-3 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 Horz 5=38(LC 8)
Max Uplift 3=-74(LC 1), 4=-35(LC 1), 5=-152(LC 8)
Max Grav 3=42(LC 8), 4=21(LC 8), 5=336(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-282/213

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=152.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
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PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

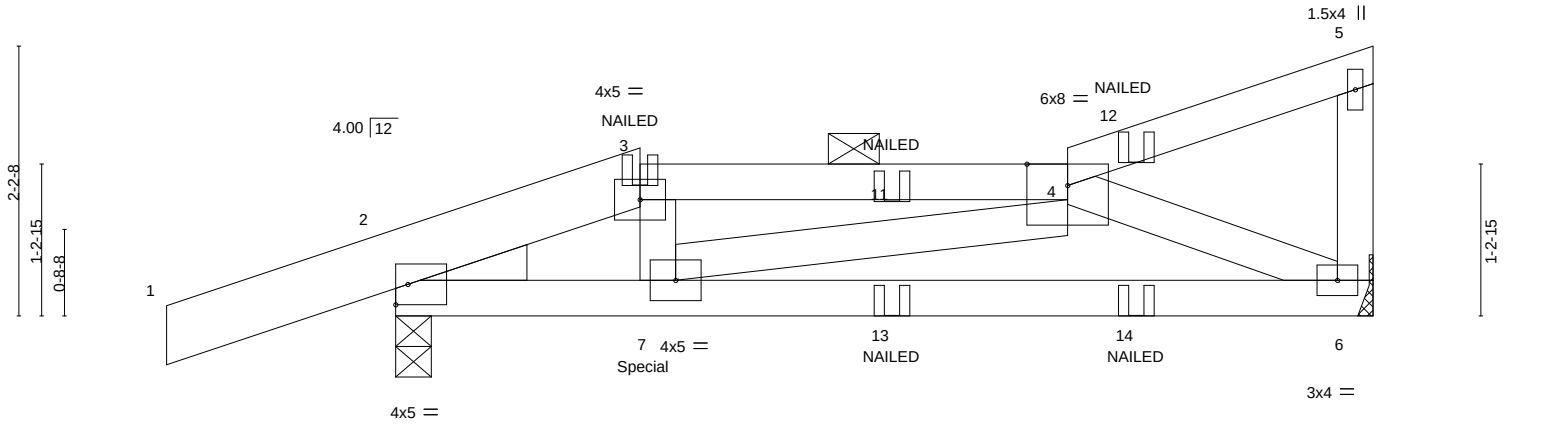
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J17	Roof Special Girder	1	1	I53508669

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:12 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-m9iAME2P9sgDQdPv_I98UlcmvOTh2buCNST_T9yqxar

1-10-8 | 2-0-0 | 5-6-0 | 8-0-0
1-10-8 | 2-0-0 | 3-6-0 | 2-6-0

Scale = 1:18.9



2-0-0 | 5-6-0 | 8-0-0
2-0-0 | 3-6-0 | 2-6-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.04	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.10	6-7	>950	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 34 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=82(LC 7)
Max Uplift 6=-69(LC 8), 2=-148(LC 4)
Max Grav 6=399(LC 1), 2=550(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-719/68, 3-4=-649/64
BOT CHORD 2-7=-78/629, 6-7=-126/565
WEBS 4-6=-614/155, 4-7=0/253

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=148.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 65 lb down and 14 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 3=-13(B) 7=-15(B) 11=-17(B) 12=-17(B) 13=-25(B) 14=-25(B)

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J18	Half Hip	1	1	I53508670

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:13 2022 Page 1
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1-10-8 4-0-0 4-0-0

Scale = 1:18.9

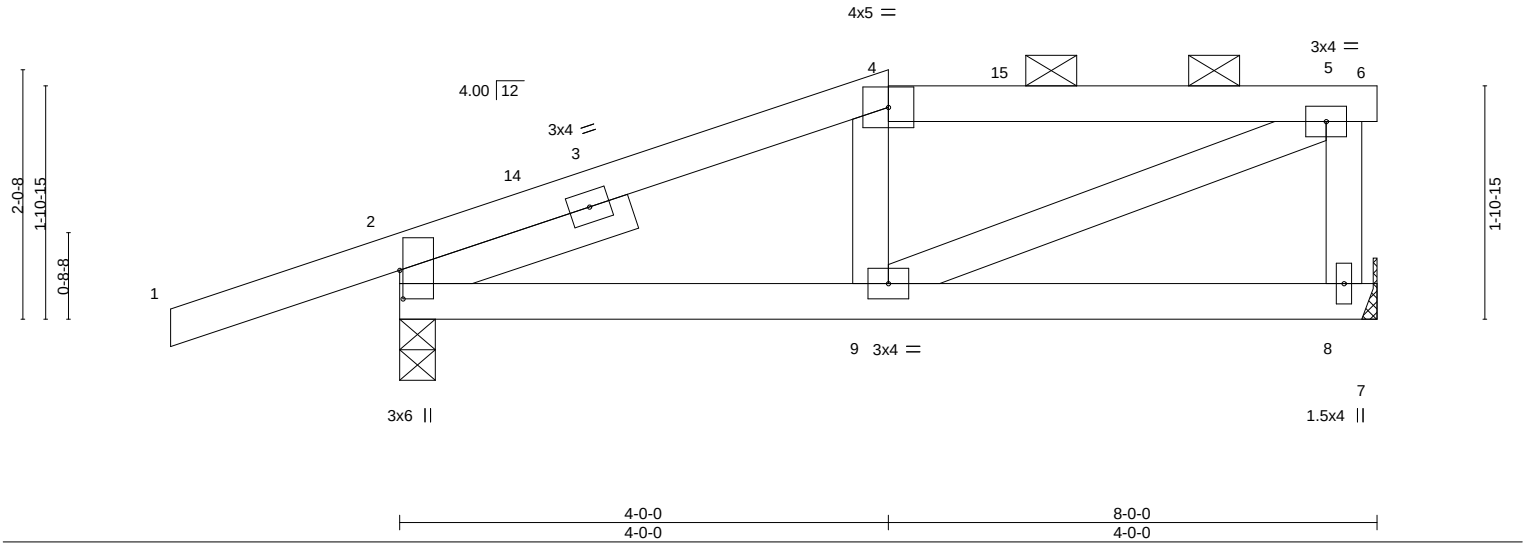

Plate Offsets (X,Y)-- [2:0-2-13,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=75(LC 8)
Max Uplift 2=-134(LC 8), 8=-59(LC 8)
Max Grav 2=495(LC 1), 8=343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-395/164, 4-5=-387/189
BOT CHORD 2-9=-179/378
WEBS 5-8=-303/153, 5-9=-203/418

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=134.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
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16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J18	Half Hip	1	1	I53508671

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:14 2022 Page 1
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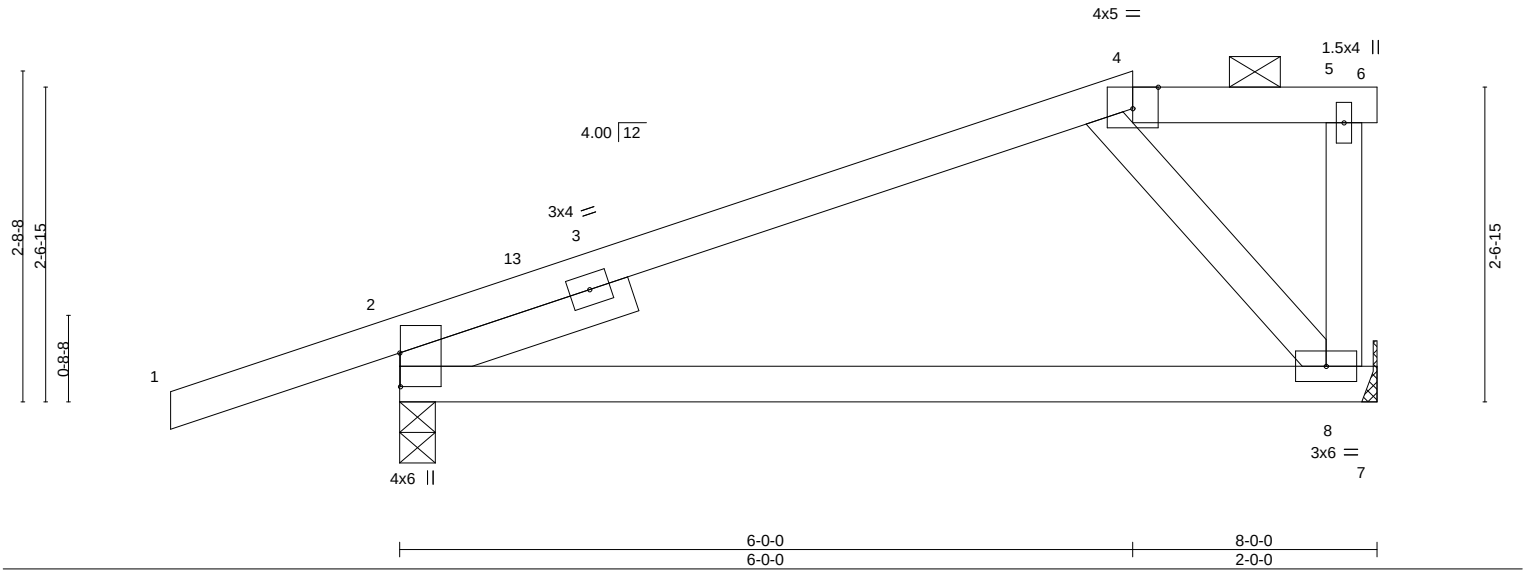

Plate Offsets (X,Y)-- [2:0-3-5,0-0-1], [4:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.11	8-11	>828	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.24	8-11	>379	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 29 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=97(LC 11)
Max Uplift 2=-134(LC 8), 8=-59(LC 8)
Max Grav 2=495(LC 1), 8=343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-562/81

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-0-0, Exterior(2E) 6-0-0 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=134.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J20	Jack-Partial	6	1	I53508672

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:16 2022 Page 1
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1-10-8 4-0-0 4-0-0

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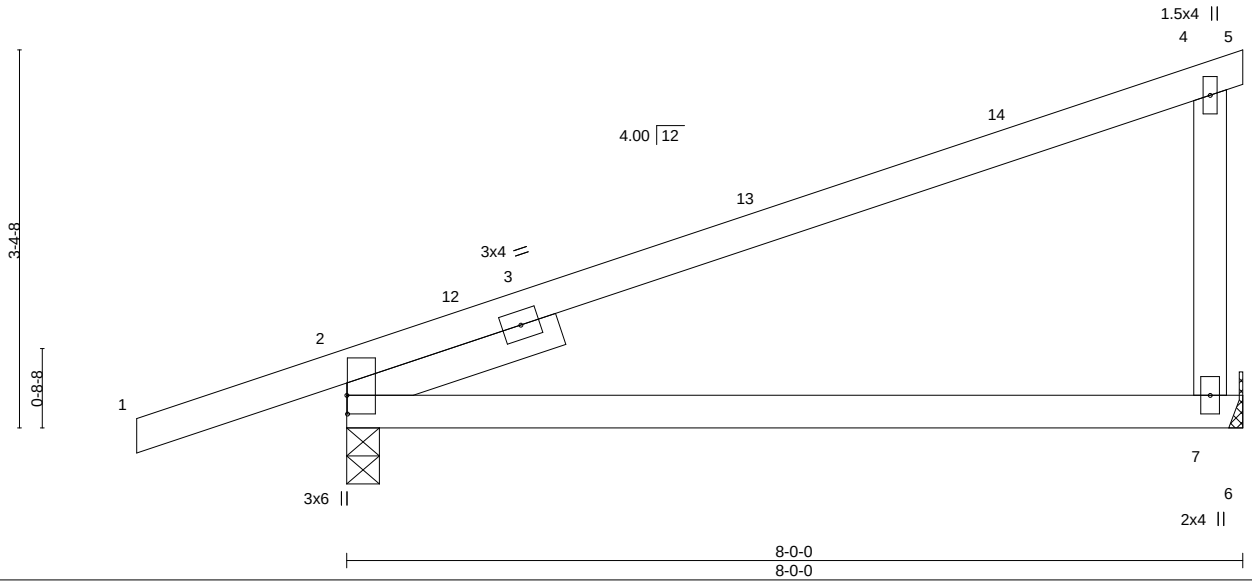


Plate Offsets (X,Y)-- [2:0-2-0,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	0.14	7-10	>644	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.32	7-10	>293	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.06	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 26 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=128(LC 8)
Max Uplift 2=-118(LC 8), 7=-80(LC 8)
Max Grav 2=494(LC 1), 7=343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-445/59

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=118.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

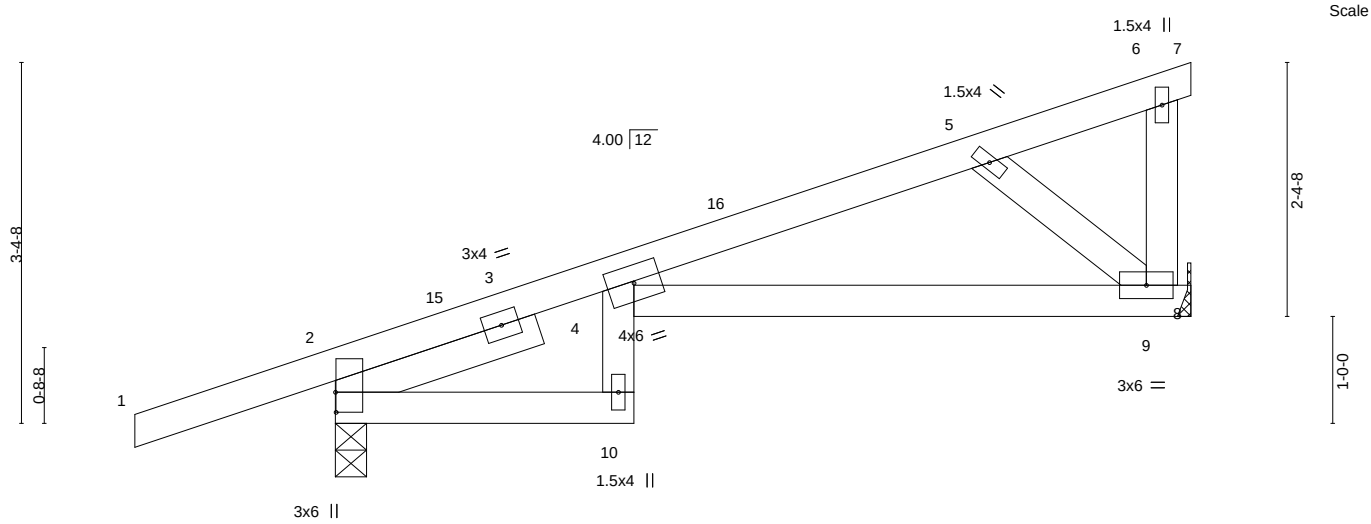
Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
35247115	J21	Jack-Partial	3	1	I53508673

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:17 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-77V3Px6Y_OIVXOltmrlJBpJSvPBrjsMyXkBl8Myqxam

Job Reference (optional)

	1-10-8	1-6-8	2-9-8	6-1-6	7-0-0	8-0-0
	1-10-8	1-6-8	1-3-0	3-3-14	0-10-10	1-0-0

Scale = 1:21.5



	2-9-8	6-1-6	7-0-0	8-0-0
	2-9-8	3-3-14	0-10-10	1-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.21	10	>446	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.38	10	>242	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.21	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 29 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 9=Mechanical
Max Horz 2=128(LC 8)
Max Uplift 2=-117(LC 8), 9=-79(LC 8)
Max Grav 2=496(LC 1), 9=343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-12=-250/52, 4-5=-458/209
BOT CHORD 4-9=-310/466
WEBS 5-9=-594/396

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 2=117.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J20	Jack-Open	2	1	I53508674

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:17 2022 Page 1
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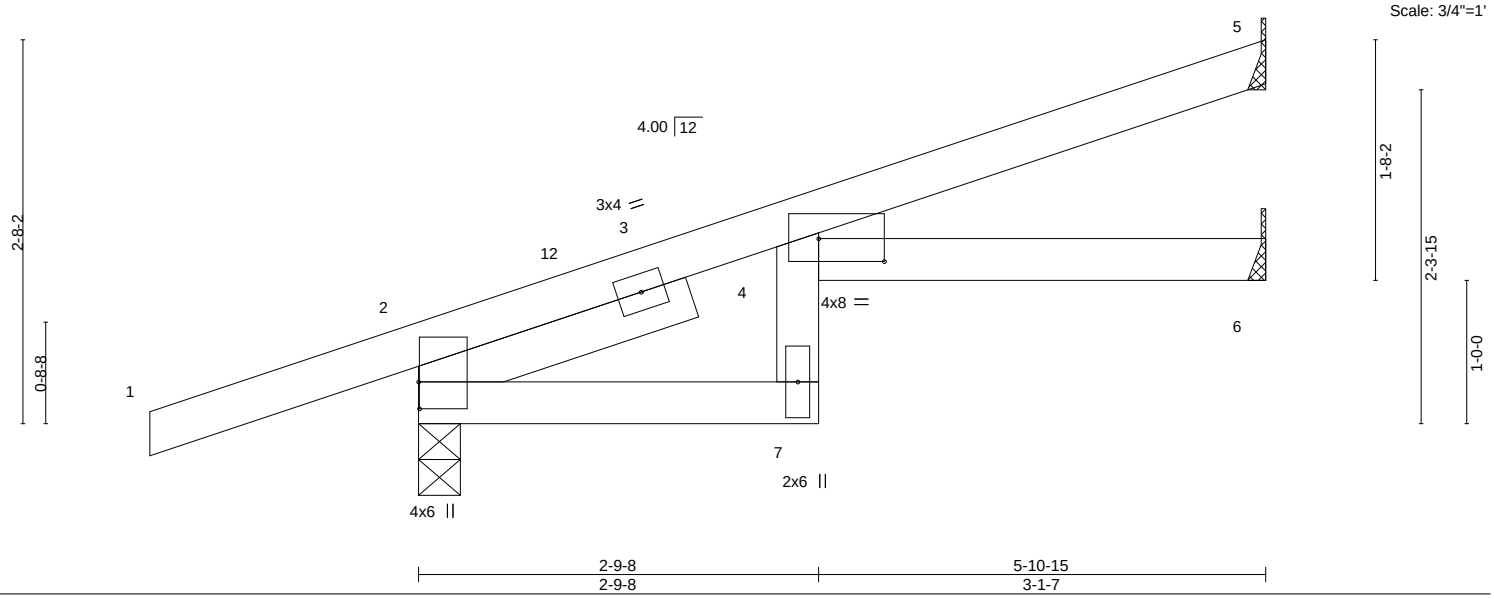

Plate Offsets (X,Y)-- [2:0-2-4,0-0-1], [4:0-5-8,0-1-15]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	0.11	7	>661	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.15	7	>465	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.09	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=102(LC 8)
Max Uplift 5=-52(LC 12), 2=-110(LC 8), 6=-6(LC 12)
Max Grav 5=153(LC 1), 2=416(LC 1), 6=97(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-10-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 2=110.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
35247115	J28	Jack-Open	2	1	I53508675

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:18 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-bJ3ScH6AliQM8Yt3KZGYk0spjobQSKy5mOwIgoyqxal

Job Reference (optional)

-1-10-8 / 1-10-8 | 2-9-8 / 2-9-8 | 3-10-15 / 1-1-7

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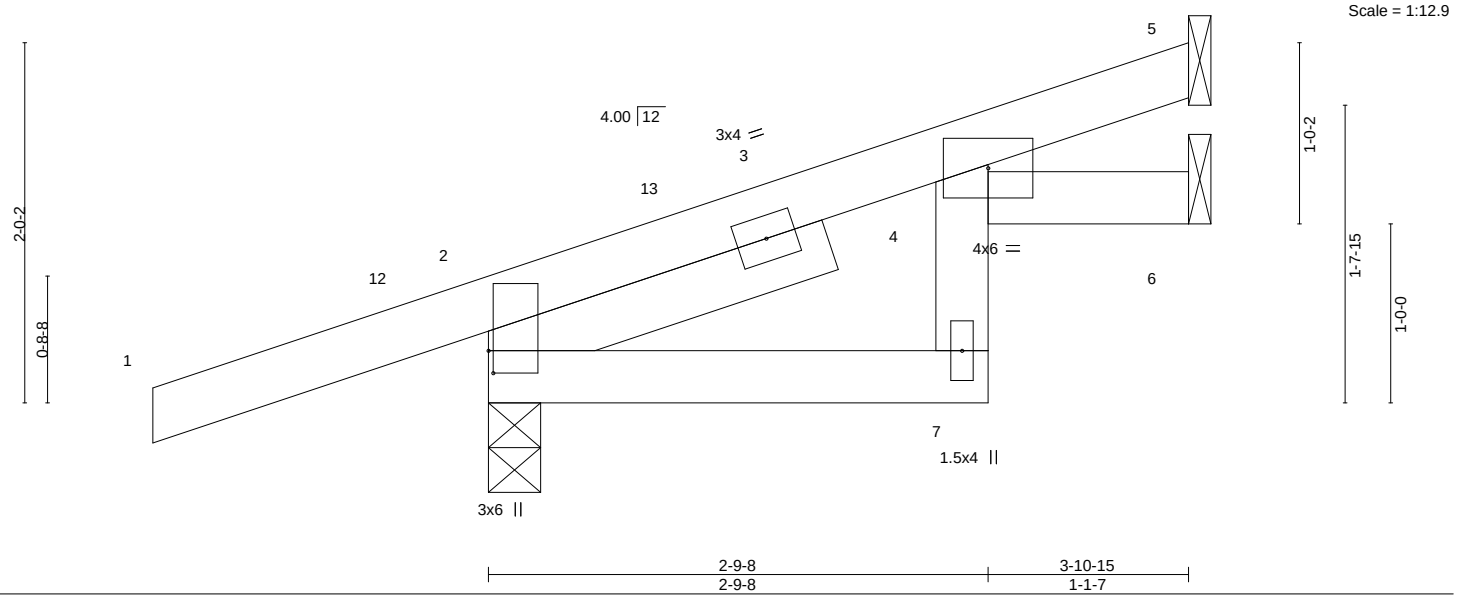

2-9-8 / 2-9-8 | 3-10-15 / 1-1-7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.02	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=78(LC 8)
Max Uplift 5=-26(LC 12), 2=-103(LC 8), 6=-9(LC 12)
Max Grav 5=82(LC 1), 2=337(LC 1), 6=60(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-10-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 2=103.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J24	Jack-Open	1	1	I53508676

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:19 2022 Page 1
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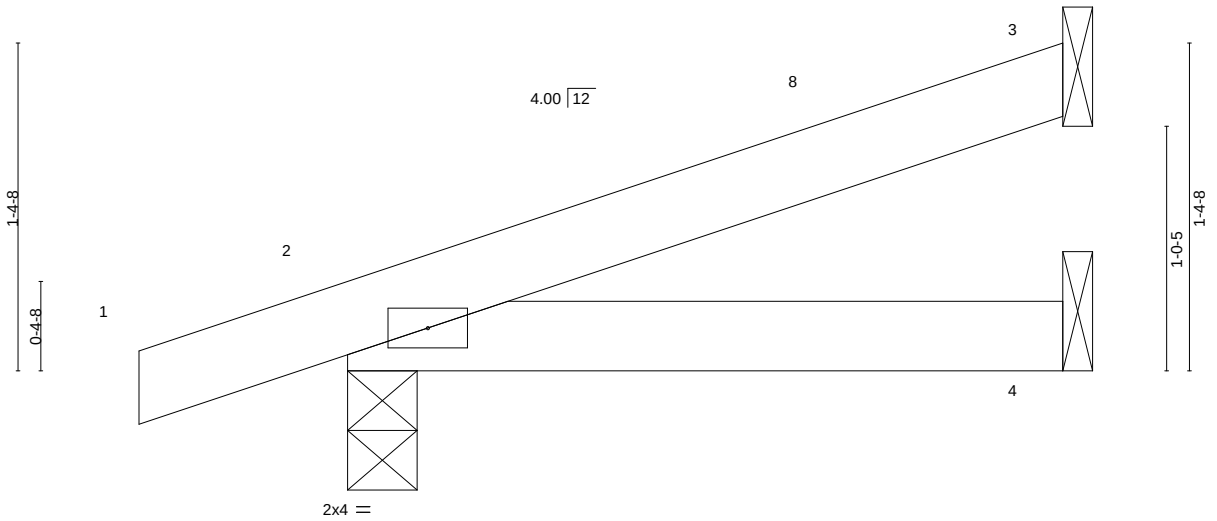
Scale = 1:9.7



3-0-0 / 3-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 8 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=50(LC 8)
Max Uplift 3=-30(LC 12), 2=-54(LC 8)
Max Grav 3=83(LC 1), 2=203(LC 1), 4=52(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-11-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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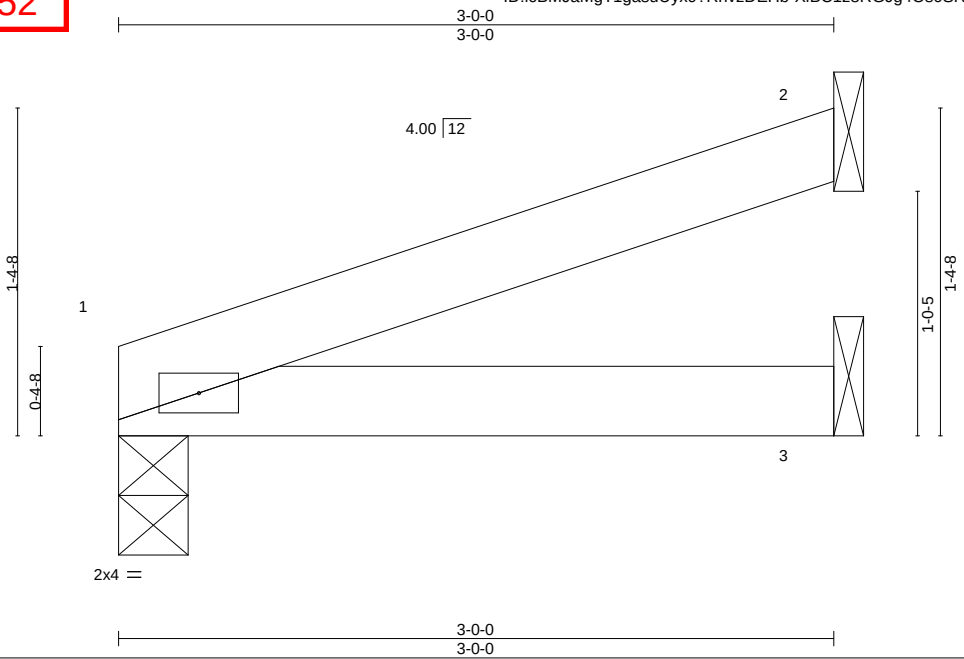
August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
35247115	J25	Jack-Open	2	1	I53508677

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:20 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-XiBC1z8RGJg4Os0SR_I0pRxB4cG0wERODiPPlhyqxaj

Job Reference (optional)



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.01	3-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 7 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2

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

REACTIONS. (size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=36(LC 8)
Max Uplift 1=-17(LC 8), 2=-31(LC 8)
Max Grav 1=132(LC 1), 2=87(LC 1), 3=53(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J26	Jack-Open	3	1	I53508678

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:21 2022 Page 1
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1-10-8
4-9-0
4-9-0

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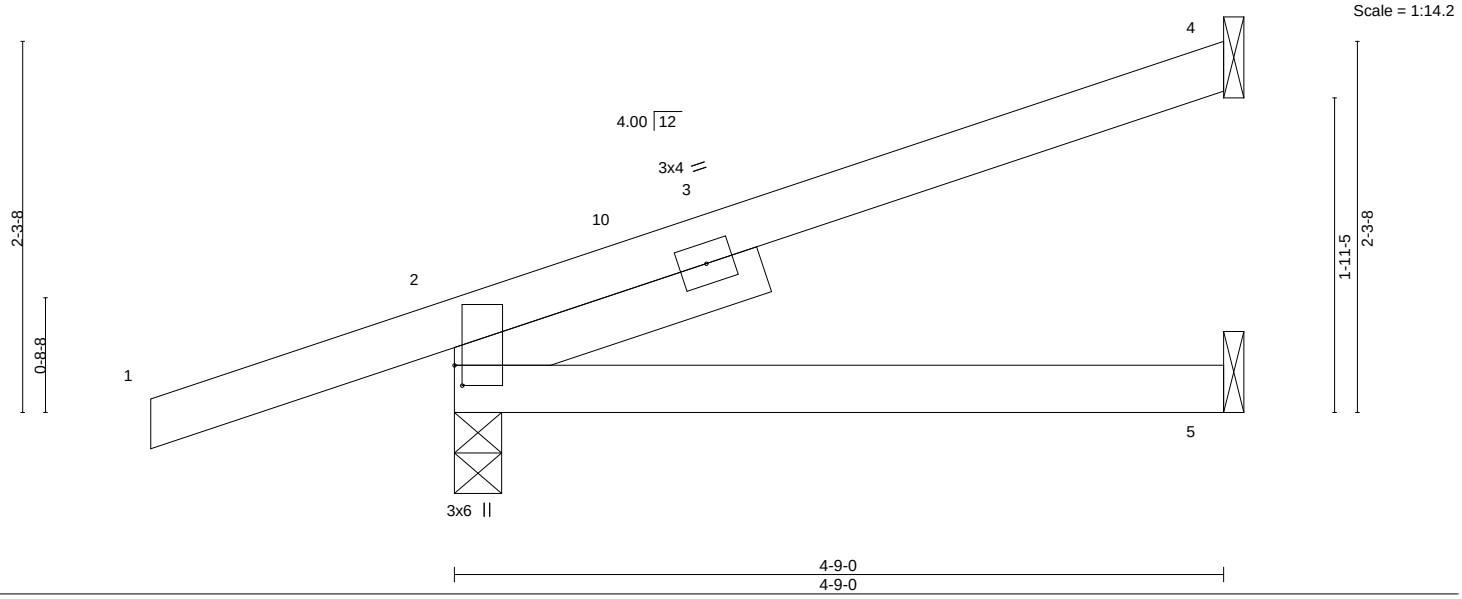

4-9-0
4-9-0

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

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.03	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.04	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=88(LC 8)
Max Uplift 4=-52(LC 12), 2=-106(LC 8)
Max Grav 4=132(LC 1), 2=368(LC 1), 5=80(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-8-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=106.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

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August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J27	Jack-Open	4	1	I53508679

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:22 2022 Page 1
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1-10-8
2-7-15
2-7-15

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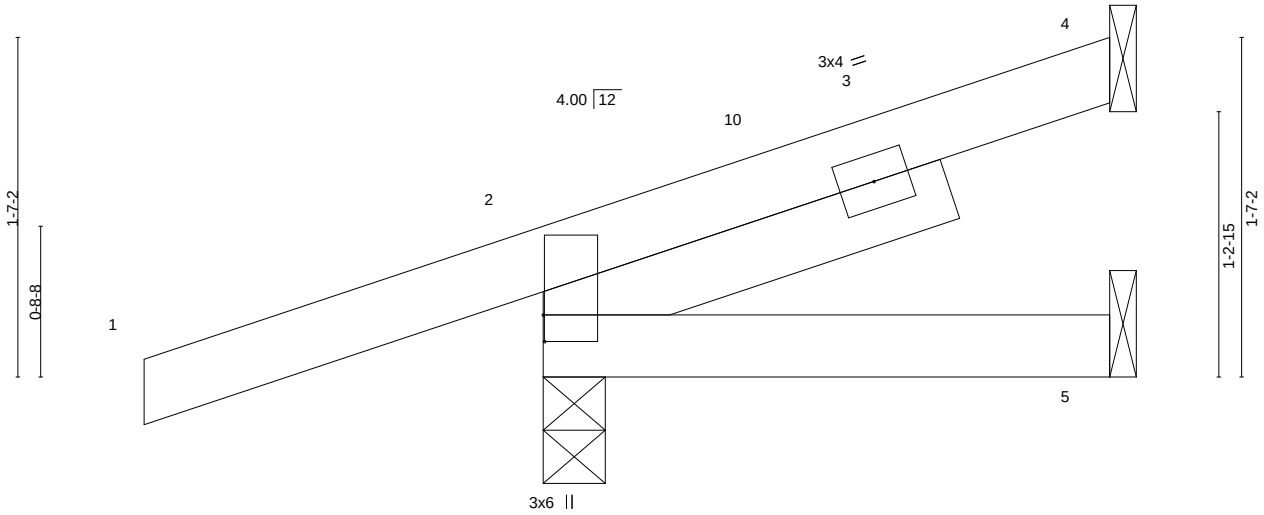

2-7-15
2-7-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.00	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=62(LC 8)
Max Uplift 4=-24(LC 12), 2=-104(LC 8)
Max Grav 4=52(LC 1), 2=296(LC 1), 5=38(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-7-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=104.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	J28	MONO TRUSS	6	1	I53508680

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:22 2022 Page 1
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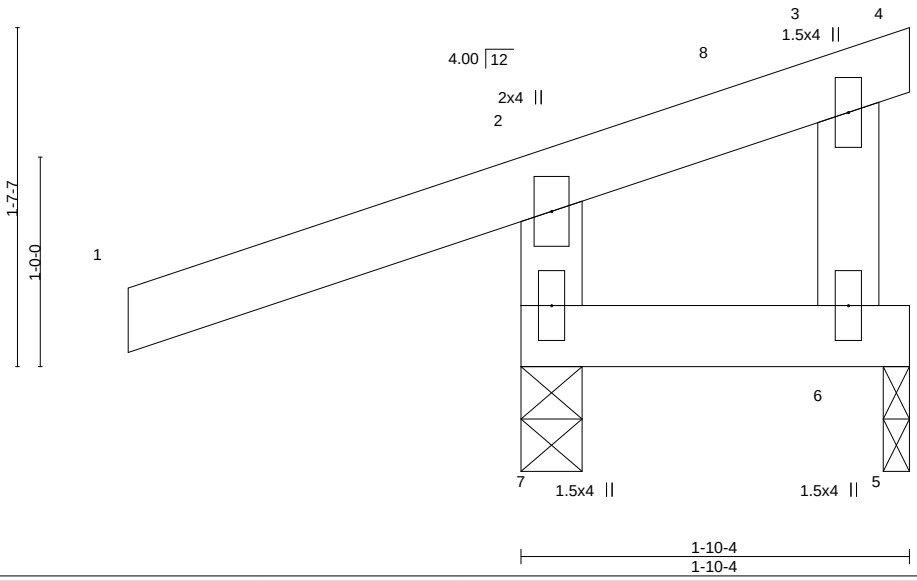

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 8 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 7=0-3-8, 5=0-1-8
Max Horz 7=41(LC 11)
Max Uplift 7=-115(LC 8), 5=-21(LC 1)
Max Grav 7=301(LC 1), 5=27(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-273/197

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=115.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	U1	Monopitch	7	1	I53508681
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:29 2022 Page 1
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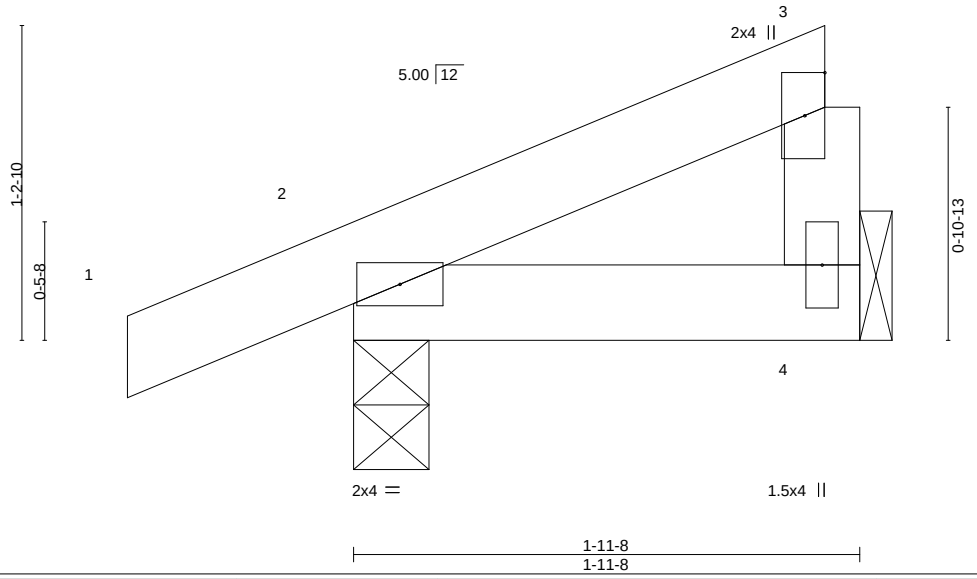

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 6 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=40(LC 11)
Max Uplift 4=-14(LC 12), 2=-33(LC 8)
Max Grav 4=67(LC 1), 2=158(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V01	GABLE	1	1	I53508682

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:30 2022 Page 1
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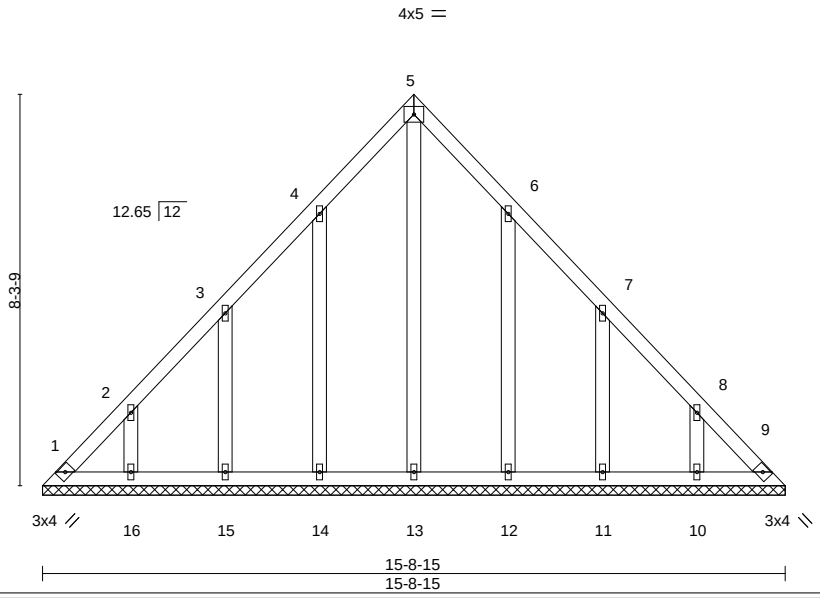
7-10-7 / 7-10-7 | 15-8-15 / 7-10-7

Scale = 1:48.8



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF 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. All bearings 15-8-15.
(lb) - Max Horz 1=-189(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-116(LC 12), 15=-116(LC 12), 16=-111(LC 12), 12=-115(LC 13), 11=-117(LC 13), 10=-111(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-251/161

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 7-10-7, Exterior(2R) 7-10-7 to 10-10-7, Interior(1) 10-10-7 to 15-4-14 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
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=116, 15=116, 16=111, 12=115, 11=117, 10=111.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

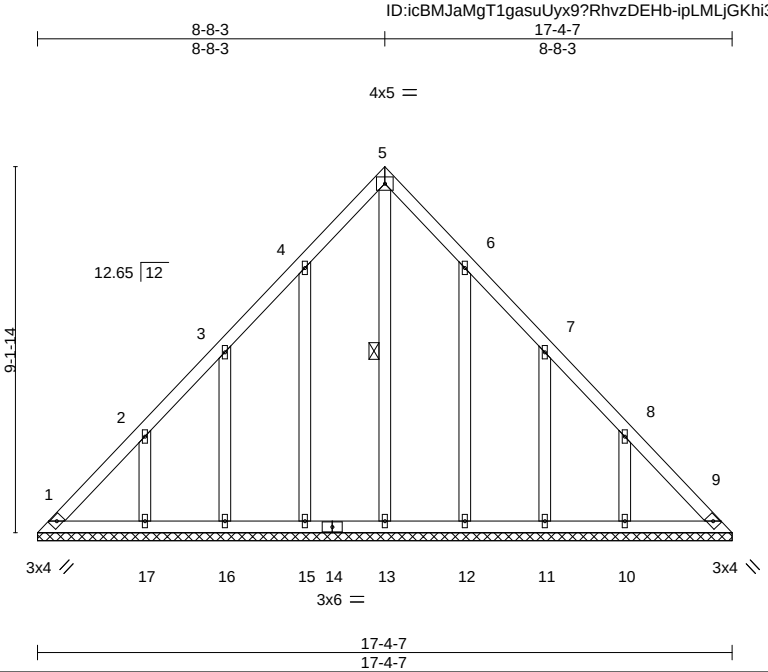
August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V02	GABLE	1	1	I53508683

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:31 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-ipLMLjGKhi3WCYMZbo?blmu3m22S?A8?lvaUeYyqxaY

Job Reference (optional)



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 87 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF 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.
WEBS 1 Row at midpt 5-13

REACTIONS. All bearings 17-4-7.
(lb) - Max Horz 1=-209(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 15=-117(LC 12), 16=-107(LC 12), 17=-143(LC 12), 12=-115(LC 13), 11=-108(LC 13), 10=-143(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 12, 11, 10 except 17=250(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-264/176

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 8-8-3, Exterior(2R) 8-8-3 to 11-8-3, Interior(1) 11-8-3 to 17-0-6 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
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 15=117, 16=107, 17=143, 12=115, 11=108, 10=143.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V02	GABLE	2	1	I53508684

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:32 2022 Page 1
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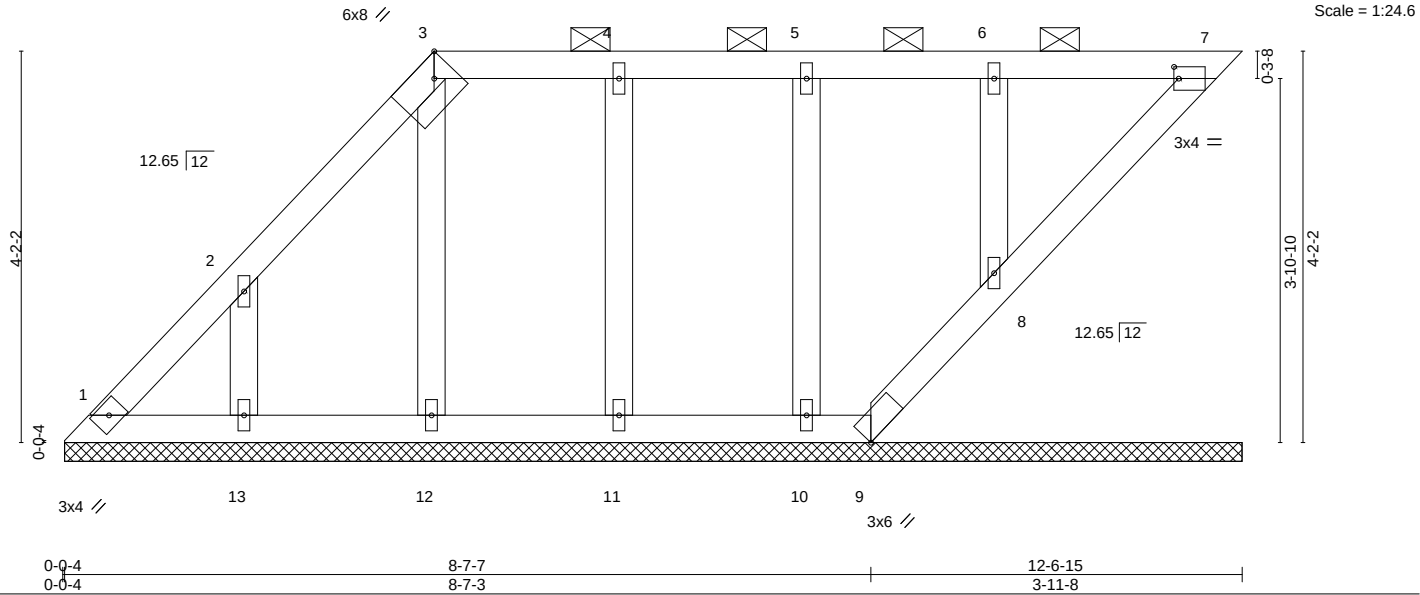

Plate Offsets (X,Y)-- [3:0-2-9,Edge], [7:0-0-10,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 48 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-6-11.
(lb) - Max Horz 1=143(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 9, 12, 11, 10, 8 except 13=-126(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9, 13, 12, 11, 10, 8

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 3-11-8, Exterior(2R) 3-11-8 to 6-11-8, Interior(1) 6-11-8 to 12-3-10 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) Provide adequate drainage to prevent water ponding.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 9, 12, 11, 10, 8 except (jt=lb) 13=126.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

August 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V1	Valley	1	1	I53508685

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:33 2022 Page 1
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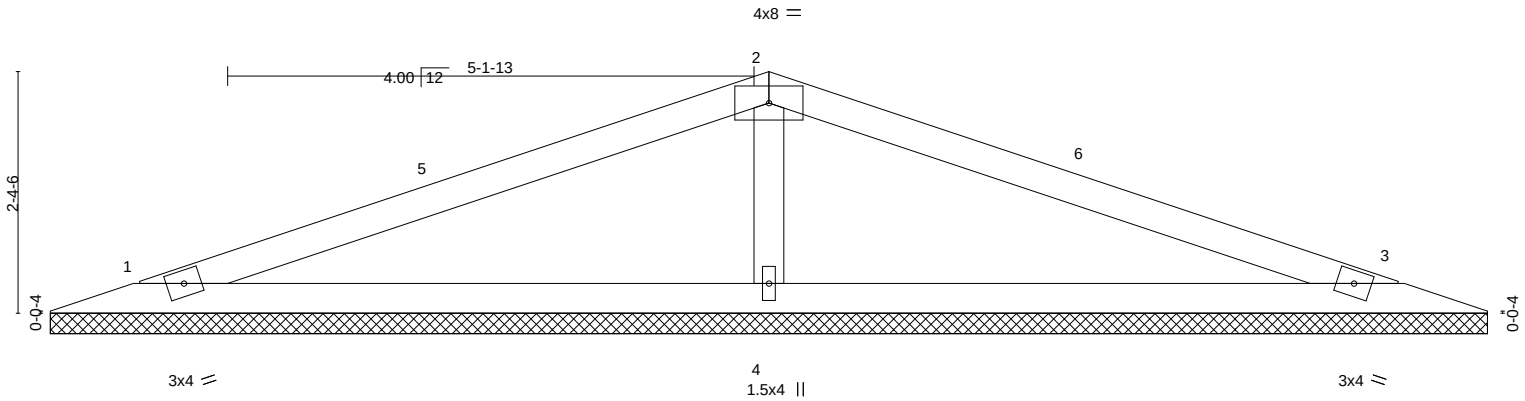
7-1-2 14-2-4
7-1-2 7-1-2

Scale = 1:22.5



0-0-12 14-2-4
0-0-12 14-1-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF 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=14-0-12, 3=14-0-12, 4=14-0-12
Max Horz 1=33(LC 12)
Max Uplift 1=-49(LC 8), 3=-53(LC 13), 4=-63(LC 8)
Max Grav 1=246(LC 25), 3=246(LC 26), 4=633(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-448/206

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 7-1-2, Exterior(2R) 7-1-2 to 10-1-2, Interior(1) 10-1-2 to 13-2-15 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 5,2022

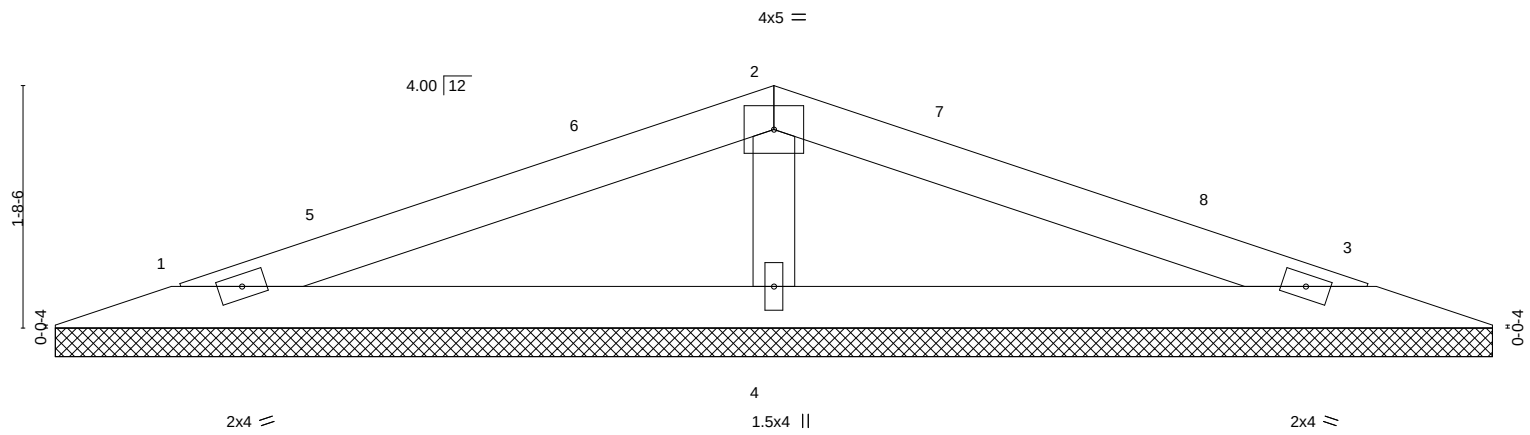
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V2	Valley	1	1	I53508686

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:34 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-7O1VzlJDzdR53?58GwYINOWYYF1eCZISRto8FtyqxaV

5-1-2 10-2-4
5-1-2 5-1-2

Scale: 3/4"=1'



10-1-8 10-2-4
10-1-8 0-0-12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 23 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF 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=10-0-12, 3=10-0-12, 4=10-0-12
Max Horz 1=-22(LC 17)
Max Uplift 1=-33(LC 8), 3=-36(LC 13), 4=-42(LC 8)
Max Grav 1=166(LC 25), 3=166(LC 26), 4=427(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-302/195

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 5-1-2, Exterior(2R) 5-1-2 to 8-1-2, Interior(1) 8-1-2 to 9-2-15 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
JUAN GARCIA
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PROFESSIONAL ENGINEER

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August 5,2022

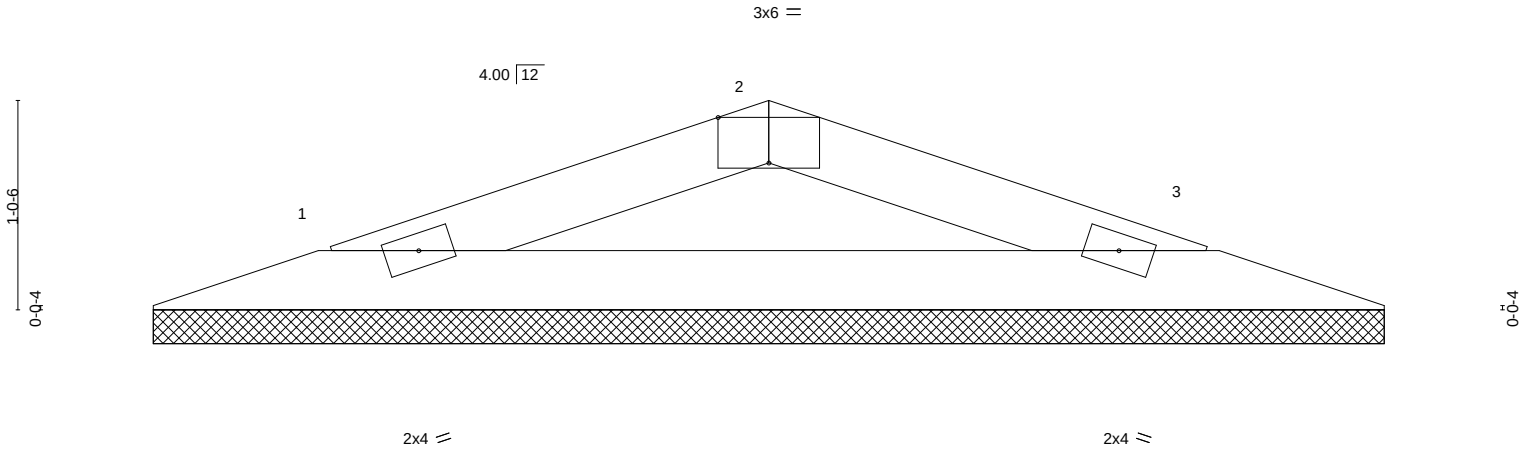
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/HM #139
3524715	V8	Valley	1	1	I53508687

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Dec 6 2021 MiTek Industries, Inc. Fri Aug 5 09:25:35 2022 Page 1
ID:icBMJaMgT1gasuUyx9?RhvzDEHb-bbbtB5KrkwZyh9gKqd4Xwc3lJfMyx09bgXYinJyqxaU

3-1-2 6-2-4
3-1-2 3-1-2

Scale = 1:11.3



0-0-12 6-2-4
0-0-12 6-1-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 12 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 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=6-0-12, 3=6-0-12
Max Horz 1=12(LC 12)
Max Uplift 1=-28(LC 8), 3=-28(LC 9)
Max Grav 1=194(LC 1), 3=194(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-253/215, 2-3=-253/225

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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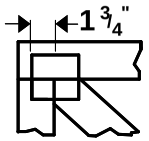
August 5,2022

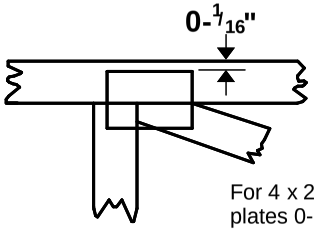
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

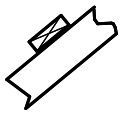
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

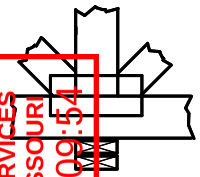
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

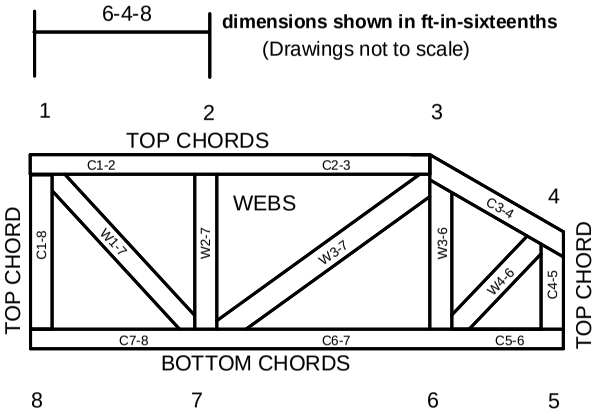


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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